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Application

SIGNATURE GLOBAL
REALTY. RELIABILITY. RESPONSIBILITY.
AN ISO 9001:2015; 14001:2015; 45001:2018; 27001:2022 CERTIFIED COMPANY

Date: 27.08.2024

To,
The Member Secretary,
State Level Expert Appraisal Committee (SEAC),
Bays No. 55-58, Sector-2,
Panchkula, Haryana

Sub: Regarding Terms of Reference for the Industrial Plotted Colony Project at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana by M/s Signatureglobal India Limited.

Dear Sir,

We are herewith submitting Form I, Form IA in the prescribed format of esteemed MoEFCC, Government of India and Conceptual Plan along with the necessary Annexure as per the checklist of SEIAA, Haryana and as per the Haryana Government Notification No. DE & CCH/3060 dated 14th October, 2021; we are also submitting scrutiny fee in the shape of Bank Draft for obtaining Environmental clearance for the subject mentioned project. Demand draft details are as follows:

Demand Draft No.	**: 201709**
Amount	**: Rs.2,00,000**
Payable at	**: Panchkula, Haryana**
Bank	**: Yes Bank Ltd**
Date of Issuance	**: 16.08.2024**

Kindly consider the case and award the Terms of Reference at your earliest.

Thanking you,
Yours truly,

For M/s Signatureglobal India Limited.

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Name: Sanjay Varshney
Designation: COO

Encl: As stated

SEIAA-HARYANA

Check-list for obtaining Environment Clearance

(Under Category 8 (a) & 8(b) in Building & Construction Projects)

Sr. No.	Check-list	Yes	No	Not Applicable
1.	Scrutiny Fee as per Notification No. DE&CCH/3060 dated 14th October, 2021 issued by the Haryana Government	Annexure-I		
2.	Form-I	Page No. 1 – 22		
3.	Form-IA	Page No. 24 – 84		
4.	Conceptual Plan/ Brief description of the project	Page No.85 – 107		
5.	EIA Report			NA
6.	EMP Report	Form IA		
7.	**Project Details:** **(a)** Location of project in the Sector Plan/Master Plan **(b)** Plan showing surrounding features within 500 meter/5km/10km radius or as Notified by Govt. (w.r.t. Eco Sensitive Zone/ Wildlife/ Wetland/ Restricted Area/ Controlled Area or Any other such Establishments) **(c)** Status of the construction/site in brief with photos **(d)** Location of STP/ETP on plan **(e)** Location of RWH structure on plan	(a) NA (b) Annexure- II (a, b & c) (c) Annexure-III (d) Will be submitted in EIA report (e) Will be submitted in EIA report		
8.	Structure Stability (design) Certificate	Will be submitted in EIA report		
9.	TOD Compliance (License)			NA
10.	**Land Details:** **(a)** Ownership or Rented or Leased or any other mode **(b)** Valid License/Allotment letter/ CLU Approval	Annexure-IV		
11.	Lay out Plan/Building Plan	Annexure-V		
12.	Zoning Plan	Will be submitted in EIA report		
13.	Green Belt Development Plan	Will be submitted in EIA report		

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14.	Traffic Circulation Plan/ Traffic Study	Will be submitted in EIA report		
15.	Parking Plan	Will be submitted in EIA report		
16.	Safety Plan (Fire & Electrical etc.)	Will be submitted in EIA report		
17.	Rainfall latest data	Form IA		
18.	NOC from AAI regarding height clearance			NA
19.	NOC Aravali Clearance	Annexure VI		
20.	**NOC from Forest Department regarding:** (a) Eco Sensitive Zone (b) Wildlife (c) Wetland (d) Restricted Area (e) Controlled Area or any other such Establishments. (f) National Board for Wildlife (NBWL)	Annexure VII		
21.	Air Simulation Plan and Remediation for higher value of GLC at particular loadings	Will be submitted before the EC meeting		
22.	**Analysis Report from accredited lab along with Permissible limits** (i) Soil (ii) Water (iii) Air (iv) Noise	Annexure VIII		
23.	**Water Management Plan (Construction & Operational Stage)** (a) Fresh Water (b) Underground (c) Treated Water (d) Any other source	(a)1943KLD (b) -- (c)2030 KLD (d)---		
24.	**Discharged Water Management Plan after treatment in** **(i) STP** a) Sewerage b) Zero Liquid Discharge c) Horticulture/Landscaping/Irrigation d) Any other mode	(a)1049 KLD (b) -- (c)112 KLD (d)---		

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	(ii) ETP a) Sewerage b) Zero Liquid Discharge c) Horticulture/Landscaping/Irrigation d) Any other mode		NA	
25.	Power Mobilization Plan	Will be submitted before the EC meeting		
26.	**Waste Management Plan** (Bio-Medical Waste/ E-Waste/ Plastic Waste/ Hazardous Waste/ Solid Waste Management etc.)	18139 kg/day		
27.	Copy of Board Resolution	Annexure-IX		
28.	**Details of Consultant** **(a)** Authority Letter for engaging Consultant by Project Proponent **(b)** Proof of NABET Approved Accreditation Certificate of authorized Consultant	(a) Annexure-X (b) Annexure-XI		

Note/Attention:

- Undertaking (if any).
- All documents should bear page number with proper index.
- All pages should bear complete signature of authorized signatory and coordinator with stamp.
- All the declarations/Analysis reports/certificates obtained should be submitted in original.
- Scope of work of Laboratory.
- The hard copy of legible plans (1:10,000 scale) to be submitted before SEAC at the time of presentation.
- SEAC will call for Certified Compliance Report in case of Expansion and same shall be presented by the PP at the time of presentation.

FORM I

w.r.t.

INDUSTRIAL PLOTTED COLONY PROJECT

At

Village- Shidrawali, Tehsil- Manesar, District- Gurugram, Haryana

Project Proponent:

M/s Signatureglobal India Limited

Schedule: 8(b), Category: B1

Proposed Built-up Area = 7, 24,895.645 m²

Submission Period: August, 2024

QCI Certificate no. NABET/EIA/21-24/SA 0211

Validity Extension letter no. QCI/NABET/ENV/ACO/24/3338

ENVIRONMENT CONSULTANT:

GRASS ROOTS RESEARCH & CREATION INDIA (P) LTD.

QCI Certificate no. NABET/EIA/2124/SA0211

(Accredited by QCI/NABET, Approved by MoEFCC, GoI, ISO 9001:2015 Certified Co.)

F-374-375, Sector-63, Noida, U.P.

Ph.: 0120- 4044630, Telefax: 0120- 2406519

Email: md@grc-india.com,eia@grc-india.com

Website: http://www.grc-india.com

GRC INDIA TRAINING & ANALYTICAL LABORATORY

(Accredited by NABL, Recognized by MoEF&CC, GoI)

A unit of GRC India

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III	Environmental Sensitivity	16-19
IV	Terms of Reference	19-21

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FORM-I

(I) Basic Information

S. No.	Item	Details
1.	Name of the project/s	Industry Plotted Colony Project at Village- Shidrawali, Tehsil Manesar, District- Gurugram, Haryana by M/s Signatureglobal India Limited
2.	S. No. in the schedule	8 (b): Townships and Area Development projects
3.	Capacity/ area/ length/ tonnage to be handled/ command area/ lease area/ number of wells to be drilled	Total Plot Area = **5,49,258.716m² (135.7250 acres)** Built Up Area = **7,24,895.645 m²**
4.	New/ Expansion/ Modernization	New
5.	Existing Capacity/ Area etc.	Not applicable
6.	Category of Project i.e. 'A' or 'B'	Category B1
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location Plot/Survey/ Khasra No. Village Tehsil District State	Latitude: 28° 14' 46.93' N Longitude: 76° 49' 29.40' E Village: Village- Shidrawali District: Gurugram State: Haryana
10.	Nearest railway station/airport along with distance in kms.	Nearest Railway Station: Inchhapuri RS (12.6 km, NW) Nearest Airport: Indira Gandhi International Airport (40 km, NE)
11.	Nearest Town, city, District Headquarters along with distance in kms.	Nearest Town: Shidrawali Town (approx. 8 km, S) Nearest city: Gurugram (approx. 13.5 km, N) District Headquarters: Gurugram (approx. 13.5 km, SE)
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Gurugram Municipal Corporation, Address: C-1, Info City, Sector-34, Gurugram. Haryana Toll Free Number: 18001801817

13.	Name of applicant	**M/s Signatureglobal India Limited**
14.	Registered Address	13th Floor, Dr. Gopal Das Bhawan, 28 Barakhamba Road, New Delhi- 110001
15.	Address for correspondence :	
	Name	Vineet Kumar
	Designation (Owner/Partner/CEO)	Authorised Signatory
	Address	13th Floor, Dr. Gopal Das Bhawan, 28 Barakhamba Road, New Delhi- 110001
	Pin Code	110001
	Telephone No.	9910670404
	Fax No.	--
	E-mail	vineet.kumar@signatureglobal.in
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a toposheet.	No
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	No
19.	If yes, date of submission	Not Applicable
20.	If no, reason	Not Applicable
21.	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. (a)The forest (Conservation) act, 1980? (b) The wildlife (Protection) act, 1972? (C) The C.R.Z Notification, 1991?	 No No No
22.	Whether there is any Government Order/Policy relevant/relating to the site?	1. NBC Guidelines, 2016 2. State Bye Laws 3. MoEFCC Guidelines
23.	Forest land involved (hectares)	No Forest Land involved.
24.	Whether there is any litigation	No

	pending against the project and /or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the project.	

(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**	The License has been granted by Directorate of Town and Country Planning, Haryana vide License no. 104 of 2024 dated: - 01.08.2024
1.2	Clearance of existing land, vegetation and buildings?	**Yes**	There are few trees present at the project site which will be transplanted in the greenbelt.
1.3	Creation of new land uses?	**Yes**	The License has been granted by Directorate of Town and Country Planning, Haryana vide License no. 104 of 2024 dated: - 01.08.2024
1.4	Pre-construction investigations e.g. bore houses, soil testing?	**Yes**	Soil investigation has been done during the study.
1.5	Construction works?	**Yes**	All construction activities will be confined within the project premises; there will be no physical changes outside the project boundary.
1.6	Demolition works?	**No**	Not applicable
1.7	Temporary sites used for construction works or housing of construction workers?	**No**	All the construction activity including stocking of raw materials will be confined within the project site only.

			No temporary labor hutments are proposed. Local labors from nearby area will be hired. Sanitation facilities will be developed at site.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	**Yes**	The earthwork included soil excavation and cutting of the earth will be moved. Excavated earth will be reused and excess will be handed over to authorized vendor.
1.9	Underground works including mining or tunneling?	**No**	No underground works including mining/ tunneling will be undertaken except excavation of earth.
1.10	Reclamation works?	**No**	No reclamation work required.
1.11	Dredging?	**No**	No dredging required.
1.12	Offshore structures?	**No**	No offshore structures required.
1.13	Production and manufacturing processes?	**No**	No production/manufacturing process involved as the project involves development of residential apartment.
1.14	Facilities for storage of goods or materials?	**Yes**	Raw material will be stored at site in a covered area. Cement will be separately stored under cover in bales. Sand will be stacked neatly under tarpaulin cover. Bricks and steel will be laid in open.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	**Yes**	**Solid Waste:** The solid waste generated from the project will be in the form of: **Construction Waste:** Left over cement and mortars, cement concrete blocks, aggregate, sand and other inorganic material will be recycled and reused as granular subbase (GSB) layer of pavement. Earth rendered surplus from the excavation will be utilized in the embankment works. **Operational Phase:**

			The solid waste generated from the project shall be approx. 18139 kg per day @ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the visitor, @ 0.3 kg per capita per day for the staff members and landscape waste @ 0.2 kg/acre/day) and STP sludge waste @0.35 * Wastewater generated*BOD difference/1000). Solid wastes generated will be segregated into biodegradable (waste vegetables and foods etc.) and non-biodegradable (papers, cartons, thermocol, plastics, glass, etc.) components and collected in separate bins. The biodegradable organic wastes will be disposed by local vendors. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency. **Liquid Effluents:** **Construction Phase:** During construction phase, sewage will be treated and disposed through septic tanks with soak pits. **Operational Phase:** The wastewater in operation phase will be treated in 3 onsite STPs of total 3060 KLD capacity (500 KLD +1410 KLD +1150 KLD) and treated effluent will be reused for flushing, & horticulture and the remaining water will be discharge to External Sewer.
1.16	Facilities for long term housing of operational workers?	**No**	Local laborers will be hired from nearby areas during construction phase. So, there will be no facilities for long-term housing of operational

			workers.
1.17	New road, rail or sea traffic during construction or operation?	**No**	Only internal roads; paths will be developed for vehicular movements for transportation of construction material during construction phase whereas internal tracks and paths will be developed for traffic circulation (to avoid any congestion) during operational phase.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	**No**	Only internal roads; paths will be developed for vehicular movements for transportation of construction material during construction phase whereas internal tracks and paths will be developed for traffic circulation (to avoid any congestion) during operational phase.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	**Yes**	There will be part closure at portions of the carriageway or in median during construction. Post construction there would be minor modifications in the traffic circulation in the area for seamless traffic movement, both vehicular and pedestrian.
1.20	New or diverted transmission lines or pipelines?	**No**	There are not been any new/diverted transmission lines or pipelines around the project.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	**No**	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface watercourses.
1.22	Stream crossings?	**No**	There are no streams running across the site.
1.23	Abstraction or transfers of water form ground or surface waters?	**Yes**	The water supply will be through Ground water during construction phase. About 1943 KLD of fresh water will be required during operation phase of the project.

1.24	Changes in water bodies or the land surface affecting drainage or run-off?	**Yes**	Runoff will increase due to increased paved surface. However, increased runoff will be managed by well-designed rainwater harvesting system and storm water management plan.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	**Yes**	During the construction phase, most of the transportation of construction material will be done at nighttime. Adequate parking space within the project site for loading and unloading of materials will be provided. Adequate parking space will be provided for operational phase in the premises.
1.26	Long-term dismantling or decommissioning or restoration works?	**No**	No Long term dismantling or decommissioning or restoration works will be involved.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	**No**	None
1.28	Influx of people to an area in either temporarily or permanently?	**No**	Local laborers from nearby area will be employed during the construction phase. In the operation phase, most of the occupants will be from the surrounding areas. Hence, the project led to a redistribution of occupants within the city. Thus, there will be no significant influx of people is envisaged.
1.29	Introduction of alien species?	**No**	Not Applicable.
1.30	Loss of native species or genetic diversity?	**No**	There will be no significant impact on the native species or genetic diversity.
1.31	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
2.1	Land especially undeveloped or agricultural land (ha)	**No**	The License has been granted by Directorate of Town and Country Planning, Haryana vide License no. 104 of 2024 dated: - 01.08.2024
2.2	Water (expected source & competing users) unit: KLD	**Yes**	During operation phase, total water requirement is 3475 KLD. About 1943 KLD of fresh water will be required for the project and will be sourced through GMDA.
2.3	Minerals (MT)	**Yes**	Minerals such as sand, Cement and aggregates will be required during the construction phase.
2.4	Construction material – stone, aggregates, sand/ soil (expected source – MT)	**Yes**	All materials for construction will be arranged through selected authorized suppliers.
2.5	Forests and timber (source – MT)	**No**	All material and timber will be provided by selected suppliers. However steel frames etc. shall be used to minimize the use of timber.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	**Yes**	The power supply will be supplied by Dakshin Haryana Bijli Vitran Nigam (DHBVN). The total maximum demand is estimated as 12,883 kW. There is provision of 2no. of DG set of total capacity 1100kVA for Commercial Facility which includes 1 x 750kVA +1x 350 kVA and 2no. of DG set of total capacity 1750 kVA for Common Services which includes 1 x 750kVA +1x 1000 kVA are proposed for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.
2.7	Any other natural resources (use appropriate standard units)	**No**	Not Applicable

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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)	**No**	Not Applicable
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 will be adopted in both the construction and operational phase such that there will be no stagnation of water or accumulation of waste. 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**	Socio-economic standard of people will improve due to increased direct and secondary employment opportunities provided by this project. This will lead to better quality of life and will also set a standard for future developments in the area.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	**No**	Impacts of this type are not expected.
3.5	Any other causes	**No**	Not Applicable

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**	No such spoil, overburden or mine

			wastes will be generated
4.2	Municipal waste (domestic and or commercial wastes)	**Yes**	The total solid waste to be generated is approx. 18139 kg/day. Arrangements will be made at the site in accordance to Municipal Solid Waste (Management and Handling) Rules, 2000 and amended Rules, 2016.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	**Yes**	The hazardous wastes along with other wastes in the project will be used oil from DG sets, which is classified as per The Hazardous Wastes (Management & Handling) Rules, 2016 (As amended). Used oil from DG sets will be stored in HDPE drums in isolated covered facility. This used oil will be sold to authorized recyclers. Suitable care will be taken so that spills/leaks of used oil from storage are 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**	343.434 kg/day of Sludge generated from the STP plant will be dried and later will be used as manure for green belt development.
4.7	Construction or demolition wastes	**Yes**	The construction waste will consist of excess earth and construction debris along with cement bags, steel in bits and pieces, insulating and packaging materials etc. Recyclable waste construction materials will be sold to recyclers. Unusable and excess construction debris will be disposed at designated places in tune with the local norms.
4.8	Redundant machinery or equipment	**No**	Redundant machinery will not be generated.
4.9	Contaminated soils or other materials	**No**	Contaminated soils or other materials

			will be not being generated.
4.10	Agricultural wastes	**Yes**	Landscape wastes of 1.84 kg/day will be generated.
4.11	Other solid wastes	**No**	Not Applicable

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**	The project does not envisage any major air pollution sources except operation of DG sets during power failure and vehicular traffic.
5.2	Emissions from production processes	**No**	No production processes involved. Hence, there will be no such emissions.
5.3	Emissions from materials handling including storage or transport	**Yes**	Small quantities of fugitive emissions will be envisaged during transport and handling of materials. Such emissions will be temporary and controlled by the use of sprinkling and other viable techniques.
5.4	Emissions from construction activities including plant and equipment	**Yes**	This will be restricted to the construction phase and the construction site only.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	**Yes**	Dust will be anticipated during loading and unloading of construction material and excavation of upper earth surface. This is temporary in nature, which will be controlled by providing water sprinklers. Tarpaulin cover will be provided on stored loose materials to reduce the dust emission.
5.6	Emissions from incineration of waste	**No**	No incineration of wastes is proposed.
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 on site.
5.8	Emissions from any other sources	**No**	Not Applicable

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

			Details thereof (with approximate quantities/

S. No.	Information/Checklist confirmation	Yes/ No	rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	**Yes**	**Construction phase:** Noise will be generated by machinery used for construction, viz. cranes, excavators, dumpers, earth compactor, concrete mixer, bar cutting machine. Operation Phase: Source of noise in the operational phase will be from backup DG set and pumps & motors. All the machinery will be of highest standard of reputed make and will comply with standard i.e. the DG set room will be provided with acoustic enclosure to have minimum 25 dB(A) insertion loss or for meeting the ambient noise standard whichever is on higher side as per E (P) Act, GSR 371 (E) and its amendments. High noise generating construction activities would be carried out only during day time.
6.2	From industrial or similar processes	**No**	Not Applicable.
6.3	From construction or demolition	**Yes**	Due to various construction activities, there will be short-term noise impacts in the immediate vicinity of the project site. The construction activities included the following noise generating activities: • Concreting, mixing & operation of DG sets. • Construction plant and heavy vehicle movement.
6.4	From blasting or piling	**No**	No blasting or mechanized piling will be done.
6.5	From construction or operational traffic	**Yes**	Some noise will be generated from vehicular movement in the construction and operational phase but that will be mitigated with green belt.
6.6	From lighting or cooling systems	**No**	No significant noise impact will result from lighting or cooling systems.
6.7	From any other sources	**No**	Not Applicable

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

			Details thereof (with approximate

S. No.	Information/Checklist confirmation	Yes/ No	quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	**No**	The project does not involve handling of hazardous material which will contaminate ground water Spent oil from DG sets will be stored in HDPE drums and disposed as per Hazardous waste Management Rules, 2016.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of Discharge)	**No**	The wastewater will be treated in an onsite in 3 onsite STPs of total 3060 KLD capacity (500 KLD +1410 KLD +1150 KLD) and treated effluent will be reused for flushing, & horticulture and the remaining water will be discharge to External Sewer.
7.3	By deposition of pollutants emitted to air into the land or into water	**No**	The project does not envisage any major sources during operation phase.
7.4	From any other sources	**No**	Not Applicable
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	**Yes**	To deal with any fire related accident, firefighting facility of single handed hydrant valve, long hose reel, and portable fire extinguisher shall be provided.
8.2	From any other causes	**No**	Not Applicable
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst, etc.)s	**Yes**	The project falls under seismic active Zone IV indicating high damage risk zone. The buildings will be designed as earthquake resistant and comply with the required IS specifications.

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
9.1	Lead to development of supporting. utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or sullage treatment, etc.) • Housing development • Extractive industries • Supply industries • Other	**Yes** **Yes** **No** **No** **No**	Appropriate infrastructure like roads, power supply, waste management and wastewater treatment will be developed within the project site. Industrial Plotted Colony Project
9.2	Lead to after-use of the site, which could have an impact on the environment	**No**	Not Anticipated
9.3	Set a precedent for later developments	**Yes**	The project will provide good infrastructure and better lifestyle and will set an example for later developments in the areas.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	**No**	Not Applicable

(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 their ecological, landscape, cultural or other related value.	Indori Nala Rangala RF Gondhan PF Sahibi River	Approx. 1.8 km, SE Approx. 3.8 km, SE Approx. 6.8 km, N

		Chaupanki RF Khori Kalan PF	Approx. 8.6 km, S Approx. 12 km, SE Approx. 13.3 km, ENE
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Indori Nala Rangala RF Gondhan PF Sahibi River Chaupanki RF Khori Kalan PF	Approx. 1.8 km, SE Approx. 3.8 km, SE Approx. 6.8 km, N Approx. 8.6 km, S Approx. 12 km, SE Approx. 13.3 km, ENE
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Indori Nala Rangala RF Gondhan PF Sahibi River Chaupanki RF Khori Kalan PF	Approx. 1.8 km, SE Approx. 3.8 km, SE Approx. 6.8 km, N Approx. 8.6 km, S Approx. 12 km, SE Approx. 13.3 km, ENE
4	Inland, coastal, marine or underground waters	None	---
5	State, National boundaries	None	---
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	NH 48 SH 28 NH 919	Adjacent to project (NW) Approx. 0.58 km; (SW) Approx. 3.8 km; (S)

		SH 25 MDR 132 Western Peripheral Expy. NH 352W	Approx. 4.1 km; (S) Approx. 5.1 km; (NE) Approx. 8.7 km; (NE) Approx. 9.5 km; (NW)
7	Defense installations	None	--
8	Densely populated or built-up area	Gurugram	13.5 km N away from the project site
9	Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*	**Schools:** Rajendra Public School, Gurugram Virat International School, Kapriwas **College:** Government College, Shidhrawali Rao Lal Singh College of Education **Hospital:** Vardaan Hospital, Dharuhera Gangaram Hospital And Trauma Centre **Temple:** Panchmukhi Hanuman Mandir	Approx. 0.15 km towards NW Approx. 1 km towards W Approx. 1.2 km towards N Approx. 2 km towards N Approx. 5 km towards SW Approx.5.8 km towards NE Approx. 3.9 km towards S
10	Areas containing important, high quality or scarce resources. *(ground water resources, surface resources, forestry, agriculture,*	None	

	fisheries, tourism, minerals)		
11	Areas already subjected to pollution or environmental damage *(those where existing legal environmental standards are exceeded)*	None	There are no areas within 15 km which are subjected to pollution or environmental damage.
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*)	Earthquakes	The site falls under the zone IV as per the Seismic Zone Map of India and is thus prone to highest damage risk zone. Adequate measures will be taken during the construction of the project.

8(b):STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR TOWNSHIP/ AREA DEVELOPMENT PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

1. Examine details of land use as per Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Check on flood plain of any river.
2. Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
3. Examine baseline environmental quality along with projected incremental load due to the project **(Already generated for Winter season – December 2023 to February 2024).**
4. Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
5. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area. Any obstruction of the same by the project
6. Submit the details of the trees to be felled for the project.
7. Submit the present land use and permission required for any conversion such as forest, agriculture etc.

8. Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.
9. Ground water classification as per the Central Ground Water Authority.
10. Examine the details of Source of water, water requirement, use of treated waste water and prepare a water balance chart.
11. Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
12. Examine soil characteristics and depth of ground water table for rainwater harvesting.
13. Examine details of solid waste generation treatment and its disposal.
14. Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption. Energy conservation and energy efficiency.
15. DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
16. Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
17. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
18. Examine the details of transport of materials for construction which should include source and availability.
19. Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
20. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
21. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

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22. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
23. Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website http://moef.nic.in/Manual/Townships.

"I hereby 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 give, if any to the project will be our risk and cost.

Date:

Place:

Signature of the Applicant

With Name and Full Address
(Project Proponent/ Authorized Signatory)

NOTE:

1. The Projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. and the recommendations of the state Coastal Zone management Authority. Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon."
3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/ Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project".

******

"I hereby 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 give, if any to the project will be our risk and cost.

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Signature of the Applicant

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FORM IA

w.r.t.

INDUSTRIAL PLOTTED COLONY PROJECT

At

Village- Shidrawali, Tehsil Manesar, District- Gurugram, Haryana

Project Proponent:

M/s Signatureglobal India Limited

Schedule: 8(b), Category: B1

Proposed Built-up Area = 7, 24,895.645 m²

Submission Period: August, 2024

QCI Certificate no. NABET/EIA/21-24/SA 0211

Validity Extension letter no. QCI/NABET/ENV/ACO/24/3338

ENVIRONMENT CONSULTANT:

GRASS ROOTS RESEARCH & CREATION INDIA (P) LTD.

QCI Certificate no. NABET/EIA/2124/SA0211

(Accredited by QCI/NABET, Approved by MoEFCC, GoI, ISO 9001:2015 Certified Co.)

F-374-375, Sector-63, Noida, U.P.

Ph.: 0120- 4044630, Telefax: 0120- 2406519

Email: md@grc-india.com,eia@grc-india.com

Website: http://www.grc-india.com

GRC INDIA TRAINING & ANALYTICAL LABORATORY

(Accredited by NABL, Recognized by MoEF&CC, GoI)

A unit of GRC India

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FORM IA

CHECK LIST OF ENVIRONMENTAL IMPACTS

SECTION 1- LAND ENVIRONMENT

1.1 Will the existing land use get significantly altered from the project that is consistent with the surroundings? (Proposed land use must conform to the approved Master Plan/Development Plan of the area. Change of land use, if any and the statutory approval from the competent authority are submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.

➢ **No**

The Industrial Plotted Colony Project is to be developed by M/s Signatureglobal India Limited. The project site is located at Village- Shidrawali, tehsil Manesar, District-Gurugram, Haryana on a land measuring 135.7250 acres.

The company has vast experience in planning and construction of Industrial Parks. The project facilities include:

- Industrial Plotted Development
- Residential Plotted Development
- Community facilities
- Commercial facilities

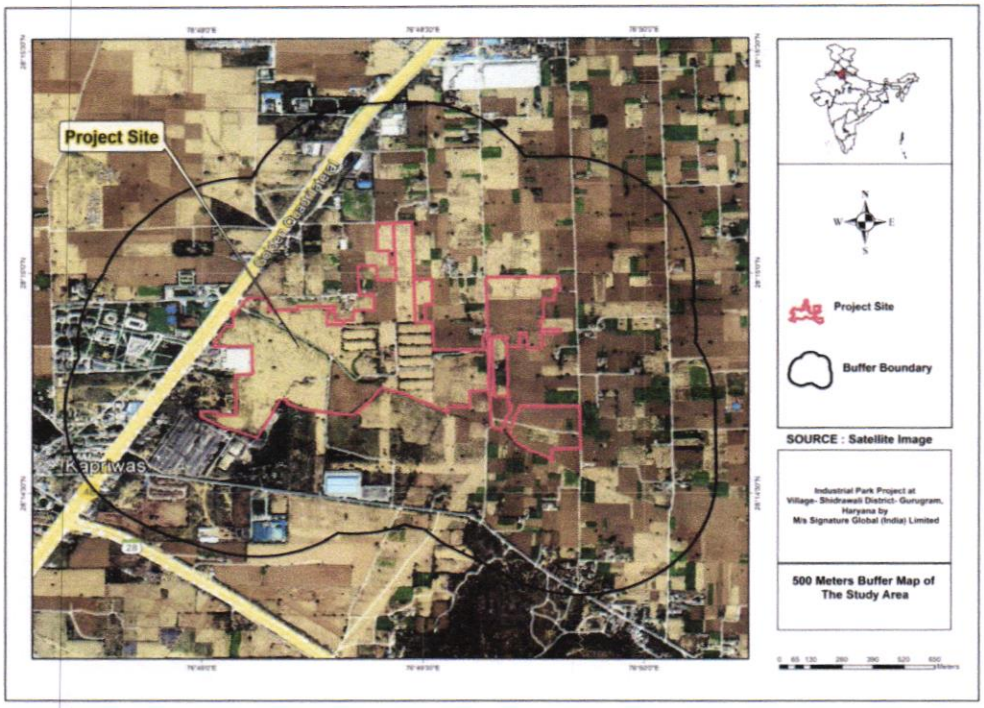

Fig.1: Location of the Project Site on 500 m Buffer Map

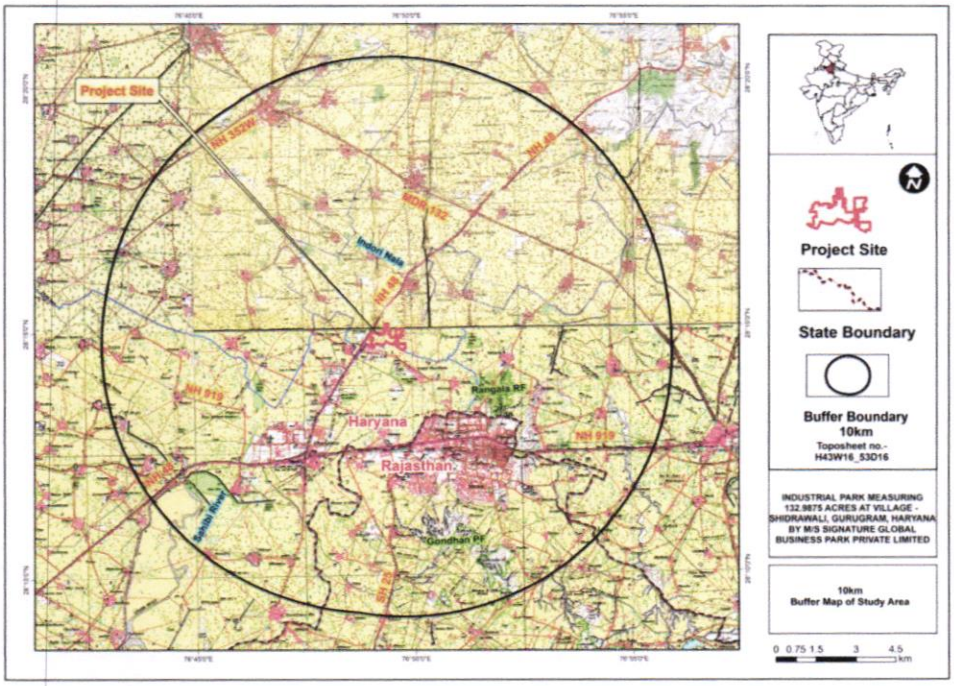

Fig. 2: SOI Toposheet Showing 10 km radius around Project site

1.2 List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

LAND REQUIREMENT:

The total area of the site is **5, 49,258.716** m² (135.7250 acre). The detailed area statement along with brief details of the project is provided below in **Table 1:**

Table 1: Detailed Area Statement

S. No.	Particulars	Area (in m²)
1.	**Total Licensed area**	**5,49,258.716**
2	Area under Road (Delhi –Jaipur Road) Widening	10,194.015
3	Area under proposed Green Belt of Delhi –Jaipur Road (considering 60 m wide on either side)	13677.139
4	Area under green belts of RRTS (considering 20m on either side)	5293.280
5.	Total area to be deducted (2+3+4)	29,164.434
6.	**Balance area (1-5)**	**5,20,094.282**
7.	**50% benefit of area under road** (Delhi –Jaipur Road) Widening, Green Belt of Delhi –Jaipur Road & green belts of RRTS	**11,935.577**
8.	**Net Area (6+7)**	**5,32,029.859**
9.	Area under undetermined use	5,516.641
10.	**Net Planned area (8-9)**	**5,26,513.219**
11.	**Proposed Area under plots**	**319,416.066**
	• Area under Industrial Plots	1,84,280.882
	• Area under Residential plots	1,27,433.845
	• Area under Commercial plots	7701.339
12.	**Total Permissible FAR**	**5,78,220.453**
	• Industrial Permissible FAR (1.250)	2,30,351.102
	• Commercial Permissible FAR (4.2857/Plot)	11,417

	• Residential Permissible FAR (2.64)	3,36,452.351
13.	**Total Proposed FAR**	**5,78,220.453**
	• Industrial FAR	2,30,351.102
	• Commercial FAR	11,417
	• Residential FAR	3,36,452.351
14.	NON-FAR Area	**1,46,675.192**
15.	**Total Built up area**	**7,24,895.645**
16.	**Green Area**	**37,241.664**
	❖ Green Area under DDJAY	14942.433
	❖ Green Area under Green Belt	13677.139
	❖ Green Area Metro/RRTS Green Belt	5293.280

➢ **WATER REQUIREMENT**

During the Construction Phase the Source of water will be Ground water. During operation phase, the source of water supply will be GMDA. The total water requirement for the project will be approx. 3475 KLD.

The domestic water demand for Residential (Type 1 & 2), Community Buildings, Commercial Buildings, & industrial Plots is 2905 KLD. The freshwater requirement for Residential (Type1 &2), Community Buildings, Commercial Buildings, & industrial Plots will be 1943 KLD. However, one-time freshwater demand for the project will be 3475 KLD.

➢ **POWER REQUIREMENT**

The power shall be supplied by the State Electricity Board. The maximum load demand for the project will be approx. 12,883 kW.

Details of D.G Sets: There is provision of 2no. of DG set of total capacity 1100kVA for Commercial Facility which includes 1 x 750kVA +1x 350 kVA and 2no. of DG set of total capacity 1750 kVA for Common Services which includes 1 x 750kVA +1x 1000 kVA are proposed for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

➢ **CONNECTIVITY**

The Nearest Highway is NH-48 which is adjacent to the 8.7 km site in North west direction, SH-28 is 0.58 km towards SW direction, SH-25 which is 4.1 km (S), NH-919 is 3.8 km towards S direction, Western Peripheral Expressway is 8.7 km towards NE direction, MDR 132 is 5.1km towards NE direction, & NH-352W which is 9.8 km (S) direction away from project site.

The nearest railway station being Inchhapuri Railway Station is about 12.6 km (NW) away from the project site.

The nearest Airport is Indira Gandhi International Airport 40 km (NE) from the project site.

➢ **PARKING FACILITIES**

Adequate provision will be made for car/vehicle parking at the project site. There shall also be adequate parking provisions for visitors so as not to disturb the traffic and allow smooth movement at the site.

For plotted development the parking shall be within the plots by the individual plot owners.

1.3 What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use and disturbance to the local ecology).

The project being a well-planned activity will result in organized open spaces and green areas. Total green area measures 37241.664 m^2 (Shelter belt, Avenue plantation and lawn). The biodiversity in the area will increase due to the proposed green areas. The project will have an overall positive impact on the existing land use and will not cause any disturbance to the local ecology. Proposed activity shall have no impact on surroundings.

1.4 Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Detail of soil type slope analysis, vulnerability to subsidence, seismicity, etc. may be given).

There will be no land disturbance resulting in erosion, subsidence and instability as it is a vacant land. The site falls under the zone IV as per the seismic zone map of India and indicating highest damage risk zone. The project will be earthquake resistant taking into account the latest provisions of Indian Standards Codes.

1.5 Will the proposal involve alteration of natural drainage system? (Give details on a contour map showing the natural drainage near the project site).

The project will not intersect any natural drainage route. Urbanized stretch and well planned storm water drainage will be designed for internal storm water drainage. Thus, no impact on the natural drainage system is anticipated.

1.6 What are the quantities of earthwork involved in the construction activity- cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site, etc.?)

The earthwork included soil excavation and cutting of the earth will be moved. The cut and fill material in the project site is nearly at par and hence the need for movement of soil to and from the site will not be anticipated.

1.7 Give details regarding water supply, waste handling etc. during the construction period.

During the Construction Phase the Source of water will be Ground water. During operation phase, the source of water supply will be GMDA. The total water requirement for the project will be approx. 3475 KLD.

The domestic water demand for Residential (Type 1 & 2), Community Buildings, Commercial Buildings, & industrial Plots is 2905 KLD. The freshwater requirement for Residential (Type1 &2), Community Buildings, Commercial Buildings, & industrial Plots will be 1943 KLD. However, one-time freshwater demand for the project will be 3475 KLD.

Waste handling during the construction phase will be done by the site contractor whose responsibility lies with collection and storage of construction and demolition waste generated on the site. All construction wastes generated during construction will be used within the site itself for filling the floors, roads, aggregate for mortar etc. to the extent feasible. Remaining will be sent to the agency for proper disposal.

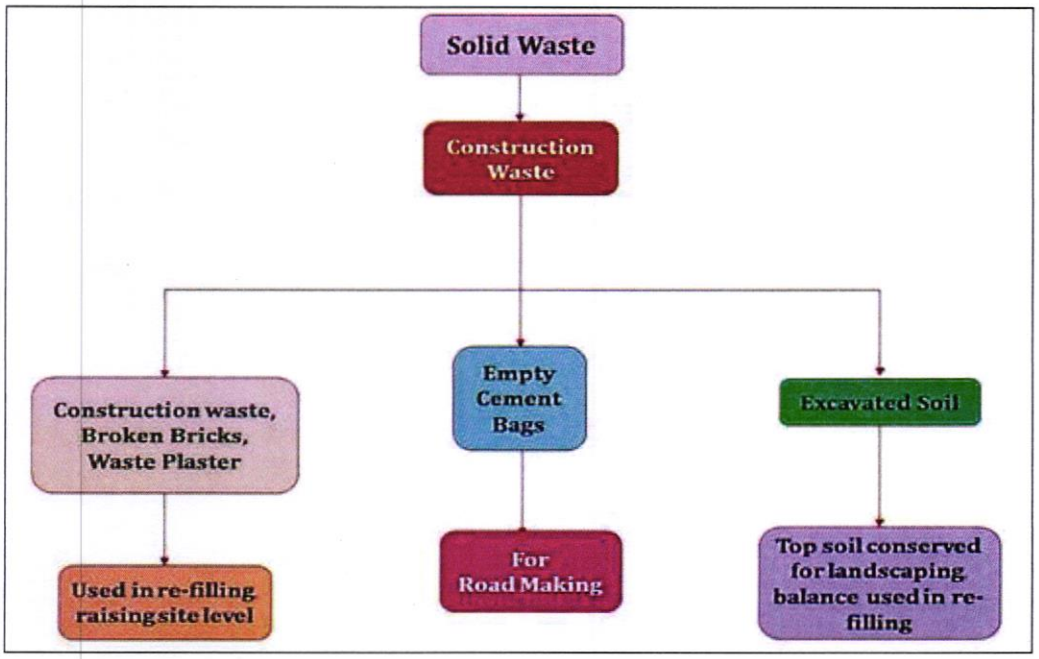

Figure 3: Solid Waste Management Scheme (Construction Phase)

1.8 Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity).

No. The site area is a flat land and the surroundings are characterized by an urbanized stretch. No low lying areas or wetlands are found in the region.

1.9 Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labor and the means of disposal).

No health hazards are expected during the construction phase. The laborers will be provided with face masks to minimize dust inhalation.

A significant portion of the construction waste and wood scrap generated will be used on the site.

The quantity of domestic waste generated was very little, as mostly local laborers will be employed. However, the wastes generated will be collected and disposed by an authorized agency.

SECTION 2- WATER ENVIRONMENT

2.1 Give the total quantity of water requirement for the project with the breakup of requirements for various uses. How will the water requirement be met? State the sources & quantities and furnish a water balance statement.

