

DELHI DEVELOPMENT AUTHORITY

FORM I

For

**Environmental Clearance
Of
Prefab CAT II &EWS Housing For
Delhi Development Authority
At Pocket 5, Sector – 14, Dwarka,
Delhi**

SUBMITTED TO : SEIAA, Govt. Of NCT Delhi
Delhi Pollution Control Committee , IVth Floor ISBT Building
Kashmiri Gate ,Delhi

SUBMITTED BY :
DELHI DEVELOPMENT AUTHORITY
VIKAS MINAR, ITO, NEW DELHI – 110002

EIA Consultant:
Dr A.K.Gupta of Shri Environmental Technology Institute, Delhi

FORM- I

Basic Information

S. No.	Item	Details
1.	Name of the project/s	CAT II & EWS Housing For Delhi Development Authority At pocket-5, Sector 14 Dwarka , Delhi
2.	S. No. in the schedule	8'A'
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	Total Plot Area = 43100 SQM Total Built-up Area=153313.81 SQM Total Nos. of Units = CAT II + EWS) =1008 +632= 1640 Nos. Green Area@ 25.60% =10631 SQM Population 1640 x 5= 8200
4.	New/Expansion/Modernization	NEW
5.	Existing Capacity/Area etc.	NA
6.	Category of Project. i.e.' A' or 'B'	'B'
7.	Does it attract the general condition? If yes, Please specify.	No
8.	Does it attract the specific condition? If yes, Please specify.	NA
9.	Location	Dwarka
	Plot/Survey/Khasra No.	Pocket 5, Sector 14
	Village	
	Tehsil	
	District	South West Delhi
	State	Delhi
10..	Nearest railway station/airport along with Distance in kms.	Dwarka sec 14 (DMRC) Railway Station about 0.3 km & IGI Airport about 10

		Km.
11.	Nearest Town, city, District Headquarters Along with distance in kms.	Delhi
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal Addresses with telephone nos. to be given)	Municipal Corporation,
13.	Name of the applicant	Delhi Development Authority.
14	Registered Address	Vikas Minar, ITO, IP Estate New Delhi - 110002
15.	Address for correspondence	Office of Executive Engineer EE/WD 13- Delhi Development Authority Office , lakkar Mandi, Kirti Nagar , New Delhi 110015
	Name	J.P. Singh
	Designation (Owner/Partner/CEO)	Executive Engineer DDA
	Address	Office of Executive Engineer EE/WD 13- Delhi Development Authority Office , lakkar Mandi, Kirti Nagar , New Delhi 110015
	Pin Code	Delhi -110075
	E-mail	
	Telephone No.	9868858984
	Fax No.	
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a toposheet.	Planned site
17.	Interlinked Projects	No
18.	Whether separate application of interlinked Project has been submitted?	No
19.	If yes, date of submission	No
20.	If no, reason	NA

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
22.	Whether there is any Government Order/Policy relevant/relating to the site?	As per the master plan Residential project will be developed by DDA
23.	Forest land involved (hectares)	No
24.	Whether there is any litigation pending against the project and for/or land in which the project is propose to be set up? (a)Name of the Court (b)Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project	No

(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 there of (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	The project has been approved by the DDA; Hence no major land use change is envisaged.
1.2	Clearance of existing land, vegetation and buildings?	No	Pocket 5, Sector 14, Dwarka, CAT II & EWS Housing project developed by Delhi Development Authority,
1.3	Creation of new land uses?	No	Land was earmarked for the development of Housing Complex land use purpose by Delhi Development Authority.
1.4	Pre-construction investigations e.g.	Yes	Soil Investigation has been done at site.

