Form No. 1A

for

Proposed Commercial and Residential project

"K B Royal Serenity"

at

F.P No: 285/1, T.P.S No: 76-B (Chandkheda – Draft Sanctioned), R. Survey No: 201/2/1 & 209, O.P No: 285/1, Village: Chandkheda, Taluka: Sabarmati, Dist: Ahmedabad-382424.

Applicant

KGB Buildcon LLP

Mr. Janak Dhirajlal Modi (Partner)

61, Someshwer Park-III, Nr. Gulab Tower, Thaltej, Ahmedabad-380054.

FORM-1 A

(Only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. LAND ENVIRONMENT

(Attach panoramic view of the project site and the vicinity)

1.1. Will the existing land use get significantly altered from the project that is not 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 be 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.

The proposed project will not cause any permanent or temporary change. Proposed land use at the project will be as per the approved Master Plan. NA order is attached as Annexure-I. Key plan, layout plan and satellite image showing surrounding features of the proposed site is attached as Annexure-II. The layout plans are attached as conceptual plans.

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.

Total plot area: 4295.00 m^2

Built up area: 27501.73 m^2

Total FSI Area: 17101.07 m^2

Total Parking Area: 9942.95 m^2

No. of Units: 179 units (47 shops + 132 flats)

Total water consumption: During construction phase: 22.0 KLD

During operational phase: 99.3 KLD

Power Requirement: Construction phase: 250 KW

Operational phase: 1200 KW

Connectivity: Project site is within city limit of AMC. Railway station & Airport is 2.5 km & 7.2 km from the project site.

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, disturbance to the local ecology).

Required infrastructure for the commercial and residential project, such as parking, landscaping will be developed within the project premises as per the byelaws. The construction of the proposed project will not have any impact on existing infrastructure facilities adjacent to the proposed site.

As the project is as per master plan of AMC, therefore, the project will not affect open space, existing land use and local ecology of surrounding area. The project will have positive impact as it will generate employment opportunities for about 80 skilled, semiskilled and unskilled workers during construction phase.

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

No, the proposed project will not cause any land disturbance resulting in erosion, subsidence or instability. Topography of the area is plain. There is no evidence of soil erosion in the area. The area is not vulnerable to subsidence. The project site falls in Seismic Zone-III.

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

No, the project will not affect the natural drainage systems. During the construction of the proposed project, storm water runoff flow direction and drainage pattern of the area will be unaffected through the construction of the proposed project as adequate storm water channel will be provided at the site.

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 estimated quantity of excavated earth will be about 21000 cum. It will be used for land filling in low laying area within premises. The top soil of about 2500 sq m will be reused for landscape development and tree plantation areas. The surplus soil will be provided to the other users for the site development and raising the ground level for the developmental works.

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

Total water requirement during construction phase will be 22.0 KLD. Water requirement will be met through tankers. Sewage generated during construction phase will be disposed off through soak pit. Excavated soil will be reused for back filling & for internal road development. Construction debris will be refilled at low lying areas within the project premises. Cement bags, waste paper and cardboard packing material will be sold off to recyclers. Unusable steel scrap will be collected and sold to scrap vendors.

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 low-lying area or wetland is involved in the project site.

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

There will not be any health hazard due to construction debris & waste during construction as generated construction debris will be re-used back for filling, resurfacing etc. The necessary safety measures like PPEs, face masks will be provided to workers exposed to any dust or fugitive emission in confined space. Thus, it may not cause health hazards.

2. WATER ENVIRONMENT

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

Water requirement will be met through tankers during Construction phase and from Ahmedabad Municipal Corporation (AMC) during Operational phase. Water requirement during the construction phase & operational phase is tabulated below.

Generated sewage during construction phase will be disposed to soak pit. During operation phase, it will be disposed to AMC drainage line.

Water Use	Water Consumption (KLD)	Sewage Generation (KLD)	Qty. of treated sewage to be reused (KLD)
During Construction Phase			
Domestic (80 workers x 50 lit/day)	4.0	3.6	--
Construction & Sprinkling	18.0	--	--
Total	**22.0**	**3.6**	**--**
Source of water	**Through Tanker**		
Mode of disposal	**Soak pit**		
During Operational Phase			
Domestic (132 Residential Units x 4 Persons /Unit x 135 lit/Capita/day)	71.0	64.0	25.0
Commercial- Shop (3032.06m^2/3 x 25 lit/Capita/day)	25.0	22.5	9.0
Gardening (661.47 m^2 x 5 lit/sq.m./day)	4.0	--	4.0
Total	100.0	86.5 **(52.0 grey w/w, 34.5 soil w/w)**	38.0
Qty. of sewage to be discharged into AMC drain line (KLD) = 34.5 (soil w/w) + 14.0 (from STP) = 48.5 KLD			
Fresh water	**100.0 (Total water demand) – 38.0 (Recycle water) = 62.0 KLD(fresh water req.)**		

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

Average water supply from AMC varies from 30 to 40 m^3/hours.

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).

The water requirement will be met from AMC Quality of water is meeting with the required quality for the project, so presently no need to think about alternative source of water supply.

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

Around 38.0 KLD of water requirement will be met through treated sewage. It will be reused for flushing & gardening purpose.

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. The water requirement for the project will be met through AMC. Rainwater harvesting system will be provided at the project site to recharge the roof top water to ground water aquifers during the rainy season. Details are given in Annexure-IV. Therefore, overall impact on the ground water hydrology will be insignificant.

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).

86.5 KLD (52.0 KLD Grey w/w, 34.5 KLD soil w/w) of wastewater will be generated from the project. Out of which 52.0 KLD of grey w/w will be treated in in-house STP and treated water will be used for flushing and gardening purpose.

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

Rainwater harvesting will be done at the project site to recharge the roof top water to ground water aquifers. Runoff from rooftop

will be collected through storm water drainage and will be transferred to percolating well. 2 nos. of rain water harvesting wells is proposed as per the byelaws. The details are attached as Annexure-IV.

2.8. What would be the impact of the land use changes occurring due to the proposed 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 proposed project will not affect the runoff flow characteristics and natural drainage system. During post construction of the proposed project, storm water runoff flow direction and drainage pattern will be unaffected, as adequate storm water channels will be provided at the site.

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).

No ground water will be extracted. Water requirement will be met through tankers during Construction phase and from AMC during Operation phase. Rain water harvesting scheme is proposed to recharge the ground water through percolating wells, thus minimize the impact on ground water.

2.10. What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts).

During the construction phase, surface & ground water quality may be affected due to soil erosion from excavated area during first rain. However, this phenomenon will be temporary and restricted to construction site only.

The impact on surface and ground water quality can be minimized by adopting following measures:

- **Construction material will be stored at the earmarked places and proper coverage with a temporary shed has been ensured so that no leachate or spoilage of land occurs.**
- **Proper toilet facilities for construction workers will be provided.**

2.11. How is the storm water 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).

Adequate storm water channels will be provided at the site to provide proper drainage facilities and to avoid flooding at the site and in area.

2.12. Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation).

