Conceptual Plan

Introduction

General

- As per the EIA Notification 2006, All the building construction projects/Area Development projects and Township Projects comes under schedule 8.All the projects which have built up area ≥20000 m² and <1, 50,000 m² they come under schedule 8 (a).
- Total Built up area of the proposed hospital Project is 55,048.734 m². Which comes under schedule 8 (a) of listed schedules to Notification and has to obtain the Environment Clearance from SEIAA/MoEF&CC.

Brief About Project

- This is a 568 Bedded (200 Existing + 368 Proposed) super specialty hospital. Bhagwan Mahavir Hospital was inaugurated on 25th September, 2003 with OPD services in basic branches i.e. Medicine, Surgery & O&G and other major specialties like ENT, Skin, Ortho, Eye, Dental, and Pediatrics were added over a period of time. Indoor services with facility of 60 beds were started on 5th September, 2005 which was extended to 130 beds in 2007-08, 170 beds in 2009-10. Presently, total bed strength of the hospital is 200.
- BMV hospital is multispecialty secondary level hospital providing quality preventive, promotive and curative & palliative health services to the adjoining and distant areas of Delhi and NCT
- The hospital besides providing outdoor consultation and dispensing, has indoor facility for 200 patients. It is 24 hours casualty services including emergency operative facility, laboratory and x-ray investigations. The maternity (Labour room) and new born care (Nursery) services and operative delivery services are also available round the clock.
- Considering the above, the existing land use is not expected to get altered due to construction of proposed project. Copy of land allotment letter attached

Annexure 1: Allotment Letter from DDA

• The existing buildings were constructed and also became operational prior to the publication of EIA Notification 2006. Therefore, the existing buildings did not attract applicability of to obtain Environmental Clearance from SEIAA/MoEF& CC and no environmental clearance was issued to PWD department. Accordingly, the issuance of certified monitoring report by Regional Director of MoEFCC is not applicable for the existing buildings. Howver, Consent to operate and occupational certificate for the existing building has been obtained from the concerned authorities.

Annexure 2- Consent to Operate and Occupational Certificate from DPCC

Site Surroundings and Connectivity

Location

The proposed site is connected to all the transport facilities. It is surrounded by residential areas sainik vihar, rishi nagar, pundrik vihar, lotus enclave, Punjabi bagh, shakarpur etc. within 2 km of the area..

The geo graphical co-ordinates of site are given in table 1.

Table 1: Co-ordinates of the Site

Points	Lattitude	Longitude
Centre of The	28°41'18.70"N	77° 7'4.41"E
plot		
Corner-1	28°41'22.64"N	77° 7'7.87"E
Corner-2	28°41'14.65"N	77° 7'6.89"E
Corner-3	28°41'15.39"N	77° 7'0.95"E
Corner-4	28°41'18.70"N	77° 7'4.41"E

Site is well connected to transport facilities as well as surrounded by densely populated areas. Project site is adjacent to the sector road (Rd No. 42/Guru Harkrishan Marg) and near to railway colony (south). Site surroundings and Connectivity details of the project are given in below table.

Site surroundings and site connectivity is shown in below table

Table 2 : Site Surroundings and Connectivity

S.No.	Particulars	Name	Distance 'n' Direction (approx.)
1.	Nearest Railway	 Shakur Railway station 	1.30 km in SE
	Station	 New Delhi Railway Station 	11.41 km in SE
		 Mangoli Railway station 	5.91 km in W
2.	Nearest Airport	IGI international Airport	14.78 km in S
		 Safdarjung airport 	14.80 km in SE
3.	Nearest	Rishi Nagar	0.81 km in E
	Populated Area	 Rani Bagh 	0.90 km in ENE
		 Shakur Basti 	1.29 km in SE
		 Surya Enclave 	1.50 km in SSW
4.	State Boundary	 Delhi-UP state Boundary 	13.91 km in NE
		 Delhi-HR State Boundary 	15.94 km in W
5.	Nearest Roads	 Guru Harkrishan Marg 	0.12 km in S
		• NH-9	1 km in NNW

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		•	Rohtak Ro	oad		1.60 km, SSW
6.	Nearest School	•	Keshav Mahavidyalya			0.22 km in E
		•	KIIT worl	d school		0.30 km in NNW
		•	Max Fort	School		0.84 km in NW
7.	Forest	•	Central	Ridge	Reserve	9.43 km in SE
			Forest			

(Source: Google Earth Pro)

Google map and topographical map showing site and surroundings within 500 mtrs, 10 km and 15 km are attached.

