

The 269-Ath meeting of the State Expert Appraisal Committee (SEAC) was held on 20th February, 2016 under the Chairmanship of Shri. K. P. Nyati for on the projects / issues received from SEIAA. The following members attended the meeting-

1. Dr. Mohini Saxena, Member
2. Dr. U. R. Singh, Member
3. Shri. Manohar K. Joshi, Member
4. Shri R. Maheshwari, Member

The Chairman welcomed the members of the Committee and thereafter agenda item were taken up for deliberations.

1. **Case No.4977/16 Shri Anand Rane, Divisional Project Engineer, Office of Divisional Project Engineer, PIU-PED, Old Palasia, Indore (MP) Prior Environment Clearance for District Court Building at Village-Pipliahana, Tehsil-Indore, District-Indore (MP) at Khasara No. : 526/1/1, 526/1/2 , Village Village- Pipliahana , Indore (MP),Total Land Area = 11.161 Ha ,Total Built Up Area = 144492 sq mt.**

This is a building construction project comprising total plot area of 11.161 ha and total built-up area of 1,44,492 sq mt for court building which comprises of Court rooms, lawyers rooms, service building, affiliated facilities.

The case is under litigation in Hon'ble NGT-Bhopal. Hence, observations of SEAC are subject to final orders of Hon'ble NGT. The project falls under category 8 (A) of the Schedule of EIA Notification, hence requires prior EC before commencement of any activity on site. The case was presented before the committee by the PP and his consultant. The submissions and the presentation revealed following aspects of the project:

PROJECT DETAILS

Project Proposal	225 Court Rooms and allied facilities for Judges, Lawyers, Prisoners Litigants
Total Plot Area	11.161 Ha
Total Built up Area	1,44,492 sq mt
Location of Project	Khasara no. of 526/1/1, 526/1/2

	Village- Pipliahana , Indore (MP) (MP)
Geological Location	22°42'32.09"N and longitude 75°54'28.81"E
Altitude of the Site	560 AMSL
Surrounding Features	(a) East - Residential colony Scheme no. 140 (b) West-Water Body (c) North- MPEB substation followed by 24 mt road. (d) South- Ring Road to Bicholi - Mardana up to bypass (30 mt Wide)
Total Water Requirement	365 KLD
Total Waste Water Generation	325 KLD
Flushing water requirement	201 KLD
Landscape water requirement	92 KLD
Domestic Water Requirement	165 KLD
Power Requirement	637 KW(650 KVA)
Backup Power facility	2 DG sets of 400 KVA
Solid Waste	921 KG per day
Basement + Multi level + Open Parking	3124 number

- T & CP Approval has been obtained.
- Land has been provided for construction of court building and owned by the Govt of MP.
- NOC from water supply and excess treated water disposal from corporation and solid waste disposal from Municipal Corporation have been obtained.

STATEMENT OF AREA

Statement of Areas		Development	
S No	Particular	Permissible	Proposed
1	Organized Open Area		23000 sq m

2	Services Area		11630 sq m
3	Maximum Far	As per 1:1=111610.0sqm	80317 sq m
4	Road & Circulation Area		21100
5	Maximum Ground Coverage	@ 33%=33483 sq m	29470 sqm
6	M O S Maximum Distance between Two Blocks	6.0m	16.0m
7	Maximum Height	30m	26.50m
8	Total Area of land	1111610 sqm	1111610 sqm
9	Total Built up area including built-up area as per T & CP norms or MPBVR 2012	111610 sq m	80317 sqm
10	Total Built up area including built-up area of stair cases, balcony, basements and other services area which does not considered for calculation wrt T & CP & MPBVR 2012		144492 sq m
	Total roof Area		31000 sq m
	Total Land scape area		23000 sq m
	Total Paved area		16000 sq m

Area abstract has been enclosed as under

	Super Built Up area in sq m	Built Up Area in sq m
BLOCK-B Main Court ,Building	72010	39455
BLOCK-D Service Building	13282	7552
BLOCK-A Court Building	15665	6995
BLOCK-C Court Building	15665	6995
BLOCK-F Auditorium	2250	1510
BLOCK-E Multi Level Parking	25620	17810
	144492	80317