	bore houses, soil testing		Please refer to the 1.4 of Form1A								
1.5	Construction works?	Yes	Proposed construction of a CAT II & EWS Housing Complex								
1.6	Demolition works?	No	No site clearing is required								
1.7	Temporary sites used for construction works or housing of construction workers?	No	All the construction activity including stalking of raw materials will be confined within the project site only. Temporary labour hutments are proposed.260 Local labours from nearby area will be hired. Proper sanitation facilities for them will be developed at site.								
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	It is estimated that approx 79320.92 m ³ of soil has to be excavated for foundation and structures etc.								
1.9	Underground works including mining or tunneling?	No	No underground works including mining/ tunneling required								
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.								
1.14	Facilities for storage of goods or materials?	Yes	Separate raw material handling yard will be made. Cement will be separately stored under cover in bales. Sand will be stacked neatly under tarpaulin cover. steel will be laid in open. The raw material handling yard will be located within the project site and separated by enclosures.								
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Solid waste: <table border="1"><tr><td>Populati-on /Area</td><td>Per capita solid waste generation (kg/day)</td><td>Total solid waste generation(kg/day)</td></tr><tr><td>8200</td><td>0.6</td><td>4920</td></tr></table> <p>*(as per CPHEEO Manual of Solid Waste Management)</p> Adequate number of collection bins separate for biodegradable and non-biodegradable waste shall be provided as per the MSW Rule, 2000. Final segregation of solid waste into biodegradable, non-biodegradable, and inert fraction will take place in			Populati-on /Area	Per capita solid waste generation (kg/day)	Total solid waste generation(kg/day)	8200	0.6	4920
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			<p>centralized collection facility. The non-bio-degradable fraction will take place in centralized collection facility. The rest will be handed over to Municipal Corporation of Delhi.</p> <p>The process of disposal to be through sanitary landfill, composting and incineration depending upon the quality of the refuse. In future emphasis would be laid on solid waste disposal by more scientific method, where the land requirement gets reduced to minimum in consultation with the concerned agencies.</p> <p>A site of about 60 HA for solid waste has been earmarked near Narela – Bawana industrial area phase – II.</p> <p>Liquid Effluent: It has been estimated that approx. 1113.12 KLD of sewage will be generated from the project. The entire sewage will be treated in 1200 KLD STP . Approx. 890.4 KLD of water requirement will be met through recycling of STP treated water’</p> <p>DDA will provide sewage treatment plant of following capacities base on FAB & MBBR /SAFE process for treatment of sewage & sullage water The treated effluent shall be of a quality suitable for flushing & horticulture for external areas.</p>
1.16	Facilities for long term housing of operational workers?	No	No Facilities for long term housing of operational workers
1.17	New road, rail or sea traffic during construction or operation?	No	Not applicable
1.18	New road, rail, air water borne or other transport infrastructure including new or altered routes and stations, ports, airports etc.?	No	Not applicable
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not applicable
1.20	New or diverted transmission lines or pipelines?	No	Not applicable

1.21	Impoundment, damming, culver ting, 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 is proposed. Ground water exploration will be done at site, if permitted by DJB and also the water will be from DJB
1.22	Stream crossing?	No	Not applicable
1.23	Abstraction or transfers of water form ground or surface waters?	Yes	During construction phase water from tankers/Ground water (if DJB permits) will be used for Housing Complex. During the project operational stage, water will be supplied by DJB and partly Ground water only if DJB permits for the same
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	Surface drainage will not be affected.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	yes	Transports of personnel/material during the construction and operation phase are envisaged. During the operation phase parking space for 213 ECS for EWS@ 0.5 ECS per 100 SQM AND 1031 ECS @ 2 ECS per 100 SQM FOR CAT II will be provided built-up area. In the construction phase, approx 25 trucks per day over the entire construction phase are envisaged.
1.26	Long term dismantling or decommissioning or restoration works?	No	Not applicable
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not applicable
1.28	Influx of people to an area in either temporarily or permanently?	No	Approx. 260 nos. local labours from near by area will be hired in the construction phase per day. Thus, no influx of people is envisaged.
1.29	Introduction of alien species?	No	Not applicable
1.30	Loss of native species or genetic diversity?	No	Not applicable
1.31	Any other actions?	No	None

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 there of (with approximate quantities /rates, wherever possible) with source of information data															
2.1	Land especially undeveloped or agricultural land (ha)	Yes	Approx.43100 Sq. meter of land has been provided for development of Housing project															
2.2	Water (expected source & competing users) unit: KLD	Yes,	<p>The details of Water Requirement: During the operational phase water will be supplied by DJB and partly Ground water only if DJB permits for the same and through tankers during construction phase</p> <table><tr><th>S. No.</th><th>Name</th><th>Water Demand (KLD)</th></tr><tr><td>1</td><td>Flushing @45LPD</td><td>369</td></tr><tr><td>2</td><td>Domestic @90 LPD @180 LPD</td><td>1022.4</td></tr><tr><td></td><td>Horticulture</td><td>11.4</td></tr><tr><td colspan="2">Total</td><td>1402.8</td></tr></table>	S. No.	Name	Water Demand (KLD)	1	Flushing @45LPD	369	2	Domestic @90 LPD @180 LPD	1022.4		Horticulture	11.4	Total		1402.8
S. No.	Name	Water Demand (KLD)																
1	Flushing @45LPD	369																
2	Domestic @90 LPD @180 LPD	1022.4																
	Horticulture	11.4																
Total		1402.8																
2.3	Minerals (MT)	None	Not applicable															
2.4	Construction material – stone, aggregates, and soil (expected source – MT)	Yes	It will be prefab R.C.C structure as per the design in the casting yard and shall be installed at the site as per the DDA specification. The materials used in prefab, will be basically sand, cement stone aggregate & steel.															
2.5	Forests and Timber (source – MT)	None	Not applicable															
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	<p>The total connected load as per BRPL is calculated to be around say, 16840 KW and after considering diversity etc. the transformer rating shall be 11000 KVA for this Housing Complex.</p> <p>Power will be supplied by BRPL</p> <p>The emergency purposes backup is provided with Dg Sets of Total capacity of 1500 KvA within which ,water supply pump backup is proposed by using DG set (1*125 KvA.)</p> <p>HSD (low Sulphur variety) will be used for DG set, for a total capacity of</p>															

