CONCEPTUAL PLAN

ABOUT GWALIOR DEVELOPMENT AUTHORITY

Gwalior Development Authority was established and incorporated in 05th October 1979 with an aim of well planned and balanced development of Gwalior City. The authority is structured under the town and country planning act 1973 of MP State Govt. and it works under the administration of Department of urban Development and housing of M.P. Govt.

The symbol of urbanization, which is directly perceived by common people, is "the development of land in an organized manner". Gwalior Development Authority provides a platform for people to participate in the development by implementing the master plan of the Gwalior city. Gwalior Development Authority sells the plots in the scheme. It provides the land at reasonable prices. And it is generally safe measure to invest in the land in an authorized colony. These colonies are well planned, and well furnished with all the facilities and utilities.

ABOUT THE PROJECT

Back Ground of the Project

This is a building construction Category 8a project, Commercial Complex Project "Madhav Plaza" located at Huzarat Road, Lashkar, Gwalior, Madhya Pradesh being developed by Gwalior Development Authority, Vikas Bhawan , 1 Ravi Nagar Gwalior (MP).

Construction activity of the project was started with effect from 2009, as authority was not aware of the provision of EIA notification, 2006. But after submission of application for Environmental Clearance to SEIAA, MP vide our letter No.GDA/1934 dated 14/05/2013, they called for presentation on the project on 20.08.2013. During the discussion with SEAC it was noticed that the construction of our building without obtaining Environmental Clearance is violation of EIA notification, 2006. After that GDA stopped construction activity with immediate effect.

GDA also committed and submitted details of violation of construction activities undertaken as per MoEFCC, GoI, OM no. J-110131/41/2006-IA-II dated 12.12.2012 and OM dated 27.06.2013 vide letter dated 09.12.2013. in which we accepted that we were not aware of the provision of EIA Noptification 2016 at the time of construction and assured that we will not commit any violation in future for any of our projects. We have been submitted that a large part of construction work of building is almost completed and only electrical and fitting of AC work is going on in completed part. Only a small part i.e.10% of the building work is remaining to be completed which has been directed to stop with immediate effect as per SEIAA, MP direction.

We have already constructed 23,658.48 m^2 of Built up Area, out of 26,117.81m^2 of the Total Built-up area of project, without obtaining prior Environmental Clearance. As of now, only a small part of 2459.33 m^2 (9.42%) of the total Built-up area is remaining to be completed which has been stopped.

Further, the case was kept on abeyance by SEIAA in the meetings (219th, 220th & 352nd) until clarification received from MoEF & CC. The case was closed in 417th SEIAA meeting held on 20-03-17.

Recently, MoEF & CC, GoI issued a Notification vide S.O. 804 (E), dated 14.03.2017, for one time opportunity for Violation matters. Therefore; we hereby submitting our application form to obtain Environmental Clearance of the project as per EIA Notification dated 14.09.2006 as amended on 14.03.2017.

Current Status of the project

The Commercial Project "Madhav Plaza" is being developed by M/s Gwalior Development Authority. The project is located at Khasra No. 756, Huzarat Road, Lashkar, Gwalior has already constructed 23,658.48 m^2 of Built up Area, out of 26,117.81m^2 of Total Built-up area, without obtaining prior EC. As of now, only a small part 2459.33 m^2 (9.42%) of the total Built-up area is remaining to be completed which has been stopped now.

The detailed Area Statement is as follows:

Table 1: Project Infrastructure details

Description	Construction Status (%)		Total Built-up Area (m^2)
	Area constructed at Site (m^2)	Area Yet To be constructed (m^2)	
Ground Floor	4324.79	403.06	4727.85
First Floor	4749.01	627.84	5376.85
Second Floor	4704.84	705.88	5410.72
Third Floor	4704.84	705.88	5410.72
Basement Area	5145.0	--	5145
Mumty, machine room	30.0	16.67	46.67
Built-up Area	**23,658.48**	**2459.33**	**26,117.81**

Site location and Connectivity

The proposed project is located at Huzarat Road, Lashkar, Gwalior, Madhya Pradesh. The nearest railway station is Gwalior Railway Station is ~ 3.34 km in NE direction. Gwalior Airport is ~ 12.8 km in NE direction.