The domestic wastewater generated will be conveyed through drainage line to septic tank/soak pit system during construction phase. Necessary facilities like drinking water, drainage connection to septic tank/soak pit etc. will be facilitated at site for construction workers.

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).

Raw sewage from the domestic application will be collected and treated in on-site Sewage Treatment Plant (STP). Capacity of STP will be 60 m^3/day. Details of STP are given in Annexure-V. After treatment, it will be utilized for flushing & greenbelt development and balance will be disposed to AMC drainage.

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

Yes, treated sewage will be used for flushing and greenbelt development.

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, there is no threat of the project to the biodiversity in the area as there are no forest, bio-reserve or ecological sensitive locations exist in the area.

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

Yes, there are some trees which we try to preserve.

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)?

During the construction and post construction phase, no tree will be cut and therefore no impact is anticipated on terrestrial ecology. Total 10.0% of total plot area will be under greenery is 489.67 m^2 and 4% of total plot area i.e. 171.8 m^2 will be under thick plantation.

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.

Due to the project activity, there will not be any displacement of fauna-both terrestrial and aquatic or creation of barriers for their movement.

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

No

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 constructions)

The project will not significantly increase atmospheric concentration of gases. Fugitive dust is the main pollutant envisaged from different construction activities that shall be prevented by water spraying and screening the construction site with the help of tarpaulin. During construction phase, the source of air emission will be from the exhausts of D.G set.

There will be emissions from the exhausts of the vehicles in the construction as well as post construction phase. PUC certified vehicles will be used during construction as well as post construction phase. The roads will be paved/concreted to avoid fugitive emission. Fly Ash Bricks will be used in the construction. Refractive glasses will also be used in windows.

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.

The impacts of dust and gaseous pollutants due to different construction activities will be localized and will not affect the surrounding environment. However, all necessary measures will be taken.

- **Water spraying at dust generation sources.**
- **Vehicles carrying the construction materials will be covered with tarpaulin, so as to prevent the dust emission.**
- **Green belt will be developed to prevent fugitive emission.**

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 & exit to the project site.

There will be adequate parking space as per the building bye laws. Total 9942.95 m^2 area will be provided for the vehicular parking. Separate entry/exit will be provided such that it enables the smooth movements of the vehicles.

As per NBC Parking Requirements,

Use	Parking Requirement as per the NBC			Parking Space Proposed to be Provided		
	Floor Area	No. of Units	CPS	Location	Parking Area (m^2)	ECS
Residential	Up to 90 m^2 floor area of flat	--	--	Open Parking	**248.57/23**	**11**
	90 m^2 or more floor area of flat (1 ECS/Tenements)	**132**	**132**	Covered Parking(H.P)	**211.14/28**	**8**
Commercial	3032.06 m^2/25	**47 shop**	**121**	1st Basement	**2376.87/32**	**75**
				1st Basement (Mechanical)	**2376.87/32**	**75**
				2nd Basement	**2364.75/32**	**74**
				2nd Basement (Mechanical)	**2364.75/32**	**74**
	Total	**179**	**253**	**Total**	**9942.95**	**317**

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

Entry and exit proposed in the project is from 60 m wide N.H road. Width of entry & exit will be 6.0 m. We have proposed min 6.0 m wide internal road. The ramp of 6.0 m wide is proposed for vehicles approaching towards basement with divider to regulate the traffic. Width of open path all around the buildings for easy access of fire tender is min. 6.0 m.

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.

There will be little increase in noise in the post construction phase. Separate entry/exit will be provided such that it enables the smooth movements of the vehicles. The D.G. set will be enclosed in an acoustic enclosure. Speed of the vehicles will be curtailed to 20 kmph. The measures adopted to reduce the noise are as under:

- **Tree and shrubs plantation barrier is proposed at project site to curtail noise.**
- **The level of traffic noise levels fluctuates continuously, hence does not have significant impact.**
- **Construction machinery will be used with noise pollution control/ vibration control.**

5.6. What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.

The noise produced during construction phase will have temporary impacts on the existing ambient noise levels at project site but restricted to small distance. Construction machinery will be used with noise pollution control/vibration control. Hence, insignificant impacts are envisaged. Apart from this, the construction activities would be restricted to daytime only. The DG set will be procured with acoustic enclosure to ensure reduction of noise and hence will not have any impact on environmental quality for increasing noise levels.

Emissions from the DG set may cause localized impact on ambient air quality for short duration.

6. AESTHETICS

6.1. Will the proposed constructions 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 enhance the landscape of the area and will add scenic beauty to the area. Plantation will be carried out in the project so as to enhance the aesthetic beauty of the nearby areas.

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

No, there will be no adverse impacts from the new construction on the existing structure.

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

The proposed project is commercial and Residential project. The building plan approval is as per AMC Byelaws and GDCR.

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.

There are no anthropological or archaeological sites or artifacts in the area around the project site.

7. SOCIO-ECONOMIC ASPECTS

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

Yes, demographic structure will be changed due to the proposed project.

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

The proposed project site is located in Chandkheda area of Ahmedabad City. Good social infrastructure facilities are available in the area. Paved approach road is available in the area. State transport & rickshaws are available as a mode of transportation. Good educational, medical, banking, transportation facilities are available in the surrounding area. Drinking water and electricity are available in the area.

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

No, the project will not cause any effects on local community, disturbance to sacred sites or other cultural values.

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).

Following energy efficient construction materials will be used.

- Fly Ash containing AAC block

- Pozzolana cement

- Lead free paints, enamels

- Energy efficient lifts

- LED lighting in common areas

Construction material will be selected based on their thermal characteristic and U and R values.

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

The following measures will be taken to minimize the impact:

- **Vehicles having Pollution Under Control Certificate (PUC) under Motor Vehicle Act will be allowed to transport materials during construction at the site,**
- **Vehicles used to transport and handling of materials during construction will be maintained properly,**
- **Construction material brining trucks will be covered during movement,**
- **Dust suppression measures will be adopted to prevent dust emissions,**
- **Noise generating equipment will be installed at isolated place,**
- **Accosting enclosures will be fitted with D.G. set to control noise levels,**
- **Engines will be fitted with silencers to control noise levels.**

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

Fly ash bricks, aerated blocks, fly ash paving blocks, RMC (Ready Mix Concrete), pozzolana cement will be used in the project. The debris generated during the construction work will be re-used in filling and re-surfacing of the area. The excavated soil will be used for surface leveling as well as for creating landscaped areas. The inert construction waste (brick, masonry etc.) was and will be used for road making.

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

Total solid waste generation during operation phase will be approximately 299.2 kg/day. It will be segregated into organic &

inorganic wastes and collected in separate bins. Total 25 nos. of collection bins (separately for dry west, wet waste & recyclable waste) with capacity of 80 lit will be provided. Organic waste will be collected & processed within premises using Organic Waste Composter (OWC). Processed organic waste will be used as manure. The recyclable wastes will be sent to recyclers. Details are given below.