Annexure 3- Google map showing site and surroundings within 500 mtrs
Annexure 4-Toposheet map showing site and surroundings within 10 and 15 km

Salient features of the Site

The salient features of the hospital project are as follow.

Table 3 : Salient Features

S.No.	Description	Proposed
1.	Plot Area	40,043.25 m ²
2.	Proposed Built Up Area	55,048.734 m ² (Existing-
	(Existing + Expansion)	36,859.758 m ² , Expansion-
		18,188.976 m ²)
3.	Number of Beds	Total- 568 beds
		200 (Existing) + 368 (Proposed)
4.	Maximum Height	29.15 meters (hostel, G+7)
5.	Maximum No. of Floors	G+7 Floors (Residential), B+G+5
		(Hospital)
6.	Cost of Project	Approx.Rs.172 Crores
7.	Expected Population (Existing +	3978
	Expansion)	
8.	Total Water Requirement	613 KLD
9.	No. of RWH Proposed	9
10.	Parking Proposed	511 ECS
11.	Solid Waste Generation	2,043 kg/day (Existing)
12.	Power Source & Requirement	Source-BSES
		Existing- 1,313 kVA (1182 KW)
		Expansion - 1,501 kVA (1351 kW).
13.	D.G. Set Back Up	2,250 (3*750 kVA each)

Area Details

Site is having plot area of $40,043.25 \text{ m}^2$ (9.89 Acre). The existing hospital building having residential as well as hospital block. The existing building is having 200 bed facilities and new 368 beds are being proposed. Modernisation well as vertical expansion of existing blocks and one new OPD's construction will take place, however there is no change in residential block and hostel area. Total built up of existing + expansion area is $55,048.734 \text{ m}^2$

Area details are given in below table.

Table 4: Detailed area Statement

S.No.	Particulars	Existing Area	Expansion	Total Area (m²)
		(m ²)	Area (m²)	
1.	Plot Area		40,043.25	
2.	Permissible Area for Hospit		29,219.56	
3.	Permissible area for Reside	ence (R)		10,423.70
4.	Permissible Ground Covera	ge for Hospital (@	@40% of PA)	16,017.3
5.	Additional Permissible GC f	for MLCP (@5% o	f PA)	2,002.1625
6.	Permissible FAR (ROW 30	mtrs & above) @	3.75	1,50,162.1875
	Permissible FAR for Reside	ntial area (25%)		13,863.52
7.	Proposed Ground	6,331.01	1511.33	7,842.34
	Coverage for Hospital			
	(@ 26.83 % of PA(H))	-		
8.	Proposed Ground	1,320.40		1,320.40
	coverage for Residential			
	(@ 12.6 % of PA(R))			
	 Quarters (Type-I- 	654.1258	-	654.1258
	V)	474.9	-	474.9
	 Hostel 	191.28	-	191.28
	Servant Quarter			
9.	Proposed FAR for	26,396.72	13,466.59	39,863.31
	Hospital			
10.	Proposed FAR for	10,463.038		10,463.038
	Residential	6,334.398		6,334.398
	Quarters (Type I-	3,746.72		3,746.72
	V)	381.92		381.92
	Hostel			
	Servant Quarter			
11.	Built Up Area	36,859.758	18,188.976	55,048.734

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12.	Service area (Free of FAR)		4,722.386	4,722.386
13.	Internal Road Area	2,364.56 (residential)	5,987.99 (hospital)	8,352.55
14.	Parking Area Open (hospital) Open (residential) Covered Garage (Residential)	4,167.23 (184ECS) 889.64 (33 ECS) 3,082 (139 ECS)	1,448.23 (63 ECS) 7,165.6 (447 ECS) (MLCP)	
15.	Landscape Area (@ 32.13 % of PA)	5,045.17	7,828	12,873.17
16.	Maximum Height of the Bu	ilding (Hostel) (G	+7)	29.15 mtrs

The site layout is attached.