Figure 1: **Site Location**

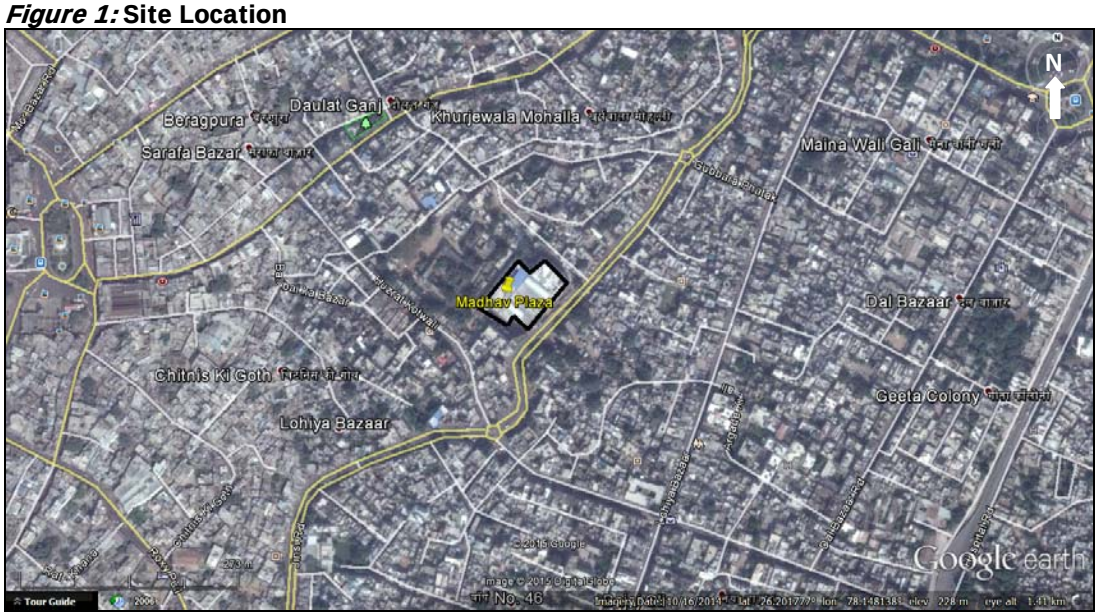
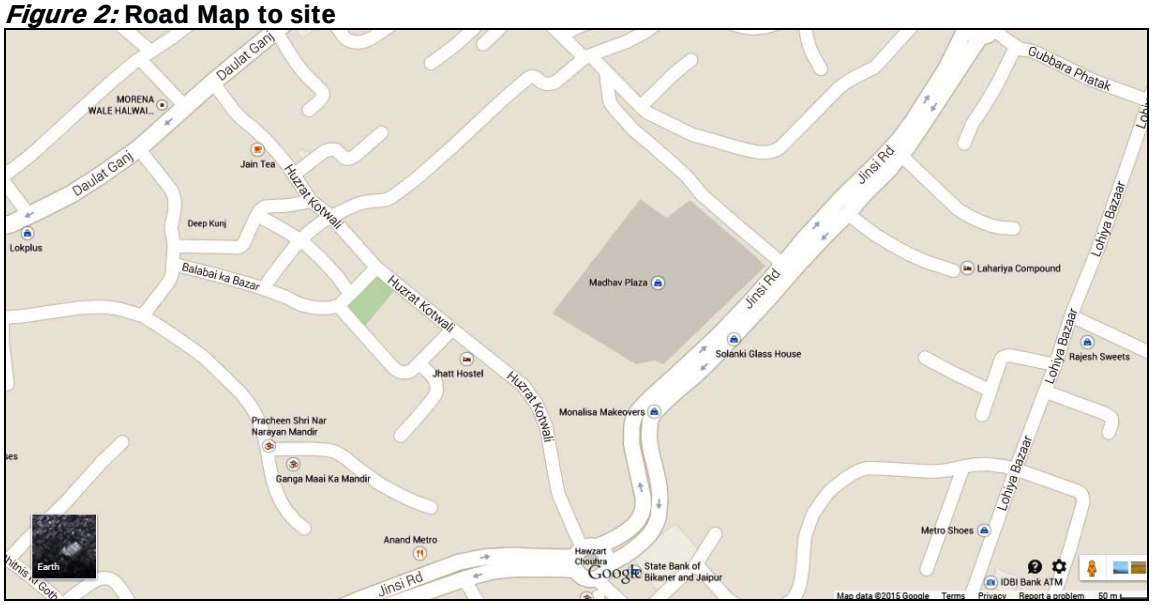


Figure 2: **Road Map to site**



Project Details: Project details along with detailed area break-up are given below:

Table 2: **Project details**

Sr. No	Particulars	Description
1	Plot area (m^2)	9,305
2	Area under road widening (m^2)	161.98
3	**Net Planned area (m^2)**	**9143.02**
4	Permissible FAR (m^2)	16,283.75 (1.75)
5	Additional FAR for road widening area	283.46 (1.75)
6	Total permissible FAR (m^2)	16567.21
7	Proposed FAR (m^2)	13,631.2 (1.49)
8	Permissible Ground coverage (m^2)	4,571.5 (50%)
9	Proposed Ground coverage (m^2)	2923.5 (31.9%)
10	Built up area (m^2)	26,117.81
11	Number of floor	B+G+3
12	Number of basement	1
13	Total Area of Basement **(m^2)**	5,145
14	Total No of shops	587
15	Floor-wise area use	Ground, first, second floor- shops Third floor- Office, shops, bank and restaurant
16	Parking arrangement with its breakup	
	• Basement parking	147 ECS
	• Surface parking	32
17	Sanctioned Load (kVA)	3,000
18	Proposed capacity of DG set in KVA	2 x 1500
19	Total Solid Waste generation	0.4 ton/day
20	Total Population	5583 (1993 staff, 3590 visitors)