During the Construction Phase the Source of water will be Ground water. During operation phase, the source of water supply will be GMDA. The total water requirement for the project will be approx. 3475 KLD.

The domestic water demand for Residential (Type 1 & 2), Community Buildings, Commercial Buildings, & industrial Plots is 2905 KLD. The freshwater requirement for Residential (Type1 &2), Community Buildings, Commercial Buildings, & industrial Plots will be 1943 KLD. However, one-time freshwater demand for the project will be 3475 KLD.

The calculation of daily water requirement and wastewater is given below in Table 2 to 6 respectively.

Table 2: Calculations for Daily Water Demand

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	**Domestic Water for Residential plots (Type 1)**						
	Residential plots	5130	@ 65 lpcd	@ 21 lpcd	333	108	441
	• Staff	200	@25 lpcd	@20 lpcd	5	4	9
	• Visitors	513	@ 10 lpcd	@5 lpcd	5	3	8
					343 KLD	**115 KLD**	**458 KLD**
	Total Domestic Water= 458 KLD						
B.	**Domestic Water for Residential plots (Type 2), Community buildings, & Commercial buildings**						

	Residential plots (Type 2)	12186	@ 65 lpcd	@ 21 lpcd	792	256	1048
	• Staff (for Community buildings, Operation & Maintenance for residential plots (type 2) & Commercial building)	1870	@25 lpcd	@20 lpcd	47	37	84
	• Visitors (for Community buildings, Residential Plots, & Commercial building)	16,244	@ 10 lpcd	@5 lpcd	162	81	243
					1001 KLD	**374 KLD**	**1375 KLD**
Total Domestic Water for Residential plots (Type 2), Community buildings & Commercial Buildings = 1375 KLD							
C.	**Domestic Water for Industrial plots**						
	• Industrial Plots	23,035	@25 lpcd	@20 lpcd	576	461	1037
	• Visitors (for Industrial plots)	2303	@ 10 lpcd	@5 lpcd	23	12	35

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					599 KLD	**473 KLD**	**1072 KLD**
	Total Domestic Water for Industrial plots						**1072 KLD**
D.	**Horticulture**	37,241.664 m^2	3 l/sqm		112 KLD		
Grand Total (A+B +C+D) 3,475 KLD							

Table 4: Wastewater Calculation for Residential plots (Type 1)

Domestic Water	**458 KLD**
• Fresh water	343 KLD
• Flushing water	115 KLD
Waste water [@80% fresh + 100% flushing]	274.4 +115 = **389 KLD**
STP Capacity	500 KLD

Table 5: Wastewater Calculation for Residential plots (Type 2), Community buildings, & Commercial buildings,

Domestic Water	**1375 KLD**
• Fresh water	1001 KLD
• Flushing water	374 KLD
Waste water [@80% fresh + 100% flushing]	801 + 374= **1175 KLD**
STP Capacity	1410 KLD

Table 6: Wastewater Calculation for Industrial plots

Domestic Water	**1072 KLD**
• Fresh water	599 KLD
• Flushing water	473 KLD
Waste water [@80% fresh + 100% flushing]	479 + 473= **952 KLD**
STP Capacity	1150 KLD

WASTE WATER & TREATEMENT

Approx. 2516 KLD wastewater will be generated from the **Residential plots (Type 1 & 2), Community buildings, Commercial buildings & Industrial plots**. Wastewater will be treated in an in-house STP of total capacity 3060 KLD (500 KLD +1410 KLD +1150 KLD).

STP 1 [For Residential plots (Type 1)]: 500KLD

STP 2 [For Residential plots (Type 2), Community buildings, & Commercial buildings]: 1410 KLD

STP 3 [For Industrial plot]:1150 KLD

Treated wastewater will be used for flushing and horticulture and remaining water will discharge to External sewer.

Water balance diagram for summer, monsoon & winter season is presented below:

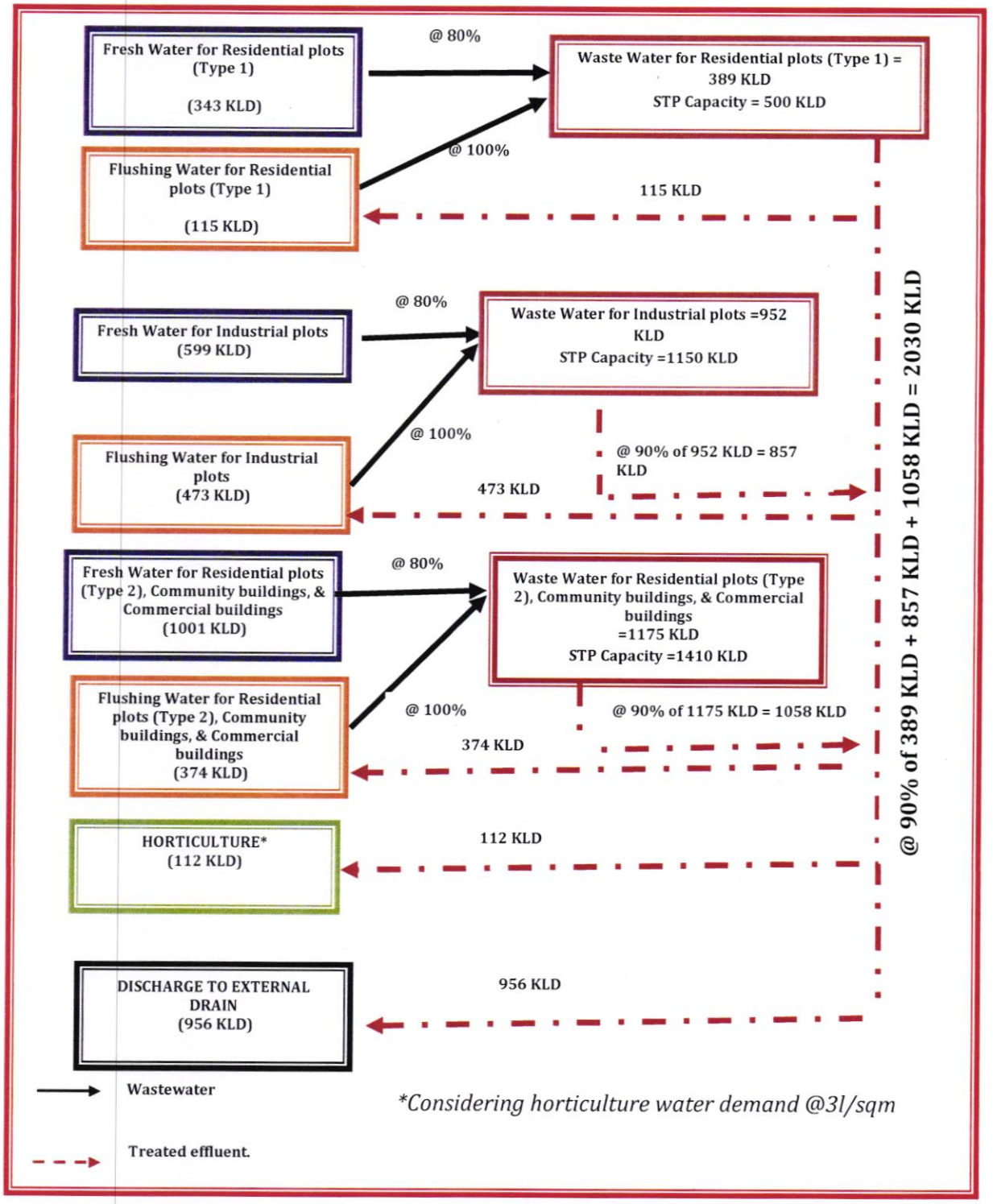

Figure 4: Water Balance Diagram (Summer Season)

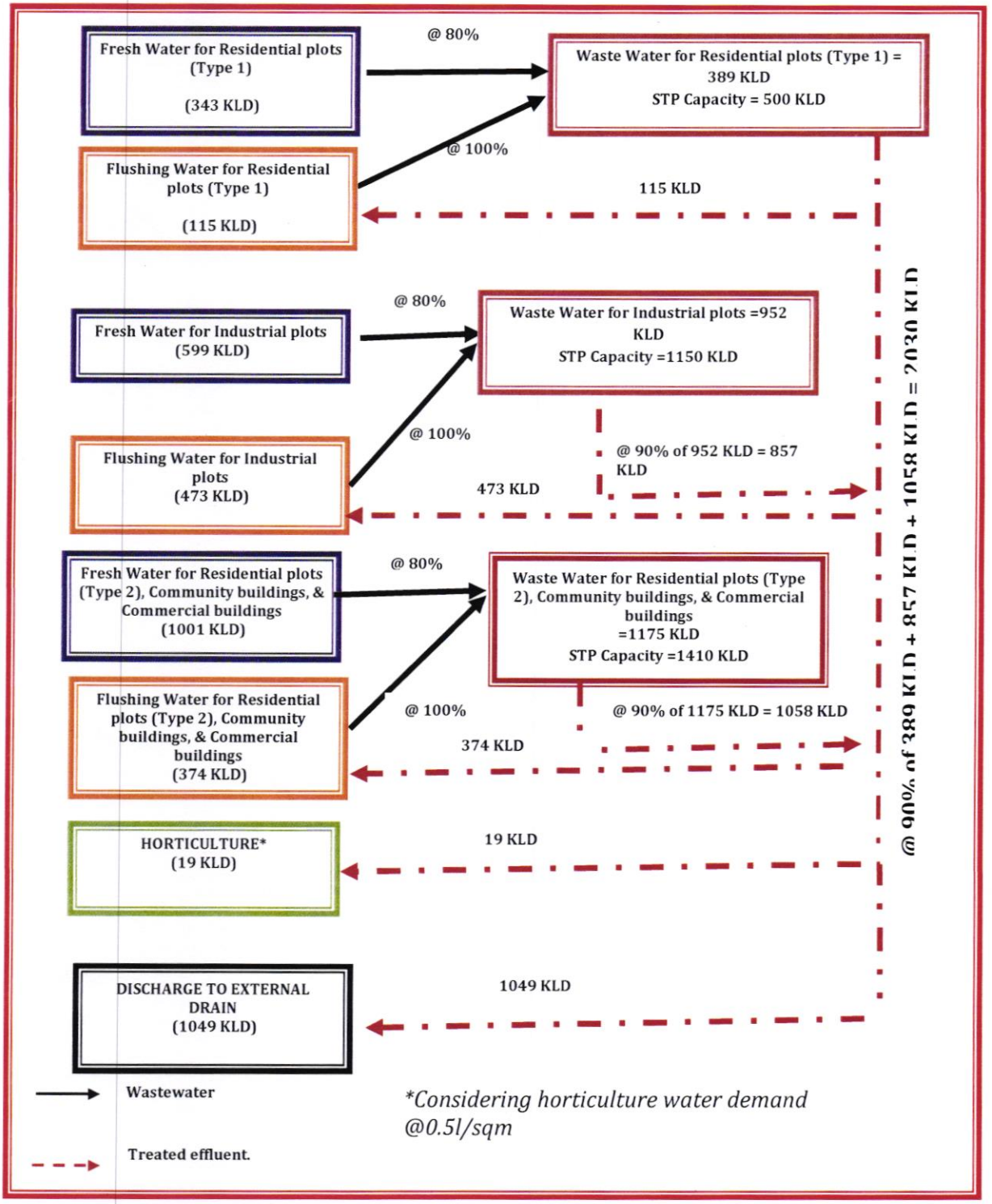

Figure 5: Water Balance Diagram (Monsoon Season)

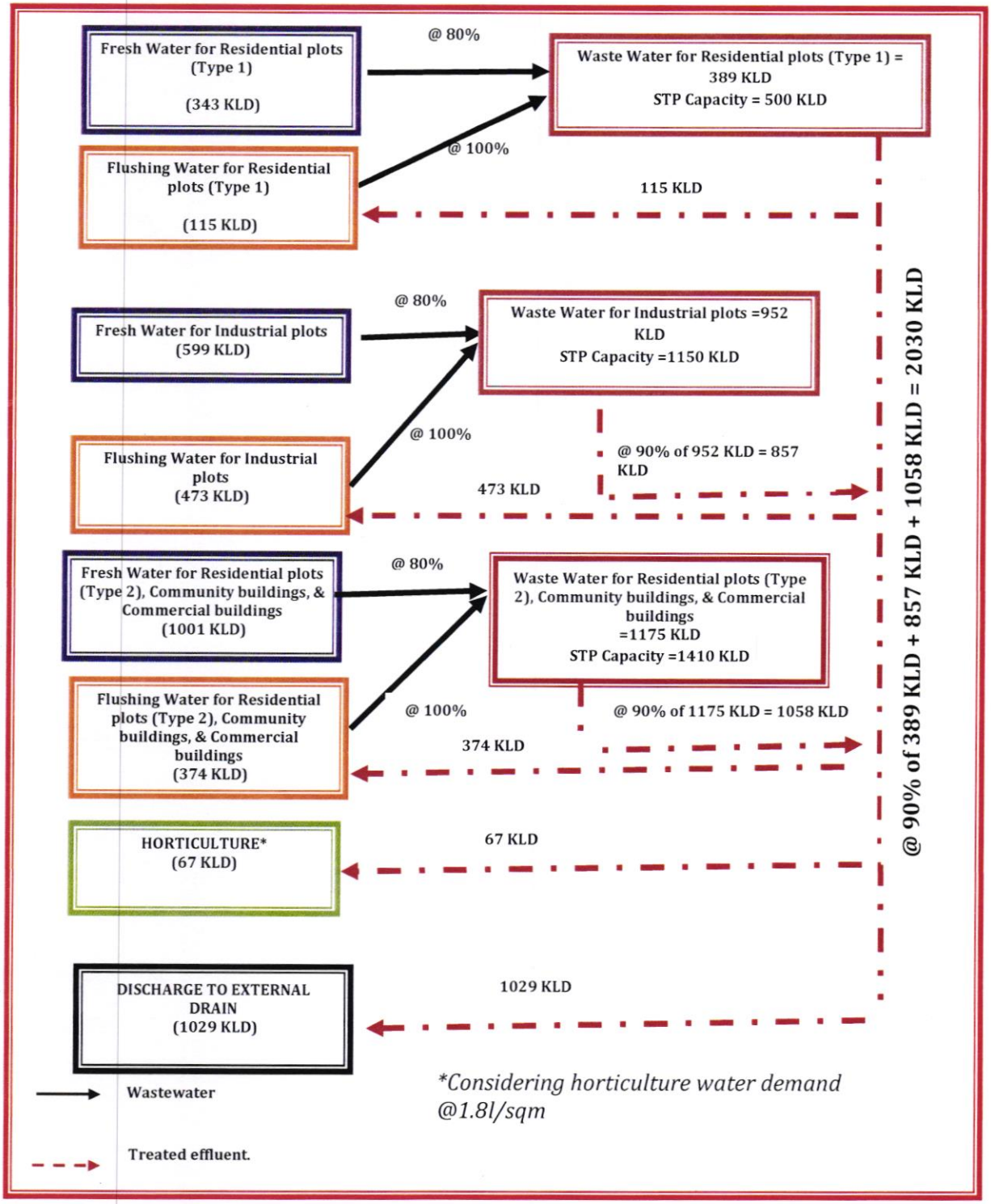

Figure 6: Water Balance Diagram (Winter Season)

2.2. What is the capacity (dependable flow or yield) of the proposed source of water?

During the Construction Phase the Source of water will be Ground water. During operation phase, the source of water supply will be GMDA. The total water requirement for the project will be approx. 3475 KLD.

The domestic water demand for Residential (Type 1 & 2), Community Buildings, Commercial Buildings, & industrial Plots is 2905 KLD. The freshwater requirement for Residential (Type1 &2), Community Buildings, Commercial Buildings, & industrial Plots will be 1943 KLD. However, one-time freshwater demand for the project will be 3475 KLD.

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).

During the Construction Phase the Source of water will be Ground water. During operation phase, the source of water supply will be GMDA. The total water requirement for the project will be approx. 3475 KLD.

The domestic water demand for Residential (Type 1 & 2), Community Buildings, Commercial Buildings, & industrial Plots is 2905 KLD. The freshwater requirement for Residential (Type1 &2), Community Buildings, Commercial Buildings, & industrial Plots will be 1943 KLD. However, one-time freshwater demand for the project will be 3475 KLD.

The quality of water conforms to the desirable drinking water standards as per IS: 10500.

2.4 How much of water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)

Approx. 2516 KLD wastewater will be generated from the **Residential plots (Type 1 & 2), Community buildings, Commercial buildings & Industrial plots**. Wastewater will be treated in an in-house STP of total capacity 3060 KLD (500 KLD +1410 KLD +1150 KLD).

STP 1 [For Residential plots (Type 1)]: 500KLD

STP 2 [For Residential plots (Type 2), Community buildings, & Commercial buildings]: 1410 KLD

STP 3 [For Industrial plot]:1150 KLD

Treated wastewater will be used for flushing and horticulture and remaining water will discharge to External sewer.

2.5 Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption).

No. There will not be any diversion of water from other users. Rise in water demand is a local phenomenon but the project would only involve spatial shifting of water demand within a region.

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)

Approx. 2516 KLD wastewater will be generated from the **Residential plots (Type 1 & 2), Community buildings, Commercial buildings & Industrial plots**. Wastewater will be treated in an in-house STP of total capacity 3060 KLD (500 KLD +1410 KLD +1150 KLD).

STP 1 [For Residential plots (Type 1)]: 500KLD

STP 2 [For Residential plots (Type 2), Community buildings, & Commercial buildings]: 1410 KLD

STP 3 [For Industrial plot]:1150 KLD

Treated wastewater will be used for flushing and horticulture and remaining water will discharge to External sewer.

2.7 Give details of the water requirements met from water harvesting? Furnish details of the facilities created.

The storm water collection system for the premises shall be self-sufficient to avoid any collection/stagnation and flooding of water. The amount of storm water run-off depends upon many factors such as intensity and duration of precipitation, characteristics of the tributary area and the time required for such flow to reach the drains. The drains shall be located near the carriageway along either side of the roads. Taking advantage of road camber, the rainfall run off from roads shall flow towards the drains. Storm water from various plots/shall be connected to adjacent drain by a pipe through catch basins.

Therefore, it has been calculated to provide 65 rainwater harvesting pits at selected locations, which will catch the maximum run-off from the site.

1) Since the existing topography is congenial to surface disposal, a network of storm water pipe drains is planned adjacent to roads. All building roof water will be brought down through rainwater pipes.
2) Proposed storm water system consists of pipe drain, catch basins and seepage pits at regular intervals for rainwater harvesting and ground water recharging.
3) The peak hourly rainfall of 45 mm/hr shall be considered for designing the storm water drainage system.

Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 45 mm/hr. The recharge pit of 2.5m diameter and 4 m depth is constructed for recharging the water. Inside the recharge pit, a recharge bore is constructed having adequate diameter and depth. The bottom of the recharge structure will be kept 5 m above this level. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Design specifications of the rainwater harvesting plan are as follows:

- Catchments/roofs would be accessible for regular cleaning.
- The roof will have a smooth, hard and dense surface which is less likely to be damaged allowing the release of material into the water. Roof painting has been avoided since most paints contain toxic substances and may peel off.
- All gutter ends will be fitted with a wire mesh screen and a first flush device would be installed. Most of the debris carried by the water from the rooftop like leaves, plastic bags and paper pieces will get arrested by the mesh at the terrace outlet and to prevent contamination by ensuring that the runoff from the first 20 minutes of rainfall is flushed off.
- No sewage or wastewater would be admitted into the system.
- No wastewater from areas likely to have oil, grease, or other pollutants has been connected to the system.

Calculations for storm water load:

Green Area = 37,241.664m^2

Paved Area = 1,69,855.489m^2

Mean monthly rainfall for District as per IMD = 45 mm

Run-off from Green area = 37,241.664 x 0.045 x 0.20

= 335.174m^3

Run-off from Paved area = 1, 69,855.489 x 0.045 x 0.70

= 5,350.447m^3

Total runoff load from green and paved area = 335.174 + 5,350.447**= 5,685.621m^3**

Taking 20 minutes Retention Time, Total volume of storm water = 5,685.621/3

= 1,895.207m^3

Taking the effective diameter and depth of a Recharge pit 2.5 m and 4 m respectively, Volume of a single Recharge pit = $\pi r^2 h$ = 3.14 × 1.25× 1.25× 4= 29 m^3

Hence No. of pits required = 1,895.207/29 = 65 pits

A total of 65 no. of pits proposed for artificial ground water recharge.

2.8 What would be the impact of the land use changes occurring due to the project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?

The project will include paved areas and thus the runoff from the plot is expected to increase due to reduced infiltration. However, the increased runoff will not cause flooding or water logging as a well-designed storm water drainage will be provided. The runoff will finally be collected into rainwater harvesting tanks for groundwater recharging and rainwater harvesting pits for artificial ground water recharge. The quality of the runoff is expected to improve due to paved areas.

2.9 What are the impacts of the proposal on the ground water? (will there be tapping of ground water; give the details of ground water table, recharging capacity and approvals obtained from competent authority, if any).

Project will not use ground water during construction and operation phase; however rain water recharge pit will improve the ground water table so overall impact on ground water will be positive.

2.10 What precautions/ measures have been proposed to check the surface run-off, as well as uncontrolled flow of water into any water body?

The following management measures are suggested to protect the water quality during construction phase.

- Care would be taken to avoid soil erosion.
- Community toilets shall be constructed on the site during construction phase and the wastewater will be channelized to the septic tank in order to prevent wastewater from entering the water bodies.
- Any area with loose debris within the site shall be planted.
- To prevent surface and ground water contamination by oil/grease, leak proof containers would be used for storage and transportation of oil/grease. The floors of oil/grease handling area would be kept effectively impervious.
- Collection and settling of storm water, prohibition of equipment wash downs, and prevention of soil loss and toxic release from the construction site will be adhered to minimize water pollution.

2.11 How is the storm water from within the site managed? (State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels).

Most of the storm water produced on site will be harvested for ground water recharge. Thus proper management of this resource is a must to ensure that it is free of contamination. A detailed Storm Water Management Plan will be developed which will consider the sources of storm water. The plan will incorporate best management practices which will include the following:

- Regular inspection and cleaning of storm drains.
- Installation of clarifiers or Oil/Water separators system of adequate capacity around parking areas and garages as per requirement.

- Cover waste storage areas.
- Avoid application of pesticides and herbicides before wet season.
- Conducting routine inspections to ensure cleanliness.
- Preparation of spill response plans, particularly for fuel and oil storage areas.
- Good housekeeping in the above areas.

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).

No, we will be providing Mobile STP during construction phase.

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).

Approx. 2516 KLD wastewater will be generated from the **Residential plots (Type 1 & 2), Community buildings, Commercial buildings & Industrial plots**. Wastewater will be treated in an in-house STP of total capacity 3060 KLD (500 KLD +1410 KLD +1150 KLD).

STP 1 [For Residential plots (Type 1)]: 500KLD

STP 2 [For Residential plots (Type 2), Community buildings, & Commercial buildings]: 1410 KLD

STP 3 [For Industrial plot]:1150 KLD

Treated wastewater will be used for flushing and horticulture and remaining water will discharge to External sewer.

2.14 Give details of dual plumbing system if treated waste used for flushing of toilets or any other use.

Dual plumbing system that utilizes separate piping systems for freshwater and recycled Sullage will be adopted for the project. The recycled water system shall utilize this treated Sullage and serve for non-contact uses such as flushing and horticulture.

3. VEGETATION

3.1 Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any).

No ecologically sensitive area falls within the project site. Hence, no ecological/ biological threat will be anticipated.

3.2 Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)

The project does not support any significant vegetation. It is to develop a peripheral greenbelt of native plant species to enhance the aesthetic value of the region and also provide an excellent habitat for various faunal groups.

3.3 What are the measures proposed to be taken to minimize the likely impacts on important site – features (Give details of proposal for tree plantation, landscaping creation of water bodies, etc. along with a layout plan to an appropriate scale?)

Green belt will be developed along the periphery of the project premises along with the internal parks and lawns. The project being a well-planned activity will result in organized open spaces and green areas. Total green area measures 37,241.664 m^2 (Shelter belt, Avenue plantation and lawn) of project site.

4. FAUNA

4.1 Is there likely to be any displacement of fauna both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

No. The existing land use around the site is urban and does not provide a habitat for wild species. A few species of butterfly, avifauna and reptiles were recorded during the course of survey, which are common and found abundantly in this region. The proposed peripheral greenbelt will provide an excellent habitat for the native fauna.

4.2 Any direct or indirect impacts on the avifauna of the area? Provide details.

The project will not have any direct or indirect impacts on the avifauna of the area. However, planting of fruit bearing trees in the proposed greenbelt will be an attraction to the local bird population.

4.3 Prescribe measures such as corridors, fish ladders etc. to mitigate adverse impacts on fauna.

Not applicable.

5. AIR ENVIRONMENT

5.1 Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed construction).

Ambient air monitoring will be carried out at the project site during the environmental assessment.

During the post construction phase, cars, scooter/motorcycle will be owned for the commercial purpose. Vehicular emissions will be major source of air pollution in addition to DG sets. Quantum and dispersion of pollutants form vehicular emission will depend upon the following:

- Volume of traffic on the roads,
- Meteorological conditions.
- Emission sources from DG sets.

From vehicular emissions, PM, NO_2 and CO are pollutants of primary concern. The dispersion of vehicular emissions would be confined within 100 m from the road and concentration will decrease with the increase in distance from road. It is anticipated that the contribution of vehicular emissions in ambient air quality will be marginal but well within the stipulated National Ambient. At higher wind speed dispersion will be faster.

Air Environment

Impact: During the post construction phase, cars, scooter/motorcycle will be owned for the commercial purpose. Vehicular emissions will be major source of air pollution in addition to DG set. Quantum and dispersion of pollutants form vehicular emission will depend upon the following:

- Volume of traffic on the roads,
- Meteorological conditions.
- Emission sources from DG sets.

From vehicular emissions, PM, NO_x, and CO are pollutants of primary concern. The dispersion of vehicular emissions would be confined within 100 m from the road and concentration will decrease with the increase in distance from road. It is anticipated that the contribution of vehicular emissions in ambient air quality will be marginal but well within the stipulated National Ambient. At higher wind speed dispersion will be faster.

Air Quality Modeling:

The only source of emissions from the project is the operation of backup generator during grid power failure. Detailed air quality modeling has been carried out for predicting the concentration of different pollutants contributed by the project during operation of the backup generators.

Mitigation Measures: It is proposed to develop a green belt inside the premises of the project site and along the internal roads, which will work as barrier for the movement of pollutants and help in pollution control.

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.

Source of pollution:-

As per dispersion modeling of pollutants from DG set, predicted resultant GLC for various air pollutants are found insignificant within the NAAQS norms.

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 and exit to the project site.

Adequate provision will be made for car/vehicle parking at the project site. There shall also be adequate parking provisions for visitors so as not to disturb the traffic and allow smooth movement at the site.

For plotted development the parking shall be within the plots by the individual plot owners.

5.4 Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths, etc. with areas under each category.

Internal roads of adequate width, footpaths/pedestrian pathways have been well planned for the project.

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.

Significant noise impacts have been carried out within and outside of the project site. Noise, due to the traffic within the site, will result in a marginal increase in the noise levels because noise control measures shall be provided in vehicles and the DG set as mentioned below, which will cause a slight increase in the noise level.

5.6 What will be the impact of D.G. set and other equipment on noise levels and vibration in ambient air quality around the project site? Provide details.

During operation, vehicular movement and operation of DG Set are the major sources of noise pollution. But both these activities- DG Set and vehicular movement will not have any significant impact on the people residing in the area. Since DG Set will not be operational continuously and will be enclosed with suitable enclosures, hence no or minimal impact will be anticipated. It is envisaged that the movement of the motor vehicles will be restricted to designated carriageways only.

Impacts on Air Quality due to DG Set:

- Impacts on ambient air during operation phase would be due to emissions from the stacks attached to backup DG set only during grid power failure.

Mitigation Measures for Impacts of DG Set on Ambient Air Quality:

- Back up DG Set will comply with the applicable emission norms.
- Adequate stack height for DG Set will be provided as per norms.
- Back up DG Set will be used only during power failure.
- Monitoring of emissions from DG Set and ambient air quality will be carried out as per norms.

Noise Control Measures for DG Set:

- DG Set room will be provided to insure 75 dB (A) insertion loss as per the regulations.

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- Adequate exhaust mufflers will be provided as per norms to limit the noise.

6. AESTHETICS

6.1 Will the proposed construction in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?

The proposed project will not result in obstruction of any view, scenic amenity or landscape.

6.2 Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?

No. Following measures have been proposed to minimize the impact from proposed project on the existing structures in vicinity:

- Design of proposed building as per IS codes to ensure structural stability.
- Restricting dust by covering of under construction building.
- Transportation of construction waste and material through covered trucks.
- Disposal of excavated earth through a local vendor.
- Disposal of solid waste through an authorized agency, etc.

6.3. Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.

The project has been designed as per local norms.

6.4 Are there any anthropological or archaeological sites or artifacts nearby? State if any other significant features in the vicinity of the proposed site have been considered?

No anthropological or archaeological sites or artifacts exist near the site.

7. SOCIO-ECONOMIC ASPECTS

7.1 Will the proposal result in any changes to the demographic structure of local population? Provide the details.

No such changes anticipated.

Construction phase: Since local labourers will be engaged during construction phase, alteration to the existing demographic profile of the area is not anticipated.

Operation phase: The changing demography in the area is another impact that needs attention. The project will mainly lead to spatial redistribution of local population and hence no considerable influx of population is envisaged owing to the project.

7.2 Give details of the existing social infrastructure around the project.

Table 6: Social Infrastructure

Name	Distance (In km)	Direction
Schools		
Rajendra Public School, Gurugram	0.15	NW
Virat International School, Kapriwas	1	W
College		
Government College, Shidhrawali	1.2	N
Rao Lal Singh College of Education	2	N
Hospital		
Vardaan Hospital, Dharuhera	5	SW
Gangaram Hospital And Trauma Centre	5.8	NE
Temple		
Panchmukhi Hanuman Mandir	3.9	S

7.3 Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

Construction phase: There are no religious sites or archeological monuments of historical significance on the project site. Hence, no adverse impact in this regard is anticipated. Rather, this phase will generate jobs that relate to unskilled, semi-skilled as well as skilled labour category. Few supervisory positions will also open up, for which local candidates will be considered based on merit.

Operation phase: The project will provide goods storage facility in the area, thereby provide the jobs opportunity. A project of such scale will also boost the local economy.

8. BUILDING MATERIALS

8.1 May involve the use of building materials with high embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)

The proposed project is construction of Industrial Park Project. The proposed building will not be centrally air conditioned, the selection of building materials plays a major role in the energy consumption. The proposed project will make attempts to use to avoid building materials with high embodied energy. The glass used in the building will be minimal quantity, low emissivity and having U value as per ECBC norms to the extent possible. GGBS, industrial waste will be part of Concrete.

8.2 Transport and handling of materials during construction may results in pollution, noise and public nuisance. What measures are taken to minimize the impacts?

Mitigation Measures for Air Pollution during Construction Stage:

- Construction materials will be suitably covered with tarpaulin cover etc during transportation.
- Water sprinkling shall be done on haul roads where dust generation is anticipated.
- Raw material storage and handling yard will be enclosed from all sides.
- To minimize the occupational health hazard, proper personal protective gears i.e. mask shall be provided to the workers working in the dust prone areas.

Mitigation Measures for Noise Pollution during Construction Stage:

- Administrative as well as engineering control of noise will be implemented.
- Isolation of noise generation sources and temporal differentiation of noise generating activities will ensure minimum noise at receiver's end.

- To prevent any occupational hazard, earmuff / earplug shall be given to the workers working around construction plant & machinery emitting high noise levels.
- Use of such plant or machinery shall not be allowed during night time. Careful planning of machinery operation and scheduling of operations shall be done to minimise such impact.

8.3 Are recycled materials used in roads and structures? State the extent of savings achieved?

GGBS (Ground Granulated Blast-furnace Slag), industrial waste will be part of Concrete.

8.4 Give detail of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

The solid waste of the project will be segregated into biodegradable waste and non-biodegradable. Biodegradable waste and non-biodegradable waste will be collected in separate colored bins. The recyclable wastes will be sent off to recyclables. Proper guidelines for segregation, collection and storage will be prepared as per Municipal Solid Wastes (Management and Handling) Rules, 2016.

Table 7: Calculation of Solid Waste Generation

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1.	**Domestic Solid Waste for Residential plots**			
	• Residential plots	17316	0.5	8658
2.	**Domestic Solid Waste for Industrial plots**			
	• Industrial Plots	23035	0.25	5759
3.	Staff (Residential Maintenance, Community, Commercial, & Industrial)	2070	0.25	518
4.	Visitors(Residential, Community, Commercial, & Industrial)	19060	0.15	2,859
5.	Horticultural Waste (9.20 acres)	@ 0.2 kg/acre/day		1.84
6.	STP Sludge	Sludge generated x 0.35 x B.O.D		343.434

		difference/1000	
Total Solid Waste Generation = 18,139kg/day			

9. ENERGY CONSERVATION

9.1 Give details of the power requirements, source and supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?

The power shall be supplied by the State Electricity Board. The maximum load demand for the project will be approx. 12883 kW.

Details of D.G Sets: There is provision of 2no. of DG set of total capacity 1100kVA for Commercial Facility which includes 1 x 750kVA +1x 350 kVA and 2no. of DG set of total capacity 1750 kVA for Common Services which includes 1 x 750kVA +1x 1000 kVA are proposed for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

Effective measures have been incorporated to minimize the energy consumption in following manners:

- All external lighting shall be LED
- All common spaces including street lights (where there is no use of light for reading purposes), shall be of "LED".
- Astronomical timer based controllers will be used for automatic dusk to dawn operation of street lights.
- Staircases can be motion sensor based lighting.

9.2 What type and capacity of power backup do you plan to provide?

There is provision of 2no. of DG set of total capacity 1100kVA for Commercial Facility which includes 1 x 750kVA +1x 350 kVA and 2no. of DG set of total capacity 1750 kVA for Common Services which includes 1 x 750kVA +1x 1000 kVA are proposed for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

9.3 What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?

Clear glass will be used for fenestration purposes only.

Characteristics are as under: U-value : 5.8 W/m^2 K

Shading coefficient (SC): 0.9

Visual light transmission: 85% (for regularly occupied spaces)

9.4 What passive solar architectural features are being used in the building? Illustrate the applications made in the project.

Passive solar design refers to use of the sun's energy for the heating and cooling of living spaces. Pergolas, projections, façade elements, metal louvers will be provided for sun shading to reduce the heat influx into the building and thus reduce the air conditioning loads.

9.5 Does the layout of street & building maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.

We will install solar power generation system of the capacity Minimum 50 Kilo Watt peak (KWp) as per Haryana Building bye-laws.

Solar energy will be utilized for street lighting, solar blinkers and signages to reduce electricity consumption.

9.6 Is the shading effectively used to reduce cooling/heating lands? 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?

Not applicable.

9.7 Do the structures use energy-efficient space conditioning, lightening and mechanical systems? Provide technical details. Provide details of the transformers

and motor efficiencies, lightening intensity and air conditioning load assumption? Are you using CFC and HCFC free chillers? Provide specifications.

All chillers for air conditioners will be CFC & HCFC free. Well-designed building structures will allow natural light to enter. Measures prescribed in Energy Conservation Building Code 2007 will be adopted to the extent possible to reduce the heat influx by walls, roofs and openings. Only prescribed quality of glasses will be used.

9.8 What are the likely effects of the building activity in altering the micro-climates? Provide a self-assessment on likely impacts of the proposed construction on creation of heat island & inversion effects?

The approximately 33% of site area is landscaped. White tiles will be used in roof areas and tiles with SRI>29 will be used in non-roof areas (hardscaped areas), in line with IGBC guidelines, to reduce heat island effect and mitigate any impact on microclimate.

9.9 What are the thermal characteristics of the building envelope? (a) Roof (b) external walls and (c) fenestration? Give details of the material used and the U value or the R values of the individual components.

Overdeck insulation will be provided in roof-top. External wall be RCC. Approx. U-values have been provided below:

S. No.	Component	U-value (W/m^2-K)
(a)	Roof	1.2
(b)	External wall	3.7

9.10 What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.

Firefighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

Fire hydrant system will be provided within the buildings, fire escape staircases and refuge areas will be provided and the building structures will be planned as per NBC, 2016. In addition, 10 kg fire extinguishers will be provided for class A, B, and C fires. CO_2 extinguishers will also be provided

Disaster Management Plan

PRECAUTION & MITIGATORY METHODS TO PREVENT DISASTERS:

- Complex is planned to reduce the impact of disasters and to encourage recovery.
- A disaster management cell would be established which will take care of post disaster scenario.
- It would be a volunteer kind of set-up and professionals can also be hired in case of eventuality.
- Complex management and maintenance agency will prepare an integrated, comprehensive management plan.

PRECAUTION & MITIGATORY METHODS TO PREVENT DISASTERS:

(Earthquake Management)

- At the time of designing and constructing the building due care would be taken to have earthquake resistant structures which will conform to IS 1983.
- New systems and devices using non-conventional civil engineering materials would be developed to reduce the earthquake forces acting on structure.

PRECAUTION & MITIGATORY METHODS TO PREVENT DISASTERS:

(Fire Hazard)

- Fire safety would be taken into account and would follow all the safety norms and regulations as per the NBC and other related Indian Standards.
- All electrical cables would be underground and sophisticated modern electrical distribution system to reduce risk of fire.
- Special firefighting equipment's like Automatic Fire Detection and alarm system, automatic Sprinkler System etc. would be installed as per the NBC standards.
- Risk assessment with onsite disaster management plan will be specified to fire, smoke and other emergency conditions.

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9.11 If you are using glass as wall materials, provide details and specifications including emissivity and thermal characteristics.

The project being a Industrial Plotted Colony Project will not involve use of much glass as wall material. All fenestration with U-factors, SHGC, or visible light transmittance determined, certified and labeled in accordance ISO 15099 shall be adopted.

9.12 What is the rate of air infiltration in to the building? Provide details of how you are mitigating the effects of infiltration.

There will be provisions for ample natural ventilation.

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 variedly used to meet the energy requirements of as:

- We shall be exploring utilization of solar energy in the form of solar street lighting and warehouse power requirement wherever feasible in our premises.
- LEDs will be used to minimize the energy consumption.
- Green area is provided along with tree plantation which will result in natural air cooling and will reduce the load on conventional energy sources.

10. ENVIRONMENT MANAGEMENT PLAN

The Environment Management Plan (EMP) would consist of all mitigation measures for each component of the environment due to the activities increased during the construction, operation and the entire life cycle to minimize adverse environmental impacts resulting from 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 sites including fire. The detailed EMP for the complex is given below.

During operation phase, the capital will be 796 lakhs and recurring cost will be 132.75 lakh / year.

10.1 Environmental Management Plan

The Environment Management Plan (EMP) is a site specific plan developed to ensure that the project is implemented in an environmental sustainable manner where all contractors and subcontractors, including consultants, understand the potential environmental risks arising from the project and take appropriate actions to properly manage that risk. EMP also ensures that the project implementation is carried out in accordance with the design by taking appropriate mitigation actions to reduce adverse environmental impacts during its life cycle. The plan outlines existing and potential problems that may adversely impact the environment and recommends corrective measures where required. Also, the plan outlines roles and responsibility of the key personnel and contractors who will be in-charge of the responsibilities to manage the project site.

10.1.1 The EMP is generally

- Prepared in accordance with rules and requirements of the MoEF & CC and CPCB/ SPCB
- To ensure that the component of facility are operated in accordance with the design
- A process that confirms proper operation through supervision and monitoring
- A system that addresses public complaints during construction and operation of the facilities
- A plan that ensures remedial measures is implemented immediately.

The key benefits of the EMP are that it offers means of managing its environmental performance thereby allowing it to contribute to improved environmental quality. The other benefits include cost control and improved relations with the stakeholders.

EMP includes four major elements:

- Commitment & Policy: The management will strive to provide and implement the Environmental Management Plan that incorporates all issues related to air, water, land and noise.
- Planning: This includes identification of environmental impacts, legal requirements and setting environmental objectives.

- Implementation: This comprises of resources available to the developers, accountability of contractors, training of operational staff associated with environmental control facilities and documentation of measures to be taken.
- Measurement & Evaluation: This includes monitoring, counteractive actions and record keeping.