Annexure 5 : Site Layout Plan

Floor Area Ratio Details

A) Residential Building

Table 5: Ground coverage & FAR Details for the Residential (Existing)

Туре	Ground	No. of	Area (m2)	No. of	Total area
	Coverage (m2)	Units		Blocks	(m2)
Type I	101.82	8 (G+3)	358.16	4	1,432.64
Type II	123.65	8 (G+3)	445.27	3	1,335.81
Type III	153.67	8 (G+3)	533.716	3	1,601.148
Type IV & Garage	133.38	8 (G+7)	837.92	1	863.07
Type V	141.61	8 (G+7)	863.07	1	1,101.73
Hostel	474.9	8 (G+7)	3,746.726	1	3,746.73
Servant quarter	191.28	4(G+1)	190.96	2	381.92
Total Area	1,320.31				10,463.048

B) Hospital Building

Table 6-Ground coverage & FAR Details for the Hospital (Existing + Expansion)

Floors	Ground Coverage (m2)as per old sanctioned old drawing	Ground coverage (Proposed)	FAR Area (m2) as per old sanctioned old drawing	FAR Area (m2) Proposed
Basement			3,908.95	0
Gr. Floor	6,331.01	1,511.33	6,331.01	1,511.33
First Floor			5,477.78	1,451.19

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Second Floor			5,394.53	941.65
Third Floor			2,666.83	3,252.99
Fourth Floor			2,617.62	2,812.52
Fifth Floor			0	3,496.91
Total Area	6,331.01	1,511.33	26,396.72	13,466.59

Population Density

During the Construction Phase

The total manpower requirement during construction phase of the expansion area will be an approximate 80-120 person which includes workmen, labourers, supervisors, engineers, architect and manager.

During Operational Phase

The total population of the project (Existing + Expansion) will be **3978** persons that include residents; staff as well as Visitor population .The detailed population breakup including Staff members as well as visitors is given in the Table 7

Table 7 : Population Break Up

S.No.	Particulars	Existing	Expansion	Total Population
A)	Hospital Blocks			
1.	No. of Beds (Patients)	200	368	568
2.	Regular Staff			
	 Doctors 			
	 Administrative Staff 	454	280	734
	 Nurses/Ward Boys 			
3.	Attendants	200	368	568
4.	OPD	800	600	1400
	Sub- Total (A)	1654	1616	3270
B)	Residential Block			
1.	Residents (104 D.U.)	520		
2.	Doctor's Hostel (1bed/room)	28		
3.	Dormitories (2bed/room)	98		
4.	Visitors (@10% of Population)	52		
5.	Kitchen Staff	10		
	Sub-Total (B)	708		708
	Total Population (A + B)			3978

Land Details

Land has been allotted for the construction of Hospital Building. Allotment letter has been attached as annexure 1.

Topography

There are no significant physiographic features seen at the project site or the surroundings. The entire area is monotonously flat. The project area possesses plain terrain. Highest elevation levels is 216 mtrs & the lowest levels is 214 mtrs.

Water Requirement and Source

Construction Phase

During the construction phase the water requirement (approx. 250-270 ML) will be met from Private water or treated wastewater from nearby CSTP. No ground water will be extracted. Hence, there will be no impacts on ground water environment during construction phase.

Operational Phase

Total water requirement for hospital Project (Existing + Expansion) is 613 KLD. Total domestic water requirement is approx 428 KLD. The fresh water will be obtained from water supply department of DJB. Detail of water requirements for various uses is given in below table. Efficient dual flushing fixtures will be provided for conservation of fresh water.

Water Balance diagram during Non Rainy season and Rainy season are shown below.