Table 3: **Population breakup**

S. No	Building	Area / Number	Person based on	Population
1.	G.F + F.F + S.F (shops)	587	@ 3 person/shop	1761
2.	Visitors	-	Lump sum	3522
3.	T.F (Office+ bank)	2122.6 sqm	@ 10 SQM/Person	212
4.	Visitors	-	@ 10 % of staff	21
5.	Visitors (Restaurant)	187 sqm	@ 4 sqm/person	47
6.	Security & Maintenance		Lump sum	20
	Total population			**5583**

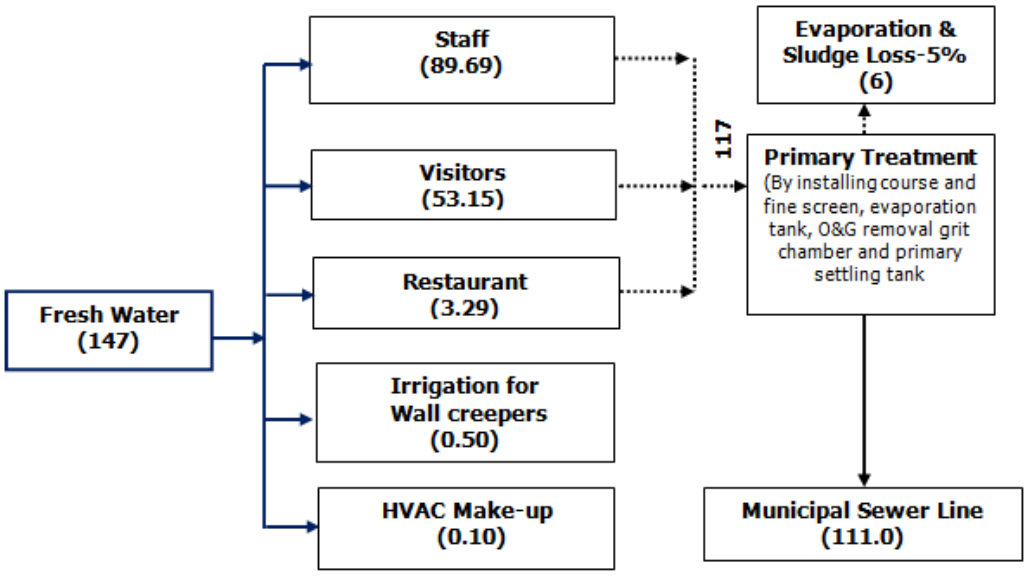
Water Supply:

During operational phase, total 147 KLD fresh water will be required which will be met from Municipal Corporation, Gwalior.

Table 4: **Water balance**

S. No	Description	Per capita water demand	Total Fresh water requirement (KLD)	Waste Water generation @80%
1.	Staff - 1993 persons	45 lit/day	89.69	71.75
2.	Visitors - 3543 persons	15 lit/day	53.15	42.52
3.	Restaurant - 47 seats	70/seat	3.29	2.63
4.	Irrigation for Wall creepers	Lump sum	0.50	-
5.	HVAC Make-up (1050 tonnage capacity- R 134 Gas Based technology)	Lump sum	0.10	-
Total			**146.73 Say 147**	116.90 **Say 117- 6** (~5% Evaporation & Sludge Loss) **=111**

Fig 3: Water Balance for Operation Phase (All values in KLD)



Waste water Generation and Treatment:

During operation phase, it is estimated that about 117 KLD of waste water will be generated from the project, which will be treated upto primary level by installing course and fine screen, evaporation tank, O&G removal grit chamber and primary settling tank at site.

After primary treatment, 111 KLD waste water will be discharge into main sewer line (after 6 KLD loss through evaporation and sludge) of Municipal Corporation, Gwalior. Further, waste water will be treated in to STP of 60 MLD capacity of Gwalior Municipal Corporation.

The Gwalior Municipal Corporation agreed to provide sewer connection into main sewer line and for further treatment in STP.

Storm Water Management Plan:

Rain water outlets shall be provided at various locations on terrace based on the criteria that minimum 1% slope to be provided towards rain water outlet from the ridges.

The rainwater collected from the rooftop areas within the project area will be conveyed into the Infiltration Chamber and finally recharges the groundwater.