			approx 1500 KvA -HSD consumption will be around 20 L/hour.
2.7	Any other natural resources (use appropriate standard units)	None	Not applicable

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

S. No.	Information/Checklist confirmation	Yes/No	Details there of (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	This is a Housing Complex project based on Prefab Technology based Houses & no storage of hazardous chemicals (as per MSIHC Rules) will be done, apart from spent oil, Suitable management practice will be adopted for the same It will be stored in HDPE drums and kept in covered rooms, under lock and key and will be sold to authorized vendors only. Specialized care will be taken to prevent leaks and / or sips. HSD (low sulphur variety) will be used for DG sets. However, the quantity stored will be below the threshold limit specified by the MSIHC Rules.
3.2	Changes in occurrence of disease or effect 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 which will restrict 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/	No	No use, storage, transport, handling or production of any harmful product is envisaged from the proposed project. Thus no major adverse impacts on the human health/ environment are envisaged. Moreover this project will provide employment to approx. 260 local labours in the construction phase and approx. 40 workers in the operational phase. Thus the proposed project is supposed to have

			major beneficial impacts & environment friendly.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not applicable
3.5	Any other cases	None	Not applicable

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

S. No.	Information/Checklist confirmation	Yes/No	Details there of (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 details of municipal solid waste generated from the project is estimated as 4920 Kg/day (as per CPHEEO Manual on Municipal Solid Waste Management)
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Spent oil from DG sets (approx. 20-25 L/year). This spent oil will be carefully stored in HDPE drums in isolated covered facility. This spent oil will be sold to vendors authorized by DPCC for the treatment of same. Suitable care will be taken so that spills/ leaks of spent oil from storage could be avoided.
4.4	Other Industrial process wastes	No	Not applicable
4.5	Surplus product	No	Not applicable
4.6	Sewage sludge or other sludge from effluent treatment	Yes	STP is stalled within the site. STP Sludge will be handed over to Municipal Authorities because as DDA will hand over the site after allotment to civic bodies
4.7	Construction or demolition wastes	No	There is no construction or demolition wastes.
4.8	Redundant machinery or equipment	No	Not applicable
4.9	Contaminated soils or other materials	No	Not applicable
4.10	Agricultural wastes	No	Not applicable
4.11	Other solid wastes	No	Not applicable

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

S. No.	Information/Checklist confirmation	Yes/No	Details there of (with approximate quantities /rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationery or mobile sources	No	Not applicable Not applicable
5.2	Emissions from production processes	No	Not applicable
5.3	Emissions from materials handling including storage or transport	No	Not applicable
5.4	Emissions from construction activities including plant and equipment	No	Not applicable.
5.5	Dust or odours from handling of materials, sewage and waste	No	Not applicable
5.6	Emissions from incineration of waste	No	Not applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not applicable
5.8	Emissions from any other sources	No	Not applicable

6. Generation of Noise and Vibration, and Emissions of Cat-II ht and Heat: From DG Set

S. No.	Information/Checklist confirmation	Yes/No	Details there of (with approximate quantities /rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	No	Source of noise in the operational phase will be DG sets only. The DG sets will be in operation during power failure only for water supply pumps and will acoustic enclosure. The excess sound pressure level will be perceivable at a distance of 6 m. Beyond this radius no excessive noise level is perceivable over the background noise level.
6.2	From Industrial or similar processes	No	Not applicable
6.3	From construction or demolition	No	Due to various construction activities, there will be short-term noise impacts in the immediate vicinity of the project site. The construction activities will include the following noise generating activities:

			<ul style="list-style-type: none"> Operation of DG sets, Excavation etc. activities Heavy vehicle movement. <p>It has been estimated that during construction period the average noise level will be around 75-80 dB(A) during peak construction hours.</p>
6.4	From blasting or piling	No	No blasting or mechanized piling will be used in the construction phase.
6.5	From construction or operational traffic	Yes	Some amount of noise will be generated from vehicular movement in the construction and operational phase.
6.6	From CAT-IIIhting or cooling systems	No	Not applicable.
6.7	From any other sources	No	Not applicable