Table 8 : Total Water Requirement during Operational Phase for the Existing Area

S.No	Description	Total Population	Unit water Consumption LPCD	Water Requirement		Total Water Requirement (KLD)
				Flushing	Domestic	
				Use (KLD)	Use (KLD)	
1.0	Hospital					
	Patients	200	340	30.00	60.00	90.00
	Staff	454	45	9.08	11.35	20.43
	Attendants	200	86	5.20	12.00	17.20
	Visitors +OPD	800	15	4.00	8.00	12.00
2.0	<i>Residential</i> Residents	520	86	13.52	31.20	44.72
	Kesiueills	320	00	13.32	31.20	44./2

JUVI	t. Hospital, At Pi	OL NO. A-	4, 5, Pitamp	ura, Deini	C	onceptual Plan
	Doctor's Hostel	186	86	3.28	7.56	10.84
3.0	Dining Block					
	Staff	10	45	0.20	0.25	0.45
	Food Facility		35	3.78	9.45	13.23
	Visitors	52	15	0.26	0.52	0.78
	Domestic					209.65
	Water					
1.0	Other Uses					
	Landscape area		1ltr/sq.mt	r		5.05
	(5,045.17 m2)					
	DG cooling (3×		0.9l/kva/ł	nr		12.15
	750 kVA)					
	HVAC (300 TR)		10lt/TR/h	r		30
	Total (KLD)					256.85 say
						257 KLD

Table 9-Total Water Requirement during Operational Phase of Total (Existing + Expansion)

Description	Total Population	Unit water Consumption LPCD	Water Requ	uirement	Total Water Requireme nt (KLD)
			Flushing	Fresh Use	
Hospital			USE (KLD)	(KLD)	
Patients/IPD	568	340	85.20	170.40	255.60
Staff	734	45	14.68		33.03
Attendants	568	86	14.77	34.08	48.85
Visitors +OPD	1400	15	7.00	14.00	21.00
Residential					
Residents	520	86	13.52	31.20	44.72
Doctor's Hostel	186	86	3.28	7.56	10.84
Dining Block					
Staff	10	45	0.20	0.25	0.45
Food Facility		35	3.78	9.45	13.23
Visitors	52	15	0.26	0.52	0.78
Domestic Water	-				428.49
Other Uses Landscape area (12873.17 m²)		1ltr/sq.mtr			12.87
	Hospital Patients/IPD Staff Attendants Visitors +OPD Residential Residents Doctor's Hostel Dining Block Staff Food Facility Visitors Domestic Water Other Uses Landscape area	Hospital Patients/IPD 568 Staff 734 Attendants 568 Visitors +OPD 1400 Residential Residents 520 Doctor's Hostel 186 Dining Block Staff 10 Food Facility Visitors 52 Domestic Water Other Uses Landscape area	Population Consumption LPCD Hospital Patients/IPD 568 340 Staff 734 45 Attendants 568 86 Visitors + OPD 1400 15 Residential Residents 520 86 Doctor's Hostel 186 86 Dining Block Staff 10 45 Food Facility 35 Visitors 52 15 Domestic Water Other Uses Landscape area 1ltr/sq.mtr	Population Consumption LPCD	Population LPCD

Expansion of "Bhagwan Mahavir" Superspeciality	
Govt. Hospital, At Plot No. H-4, 5, Pitampura, Delhi	

GOVT. HOSPITAL, AT PL	OT NO. H-4,	5, Pitampura, Deini		Conceptual Plai
DG cooling (3×		0.9l/kva/hr		12.15
750 kVA)				
HVAC (1100		10lt/TR/hr		110
TR)				
OT, blood bank,	3.5*568bed	25l/kg/day	49.7	49.7
lab. & laundry	S			
(@3.5 kg lenen				
per bed)				
Total (KLD)				613.21 say
				613KLD

Table 10- Wastewater Calculation with respect to ETP

S.No.	Description	Quantity (KLD)
01	Fresh and flushing water requirement for the hospital including: • IPD (@15% of total IPD water requirement) • OPD (@10% of total OPD water requirement) • OT, Blood bank, Laboratory Laundry-568 beds (25 lt/kg/bed) (1988 kg)	38.34 2.1 49.7
02	Wastewater going to ETP @ 80% of (38.34+2.1 KLD) & 100% of (49.7 KLD)	82.05 say 82 KLD
03	Capacity	98 KLD

Table 11- Wastewater Calculation with respect to STP

S.No.	Description	Quantity (KLD)
01	Fresh water requirement for the hospital Excluding (@15% IPD, and 10% OPD,) (285.81-38.34-2.1)	245.37
02	Flushing water requirement for the hospital Excluding (@15% IPD, and 10% OPD) (142.69 -16.49-0.99)	102.25
03	Wastewater Generation @ (80% of Freshwater + 100% of Flushing)	298.5 say 299 KLD
04	STP Capacity	360 KLD