It is suggested that as part of the EMP, a monitoring committee would be formed by M/s Signatureglobal India Limited comprising of the site in-charge/coordinator, environmental group representative and project implementation team representative. The committee's role would be to ensure proper operation and management of the EMP including the regulatory compliance.

The components of the environmental management plan, potential impacts arising, out of the project and remediation measures are summarized below in **Table 8.**

TABLE 8: SUMMARY OF POTENTIAL IMPACTS AND REMEDIAL MEASURES

S. No.	Environmental components	Potential Impacts	Potential Source of Impact	Controls Through EMP & Design	Impact Evaluation	Remedial Measures
1.	Ground Water Quality	Ground Water Contamination	Construction Phase • Wastewater generated from temporary labor tents.	• No surface accumulation will be allowed.	No significant impact as majority of labors would be locally deployed	
			Operation Phase • Discharge from the project	• Waste water will be treated in STP.	No negative impact on ground water quality envisaged. Not significant.	
2.	Ground Water Quantity	Ground Water Depletion	Construction Phase • Ground water will not be used for construction activity	• No impact	No significant impact on ground water quantity envisaged.	
			Operation Phase • The source of water during	• Rain water harvesting scheme.	No significant impact on surface/ground	In an unlikely event of non-availability of

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			operation phase is Municipal water supply.	• Storm water collection for water harvesting. • Percolation well to be introduced in landscape plan. • Awareness Campaign to reduce the water consumption	water quantity envisaged.	water supply, water will be brought using tankers.
3.	Surface Water Quality	Surface water contamination	<u>Construction Phase</u> • Surface runoff from site during construction activity.	• Silt traps and other measures such as additional on-site diversion ditches will be constructed to control surface run-off during site development	No off-site impact envisaged as no surface water receiving body is present in the core zone.	
			<u>Operation Phase</u> • Discharge of domestic wastewater to	• Waste water will be treated in STP.	No off-site impact envisaged	CPCB guidelines will be followed for disposal of sewage.

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			STP for treatment and reuse.			
4.	Air Quality	Dust Emissions	<u>Construction Phase</u> • All heavy construction activities	• Suitable control measures will be adopted for mitigating the $PM_{2.5}$ & PM_{10} level in the air as per air pollution control plan.	Not significant because dust generation will be temporary and will settle fast due to dust suppression techniques.	During construction phase the contractors are advised to facilitate masks for the labors. Water sprinklers will be used for suppression of dust during construction phase.
		Emissions of $PM_{2.5}$ & PM_{10}, SO_2, NOx and CO	<u>Construction Phase</u> • Operation of construction equipment and vehicles during	• Rapid on-site construction and improved maintenance of equipment	Not significant.	Regular monitoring of emissions and control measures will be taken to

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			site development. • Running D.G. set (back up)			reduce the emission levels.
			<u>Operation Phase</u> • Power generation by DG set during power failure • Emission from vehicular traffic in use	•Use of low sulphur diesel if available •Providing Footpath and pedestrian ways within the site Green belt will be developed with specific species to help to reduce $PM_{2.5}$ & PM_{10} level •Use of equipment fitted with silencers •Proper maintenance of equipment	Not significant. DG set would be used as power back-up (approx. 4 hours) No significant increase in ambient air quality level is expected from the project's activities. There are no sensitive receptors located within the vicinity of site.	• Use of Personal Protective Equipment (PPE) like earmuffs and earplugs during construction activities. • Stack height of DG set above the tallest building as per CPCB standards
5.	Noise					

700

	Environment					
			<u>Operation Phase</u> • Noise from vehicular movement • Noise DG set operation	• Green Belt Development • Development of silence zones to check the traffic movement • Provision of noise shields near the heavy construction operations and acoustic enclosures for DG set. • Construction activity will be limited to time hours only • DG set room will be equipped with acoustic enclosures	No significant impact due to suitable width of Greenbelt.	

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6.	Land Environment	Soil contamination	<u>Construction Phase</u> • Disposal of construction debris	Construction debris will be collected and suitably used on site as per the solid waste management plan for construction phase	No significant impact. Impact will be local, as waste generated will be reused for filling of low lying areas etc.	
			<u>Operation Phase</u> • Generation of municipal solid waste • Used oil generated from DG set.	• It is proposed that the solid waste generated will be managed as per MSW Rules, 2016. • Collection, segregation, transportation and disposal will be done as per MSW Management Rules, 2016 by the authorized agency	Since solid waste is handled by the authorized agency, waste dumping is not going to be allowed. Not significant. Negligible impact.	

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				• Used oil generated will be sold to authorized recyclers		
7.	Biological Environment (Flora and Fauna)	Displacement of Flora and Fauna on site	<u>Construction Phase</u> • Site Development during construction	• Important species of trees, if any, will be identified and marked and will be merged with landscape plan		
			<u>Operation Phase</u> • Increase in green covered area	• Suitable green belts will be developed as per landscaping plan in and around the site using local flora	Beneficial impact.	
8.	Socio-Economic Environment	Population displacement and loss of income	<u>Construction Phase</u> • Construction activities leading to	• The project will be developed as per the GMDA.	No negative impact.	

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			relocation			
			Operation Phase • Site operation	• Project will provide employment opportunities to the local people in terms of labor during construction and service personnel (guards, securities, gardeners, etc) during operations • Providing quality-Integrated infrastructure.	Beneficial impact	
9.	Traffic Pattern	Increase of vehicular traffic	Construction Phase • Heavy Vehicular movement during	• Heavy Vehicular movement will be restricted to time only and adequate parking facility will be provided.	No negative impact	

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704

			construction			
			Operation Phase • Traffic due to vehicles once the project is operational	• Vehicular movement will be regulated inside the project with adequate roads and parking lots in the project.	No major significant impact as green belt will be developed which will help in minimizing the impact on environment.	

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10.2 ENVIRONMENT MANAGEMENT PLAN

An Environmental Management Plan (EMP) will be required to mitigate the predicted adverse environmental impacts during construction and operation phase of the project and these are discussed in later subsections.

10.2.1 EMP for Air Environment

Construction Phase

To mitigate the impacts of PM_{10} & $PM_{2.5}$ during the construction phase of the project, the following measures are recommended for implementation:

- A dust control plan
- Procedural changes to construction activities

Dust Control Plan

The most cost-effective dust suppressant is water because water is easily available on construction site. Water can be applied using water trucks, handled sprayers and automatic sprinkler systems. Furthermore, incoming loads could be covered to avoid loss of material in transport, especially if material is transported off-site.

Procedural Changes to Construction Activities

Idle time reduction: Construction equipment is commonly left idle while the operators are on break or waiting for the completion of another task. Emission from idle equipment tends to be high, since catalytic converters cools down, thus reducing the efficiency of hydrocarbon and carbon monoxide oxidation. Existing idle control technologies comprises of power saving mode, which automatically off the engine at preset time and reduces emissions, without intervention from the operators.

Improved Maintenance: Significant emission reductions can be achieved through regular equipment maintenance. Contractors will be asked to provide maintenance records for their fleet as part of the contract bid, and at regular intervals throughout the life of the

contract. Incentive provisions will be established to encourage contractors to comply with regular maintenance requirements.

Reduction of On-Site Construction Time: Rapid on-site construction would reduce the duration of traffic interference and therefore, will reduce emissions from traffic delay.

Operation Phase

To mitigate the impacts of pollutants from DG set and vehicular traffic during the operational phase of the project, following measures are recommended for implementation:

- DG set emission control measures
- Vehicular emission controls and alternatives
- Greenbelt development

Gas based Generator Set Emission Control Measures

Adequate stack height will be maintained to disperse the air pollutants generated from the operation of DG set to dilute the pollutants concentration within the immediate vicinity. Hence no additional emission control measures have been suggested.

Vehicle Emission Controls and Alternatives

During construction, vehicles will be properly maintained to reduce emission. As it is a Industrial Plotted Colony project, vehicles will be generally having "PUC" certificate.

Footpaths and Pedestrian ways: Adequate footpaths and pedestrian ways would be provided at the site to encourage non-polluting methods of transportation.

10.2.2 EMP FOR NOISE ENVIRONMENT

Construction Phase

To mitigate the impacts of noise from construction equipment during the construction phase on the site, the following measures are recommended for implementation.

Time of Operation: Noisy construction equipment would not be allowed to use at night time.

Job Rotation and Hearing Protection: Workers employed in high noise areas will be employed on shift basis. Hearing protection such as earplugs/muffs will be provided to those working very close to the noise generating machinery.

Operation Phase

To mitigate the impacts of noise from diesel generator set during operational phase, the following measures are recommended:

- Adoption of Noise emission control technologies
- Greenbelt development

Greenbelt Development:

Green belt will be developed along the periphery of the project premises along with the internal parks and lawns. Total green area is 37,241.664 m^2

EMP FOR WATER ENVIRONMENT

Construction Phase

To prevent degradation and to maintain the quality of the water source, adequate control measures have been proposed. To check the surface run-off as well as uncontrolled flow of water into any water body check dams with silt basins are proposed. The following management measures are suggested to protect the water source being polluted during the construction phase:

- Avoid excavation during monsoon season
- Care would be taken to avoid soil erosion
- Common toilets will be constructed on site during construction phase and the wastewater would be channelized to the septic tanks in order to prevent wastewater to enter into the water bodies
- Any area with loose debris within the site shall be planted

- To prevent surface and ground water contamination by oil and grease, leak-proof containers would be used for storage and transportation of oil and grease. The floors of oil and grease handling area would be kept effectively impervious. Any wash off from the oil and grease handling area or workshop shall be drained through imperious drains.
- Collection and settling of storm water, prohibition of equipment wash downs and prevention of soil loss and toxic release from the construction site are necessary measure to be taken to minimize water pollution
- All stacking and loading area will be provided with proper garland drains, equipped with baffles, to prevent run off from the site, to enter into any water body.

Operation Phase

In the operation phase of the project, water conservation and development measures will be taken, including all possible potential for rain water harvesting. Following measures will be adopted:

- Water source development.
- Minimizing water consumption.

Water Source Development

Water source development shall be practiced by installation of scientifically designed Rain Water Harvesting system. Rainwater harvesting promotes self-sufficiency and fosters an appreciation for water as a resource.

Minimizing Water Consumption

Consumption of fresh water will be minimized by combination of water saving devices and other domestic water conservation measures. Further, to ensure ongoing water conservation, an awareness program will be introduced. The following section discusses the specific measures, which shall be implemented:

Domestic and Commercial Usage

- Use of water efficient plumbing fixtures (ultra flow toilets and urinals, low flow sinks, water efficient dishwashers and washing machines). Water efficient plumbing fixtures uses less water with no marked reduction in quality and service
- Leak detection and repair techniques.
- Sweep with a broom and pan where possible, rather than hose down for external areas.
- Meter water usage: Implies measurement and verification methods.

Monitoring of water uses is a precursor for management.

Horticulture

- Drip irrigation system shall be used for the lawns and other green area. Drip irrigation can save 15-40% of the water, compared with other watering techniques.
- Plants with similar water requirements shall be grouped on common zones to match precipitation heads and emitters.
- Use of low-angle sprinklers for lawn areas.
- Select controllers with adjustable watering schedules and moisture sensors to account for seasonal variations and calibrate them during commissioning.
- Place 3 to 5 inches of mulch on planting beds to minimize evaporation.

Storm Water Management

Most of the storm water produced on site will be harvested for ground water recharge in future. Thus proper management of this resource is a must to ensure that it is free from contamination.

Contamination of Storm Water is possible from the following sources:

- Diesel and oil spills in the diesel power generator and fuel storage area
- Waste spills in the solid / hazardous waste storage area
- Oil spills and leaks in vehicle parking lots

- Silts from soil erosion in gardens

A detailed storm water management plan will be developed which will consider the possible impacts from above sources. The plan will incorporate best management practices which will include following:

- Regular inspection and cleaning of storm drains
- Clarifiers or oil/separators will be installed in all the parking areas. Oil/ grease separators installed around parking areas and garages will be sized according to peak flow guidelines. Both clarifiers and oil/water separators will be periodically pumped in order to keep discharges within limits
- Covered waste storage areas
- Avoid application of pesticides and herbicides before wet season
- Secondary containment and dykes in fuel/oil storage facilities
- Conducting routine inspection to ensure cleanliness
- Provision of slit traps in storm water drains
- Good housekeeping in the above areas

10.2.4 EMP FOR LAND ENVIRONMENT

Construction Phase

The waste generated from construction activity includes construction debris, biomass from land clearing activities, waste from the temporary make shift tents for the labors and hazardous waste. Following section discuss the management of each type of waste. Besides waste generation, management of the topsoil is an important area for which management measures are required.

Construction Debris

Construction debris is bulky and heavy and re-utilization and recycling is an important strategy for management of such waste. As concrete and masonry constitute the majority of waste generated, recycling of this waste by conversion to aggregate can offer benefits of reduced landfill space and reduced extraction of raw material for new construction activity.

This is particularly applicable to the project site as the construction is to be completed in a phased manner.

Mixed debris with high gypsum, plaster, shall not be used as fill, as they are highly susceptible to contamination, and will be send to designated solid waste landfill site.

Metal scrap from structural steel, piping, concrete reinforcement and sheet metal work shall be removed from the site by construction contractors. A significant portion of wood scrap will be reused on site. Recyclable wastes such as plastics, glass fiber insulation, roofing, etc. shall be sold to recyclers.

Hazardous waste

Construction sites are sources of many toxic substances such as paints, solvents wood preservatives, pesticides, adhesives and sealants. Hazardous waste generated during construction phase shall be stored in sealed containers and disposed off as per The Hazardous Wastes (Management, Handling & Trans boundary Movement) Rules, 2016.

Some management practices to be developed are:

- Herbicides and pesticide will not be over applied (small-scale applications) and not applied prior to rain.
- Paintbrushes and equipment for water and oil based paints shall be cleaned within a contained area and will not be allowed to contaminate site soils, water courses or drainage systems.
- Provision of adequate hazardous waste storage facilities. Hazardous waste collection containers will be located as per safety norms and designated hazardous waste storage areas will be away from storm drains or watercourses.
- Segregation of potentially hazardous waste from non-hazardous construction site debris.
- Well labeled all hazardous waste containers with the waste being stored and the date of generation.
- Instruct employees and subcontractors in identification of hazardous and solid waste.

Even with careful management, some of these substances are released into air, soil and water and many are hazardous to workers. With these reasons, the best choice is to avoid their use as much as possible by using low-toxicity substitutes and low VOC (Volatile Organic Compound) materials.

Waste from Temporary Makes Shift Tents for Labors

Wastes generated from temporary make shift labor tents which will be managed by the contractor of the site. The wastewater generated will be channelized to the septic tank.

Top Soil Management

To minimize disruption of soil and for conservation of top soil, the contractor shall keep the top soil cover separately and stockpile it. After the construction activity is over, top soil will be utilized for landscaping activity. Other measures, which would be followed to prevent soil erosion and contamination include:

- Maximize use of organic fertilizer for landscaping and green belt development
- To prevent soil contamination by oil/grease, leaf proof containers would be used for storage and transportation of oil/grease and wash off from the oil/grease handling area shall be drained through impervious drains and treated appropriately before disposal
- Removal of as little vegetation as possible during the development and re-vegetation of bare areas after the project.
- Working in a small area at a point of time (phase wise construction)
- Construction of erosion prevention troughs/berms.

Operational Phase

The philosophy of solid waste management at the proposed complex will be to encouraging the four R's of waste i.e. **R**eduction, **R**euse, **R**ecycling and **R**ecovery (materials & energy). Regular public awareness meetings will be conducted to involve the public in the proper segregation and storage techniques. The Environmental Management Plan for the solid waste focuses on three major components during the life cycle of the waste management

system i.e., collection and transportation, treatment or disposal and closure and post-closure care of treatment/disposal facility.

Collection and Transportation

- During the collection stage, the solid waste of the project will be segregated into biodegradable waste and non-biodegradable. Biodegradable waste and non-biodegradable waste will be collected in separate bins. The recyclable wastes will be sent off to recyclables. Proper guidelines for segregation, collection and storage will be prepared as per MSW Rules, 2016.
- To minimize littering and odour, waste will be stored in well-designed containers/ bins that will be located at strategic locations to minimize disturbance in traffic flow
- Care would be taken such that the collection vehicles are well maintained and generate minimum noise and emissions. During transportation of the waste, it will be covered to avoid littering.

To reduce the quantity of packaging waste, following measures will be adopted:

- Reuse the packaging material as much as possible within the warehouse. For example, sturdy cardboard boxes and pallets can be reused many times around the warehouse before needing to be recycled.
- Ensure that materials are packaged correctly and with an appropriate amount of packaging the first time around.
- Train the warehouse staff on packaging methodology.
- Utilize appropriate filler material to ensure the smallest dimension of packaging can be utilized to protect fragile items.
- Investigate how to incorporate recyclable or degradable content for packaging. For example, cushioning can now be provided with inflatable air packs or corn-based packing, rather than utilizing non-recyclable polystyrene.

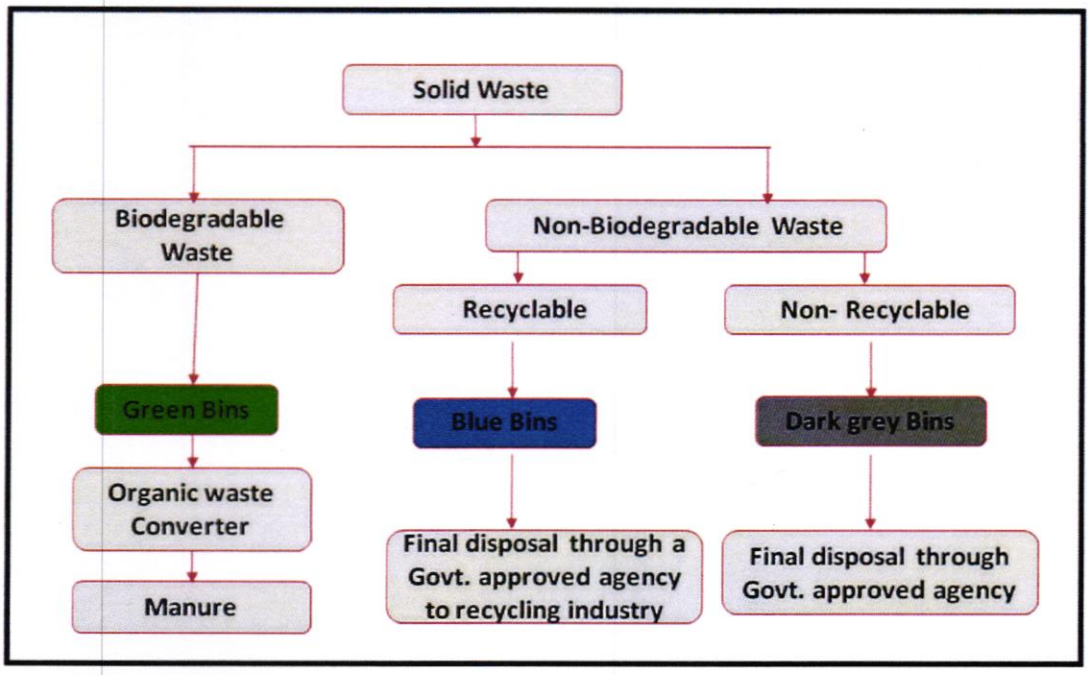


Figure 7: Waste Management Flow Diagram

Disposal

With regards to the disposal/treatment of waste, the management will take the services of the authorized agency for waste management and disposal of the same on the project site during its operational phase.

10.2.5 EMP FOR ECOLOGICAL ENVIRONMENT

Construction activity changes the natural environment. The project requires the implementation of following choices exclusively or in combination.

Construction Stage

- Restriction of construction activities to defined project areas, which are ecologically sensitive
- Restrictions on location of temporary labor tents and offices for project staff near the project area to avoid human induced secondary additional impacts on the flora and fauna species

- Cutting, uprooting, coppicing of trees or small trees if present in and around the project site for cooking, burning or heating purposes by the labors will be prohibited and suitable alternatives for this purpose will be made
- Along with the construction work, the peripheral green belt would be developed with suggested native plant species, as they will grow to a full-fledged covered at the time of completion.

Operation Stage

Improvement of the current ecology of the project site will entail the following measures:

- Plantation and Landscaping
- Green Belt Development
- Park and Avenue Plantation

The section below summarizes the techniques to be applied to achieve the above objectives:

Plantation and landscaping

Selection of the plant species would be done on the basis of their adaptability to the existing geographical conditions and the vegetation composition of the forest type of the region earlier found or currently observed.

Green Belt Development Plan

The plantation matrix adopted for the green belt development includes pit of 0.3 m × 0.3 m size with a spacing of 2 m x 2 m. In addition, earth filling and manure may also be required for the proper nutritional balance and nourishment of the sapling. It is also recommended that the plantation has to be taken up randomly and the landscaping aspects could be taken into consideration.

Peripheral plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. In addition creepers will be planted along the boundary wall to enhance its insulation capacity.

Selection of Plant Species for Green Belt Development

The selection of plant species for the development depends on various factors such as climate, elevation and soil. The plants would exhibit the following desirable characteristics in order to be selected for plantation

1. The species should be fast growing and providing optimum penetrability
2. The species should be wind-firm and deep rooted
3. The species should form a dense canopy
4. As far as possible, the species should be indigenous and locally available
5. Species tolerance to air pollutants like SO_2 and NO_2 should be preferred
6. The species should be permeable to help create air turbulence and mixing within the belt
7. There should be no large gaps for the air to spill through
8. Trees with high foliage density, leaves with larger leaf area and hairy on both the surfaces
9. Ability to withstand conditions like inundation and drought
10. Soil improving plants (Nitrogen fixing rapidly decomposable leaf litter)
11. Attractive appearance with good flowering and fruit bearing
12. Bird and insect attracting tree species
13. Sustainable green cover with minimal maintenance.

10.2.6 EMP for Socio-Economic Environment

The social management plan has been designed to take proactive steps and adopt best practices, which are sensitive to the socio-cultural setting of the region. The Social Management Plan for project focuses on the following components:

- **Income Generation Opportunity during Construction and Operation Phase**

  The project would provide employment opportunity during construction and operation phase. There would also be a wide economic impact in terms of generating opportunities for secondary occupation within and around the complex. The main principles considered for employment and income generation opportunities are out lined below:

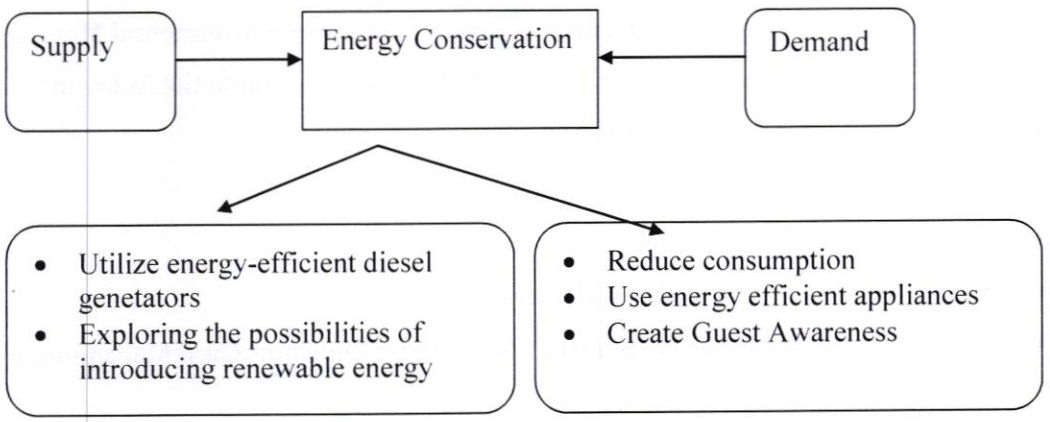
- Employment strategy will provide for preferential employment of local people

- Conditions of employment would address issues like minimum wages and medical care for the workers. Contractors would be required to abide to employment priority towards locals and abide by the labor laws regarding standards on employee terms and conditions.
- Improved Working Environment for Employees

  The project would provide safe and improved working conditions for the workers employed at the facility during construction and operation phase. With the proposed ambience and facilities provided, the complex will provide a new experience in living and recreations. Following measures would be taken to improve the working environment of the area:
- Less use of chemicals and biological agents with hazard potential
- Developing a proper interface between the work and the human resource through a system of skill improvement
- Provision of facilities for nature care and recreation e.g. indoor games facilities
- Measures to reduce the incidence of work related injuries, fatalities and diseases
- Maintenance and beautifications of the complex and the surrounding roads

10.2.7 EMP FOR ENERGY CONSERVATION

Energy conservation program will be implemented through measures taken both on energy demand and supply.



Energy conservation will be one of the main focuses during the complex planning and operation stages. The conservation efforts would consist of the following:

❖ **Architectural design**

- Maximize the use of natural lighting through design.
- The orientation of the buildings will be done in such a way that maximum daylight is available.
- The green areas will be spaced, so that a significant reduction in the temperature can take place.

❖ **Energy Saving Practices**

- Energy efficient lamps will be provided within the complex.
- Constant monitoring of energy consumption and defining targets for energy conservation.
- Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort levels.

❖ **Behavioral Change on Consumption**

- Promoting public awareness on energy conservation
- Training staff on methods of energy conservation and to be vigilant to such opportunities.

10.3 ENVIRONMENTAL MANAGEMENT SYSTEM AND MONITORING PLAN

For the effective and consistent functioning of the complex, an Environmental Management system (EMS) would be established at the site. The EMS would include the following:

- An Environmental management cell.
- Environmental Monitoring.
- Personnel Training.
- Regular Environmental audits and Correction measures.
- Documentation – standards operation procedures Environmental Management Plan and other records.

10.3.1 ENVIRONMENTAL MANAGEMENT CELL

Apart from having an Environmental Management Plan, it is also proposed to have a permanent organizational set up charged with the task of ensuring its effective implementation of mitigation measures and to conduct environmental monitoring. The major duties and responsibilities of Environmental Management Cell shall be as given below:

- To implement the environmental management plan.
- To assure regulatory compliance with all relevant rules and regulations.
- To ensure regular operation and maintenance of pollution control devices.
- To minimize environmental impact of operations as by strict adherence to the EMP.
- To initiate environmental monitoring as per approved schedule.
- Review and interpretation of monitored results and corrective measures in case monitored results are above the specified limit.
- Maintain documentation of good environmental practices and applicable environmental laws for a ready reference.
- Maintain environmental related records.
- Coordination with regulatory agencies, external consultants, monitoring laboratories.
- Maintenance of log of public complaints and the action taken.

Hierarchical Structure of Environmental Management Cell

Normal activities of the EMP cell would be supervised by a dedicated person who will report to the site manager/coordinator of the Industrial Plotted Colony Project. The hierarchical structure of suggested Environmental Management Cell is given in following **Figure 8.**

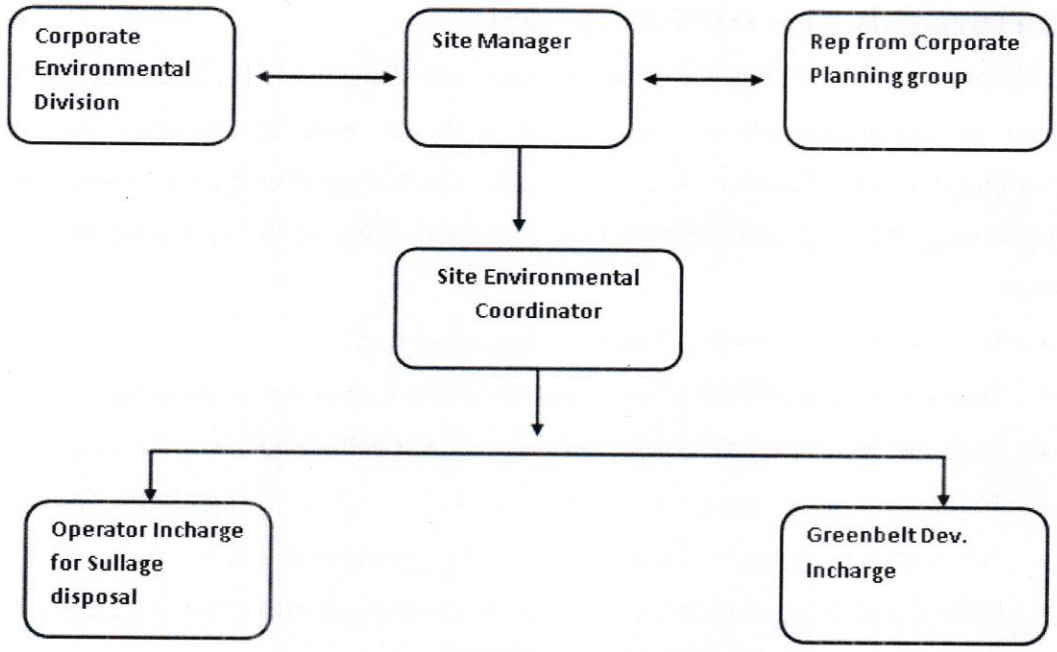


Figure 8: Environnent Management Cell Structure

10.3.2 ENVIRONMENTAL MONITORING

The purpose of environmental monitoring is to evaluate the effectiveness of implementation of Environmental Management Plan (EMP) by periodic monitoring. The important environmental parameters within the impact area are selected so that any adverse effects are detected and time action can be taken. The project proponent will monitor ambient air Quality, Ground Water Quality and Quantity, and Soil Quality in accordance with an approved monitoring schedule.

Table 9: Suggested Monitoring Program for Project

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality	Project Site	Criteria Pollutants: SO_2, NO2, PM10, PM2.5, CO	Twice in a Year as per EIA Notification 2006.
2.	Groundwater (Portability	Project site	Drinking water parameters as per IS	Twice in a Year as per EIA Notification 2006

	testing)		10500.	
3.	Ambient Noise	Project site	dB (A) levels	Twice in a Year as per EIA Notification 2006
4.	Soil quality	Project site	Organic matter, C.H., N, Alkalinity, Acidity, heavy metals and trace metal, Alkalinity, Acidity.	Twice in a Year as per EIA Notification 2006
5.	Waste Characterization	Commercial	Physical and Chemical composition	Twice in a Year as per EIA Notification 2006

10.3.3 Awareness and Training

Training and human resource development is an important link to achieve sustainable operation of the facility and environment management. For successful functioning of the project, relevant EMP would be communicated to:

Contractors

Contractors must be made aware of the importance of waste segregation and disposal, water and energy conservation. The awareness can be provided by periodic Integrated Society meetings. They would be informed of their duties.

10.3.4 Environmental Audits and Corrective Action Plans

To assess whether the implemented EMP is adequate, periodic environmental audits will be conducted by the project proponent's Environmental division. These audits will be followed by Correction Action Plan (CAP) to correct various issues identified during the audits.

- Cutting, uprooting, coppicing of trees or small trees if present in and around the project site for cooking, burning or heating purposes by the labors will be prohibited and suitable alternatives for this purpose will be made
- Along with the construction work, the peripheral green belt would be developed with suggested native plant species, as they will grow to a full-fledged covered at the time of completion.

Operation Stage

Improvement of the current ecology of the project site will entail the following measures:

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Peripheral plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. In addition creepers will be planted along the boundary wall to enhance its insulation capacity.

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10. Soil improving plants (Nitrogen fixing rapidly decomposable leaf litter)
11. Attractive appearance with good flowering and fruit bearing
12. Bird and insect attracting tree species
13. Sustainable green cover with minimal maintenance.

10.2.6 EMP for Socio-Economic Environment

The social management plan has been designed to take proactive steps and adopt best practices, which are sensitive to the socio-cultural setting of the region. The Social Management Plan for project focuses on the following components:

- **Income Generation Opportunity during Construction and Operation Phase**

  The project would provide employment opportunity during construction and operation phase. There would also be a wide economic impact in terms of generating opportunities for secondary occupation within and around the complex. The main principles considered for employment and income generation opportunities are out lined below:

- Employment strategy will provide for preferential employment of local people

- Conditions of employment would address issues like minimum wages and medical care for the workers. Contractors would be required to abide to employment priority towards locals and abide by the labor laws regarding standards on employee terms and conditions.
- Improved Working Environment for Employees

  The project would provide safe and improved working conditions for the workers employed at the facility during construction and operation phase. With the proposed ambience and facilities provided, the complex will provide a new experience in living and recreations. Following measures would be taken to improve the working environment of the area:
- Less use of chemicals and biological agents with hazard potential
- Developing a proper interface between the work and the human resource through a system of skill improvement
- Provision of facilities for nature care and recreation e.g. indoor games facilities
- Measures to reduce the incidence of work related injuries, fatalities and diseases
- Maintenance and beautifications of the complex and the surrounding roads

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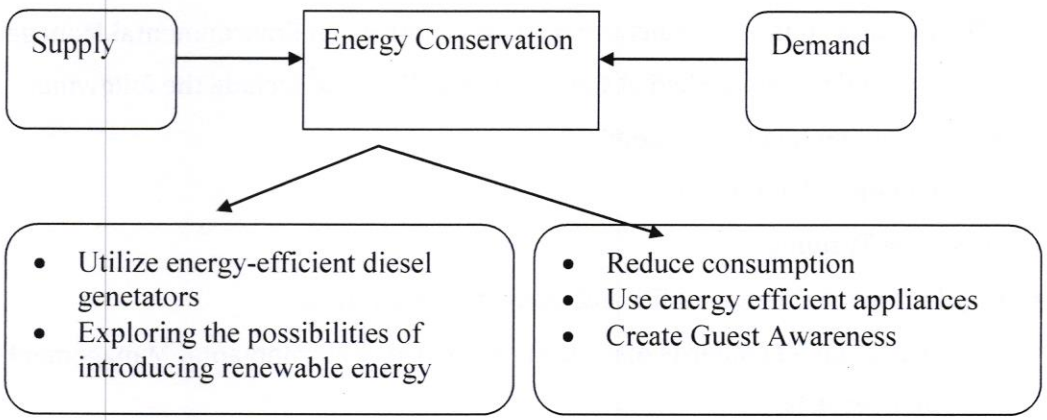
Energy conservation program will be implemented through measures taken both on energy demand and supply.



Energy conservation will be one of the main focuses during the complex planning and operation stages. The conservation efforts would consist of the following:

❖ **Architectural design**

- Maximize the use of natural lighting through design.
- The orientation of the buildings will be done in such a way that maximum daylight is available.
- The green areas will be spaced, so that a significant reduction in the temperature can take place.

❖ **Energy Saving Practices**

- Energy efficient lamps will be provided within the complex.
- Constant monitoring of energy consumption and defining targets for energy conservation.
- Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort levels.

❖ **Behavioral Change on Consumption**

- Promoting public awareness on energy conservation
- Training staff on methods of energy conservation and to be vigilant to such opportunities.

10.3 ENVIRONMENTAL MANAGEMENT SYSTEM AND MONITORING PLAN

For the effective and consistent functioning of the complex, an Environmental Management system (EMS) would be established at the site. The EMS would include the following:

- An Environmental management cell.
- Environmental Monitoring.
- Personnel Training.
- Regular Environmental audits and Correction measures.
- Documentation – standards operation procedures Environmental Management Plan and other records.

10.3.1 ENVIRONMENTAL MANAGEMENT CELL

Apart from having an Environmental Management Plan, it is also proposed to have a permanent organizational set up charged with the task of ensuring its effective implementation of mitigation measures and to conduct environmental monitoring. The major duties and responsibilities of Environmental Management Cell shall be as given below:

- To implement the environmental management plan.
- To assure regulatory compliance with all relevant rules and regulations.
- To ensure regular operation and maintenance of pollution control devices.
- To minimize environmental impact of operations as by strict adherence to the EMP.
- To initiate environmental monitoring as per approved schedule.
- Review and interpretation of monitored results and corrective measures in case monitored results are above the specified limit.
- Maintain documentation of good environmental practices and applicable environmental laws for a ready reference.
- Maintain environmental related records.
- Coordination with regulatory agencies, external consultants, monitoring laboratories.
- Maintenance of log of public complaints and the action taken.

Hierarchical Structure of Environmental Management Cell

Normal activities of the EMP cell would be supervised by a dedicated person who will report to the site manager/coordinator of the Industrial Plotted Colony Project. The hierarchical structure of suggested Environmental Management Cell is given in following **Figure 8.**

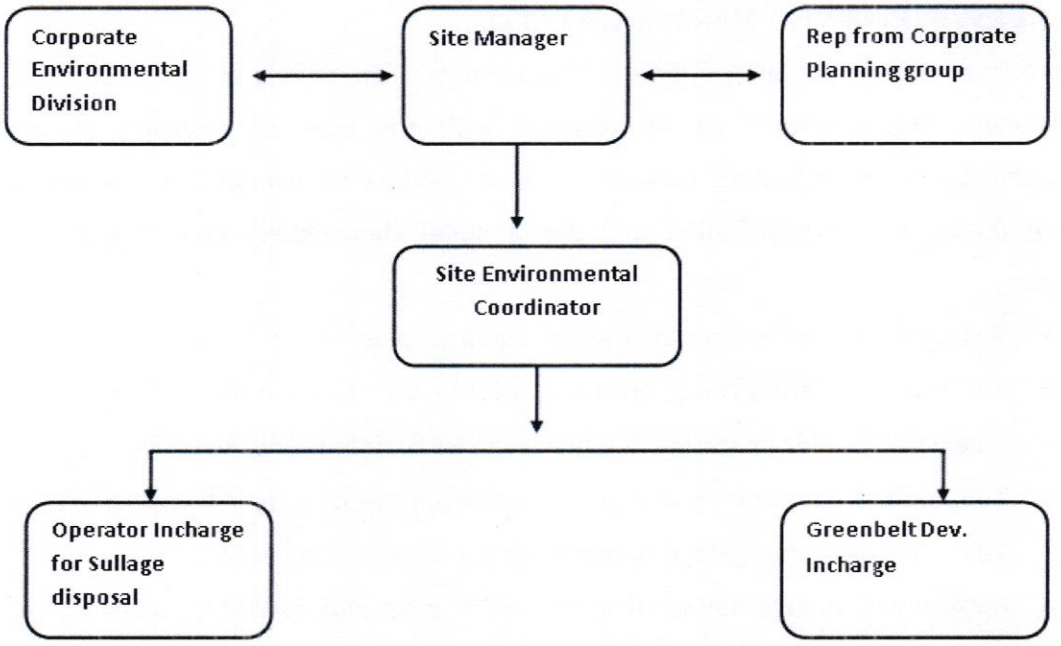


Figure 8: Environnent Management Cell Structure

10.3.2 ENVIRONMENTAL MONITORING

The purpose of environmental monitoring is to evaluate the effectiveness of implementation of Environmental Management Plan (EMP) by periodic monitoring. The important environmental parameters within the impact area are selected so that any adverse effects are detected and time action can be taken. The project proponent will monitor ambient air Quality, Ground Water Quality and Quantity, and Soil Quality in accordance with an approved monitoring schedule.

Table 9: Suggested Monitoring Program for Project

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality	Project Site	Criteria Pollutants: SO_2, NO2, PM10, PM2.5, CO	Twice in a Year as per EIA Notification 2006.
2.	Groundwater (Portability	Project site	Drinking water parameters as per IS	Twice in a Year as per EIA Notification 2006

	testing)		10500.	
3.	Ambient Noise	Project site	dB (A) levels	Twice in a Year as per EIA Notification 2006
4.	Soil quality	Project site	Organic matter, C.H., N, Alkalinity, Acidity, heavy metals and trace metal, Alkalinity, Acidity.	Twice in a Year as per EIA Notification 2006
5.	Waste Characterization	Commercial	Physical and Chemical composition	Twice in a Year as per EIA Notification 2006

10.3.3 Awareness and Training

Training and human resource development is an important link to achieve sustainable operation of the facility and environment management. For successful functioning of the project, relevant EMP would be communicated to:

Contractors

Contractors must be made aware of the importance of waste segregation and disposal, water and energy conservation. The awareness can be provided by periodic Integrated Society meetings. They would be informed of their duties.

10.3.4 Environmental Audits and Corrective Action Plans

To assess whether the implemented EMP is adequate, periodic environmental audits will be conducted by the project proponent's Environmental division. These audits will be followed by Correction Action Plan (CAP) to correct various issues identified during the audits.

CONCEPTUAL PLAN

w.r.t.