Sr. No.	Description	Quantity (kg/day)	Mode of disposal
Municipal Solid Waste Details (Construction Phase)			
1	Domestic (80 workers x 250 gm/person/day)	20.0	Disposed off into AMC disposal site. AMC authority will collect accumulated municipal waste from the site.
Municipal Solid Waste Details (Operational Phase)			
1	**Residential:** (132 residential units x 4 persons x 500 Gm/Person/Day) **Commercial:** [(47 Shops x 3 persons x 250 Gm/Person/Day) +	**299.2** (264.0+ 35.2)	Separate bins will be provided to collect dry and wet waste.
	Dry Garbage 60%	179.5	Through door to door waste collection system of AMC.
	Wet Garbage 40%	119.7	It will be processed within premises by putting Organic Waste Converter (OWC) machine. Manure will be used for greenbelt development within premises.

9. ENERGY CONSERVATION

9.1. Give details of the power requirements, source of 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?

Total power requirement during construction phase will be 250 KW and Operational phase will be 1200 KW. Source of supply will be UGVCL (Uttar Gujarat Vij Company Limited). 2 D.G. set of 125 KVA will be provided as back up source for power for common areas, lifts & water pumps in case of emergency.

9.2. What type of, and capacity of, power back-up to you plan to provide?

Two standby D.G. set with capacity of 125 KVA will be used as power backup.

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?

Refractive glasses will be used in construction work conforming to IS-Standard.

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

Cross ventilation windows are to be provided. The passive energy system involves collecting, storing, distributing and controlling the thermal energy flow through the natural principal of heat transfer.

9.5. Does the layout of streets & buildings 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.

The layout of streets & buildings maximize the potential for solar energy devices. The solar street lighting may be used for the project.

9.6. Is shading effectively used to reduce cooling/heating loads? 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?

The cooling/heating is not proposed for the buildings. Large windows will be protected from sunlight by cantilever balconies which cut outs the direct sunlight and by using insulation on the roof along with brick which protects the top floor from the heat. Also heat absorbing material is to be provided on terrace while heat reflected color is to be applied on walls to reduce the heat load.

9.7. Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning

load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.

Proper care is to be taken during design of building in such a way that maximum natural ventilation is used. Solar energy will be used in all internal common lighting. Apart from that, energy saving appliance either high efficiency lamps/CFL will be used.

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

The project will not significantly increase atmospheric concentration of gases and therefore no possibility of heat islands. Vehicular emissions will be the only source of emissions. Height of stacks attached to DG set will be provided according to the stipulated guidelines of CPCB. Therefore, project will not create any heat island & inversion effects.

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-values or the R values of the individual components.

Based on construction material, overall heat transfer co-efficient U and R-values for roof and wall are as follows:

Sr. No.	Name of material	Thk in m	R Value	U Value in BTU/Hr (sq.ft.) (Deg. F. Temp. Difference)
1.	Glass	Single	4.1	0.30
2.	Brick Wall	230	2.15	0.46
3.	Concrete slab (Floor)	150	2.32	0.43
4.	Insulation mat. (Roof)	50	1.47	0.68

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

Adequate firefighting facilities like fire extinguishers, hose reel, fire hydrant system, and water storage tank will be provided as per applicable regulations. Fire alarm system will be provided as per the rules and regulations.

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

There is provision for using glass as wall material in the project. The glass will be used in construction work conforming to IS-Standard.

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

About 25% of exterior wall surface area shall be kept open for light & air circulation.

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.

Project has been designed in such a way that sufficient natural light and air will be available in rooms. It will lead to energy conservation. Apart from that, energy saving appliance & equipment is to be provided.

10. Environment Management and Monitoring Plan.

Attached as Annexure-VI.

Annexure-I

Land Documents

નંબર : સીબી/જમીન/એનએ/એસઆર– 796 / 2007 - 2008

જીલ્લા કલેકટરની કચેરી
સુભાષબ્રીજ સર્કલ, અમદાવાદ
તારીખ : 31/05/2008

આ મુખ :

૧. દશક્રોઈ મામલતદારશ્રીના પત્ર નં જમન/ વશી– 1056/SR-21 તા. 29/03/2008 તથા ડેપ્યુટી કલેકટરશ્રી, વિરમગામ પ્રાંતના પત્ર નં જમીન/બીનખેતી/સી-1788/08/SI તા 05/04/2008

૨. જમીન મહેસૂલ અધિનિયમની કલમ–૬૫, ૬૬, ૬૭ ના અધિકારો તથા નિયમોના નિયમ–૧૦૦

૩. કબજેદારની તારીખ : 10/01/2008 ની અરજી તથા જવાબ.

હુ ક મ

એપેન્ડીકસ–એ, માં દર્શાવેલ જમીનના કબજેદાર ધ્વારા આમુખ–(૩) વાળી અરજી અન્વયે બીનખેતીના હેતુ માટે ઉપયોગ કરવા નીચે દર્શાવેલ તેઓની માલિકીની જમીનની બીનખેતી માટેની પરવાનગીની માંગણી કરેલ છે. કબજેદારની રજુઆત મુજબ તથા કામના કાગળોમાં રેકર્ડ ઉપર અરજદારનું નામ કબજેદાર તરીકે ચાલે છે તથા શહેરી જમીન ટોચ મર્યાદા કાયદા અન્વયે પ્રશ્નવાળી જમીન ફાજલ થયેલ નથી કે સરકાર પક્ષે કબજો લેવાયેલ નથી તેમ કાગળો ઉપરથી ફલિત થાય છે. જે અંગે આમુખ–(૧) માં દર્શાવ્યા મુજબ સંબંધીત મામલતદારશ્રી તથા પ્રાંત અધિકારીશ્રીના હકારાત્મક અભિપ્રાય મળેલા છે. અરજદાર જે બાંધકામ કરવા માંગે છે તેના પ્લાનની નકલ રજુ થયેલ છે.

એપેન્ડીકસ–એ (જમીનની વિગત)

ઠરાવેલ વિશેષ ધારો :
Rs. 9041 /-

મોજે : ચાંદખેડા તાલુકો : દશક્રોઈ

ક્ષેત્રફળ : 11301.00 Sq.Mts.

સર્વે નંબર : 201, 209

ટી.પી. : 0

ફા.પ્લોટ નં. 0

બીનખેતી હેતુ :

વાણિજય 11301.00 Sq.Mts.

એપેન્ડીકસ–બી (કરવેરાની વિગત)

(૧) રુપાતર કરની રકમ **Rs.339030** /- ચલન નંબર:– **517/08** તારીખ :– **12/05/2008**

(૨) વિશેષ ધારો **Rs. 60262** /- પહોંચ નંબર:– **86** તારીખ :– **14/05/2008**

(૩) દંડની રકમ : **Rs. 54400** /- પહોંચ નંબર:– **87** તારીખ :– **14/05/2008**

(1700 ચો.મી. જમીન ઉપર વગર પરવાનગીએ કરેલ બીનખેતી ઉપયોગ બદલ દંડની રકમ)

એપેન્ડીક્ષ–એ, માં દર્શાવેલ જમીન ઉપર સ્થળે બાંધકામ થયેલ છે તથા અત્રેથી જણાવ્યા મુજબ રુપાંતર કર, વિશેષધારો તથા દંડની રકમ કબજેદારે જમા કરાવી ,અત્રે ચલન તથા પહોંચ રજુ કરેલ છે. જેથી કબજેદારની માંગણી તથા ઉપર મુજબની હકીકતે, નીચે દર્શાવેલ શરતોને આધીન, આમુખ–(૨) માં દર્શાવેલ જોગવાઈઓ હેઠળ, એપેન્ડેક્ષ–એ, માં દર્શાવેલ ક્ષેત્રફળ વાળી જમીન ઉપર બીનખેતીનો ઉપયોગ કરવા પરવાનગી આપવામાં આવે છે.