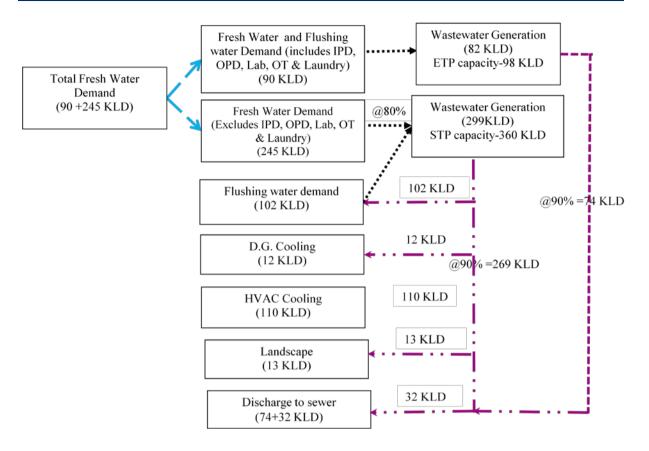


Figure 1-Water Balance Diagram during Non-Rainy Season

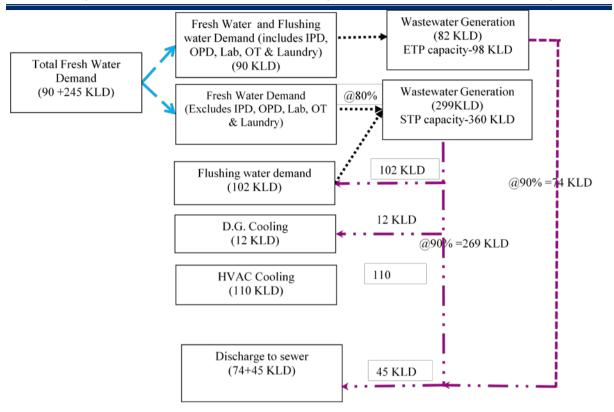


Figure 2-Water Balance Diagram during Rainy Season

Sewage Generation and Disposal

During Construction Phase

The quantity of sewage generation during the construction phase will be approx. 3.6 KLD. Thus the sewage will be treated by providing small septic tanks, soak trenches and sulabh shauchalaya type mobile toilets.

During Operational Phase

Quantity of sewage generated during operational phase shall be 299 KLD from Residential and hospital building and 82 KLD from lab, OT and laundry etc. Thus the sewage will be treated through sewage treatment plant of 360 KLD and ETP of 98 KLD capacity. The treated sewage will be re used for flushing (102 KLD) greenbelt development (13 KLD) and for HVAC & DG cooling (122 KLD). The surplus treated wastewater during dry season (106 KLD) and during Monsoon Season (182 KLD) will be discharge to nearby municipal sewer.

Sewage Treatment Technology Membrane Bio Reactor (MBR)

For the Existing building, 3 Rainwater harvesting pits are proposed

Calculations for storm water load for expansion area

Roof-top area = Ground Coverage = 7,842.34 m²

Green Area $= 7,828 \text{ m}^2$

Total plot area = $40,043.25 \text{ m}^2$

Paved Area = Total Plot Area – (Roof-top Area + Green Area) = 40,043.25 – (7,842.34 + 7,828) = 24.372.91 m²

Runoff Load

Roof-top Area = $7.842.34 \times 0.045 \times 0.8$

 $= 282.32 \text{ m}^3/\text{hr}$

Green Area = $7.828 \times 0.045 \times 0.1$

 $= 35.226 \text{ m}^3/\text{hr}$

Paved Area = $24,372.91 \times 0.045 \times 0.75$

 $= 822.58 \text{ m}^3/\text{hr}$

Total Runoff Load = $1,140.13 \text{ m}^3/\text{hr}$

Taking 15 minutes Retention Time, Total volume of storm water = 1,140.13/4

 $=285.03 \text{ m}^3$

Taking the effective diameter and depth of a Recharge tank 4.5 m and 3 m respectively,

Volume of a single Recharge pit = π r²h = 3.14 × 2.25 × 2.25 × 3 = 47.68 m³

Rainwater Harvesting Pits calculated = 285.03/47.68 = 5.9

Total No. of rainwater harvesting pits proposed = 9 (6 Proposed + 3 Existing)

Parking Details

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.