INDUSTRIAL PLOTTED COLONY PROJECT

At

Village- Shidrawali, Tehsil- Manesar, District- Gurugram, Haryana

Project Proponent:

M/s Signatureglobal India Limited

Schedule: 8(b), Category: B1

Proposed Built-up Area = 7, 24,895.645 m²

Submission Period: August, 2024

QCI Certificate no. NABET/EIA/21-24/SA 0211

Validity Extension letter no. QCI/NABET/ENV/ACO/24/3338

ENVIRONMENT CONSULTANT:

GRASS ROOTS RESEARCH & CREATION INDIA (P) LTD.

QCI Certificate no. NABET/EIA/2124/SA0211

(Accredited by QCI/NABET, Approved by MoEFCC, GoI, ISO 9001:2015 Certified Co.)

F-374-375, Sector-63, Noida, U.P.

Ph.: 0120- 4044630, Telefax: 0120- 2406519

Email: md@grc-india.com,eia@grc-india.com

Website: http://www.grc-india.com

GRC INDIA TRAINING & ANALYTICAL LABORATORY

(Accredited by NABL, Recognized by MoEF&CC, GoI)

A unit of GRC India

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Signature Global India Ltd.

CONCEPTUAL PLAN

INTRODUCTION

The Industrial Plotted Colony Project is to be developed by M/s Signatureglobal India Limited. The project site is located at Village- Shidrawali, Tehsil Manesar, District-Gurugram, Haryana on a land measuring 135.7250 acres.

The company has vast experience in planning and construction of Industrial Parks. We will propose Category B industries. The project facilities include:

- Industrial Plotted Development
- Residential Plotted Development
- Community facilities
- Commercial Plots

SITE LOCATION AND SURROUNDINGS

The project site is located at Village-Shidrawali, Tehsil Manesar, Gurugram, Haryana. The Geographical coordinates of the project are 28° 14' 46.93' N and 76° 49' 29.40' E.

CONNECTIVITY

The Nearest Highway is NH-48 which is adjacent to the 8.7 km site in North west direction, SH-28 is 0.58 km towards SW direction, SH-25 which is 4.1 km (S), NH-919 is 3.8 km towards S direction, Western Peripheral Expressway is 8.7 km towards NE direction, MDR 132 is 5.1km towards NE direction, & NH-352W which is 9.8 km (S) direction away from project site.

The nearest railway station being Inchhapuri Railway Station is about 12.6 km (NW) away from the project site.

The nearest Airport is Indira Gandhi International Airport 40 km (NE) from the project site.

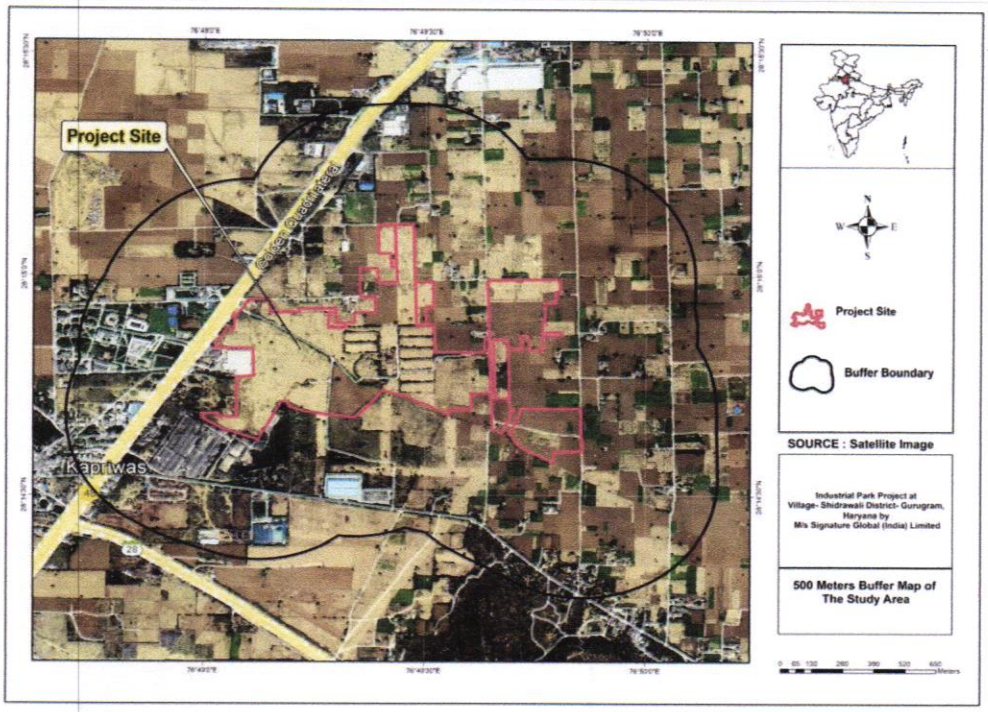

Fig.1: 500 m Radius Map

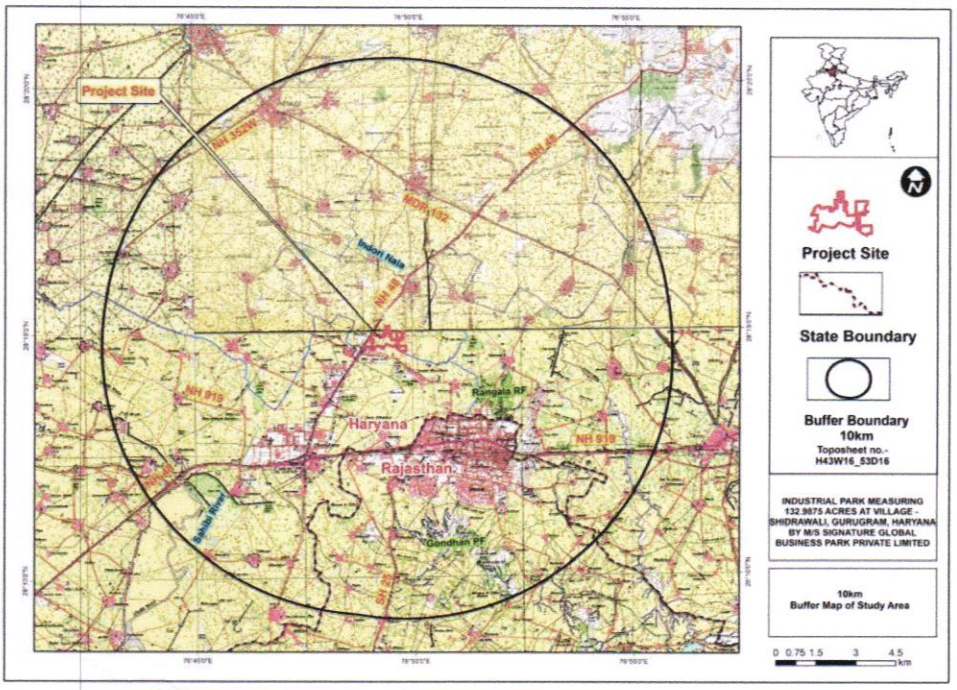

Fig. 2: SoI Toposheet Showing 10 km radius

PROJECT COST

The Total Cost of the proposed project will be INR 1593.7 Crore including the land and development cost.

LANDFORM, LANDUSE AND OWNERSHIP DETAILS

Total land is 135.7250 acres, and the Land has been allotted by Directorate of Town and Country Planning, Haryana to M/s Signatureglobal (India Limited to set-up Industrial Park.

The land use break-up of site is provided below in Table 1.

Table 1: Land use break-up of Site

S. No	Description	Area (acre)	Area (m^2)	Percentage of Net planned area (%)
1	Area under Industrial Plots	45.537	1,84,280.882	33.55
2	Area under DDJAY Residential Component	31.490	1,27,433.845	23.02
3	Area under Commercial Plots	1.903	7701.339	1.402
4	Area under Road/Road widening/Open/Green /Public Facilities etc	56.795	2,29,842.913	41.84
	Total land area	135.7250	**5,49,258.716**	**100**

AREA STATEMENT

The total area of the site is **5,49,258.716** m^2 (135.7250 acre). The detailed area statement is provided below in Table 2:

Table 2: Detailed Area Statement

S. No.	Particulars	Area (in m^2)
1.	**Total Licensed area**	**5,49,258.716**
2	Area under Road (Delhi –Jaipur Road) Widening	10,194.015
3	Area under proposed Green Belt of Delhi –Jaipur Road (considering 60 m wide on either side)	13677.139
4	Area under green belts of RRTS (considering 20m on either side)	5293.280
5.	Total area to be deducted (2+3+4)	29,164.434
6.	**Balance area (1-5)**	**5,20,094.282**
7.	**50% benefit of area under road** (Delhi –Jaipur Road) Widening, Green Belt of Delhi –Jaipur Road & green belts of	**11,935.577**

	RRTS	
8.	**Net Area (6+7)**	**5,32,029.859**
9.	Area under undetermined use	5,516.641
10.	**Net Planned area (8-9)**	**5,26,513.219**
11.	**Proposed Area under plots**	**319,416.066**
	• Area under Industrial Plots	1,84,280.882
	• Area under Residential plots	1,27,433.845
	• Area under Commercial plots	7701.339
12.	**Total Permissible FAR**	**5,78,220.453**
	• Industrial Permissible FAR (1.250)	2,30,351.102
	• Commercial Permissible FAR (4.2857/Plot)	11,417
	• Residential Permissible FAR (2.64)	3,36,452.351
13.	**Total Proposed FAR**	**5,78,220.453**
	• Industrial FAR	2,30,351.102
	• Commercial FAR	11,417
	• Residential FAR	3,36,452.351
14.	NON-FAR Area	**1,46,675.192**
15.	**Total Built up area**	**7,24,895.645**
16.	**Green Area (7.073% of Plot area)**	**37,241.664**
	❖ Green Area under DDJAY	14942.433
	❖ Green Area under Green Belt	13677.139
	❖ Green Area Metro/RRTS Green Belt	5293.280

POPULATION DENSITY

The total population of the project will be 61,489 persons. The detailed population break-up is given in Table 3:

Table 3(a): Population Break-up for Residential Population

S. No.	Description	Total no. of floors per plot	DUs/FAR (sqm)	PPU	Total Population
A.	**Residential plots (Type 1)**				
1.	Residential plots	4	285	18	5130

2.	Visitor's	10% of Residential population			513
3.	Staff (Operation & Maintenance)				200
B.	**Residential plots (Type 2)**				
4.	Residential plot Population	4	677	18	12186
5.	Visitor's	10% of Residential population			1219
6.	Staff (Operation & Maintenance)				200
	Grand Total of Residential Population				**19,448**

Table 3(b): Population Break-up for Community buildings, Commercial & Population

S. No.	Description	Area (m^2)	PPU/ Person/m^2 FAR	Total Population
C.	**Community Building -1**			
7.	**Community Building Population**	9351.919	1.4	**6680**
8.	**Staff**	10% of Community Building 1 population		668
9.	**Visitors**	90% of Community Building 1 population		6012
D.	**Community Building -2**			
10.	**Community Building Population**	10290.508	1.4	**7351**
11.	**Staff**	10% of Community Building 2 population		736
12.	**Visitors**	90% of Community Building 2 population		6615
	Total Community buildings population			**14,031**
E.	**Commercial Building**			
13.	**Retail Shops (Ground Floor)**	4,566.8	(@ 1 Person/3 m^2)	**1522**
	• Staff	(@10% of the Retail shop population)		152
	• Visitors	(@90% of the Retail shop		1370

		population)		
14.	**Retail Shops (Above Floors)**	6,850.2	(@ 1 Person/6m²)	**1142**
	• Staff	(@10% of the Retail shop population)		114
	• Visitors	(@90% of the Retail shop population)		1028
	Total Commercial building population			**2664**
	Grand total of Community buildings & Commercial buildings population			**16,695**

Table 3(c): Population Break-up for Industrial Population

S. No.	Description	Area (m²)	PPU/ Person/m² FAR	Total Population
F.	**Industrial Plots**			
	Industrial plots population	2,30,351.102	(@ 1 Person/10 m²)	23,035
	Visitors	10% of Industrial plots population		2303
	Total Industrial plots population			**25,338**

WATER REQUIREMENT & SUPPLY SYSTEM

During the Construction Phase the Source of water will be Ground water. During operation phase, the source of water supply will be GMDA. The total water requirement for the project will be approx. 3475 KLD.

The domestic water demand for Residential (Type 1 & 2), Community Buildings, Commercial Buildings, & industrial Plots is 2905 KLD. The freshwater requirement for Residential (Type1 &2), Community Buildings, Commercial Buildings, & industrial Plots will be 1943 KLD. However, one-time freshwater demand for the project will be 3475 KLD.

The calculation of daily water requirement and wastewater is given below in Table 4 to 7 respectively.

Table 4: Calculations for Daily Water Demand

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	**Domestic Water for Residential plots (Type 1)**						

	Residential plots	5130	@ 65 lpcd	@ 21 lpcd	333	108	441
	• Staff	200	@25 lpcd	@20 lpcd	5	4	9
	• Visitors	513	@ 10 lpcd	@5 lpcd	5	3	8
					343 KLD	**115 KLD**	**458 KLD**
	Total Domestic Water= 458 KLD						
B.	**Domestic Water for Residential plots (Type 2), Community buildings, & Commercial buildings**						
	Residential plots (Type 2)	12186	@ 65 lpcd	@ 21 lpcd	792	256	1048
	• Staff (for Community buildings, Operation & Maintenance for residential plots (type 2) & Commercial building)	1870	@25 lpcd	@20 lpcd	47	37	84
	• Visitors (for Community buildings, Residential Plots, & Commercial building)	16,244	@ 10 lpcd	@5 lpcd	162	81	243
					1001 KLD	**374 KLD**	**1375 KLD**
Total Domestic Water for Residential plots (Type 2), Community buildings & Commercial Buildings = 1375 KLD							
C.	**Domestic Water for Industrial plots**						
	• Industrial Plots	23,035	@25 lpcd	@20 lpcd	576	461	1037
	• Visitors (for Industrial	2303	@ 10 lpcd	@5 lpcd	23	12	35

	plots)						
					599 KLD	**473 KLD**	**1072 KLD**
	Total Domestic Water for Industrial plots						**1072 KLD**
D.	**Horticulture**	37,241.664 m^2	3 l/sqm		112 KLD		
Grand Total (A+B +C+D) 3,475 KLD							

Table 5: Wastewater Calculation for Residential plots (Type 1)

Domestic Water	**458 KLD**
• Fresh water	343 KLD
• Flushing water	115 KLD
Waste water [@80% fresh + 100% flushing]	274.4 +115 = **389 KLD**
STP Capacity	500 KLD

Table 6: Wastewater Calculation for Residential plots (Type 2), Community buildings, & Commercial buildings

Domestic Water	**1375 KLD**
• Fresh water	1001 KLD
• Flushing water	374 KLD
Waste water [@80% fresh + 100% flushing]	801 + 374= **1175 KLD**
STP Capacity	1410 KLD

Table 7: Wastewater Calculation for Industrial plots

Domestic Water	**1072 KLD**
• Fresh water	599 KLD
• Flushing water	473 KLD
Waste water [@80% fresh + 100% flushing]	479 + 473= **952 KLD**
STP Capacity	1150 KLD

WASTE WATER & TREATEMENT

Approx. 2516 KLD wastewater will be generated from the **Residential plots (Type 1 & 2), Community buildings, Commercial buildings & Industrial plots**. Wastewater will be treated in an in-house STP of total capacity 3060 KLD (500 KLD +1410 KLD +1150 KLD).

STP 1 [For Residential plots (Type 1)]: 500KLD

STP 2 [For Residential plots (Type 2), Community buildings, & Commercial buildings]: 1410 KLD

STP 3 [For Industrial plot]:1150 KLD

Treated wastewater will be used for flushing and horticulture and remaining water will discharge to External sewer.

Water balance diagram for summer, monsoon & winter season is presented below:

— 476 —

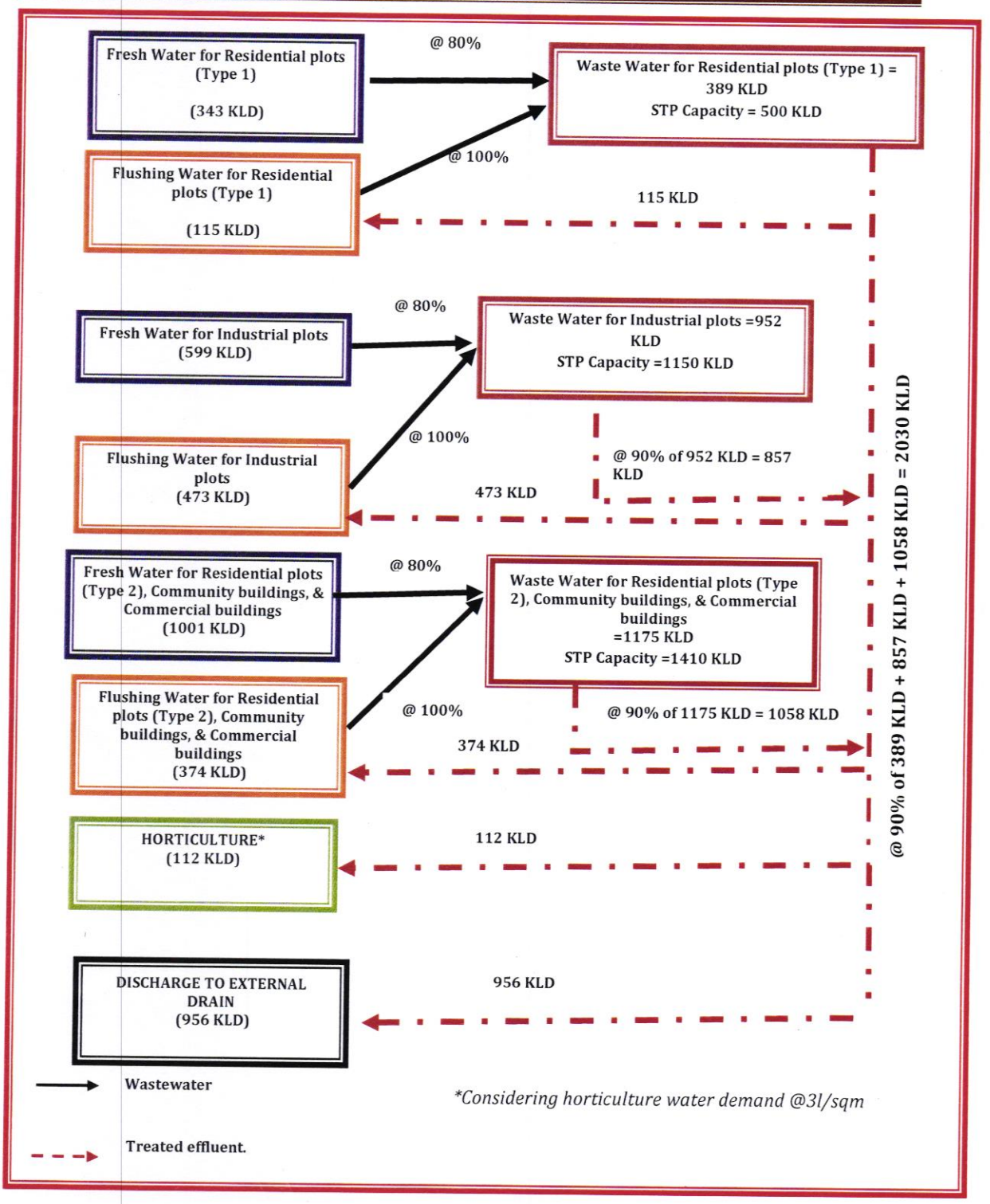

Figure 3: Water Balance Diagram (Summer Season)

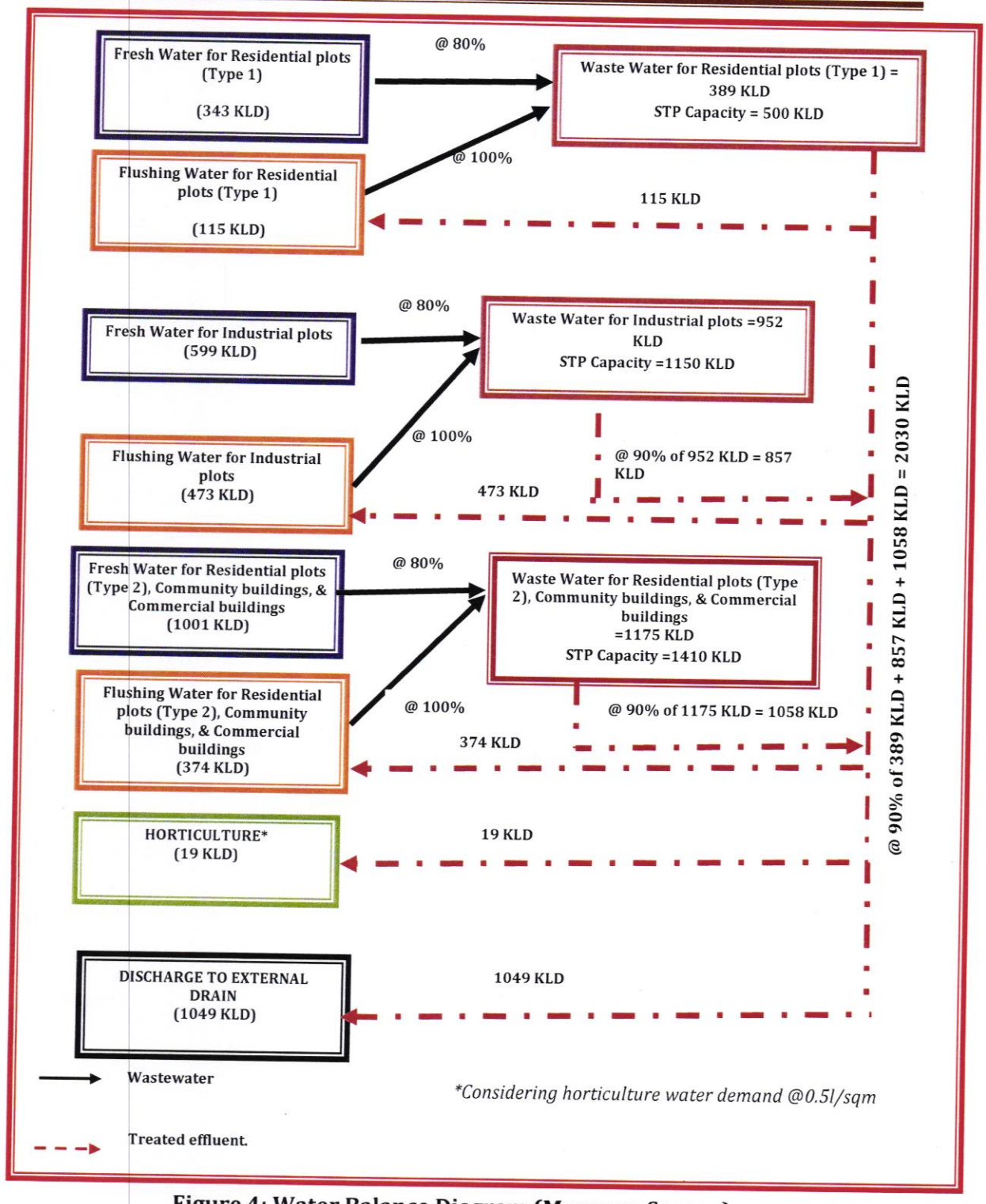

Figure 4: Water Balance Diagram (Monsoon Season)

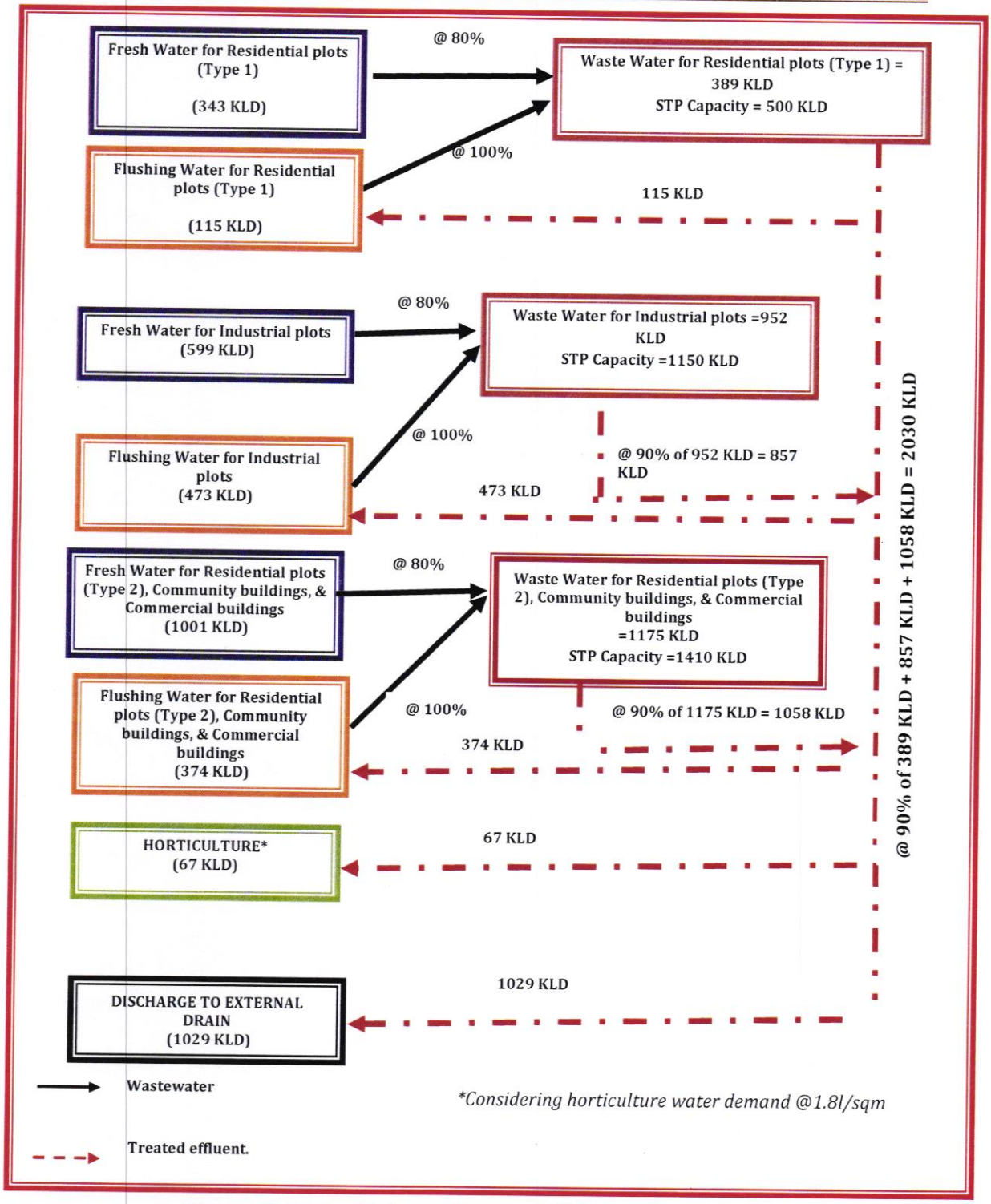

Figure 5: Water Balance Diagram (Winter Season)

SEWAGE TREATMENT PLANT

MBBR TECHNOLOGY

An external sewage network shall collect the sewage from all units, and flow by gravity to the sewage treatment plant.

Following are the benefits of providing the Sewage Treatment Plant in the present circumstances:

- The process has long retention time and can absorb shock load situation.
- Reduced net daily water requirements, source for Flushing and Horticultural purposes by utilization of the treated waste water.
- Reduced dependence on the public utilities for water supply and sewerage systems.
- The process produces a well-oxidized sludge in small quantities only, which can be removed and used as manure.

a. Wastewater Details

(a)	Daily load	:	2516 KLD
(b)	Duration of flow to STP	:	24 hours
(c)	Temperature	:	Maximum 32°C
(d)	pH	:	6.5-8.5
(e)	Colour	:	Mild
(f)	T.S.S. (mg/l)	:	250-400 mg/l
(g)	BOD_5 (mg/l)	:	300-400 mg/l
(h)	COD (mg/l)	:	600-700 mg/l

b. Treated effluent

(a)	pH	:	6.0 to 8.5
(b)	B.O.D.	:	<10 mg/l
(c)	C.O.D.	:	<30 mg/l
(d)	Total Suspended Solids	:	<20mg/l

c. Treatment Technology

MBBR TECHNOLOGY

Moving bed biofilm reactor technology is based on the principle of attached growth process. Raw sewage will be collected under gravity into the equalization tank after allowing to pass through the bar screen. Screens will be provided in screen chambers and it will be manually cleaned by going down to a platform. The bar screen, by removing coarse solids from the sewage help in protecting the raw sewage pump.

Fully submersible centrifugal non clog sewage handling pump will be provided in the collection cum equalization tank to pump the collected waste water to the next MBBR tanks. Automatic level controller will be provided in the tank to turn the pump off at the low water level in the tank and to start the pump when water level is high automatically. Air will be introduced in this tank to prevent any potential foul smell problem & to provide the mixing of wastewater to avoid the sedimentation of solids in this tank. Air Grid used for aeration purpose shall be non-clog.

The sewage collected in equalization tank is pumped the moving bed bioreactor. There shall be two nos. of bioreactors in series for the efficient working and removal of BODs for the required retention time. The process inside the moving bed bioreactors consists of adding small cylindrical-shaped polyethylene/polypropylene carrier elements in aerated basins to support biofilm growth. The small cylinders are provided with a cross inside the cylinder and longitudinal fins on the outside. The biofilm carriers are maintained in the reactor by the use of a perforated plate with appropriate slot at the tank outlet. Air agitation or mixers are applied in a manner to continuously circulate the packing. The packing may fill 25 to 50 percent of the tank volume. Specific surface area of the packing is about 450-500m^2/m^3 of bulk packing volume. The waste water from first bioreactor flows by gravity through the perforated plate/mesh to the next bioreactor kept in series. Inside the bioreactors, aerobic bacteria grow in an attached growth from around the moving plastic media inside the reactors. The bacteria have to reduce BOD & COD of waste water in the presence of oxygen provided through the air

grids located at the bottom of the reactors. The Process does not require any return activated sludge flow or backwashing.

From the bio-reactors, the effluent passes by gravity into the clarifier (Tube Settling Tank). Clarifier will be a hopper bottom sedimentation tank provided with appropriate size PVC tube deck media. The suspended solids will settle at the bottom of the tank & clear supernatant will overflow to filter feed tank through outlet launder. The collected sludge at bottom shall be transferred through pumps to sludge holding tank.

The clear supernatant after clarifier will be collected in to filter feed tank. This tank will act as housing tank for filter feed pumps. The clarified & dis-infected water will be then fed to filtration unit.

Filtration unit consisting of Dual Media sand filter, activated carbon filter and ultra-filtration system (optional) will remove the residual impurities such as odor/color, suspended solids, BOD/COD. The treated water after the filtration unit will be collected in Irrigation cum Flushing water storage tank from where it is transferred to flushing water tank at terrace & Irrigation System.

Excess sludge from the bottom of the settling tank will be removed and transferred to sludge holding tank. Air grid shall be provided in this tank to avoid conversion into anaerobic conditions, thickening of sludge and keep sludge in homogenous condition. The digested & thickened sludge shall be further thickened through Sludge Dewatering System (Filter press with screw pump) and disposed-off periodically through closed tanker or can be reused as manure.

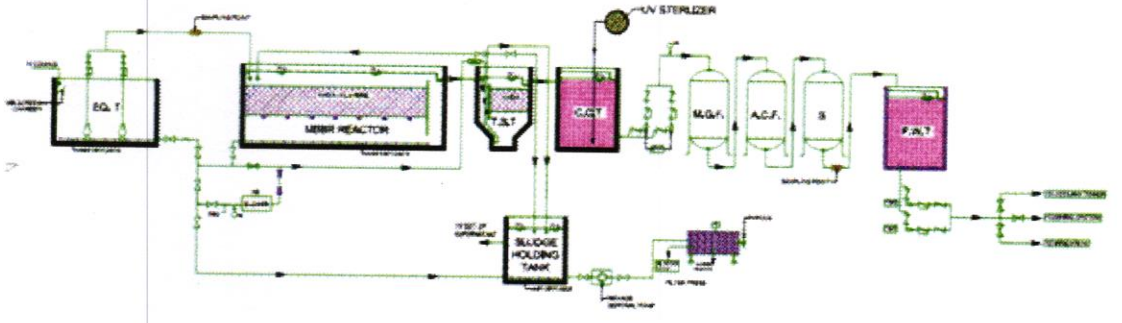

Figure 6: Schematic Diagrams for STP Based on MBBR Technology

RAINWATER HARVESTING

The storm water collection system for the premises shall be self-sufficient to avoid any collection/stagnation and flooding of water. The amount of storm water run-off depends upon many factors such as intensity and duration of precipitation, characteristics of the tributary area and the time required for such flow to reach the drains. The drains shall be located near the carriageway along either side of the roads. Taking advantage of road camber, the rainfall run off from roads shall flow towards the drains. Storm water from various plots/shall be connected to adjacent drain by a pipe through catch basins. Therefore, it has been calculated to provide 65 rainwater harvesting pits at selected locations, which will catch the maximum run-off from the site.

1) Since the existing topography is congenial to surface disposal, a network of storm water pipe drains is planned adjacent to roads. All building roof water will be brought down through rainwater pipes.
2) Proposed storm water system consists of pipe drain, catch basins and seepage pits at regular intervals for rainwater harvesting and ground water recharging.
3) The peak hourly rainfall of 45 mm/hr shall be considered for designing the storm water drainage system.

Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 45 mm/hr. The recharge pit of 2.5m diameter and 4 m depth is constructed for recharging the water. Inside the recharge pit, a recharge bore is constructed having adequate diameter and depth. The bottom of the recharge structure will be kept 5 m above this level. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Design specifications of the rainwater harvesting plan are as follows:

- Catchments/roofs would be accessible for regular cleaning.
- The roof will have a smooth, hard and dense surface which is less likely to be damaged allowing the release of material into the water. Roof painting has been avoided since most paints contain toxic substances and may peel off.
- All gutter ends will be fitted with a wire mesh screen and a first flush device would be installed. Most of the debris carried by the water from the rooftop like leaves, plastic bags and paper pieces will get arrested by the mesh at the terrace outlet and to prevent contamination by ensuring that the runoff from the first 20 minutes of rainfall is flushed off.
- No sewage or wastewater would be admitted into the system.
- No wastewater from areas likely to have oil, grease, or other pollutants has been connected to the system.

Calculations for storm water load:

Green Area = 37,241.664m^2

Paved Area = 1,69,855.489m^2
Mean monthly rainfall for District as per IMD = 45 mm
Run-off from Green area = 37,241.664 x 0.045 x 0.20
= 335.174m^3
Run-off from Paved area = 1, 69,855.489 x 0.045 x 0.70
= 5,350.447m^3
Total runoff load from green and paved area = 335.174 + 5,350.447**= 5,685.621m^3**
Taking 20 minutes Retention Time, Total volume of storm water = 5,685.621/3
= 1,895.207m^3
Taking the effective diameter and depth of a Recharge pit 2.5m and 4 m respectively,
Volume of a single Recharge pit = $\pi r^2 h$ = 3.14 × 1.25× 1.25× 4= 29 m^3
Hence No. of pits required = 1,895.207/29 = 65 pits
A total of 65 no. of pits proposed for artificial ground water recharge.

PARKING FACILITIES

Adequate provision will be made for car/vehicle parking at the project site. There shall also be adequate parking provisions for visitors so as not to disturb the traffic and allow smooth movement at the site.
For plotted development the parking shall be within the plots by the individual plot owners.

POWER REQUIREMENT

The power shall be supplied by the State Electricity Board. The maximum load demand for the project will be approx. 12,883 KW.

Details of D.G Sets
There is provision of 2no. of DG set of total capacity 1100kVA for Commercial Facility which includes 1 x 750kVA +1x 350 kVA and 2no. of DG set of total capacity 1750 kVA for Common Services which includes 1 x 750kVA +1x 1000 kVA are proposed for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

SOLID WASTE GENERATION

Solid waste would be generated both during the construction as well as operation phase. The solid waste expected to be generated during the construction phase will comprise of

excavated materials, used bags, bricks, concrete, MS rods, tiles, wood etc. The following steps are proposed to be followed for the management solid waste:

- Construction yards are proposed for storage of construction materials.
- The excavated material such as topsoil and stones will be stacked for reuse during later stages of construction.
- Excavated topsoil will be stored in a temporarily constructed soil bank and will be reused for landscaping of the group housing project.
- Remaining soil shall be utilized for refilling / road work / rising of site level at locations/ selling to outside agency for construction of roads etc.

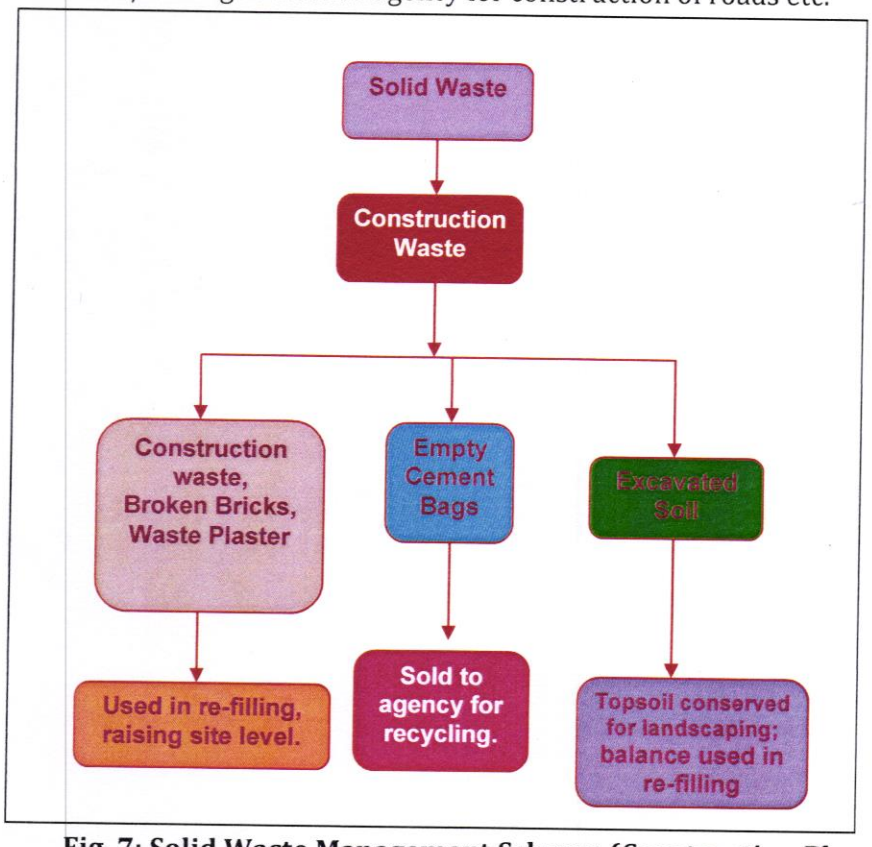

Fig. 7: Solid Waste Management Scheme (Construction Phase)

During the operation phase, approx. 18,139 kg/day of domestic waste will be generated. Calculation for domestic solid waste is provided in table below:

Table 8: Daily Solid Waste Generation

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1.	**Domestic Solid Waste for Residential plots**			
	• Residential plots	17316	0.5	8658

2.	**Domestic Solid Waste for Industrial plots**			
	• Industrial Plots	23035	0.25	5759
3.	Staff (Residential Maintenance, Community, Commercial, & Industrial)	2070	0.25	518
4.	Visitors(Residential, Community, Commercial, & Industrial)	19060	0.15	2,859
5.	Horticultural Waste (9.20 acres)	@ 0.2 kg/acre/day		1.84
6.	STP Sludge	Sludge generated x 0.35 x B.O.D difference/1000		343.434
Total Solid Waste Generation = 18,139kg/day				

Following arrangements will be made at the site in accordance to Solid Waste Management Rules, 2016:

❖ **Collection and Segregation of waste**

1. Door to door collection system will be provided for collection of domestic waste.
2. Separate colored bins will be provided for Dry recyclable and Bio-Degradable waste.
3. Local vendor will be hired for collection and disposal of waste.
4. Litter bin will also be provided in open areas like parks etc.