Area Statement Of Project As Per Sub Rule 30 Of Rule 2 Of MPBVR 2012					
BLOCK-B MAIN COURT BUILDING					
	Super built Up area	Corridor in sq	open to sky in Sq m	Lobby + Stairs in sq m	Built up area in sq m
Basement	13000				
Ground Floor	11260	2400	2300	800	8060
First FloorFloor	9550	2471	2300	800	6279
Second Floor	9550	2471	2300	800	6279
Third Floor	9550	2471	2300	800	6279
Fourth Floor	9550	2471	2300	800	6279
Fifth Floor	9550	2471	2300	800	6279
BLOCK-D SERVICE BUILDING					
Basement	3400				
Ground Floor	3660	580	400	250	2830
First FloorFloor	3111	500	400	250	2361

Second Floor	3111	500	400	250	2361
BLOCK-A COURT BUILDING					
Basement	3000				
Ground Floor	2380	485	700	460	1435
First Floor Floor	2057	485	700	460	1112
Second Floor	2057	485	700	460	1112
Third Floor	2057	485	700	460	1112
Fourth Floor	2057	485	700	460	1112
Fifth Floor	2057	485	700	460	1112
BLOCK-C COURT BUILDING					
Basement	3000				
Ground Floor	2380	485	700	460	1435
First Floor Floor	2057	485	700	460	1112
Second Floor	2057	485	700	460	1112
Third Floor	2057	485	700	460	1112
Fourth Floor	2057	485	700	460	1112
Fifth Floor	2057	485	700	460	1112
BLOCK-F AUDITORIUM	2250	180		560	1510
BLOCK-E MULTI LEVEL PARKING					
Basement	7810				
Ground Floor	7810				7810
First Floor Floor	5000				5000
Second Floor	5000				5000
Total	144492				80317

Parking

Phase	Components	Details
Phase-1	Basement Parking floor	340 Car Parking Capacity
	Main Court Building	141 +84 Court Room
	Auditorium Building	1000 person capacity
	Multi Level Parking	Space for 1284 Vehicle, Each floor 214
	Service Building	BG+1 (Allied Activities)
	Site Development	

SOURCE OF WATER SUPPLY

1. In construction phase we will take water supply form the private tanker suppliers
2. The Main source of water supply in operation phase will be corporation water supply. It will cater the domestic requirement whereas additional water requirement for flushing, land scaping and washing will be fulfilled by treated water from STP. The reverse elevation is proposed towards the water body to prevent the flow towards water body. The building is proposed 30 mt away from the pond as per provision of T &CP.

WATER BALANCE

WATER CONSUMPTION DATA – District Court Indore								
S. No.	Description	Total Population (approx)	Cold water requirement				Gross water req.(A+B+C)	Flow to sewer (85% Domestic & 100% Flushing)
			Flushing (A)		Domestic Water (B)			
			LPCD	LPD	LPCD	LPD	LPD	LPD
1	Water Requirement for Occupants for a area of 60000 @ 1 person/10Sqm(Assumed)	6000	25	150000	20	120000	270000	246000
2	Water Requirement for	650	10	6500	5	3250	9750	9100

	Visitors for Office area							
3	Water Requirement for Service Block	1360	25	34000	20	27200	61200	55760
4	Auditorium	1000	10	10000	5	5000	15000	14000
5	Water requirement for Filter Backwash and Softener Regeneration	LS	0	0	LS	10000	10000	
	Total			200500		165450	365950	324860
	Say			200500		165450	365950	324860

S. No.	Description	Round-Off Valves in KLD
1	Domestic Water Requirement	165
	Total	165
3	Flushing Water Requirement	201
4	Flow To Sewer	325
		STP Design 350 KL/Day
	Re-Use of Treated Waste Water From STP	Approx. 292 KL/DAY from STP
S. No.	Description	Round-Off
1	Flushing Water Requirement	201
2	Treated water Available for Gardening And Landscape requirement	92

ENVIRONMENT MANAGEMENT PLAN

STP Details

Capacity : 350 KLD

SEWAGE & SLUDGE WASTE DRAINAGE

Process Description

In order to conserve water, sewage treatment plant shall be designed to ensure that treated effluent (water) characteristics are well below the permissible limits, even under varying flow conditions which are typical for such systems. This implies that the selected process shall be able to withstand shock load situations.

The sewage treatment plant shall be designed for a capacity to handle soil and waste water from the Complex. Soil & Waste water from the Complex shall flow into a grit chamber to remove settling grit. Over flow from the grit chamber shall come to a sump chamber constructed as an integral part of the package sewage treatment plant.

A bar screen shall be provided at the inlet point in the sump and the waste water will flow through this bar screen into the sump.