Proposed project will be consists of Multilevel car parking, covered parking and open parking. The parking space criteria and area requirement provided are summarized in the below tables. Parking details are designed as per Delhi Building Bye Laws.

For Existing Area

Table 13-Parking Required (Existing)

For Hospital Building (Existing)			
Parking required as per the old norms of MPD 2001	0.67 ECS/100 m ² of FAR		
Parking required	0.67/100 × 26,396.72 = 178 ECS		
For Residential Building (Existing)			
Parking required as per the old norms of MPD 2001	1.33 ECS/100 m ² of FAR		
Parking required	1.33/100 × 10,42894=139 ECS		
Total Parking Required	178+139 = 317 ECS		

Table 14-Parking Proposed (Existing)

For Hospital Building (Existing)			
Proposed area in open	4,232 m ²		
Parking required for 1 ECS in open area	23 m ²		
Parking Proposed	4,232/23 = 184 ECS		
For Residential Building (Existing)			
Proposed area in open	889 m ²		
Parking required for 1 ECS in open area	23 m ²		
Parking Proposed in surface	889/23 = 39 ECS		
Parking Proposed in covered garage	96 ECS		
Total ECS Proposed	319 ECS		

For Proposed Area

Table 15-Parking Required (Expansion)

For Hospital Building (As per the EIA guidance Manual from MoEF& CC)

Parking required (for Medical facility)	1 ECS/5 beds
No. of Bed Proposed	= 368 beds
	= 83 ECS
Parking required (Public-Semi-Public offices)	1 ECS/50 m ² of FAR
	= 13,466.59/50
	= 269 ECS
Parking Required as per MoEF&CC	= 352 ECS
For Hospital Building (As per DDA)	
Parking required 1 ECS/50 m ² of FAR	
Parking required	13,406.59/50 =268 ECS

Table 16-Parking Proposed (Expansion)

For Hospital Building	
Proposed area in open	1,448 m ²
Parking required for 1 ECS in open area	23 m ²
Parking Proposed (surface)	1,448/23 = 63 ECS
Parking area in MLCP	7,165.6 m ²
Parking required for 1 ECS in MLCP	16 m ²
Parking Proposed in MLCP	7,165.6/23 = 448 ECS
Total ECS Proposed	511 ECS

Power Details

The power shall be supplied by BSES Delhi. The total connected load for existing area is 1,313 kVA (1182 KW) and for the expansion area is 1,501 kVA (1351 kW). Power shall be supplied by transformers of total 3000 capacity (3*1000 kVA each)

D.G. set details

In case of power failure, 3 DG sets of total capacity of 2,250KVA (3*750 kVA each) for will be provided as power back-up for building.

The DG sets will be provided with acoustic enclosure. Adequate stack heights of D.G. Sets will be provided as per the stipulated guidelines of Central Pollution Control Board (CPCB) to facilitate natural dispersion of exhaust gases as the calculation for the stack height is given below considering height of the building:

The project will adopt a systematic approach for solid waste collection and disposal. Solid waste generated from the project will be collected properly and will be managed as per MSW Rules, 2000 amended in 2016.

The domestic solid waste will be generated by the occupants (Residential Apartments, hostel, dormitory) Visitors, Patients and staff pertains to the two categories, Biodegradable and Non-biodegradable. These solid wastes will be collected separately by putting three types of separate bins at the source of generation. For the biodegradable waste yellow bins will be provided, for the recyclable waste black bins and for the non-recyclable waste red bins will be provided. It is estimated that maximum solid waste generation would be about 2,043 kg/day for existing and expansion; Following are the solid waste generation rate has been considered as is given in Table 17 and Table 18: Calculation of Solid Waste Generation (Expansion Area)

Table 17: Calculation of Solid Waste Generation (Existing Area)