શ ર તો :–

૧. આ પરવાનગી સ્થાનીક સત્તા મંડળ ધ્વારા મંજુર કરવામાં આવતાં નકશા તેમજ વિકાસ પરવાનગીની શરતોના અમલીકરણને આધીન રહેશે. વધુમાં વિકાસ પરવાનગી અન્વયે કરવામાં આવતો વિકાસ અને તેનો વપરાશ વિકાસ યોજનાના નિયંત્રણ , વિનિમયો તેમજ ઔડા / મ્યુનિ. કોર્પોરેશન અને રાજય સરકાર ધ્વારા આપવામાં આવતાં વખતો વખતના આદેશ / નિર્દેશનોને આધીન રહેશે. જમીનના માલિક / કબજેદારોએ પરવાનગી હેઠળની જમીનનો વિકાસ સબંધિત સત્તા મંડળની વિકાસ પરવાનગીને આધીન રહીને જ કરવાનો રહેશે.

૨. વરસાદી પાણીના નિકાલ માટે પરકોલેટીંગ વેલની વ્યવસ્થા કરવાની રહેશે. તથા બાંધકામમાં ઉપયોગમાં લેવાની ઈંટોના કુલ જથ્થાના ૭૫ % , ફલાય એશ બ્રીક્સ નો ઉપયોગ કરવાનો રહેશે.

૩. એપેન્ડીક્ષ–એ, માં દર્શાવેલ બીનખેતી હેતુ તેમજ ક્ષેત્રફળ મુજબ એપેન્ડીક્ષ–બી મુજબ કરવેરા વસુલ લેવામાં આવેલ છે. તે સિવાય બાંધકામનો અન્ય હેતુ માટે ઉપયોગ થઈ શકશે નહી.

૪. આ પરવાનગી હેઠળની જમીનોનો ઠરાવેલ વિશેષધારો, અત્રેથી ફેરફાર કરવામાં ન આવે ત્યાં સુધી દર વર્ષે પહેલી ઓગષ્ટ થી નિયત થયેલ મહેસુલી વર્ષથી ભરવાનો રહેશે. ઉપરાંત કબજેદારે તે ઉપર નકકી થતો લોકલ ફંડ, શિક્ષણ ઉપકર, તથા અન્ય કરવેરા પણ દર વર્ષે ચૂકવવાના રહેશે. વિશેષધારો અમદાવાદ શહેરી વિસ્તાર પૂરતો સુપ્રિમ કોર્ટમાં આ બાબતનો નિકાલ આવ્યેથી તે ચૂકાદાને આધીન રહીને ભરવાનો રહેશે. પરંતુ બીનખેતીનો ઉપયોગ શરુ કરવામાં ન આવે ત્યાં સુધી ઉકત ઠરાવેલ વિશેષધારો દર વર્ષે બમણા દરે ભરવાનો રહેશે.

૫. આ પરવાનગીની તારીખથી દિન–૩૦ માં ડીસ્ટ્રીકટ ઈન્સપેકટરશ્રી, લેન્ડ રેકર્ડઝ મારફતે માપણી કરાવવાની રહેશે, જે માપણી મુજબ સાઈટ પ્લાનની નકલી અત્રે રજુ કરવાની રહેશે તથા ક્ષેત્રફળની વધઘટ મુજબનો વિશેષધારો તેમજ અન્ય ઉપકરો કબજેદારે ભરવાના રહેશે.

૬. જમીનની તબદીલી, ફેરફાર તથા જમીન અંગેના અન્ય તમામ આનુસાંગિક કાયદાઓને આધીન રહીને આ પરવાનગી આપવામાં આવેલ છે, જેથી અન્ય કોઈ કાયદા હેઠળ મેળવવાની થતી જરુરી પરવાનગીઓ મેળવી લેવાની રહેશે.

૭. સવાલવાળી જમીનમાંથી ઈલેકટ્રીક લાઈન, કે ટેલીફોન લાઈન પસાર થતી હશે તો, આવી લાઈન કે તેના થાંભલા ભવિષ્યમાં નાંખવાના થશે તો તે અંગે કોઈ વળતર મેળવવા હકકદાવો થઈ શકશે નહી.

૮. આ હુકમમાં અગર સનંદમાં કોઈ કારકુની અથવા ગણતરીની ભૂલ હશે તો, તેમાં સુધારો થઈ શકશે.

૯. આ પરવાનગીની તારીખ પછી નમુના–એમ માં સનંદ તૈયાર થયેથી, તથા અપીલ સમય પૂરો થયેથી અરજદારે સનંદ ભરાવી લેવાની રહેશે.

૧૦. આ પરવાનગી અરજદારે રજુ કરેલ વિગતોને આધારે આપવામાં આવેલ છે. રજુ થયેલ કોઈ વિગત ખોટી હોવાનું જાહેર થયેથી કે ઉપરની કોઈપણ શરતોનો ભંગ થયેથી આ પરવાનગી આપોઆપ રદ થયેલી ગણાશે તથા જમીન મહેસુલ કાયદા કલમ–૭૯/એ, હેઠળ પગલાં લેવાને પાત્ર રહેશે. અને તત્કાલિન અમલમાં હોય તેવા બીજા કોઈપણ કાયદાની જોગવાઈઓના બાધ વિના ઈન્ડીયન પીનલ કોડ હેઠળ કબજેદારો ફોજદારી ગુન્હા માટે શિક્ષાત્મક પગલા લેવાને પાત્ર બનશે. તથા જમીન મહેસુલ કાયદાની કલમ–૬૬ તથા નિયમોના નિયમ–૧૦૦ અનુસાર યોગ્ય તે દંડાત્મક કાર્યવાહી કરવામાં આવશે અને બાંધકામ દુર કરાવવા સહિતના એક કે વધુ પગલાં લેવામાં આવશે.

રવાના કરવા માટે પ્રમાણીત,

Hodlu

ચીટનીસ ટુ કલેકટર, અમદાવાદ.

જીલ્લા કલેક્ટર અમદાવાદ

સહી/–(હારીત શુકલ)
કલેકટર, અમદાવાદ

પ્રતિ,
શ્રી રમેશચંદ્ર ભાયચંદભાઈ પ્રજાપતિ
સ્વાતિ ઓટોલીંગ પ્રા.લી.
મુ.ચાંદખેડા, તા. દશક્રોઇ
અમદાવાદ.