❖ **Treatment of waste**

- Bio-Degradable waste

1. Bio-degradable waste will be subjected to composting by organic waste converter and the compost will be used as manure.
2. STP sludge is proposed to be used for horticultural purposes as manure.
3. Horticultural Waste is proposed to be composted and will be used for gardening purposes.

- Recyclable waste

i. Grass Recycling – The cropped grass will be spread on the green area. It will act as manure after decomposition.

ii. Recyclable waste like paper, plastic, metals etc. will be sold off to recyclers.

❖ **Disposal**

Recyclable and non-recyclable waste will be disposed of through a local agency. Solid waste management scheme is depicted in the following figure:

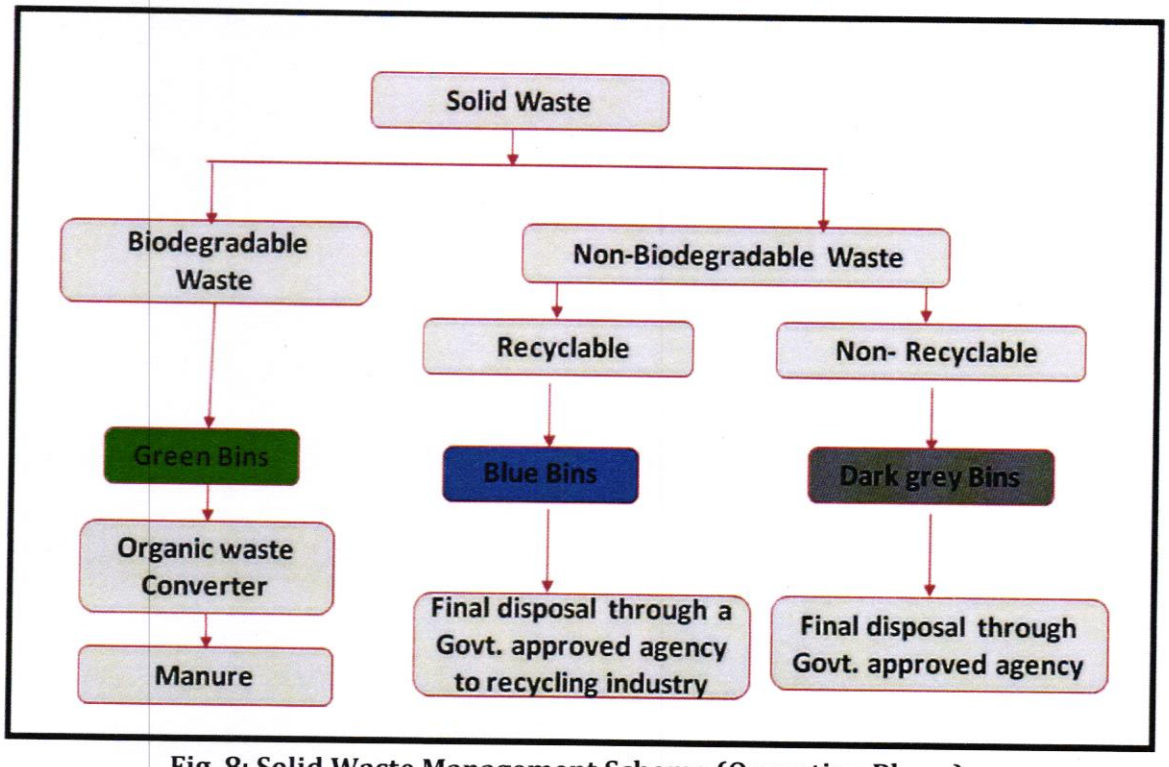

Fig. 8: Solid Waste Management Scheme (Operation Phase)

Organic Waste Converter

A waste converter is a machine used for the treatment and recycling of solid and liquid refuse material. A converter is a self-contained system capable of performing the following functions: pasteurization of organic waste; sterilization of pathogenic or biohazard waste; grinding and pulverization of refuse into unrecognizable output; trash compaction; dehydration.

Benefits of organic waste converter:

1. Large quantity of solid waste is converted to manure in a very short period
2. Manure can be used as compost for gardening
3. Machine requires less space, and the efficiency is high
4. Manpower and maintenance are very less
5. This is one of the latest techniques of managing biodegradable solid waste.

Organic Waste Converter - 300 (Dim. 3m × 4m) 2 machines are proposed to be used for composting waste 120kg/batch or 3000 kg/day & it requires electricity of about 13.5 HP.
No. of batches /day = 3000/120 = 25

Biodegradable Waste to be converted = 40% of total solid waste generated = 7256 kg/ day
Taking 20% higher = 8707kg
No. of batches to convert 8707 kg = 8707 /120 = 73

Operation Cost-monthly per capita:

The operating cost of OWC - 300 = 1, 80,000 INR/month
Cost/day = 1, 80,000/30
= 6000/-
1 batch/day cost = 6000/25
= 240 INR
Cost for 73 batch/day = 73 × 240/-
= 17520 /-
Monthly operating cost = 30 ×17520
= INR 5, 25,600 /- per month

GREEN AREA

Total green area measures **37,241.664** m^2 which will include green belt, Avenue plantation and lawn.
Evergreen tall and ornamental trees have been proposed to be planted inside the premises.
No. of trees required = 1 tree/80 sq.m. of plot area =5,49,258.716/80 = 6866 Nos
No. of trees proposed to be planted = 6,870 trees.

As per OM dated 24.07.2024 we will plant one additional tree "EK Ped Maa Ke Naam."

ENVIRONMENT MANAGEMENT PLAN

The total cost (Land Cost + Development Cost) of the proposed project will be INR 1593.7 Crores. The capital cost for environmental management of the proposed project is estimated to be INR 796 lakhs (Construction and operation). INR 132.75 lakhs (operation and construction) per year will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures.

Table 9 ENVIRONMENT MANAGEMENT PLAN BUDGET

COMPONENT	Capital Cost (INR Lakh)	Recurring Cost (INR Lakh/Yr)
Labor Sanitation & Wastewater Management	35	8.75

Dust Mitigation Measures Including site barricading, water sprinkling & anti-smog gun)	25	6
Storm Water Management (temporary drains & sedimentation basin)	10	2.5
Solid Waste Management	5	1
TOTAL	**75**	**18.25**

COMPONENT	Capital Cost (INR Lakh)	Recurring Cost (INR Lakh/Yr)
Sewage Treatment Plant	190	47.5
Rain Water Harvesting System	115	28.75
Solid Waste Management	80	20
Environmental Monitoring	6	9
Green Area/ Landscape Area	50	12.5
Others (Energy saving System, miscellaneous)	60	15
Sub-Total	**576**	**108**
CER		
Plantation in nearby School	30	--
Drinking Water facilities in nearby schools	15	--
Arrangement of Medical Camp	15	--
Renovation work of School Nearby Village	80	--
Distribution of School Bags/Uniform/ and accessories	**25**	--
Road and Others Infra development in School/Village	**35**	--
Training/Promotion of Green Buildings technology / Environment Monitoring and Sustainability.	**20**	--
Total	**721**	**132.75**

TOTAL EMP BUDGET		
COMPONENT	**CAPITAL COST (INR LAKH)**	**RECURRING COST (INR LAKH/YR)**
During Construction Phase	75	18.25

During Operation Phase	721	**132.75**
TOTAL	**796**	**151**

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✓YES BANK

-490-

MAIL TO
" THE MEMBER SECRETARY STA
IMPACT ASSESSMENT AUTHORITY,
HARYANA

NK LTD

PAYMENT DETAILS
" THE MEMBER SECRETARY STATE ENVIRONME

DDNO201709CHQNO363162DT16/08/2024

We enclose Demand Draft No. : 201709
dated 16-Aug-2024 for ₹2,00,000.00
as per the above payment details.

BY ORDER OF
SIGNATUREGLOBAL INDIA LIMITED

BANK REF: 000213024899
PAYABLE AT: PANCHKULA, HARYANA

This is Computer Generated advice and does not require Signature

A/C. PAYEE / Non-Negotiable

YES BANK LIMITED
YES BANK House, Off Western Express Highway
Santacruz (E), Mumbai - 400055, India
Tel No.: 022 50919800/022 6507 9800
Fax No: 022 26192866

DEMAND DRAFT
VALID FOR THREE MONTHS FROM DATE OF ISSUE

Date 16 08 2024

000213024899

On Demand Pay " THE MEMBER SECRETARY STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, PANCHKULA, HARYANA " or Order को या उनके आदेश पर

Rupees रुपये TWO LAKH ONLY.** अदा करें ₹ **2,00,000.00*

Purchaser Name: SIGNATUREGLOBAL INDIA LIMITED

✓YES BANK

For YES BANK LTD.

YES BANK LTD
DRAWEE BANK AND BRANCH PANCHKULA, HARYANA

ISSUING BRANCH, HARYANA

AUTHORISED SIGNATORY (IES)

⑈201709⑈ 000532000⑆ 16

BANG DATA FORMS PVT. LTD. CTS-5010

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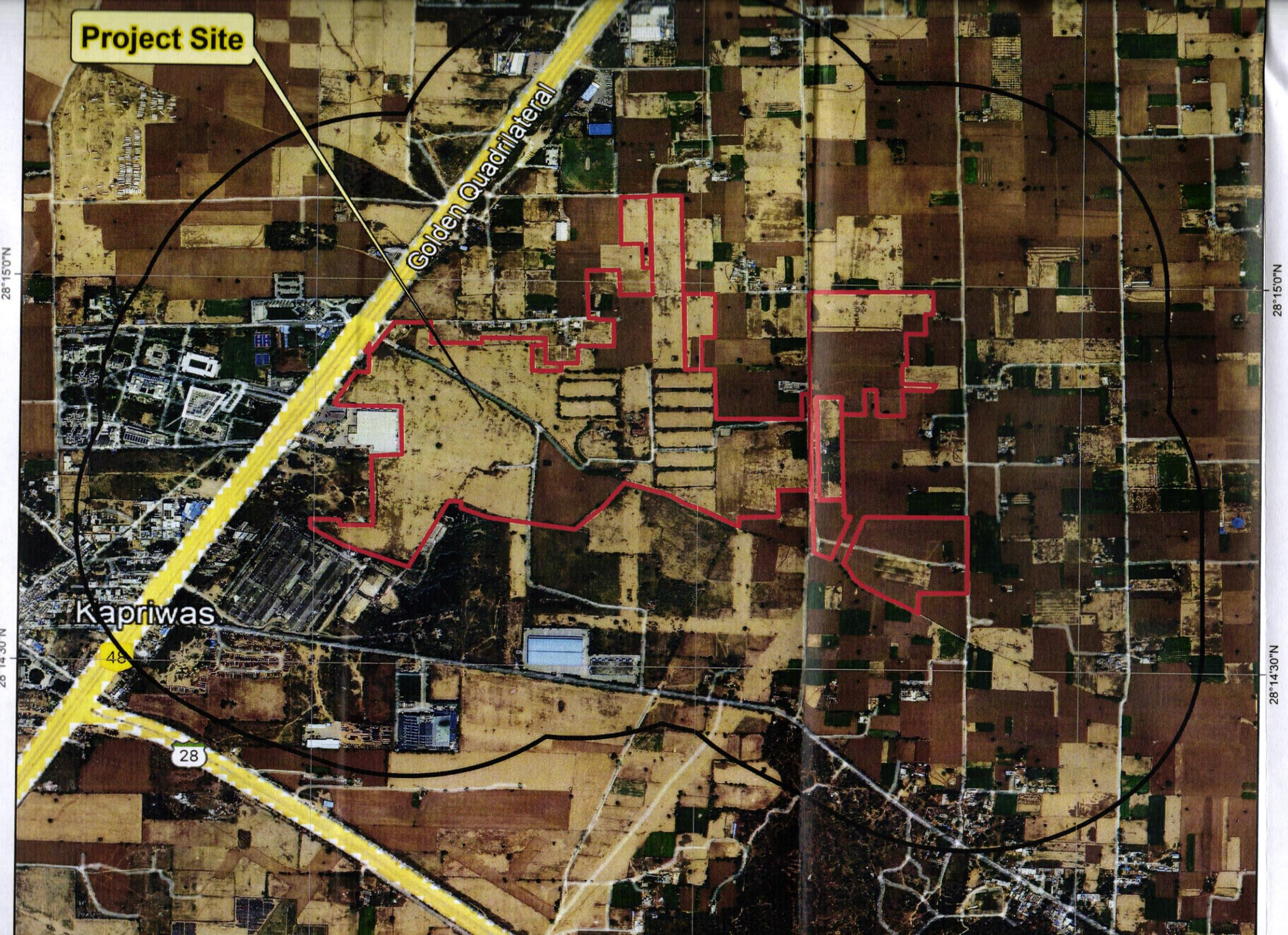

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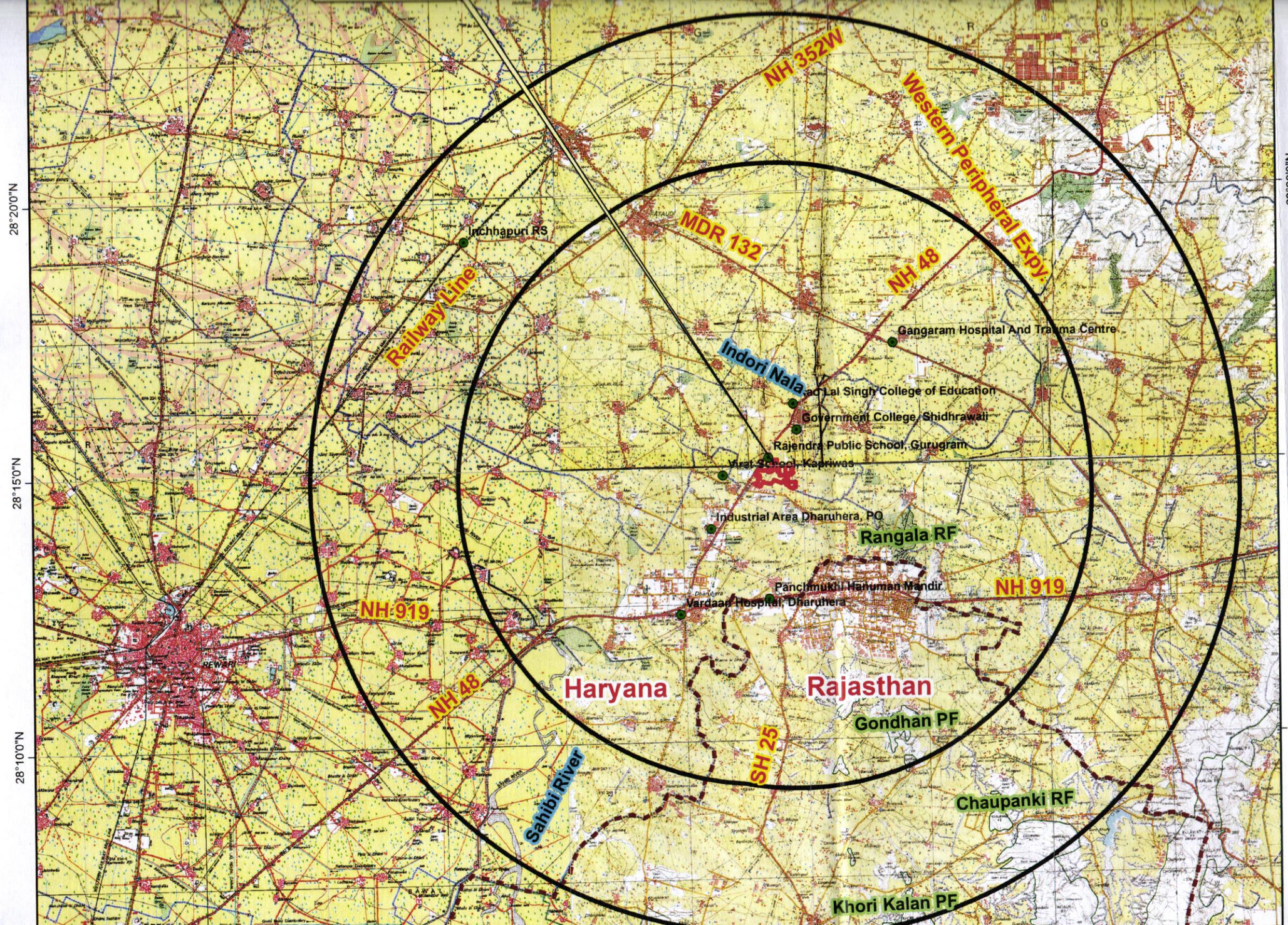
Project Site

Buffer Bounda

SOURCE : Satellite Imag

Industrial Park Project at
Village- Shidrawali District- Gurug
Haryana by
M/s Signature Global (India) Lim

500 Meters Buffer Map
The Study Area



Project Site

State Bound

15

10 km

Buffer Bound

Industrial Park Proje
Village- Shidrawali District-
Haryana by
M/s Signature Global (Indi

Eco Sensitive

767

758

Project Site

State Bound

Buffer Bound
10km
Toposheet no.
H43W16_53D1

INDUSTRIAL PARK MEA
132.9875 ACRES AT VIL
SHIDRAWALI, GURUGRAM
BY M/S SIGNATURE G
BUSINESS PARK PRIVAT

10km

proposed for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

- The solid waste generated from the project will be approx. 18139 kg per day.

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760

—496—

FORM LC -V
(See Rule 12)
HARYANA GOVERNMENT
TOWN AND COUNTRY PLANNING DEPARTMENT

Licence No. 104 of 2024

This License has been granted under the Haryana Development and Regulation of Urban Areas Act, 1975 & the Rules 1976, made thereunder to Sungold Heights and Developers LLP. in collaboration with Signatureglobal (India) Limited, 13th Floor, Dr. Gopal Das Bhawan, 28 Barakhamba Road, Connaught Place, New Delhi-110001. for setting up of Industrial Plotted Colony over an area measuring 129.65625 acres in the revenue estate of village Sidhrawali, Tehsil- Manesar, District Gurugram.

1. The particulars of the land, wherein the aforesaid Industrial Plotted Colony is to be set up, are given in the Schedule annexed hereto and duly signed by the Director, Town & Country Planning, Haryana.

2. The License is granted subject to the following conditions:

(i) To deposit a sum of Rs. 16,56,63,060/- on account of Infrastructural Development Charges in two equal installments. First within 60 days from issuance of license and second within six months online at www.tcpharyana.gov.in. In failure of which, an interest @ 18% per annum for delay period shall be paid.

(ii) The licencee shall maintain and upkeep of all roads, open spaces, public park and public health services for a period of five years from the date of issue of the completion certificate unless earlier relieved of this responsibility and thereupon to transfer all such roads, open spaces, public parks and public health services free of cost to the Govt. or the local authority, as the case may be, in accordance with the provisions of Section 3(3)(a)(iii) of the Haryana Development and Regulation of Urban Areas Act, 1975.

(iii) The licencee has not submitted any other application for grant of license for development of the said land or part thereof for any purpose under the provisions of the Haryana Development and Regulation of Urban Areas Act, 1975 or any application seeking permission for change of land use under the provision of the Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963.

(iv) The licencee shall obtain NOC/Clearance as per provisions of notification dated 14.09.2006 issued by Ministry of Environment & Forest, Govt. of India, if applicable before execution of development works at site.

(v) The licencee shall make own arrangements for water supply, sewerage, drainage etc. to the satisfaction of DTCP.

(vi) The licencee shall obtain clearance from competent authority, if required under Punjab Land Preservation Land Act, 1900 and any other clearance required under any other law.

(vii) That the rain water harvesting system shall be provided as per Central Ground Water Authority Norms/Haryana Govt. notification as applicable.

Director
Town & Country Planning
Haryana, Chandigarh

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(viii) That the provision of solar water heating system shall be as per guidelines of Haryana Renewable Energy Development Agency and shall be made operational where applicable before applying for an Occupation Certificate.

(ix) The licencee shall use only LED fitting for internal lighting as well as campus lighting.

(x) The licencee shall convey the 'Ultimate Power Load Requirement' of the project to the concerned power utility, with a copy to the Director, within two months period from the date of grant of license to enable provision of site in licensed land for Transformers/Switching Stations/Electric Sub Stations as per the norms prescribed by the power utility in the zoning plan of the project.

(xi) The licencee shall keep pace of development atleast in accordance with sale agreement executed with the buyers of the plots as and when scheme is launched.

(xii) The licencee shall arrange power connection from UHBVNL/DHBVNL for electrification of the colony and shall install the electricity distribution infrastructure as per the peak load requirement of the colony for which licencee shall get the electrical (distribution) service plan/estimates approved from the agency responsible for installation of external electric services i.e. UHBVNL/DHBVNL and complete the same before obtaining completion certificate for the colony.

(xiii) The licencee will pay the labour cess as per policy instructions issued by Haryana Government vide Memo No. Misc. 2057-5/25/2008/2TCP dated 25.02.2010, as amended from time to time.

(xiv) The licencee shall submit compliance of Rule 24, 26, 27 & 28 of Rules 1976 & Section 5 of Haryana Development and Regulation of Urban Areas Act, 1975, and shall inform account number and full particulars of the scheduled bank wherein you have to deposit thirty percentum of the amount received from the plot holders for meeting the cost of Internal Development Works in the colony.

(xv) That no further sale has taken place after submitting application for grant of license.

(xvi) The licencee shall not give any advertisement for sale of plots/commercial area before the approval of zoning plan.

(xvii) That no provision of the Haryana Ceiling on Land Holding Act, 1972 has been violated due to purchase of applied land.

(xviii) That the revenue rasta/khal if passing through the site shall not be encroached upon and shall be kept free from all hindrances for easy movement of general public.

(xix) That the licencee shall follow the provisions of the Real Estate (Regulations and Development) Act, 2016 and Rules framed thereunder shall be followed by the applicant in letter and spirit.

(xx) The licencee shall comply with the terms and conditions of policy dated 01.10.2015, 09.03.2019 and other direction given by the Director time to time to execute the project.

(xxi) The licencee shall obtain the permission from competent authority for construction of culvert over dhana/ nala / drain / water channel what so ever, if passing through licenced land.

Signature Global India Limited

(xxii) The licencee shall integrate the services with Haryana Shehri Vikas Pradhikaran Development Authority services as and when made available.

(xxiii) That area coming under the sector roads and restricted belt / green belt, if any, which forms part of licensed area and in lieu of which benefit to the extent permissible as per policy towards FAR is being granted, shall be transferred free of cost to the Govt.

(xxiv) The licencee will transfer 10% area of the licenced colony free of cost to the Government for provision of community facilities. This will give flexibility to the Director to workout the requirement of community infrastructure at sector level and accordingly make provisions. The said area will be earmarked on the layout plan to be approved alongwith the license.

(xxv) The licencee understand that the development/ construction cost of 24 m/18 m major internal roads is not included in the EDC rates and they shall pay the proportionate cost for acquisition of land, if any, alongwith the construction cost of 24 m/18 m wide major internal roads as and when finalized and demanded by the Department.

(xxvi) That it will be made clear at the time of booking of plots/commercial space that specified rates include or do not include EDC. In case of non inclusion of EDC in the booking rates, then it may be specified that same are to be charged separately as per rate fixed by the Govt. applicant company shall also provide detail of calculation of EDC per sqm/per sft to the allottees while raising such demand from the plot owners.

(xxvii) That no clubbing of residential plots for approval of integrated zoning plan of two adjoining plots under same ownership shall be permitted.

(xxviii) The licencee shall abide by the terms and conditions of the policy notified on 01.04.2016.

(xxix) The licencee shall abide by the terms and conditions of policy dated 08.02.2016 (DDJAY) and other direction given by the Director time to time to execute the project.

(xxx) The licencee shall execute the development works as per Environmental Clearance and company with the provisions of Environment Protection Act, 1986, Air (Prevention and Control of Pollution of Act 1981) and Water (Prevention and Control of Pollution of 1974). In case of any violation of the provisions of said statutes, applicant shall be liable for penal action by Haryana State Pollution Control Board or any other Authority Administering the said Act.

(xxxi) That no pre-launch/sale of commercial plot will be undertaken before approval of the building plans. That the owner/developer shall integrate the bank account in which 70 percent allottee receipts are credited under Section-4(2)(l)(D) of the Real Estate Regulation and Development Act, 2016 with the online application/payment gateway of the Department, in such manner, so as to ensure that 10% of the total receipt from each payment made by an allottee is automatically deducted and gets credited to the EDC head in the State treasury.

(xxxii) That such 10% of the total receipt from each payment made by the allottee, which is received by the Department shall get automatically credited, on the date of receipt in the Government treasury against EDC dues.

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(xxxiii) That such 10% deduction shall continue to operate till the total EDC dues get recovered from the owner/developer.

(xxxiv) The implementation of such mechanism shall, however, have no bearing on EDC installment schedule conveyed to the owner/developer. The owner/developer shall continue to supplement such automatic EDC deductions with payments from its own funds to ensure that by the EDC installments that are due for payment get paid as per the prescribed schedule.

(xxxv) The licencee shall take prior permission from the Divisional Forest Officer, Gurugram regarding cutting of any tree in their applied site.

(xxxvi) Only green category industry shall be allowed in the area of the licensed industrial colony which is falling within 2 kilometers from the boundary of urbanisable zone of the development plan, excluding the peripheral roads, if proposed along urbanisable boundary. All categories of industries will be allowed in the industrial colony outside 2KM belt subject to the condition of obtaining certificate from Haryana pollution Control Board.

(xxxvii) You shall pay at least the cost of infrastructure made available by various agencies/Department of the state Government, including infrastructure sought and availed in the agriculture zone as and when demanded by the competent authority.

(xxxviii) That you shall also take necessary measures for setting up of an effluent treatment plant of appropriate size and its appropriate use and also for safe disposal of effluents after proper treatment.

3. The area/pocket-1 measuring 11.56875 acres which derives approach from land acquired for RRTS, shall be kept frozen till submission of the NOC /access permission from NCRTC/competent authority.

4. That you shall not raised any construction within 20 mtr buffer zone on either side of acquired alignment of RRTS and the same shall be kept as green/buffer zone.

5. That no third party rights shall be created over any frozen area till such area is de-freezed.

6. That plots beneath the 3 nos. nos. of 11 KV HT line and 1 no. of 200 KV HT line falling in the licensed land shall be kept frozen till shifting of respective HT lines.

7. The license is valid up to 31.07.2029.

(Amit Khatri, IAS)
Director,
Town & Country Planning
Haryana, Chandigarh

Dated: The 01.08.2024.
Chandigarh

Endst. No. LC-5139/Asstt(MS)/2024/24309 Dated: 01-08-2024

A copy along with a copy of schedule of land is forwarded to the following for information and necessary action: -

1. Sungold Heights and Developers LLP. In collaboration with Signatureglobal (India) Limited, 13th Floor, Dr. Gopal Das Bhawan, 28 Barakhamba Road, Connaught Place, New Delhi-110001 along with a copy of agreement, LC-IV & Bilateral Agreement and Layout Plan.
2. Chairman, Pollution Control Board, Haryana, Sector-6, Panchkula.
3. Chief Administrator, HSVP, Panchkula.
4. Managing Director, HVPN, Planning Directorate, Shakti Bhawan, Sector-6, Panchkula.
5. Joint Director, Environment Haryana-Cum-Secretary, SEAC, Paryavaran Bhawan, Sector -2, Panchkula.
6. Addl. Director Urban Estates, Haryana, Panchkula.
7. Administrator, HSVP, Panchkula.
8. Chief Engineer, HSVP, Panchkula.
9. Superintending Engineer, HSVP, Gurugram along with a copy of agreement.
10. Land Acquisition Officer, Gurugram.
11. Senior Town Planner, Gurugram along with a copy of Layout Plan.
12. Senior Town Planner (Enforcement), Haryana, Chandigarh.
13. District Revenue Officer, Gurugram.
14. District Town Planner, Gurugram along with a copy of agreement & Layout Plan.
15. Chief Accounts Officer (Monitoring) O/o DTCP, Haryana.
16. Accounts Officer, O/o DTCP along with a copy of agreement.
17. Project Manager (IT) for updation on the website.

(Sanjay Narang)
District Town Planner (HQ)
For: Director, Town & Country Planning
Haryana Chandigarh

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To be read with License No.....104.....Dated.....01/08/.....of 2024

Village	OWNERSHIP	REC.NO	KILLA NO	KANAL	MARLA
Sidhrawali	SUNGOLD HEIGHTS AND DEVELOPERS LLP	74	15/3/2/2	0	16
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	74	16/2/2/1/2	0	2
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	2/2/2/2	3	11
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	3	7	11
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	4/3.	1	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	5/3.	2	3
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	6	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	7/1.	2	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	7/2.	5	2
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	8/1.	3	2
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	8/2.	4	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	9	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	11/2/2.	7	9
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	12/1.	2	9
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	12/2.	5	11
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	13	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	14	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	15	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	16	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	17	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	18	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	19/1.	2	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	20/1.	2	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	23	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	24	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	75	25	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	1/4.	3	11
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	2/2.	1	5
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	4/2.	2	10
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	5/1.	6	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	5/2.	2	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	6	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	7	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	8/1/1	2	5
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	8/3/2	0	13
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	9/1/2	0	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	10	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	11	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	12	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	13	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	14	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	15	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	16	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	17	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	18	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	19	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	20	8	0

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D.T.C.P (HR)

Sidhrawali	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	21/1	2	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	21/2	5	16
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	22	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	23	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	24	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	25/1/1	3	16
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	25/1/2	0	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	76	25/2	4	0
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	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	10	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	11	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	12	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	19	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	20	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	21	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	22	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	23	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	24	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	77	25	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	66	1	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	66	10	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	66	11	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	66	20	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	66	21	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	5	7	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	6	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	15/3	1	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	17	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	23/3	0	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	24/1	7	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	67	25	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	11/2.	6	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	16	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	17	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	18	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	19/3	4	3
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	19/1	0	7
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	20/1	7	9
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	21/1	2	14
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	21/3	0	5
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	22/2	7	8
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	23	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	24	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	25	7	11
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	98	2	5	17
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	98	3	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	98	4	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	98	5	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	98	7/2	0	10
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	98	8	3	13
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	1	8	0

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Sidhrawali	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	2	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	3	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	4	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	5	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	6/1.	4	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	6/2.	3	8
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	7	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	8	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	9/1.	1	7
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	9/3.	5	3
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	9/2.	0	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	9/4.	1	6
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	10	8	16
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	12	5	2
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	13	10	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	90	14	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	1	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	2	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	3	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	4	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	5/2.	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	6	5	9
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	7	7	2
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	8	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	9	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	10	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	11	7	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	12	9	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	91	13	8	15
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	2/2.	5	18
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	3/1.	5	8
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	3/2.	2	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	3/3.	0	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	4	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	5	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	6	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	7	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	8/1.	3	8
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	8/2.	4	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	9/1.	0	8
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	9/2.	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	12/1.	7	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	12/2.	0	8
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	13	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	14/1.	1	14
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	15	5	7
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	18	6	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	19/1	4	16
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	19/2	3	4
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	20/1	7	10
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	92	22	4	15

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Sidhrawali	SUNGOLD HEIGHTS AND DEVELOPERS LLP	65	21/2.	7	19
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	65	22	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	65	23	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	65	24	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	1	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	2	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	3	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	4/1.	7	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	7/2.	2	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	8	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	9	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	10	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	11	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	12	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	13	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	14/1/1.	2	3
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	18/1.	4	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	19	8	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	20/1.	1	11
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	93	15/3.	2	0
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	93	16/1.	3	1
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	20/2min	1	5
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	78	21min	1	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	1 min	1	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	10/1 min	0	12
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	10/2 min	0	19
	SUNGOLD HEIGHTS AND DEVELOPERS LLP	89	11/1 min	0	8
				1037	5
				AREA 129.65625 ACRES	

Director
Town & Country Planning
Haryana

Signature Global India Limited

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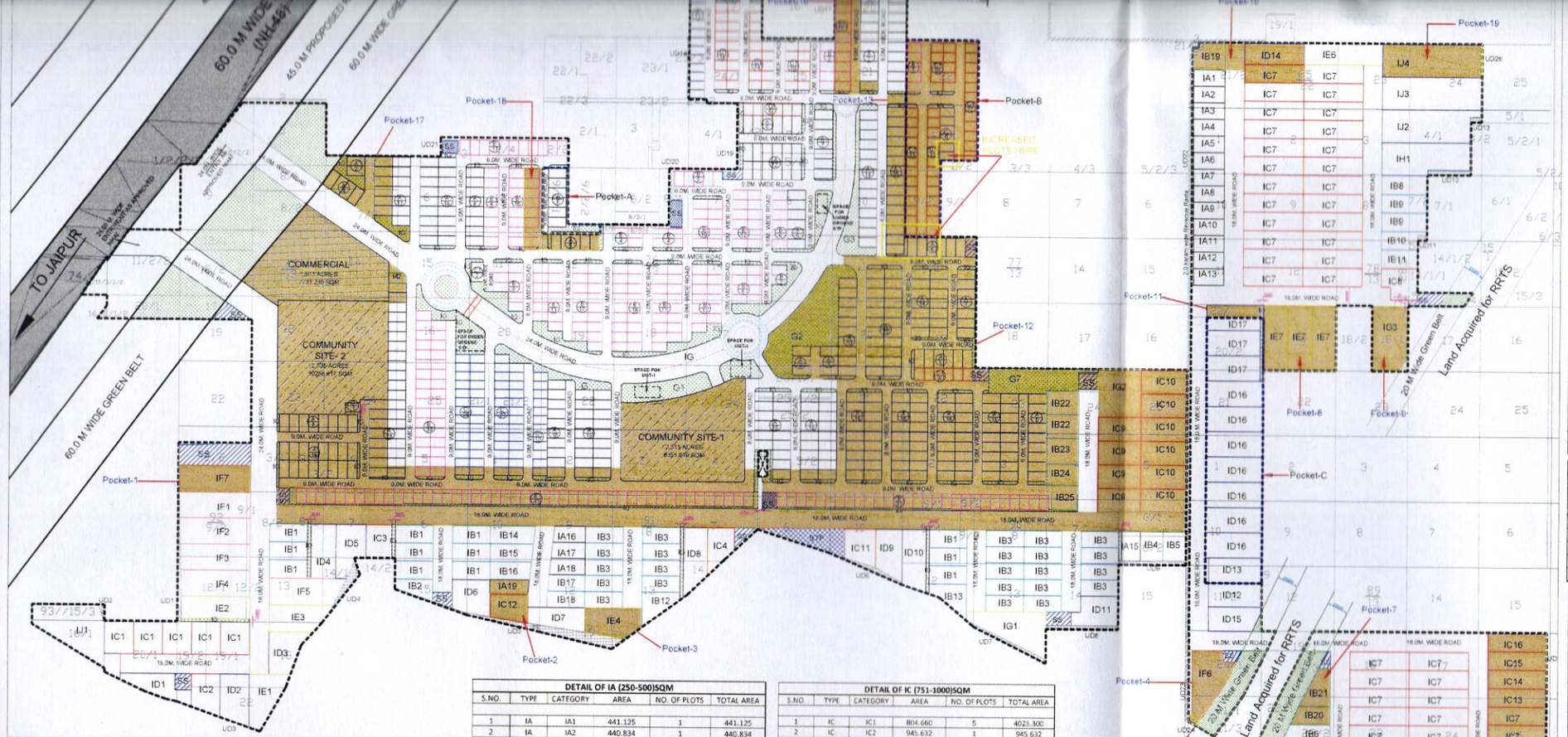

NOTE:-AREA NOT LESS THAN OF UGT 250 SQMT & UNDER GROUND STP 450 SQMT.