Category	Counts (heads)	Waste Generated (kg/day)
Hospital & Residential Building's Waste		
Patient	200 @ 1.5 kg/day	300
Regular staff • Doctors/Administrative Staff/Nurses/Ward Boys/ Attendants/ Housekeeping & Engineering Staff	454 @ 0.25 kg/day	113.5
Attendants	200 @ 0.5 kg/day	100
OPD	800@ 0.15 kg/day	120
Residential		
Residents	646@0.5kg/day	323
Kitchen staff	10@0.25kg/day	2.5
Visitors	52@0.15kg/day	7.8
Total Waste Generated		966.8 kg/day

Bio-Medical Waste - _____ kg/day

Table 18: Calculation of Solid Waste Generation (Existing + Expansion Area)

Category	Counts (heads)	Waste Generated (kg/day)
Hospital and Residential Building's Waste		
Patient	568 @ 1.5 kg/day	852
Regular staff	734 @ 0.25 kg/day	183.5

 Doctors/Administrative Staff/Nurses/Ward Boys/ Attendants/ Housekeeping & Engineering Staff 		
Attendants	568 @ 0.25 kg/day	142
OPD	1400@ 0.15 kg/day	210
Residential		
Residents	646@0.5kg/day	323
Kitchen staff	10@0.25kg/day	2.5
Visitors	52@0.15kg/day	7.8
Landscape Waste (5.09 Acre)	646@0.5kg/day	323
Total Waste Generated		2043.8 kg/day

Bio-Medical Waste (10 % of waste generated from beds) - 85 kg/day

Following arrangements will be made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2016.

Bio-Medical Waste

Collection and Segregation of bio medical waste

- Collection of bio medical waste will be done as per the bio Medical waste (Management and Handling) rules 2016.
- General health-care waste will be collected the stream of domestic refuse for disposal.
- Sharps will be collected together, regardless of whether or not they are contaminated. Containers will be puncture-proof (usually made of metal or high-density plastic) and fitted with covers.
- Highly infectious waste will be, whenever possible, be sterilized immediately
 by autoclaving. It therefore needs to be packaged in bags that are compatible
 with the proposed treatment process: red bags, suitable for autoclaving, are
 recommended.
- Small amounts of chemical or pharmaceutical waste will be collected together with infectious waste.
- Waste will be collected and stored in colour coded bins.

Treatment of Waste

Treatment options for bio medical waste are

Here are mainly five technology options available for the treatment of bio-medical waste. They can be grouped as follows.

- Chemical processes
- Thermal processes
- Mechanical processes

of existing trees is 251, total number of trees to be retained is 240, trees to be cut are 11 and new trees proposed are 350.

- The plant species will be selected on the basis of Urban Standard Plantation norms and CPCB guidelines.
- Landscape Details are given in Annexure 6-Landscape Plan

Table 19

Annexure 6-Landscape Plan

Table 19: Landscape Area Details

Particulars	Details	
Plot area	40,043.25 m ²	
Landscape area Proposed	12,873.17 m2 (32.13 % of Plot Area)	
As Per MoEF Guidelines	One tree per 80 m ² of total area out of which	
	minimum 50 % to be in the category of evergreen	
	trees.	
Trees Required	40,043.25/80= 501 Trees	
Number Of Trees Proposed	350 Trees (240 retained + 110 proposed)	

Table 20 : List of Trees

S.No.	Botanical name	Local name
1.	Azadirachta indica	Neem
2.	Cassia fistula	Amaltas
3.	Delonix regia	Gulmohar
4.	Bauhinia purpurea	Kachnar
5.	B. Variegata	Kachnar
6.	Lagerstroemia flosreginae	Pride of India
7.	Grevillea robusta	Silk oak
8.	Callistemon lanceolatum	Bottle Brush
9.	Anthocephalus cadamba	Kadam
10.	Polyalthia longifolia	Ashok
11.	Putranjiva roxburghii	Putrajiv
12.	Sterculea alata	Coconut Buddha
13.	Bassia Latifolia	Mahua
14.	Alstonia scholaris	Devil Tree
15.	Michelia champaca	Champak
16.	Terminalia arjuna	Arjun
17.	Ficus retusa	Ficus
18.	Saraca indica	Ashoka
19.	Dalbergia sissoo	Shisham
20.	Maduca latifolia	Madhu
21.	Ficus infectoria	Pilkhan