નકલ રવાના :–

૧. મામલતદારશ્રી, દશક્રોઇ તરફ (~~કામના કાગળો સાથે~~)
૨/–આગળની જરુરી કાર્યવાહી તથા સનંદ ભરાવવા અંગે ઘટતી કાર્યવાહી હાથ ધરવા સારુ.
૨. તલાટીશ્રી ચાંદખેડા તરફ આગળની કાર્યવાહી તથા ગામ નમુના નં.૨, માં જરુરી નોંધ કરવા સારું.
૩. ડીસ્ટ્રીકટ ઈન્સ્પેકટરશ્રી, લેન્ડ રેકર્ડઝ, સર્વેભુવન, લાલદરવાજા, અમદાવાદ
૪. મ્યુનિસિપલ કમિશનરશ્રી (એસ્ટેટ) દાણાપીઠ, અમદાવાદ / મુખ્ય કારોબારી અધિકારીશ્રી, ઔડા, ઉસ્માનપુરા, અમદાવાદ
૫. સિલેકટ ફાઈલે.

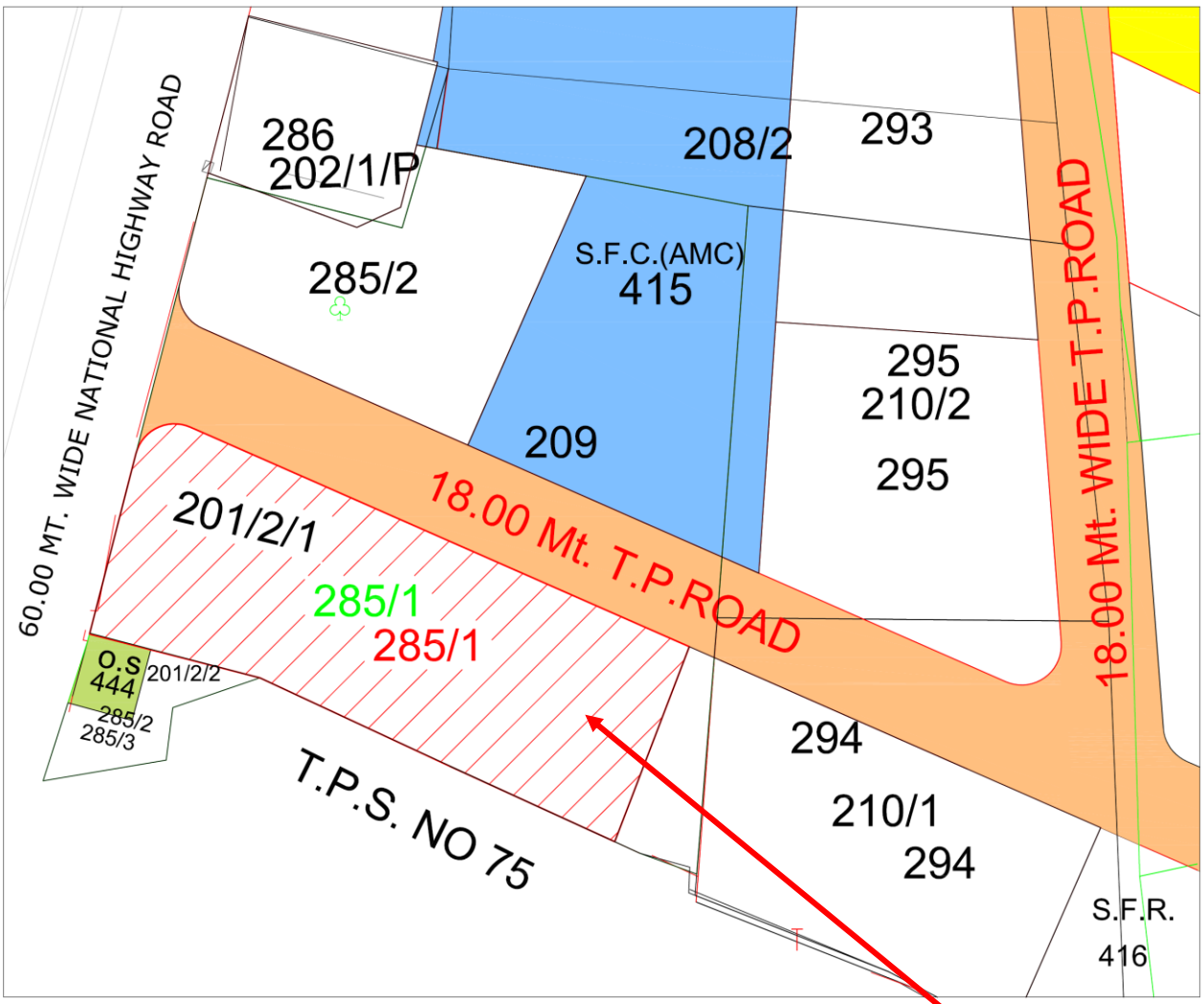
Annexure-II

Key Plan, Layout Plan,

Google image showing site location

KGB BUILDCON LLP

Key Plan



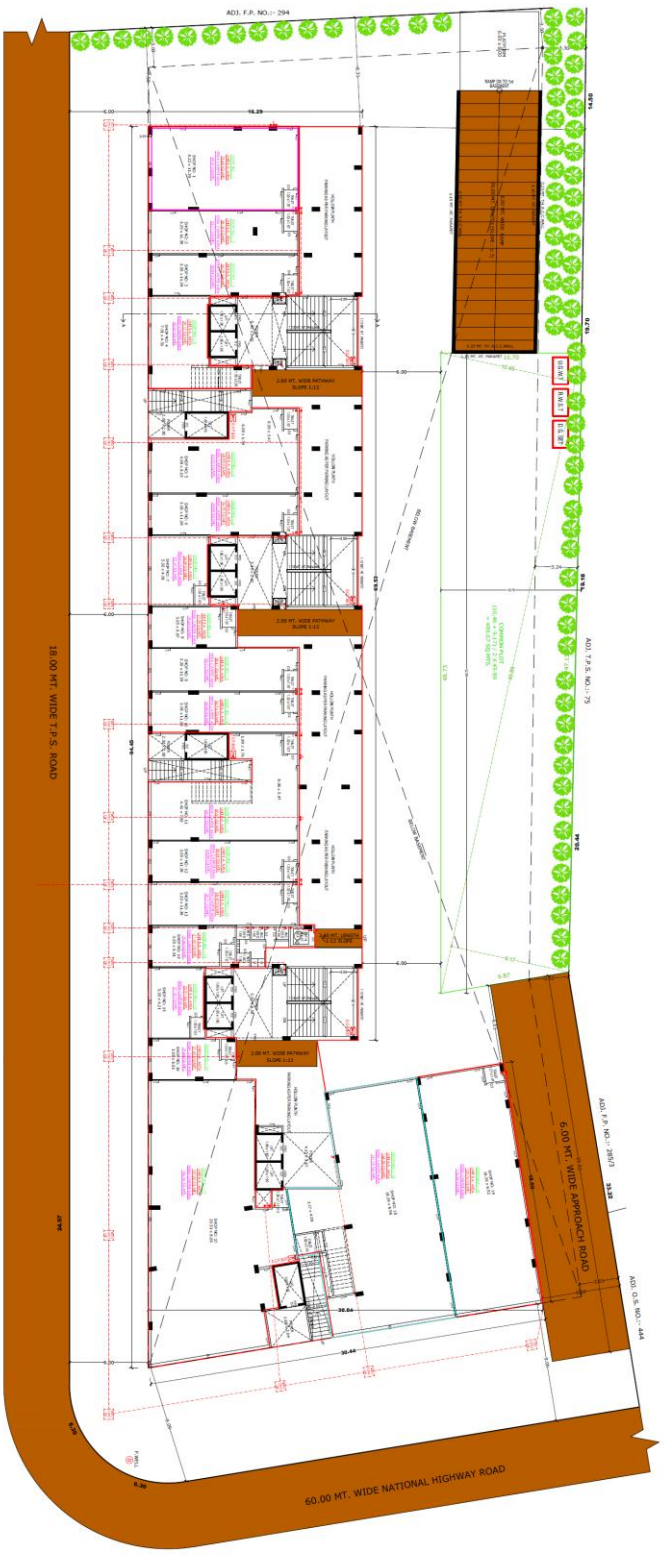
KEY- PLAN
SCALE - N.T.S

401, harvy complex, nr. a-one school,
subhash chowk, gurukul road,
memnagar, ahmedabad - 380 052.

phone : +91 - 79 - 27461548/49
fax : +91 - 79 - 27461550
email : pmodikgb@yahoo.com

KGB BUILDCON LLP

Layout Plan

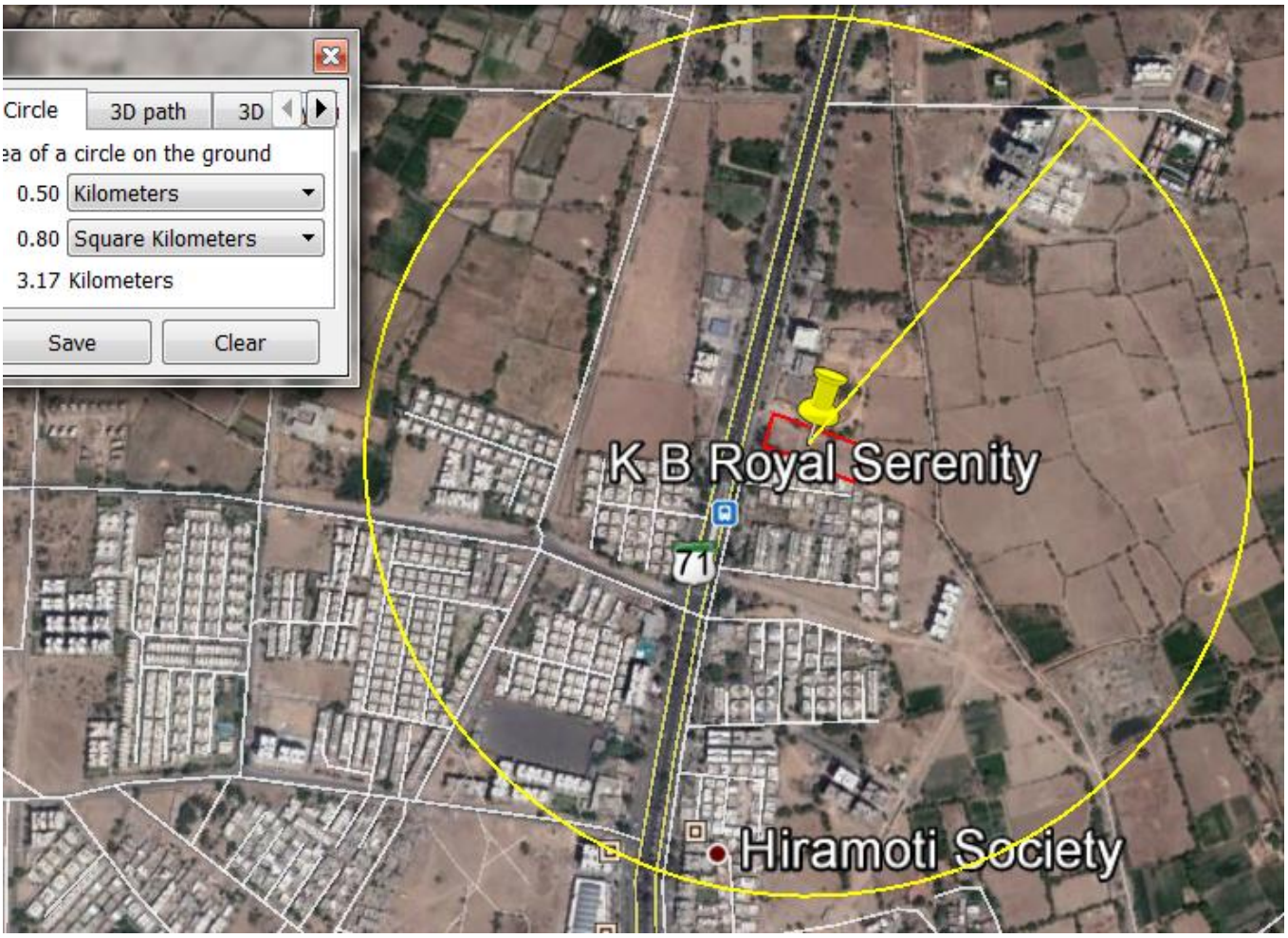


401, harvy complex, nr. a-one school,
subhash chowk, gurukul road,
memnagar, ahmedabad - 380 052.

phone : +91 - 79 - 27461548/49
fax : +91 - 79 - 27461550
email : pmodikgb@yahoo.com

KGB BUILDCON LLP

Google Image (0.5 km Radius)



401, harvy complex, nr. a-one school,
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email : pmodikgb@yahoo.com

KGB BUILDCON LLP

Google Image (1.0 km Radius)