The bar screen shall be so designed that it can be cleaned manually from the top of the sump. Two submersible solid handling pumps shall be provided in the sump to pump the collected waste water to the aeration chamber. These pumps shall have the capability to handle effluent with solids upto 40 mm size. A flow regulator box shall be provided to regulate the flow in the aeration tank. Automatic level controller shall be provided in the sump to turn the pump off at the low water level in the sump and to automatically start the pump when water level is high. In case the water level in the sump continues to increase (pump out of order), the stand by pump will start and a high level alarm shall come on, indicating pump problem. Submerged air diffusers shall also be provided in the sump to keep the suspended solids in suspension and to prevent the sewage from turning septic.

Waste water from the flow regulating box shall flow into the aeration tank, where it shall be mixed with activated sludge (Mixed Liquor Suspended Solids) in presence of air introduced through submerged air diffusers. The aeration system shall be designed in a way so as to achieve complete mixing of activated return sludge with raw sewage. Foam control system shall be provided in the aeration tank to keep foaming under control.

From the aeration tank this mixed liquid shall pass into the secondary clarifier. Through the use of baffles the liquid in the clarified tank shall be maintained in a quiescent condition which shall allow the solids to settle to the bottom for collection. The accumulating solids known as "Sludge" shall be constantly pumped from the clarifier tank bottom to the aeration tank. This return sludge shall undergo further digestion in the aeration tank and shall also provide the active organisms needed to digest the incoming raw sewage.

A skimmer system shall be provided at the surface of the secondary classifier to continuously skim the surface and to pump the skimming back into aeration tank. The clarifier shall also have an adjustable overflow weir to collect the treated effluent and a scum baffle shall keep any floating matter from passing out with the final treated water.

Treated water from the secondary clarifier shall over flow into adjoining mixing tank where alum shall be added. Mixing shall be provided by air diffusion. From the mixing tank water shall flow by gravity into an adjoining baffled treated water tank shall have volume sufficient to store treated waste water for one day storage.

The treated, disinfected water shall then be passed through a multi-grade filter and UV unit then stored and reused as makeup water for cooling towers for air-conditioning for flushing and for external horticulture.

Excess sludge from the bottom of the clarifier shall be passed into an adjoining aerobic digester cum thickener tank. In this tank, sludge shall be aerated. Air shall be shut off periodically and separated water shall be pumped back into the aeration tank. This way the sludge shall be thickened and its volume reduced. The sludge digester cum thickener tank shall be sized to hold excess sludge production of at least three months. Submersible solids handling pump with flexible hose connection shall be supplied to pump the sludge out into municipal tanker on required basis.

RAIN WATER HARVESTING

Area	111046	Catchment Area		Run off Coeff. [C]	Intensity of Rainfall (m/hr) in mm	Total (m ³ /hr) [Q]
Sr. No.	Type of Surface	sq.m	Hect			
1	Building (Terrace Area)	31000	3.1	0.95	50	1473
2	Hard Paved Area	16000	1.6	0.85	50	680
3	Natural Ground	64046	6.4046	0.1	50	320
Area in acre	27	111046				
Grand Total (1+2+3)						2473
Considering 15 Min (0.25 Hr) Retention Period						
Volume Required			=	1249 x 0.25		618.18
VOLUME			Say			618.00
Considering 1 No. Rain Water harvesting Pit of Size 3.0 m dia. and 5.0 m depth						
Volume of 1 Rain Water harvesting pit						
Dia. of Pit (d) in Mtr.			=			3
Depth (D) in Mtr.			=			5
Volume of 1 Pit in Cum			=	Pi X r ² X h		

			=	3.14 x(1.5x1.5)x5	35.325
Say			=		35
Total Nos of Rain Water Harvesting Pits					
Total Volume Required			=	618	
Volume of Unit Harvesting pit			=	35	
Total number of pits			=	17.66	
say				18	
Providing 18 No of Rain Water Harvesting Pit of size 2.0m dia x 5.0m depth					

SOLID WASTE MANAGEMENT

It is estimated that at about 921 kg per day of waste will be generated from the facility during the operation

CONSTRUCTION DEBRIS

- Recycled aggregate will be used for filler application, and as a sub base for road construction. Mixed debris with high gypsum, plaster, shall not be used as fill, as they are highly susceptible to contamination, and will be given to recyclers.
- Construction contractors shall remove metal scrap from structural steel, piping, concrete reinforcement and sheet metal work from the site. A significant portion of wood scrap can be reused on site. Recyclable wastes such as plastics, glass fiber insulation, roofing etc shall be sold to recyclers.