AREA STATEMENT

S.NO.	DESCRIPTION	AREA (ACRES)	AREA (SQM)
1	ALREADY LICENCED AREA	129.65625	524699.395
2	ADDITIONAL LICENCE AREA	6.06875	24559.321
3	TOTAL LICENCED AREA OF THE SCHEME (1+ 2)	135.7250	549258.716
4	AREA UNDER ROAD(DELHI- JAIPUR) WIDENING	2.5190	10194.015
5	AREA UNDER PROPOSED GREEN BELT OF DELHI-JAIPUR ROAD (CONSIDERING 60 M WIDE ON EITHER SIDE)	3.3797	13677.139
6	TOTAL AREA OUNDER ROAD (DELHI -JAIPUR) WIDENING & GREEN BELT OF DELHI-JAIPUR ROAD (4 & 5)	5.8987	23871.154
7	AREA UNDER GREEN BELT OF RRTSICONSIDERING 20 M ON EITHER SIDE)	1.3080	5293.280
8	BALANCE (3-6-7)	128.5183	520094.282
9	50 % BENEFIT OF AREA UNDER ROAD(DELHI-JAIPUR) WIDENING, GREEN BELT OF DELHI-JAIPUR ROAD & GREEN BELT OF RRTS(50 % OF 6)	2.94935	11935.577
10	NET AREA(8+9)	131.46765	532029.859
11	AREA UNDER UNDETERMINED USE	1.36319	5516.641
12	**NET PLANNED AREA (10-11)**	**130.10446**	526513.219

	LANDUSE	PERMISSIBLE AREA AS PER POLICY			PROPOSED AREA AS PER LAYOUT		
		AREA (ACRES)	AREA (SQM)	PERCENTAGE	AREA (ACRES)	AREA (SQM)	PERCENTAGE
1	AREA UNDER INDUSTRIAL PLOTS (MIN. 35% OF THE NET PLANNED AREA)	45.537	184279.627	35.0%	**45.577**	**184444.900**	**35.03%**
2	AREA UNDER DDJAY RESIDENTIAL PLOTS (MAX. 25% OF THE NET PLANNED AREA)	32.526	131628.305	25.0%	**31.515**	**127537.345**	**24.22%**
3	AREA UNDER COMMERCIAL PLOTS (MAX. 5% OF THE NET PLANNED AREA)	6.505	26325.700	5.00%	**1.911**	**7733.230**	**1.47%**
4	BALANCE AREA UNDER ROAD/OPEN/GREEN AND PUBLIC UTILITIES (MIN. 35% OF THE NET PLANNED AREA)	45.537	184279.58751	35.0%	**51.101**	**206797.744**	**39.28%**
	TOTAL AREA				**130.10446**	**526513.219**	

DETAIL OF DDJAY RESIDENTIAL PLOTS

TPYE	PLOT AREA ACRE	PLOT AREA SQMT	NO. OF PLOTS	TOTAL PLOT AREA
A	9.000	16.650	149.850	439	65784.150

DETAIL OF IA (250-500)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	IA	IA1	441.125	1	441.125
2	IA	IA2	440.834	1	440.834
3	IA	IA3	439.740	1	439.740
4	IA	IA4	438.646	1	438.646
5	IA	IA5	437.552	1	437.552
6	IA	IA6	436.458	1	436.458
7	IA	IA7	435.365	1	435.365
8	IA	IA8	434.271	1	434.271
9	IA	IA9	433.177	1	433.177
10	IA	IA10	432.083	1	432.083
11	IA	IA11	431.000	1	431.000
12	IA	IA12	429.896	1	429.896
13	IA	IA13	428.802	1	428.802
14	IA	IA14	395.436	1	395.436
15	IA	IA15	498.222	1	498.222
16	IA	IA16	436.364	1	436.364
17	IA	IA17	459.455	1	459.455
18	IA	IA18	482.574	1	482.574
19	IA	IA19	465.188	1	465.188
			TOTAL AREA (SQM)	**19**	**8396.188**
			TOTAL AREA (ACRES)		**2.075**

DETAIL OF IB (501-750)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	IB	IB1	583.333	12	6999.996
2	IB	IB2	515.984	1	515.984
3	IB	IB3	524.996	23	12074.908
4	IB	IB4	578.746	1	578.746
5	IB	IB5	577.217	1	577.217
6	IB	IB6	691.221	1	691.221
7	IB	IB7	673.822	1	673.822
8	IB	IB8	742.229	1	742.229
9	IB	IB9	712.844	2	1425.688
10	IB	IB10	600.389	1	600.389
11	IB	IB11	570.350	1	570.350
12	IB	IB12	705.183	1	705.183
13	IB	IB13	697.520	1	697.520
14	IB	IB14	678.813	1	678.813
15	IB	IB15	650.304	1	650.304
16	IB	IB16	621.796	1	621.796
17	IB	IB17	505.638	1	505.638
18	IB	IB18	528.625	1	528.625

DETAIL OF IC (751-1000)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	IC	IC1	804.660	5	4023.300
2	IC	IC2	945.632	1	945.632
3	IC	IC3	750.937	1	750.937
4	IC	IC4	825.998	1	825.998
5	IC	IC5	822.579	1	822.579
6	IC	IC6	856.276	1	856.276
7	IC	IC7	935.000	46	43010.000
8	IC	IC8	872.102	1	872.102
9	IC	IC9	907.506	4	3630.020
10	IC	IC10	940.482	6	5642.892
11	IC	IC11	898.765	1	898.765
12	IC	IC12	848.504	1	848.504
13	IC	IC13	933.940	1	933.940
14	IC	IC14	931.597	1	931.597
15	IC	IC15	929.114	1	929.114
16	IC	IC16	926.716	1	926.716
			TOTAL AREA (SQM)	**73**	66848.372
			TOTAL AREA (ACRES)		**16.519**

DETAIL OF ID (1001-1250)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	ID	ID1	1053.445	1	1053.445
2	ID	ID2	1184.373	1	1184.373
3	ID	ID3	1111.889	1	1111.889
4	ID	ID4	1175.000	1	1175.000
5	ID	ID5	1121.959	1	1121.959
6	ID	ID6	1093.492	1	1093.492
7	ID	ID7	1012.600	1	1012.600
8	ID	ID8	1217.522	1	1217.522
9	ID	ID9	1060.196	1	1060.196
10	ID	ID10	1208.142	1	1208.142
11	ID	ID11	1089.284	1	1089.284
12	ID	ID12	1069.111	1	1069.111
13	ID	ID13	1149.254	1	1149.254
14	ID	ID14	1067.087	1	1067.087
15	ID	ID15	1029.944	1	1029.944
16	ID	ID16	1225.776	7	8580.432
17	ID	ID17	1155.632	3	3466.896
				25	**28690.626**
			TOTAL AREA (ACRES)		**7.090**

DETAIL OF IE (1251-1500)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
				2	**4417.561**

DETAIL OF IF (1501-1750)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	IF	IF1	1579.681	1	1579.681
2	IF	IF2	1566.655	1	1566.655
3	IF	IF3	1553.629	1	1553.629
4	IF	IF4	1540.604	1	1540.604
5	IF	IF5	1633.403	1	1633.403
6	IF	IF6	1660.773	1	1660.773
7	IF	IF7	1639.085	1	1639.085
				7	**11173.830**
			TOTAL AREA (ACRES)		**2.761**

DETAIL OF IG (1751-2000)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	IG	IG1	1965.356	1	1965.356
2	IG	IG2	1815.000	1	1815.000
3	IG	IG3	1978.709	1	1978.709
				3	**5759.065**
			TOTAL AREA (ACRES)		**1.423**

DETAIL OF IH (2001-2500)SQM

S.NO.	TYPE	CATEGORY	AREA	NO. OF PLOTS	TOTAL AREA
1	IH	IH1	2286.446	1	2286.446
2	IH	IH2	2131.115	1	2131.115
				2	**4417.561**

DETAILS OF UNDETERMINED AREA

PLOT NO	AREA	NO OF PLOTS	TOTAL AREA
	In Acres		In Acres
UD-1	0.090	1	0.090
UD-2	0.011	1	0.011
UD-3	0.008	1	0.008
UD-4	0.066	1	0.066
UD-5	0.254	1	0.254
UD-6	0.046	1	0.046
UD-7	0.058	1	0.058
UD-8	0.059	1	0.059
UD-9	0.060	1	0.060
UD-10	0.222	1	0.222
UD-11	0.010	1	0.010
UD-12	0.048	1	0.048
UD-13	0.013	1	0.013
UD-14	0.012	1	0.012
UD-15	0.014	1	0.014
UD-16	0.006	1	0.006
UD-17	0.010	1	0.010
UD-18	0.016	1	0.016
UD-19	0.028	1	0.028

DETAIL OF COMMUNITY FACILITIES FOR AFFORDABLE PLOTTED COLONY

TPYE	PLOT AREA ACRE	PLOT AREA SQMT	NO. OF PLOTS	TOTAL PLOT AREA
COMMUNITY SITE-1	2.311	9351.919	1	9351.919
COMMUNITY SITE-2	2.535	**10258.620**	1	10258.620
			2	**19610.539**
				4.846

DETAIL OF COMMERCIAL PLOTS

TPYE	PLOT AREA ACRE	PLOT AREA SQMT	NO. OF PLOTS	TOTAL PLOT AREA
COMMERCIAL	1.911	7733.23	1	7733.230
			1	**7733.230**
				1.911

DETAIL OF INDUSTRIAL PLOTS

S.NO.	TYPE	NO. OF PLOTS	TOTAL AREA (in sq mt)	TOTAL AREA (in Acre)
1	IA (250-500SQM)	19	8396.188	2.075
2	IB (501-750SQM)	60	34978.870	8.643
3	IC (751-1000SQM)	73	66848.372	16.519
4	ID (1001-1250SQM)	25	28690.626	7.090
5	IE (1251-1500SQM)	10	13236.604	3.271
6	IF (1501-1750SQM)	7	11173.830	2.761
7	IG (1751-2000SQM)	3	5759.065	1.423
8	IH (2001-2500SQM)	2	4417.561	1.092
9	IJ (2501-3000SQM)	4	10943.784	2.704
	TOTAL AREA	**203**	**184444.900**	**45.577**

DETAIL OF DDJAY RESIDENTIAL GREEN AREA

S.NO.	TYPE	NO.s	TOTAL AREA
1	G	1	857.401
2	G1	1	1429.352
3	G2	1	3731.025
4	G3	1	1298.998
5	G4	1	1750.187
6	G5	1	415.885
7	G6	1	3545.945
8	G7	1	1913.64
	TOTAL AREA PROVIDED (SQM)		**14942.433**
	TOTAL AREA (ACRES)		**3.692**

Plot legend -

Land Use	
Minimum area under Industrial Plots	35%
Area under Residential Component	25%
Maximum area under Commercial	5%
Balance area under Roads, Greens and Public Utilities	

Calculations for the DDJA

S.No.	Item
1	Total Area under DDJAY Resid
2	Total Gross area under DDJAY
3	Population of the plotted colon **Per/plot as four floors are new**
4	Density of the Plotted colony
5	Area of community facilities to 10% of the gross area
6	Area of community facilities pr
7	Area of Green required to be p of the gross area under the D
8	Area of Green Provided

OWNER :

SUNGOLD HEIG COLLABRATION (INDIA) LIMITED

PROJECT :

PROPOSED LAYOUT MEASURING 6.06875 LICENSED AREA OF LICENSE NO OF 135.7250 ACRES IN MANESAR DISTRICT BY SIGNATUREGLOB

DRAWING TITLE :

Legend:-

LICENSE APPLIED AREA - 129.65625Acres

ADDITIONAL LAND AREA - 6.06875 Acres (Pocket A to D)

SPACE FOR SUB STATION

REVENUE RASTA

769

770

—506—

प्रेषक,

उपायुक्त, गुरूग्राम।

सेवा में,

M/s SIGNATUREGLOBAL (INDIA) LIMITED,
[formerly known as signature global (India) Private Limited].,
Ground Floor, Tower-A, Signature Tower,
South City-I, Gurugram.

क्रमांक 74 /एम0बी0 दिनांक 30/5/2024

विषयः— **NOC for Aravalli Project Plantation 1992 for setting up of Industrial Plotted Colony at Village Sidhrawali, Tehsil Manesar, District Gurugram, Haryana (regarding report of Tehsildar and DFO, Gurugram)..**

उपरोक्त विषय के संदर्भ में।

विषयाधीन मामले में उक्त के सम्बन्ध में तहसीलदार, मानेसर व उप वन संरक्षक, गुरूग्राम से रिपोर्ट प्राप्त की गई जो निम्न प्रकार है:—

तहसीलदार, मानेसर ने अपने कार्यालय के पत्र क्रमांक 343/ओ0के0 दिनांक 09.05.2024 के द्वारा रिपोर्ट इस कार्यालय मे प्रेषित की है जिसमें लिखा है कि रिपोर्ट पटवारी हल्का अनुसार मौजा सिधरावली, तहसील मानेसर जिला गुरूग्राम हरियाणा की प्रस्तावित भूमि का राजस्व रिकोर्ड का अवलोकन करने उपरान्त मांगी गई रिपोर्ट बिन्दूवार निम्न है:—

1. प्रार्थना पत्र में वर्णित मु0/कीला नं0 56//15(8-0), 57//11(8-0), 12/1(0-2), 65//21/2(7-19), 22(8-0), 23(8-0), 24(8-0), 66//1(8-0), 10(8-0), 11(8-0), 20(8-0), 21(8-0), 67//5(7-4), 6(7-12), 15/3(1-12), 17(8-0), 23/3(0-4), 24/1(7-18), 25(8-0), 74//15/3/2/2(0-16), 16/2/2/1/2(0-2), 75//1/2/2/2/2(0-2), 2/2/2/2(3-11), 3(7-11), 4/3(1-4), 5/3(2-3), 6(8-0), 7/1(2-18), 7/2(5-2), 8/1(3-2), 8/2(4-18), 9(8-0), 11/2/2(7-9), 12/1(2-9), 12/2(5-11), 13(8-0), 14(8-0), 15(8-0), 16(8-0), 17(8-0), 18(8-0), 19/1(2-18), 20/1(2-18), 23(8-0), 24(8-0), 25(8-0), 76//1/4(3-11), 2/2(1-5), 4/2(2-10), 5/1(6-0), 5/2(2-0), 6(8-0), 7(8-0), 8/1/1(2-5), 8/3/2(0-13), 9/1/2(0-4), 10(8-0), 11(8-0), 12(8-0), 13(8-0), 14(8-0), 15(8-0), 16(8-0), 17(8-0), 18(8-0), 19(8-0), 20(8-0), 21/1(2-4), 21/2(5-16), 22(8-0), 23(8-0), 24(8-0), 25/1/1(3-16), 25/1/2(0-4), 25/2(4-0), 77//1(8-0), 10(8-0), 11(8-0), 12(8-0), 19(8-0), 20(8-0), 21(8-0), 22(8-0), 23(8-0), 24(8-0), 25(7-12), 89//11/2(6-0), 16(7-12), 17(8-0), 18(8-0), 19/3(4-3), 19/1(0-7), 20/1(7-9), 21/1(2-14), 21/3(0-5), 22/2(7-8), 23(8-0), 24(8-0), 25(7-11), 90//1(8-0), 2(8-0), 3(3-0), 4(8-0), 5(7-12), 6/1(4-4), 6/2(3-8), 7(8-0), 8(8-0), 9/1(1-7), 9/3(5-3), 9/2(0-4), 9/4(1-6), 10(8-16), 12(5-2), 13(10-0), 14(8-0), 91//1(8-0), 2(8-0), 3(8-0), 4(8-0), 5/2(7-12), 6(5-9), 7(7-2), 8(8-0), 9(8-0), 10(8-0), 11(7-18), 12(9-18), 13(8-15), 92//2/2(5-18), 3/1(5-8), 3/2(2-0), 3/3(0-12), 4(8-0), 5(8-0), 6(8-0), 7(8-0), 8/1(3-8), 8/2(4-12), 9/1(0-8), 9/2(7-12), 12/1(7-12), 12/2(0-8), 13(8-0), 14/1(1-14), 15(5-7), 18(6-0), 19/1(4-16), 19/2(3-4), 20/1(7-10), 22(4-15), 98//2(5-17), 3(8-0), 4(8-0), 5(7-12), 6(7-12), 7(8-16), 8(3-13), 15(6-2), 78//1(8-0), 2(8-0), 3(8-0), 4/1(7-0), 6/3(0-2), 7/2(2-0), 8(8-0), 9(8-0), 10(8-0), 11(8-0), 12(8-0), 13(8-0), 14/1/1(2-3), 18/1(0-4), 19(8-12), 20/1(1-11), 93//15/3(0-2), 16/1(3-1), 77//16(7-13), 89//1(8-0), 10/1(3-2), 10/2(4-18), 11/1(2-0) कीता 182 रकबा 1079 कनाल 6 मरला मौजा सिधरावली तहसील मानेसर जिला गुरूग्राम दिनांक 07.05.1992 के नोटिफिकेशन अनुसार अरावली क्षेत्र में नहीं है।
2. अराजी मुतनाजा भूमि दिनांक 07.05.1992 के नोटिफिकेशन से पूर्व तथा पश्चात मिसल हकीयत/चकबन्दी तक किस्म गैर मुमकीन पहाड, गैर मु0 राडा, गैर मु0 बीहड/बंजर बीहड व रूद्र नहीं रही है।

Signature Global India Limited

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3. अराजी मुतनाजा भूमि दिनांक 07.05.1992 के नोटिफिकेशन से पूर्व किस्म चाही तथा नोटिफिकेशन के पश्चात किस्म चाही/गैर मु0/ब.क. है।
4. अराजी मुतनाजा भूमि पर मिसल हकीयत/चकबन्दी ताहाल कभी भी शामलात देह/पंचायत देह/नगर पालिका व नगर निगम की मलकियत नहीं रही है।
5. अराजी मुतनाजा भूमि पर किसी माननीय न्यायालय में केस का कोई इन्द्राज जमाबन्दी के खाना कैफियत में दर्ज नहीं है।
6. अराजी मुतनाजा भूमि SEZ(Special Econimical Zone) में नहीं है।
7. अराजी मुतनाजा भूमि मु0/कीला नं0 89//19मिन(3–10), 20मिन(0–11), 21मिन(2–12), 22मिन, पर बरूवे रपट नं0 285/02.01.2017 अनुसार अवार्ड हो चुका है व बरूवे रपट नं0 351/04.02.2006 के अनुसार मु0/किला नं0 75//9मिन पर धारा 3ए हो चुकी है व बरूवे रपट नं0 390/29.03.2004 के अनुसार 89//1, 10/1, 10/2, 11/1 आड रहन है।
8. अराजी मुतनाजा भूमि मु0/किला नं0 89//1(8–0), 10/1(3–2), 10/2(4–18), 11/1(2–0), किता 4 रकबा 18 कनाल 0 मरला में मै0 सनगोल्ड हाईटस एण्ड डेवलपर्स एल.एल.पी 2/5 भाग की मालिक व मु0/किला नं0 77/18(7–13), में मै0 सनगोल्ड हाईटस एण्ड डेवलपर्स एल.एल.पी 1/6 भाग की मालिक है व मु0/किला नं0 76//9/2/1(3–6), 8/3/2(0–13) किता 2 रकबा 3 कनाल 19 मरला में मै0 सनगोल्ड हाईटस एण्ड डेवलपर्स एल.एल.पी मालिक है। व मु0/कीला नं0 76//8/1/1(2–5), 9/1/2(0–12), में मै0 सनगोल्ड हाईटस एण्ड डेवलपर्स एल.एल.पी मालिक है व बाकी शेष बचे नबरान में मै0 सनगोल्ड हाईटस एण्ड डेवलपर्स एल.एल.पी मालिक है।

उप वन संरक्षक, गुरुग्राम ने अपने कार्यालय के पत्र क्रमांक 409-G दिनांक 17.05.2024 के द्वारा अवगत कराया है कि उनके कार्यालय द्वारा दिनांक 29.02.2024 (M/s Signatureglobal (India) Ltd.) को गांव सिधरावली, जिला गुरूग्राम के 135.0125 एकड क्षेत्र की फॉरेस्ट क्लेरिफिकेशन ऑनलाईन जारी की जा चुकी है। जिसकी छाया प्रति इस कार्यालय में प्रेषित की है जिसमें लिखा है कि Applicant Mr. Sanjay Kumar Varshney, M/s SIGNATUREGLOBAL (INDIA) LIMITED [formerly known as signature global (India) Private Limited]., having Rectangle No./Murba No./Killa No. 56//15(8-0), 57//11(8-0), 12/1(0-2), 65//21/2(7-19), 22(8-0), 23(8-0), 24(8-0), 66//1(8-0), 10(8-0), 11(8-0), 20(8-0), 21(8-0), 67//5(7-4), 6(7-12), 15/3(1-12), 17(8-0), 23/3(0-4), 24/1(7-18), 25(8-0), 74//15/3/2/2(0-16), 16/2/2/1/2(0-2), 75//1/2/2/2/2(0-2), 2/2/2/2(3-11), 3(7-11), 4/3(1-4), 5/3(2-3), 6(8-0), 7/1(2-18), 7/2(5-2), 8/1(3-2), 8/2(4-18), 9(8-0), 11/2/2(7-9), 12/1(2-9), 12/2(5-11), 13(8-0), 14(8-0), 15(8-0), 16(8-0), 17(8-0), 18(8-0), 19/1(2-18), 20/1(2-18), 23(8-0), 24(8-0), 25(8-0), 76//1/4(3-11), 2/2(1-5), 4/2(2-10), 5/1(6-0), 5/2(2-0), 6(8-0), 7(8-0), 8/1(3-4), 8/3(1-12), 9/1(1-12), 10(8-0), 11(8-0), 12(8-0), 13(8-0), 14(8-0), 15(8-0), 16(8-0), 17(8-0), 18(8-0), 19(8-0), 20(8-0), 21/1(2-4), 21/2(5-16), 22(8-0), 23(8-0), 24(8-0), 25/1/1(3-16), 25/1/2(0-4), 25/2(4-0), 77//1(8-0), 10(8-0), 11(8-0), 12(8-0), 19(8-0), 20(8-0), 21(8-0), 22(8-0), 23(8-0), 24(8-0), 25(7-12), 89//11/2(6-0), 16(7-12), 17(8-0), 18(8-0), 19/3(4-3), 19/1(0-7), 20/1(7-9), 21/1(2-14), 21/3(0-5), 22/2(7-8), 23(8-0), 24(8-0), 25(7-11), 90//1(8-0), 2(8-0), 3(8-0), 4(8-0), 5(7-12), 6/1(4-4), 6/2(3-8), 7(8-0), 8(8-0), 9/1(1-7), 9/3(5-3), 9/2(0-4), 9/4(1-6), 10(8-16), 12(5-2), 13(10-0), 14(8-0), 91//1(8-0), 2(8-0), 3(8-0), 4(8-0), 5/2(7-12), 6(5-9), 7(7-2), 8(8-0), 9(8-0), 10(8-0), 11(7-18), 12(9-18), 13(8-15), 92//2/2(5-18), 3/1(5-8), 3/2(2-0), 3/3(0-12), 4(8-0), 5(8-0), 6(8-0), 7(8-0), 8/1(3-8), 8/2(4-12), 9/1(0-8), 9/2(7-12), 12/1(7-12), 12/2(0-8), 13(8-0), 14/1(1-14), 15(5-7), 18(6-0), 19/1(4-16), 19/2(3-4), 20/1(7-10), 22(4-15), 98//2(5-17), 3(8-0), 4(8-0), 5(7-12), 6(7-12), 7(8-16), 8(3-13), 15(6-2), 78//1(8-0), 2(8-0), 3(8-0), 4/1(7-0), 6/3(0-2), 7/2(2-0), 8(8-0), 9(8-0), 10(8-0), 11(8-0), 12(8-0), 13(8-0), 14/1/1(2-3), 18/1(4-0), 19(8-0), 20/1(1-11), 93//15/3(2-0), 16/1(3-1), 20/2min(1-5), 21min(1-12), 89//1min(1-12), 10/1min(0-12), 10/2min(0-19), 11/1min(0-8), 77//16min(1-5) Land Measurements 135.0125 (Acre) Land Location

- Association

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Village Sidhrawali, District Gurugram made a proposal to use this land for Residential And Commercial Project. It is made clear that -

A) As per records available above said land is not part of notified Reserved Forest, protected Forest under Indian Forest Act, 1927 or any area closed under section 4 of Punjab Land Preservation Act 1900.

B) It is clarified that by the Notification No. S.O.8/P.A.7/1900/S. 4/2012 dated 04.01.13 all Revenue Estate of Gurugram is notified u/s 4 of PLPA 1900 and S.O 81/PA.2/1900/S.3/2012 u/s 3 of PLPA 1900. The area is however not recorded as Forest in the Government record but felling of any tree is strictly prohibited without the permission of Divisional Forest officer, Gurugram.

C) If approach is required from Protected Forest by the user agency, the clearance/ regularization under Forest Conservation Act 1980 will be required. Without prior clearance from Forest Department, the use of Forest land for approach road is strictly prohibited. **M/s SIGNATUREGLOBAL (INDIA) LIMITED,** whose land is located at **Village/City Sidhrawali, District Gurugram** must obtain clearance as applicable under Forest Conservation Act, 1980.

D) As per the records available with the Forest Department Gurugram the area does not fall in areas where plantations were raised by the Forest Department under Aravali project.

E) All other statutory clearances mandated under the Environment protection Act, 1986, as per the notification of Ministry of Environment and Forest, Government of India dated 07-05-1992 or any other Act/Order shall be obtained as applicable by the project proponents from the concerned authorities.

F) The project proponent will not violate any Judicial Order/Direction issued by the Hon'ble Supreme Court/High Courts.

G) It is clarified that the Hon'ble Supreme Court has issued various judgments dated 07-05-2002, 29-10-2002, 16-12-2002, 18-03-2004, 14-05-2008 etc. pertaining to Aravali region in Haryana, which should be complied with.

H) It shall be the responsibility of user agency/applicant to get necessary clearances/ permissions under various Acts and Rules applicable if any, from the respective authorities/department.

I) This certificate is not applicable in case of Environment Department notification dated 10.03.2016 for Screening Plant, and notification dated 11.05.2016 for Stone Crusher. Investor/Applicant has to take clearance from Environment Department in case of Screening Plant and Stone Crusher.

It is subject to the following conditions:

1. Clarification is Hereby Issued Subject To the Conditions Mentioned Above.

अत: तहसीलदार, मानेसर व उप वन संरक्षक, गुरूग्राम की रिपोर्ट में वर्णित शर्तो अनुसार आपको उक्त वर्णित भूमि Village Sidhrawali, Tehsil Manesar, District Gurugram के मु0/कीला न0 89//18मिन(3–10), 20मिन(0–11), 21मिन(2–12), 22मिन, पर बरूवे रपट न0 285/02.01.2017 अनुसार अवार्ड हो चुका है व बरूवे रपट न0 351/04.02.2008 के अनुसार मु0/किला न0 75//8मिन पर धारा 3ए हो चुकी है को छोडकर बाकी वर्णित भूमि के कीला नम्बरान की Aravalli Clearance/Non Forest Land रिपोर्ट इस शर्त पर जारी की जानी उचित होगी कि प्रार्थी कम्पनी को दी गई एन0ओ0सी में यदि किसी नम्बरों पर हरियाणा सरकार के किसी भी विभाग द्वारा किसी प्रकार की भूमि अर्जन कार्यवाही धारा 4, 6 व अवार्ड आदि राजस्व रिकार्ड अनुसार पाया गया तो सम्बन्धित नम्बरो की अरावली एन0ओ0सी0 स्वत: रद्द समझी जाऐगी जिसके लिए प्रार्थी कम्पनी स्वय जिम्मेवार होगी।

कार्य. उपायुक्त, गुरूग्राम।

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प्रभागीय वन अधिकारी द्वारा स्पष्टीकरण पत्र
Clarification letter by
Concerned Divisional Forest Officer
हरियाणा सरकार / Government of Haryana

हरियाणा भू-परिक्षण अधिनियम,1900 (1900 का पंजाब का अधिनियम II) अथवा वन अथवा प्रतिबंधित भूमि से संबंध मे निराक्षेप प्रमाण पत्र।
NOC in respect of Haryana Land and Preservation Act, 1900 (Punjab Act, II of 1900) or Forest or Restricted lands.

नाम Name	संजय कुमार वरषनेय Sanjay Kumar Varshney
संगठन का नाम Organisation Name	Signatureglobal (india) Limited
वर्तमान पता Current Address	Sidhrawali,Gurgaon,Haryana
भूमि स्थान Land Location	Sidhrawali,Gurgaon,Sidhrawali
भूमि मापन Land Measurements	135.0125 (Acre)
आयत नम्बर / मुरबा नम्बर Rectangle No./ Murba No.	56//15(8-0),57//11(8-0),12/1(0-2),65//21/2(7-19),22(8-0),23(8-0),24(8-0),66//1(8-0),10(8-0),11(8-0),20(8-0),21(8-0),67//5(7-4),6(7-12),15/3(1-12),17(8-0),23/3(0-4),24/1(7-18),25(8-0),74//15/3/2/2(0-16),16/2/2/1/2(0-2),75//1/2/2/2/2(0-2),2/2/2/2(3-11),3(7-11),4/3(1-4),5/3(2-3),6(8-0),7/1(2-18),7/2(5-2),8/1(3-2),8/2(4-18),9(8-0),11/2/2(7-9),12/1(2-9),12/2(5-11),13(8-0),14(8-0),15(8-0),16(8-0),17(8-0),18(8-0),19/1(2-18),20/1(2-18),23(8-0),24(8-0),25(8-0),76//1/4(3-11),2/2(1-5),4/2(2-10),5/1(6-0),5/2(2-0),6(8-0),7(8-0),8/1(3-4),8/3(1-12),9/1(1-12),10(8-0),11(8-0),12(8-0),13(8-0),14(8-0),15(8-0),16(8-0),17(8-0),18(8-0),19(8-0),20(8-0),21/1(2-4),21/2(5-16),22(8-0),23(8-0),24(8-0),25/1/1(3-16),25/1/2(0-4),25/2(4-0),77//1(8-0),10(8-0),11(8-0),12(8-0),19(8-0),20(8-0),21(8-0),22(8-0),23(8-0),24(8-0),25(7-12),89//11/2(6-0),16(7-12),17(8-0),18(8-0),19/3(4-3),19/1(0-7),20/1(7-9),21/1(2-14),21/3(0-5),22/2(7-8),23(8-0),24(8-0),25(7-11),90//1(8-0),2(8-0),3(8-0),4(8-0),5(7-12),6/1(4-4),6/2(3-8),7(8-0),8(8-0),9/1(1-7),9/3(5-3),9/2(0-4),9/4(1-6),10(8-16),12(5-2),13(10-0),14(8-0),91//1(8-0),2(8-0),3(8-0),4(8-0),5/2(7-12),6(5-9),7(7-2),8(8-0),9(8-0),10(8-0),11(7-18),12(9-18),13(8-15),92//2/2(5-18),3/1(5-8),3/2(2-0),3/3(0-12),4(8-0),5(8-0),6(8-0),7(8-0),8/1(3-8),8/2(4-12),9/1(0-8),9/2(7-12),12/1(7-12),12/2(0-8),13(8-0),14/1(1-14),15(5-7),18(6-0),19/1(4-16),19/2(3-4),20/1(7-10),22(4-15),98//2(5-17),3(8-0),4(8-0),5(7-12),6(7-12),7(8-16),8(3-13),15(6-2),78//1(8-0),2(8-0),3(8-0),4/1(7-0),6/3(0-2),7/2(2-0),8(8-0),9(8-0),10(8-0),11(8-0),12(8-0),13(8-0),14/1/1(2-3),18/1(4-0),19(8-0),20/1(1-11),93//15/3(2-0),16/1(3-1),20/2min(1-5),21min(1-12),89//1min(1-12),10/1min(0-12),10/2min(0-19),11/1min(0-8),77//16min(1-5)

Reference No. (SRN):- HUQ-DTC-CHXW
जारी करने की तिथि / Date of Issuance: 29-02-2024
जारी करने का स्थान / Place of Issuance: Gurgaon
जारी करने वाला प्राधिकरण / Issuing Authority: Divisional Forest Officer

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This is a Digitally Signed Certificate and does not require physical signature. The authenticity of this certificate can be verified from the verification link mentioned below:
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प्रभागीय वन अधिकारी द्वारा स्पष्टीकरण पत्र
Clarification letter by
Concerned Divisional Forest Officer
हरियाणा सरकार / Government of Haryana

हरियाणा भू-परिक्षण अधिनियम,1900 (1900 का पंजाब का अधिनियम II) अथवा वन अथवा प्रतिबंधित भूमि से संबंध मे निराक्षेप प्रमाण पत्र।
NOC in respect of Haryana Land and Preservation Act, 1900 (Punjab Act, II of 1900) or Forest or Restricted lands.

किला नम्बर Killa Number	56//15(8-0),57//11(8-0),12/1(0-2),65//21/2(7-19),22(8-0),23(8-0),24(8-0),66//1(8-0),10(8-0),11(8-0),20(8-0),21(8-0),67//5(7-4),6(7-12),15/3(1-12),17(8-0),23/3(0-4),24/1(7-18),25(8-0),74//15/3/2/2(0-16),16/2/2/1/2(0-2),75//1/2/2/2/2(0-2),2/2/2/2(3-11),3(7-11),4/3(1-4),5/3(2-3),6(8-0),7/1(2-18),7/2(5-2),8/1(3-2),8/2(4-18),9(8-0),11/2/2(7-9),12/1(2-9),12/2(5-11),13(8-0),14(8-0),15(8-0),16(8-0),17(8-0),18(8-0),19/1(2-18),20/1(2-18),23(8-0),24(8-0),25(8-0),76//1/4(3-11),2/2(1-5),4/2(2-10),5/1(6-0),5/2(2-0),6(8-0),7(8-0),8/1(3-4),8/3(1-12),9/1(1-12),10(8-0),11(8-0),12(8-0),13(8-0),14(8-0),15(8-0),16(8-0),17(8-0),18(8-0),19(8-0),20(8-0),21/1(2-4),21/2(5-16),22(8-0),23(8-0),24(8-0),25/1/1(3-16),25/1/2(0-4),25/2(4-0),77//1(8-0),10(8-0),11(8-0),12(8-0),19(8-0),20(8-0),21(8-0),22(8-0),23(8-0),24(8-0),25(7-12),89//11/2(6-0),16(7-12),17(8-0),18(8-0),19/3(4-3),19/1(0-7),20/1(7-9),21/1(2-14),21/3(0-5),22/2(7-8),23(8-0),24(8-0),25(7-11),90//1(8-0),2(8-0),3(8-0),4(8-0),5(7-12),6/1(4-4),6/2(3-8),7(8-0),8(8-0),9/1(1-7),9/3(5-3),9/2(0-4),9/4(1-6),10(8-16),12(5-2),13(10-0),14(8-0),91//1(8-0),2(8-0),3(8-0),4(8-0),5/2(7-12),6(5-9),7(7-2),8(8-0),9(8-0),10(8-0),11(7-18),12(9-18),13(8-15),92//2/2(5-18),3/1(5-8),3/2(2-0),3/3(0-12),4(8-0),5(8-0),6(8-0),7(8-0),8/1(3-8),8/2(4-12),9/1(0-8),9/2(7-12),12/1(7-12),12/2(0-8),13(8-0),14/1(1-14),15(5-7),18(6-0),19/1(4-16),19/2(3-4),20/1(7-10),22(4-15),98//2(5-17),3(8-0),4(8-0),5(7-12),6(7-12),7(8-16),8(3-13),15(6-2),78//1(8-0),2(8-0),3(8-0),4/1(7-0),6/3(0-2),7/2(2-0),8(8-0),9(8-0),10(8-0),11(8-0),12(8-0),13(8-0),14/1/1(2-3),18/1(4-0),19(8-0),20/1(1-11),93//15/3(2-0),16/1(3-1),20/2min(1-5),21min(1-12),89//1min(1-12),10/1min(0-12),10/2min(0-19),11/1min(0-8),77//16min(1-5)
प्रयोजन Purpose	Residential And Commercial Project

जारी करने की तिथि / Date of Issuance: 29-02-2024
जारी करने का स्थान / Place of Issuance: Gurgaon
जारी करने वाला प्राधिकरण / Issuing Authority: Divisional Forest Officer

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प्रभागीय वन अधिकारी द्वारा स्पष्टीकरण पत्र
Clarification letter by
Concerned Divisional Forest Officer
हरियाणा सरकार / Government of Haryana

हरियाणा भू-परिक्षण अधिनियम,1900 (1900 का पंजाब का अधिनियम II) अथवा वन अथवा प्रतिबंधित भूमि से संबंध मे निराक्षेप प्रमाण पत्र।
NOC in respect of Haryana Land and Preservation Act, 1900 (Punjab Act, II of 1900) or Forest or Restricted lands.

Applicant Sanjay Kumar Varshney located at village /city Sidhrawali district Gurgaon made a proposal to use this land for Residential And Commercial. It is made clear that:

a) As per records available above said land is not part of notified Reserved Forest, Protected Forest under Indian Forest Act, 1927 or any area closed under section 4 of Punjab Land Preservation Act, 1900.

b) It is clarified that by the Notification No. S.O.8/P.A 2/1900/S. 4/2013 dated 4th January, 2013, all Revenue Estate of Gurgaon is notified u/s 4 of PLPA 1900 and S.O.81/PA.2/1900/S.3/2012 u/s 3 of PLPA 1900. The area is however not recorded as forest in the Government record but felling of any tree is strictly prohibited without the permission of Divisional Forest Officer, Gurgaon.

c) If approach is required from Protected Forest by the user agency, the clearance/ regularization under Forest Conservation Act 1980 will be required. Without prior clearance from Forest Department, the use of Forest land for approach road is strictly prohibited. M/s Signatureglobal (india) Limited whose land is located at village/city, Sidhrawali District Gurgaon must obtain clearance as applicable under Forest Conservation Act 1980.

d) As per the records available with the Forest Department, Gurgaon the area does not fall in areas where plantations were raised by the Forest Department under Aravalli project.

e) All other statutory clearances mandated under the Environment Protection Act. 1986, as per the notification of Ministry of Environment and Forests, Government of India, dated 07-05-1992 or any other Act/ order shall be obtained as applicable by the project proponents from the concerned authorities.

f) The project proponent will not violate any Judicial Order/ direction issued by the Hon'ble Supreme Court/ High Courts.

g) It is clarified that the Hon'ble Supreme Court has issued various judgments dated 07.05.2002, 29.10.2002, 16.12.2002, 18.03.2004, 14.05.2008 etc. pertaining to Aravalli region in Haryana, which should be complied with.

h) It shall be the responsiblity of user agency/ applicant to get necessary clearances/ permissions under various Acts and Rules applicable if any, from the respective authorities/ Department.

i) This certificate is not applicable in case of Environment Department notification dated 10.03.2016 for Screening Plant, and notification dated 11.05.2016 for Stone Crusher. Investor/Applicant has to take clearance from Environment Department in case of Screening Plant and Stone Crusher.

It is subject to the following conditions:

1.Clarification Is Hereby Issued Subject To The Conditions Mentioned Above.

Date: 29-02-2024
Place: Gurgaon

Rajeev Tejvan,
(Divisional Forest Officer)

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-512-

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Phone No.: 0120 - 4044630, 4044660, 4323120, Fax: 0120 - 2406519, 0120 - 4044675
Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com

ANNEXURE-III

Test Report

Report Code: A20231231-049

Issue Date: 31.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 04.12.2023 to 31.12.2023

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Project Site
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/DEC/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	02.12.2023	167.3	83.8	9.3	46.5	910
2	06.12.2023	173.8	91.4	9.7	43.3	1030
3	10.12.2023	178.5	97.6	8.8	48.0	980
4	14.12.2023	168.1	90.7	10.5	41.3	1010
5	18.12.2023	176.7	96.8	9.9	45.6	980
6	21.12.2023	170.5	89.6	10.6	49.0	1030
7	25.12.2023	175.6	96.4	9.8	44.2	980
8	29.12.2023	183.7	91.4	9.0	48.6	930

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

Note: 1. The results indicated only refer to the tested samples and listed parameters and do not endorse any product.
2. This certificate shall not be reproduced wholly or in part without prior written consent of the laboratory.
3. This certificate shall not be used in any advertising media or as evidence in the court of law without prior written consent of the laboratory.
4. The samples received shall be destroyed after 30 days from the date of issue of the report unless specified otherwise and sample for biological testing will be destroyed after 7 days of testing.

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TC-7501

Test Report

Report Code: A20240130-049

Issue Date: 30.01.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.01.2024 to 30.01.2024

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Project Site
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/JAN/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.01.2024	159.2	83.1	8.6	43.8	830
2	05.01.2024	165.1	79.5	10.9	41.6	880
3	08.01.2024	176.9	95.3	8.6	34.3	910
4	12.01.2024	163.2	79.4	10.1	43.8	1010
5	16.01.2024	168.5	86.9	9.3	36.4	840
6	20.01.2024	173.1	93.3	9.7	30.3	780
7	24.01.2024	158.8	83.2	10.0	33.5	880
8	28.01.2024	162.6	86.5	8.8	32.7	740

****End of Report****

Signature Global India Limited

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

Note: 1. The results indicated only refer to the tested samples and listed parameters and do not endorse any product.
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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: A20240228-049

Issue Date: 28.02.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.02.2024 to 28.02.2024

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Project Site
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/FEB/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.02.2024	156.8	82.6	9.3	46.1	950
2	05.02.2024	180.7	94.9	9.7	41.5	880
3	09.02.2024	160.4	86.6	11.1	49.7	710
4	13.02.2024	151.5	78.3	10.2	38.1	850
5	17.02.2024	160.9	80.9	9.9	42.3	870
6	20.02.2024	158.7	84.3	10.8	45.9	980
7	23.02.2024	164.3	83.2	10.1	38.4	880
8	26.02.2024	156.9	81.5	9.2	43.2	850

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

Note: 1. The results indicated only refer to the tested samples and listed parameters and do not endorse any product.
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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com

TC-7501

Test Report

Report Code: A20231231-050

Issue Date: 31.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 04.12.2023 to 31.12.2023

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Bharat Petroleum Petrol Pump, Akerabhiwadi
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/DEC/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	02.12.2023	137.5	72.8	8.5	28.3	630
2	06.12.2023	127.2	66.5	9.6	32.7	700
3	10.12.2023	135.8	70.4	8.2	30.8	730
4	14.12.2023	131.6	67.6	9.2	29.9	600
5	18.12.2023	140.0	73.7	9.4	28.2	660
6	21.12.2023	135.3	70.8	8.8	33.5	710
7	25.12.2023	133.5	69.7	9.5	30.8	830
8	29.12.2023	145.1	73.9	8.9	29.1	810

****End of Report****

Narender Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: A20240130-050 **Issue Date: 30.01.2024**

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.01.2024 to 30.01.2024

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Bharat Petroleum Petrol Pump, Akerabhiwadi
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/JAN/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m^3	Particulate Matter ($PM_{2.5}$); µg/m^3	Sulphur Dioxide (SO_2); µg/m^3	Nitrogen Dioxide (NO_2); µg/m^3	Carbon Monoxide, (CO) µg/m^3
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.01.2024	134.7	67.6	8.5	26.3	620
2	05.01.2024	134.3	71.1	9.3	29.6	580
3	08.01.2024	136.4	71.4	9.7	33.7	700
4	12.01.2024	128.8	66.9	8.2	27.5	580
5	16.01.2024	136.2	71.2	9.3	29.6	780
6	20.01.2024	123.9	65.6	8.4	27.1	470
7	24.01.2024	124.9	64.9	8.2	31.9	550
8	28.01.2024	125.4	66.2	9.9	31.4	830

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Test Report

Report Code: A20240228-050

Issue Date: 28.02.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.02.2024 to 28.02.2024

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Bharat Petroleum Petrol Pump, Akerabhiwadi
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/FEB/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.02.2024	118.3	59.7	8.3	27.4	800
2	05.02.2024	117.2	61.6	9.1	28.7	640
3	09.02.2024	126.3	67.2	9.3	32.9	800
4	13.02.2024	124.5	65.4	9.8	30.1	810
5	17.02.2024	130.3	67.7	8.9	32.7	640
6	20.02.2024	121.4	62.6	8.6	28.9	810
7	23.02.2024	127.1	65.4	9.7	35.1	750
8	26.02.2024	120.3	64.1	9.2	34.8	790

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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4. The samples received shall be destroyed after 30 days from the date of issue of the report unless specified otherwise and sample for biological testing will be destroyed after 2 days of testing.