401, harvy complex, nr. a-one school,
subhash chowk, gurukul road,
memnagar, ahmedabad - 380 052.

phone : +91 - 79 - 27461548/49
fax : +91 - 79 - 27461550
email : pmodikgb@yahoo.com

KGB BUILDCON LLP

Boundary coordinates of the site

Site Co-ordinates: 23° 7'25.84"N, 72°35'1.87"E

401, harvy complex, nr. a-one school,
subhash chowk, gurukul road,
memnagar, ahmedabad - 380 052.

phone : +91 - 79 - 27461548/49
fax : +91 - 79 - 27461550
email : pmodikgb@yahoo.com

Annexure-III

Area Table

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Area Table

Built Up Area Table (m^2)

Floor	Commercial	Residential	Total Built Up Area
2nd Basement	--	2907.59	**2907.59**
1st Basement	--	2907.59	**2907.59**
Ground Floor	1729.79	--	**1729.79**
1St Floor	1112.21	609.84	**1722.05**
2nd Floor	1112.21	609.84	**1722.05**
3rd Floor	--	609.84	**609.84**
4th Floor	--	1545.01	**1545.01**
5th Floor	--	1545.01	**1545.01**
6th Floor	--	1545.01	**1545.01**
7th Floor	--	1545.01	**1545.01**
8th Floor	--	1545.01	**1545.01**
9th Floor	--	1545.01	**1545.01**
10th Floor	--	1545.01	**1545.01**
11th Floor	--	1545.01	**1545.01**
12th Floor	--	1545.01	**1545.01**
13th Floor	--	1545.01	**1545.01**
Stair Cabin	--	249.32	**249.32**
Lift M.R & O.H.W.T	--	203.40	**203.40**
TOTAL	**3954.21**	**23547.52**	**27501.73**