OPERATION PHASE

Collection and transportation

- During the collection stage, the biodegradable and non- recyclable/ non biodegradable waste will be stored and collected separately. There will separate MSW collection centre i.e. each for block. Colored collection bins shall be provided in proper numbers
- To minimize littering and odors, waste will be stored in well designed containers/bins that will be located at strategic locations to minimize disturbance in traffic flow.
- The collection vehicles will be well maintained to minimize noise and emissions, and while transporting waste, these will be covered to avoid littering.

Disposal

- With regard to the disposal/treatment of waste, the facility will disposed off the waste and STP sludge at trenching ground of Indore Municipal Corporation.

AIR ENVIRONMENT

- DG set will have appropriate stack height as prescribed by the Central Pollution Control Board
- Proper ventilation will be provided to all parts of the buildings
- Open burning of any waste shall not be allowed.
- Open area for land scape is more than 30%

NOISE POLLUTION

- Noise Emission Control Technologies: DG generator will have suitable acoustic enclosure which shall be designed for minimum 65 dB (A).
- DG set will have stack height as per the CPCB formulation
- Ambient Noise Monitoring shall be carried out as per direction of MPPCB

ENERGY CONSERVATION MEASURES

- Green LED based lighting will be done in the common areas, landscape areas, signages, entry gates and boundary walls etc.
- Roof, walls & fenestration products (sash and frame) shall comply either the maximum U-Factor or minimum Insulation R- Values.
- DG sets shall be on auto cut and auto start controlled mechanism.
- Variable Frequency Drives (VFD) has been proposed for the Pumps and Blowers.
- It is proposed to use Cellular Light Weight Concrete (CLC), which uses fly ash for manufacturing.
- All the roofs are proposed to be insulated to minimize heat gain with 50 mm expanded polystyrene or equivalent insulation.
- Efficient plumbing equipments will further help reduce energy consumption.

FIRE & SAFETY MEASURES

- Overhead Fire storage tanks as per NBC 2005
- Fire Hydrant System
- Automatic Fire Alarm System
- Hydrant pumps, Sprinkler pumps & Jockey pumps.
- Hand Held Fire Extinguishers
- Automatic Sprinklers System
- Wet risers, Fire Extinguishers, Hose Reel.

LAND SACPE PLAN

Total open space for landscape is proposed More than 30% which is as per T & CP. PP has informed that the inclusive of, road side and boundary wall plantation, the area is nearby 40% of the area.

The case was presented by the PP and their consultant. In response to media report about the site being green belt in Indore Master Plan, the PP informed that the land use of the site is “PSP” (Public, Semi Public) and not green. The submissions made by the PP were found to be satisfactory and acceptable. However, case being under litigation, the grant of prior EC is recommended subject to the final orders of Hon’ble NGT, Bhopal with the following conditions:-

1. Fresh water requirement for the project shall not exceed 165.00 KLD.
2. Construction should be carried out leaving 30 meters area from the water Pond boundary for Green Belt Development as per Town & Country Planning permission letter no. 1071 dated 11/02/2016.
3. During operation phase, the project shall be “Zero waste water discharge” and in any case, treated waste water should not be discharged in the nearby water pond.
4. Water conservation measures such as dual plumbing, self closing taps, low water flushing system etc be provided.
5. Solar panels should be provided in the Multi Level Car Parking and other open spaces specially the parking areas elsewhere for energy conservation.
6. For air conditioning of auditorium no water based cooling technology should be used.
7. Energy conserving light systems such as LED’s be provided.
8. Canteen and service blocks should have solar water heating system.
9. Settling tank of suitable capacity with screen for removal of floating materials should be provided at the inlet of surface runoff draining in to the water pond.
10. PP should explore the possibility of using high volume fly ash cement concrete during construction.
11. Explore the possibility of pre treating the waste water through “Root Zone Technology” prior to STP’s.
12. The excess treated water will be used for watering of municipal road side green area or efforts shall be made to supply this water to the construction sites for use in the construction works.
13. Landscape Plan / Plantation Plant should be developed professionally and implemented parallel to the implementation of project so that greenery /

- larger plant should have positive environmental impact at the operational phase of the project.
14. STP sludge shall be filter-pressed and the de-watered sludge shall be disposed off with the MSW.
 15. Power back-up for un-interrupted operations of STP shall be ensured.
 16. Fund should be exclusively earmarked for the implementation of EMP.
 17. MSW storage area should have 48 hours storage capacity.
 18. PP will obtain other necessary clearances/NOC.
 19. Provision for physically challenged persons be made so that they can easily excess pathway to the various buildings and the derive ways of vehicles.
 20. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after completion of the period.

(K. P. Nyati)
CHAIRMAN