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Phone No.: 0120 – 4044630, 4044660, 4323120, Fax: 0120 – 2406519, 0120 - 4044675
Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com

TC-7501

Test Report

Report Code: A20231231-051

Issue Date: 31.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 04.12.2023 to 31.12.2023

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Downtown Palasoli
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/DEC/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); $\mu g/m^3$	Particulate Matter ($PM_{2.5}$); $\mu g/m^3$	Sulphur Dioxide (SO_2); $\mu g/m^3$	Nitrogen Dioxide (NO_2); $\mu g/m^3$	Carbon Monoxide, (CO) $\mu g/m^3$
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	02.12.2023	164.8	72.5	8.6	46.7	750
2	06.12.2023	170.3	80.1	9.3	42.9	780
3	10.12.2023	167.6	84.3	8.4	47.6	750
4	14.12.2023	166.4	80.8	10.1	40.9	810
5	18.12.2023	173.2	85.5	9.5	45.2	730
6	21.12.2023	164.5	78.3	10.2	48.6	780
7	25.12.2023	169.8	85.1	9.4	43.8	710
8	29.12.2023	167.2	84.2	8.6	48.2	680

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: A20240130-051

Issue Date: 30.01.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.01.2024 to 30.01.2024

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Downtown Palasoli
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/JAN/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.01.2024	150.9	75.8	8.2	42.6	640
2	05.01.2024	141.7	69.2	10.5	41.2	610
3	08.01.2024	147.4	73.5	8.2	33.9	600
4	12.01.2024	155.7	69.1	9.7	43.4	640
5	16.01.2024	158.9	76.6	8.9	36.0	590
6	20.01.2024	164.4	83.7	9.3	29.9	530
7	24.01.2024	149.3	72.9	9.6	33.8	630
8	28.01.2024	153.1	76.2	8.4	31.6	490

****End of Report****

Narinder Singh
Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: A20240228-051 **Issue Date: 28.02.2024**

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.02.2024 to 28.02.2024

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Downtown Palasoli
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/FEB/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.02.2024	145.3	72.3	8.9	45.7	750
2	05.02.2024	150.2	74.8	9.3	41.5	630
3	09.02.2024	156.5	76.3	10.7	48.6	450
4	13.02.2024	138.7	68.0	9.8	37.7	600
5	17.02.2024	141.4	70.4	9.5	41.9	620
6	20.02.2024	148.5	74.0	10.4	45.5	730
7	23.02.2024	154.8	72.4	9.7	38.0	620
8	26.02.2024	147.4	71.2	8.8	42.8	590

^^End of Report^^

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: A20231231-052

Issue Date: 31.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 04.12.2023 to 31.12.2023

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Indraprastha Gas Limited CNG Station, Malpura
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/DEC/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	02.12.2023	165.3	87.9	10.4	47.6	980
2	06.12.2023	181.8	95.5	11.1	44.4	1030
3	10.12.2023	186.5	103.7	10.2	49.1	980
4	14.12.2023	176.1	95.5	11.9	42.4	1030
5	18.12.2023	184.7	100.9	11.3	46.7	980
6	21.12.2023	175.3	93.7	12.7	50.1	1030
7	25.12.2023	180.1	100.5	11.2	45.3	970
8	29.12.2023	184.7	101.6	10.4	49.7	940

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: A20240130-052

Issue Date: 30.01.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.01.2024 to 30.01.2024

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Indraprastha Gas Limited CNG Station, Malpura
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/JAN/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m^3	Particulate Matter ($PM_{2.5}$); µg/m^3	Sulphur Dioxide (SO_2); µg/m^3	Nitrogen Dioxide (NO_2); µg/m^3	Carbon Monoxide, (CO) µg/m^3
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.01.2024	160.1	87.2	9.4	44.1	900
2	05.01.2024	152.2	84.6	12.3	42.7	870
3	08.01.2024	157.9	88.4	10.8	35.4	860
4	12.01.2024	147.2	82.5	11.5	44.9	900
5	16.01.2024	169.5	92.0	10.7	37.5	850
6	20.01.2024	174.1	96.7	11.1	32.4	790
7	24.01.2024	159.8	88.3	11.4	34.6	890
8	28.01.2024	163.6	91.6	10.2	33.1	750

^^End of Report^^

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: A20240228-052

Issue Date: 28.02.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.02.2024 to 28.02.2024

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Indraprastha Gas Limited CNG Station, Malpura
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/FEB/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.02.2024	155.8	87.7	10.7	47.2	1010
2	05.02.2024	157.7	88.2	11.1	42.6	880
3	09.02.2024	163.6	90.7	12.5	50.1	760
4	13.02.2024	148.5	83.4	11.6	39.2	860
5	17.02.2024	151.9	85.8	11.3	43.4	880
6	20.02.2024	159.7	89.4	12.2	47.8	1010
7	23.02.2024	165.3	87.8	11.5	39.5	880
8	26.02.2024	157.9	86.6	10.6	44.3	860

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Test Report

Report Code: A20231231-053

Issue Date: 31.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 04.12.2023 to 31.12.2023

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Near BMU D Block Crossing
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/DEC/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	02.12.2023	160.8	77.5	10.9	34.8	710
2	06.12.2023	153.4	71.8	9.7	39.2	750
3	10.12.2023	162.1	74.9	10.6	36.3	820
4	14.12.2023	157.8	72.1	11.6	36.4	690
5	18.12.2023	166.2	79.2	11.8	34.7	740
6	21.12.2023	161.5	75.3	11.2	39.6	790
7	25.12.2023	159.7	73.5	9.9	37.3	810
8	29.12.2023	174.3	83.4	11.3	36.2	880

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: A20240130-053

Issue Date: 30.01.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.01.2024 to 30.01.2024

Sample Description: Ambient Air

RESULTS

(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Near BMU D Block Crossing
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/JAN/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.01.2024	156.2	71.8	9.9	32.9	730
2	05.01.2024	160.5	75.6	11.7	36.1	690
3	08.01.2024	162.8	75.9	12.1	40.7	680
4	12.01.2024	155.4	71.4	10.6	34.4	740
5	16.01.2024	162.6	75.7	11.7	36.1	840
6	20.01.2024	150.3	70.9	9.8	33.6	790
7	24.01.2024	151.3	69.4	9.6	38.1	700
8	28.01.2024	151.8	70.7	12.3	37.7	710

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: A20240228-053

Issue Date: 28.02.2024

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Analysis Duration: 02.02.2024 to 28.02.2024

Sample Description: Ambient Air

RESULTS
(Ambient Air Quality Analysis)

SAMPLING DETAILS

Sampling Location	:	Near BMU D Block Crossing
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	GRC/LAB/STP/AIR/01: 2018
Weather Condition	:	Clear Sky
Sampling Duration	:	24 Hours
Sampling Duration for CO	:	1 Hour
Sampler Location w.r.t. Height	:	4.0 Meter above Ground Level
Sample Packing & Marking	:	Plastic Bottle/ Zip Polybag & SGIL/FEB/A001-A008

S. No.	Date	Test Parameters				
		Particulate Matter (PM_{10}); µg/m³	Particulate Matter ($PM_{2.5}$); µg/m³	Sulphur Dioxide (SO_2); µg/m³	Nitrogen Dioxide (NO_2); µg/m³	Carbon Monoxide, (CO) µg/m³
		IS 5182 (Part 23):2006 (RA 2022)	IS 5182 (Part 24):2019	IS 5182 (Part 2):2001 (RA 2017)	IS 5182 (Part 6):2006 (RA 2022)	IS 5182 (Part 10):1999 (RA 2019)
1	01.02.2024	140.7	64.2	10.7	33.8	880
2	05.02.2024	143.6	66.5	11.5	35.2	730
3	09.02.2024	152.7	71.7	11.7	39.4	930
4	13.02.2024	150.9	69.5	12.2	36.6	940
5	17.02.2024	156.7	72.2	11.3	38.2	730
6	20.02.2024	147.8	67.8	11.0	35.4	700
7	23.02.2024	153.5	72.9	12.1	41.6	710
8	26.02.2024	149.7	68.6	11.6	37.3	680

****End of Report****

Narinder Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: N20231205-049 **Issue Date: 05.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Data Received on: 05.12.2023

Sample Description: Ambient Noise

RESULTS

Ambient Noise Level

MONITORING DETAILS

Date of Monitoring	: 04.12.2023
Monitoring Done by	: Mr. Maan Singh
Monitoring Protocol	: IS 9989: 1981, RA 2020
Weather Condition	: Clear Sky
Monitoring Duration	: 24 Hours

S. No.	LOCATION	ZONE	Limit As Per Noise Pollution (Regulation & Control) Rules, 2000 Leq, dB (A)		Observed Value Leq, dB (A)	
			Day Time*	Night Time**	Day Time*	Night Time**
1	Project Site	Commercial Area	65	55	56.8	47.3
2	Bharat Petroleum Petrol Pump, Akerabhiwadi	Commercial Area	65	55	50.5	42.7
3	Downtown Palasoli	Residential Area	55	45	53.2	43.5
4	Indraprastha Gas Limited CNG Station, Malpura	Commercial Area	65	55	63.6	52.9
5	Samrat Hotel,Bilaspur NH-8 Rathiwas Mod	Commercial Area	65	55	60.9	50.5
	* Day Time	6.00 a.m. to 10.00 p.m				
	**Night Time	10.00 p.m. to 6.00 a.m.				

End of Report

Global India Limited Signature

Narender Singh
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TC-7501

Test Report

Report Code: S20231221-049 **Issue Date: 21.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Soil Sample

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 20.12.2023

RESULTS
Soil Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Project Site
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: GRC/LAB/STP/SOIL/01; 2018
Weather Condition	: Clear Sky
Sample Quantity	: 5 kg
Sample Packing & Marking	: Zip Polybag; SGIL/DEC /SQ-01

S. No.	Parameters	Units	Results	Test Method
1.	Texture	-	Sandy Loam	GRC-LAB/STP-SOIL/22; 2018
2.	Particle Size Distribution	-		IS 2720 (Part-4): 1985, RA 2020
	Sand	%	63.7	
	Silt	%	16.9	
	Clay	%	19.4	
3.	pH (1:2 Suspension)	-	7.59	IS 2720 (Part-26): 1987, RA 2021
4.	Electrical Conductivity (1:2	µS/cm	447	IS 14767: 2000, RA 2021
5.	Moisture Content	%	6.9	IS 2720 (Part-2): 1973, RA 2020
6.	Cation Exchange Capacity (CEC)	meq/100 gm	13.0	IS 2720 (Part-24): 1976, RA 2020
7.	Available Potassium (as K)	mg/kg	69	GRC-LAB/STP-SOIL/07; 2018
8.	Exchangeable Sodium (as Na)	mg/kg	117	GRC-LAB/STP-SOIL/07; 2018
9.	Exchangeable Calcium (as Ca)	mg/kg	1901	GRC-LAB/STP-SOIL/08; 2018
10.	Exchangeable Magnesium (as Mg)	mg/kg	341	GRC-LAB/STP-SOIL/08; 2018
11.	Sodium Absorption Ratio (SAR)	-	0.65	GRC-LAB/STP-SOIL/19; 2018
12.	Organic Matter	%	0.71	IS 2720 (Part-22): 1972, RA 2020
13.	Total Nitrogen (as N)	mg/kg	40	IS 14684: 1999 RA 2019
14.	Nitrate (as NO_3)	mg/kg	5.7	IS 14684: 1999 RA 2019
15.	Total Phosphate (as PO_4)	mg/kg	6.3	USEPA Method 365.3: 1978
16.	Iron (as Fe)	mg/kg	5.5	USEPA Method 3051-A: 2007
17.	Zinc (as Zn)	mg/kg	2.2	USEPA Method 3051-A: 2007

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TC-7501

Test Report

Report Code: S20231221-049 **Issue Date: 21.12.2023**

18.	Copper (as Cu)	mg/kg	1.1	USEPA Method 3051-A: 2007
19.	Boron (as B)	mg/kg	1.8	USEPA Method 3051-A: 2007
20.	Manganese (as Mn)	mg/kg	7.6	USEPA Method 3051-A: 2007
21.	Water Holding Capacity	%	25.7	GRC-LAB/STP-SOIL/13; 2020
22.	Permeability	cm/hr	2.3	IS 2720 (Part-17): 1986, RA 2021
23.	Porosity	%	38.7	GRC-LAB/STP-SOIL/20; 2020
24.	Bulk Density	gm/cc	1.31	GRC-LAB/STP-SOIL/12; 2018

****End of Report****

Global India Limited Signature

Narendra Singh
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TC-7501

Test Report

Report Code: S20231221-050 **Issue Date: 21.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Soil Sample

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 20.12.2023

RESULTS
Soil Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Non-Agricultural Land Village Kapriwas
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: GRC/LAB/STP/SOIL/01; 2018
Weather Condition	: Clear Sky
Sample Quantity	: 5 kg
Sample Packing & Marking	: Zip Polybag; SGIL/DEC /SQ-02

S. No.	Parameters	Units	Results	Test Method
1.	Texture	-	Sandy Loam	GRC-LAB/STP-SOIL/22; 2018
2.	Particle Size Distribution	-		IS 2720 (Part-4): 1985, RA 2020
	Sand	%	65.3	
	Silt	%	17.2	
	Clay	%	17.5	
3.	pH (1:2 Suspension)	-	7.67	IS 2720 (Part-26): 1987, RA 2021
4.	Electrical Conductivity (1:2	µS/cm	443	IS 14767: 2000, RA 2021
5.	Moisture Content	%	6.8	IS 2720 (Part-2): 1973, RA 2020
6.	Cation Exchange Capacity (CEC)	meq/100 gm	13.6	IS 2720 (Part-24): 1976, RA 2020
7.	Available Potassium (as K)	mg/kg	67	GRC-LAB/STP-SOIL/07; 2018
8.	Exchangeable Sodium (as Na)	mg/kg	114	GRC-LAB/STP-SOIL/07; 2018
9.	Exchangeable Calcium (as Ca)	mg/kg	1947	GRC-LAB/STP-SOIL/08; 2018
10.	Exchangeable Magnesium (as Mg)	mg/kg	386	GRC-LAB/STP-SOIL/08; 2018
11.	Sodium Absorption Ratio (SAR)	-	0.62	GRC-LAB/STP-SOIL/19; 2018
12.	Organic Matter	%	0.83	IS 2720 (Part-22): 1972, RA 2020
13.	Total Nitrogen (as N)	mg/kg	42	IS 14684: 1999 RA 2019
14.	Nitrate (as NO_3)	mg/kg	5.3	IS 14684: 1999 RA 2019
15.	Total Phosphate (as PO_4)	mg/kg	6.1	USEPA Method 365.3: 1978
16.	Iron (as Fe)	mg/kg	4.8	USEPA Method 3051-A: 2007
17.	Zinc (as Zn)	mg/kg	2.1	USEPA Method 3051-A: 2007

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TC-7501

Test Report

Report Code: S20231221-050 **Issue Date: 21.12.2023**

18.	Copper (as Cu)	mg/kg	1.2	USEPA Method 3051-A: 2007
19.	Boron (as B)	mg/kg	2.3	USEPA Method 3051-A: 2007
20.	Manganese (as Mn)	mg/kg	7.4	USEPA Method 3051-A: 2007
21.	Water Holding Capacity	%	25.3	GRC-LAB/STP-SOIL/13; 2020
22.	Permeability	cm/hr	2.2	IS 2720 (Part-17): 1986, RA 2021
23.	Porosity	%	39.8	GRC-LAB/STP-SOIL/20; 2020
24.	Bulk Density	gm/cc	1.31	GRC-LAB/STP-SOIL/12; 2018

End of Report

Signature Global India Limited

Narendra Singh
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Test Report

Report Code: S20231221-051 **Issue Date: 21.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 20.12.2023

Sample Description: Soil Sample

RESULTS
Soil Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Non-Agricultural Land Village Gurjar Ghatal
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: GRC/LAB/STP/SOIL/01; 2018
Weather Condition	: Clear Sky
Sample Quantity	: 5 kg
Sample Packing & Marking	: Zip Polybag; SGIL/DEC /SQ-03

S. No.	Parameters	Units	Results	Test Method
1.	Texture	-	Sandy Loam	GRC-LAB/STP-SOIL/22; 2018
2.	Particle Size Distribution	-		IS 2720 (Part-4): 1985, RA 2020
	Sand	%	67.5	
	Silt	%	15.3	
	Clay	%	17.2	
3.	pH (1:2 Suspension)	-	7.69	IS 2720 (Part-26): 1987, RA 2021
4.	Electrical Conductivity (1:2	µS/cm	441	IS 14767: 2000, RA 2021
5.	Moisture Content	%	6.5	IS 2720 (Part-2): 1973, RA 2020
6.	Cation Exchange Capacity (CEC)	meq/100 gm	13.5	IS 2720 (Part-24): 1976, RA 2020
7.	Available Potassium (as K)	mg/kg	71	GRC-LAB/STP-SOIL/07; 2018
8.	Exchangeable Sodium (as Na)	mg/kg	115	GRC-LAB/STP-SOIL/07; 2018
9.	Exchangeable Calcium (as Ca)	mg/kg	1938	GRC-LAB/STP-SOIL/08; 2018
10.	Exchangeable Magnesium (as Mg)	mg/kg	378	GRC-LAB/STP-SOIL/08; 2018
11.	Sodium Absorption Ratio (SAR)	-	0.62	GRC-LAB/STP-SOIL/19; 2018
12.	Organic Matter	%	0.83	IS 2720 (Part-22): 1972, RA 2020
13.	Total Nitrogen (as N)	mg/kg	38	IS 14684: 1999 RA 2019
14.	Nitrate (as NO_3)	mg/kg	4.9	IS 14684: 1999 RA 2019
15.	Total Phosphate (as PO_4)	mg/kg	5.1	USEPA Method 365.3: 1978
16.	Iron (as Fe)	mg/kg	3.2	USEPA Method 3051-A: 2007
17.	Zinc (as Zn)	mg/kg	2.3	USEPA Method 3051-A: 2007

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Narendra Singh
(Sr. Chemist)
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Test Report

Report Code: S20231221-051 **Issue Date: 21.12.2023**

18.	Copper (as Cu)	mg/kg	1.1	USEPA Method 3051-A: 2007
19.	Boron (as B)	mg/kg	2.2	USEPA Method 3051-A: 2007
20.	Manganese (as Mn)	mg/kg	6.8	USEPA Method 3051-A: 2007
21.	Water Holding Capacity	%	26.4	GRC-LAB/STP-SOIL/13; 2020
22.	Permeability	cm/hr	2.3	IS 2720 (Part-17): 1986, RA 2021
23.	Porosity	%	39.7	GRC-LAB/STP-SOIL/20; 2020
24.	Bulk Density	gm/cc	1.32	GRC-LAB/STP-SOIL/12; 2018

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Signature Global India Limited

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Recognized by Ministry of Environment, Forest & Climate Change (MOEF&CC, GOI), under the E (P) Act, 1986
Head Office: F-375, Sector-63, Noida, Gautam Budh Nagar, U.P - 201 301
Phone No.: 0120 - 4044630, 4044660, 4323120, Fax: 0120 - 2406519, 0120 - 4044675
Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: S20231221-052 **Issue Date: 21.12.2023**

Issued To: Industrial Park Project by M/s Signature. Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Soil Sample

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 20.12.2023

RESULTS
Soil Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Agricultural Land Village Sidhrawali
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: GRC/LAB/STP/SOIL/01; 2018
Weather Condition	: Clear Sky
Sample Quantity	: 5 kg
Sample Packing & Marking	: Zip Polybag; SGIL/DEC /SQ-04

S. No.	Parameters	Units	Results	Test Method
1.	Texture	-	Sandy Loam	GRC-LAB/STP-SOIL/22; 2018
2.	Particle Size Distribution	-		IS 2720 (Part-4): 1985, RA 2020
	Sand	%	63.5	
	Silt	%	16.8	
	Clay	%	19.7	
3.	pH (1:2 Suspension)	-	7.78	IS 2720 (Part-26): 1987, RA 2021
4.	Electrical Conductivity (1:2	µS/cm	447	IS 14767: 2000, RA 2021
5.	Moisture Content	%	8.7	IS 2720 (Part-2): 1973, RA 2020
6.	Cation Exchange Capacity (CEC)	meq/100 gm	14.1	IS 2720 (Part-24): 1976, RA 2020
7.	Available Potassium (as K)	mg/kg	87	GRC-LAB/STP-SOIL/07; 2018
8.	Exchangeable Sodium (as Na)	mg/kg	121	GRC-LAB/STP-SOIL/07; 2018
9.	Exchangeable Calcium (as Ca)	mg/kg	2018	GRC-LAB/STP-SOIL/08; 2018
10.	Exchangeable Magnesium (as Mg)	mg/kg	395	GRC-LAB/STP-SOIL/08; 2018
11.	Sodium Absorption Ratio (SAR)	-	0.64	GRC-LAB/STP-SOIL/19; 2018
12.	Organic Matter	%	0.46	IS 2720 (Part-22): 1972, RA 2020
13.	Total Nitrogen (as N)	mg/kg	45	IS 14684: 1999 RA 2019
14.	Nitrate (as NO_3)	mg/kg	6.3	IS 14684: 1999 RA 2019
15.	Total Phosphate (as PO_4)	mg/kg	6.8	USEPA Method 365.3: 1978
16.	Iron (as Fe)	mg/kg	9.7	USEPA Method 3051-A: 2007
17.	Zinc (as Zn)	mg/kg	2.1	USEPA Method 3051-A: 2007

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Narendra Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

GRC-LAB/OF-039 Rev. 00 Issue Date: 02.07.2019

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TC-7501

Test Report

Report Code: S20231221-052 **Issue Date: 21.12.2023**

18.	Copper (as Cu)	mg/kg	1.3	USEPA Method 3051-A: 2007
19.	Boron (as B)	mg/kg	3.1	USEPA Method 3051-A: 2007
20.	Manganese (as Mn)	mg/kg	8.9	USEPA Method 3051-A: 2007
21.	Water Holding Capacity	%	27.1	GRC-LAB/STP-SOIL/13; 2020
22.	Permeability	cm/hr	2.1	IS 2720 (Part-17): 1986, RA 2021
23.	Porosity	%	32.6	GRC-LAB/STP-SOIL/20; 2020
24.	Bulk Density	gm/cc	1.33	GRC-LAB/STP-SOIL/12; 2018

End of Report

Signature Global India Limited

Narendra Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: S20231221-053 **Issue Date: 21.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 20.12.2023

Sample Description: Soil Sample

RESULTS
Soil Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Agricultural Land Village Rathiwas
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: GRC/LAB/STP/SOIL/01; 2018
Weather Condition	: Clear Sky
Sample Quantity	: 5 kg
Sample Packing & Marking	: Zip Polybag; SGIL/DEC /SQ-05

S. No.	Parameters	Units	Results	Test Method
1.	Texture	-	Sandy Loam	GRC-LAB/STP-SOIL/22; 2018
2.	Particle Size Distribution	-		IS 2720 (Part-4): 1985, RA 2020
	Sand	%	63.8	
	Silt	%	16.9	
	Clay	%	19.3	
3.	pH (1:2 Suspension)	-	7.88	IS 2720 (Part-26): 1987, RA 2021
4.	Electrical Conductivity (1:2	µS/cm	437	IS 14767: 2000, RA 2021
5.	Moisture Content	%	8.6	IS 2720 (Part-2): 1973, RA 2020
6.	Cation Exchange Capacity (CEC)	meq/100 gm	14.1	IS 2720 (Part-24): 1976, RA 2020
7.	Available Potassium (as K)	mg/kg	89	GRC-LAB/STP-SOIL/07; 2018
8.	Exchangeable Sodium (as Na)	mg/kg	127	GRC-LAB/STP-SOIL/07; 2018
9.	Exchangeable Calcium (as Ca)	mg/kg	2023	GRC-LAB/STP-SOIL/08; 2018
10.	Exchangeable Magnesium (as Mg)	mg/kg	387	GRC-LAB/STP-SOIL/08; 2018
11.	Sodium Absorption Ratio (SAR)	-	0.68	GRC-LAB/STP-SOIL/19; 2018
12.	Organic Matter	%	0.68	IS 2720 (Part-22): 1972, RA 2020
13.	Total Nitrogen (as N)	mg/kg	44	IS 14684: 1999 RA 2019
14.	Nitrate (as NO_3)	mg/kg	6.7	IS 14684: 1999 RA 2019
15.	Total Phosphate (as PO_4)	mg/kg	6.9	USEPA Method 365.3: 1978
16.	Iron (as Fe)	mg/kg	10.8	USEPA Method 3051-A: 2007
17.	Zinc (as Zn)	mg/kg	2.6	USEPA Method 3051-A: 2007

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Narendra Singh
(Sr. Chemist)
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TC-7501

Test Report

Report Code: S20231221-053

Issue Date: 21.12.2023

18.	Copper (as Cu)	mg/kg	1.7	USEPA Method 3051-A: 2007
19.	Boron (as B)	mg/kg	2.8	USEPA Method 3051-A: 2007
20.	Manganese (as Mn)	mg/kg	10.1	USEPA Method 3051-A: 2007
21.	Water Holding Capacity	%	26.7	GRC-LAB/STP-SOIL/13; 2020
22.	Permeability	cm/hr	2.2	IS 2720 (Part-17): 1986, RA 2021
23.	Porosity	%	33.1	GRC-LAB/STP-SOIL/20; 2020
24.	Bulk Density	gm/cc	1.33	GRC-LAB/STP-SOIL/12; 2018

****End of Report****

Signature Global India Limited

Narendra Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-049(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023

Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Near Project site
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS-17614 (Part-1):2021
Weather Condition	: Clear Sky
Sample Quantity	: 5 L
Sample Packing & Mark	: Plastic Bottle & SGIL/DEC/GW-01

S. No.	Parameters	Units	Limits (as per IS:10500-2012)		Results	Test Method
			Desirable Limit	Permissible Limit		
1	Color	Hazen	5	15	<5	IS 3025 (Part-4): 2021
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5): 2018
3	Turbidity	NTU	1	5	<1	IS 3025 (Part-10): 1984, RA 2017
4	pH Value	-	6.5-8.5	No Relaxation	7.88	IS 3025 (Part-11): 2022
5	Total Dissolved Solids	mg/l	500	2000	1420	IS 3025 (Part-16): 2023
6	Total Hardness (as CaCO3)	mg/l	200	600	413	IS 3025 (Part-21): 2009, RA 2019
7	Total Alkalinity (as CaCO3)	mg/l	200	600	426	IS 3025 (Part-23): 1986, RA 2019
8	Chlorides (as Cl)	mg/l	250	1000	343	IS 3025 (Part-32): 1988 , RA 2019
9	Fluoride (as F)	mg/l	1	1.5	0.7	4500F-D, APHA 24th Ed. 2023
10	Calcium (as Ca2+)	mg/l	75	200	100	IS 3025 (Part-40): 1991, RA 2019
11	Magnesium (as Mg2+)	mg/l	30	100	40	IS 3025 (Part-46): 1994, RA 2019
12	Sulphate (as SO4)	mg/l	200	400	160	IS 3025 (Part-24/Sec-1): 2022
13	Nitrate (as NO3)	mg/l	45	No Relaxation	18	IS 3025 (Part-34/Sec-3): 2021
14	Iron (as Fe)	mg/l	1	No Relaxation	0.68	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15	Aluminium (as Al)	mg/l	0.03	0.2	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16	Copper (as Cu)	mg/l	0.05	1.5	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17	Manganese (as Mn)	mg/l	0.1	0.3	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Test Report

Report Code: GW20231220-049(A) **Issue Date: 20.12.2023**

18	Boron (as B)	mg/l	0.5	1	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
19	Zinc (as Zn)	mg/l	5	15	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
20	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
21	Arsenic (as As)	mg/l	0.01	0.05	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
22	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
23	Total Chromium (as Cr3+)	mg/l	0.05	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
24	Cyanide (as CN)	mg/l	0.05	No Relaxation	<0.01	IS 3025 (Part-27): 1986, RA 2019
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
27	Nickel (as Ni)	mg/l	0.02	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
28	Phenolic Compounds (as C6H5OH)	mg/l	0.001	0.002	<0.001	IS 3025 (Part-43): 2022
29	Anionic Detergent (as MBAS)	mg/l	0.2	1	<0.01	IS 3025 (Part-68): 2019
30	Silica (as SiO2)	mg/l	--	--	5.4	4500-SiO2 (C/D), APHA 24th Ed. 2023
31	Phosphate (as PO4)	mg/l	--	--	1.1	4500-P D, APHA 24th Ed. 2023
32	Specific Conductivity	µS/cm	-	-	2130	IS 3025 (Part-14): 2013, RA 2019

**** End of Report ****

Signature Global India Limited

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231209-049(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Near Project Site
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS 1622: 1981, RA 2019
Weather Condition	: Clear Sky
Sample Quantity	: 500 ml
Sample Packing & Mark	: Glass Bottle & SGIL/DEC/GW-01

S. No.	Parameters	Units	Limits (as per IS 10500: 2012)	Results	Test Method
1	Total Coliform	MPN/100ml	shall not be detectable	Not Detected (<2)	IS 1622: 1981, RA 2019
2	E. coli	MPN/100ml	shall not be detectable	Absent (<2)	IS 1622: 1981, RA 2019)

** End of Report **

Signature Global India Limited

Ajay Kumar Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-050(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Kapriwas
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS-17614 (Part-1):2021
Weather Condition	: Clear Sky
Sample Quantity	: 5 L
Sample Packing & Mark	: Plastic Bottle & SGIL/DEC/GW-02

S. No.	Parameters	Units	Limits (as per IS:10500-2012)		Results	Test Method
			Desirable Limit	Permissible Limit		
1	Color	Hazen	5	15	<5	IS 3025 (Part-4): 2021
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5): 2018
3	Turbidity	NTU	1	5	<1	IS 3025 (Part-10): 1984, RA 2017
4	pH Value	-	6.5-8.5	No Relaxation	7.93	IS 3025 (Part-11): 2022
5	Total Dissolved Solids	mg/l	500	2000	1450	IS 3025 (Part-16): 2023
6	Total Hardness (as CaCO3)	mg/l	200	600	447	IS 3025 (Part-21): 2009, RA 2019
7	Total Alkalinity (as CaCO3)	mg/l	200	600	478	IS 3025 (Part-23): 1986, RA 2019
8	Chlorides (as Cl)	mg/l	250	1000	330	IS 3025 (Part-32): 1988 , RA 2019
9	Fluoride (as F)	mg/l	1	1.5	0.6	4500F-D, APHA 24th Ed. 2023
10	Calcium (as Ca2+)	mg/l	75	200	107	IS 3025 (Part-40): 1991, RA 2019
11	Magnesium (as Mg2+)	mg/l	30	100	43	IS 3025 (Part-46): 1994, RA 2019
12	Sulphate (as SO4)	mg/l	200	400	154	IS 3025 (Part-24/Sec-1): 2022
13	Nitrate (as NO3)	mg/l	45	No Relaxation	20	IS 3025 (Part-34/Sec-3): 2021
14	Iron (as Fe)	mg/l	1	No Relaxation	0.56	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15	Aluminum (as Al)	mg/l	0.03	0.2	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16	Copper (as Cu)	mg/l	0.05	1.5	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17	Manganese (as Mn)	mg/l	0.1	0.3	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: GW20231220-050(A) **Issue Date: 20.12.2023**

18	Boron (as B)	mg/l	0.5	1	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
19	Zinc (as Zn)	mg/l	5	15	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
20	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
21	Arsenic (as As)	mg/l	0.01	0.05	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
22	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
23	Total Chromium (as Cr3+)	mg/l	0.05	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
24	Cyanide (as CN)	mg/l	0.05	No Relaxation	<0.01	IS 3025 (Part-27): 1986, RA 2019
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
27	Nickel (as Ni)	mg/l	0.02	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
28	Phenolic Compounds (as C6H5OH)	mg/l	0.001	0.002	<0.001	IS 3025 (Part-43): 2022
29	Anionic Detergent (as MBAS)	mg/l	0.2	1	<0.01	IS 3025 (Part-68): 2019
30	Silica (as SiO2)	mg/l	--	--	5.1	4500-SiO2 (C/D), APHA 24th Ed. 2023
31	Phosphate (as PO4)	mg/l	--	--	1.3	4500-P D, APHA 24th Ed. 2023
32	Specific Conductivity	µS/cm	-	-	2170	IS 3025 (Part-14): 2013, RA 2019

**** End of Report ****

Signature Global India Limited

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231209-050(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023

Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Kapriwas
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS 1622: 1981, RA 2019
Weather Condition	: Clear Sky
Sample Quantity	: 500 ml
Sample Packing & Mark	: Glass Bottle & SGIL/DEC/GW-02

S. No.	Parameters	Units	Limits (as per IS 10500: 2012)	Results	Test Method
1	Total Coliform	MPN/100ml	shall not be detectable	Not Detected (<2)	IS 1622: 1981, RA 2019
2	E. coli	MPN/100ml	shall not be detectable	Absent (<2)	IS 1622: 1981, RA 2019)

**** End of Report ****

Signature Global India Limited

Ajay Kumar Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-051(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Gurjar Ghatal
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS-17614 (Part-1):2021
Weather Condition	: Clear Sky
Sample Quantity	: 5 L
Sample Packing & Mark	: Plastic Bottle & SGIL/DEC/GW-03

S. No.	Parameters	Units	Limits (as per IS:10500-2012)		Results	Test Method
			Desirable Limit	Permissible Limit		
1	Color	Hazen	5	15	<5	IS 3025 (Part-4): 2021
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5): 2018
3	Turbidity	NTU	1	5	<1	IS 3025 (Part-10): 1984, RA 2017
4	pH Value	-	6.5-8.5	No Relaxation	7.89	IS 3025 (Part-11): 2022
5	Total Dissolved Solids	mg/l	500	2000	1440	IS 3025 (Part-16): 2023
6	Total Hardness (as CaCO3)	mg/l	200	600	458	IS 3025 (Part-21): 2009, RA 2019
7	Total Alkalinity (as CaCO3)	mg/l	200	600	487	IS 3025 (Part-23): 1986, RA 2019
8	Chlorides (as Cl)	mg/l	250	1000	335	IS 3025 (Part-32): 1988 , RA 2019
9	Fluoride (as F)	mg/l	1	1.5	0.5	4500F-D, APHA 24th Ed. 2023
10	Calcium (as Ca2+)	mg/l	75	200	110	IS 3025 (Part-40): 1991, RA 2019
11	Magnesium (as Mg2+)	mg/l	30	100	44	IS 3025 (Part-46): 1994, RA 2019
12	Sulphate (as SO4)	mg/l	200	400	136	IS 3025 (Part-24/Sec-1): 2022
13	Nitrate (as NO3)	mg/l	45	No Relaxation	19	IS 3025 (Part-34/Sec-3): 2021
14	Iron (as Fe)	mg/l	1	No Relaxation	0.63	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15	Aluminum (as Al)	mg/l	0.03	0.2	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16	Copper (as Cu)	mg/l	0.05	1.5	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17	Manganese (as Mn)	mg/l	0.1	0.3	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-051(A) **Issue Date: 20.12.2023**

18	Boron (as B)	mg/l	0.5	1	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
19	Zinc (as Zn)	mg/l	5	15	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
20	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
21	Arsenic (as As)	mg/l	0.01	0.05	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
22	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
23	Total Chromium (as Cr3+)	mg/l	0.05	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
24	Cyanide (as CN)	mg/l	0.05	No Relaxation	<0.01	IS 3025 (Part-27): 1986, RA 2019
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
27	Nickel (as Ni)	mg/l	0.02	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
28	Phenolic Compounds (as C6H5OH)	mg/l	0.001	0.002	<0.001	IS 3025 (Part-43): 2022
29	Anionic Detergent (as MBAS)	mg/l	0.2	1	<0.01	IS 3025 (Part-68): 2019
30	Silica (as SiO2)	mg/l	--	--	5.3	4500-SiO2 (C/D), APHA 24th Ed. 2023
31	Phosphate (as PO4)	mg/l	--	--	1.1	4500-P D, APHA 24th Ed. 2023
32	Specific Conductivity	µS/cm	-	-	2150	IS 3025 (Part-14): 2013, RA 2019

** End of Report **

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231209-051(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Gurjar Ghatal
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS 1622: 1981, RA 2019
Weather Condition	: Clear Sky
Sample Quantity	: 500 ml
Sample Packing & Mark	: Glass Bottle & SGIL/DEC/GW-03

S. No.	Parameters	Units	Limits (as per IS 10500: 2012)	Results	Test Method
1	Total Coliform	MPN/100ml	shall not be detectable	Not Detected (<2)	IS 1622: 1981, RA 2019
2	E. coli	MPN/100ml	shall not be detectable	Absent (<2)	IS 1622: 1981, RA 2019)

**** End of Report ****

Ajay Kumar Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-052(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023

Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Sidhrawali
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS-17614 (Part-1):2021
Weather Condition	: Clear Sky
Sample Quantity	: 5 L
Sample Packing & Mark	: Plastic Bottle & SGIL/DEC/GW-04

S. No.	Parameters	Units	Limits (as per IS:10500-2012)		Results	Test Method
			Desirable Limit	Permissible Limit		
1	Color	Hazen	5	15	<5	IS 3025 (Part-4): 2021
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5): 2018
3	Turbidity	NTU	1	5	<1	IS 3025 (Part-10): 1984, RA 2017
4	pH Value	-	6.5-8.5	No Relaxation	7.92	IS 3025 (Part-11): 2022
5	Total Dissolved Solids	mg/l	500	2000	1480	IS 3025 (Part-16): 2023
6	Total Hardness (as CaCO3)	mg/l	200	600	439	IS 3025 (Part-21): 2009, RA 2019
7	Total Alkalinity (as CaCO3)	mg/l	200	600	467	IS 3025 (Part-23): 1986, RA 2019
8	Chlorides (as Cl)	mg/l	250	1000	363	IS 3025 (Part-32): 1988 , RA 2019
9	Fluoride (as F)	mg/l	1	1.5	0.7	4500F-D, APHA 24th Ed. 2023
10	Calcium (as Ca2+)	mg/l	75	200	105	IS 3025 (Part-40): 1991, RA 2019
11	Magnesium (as Mg2+)	mg/l	30	100	42	IS 3025 (Part-46): 1994, RA 2019
12	Sulphate (as SO4)	mg/l	200	400	146	IS 3025 (Part-24/Sec-1): 2022
13	Nitrate (as NO3)	mg/l	45	No Relaxation	21	IS 3025 (Part-34/Sec-3): 2021
14	Iron (as Fe)	mg/l	1	No Relaxation	0.54	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15	Aluminum (as Al)	mg/l	0.03	0.2	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16	Copper (as Cu)	mg/l	0.05	1.5	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17	Manganese (as Mn)	mg/l	0.1	0.3	<0..1	3120-B, APHA 24th Ed. 2023 (ICP-OES)

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-052(A) **Issue Date: 20.12.2023**

18	Boron (as B)	mg/l	0.5	1	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
19	Zinc (as Zn)	mg/l	5	15	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
20	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
21	Arsenic (as As)	mg/l	0.01	0.05	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
22	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
23	Total Chromium (as Cr3+)	mg/l	0.05	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
24	Cyanide (as CN)	mg/l	0.05	No Relaxation	<0.01	IS 3025 (Part-27): 1986, RA 2019
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
27	Nickel (as Ni)	mg/l	0.02	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
28	Phenolic Compounds (as C6H5OH)	mg/l	0.001	0.002	<0.001	IS 3025 (Part-43): 2022
29	Anionic Detergent (as MBAS)	mg/l	0.2	1	<0.01	IS 3025 (Part-68): 2019
30	Silica (as SiO2)	mg/l	--	--	4.8	4500-SiO2 (C/D), APHA 24th Ed. 2023
31	Phosphate (as PO4)	mg/l	--	--	1.3	4500-P D, APHA 24th Ed. 2023
32	Specific Conductivity	µS/cm	-	-	2220	IS 3025 (Part-14): 2013, RA 2019

** End of Report **

Rahul Singh (Sr. Chemist) 166
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231209-052(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Sidhrawali
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS 1622: 1981, RA 2019
Weather Condition	: Clear Sky
Sample Quantity	: 500 ml
Sample Packing & Mark	: Glass Bottle & SGIL/DEC/GW-04

S. No.	Parameters	Units	Limits (as per IS 10500: 2012)	Results	Test Method
1	Total Coliform	MPN/100ml	shall not be detectable	Not Detected (<2)	IS 1622: 1981, RA 2019
2	E. coli	MPN/100ml	shall not be detectable	Absent (<2)	IS 1622: 1981, RA 2019)

** End of Report **

Signature Global India Limited

Ajay Kumar Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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Test Report