***Table 5*: Details of maximum storm water generated**

Description	Area (m^2)	Maximum rainfall intensity (m/h)	Runoff coefficient	Total storm water (cum/h)
Roof area	2923.5	0.02	0.8	46.77
Paved area	5827.29	0.02	0.5	58.27
Open area	392.23	0.02	0.3	2.35
Total	**9143.02**			**107.39**

Total 45 number of harvesting bores will be developed. 107.39 m^3 is the maximum generated runoff for 1 hour. Hence peak runoff can be taken for maximum 15 minutes. Hence (107.39/4=26.84 m^3) of storage capacity will be required.

***Table 6:* Details of Rainwater Harvesting Bores**

Number of harvesting bores Number of Infiltration chamber	45 12
Size of each harvesting bore chamber	0.90 x 0.45 x 1.0 = .405 m^3
Size of infiltration chamber	3.45 x 0.7 x 1.0 x 0.3 = 0.724 m^3 (considering 30% voids)
Max available capacity	(45 x 0.405) + (12 x 0.724)= **26.913 m^3**
Diameter of bore	150 mm
Depth of bore	20 m

So, storage capacity provided for peak hour runoff. Hence there will be no overflow during maximum rain fall.

Solid waste generation/ Disposal:

Solid waste generated in Project area will be 0.4 ton/day and mainly of domestic nature. Detail of solid waste generation is given in Table below. Solid waste will be segregated into biodegradable and non-biodegradable wastes and collected in separate bins and disposed off on trenching ground through Gwalior Municipal Corporation.

Table 7: Solid Waste Generation

S. No	Description	kg/capita/day	Total Solid Waste Generation (kg/day)
1.	Staff (1993 persons)	0.1	199.30
2.	Visitors (3543 persons)	0.05	177.15
3.	Restaurant	Lump sum	20.0
4.	Waste from wall creepers	Lump sum	4.0
Total			**400.48 kg/day Say 0.4 ton/day**

Solid Waste Management Plan:

Solid waste generated during operation phase will be a heterogeneous mixture of commercial and domestic activity. The waste mainly comprises of organic food waste as well as inorganic waste such as plastic, leather, rubber, glass etc. Apart from these organic wastes like food waste, garden waste etc will also be generated at the project site.

It is estimated that approximately 0.4 tons per day will be generated from project premises after the commencement of operation phase.

Following arrangements will be made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2008.

- **Collection and Segregation of waste**

  Recyclable and non-recyclable wastes will be collected separately.

  1. For commercial waste collection, adequate number of colored bins (Green and Blue & dark grey bins– separate for Bio-degradable and, recyclables and non-recyclables) are proposed to be provided at the strategic locations of the commercial area.
  2. Litter bin will also be provided in open areas.

- **Treatment and disposal of waste**

  Recyclable and non-recyclable wastes will be disposed off through Municipal Corporation, Gwalior. Hence, the Municipal Solid Waste Management will be conducted as per the guidelines of as per the guidelines of Solid Waste Management Rules, 2016.

Power Requirement:

The power shall be supplied by Madhya Pradesh Madhya Kshetra Vidyut Vitran Company Limited. The sanctioned Load for the project 3000kVA.

Details of the DG sets: There is a provision of DG sets with 2 x 1500 kVA capacities.

Parking Facilities:

147 ECS in basement and 32 ECS on surface will be provided.

Landscaping:

- As suggested by the Honorable SEAC, Madhya Pradesh, after site visit on 21.05.2015, we have allocated an area of 3000 m2 (approximate 32.81 % of total plot area of Madhav Plaza) in our land situated at village Shatabdipuram for development of green belt as compensatory Plantation. The area will be developed as green belt by planting 600 local tree species and separate budget of Rs. 10 Lakhs has been allocated for compensatory plantation including fencing and borewell development for watering of landscape.

- It is also ensured that creepers on the project site along with other plants will also be planted. At site wall creepers will be planted to cover 540 sqm of wall area.

Fire Fighting system:

Adequate fire protection facilities will be installed including fire detectors, fire alarm and fire fighting system to guard the building against fires. All fire protection facilities will be designed as per the National Building Code given in 2005.

Construction Material:

Construction material such as stone, cement, sand bricks, marble, paints, tiles, electric wires, sanitary ware and glass were used.

All the above material was purchased from the local market and from nearest approved quarries as and when required. It was stored temporarily at the site. Approximate quantities are as follows:

Table 8 : Approximate quantity of Construction Material

S. No.	Material	Quantity
1.	Steel (MT)	1858
2.	Cement (bags)	117665
3.	Stone Aggregates (m^3)	12212
4.	Sand (m^3)	1652
5.	Bricks (m^3)	629
6.	Glass (m^3)	2768
7.	Fly Ash Based Products (m^3)	1826