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F.S.I Area Table (m^2)

Floor	Commercial	Residential	Total F.S.I Area
Ground Floor	1111.98	--	1111.98
1St Floor	960.04	413.37	1373.41
2nd Floor	960.04	413.37	1373.41
3rd Floor	--	413.37	413.37
4th Floor	--	1282.89	1282.89
5th Floor	--	1282.89	1282.89
6th Floor	--	1282.89	1282.89
7th Floor	--	1282.89	1282.89
8th Floor	--	1282.89	1282.89
9th Floor	--	1282.89	1282.89
10th Floor	--	1282.89	1282.89
11th Floor	--	1282.89	1282.89
12th Floor	--	1282.89	1282.89
13th Floor	--	1282.89	1282.89
TOTAL	**3032.06**	**14069.01**	**17101.07**

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Nos. of unit and its use

Floor	Commercial	Residential	Total Area
Ground Floor	19	--	**Commercial**
1St Floor	14	4	**Comm. + Resi.**
2nd Floor	14	4	**Comm. + Resi.**
3rd Floor	--	4	**Residence**
4th Floor	--	12	**Residence**
5th Floor	--	12	**Residence**
6th Floor	--	12	**Residence**
7th Floor	--	12	**Residence**
8th Floor	--	12	**Residence**
9th Floor	--	12	**Residence**
10th Floor	--	12	**Residence**
11th Floor	--	12	**Residence**
12th Floor	--	12	**Residence**
13th Floor	--	12	**Residence**
TOTAL	**47**	**132**	**Commercial + Residence**
	179 unit		

Area of Unit in sqm

Floor	Commercial	Residential
Ground Floor	58.53	--
1St Floor	68.57	--
2nd Floor	68.57	103.34
3rd Floor	--	103.34
4th Floor	--	106.91
5th Floor	--	106.91
6th Floor	--	106.91
7th Floor	--	106.91
8th Floor	--	106.91
9th Floor	--	106.91
10th Floor	--	106.91
11th Floor	--	106.91
12th Floor	--	106.91
13th Floor	--	106.91

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Annexure-IV

Rain Water Harvesting

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Rain water Harvesting

In general the rain water from terraces/rooftop areas shall be collected through rain water down-take pipes and collected to catch basins or stored in flushing tanks/rain water tanks. However, the rain water from hard court and parking area shall be collected directly by catch basins & connected to the area storm waters mains. Rain water harvesting pits shall be provided wherever feasible so that maximum rain water recharged into the ground before it reaches the storm water mains. Sump with pumping facility shall be provided for the drainage of basement area and discharge will be connected to the storm water manhole so that overflow will be discharge to main storm water drainage.

Percolating Well Calculation:

One Percolation Well required per **4000 sqm** area

Land area is **4295.0** sqm

Required Percolation Well = **4295.0 /4000** = **1.07** nos.

Provided Percolation Well = **2 nos.**

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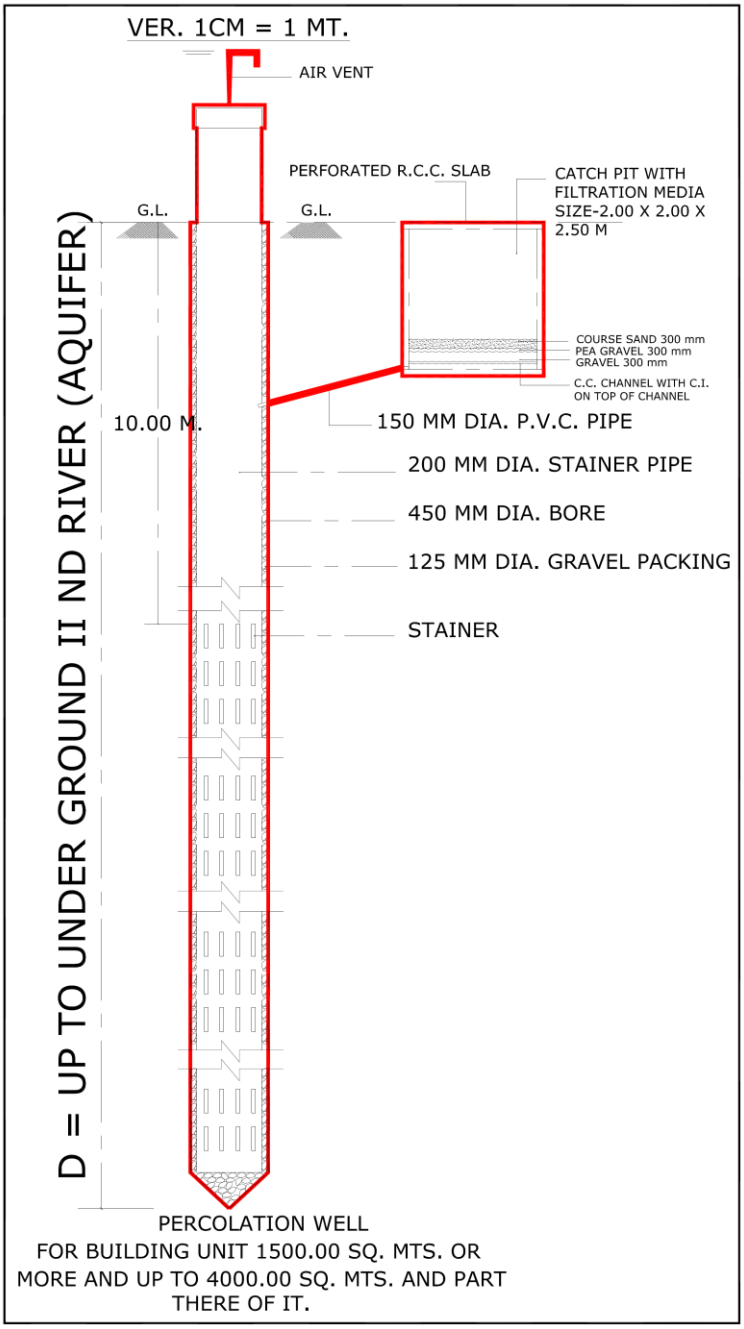
Percolation Well