Report Code: GW20231220-053(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Rathiwas
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS-17614 (Part-1):2021
Weather Condition	: Clear Sky
Sample Quantity	: 5 L
Sample Packing & Mark	: Plastic Bottle & SGIL/DEC/GW-05

S. No.	Parameters	Units	Limits (as per IS:10500-2012)		Results	Test Method
			Desirable Limit	Permissible Limit		
1	Color	Hazen	5	15	<5	IS 3025 (Part-4): 2021
2	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part-5): 2018
3	Turbidity	NTU	1	5	<1	IS 3025 (Part-10): 1984, RA 2017
4	pH Value	-	6.5-8.5	No Relaxation	7.89	IS 3025 (Part-11): 2022
5	Total Dissolved Solids	mg/l	500	2000	1580	IS 3025 (Part-16): 2023
6	Total Hardness (as CaCO3)	mg/l	200	600	466	IS 3025 (Part-21): 2009, RA 2019
7	Total Alkalinity (as CaCO3)	mg/l	200	600	487	IS 3025 (Part-23): 1986, RA 2019
8	Chlorides (as Cl)	mg/l	250	1000	378	IS 3025 (Part-32): 1988 , RA 2019
9	Fluoride (as F)	mg/l	1	1.5	0.06	4500F-D, APHA 24th Ed. 2023
10	Calcium (as Ca2+)	mg/l	75	200	112	IS 3025 (Part-40): 1991, RA 2019
11	Magnesium (as Mg2+)	mg/l	30	100	45	IS 3025 (Part-46): 1994, RA 2019
12	Sulphate (as SO4)	mg/l	200	400	170	IS 3025 (Part-24/Sec-1): 2022
13	Nitrate (as NO3)	mg/l	45	No Relaxation	17	IS 3025 (Part-34/Sec-3): 2021
14	Iron (as Fe)	mg/l	1	No Relaxation	0.49	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15	Aluminum (as Al)	mg/l	0.03	0.2	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16	Copper (as Cu)	mg/l	0.05	1.5	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17	Manganese (as Mn)	mg/l	0.1	0.3	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231220-053(A) **Issue Date: 20.12.2023**

18	Boron (as B)	mg/l	0.5	1	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
19	Zinc (as Zn)	mg/l	5	15	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
20	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
21	Arsenic (as As)	mg/l	0.01	0.05	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
22	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
23	Total Chromium (as Cr3+)	mg/l	0.05	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
24	Cyanide (as CN)	mg/l	0.05	No Relaxation	<0.01	IS 3025 (Part-27): 1986, RA 2019
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001	3120-B, APHA 24th Ed. 2023 (ICP-OES)
27	Nickel (as Ni)	mg/l	0.02	No Relaxation	<0.01	3120-B, APHA 24th Ed. 2023 (ICP-OES)
28	Phenolic Compounds (as C6H5OH)	mg/l	0.001	0.002	<0.001	IS 3025 (Part-43): 2022
29	Anionic Detergent (as MBAS)	mg/l	0.2	1	<0.01	IS 3025 (Part-68): 2019
30	Silica (as SiO2)	mg/l	--	--	5.7	4500-SiO2 (C/D), APHA 24th Ed. 2023
31	Phosphate (as PO4)	mg/l	--	--	1.2	4500-P D, APHA 24th Ed. 2023
32	Specific Conductivity	µS/cm	-	-	2360	IS 3025 (Part-14): 2013, RA 2019

**** End of Report ****

Rahul Singh (Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: GW20231209-053(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Ground Water

Sample Received on: 04.12.2023

Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS

Water Quality Analysis

SAMPLING DETAILS

Date of Sampling	: 04.12.2023
Sampling Location	: Borewell Village Rathiwas
Sample Collected by	: Mr. Maan Singh
Sampling Protocol	: IS 1622: 1981, RA 2019
Weather Condition	: Clear Sky
Sample Quantity	: 500 ml
Sample Packing & Mark	: Glass Bottle & SGIL/DEC/GW-05

S. No.	Parameters	Units	Limits (as per IS 10500: 2012)	Results	Test Method
1	Total Coliform	MPN/100ml	shall not be detectable	Not Detected (<2)	IS 1622: 1981, RA 2019
2	E. coli	MPN/100ml	shall not be detectable	Absent (<2)	IS 1622: 1981, RA 2019)

**** End of Report ****

Ajay Kumar Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231220-027(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Surface Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Untwan Village Pond
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 17614 (Part-1):2021
Weather Condition	:	Clear Sky
Sample Quantity	:	5 L
Sample Packing & Marking	:	Plastic Bottle & SGIL/DEC /SW-05

S. No.	Parameters	Units	Results	Test Method
1.	Color	Hazen	5	IS 3025 (Part-4): 2021
2.	Turbidity	NTU	23	IS 3025 (Part-5): 2018
3.	Temperature	^{0}C	19.7	IS 3025 (Part-10): 1984, RA 2017
4.	pH Value	-	8	IS 3025 (Part-11): 2022
5.	Dissolved Oxygen	mg/l	5.2	IS 3025 (Part-16): 2023
6.	Biochemical Oxygen Demand (BOD) 3 Days at 27^{0}C	mg/l	6.8	IS 3025 (Part-21): 2009, RA 2019
7.	Chemical Oxygen Demand	mg/l	22.4	IS 3025 (Part-23): 1986, RA 2019
8.	Total Dissolved Solids	mg/l	720	IS 3025 (Part-32): 1988 , RA 2019
9.	Total Hardness (as $CaCO_3$)	mg/l	240	4500F-D, APHA 24th Ed. 2023
10.	Total Alkalinity (as $CaCO_3$)	mg/l	230	IS 3025 (Part-40): 1991, RA 2019
11.	Chlorides (as Cl)	mg/l	160	IS 3025 (Part-46): 1994, RA 2019
12.	Fluoride (as F)	mg/l	0.7	IS 4500F-D, APHA 24th Ed.2023
13.	Calcium (as Ca^{2+})	mg/l	58	IS 3025 (Part-34/Sec-3): 2021
14.	Magnesium (as Mg^{2+})	mg/l	23	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15.	Sodium (as Na^+)	mg/l	169	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16.	Potassium (as K^+)	mg/l	18.6	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17.	Sulphate (as SO_4)	mg/l	106	IS 3025 (Part-24): 1986, RA 2022

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Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231220-027(A) **Issue Date: 20.12.2023**

18.	Total Kjeldahl Nitrogen (as N)	mg/l	2.4	IS 3025 (Part-34/Sec-2): 2021
19.	Free Ammonia (as NH_3)	mg/l	1.3	IS 3025 (Part-34/Sec-2): 2021
20.	Nitrate (as NO_3)	mg/l	13.3	IS 3025 (Part-34/Sec-3): 2021
21.	Silica (as SiO_2)	mg/l	7.5	4500-SiO_2 (C/D), APHA 24rd Ed. 2023
22.	Phosphate (as PO_4)	mg/l	1.6	4500-P D, APHA 24th Ed.2023
23.	Iron (as Fe)	mg/l	0.59	3120-B, APHA 24th Ed.2023 (ICP-OES)
24.	Aluminum (as Al)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
25.	Boron (as B)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
26.	Copper (as Cu)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
27.	Manganese (as Mn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
28.	Zinc (as Zn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
29.	Selenium (as Se)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
30.	Arsenic (as As)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
31.	Cadmium (as Cd)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
32.	Total Chromium (as Cr^3)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
33.	Cyanide (as CN)	mg/l	<0.01	IS 3025 (Part-27): 1986, RA 2019
34.	Lead (as Pb)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
35.	Mercury (as Hg)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
36.	Nickel (as Ni)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
37.	Total Suspended Solids	mg/l	40	IS 3025 (Part-17): 1984, RA 2017
38.	Sodium Adsorption Ratio	-	3.2	IS 11624: 2019
39.	Phenolic Compounds (as C_6H_5OH)	mg/l	0.002	IS 3025 (Part-43/Sec-3): 2022
40.	Anionic Detergent (as MBAS)	mg/l	0.03	IS 3025 (Part-68): 2019
41.	Specific Conductivity	µS/cm	1075	IS 3025 (Part-14): 1984, RA 2019

**** End of Report ****

Signature Global India Ltd.

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231209-027(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Surface Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Untwan Village Pond
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 1622:1981, RA 2019
Weather Condition	:	Clear Sky
Sample Quantity	:	0.5 L
Sample Packing & Marking	:	Glass Bottle & SGIL/DEC /SW-05

S. No.	Parameters	Units	Results	Test Method
1.	Total Coliform Organism	MPN/100ml	840	IS 1622: 1981, RA 2019
2.	Fecal Coliform Organism	MPN/100ml	380	IS 1622: 1981, RA 2019

**** End of Report ****

Signature Global India Limited

Ajay Kr. Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231220-026(A) **Issue Date: 20.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Surface Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Sahibi River Downstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 17614 (Part-1):2021
Weather Condition	:	Clear Sky
Sample Quantity	:	5 L
Sample Packing & Marking	:	Plastic Bottle & SGIL/DEC /SW-04

S. No.	Parameters	Units	Results	Test Method
1.	Color	Hazen	8	IS 3025 (Part-4): 2021
2.	Turbidity	NTU	56	IS 3025 (Part-5): 2018
3.	Temperature	°C	19.3	IS 3025 (Part-10): 1984, RA 2017
4.	pH Value	-	8.2	IS 3025 (Part-11): 2022
5.	Dissolved Oxygen	mg/l	1	IS 3025 (Part-16): 2023
6.	Biochemical Oxygen Demand (BOD) 3 Days at 27°C	mg/l	26.2	IS 3025 (Part-21): 2009, RA 2019
7.	Chemical Oxygen Demand	mg/l	76.4	IS 3025 (Part-23): 1986, RA 2019
8.	Total Dissolved Solids	mg/l	1350	IS 3025 (Part-32): 1988 , RA 2019
9.	Total Hardness (as $CaCO_3$)	mg/l	410	4500F-D, APHA 24th Ed. 2023
10.	Total Alkalinity (as $CaCO_3$)	mg/l	390	IS 3025 (Part-40): 1991, RA 2019
11.	Chlorides (as Cl)	mg/l	320	IS 3025 (Part-46): 1994, RA 2019
12.	Fluoride (as F)	mg/l	0.9	IS 4500F-D, APHA 24th Ed.2023
13.	Calcium (as Ca^{2+})	mg/l	98	IS 3025 (Part-34/Sec-3): 2021
14.	Magnesium (as Mg^{2+})	mg/l	40	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15.	Sodium (as Na^{+})	mg/l	245	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16.	Potassium (as K^{+})	mg/l	28.4	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17.	Sulphate (as SO_4)	mg/l	210	IS 3025 (Part-24): 1986, RA 2022

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Rahul Singh
(Sr. Chemist)
Authorized Signatory
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TC-7501

Test Report

Report Code: SW20231220-026(A) **Issue Date: 20.12.2023**

18.	Total Kjeldahl Nitrogen (as N)	mg/l	6.5	IS 3025 (Part-34/Sec-2): 2021
19.	Free Ammonia (as NH_3)	mg/l	2.4	IS 3025 (Part-34/Sec-2): 2021
20.	Nitrate (as NO_3)	mg/l	26	IS 3025 (Part-34/Sec-3): 2021
21.	Silica (as SiO_2)	mg/l	9.3	4500-SiO_2 (C/D), APHA 24rd Ed. 2023
22.	Phosphate (as PO_4)	mg/l	3.2	4500-P D, APHA 24th Ed.2023
23.	Iron (as Fe)	mg/l	0.56	3120-B, APHA 24th Ed.2023 (ICP-OES)
24.	Aluminum (as Al)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
25.	Boron (as B)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
26.	Copper (as Cu)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
27.	Manganese (as Mn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
28.	Zinc (as Zn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
29.	Selenium (as Se)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
30.	Arsenic (as As)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
31.	Cadmium (as Cd)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
32.	Total Chromium (as Cr^{3+})	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
33.	Cyanide (as CN)	mg/l	<0.01	IS 3025 (Part-27): 1986, RA 2019
34.	Lead (as Pb)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
35.	Mercury (as Hg)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
36.	Nickel (as Ni)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
37.	Total Suspended Solids	mg/l	220	IS 3025 (Part-17): 1984, RA 2017
38.	Sodium Adsorption Ratio	-	4.8	IS 11624: 2019
39.	Phenolic Compounds (as C_6H_5OH)	mg/l	<0.001	IS 3025 (Part-43/Sec-3): 2022
40.	Anionic Detergent (as MBAS)	mg/l	<0.01	IS 3025 (Part-68): 2019
41.	Specific Conductivity	µS/cm	2025	IS 3025 (Part-14): 1984, RA 2019

**** End of Report ****

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: SW20231209-026(B) **Issue Date: 09.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

Sample Description: Surface Water

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Sahibi River Downstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 1622:1981, RA 2019
Weather Condition	:	Clear Sky
Sample Quantity	:	0.5 L
Sample Packing & Marking	:	Glass Bottle & SGIL/DEC /SW-04

S. No.	Parameters	Units	Results	Test Method
1.	Total Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019
2.	Fecal Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019

**** End of Report ****

Signature Global India Limited

Ajay Kr. Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: SW20231220-025(A) **Issue Date: 20.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

Sample Description: Surface Water

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Sahibi River Upstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 17614 (Part-1):2021
Weather Condition	:	Clear Sky
Sample Quantity	:	5 L
Sample Packing & Marking	:	Plastic Bottle & SGIL/DEC /SW-03

S. No.	Parameters	Units	Results	Test Method
1.	Color	Hazen	7	IS 3025 (Part-4): 2021
2.	Turbidity	NTU	44	IS 3025 (Part-5): 2018
3.	Temperature	^{0}C	18.7	IS 3025 (Part-10): 1984, RA 2017
4.	pH Value	-	7.43	IS 3025 (Part-11): 2022
5.	Dissolved Oxygen	mg/l	1.2	IS 3025 (Part-16): 2023
6.	Biochemical Oxygen Demand (BOD) 3 Days at 27^{0}C	mg/l	20.4	IS 3025 (Part-21): 2009, RA 2019
7.	Chemical Oxygen Demand	mg/l	62.4	IS 3025 (Part-23): 1986, RA 2019
8.	Total Dissolved Solids	mg/l	1200	IS 3025 (Part-32): 1988 , RA 2019
9.	Total Hardness (as $CaCO_3$)	mg/l	380	4500F-D, APHA 24th Ed. 2023
10.	Total Alkalinity (as $CaCO_3$)	mg/l	360	IS 3025 (Part-40): 1991, RA 2019
11.	Chlorides (as Cl)	mg/l	280	IS 3025 (Part-46): 1994, RA 2019
12.	Fluoride (as F)	mg/l	0.8	IS 4500F-D, APHA 24th Ed.2023
13.	Calcium (as Ca^{2+})	mg/l	91	IS 3025 (Part-34/Sec-3): 2021
14.	Magnesium (as Mg^{2+})	mg/l	36	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15.	Sodium (as Na^+)	mg/l	218	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16.	Potassium (as K^+)	mg/l	25.6	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17.	Sulphate (as SO_4)	mg/l	180	IS 3025 (Part-24): 1986, RA 2022

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231220-025(A) **Issue Date: 20.12.2023**

18.	Total Kjeldahl Nitrogen (as N)	mg/l	5.2	IS 3025 (Part-34/Sec-2): 2021
19.	Free Ammonia (as NH_3)	mg/l	1.9	IS 3025 (Part-34/Sec-2): 2021
20.	Nitrate (as NO_3)	mg/l	24	IS 3025 (Part-34/Sec-3): 2021
21.	Silica (as SiO_2)	mg/l	9.2	4500-SiO_2 (C/D), APHA 24rd Ed. 2023
22.	Phosphate (as PO_4)	mg/l	2.8	4500-P D, APHA 24th Ed.2023
23.	Iron (as Fe)	mg/l	0.53	3120-B, APHA 24th Ed.2023 (ICP-OES)
24.	Aluminum (as Al)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
25.	Boron (as B)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
26.	Copper (as Cu)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
27.	Manganese (as Mn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
28.	Zinc (as Zn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
29.	Selenium (as Se)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
30.	Arsenic (as As)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
31.	Cadmium (as Cd)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
32.	Total Chromium (as Cr^{3+})	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
33.	Cyanide (as CN)	mg/l	<0.01	IS 3025 (Part-27): 1986, RA 2019
34.	Lead (as Pb)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
35.	Mercury (as Hg)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
36.	Nickel (as Ni)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
37.	Total Suspended Solids	mg/l	180	IS 3025 (Part-17): 1984, RA 2017
38.	Sodium Adsorption Ratio	-	4.3	IS 11624: 2019
39.	Phenolic Compounds (as C_6H_5OH)	mg/l	<0.001	IS 3025 (Part-43/Sec-3): 2022
40.	Anionic Detergent (as MBAS)	mg/l	<0.01	IS 3025 (Part-68): 2019
41.	Specific Conductivity	µS/cm	1790	IS 3025 (Part-14): 1984, RA 2019

**** End of Report ****

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: SW20231209-025(B) **Issue Date: 09.12.2023**

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

Sample Description: Surface Water

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Sahibi River Upstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 1622:1981, RA 2019
Weather Condition	:	Clear Sky
Sample Quantity	:	0.5 L
Sample Packing & Marking	:	Glass Bottle & SGIL/DEC /SW-03

S. No.	Parameters	Units	Results	Test Method
1.	Total Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019
2.	Fecal Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019

**** End of Report ****

Signature Global India Limited

Ajay Kr. Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231220-024(A)

Issue Date: 20.12.2023

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Surface Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Indori Nala Downstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 17614 (Part-1):2021
Weather Condition	:	Clear Sky
Sample Quantity	:	5 L
Sample Packing & Marking	:	Plastic Bottle & SGIL/DEC /SW-02

S. No.	Parameters	Units	Results	Test Method
1.	Color	Hazen	7	IS 3025 (Part-4): 2021
2.	Turbidity	NTU	24	IS 3025 (Part-5): 2018
3.	Temperature	^{0}C	19.1	IS 3025 (Part-10): 1984, RA 2017
4.	pH Value	-	7.78	IS 3025 (Part-11): 2022
5.	Dissolved Oxygen	mg/l	3.2	IS 3025 (Part-16): 2023
6.	Biochemical Oxygen Demand (BOD) 3 Days at 27^{0}C	mg/l	8.6	IS 3025 (Part-21): 2009, RA 2019
7.	Chemical Oxygen Demand	mg/l	24.5	IS 3025 (Part-23): 1986, RA 2019
8.	Total Dissolved Solids	mg/l	950	IS 3025 (Part-32): 1988 , RA 2019
9.	Total Hardness (as $CaCO_3$)	mg/l	370	4500F-D, APHA 24th Ed. 2023
10.	Total Alkalinity (as $CaCO_3$)	mg/l	463	IS 3025 (Part-40): 1991, RA 2019
11.	Chlorides (as Cl)	mg/l	140	IS 3025 (Part-46): 1994, RA 2019
12.	Fluoride (as F)	mg/l	0.7	IS 4500F-D, APHA 24th Ed.2023
13.	Calcium (as Ca^{2+})	mg/l	89	IS 3025 (Part-34/Sec-3): 2021
14.	Magnesium (as Mg^{2+})	mg/l	36	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15.	Sodium (as Na^+)	mg/l	192	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16.	Potassium (as K^+)	mg/l	22.5	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17.	Sulphate (as SO_4)	mg/l	113	IS 3025 (Part-24): 1986, RA 2022

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231220-024(A) **Issue Date: 20.12.2023**

18.	Total Kjeldahl Nitrogen (as N)	mg/l	4.2	IS 3025 (Part-34/Sec-2): 2021
19.	Free Ammonia (as NH_3)	mg/l	1.6	IS 3025 (Part-34/Sec-2): 2021
20.	Nitrate (as NO_3)	mg/l	12.8	IS 3025 (Part-34/Sec-3): 2021
21.	Silica (as SiO_2)	mg/l	22	4500-SiO_2 (C/D), APHA 24rd Ed. 2023
22.	Phosphate (as PO_4)	mg/l	2.2	4500-P D, APHA 24th Ed.2023
23.	Iron (as Fe)	mg/l	0.89	3120-B, APHA 24th Ed.2023 (ICP-OES)
24.	Aluminum (as Al)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
25.	Boron (as B)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
26.	Copper (as Cu)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
27.	Manganese (as Mn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
28.	Zinc (as Zn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
29.	Selenium (as Se)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
30.	Arsenic (as As)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
31.	Cadmium (as Cd)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
32.	Total Chromium (as Cr^{3-})	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
33.	Cyanide (as CN)	mg/l	<0.01	IS 3025 (Part-27): 1986, RA 2019
34.	Lead (as Pb)	mg/l	0.07	3120-B, APHA 24th Ed.2023 (ICP-OES)
35.	Mercury (as Hg)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
36.	Nickel (as Ni)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
37.	Total Suspended Solids	mg/l	39.6	IS 3025 (Part-17): 1984, RA 2017
38.	Sodium Adsorption Ratio	-	3.2	IS 11624: 2019
39.	Phenolic Compounds (as C_6H_5OH)	mg/l	0.07	IS 3025 (Part-43/Sec-3): 2022
40.	Anionic Detergent (as MBAS)	mg/l	0.08	IS 3025 (Part-68): 2019
41.	Specific Conductivity	µS/cm	1425	IS 3025 (Part-14): 1984, RA 2019

**** End of Report ****

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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TC-7501

Test Report

Report Code: SW20231209-024(B) **Issue Date: 09.12.2023**

Issued To: Industrial Park Project by M/s Signature Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

Sample Description: Surface Water

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Indori Nala Downstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 1622:1981, RA 2019
Weather Condition	:	Clear Sky
Sample Quantity	:	0.5 L
Sample Packing & Marking	:	Glass Bottle & SGIL/DEC /SW-02

S. No.	Parameters	Units	Results	Test Method
1.	Total Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019
2.	Fecal Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019

**** End of Report ****

Signature Global India Limited

Ajay Kr. Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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Test Report

Report Code: SW20231220-023(A)

Issue Date: 20.12.2023

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Sample Description: Surface Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 19.12.2023

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Indori Nala Upstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 17614 (Part-1):2021
Weather Condition	:	Clear Sky
Sample Quantity	:	5 L
Sample Packing & Marking	:	Plastic Bottle & SGIL/DEC /SW-01

S. No.	Parameters	Units	Results	Test Method
1.	Color	Hazen	6	IS 3025 (Part-4): 2021
2.	Turbidity	NTU	18	IS 3025 (Part-5): 2018
3.	Temperature	^{0}C	18.7	IS 3025 (Part-10): 1984, RA 2017
4.	pH Value	-	7.75	IS 3025 (Part-11): 2022
5.	Dissolved Oxygen	mg/l	3.8	IS 3025 (Part-16): 2023
6.	Biochemical Oxygen Demand (BOD) 3 Days at 27^{0}C	mg/l	8.3	IS 3025 (Part-21): 2009, RA 2019
7.	Chemical Oxygen Demand	mg/l	22.8	IS 3025 (Part-23): 1986, RA 2019
8.	Total Dissolved Solids	mg/l	940	IS 3025 (Part-32): 1988 , RA 2019
9.	Total Hardness (as $CaCO_3$)	mg/l	367	4500F-D, APHA 24th Ed. 2023
10.	Total Alkalinity (as $CaCO_3$)	mg/l	460	IS 3025 (Part-40): 1991, RA 2019
11.	Chlorides (as Cl)	mg/l	138	IS 3025 (Part-46): 1994, RA 2019
12.	Fluoride (as F)	mg/l	0.7	IS 4500F-D, APHA 24th Ed.2023
13.	Calcium (as Ca^{2+})	mg/l	88	IS 3025 (Part-34/Sec-3): 2021
14.	Magnesium (as Mg^{2+})	mg/l	35	3120-B, APHA 24th Ed. 2023 (ICP-OES)
15.	Sodium (as Na^+)	mg/l	190	3120-B, APHA 24th Ed. 2023 (ICP-OES)
16.	Potassium (as K^+)	mg/l	20.4	3120-B, APHA 24th Ed. 2023 (ICP-OES)
17.	Sulphate (as SO_4)	mg/l	110	IS 3025 (Part-24): 1986, RA 2022

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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4. The samples received shall be destroyed after 30 days from the date of issue of the report unless specified otherwise and sample for biological testing will be destroyed after 7 days of testing.

GRC INDIA TRAINING & ANALYTICAL LABORATORY
(A unit of Grass Roots Research & Creation India (P) Ltd.)
An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 (OH&S) Certified
NABL Accredited Laboratory (A Constituent Board of QCI), TC 7501 (Chemical & Biological)
Recognized by Ministry of Environment, Forest & Climate Change (MOEF&CC, GOI), under the E (P) Act, 1986
Head Office: F-375, Sector-63, Noida, Gautam Budh Nagar, U.P - 201 301
Phone No.: 0120 - 4044630, 4044660, 4323120, Fax: 0120 - 2406519, 0120 - 4044675
Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: SW20231220-023(A) **Issue Date: 20.12.2023**

18.	Total Kjeldahl Nitrogen (as N)	mg/l	3.8	IS 3025 (Part-34/Sec-2): 2021
19.	Free Ammonia (as NH_3)	mg/l	1.3	IS 3025 (Part-34/Sec-2): 2021
20.	Nitrate (as NO_3)	mg/l	12.6	IS 3025 (Part-34/Sec-3): 2021
21.	Silica (as SiO_2)	mg/l	19	4500-SiO_2 (C/D), APHA 24rd Ed. 2023
22.	Phosphate (as PO_4)	mg/l	1.7	4500-P D, APHA 24th Ed.2023
23.	Iron (as Fe)	mg/l	0.87	3120-B, APHA 24th Ed.2023 (ICP-OES)
24.	Aluminum (as Al)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
25.	Boron (as B)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
26.	Copper (as Cu)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
27.	Manganese (as Mn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
28.	Zinc (as Zn)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
29.	Selenium (as Se)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
30.	Arsenic (as As)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
31.	Cadmium (as Cd)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
32.	Total Chromium (as Cr^{3+})	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
33.	Cyanide (as CN)	mg/l	<0.01	IS 3025 (Part-27): 1986, RA 2019
34.	Lead (as Pb)	mg/l	0.06	3120-B, APHA 24th Ed.2023 (ICP-OES)
35.	Mercury (as Hg)	mg/l	<0.001	3120-B, APHA 24th Ed.2023 (ICP-OES)
36.	Nickel (as Ni)	mg/l	<0.01	3120-B, APHA 24th Ed.2023 (ICP-OES)
37.	Total Suspended Solids	mg/l	38.2	IS 3025 (Part-17): 1984, RA 2017
38.	Sodium Adsorption Ratio	-	3.1	IS 11624: 2019
39.	Phenolic Compounds (as C_6H_5OH)	mg/l	0.06	IS 3025 (Part-43/Sec-3): 2022
40.	Anionic Detergent (as MBAS)	mg/l	0.07	IS 3025 (Part-68): 2019
41.	Specific Conductivity	µS/cm	1410	IS 3025 (Part-14): 1984, RA 2019

**** End of Report ****

Signature Global India Limited

Rahul Singh
(Sr. Chemist)
Authorized Signatory
(Seal & Signature)

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An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 (OH&S) Certified
NABL Accredited Laboratory (A Constituent Board of QCI) , TC 7501 (Chemical & Biological)
Recognized by Ministry of Environment, Forest & Climate Change (MOEF&CC, GOI),
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Website: https://www.grc-india.com, E-mail : lab@grc-india.com; info@grc-india.com
TC-7501

Test Report

Report Code: SW20231209-023(B)

Issue Date: 09.12.2023

Issued To: Industrial Park Project by M/s Signature, Global (India) Ltd. at Village-Shidrawali, Distt. Gurugram, Haryana.

Sample Description: Surface Water

Sample Received on: 04.12.2023
Analysis Duration: 05.12.2023 to 08.12.2023

RESULTS
(Water Quality Analysis)

SAMPLING DETAILS

Date of Sampling	:	04.12.2023
Sampling Location	:	Indori Nala Upstream
Sample Collected by	:	Mr. Maan Singh
Sampling Protocol	:	IS 1622:1981, RA 2019
Weather Condition	:	Clear Sky
Sample Quantity	:	0.5 L
Sample Packing & Marking	:	Glass Bottle & SGIL/DEC /SW-01

S. No.	Parameters	Units	Results	Test Method
1.	Total Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019
2.	Fecal Coliform Organism	MPN/100ml	1600	IS 1622: 1981, RA 2019

**** End of Report ****

Signature Global India Limited

Ajay Kr. Sharma
(Quality Manager)
Authorized Signatory
(Seal & Signature)

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SIGNATURE GLOBAL
MAKING INDIA AFFORDABLE

AN ISO 9001:2015; 14001:2015; 45001:2018 CERTIFIED COMPANY

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED BY THE PROJECT COMMITTEE OF SIGNATUREGLOBAL (INDIA) LIMITED *(FORMERLY KNOWN AS SIGNATUREGLOBAL (INDIA) PRIVATE LIMITED)* *("THE COMPANY")* IN ITS MEETING HELD ON WEDNESDAY, 1ST NOVEMBER, 2023

"RESOLVED THAT in relation to residential project proposed to be developed over land admeasuring 141.91425 acres situated at village Sidhrawali, Tehsil Manesar, District Gurugram, Haryana, the consent of the Committee be and is hereby accorded to apply for approvals specifically related with Environment Clearance, Forest Clearance, Aravali Clearance, Height clearance, clearances/NOCs from Haryana Shehri Vikas Pradhikaran Development Authority ("HSVP") / Harayan Urban Development Authority (HUDA), Fire Approval, Electricity connection and service estimates.

RESOLVED FURTHER THAT Mr. Sanjay Kumar Varshney, COO of the Company be and is hereby authorised to verify, certify and to execute under his signatures all documents including forms, letters, affidavits and to file application to get approval/ No objection certificates, specifically relating to Environment Clearance, DTCP, Forest Clearance, Aravali Clearance, Height clearance, clearances/NOCs from Haryana Shehri Vikas Pradhikaran Development Authority ("HSVP") / Harayan Urban Development Authority (HUDA), and also authorised to appear before Department of Mines and Geology Haryana, appropriate Departments related with Fire Approval, Electricity connection and service estimates with respect to aforementioned land only and to do all other acts, deeds and things which may be deemed to be necessary to give effect to the said resolution.

RESOLVED FURTHER THAT Mr. Lalit Kumar Aggarwal, Vice Chairman & Whole Time Director and Mr. Ravi Aggarwal, Managing Director of the Company be and are hereby severally authorized to give certified true copy of aforesaid resolution on behalf of the Company."

CERTIFIED TRUE COPY
For SIGNATUREGLOBAL (INDIA) LIMITED
(FORMERLY KNOWN AS SIGNATUREGLOBAL (INDIA) PRIVATE LIMITED)

Signatureglobal (India) Limited New Delhi

LALIT KUMAR AGGARWAL
VICE CHAIRMAN &WHOLE TIME DIRECTOR
DIN: 00203664
ADDRESS:AASHIRWAD PALAM FARM 6
SALAHAPUR BIJWASAN SOUTH WEST DELHI
110061

Signature Global India Limited

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SIGNATURE GLOBAL
REALTY. RELIABILITY. RESPONSIBILITY.
AN ISO 9001:2015; 14001:2015; 45001:2018; 27001:2022 CERTIFIED COMPANY

Date: - 27.08.2024

CONSULTANT AUTHORIZATION LETTER

I, Mr. Sanjay Varshney (Authorized Signatory), on behalf of M/s Signatureglobal India Limited had hired M/s Grass Roots Research & Creation India (P) Ltd, an environmental consultancy organization, which is QCI/ NABET accredited for Environmental Clearance.

The consultant was authorized to take care of all SEAC/SEIAA submissions, meetings and all other required correspondences from time to time for the construction of Industrial Park Project is to be developed by M/s Signatureglobal India Limited is located at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana.

For M/s Signatureglobal India Limited

Name: Sanjay Varshney

Designation: COO

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107	Grass Roots Research and Creation India (P) Ltd. **Address:**F- 375, Sec – 63, Noida – 201301 **Head Name:**Dr. Dhiraj Kr. Singh **Head Designation:**Managing Director **Mobile Number:**9810400089 **Email:** md@grc-india.com, info@grc-india.com **Tel:**1204044830 **Remarks:**Conditions apply		

1	Mining of minerals including open cast/ underground mining	A	1 (a) (i)
3	River Valley projects	A	1 (c)
4	Thermal power plants	A	1 (d)
6	Coal washeries	A	2 (a)
7	Mineral beneficiation including pelletisation	A	2 (b)
8	Metallurgical industries(ferrous and non-ferrous) - both primary & secondary	A	3 (a)
9	Cement plants	A	3 (b)
11	Coke Oven	A	4(b)
12	Asbestos milling and asbestos based products	A	4(c)
21	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	A	5 (f)
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)
32 A	Bio-medical waste treatment facilities	B	7 (d a)
33	Ports, harbours, break waters and dredging	A	7(e)
36	Common Effluent Treatment Plants (CETPs)	B	7 (h)
37	Common municipal solid waste	B	7 (i)

Certificate of Accreditation

Certificate No.:
NABET/EIA/21-24/SA 0211
Validity: 15/08/2024

Validity Extension Letter No.:
QCI/NABET/ENV/ACO/24/3338
Extension Letter Validity:11/11/2024
UserName:ORG000550
Accreditation Date:03/12/2010
category: A

Human Resource

Signature Global India Limited

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National Accreditation Board for Education and Training

QCI/NABET/ENV/ACO/24/3338

Aug 12, 2024

To

Grass Roots Research & Creation India (P) Ltd.,
F: 374 & 375, Sec-63, Noida-201301
Uttar Pradesh

Sub.: Extension of Validity of Accreditation till Nov 11, 2024– regarding
Ref. 1. Certificate no NABET/EIA/21-24/SA 0211
2. Request e-mail dated Aug 09, 2024

Dear Sir/Madam

This has reference to the accreditation of your organization under the QCI-NABET EIA Scheme, the validity of **Grass Roots Research & Creation India (P) Ltd.,** is hereby extended to Nov 11, 2024, or completion of the assessment process, whichever is earlier.

The above extension is subject to the submitted documents/required information with respect to your application and timely submission and closure of NC/Obs during the process of assessment.

You are requested not to use this letter after the expiry of the above-stated date.

With best regards.

(A K Jha)
Sr. Director, NABET

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—512—

Bond

Indian-Non Judicial Stamp
Haryana Government

Date : 23/12/2023

Certificate No. G0W2023L1192

GRN No. 110811418

Stamp Duty Paid : ₹ 101
(Rs. Only)

Penalty : ₹ 0
(Rs. Zero Only)

Deponent

Name : Signatureglobal India Ltd
H.No/Floor : Na Sector/Ward : Na Landmark : Na
City/Village : Gurugram District : Gurugram State : Haryana
Phone : 98******52

Purpose : AFFIDAVIT to be submitted at Others

The authenticity of this document can be verified by scanning this QrCode Through smart phone or on the website https://egrashry.nic.in

AFFIDAVIT

I , Sanjay Varshney S/o Shri H.B. Varshney of M/s Signatureglobal India Limited having its Corporate office at Ground Floor, Tower-A, Signature Tower, South City-1, Gurugram, Haryana - 122001 do hereby solemnly affirm, declare & undertake as given below:

- That we are going to construct Industrial Plotted Colony Project at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana.
- No untreated sewage will be discharged in public sewer till the time external sewer is laid; we will make our own arrangement to dispose the surplus treated effluent as per the guidelines of SPCB & MoEF&CC.
- That we hereby undertake that no ground water shall be extracted for the purpose of construction.
- That we hereby undertake that we will install our own modular STP during the construction phase.

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RAM NIWAS MALIK, GGM. (Reg. No. 8224) NOTARY GOVT. OF INDIA 27 AUG 2024

Signature Global India Limited

- That we hereby undertake that treated water will meet the effluent standards as per IS 456:2000 for reinforced concrete.
- That during construction and operational phase of construct Industrial Plotted Colony Project at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana appropriate safety measures will be taken to prevent any electrical hazards.
- That the permission for fresh water supply from GMDA will be obtained.
- That during construction phase, water requirement will be met from the GMDA treated water from STP.
- That ultra-low sulphur diesel (0.005%) will be used for D.G. sets in construction and operational phase of the said project.
- That proper welfare, safety, health medical plan, safety policy, occupational diseases mitigating measures will be provided during material handling for the workers during construction phase as well as to the residents during operational phase.
- That the appropriate norms of ECBC will be adopted during construction phase of the above project for thermal insulation.
- That during the construction phase, no groundwater will be used, and water requirement during the construction phase will be met from the safe water zones only.
- That we will abide by the ruling given by the Hon'ble Haryana High Court with regard to the extraction of groundwater.
- That new scientific measures will be taken to reduce the consumption of water during the construction phase such as curing.
- That the operational phase will start only when the permission of water supply has been obtained from GMDA
- The data and information given in the application, enclosures and other documents of Industrial Plotted Colony Project at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana are factually correct.
- That no occupation/possession will be offered till the time actual water supply and sewer connection is given by GMDA.
- No Revenue Rasta is passing through the Project area and no construction activity will be undertaken on surface or below or above surface of Revenue Rasta passing through the project area.
- No R.O.W for H.T. line passing through project area will be kept as per Electric Act/DHBVN by electric company.

NOTARY GOVT. OF INDIA
RAM NIWAS MALIK, GGM. (Reg. No. 8224)
27 AUG 2024

Signature Global India Limited

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- No distribution of untreated water or other solid waste in the nallah will be done.
- Any type of construction will not be raised over the nallah.
- No obstruction in the passage of the natural Drainage will be ensured.

DEPONENT
Name Sanjay Varshney
Designation: COO

VERIFICATION:-

VERIFIED at ..... on this ....., 2024 that the contents of this affidavit are true and correct to the best of my knowledge and record. No part of it is false and nothing has been concealed therein.

DEPONENT
Name Sanjay Varshney
Designation: COO

ATTESTED
RAM NIWAS MALIK, ADVOCATE
NOTARY, GURUGRAM (HR.) INDIA

NOTARY GOVT. OF INDIA
27 AUG 2024
RAM NIWAS MALIK, GGM. (Reg. No. 8224)

-575-

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Bond

Indian-Non Judicial Stamp
Haryana Government

Date : 11/04/2024

Certificate No. G0K2024D1245

GRN No. 115394386

Stamp Duty Paid : ₹ 101
(Rs. Only)

Penalty : ₹ 0
(Rs. Zero Only)

Deponent

Name : Signatureglobal India Ltd

H.No/Floor : Na Sector/Ward : Na Landmark : Na

City/Village : Gurugram District : Gurugram State : Haryana

Phone : 98******52

Purpose : AFFIDAVIT **to be submitted at Others**

The authenticity of this document can be verified by scanning this QrCode Through smart phone or on the website https://egrashry.nic.in

AFFIDAVIT

I Sanjay Varshney S/o Shri H.B.Varshney of M/s Signatureglobal India Limited., having its Corporate office at Ground floor, Tower-A, Signature Tower, South City-1, Gurugram, Haryana-122001 do hereby solemnly affirm, declare & undertake as given below:

1. That we are going to construct the Industrial Plotted Colony Project at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana,
2. That the company has not commenced any construction work at the project site we shall commence work only after obtaining the Environmental Clearance and receipt of all applicable NOC's/permission from the prescribed/ competent authorities of state and Centre Govt.
3. That we will abide by the ruling given by the Hon'ble Courts with regard to the extraction of groundwater in the notified areas of Haryana.
4. That new scientific measures will be taken to reduce the consumption of water during the construction phase.
5. There is no litigation pending against Industrial Plotted Colony Project at Village –Shidrawali, Tehsil –Manesar, District -Gurugram Haryana by M/s Signatureglobal India Limited.and that for any such litigation what so ever, the sole responsibility will be borne by the project proponent.

DEPONENT
Name: Sanjay Varshney
Designation: COO

VERIFICATION:-

VERIFIED at ..... on this .....2024 that the contents of para no.1 to para. No 6 of the above undertaking are true and correct to the best of my knowledge and records. No part of it is false and nothing has been concealed therein.

ATTESTED
RAM NIWAS MALIK, ADVOCATE
NOTARY, GURUGRAM (HR.) INDIA

NOTARY GOVT. OF INDIA
RAM NIWAS MALIK, GGM. (Reg. No. 8224)
27 AUG 2024

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DEPONENT
Name: Sanjay Varshney
Designation: COO