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

S. No.	Information/Checklist confirmation	Yes/No	Details there of (with approximate quantities /rates, wherever possible) with source of information data
7.1	From handling storage, use or spillage of hazardous materials	No	Spent oil will be handed with utmost care, it will be stored in HDPE drums stationed over pukka platforms and will be directly transferred to vendors authorized to handle such hazardous material. Hence no risk of contamination is envisaged.
7.2	From Discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	The liquid effluent of 1113.12 KLD will be treated in 1200 KLD STP
7.3	By deposition of pollutants emitted to air into the land or into water	No	No major fresh water bodies are located in downward direction. The Sewage discharge will confirms to Surface disposal guidelines of MoEF.
7.4	From any other sources	No	Not applicable
7.5	Is there a risk of long term built up of pollutants in the environment from these sources	No	Not applicable

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

S. No.	Information/Checklist confirmation	Yes/No	Details there of (with approximate
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			quantities /rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	<p>This is basically a Housing Complex construction project and does not involve major hazardous construction activity. During construction all the labours will be provided with suitable personal protective equipment (PPE) as required under the health & safety norms. Training and awareness about the safety norms will be provided to all supervisors and labours involved in construction activity.</p> <p>An agreement will be signed with the contractor which will clearly deal with the safety aspects during construction. No major hazardous waste is being stored within the project site. No industrial or process activity is involved in this project hence chances of chemical hazards and accidents are minimal. However, suitable fire fighting measures will be provided.</p>
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)?	No	The area under study falls in Zone-IV, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, have to be adopted while designing the structures. There are no chances of floods and landslide

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 there of (with approximate quantities /rates, wherever possible) with source of information data
9.1	Lead to development of supporting. Lities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:	Yes	
	10. Supporting infrastructure (roads, power supply, waste	Yes	Appropriate infrastructure like, roads, power supply, waste

	<p>or waste water treatment, etc.)</p> <p>11. housing development 12. extractive industries 13. supply industries 14. other</p>	Yes	<p>management and waste water treatment will be developed within the site so that chances of occurrences of any adverse impacts are minimized.</p> <p>During construction, about 260 skilled, unskilled and professional work force including temporary and permanent employees shall be required. This workforce shall be hired locally in order to generate the employment to the local people. While during the project operation stage for the purposes of day-to-day maintenance works about 40 persons will be employed. Moreover, some more employment will be created as a result of positive induced developed in the immediate vicinity of project site.</p> <p>Not applicable Not applicable Not applicable</p>
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not applicable
9.3	Set a precedent for later developments	No	Not applicable
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not applicable

(III) Environmental Sensitivity

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	None	Not applicable
2	Areas which are important or sensitive for ecological reasons – Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Najafgarh drain,	Najafgarh drain is located within 1.6 km radius from the project site,
3	Areas use by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	None	Not applicable
4	Inland, coastal, marine or underground waters	No Coastal/ Marine Area. Ground water is present	There are no coastal or marine areas within 15 km radius of the site. The geology of the area is predominated by quaternary alluvium consisting of clays, occasional kankar, and sand of various grades in different depths form the main aquifer of ground water in the area.
5	State, National boundaries	Yes	Haryana boundary is within 12 KM radius.
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	Not applicable
7	Defense installations	No	Not applicable
8	Densely populated or built-up area	Yes	The project site is located at Pocket 5, Sector 14, Dwarka, The site is surrounded by Kakruala Village 1.17 Km, Bharat Vihar-0.2 Km, Tara Nagar -0.65Km Kakrola-1.20 Km
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places or worship, community facilities)	Yes	Hospitals are available in city and Hospital is within 2- 10 km from the site, such as Artemis Hospital -8 Km ,VPS Rockland

			Hospital -2.2 Km ,Maharaja Agrasen Hospital 6 Km , Ayushmann Hospital -2.2 Km
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	None	Not applicable
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	The ambient air quality results show that PM10, PM2.5, level is as per DPCC on line monitoring system
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)	None	The area under study falls in Zone-IV, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficient in horizontal and vertical directions respectively, has to be adopted while designing the structures. There are no possibilities of the proposed project site getting flooded as per records available.

(b) The following shall be inserted at the end, namely: -

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

Date: 20.4.17

Place: DELHI

(project proponent/Authorized Signatory)

Handwritten signature

Handwritten signature
Signature of the applicant

With Name and Full Address

Executive Engineer
Western Division-13
Delhi Development Authority