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Annexure-V

Details of STP

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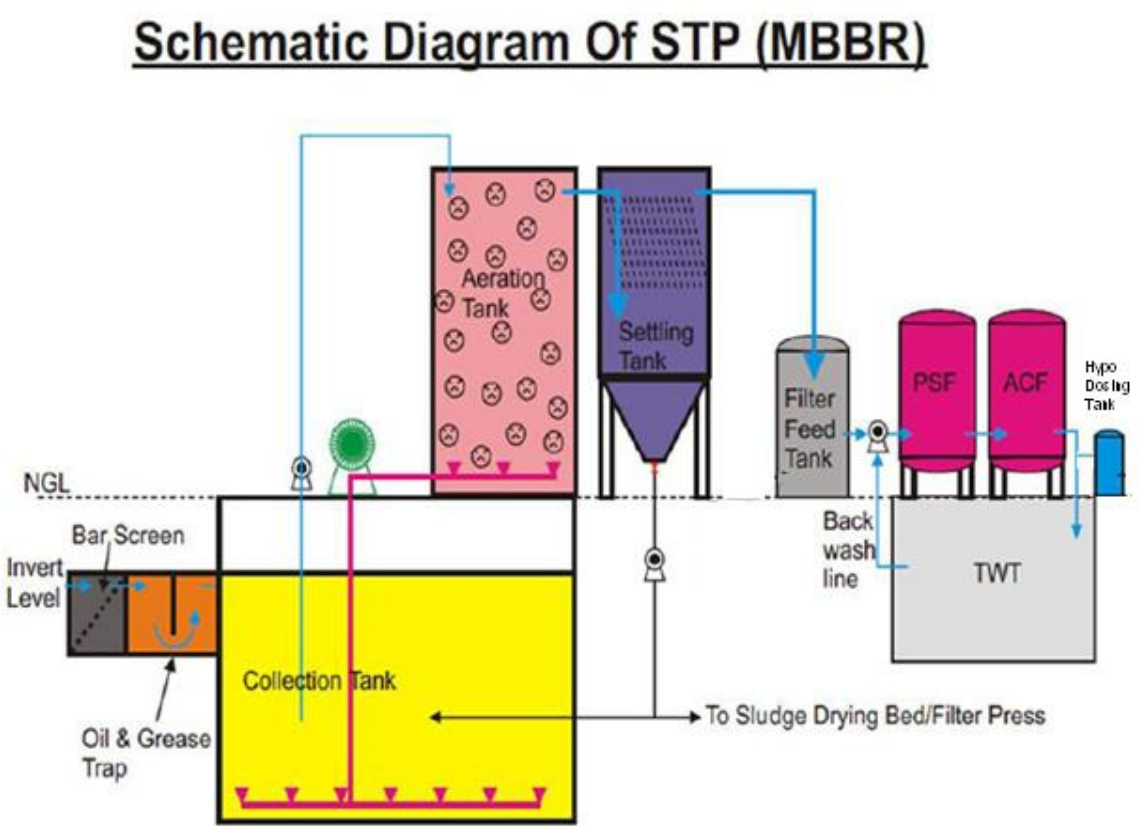
Details of STP

Diagram of STP-Capacity- 60 KLD



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Details of STP unit with its H.R.T.

Sr. No.	Name of the Equipment	Nos.	Dimension in m	Volume (m^3)	Hydraulic retention time (hrs)
1	Bar screen	1	Standard supply	-	-
2	Oil and Grease Trap	1	1.0 x 1.0 x 1.2	-	0.6
3	Collection Tank	1	3.0 x 3.0 x 3.5 + 0.5 F.B	27	11.0
4	MBBR Tank – Aeration Tank	1	3.0 x 3.0 x 4.0 + 0.5 F.B	31.5	12.6
5	Settling Tank	1	3.0 x 3.0 x 2.5+ 0.5 F.B	--	9.0 surface area
6	Chlorine Contact Tank	1	2.0 x 2.0 x 3.0 + 0.5 F.B	10	4.0
7	Buffer Tank	1	3.0 x 3.0 x 3.5 + 0.5 F.B	27	11.0
8	Pressure Sand Filter	1	Standard supply	--	3.0 m3/hr
9	Activated Carbon Filter	1	Standard supply	--	3.0 m3/hr
10	Final Treated Sewage Tank	1	3.0 x 3.0 x 3.5 + 0.5 F.B	27	11.0
11	Sludge Drying Bed	2	3 x 2 x 1.2	--	12 surface area
12	Hypo Dosing Tank	1	-	-	-

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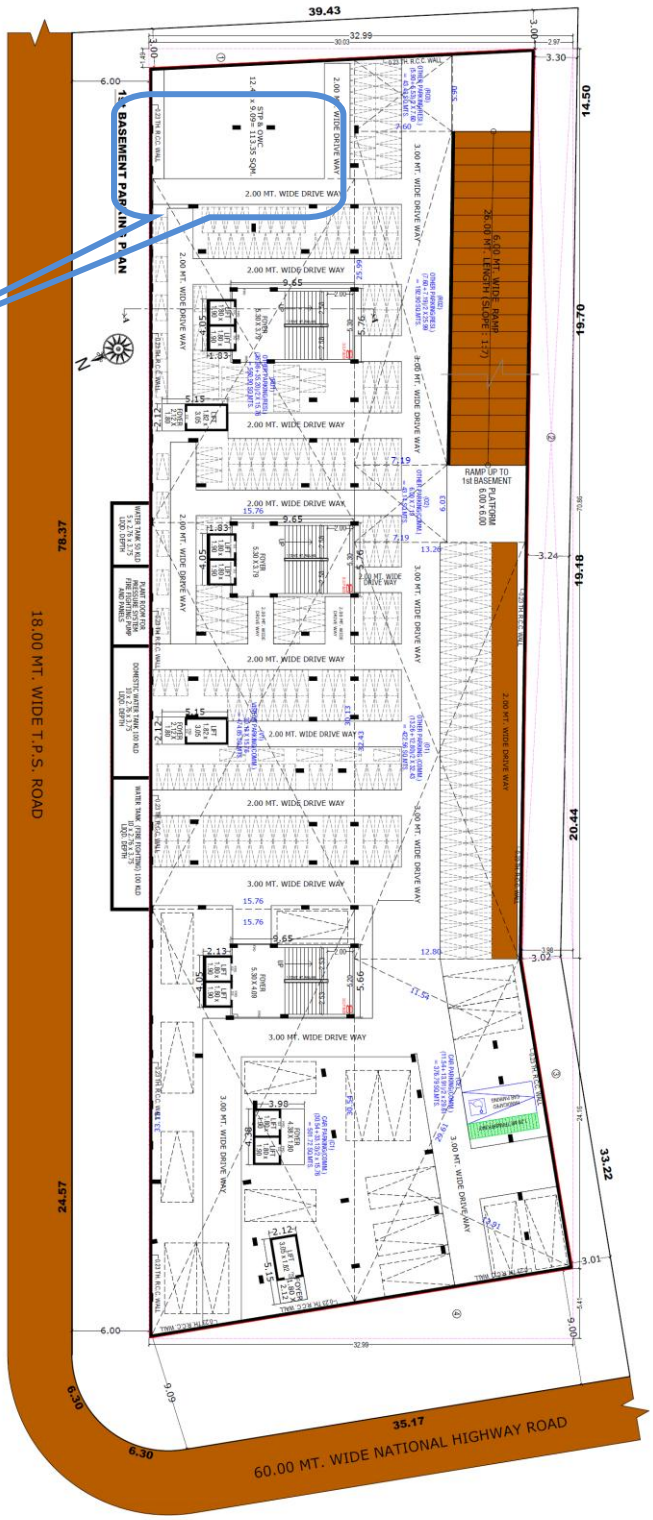
Location of STP

Location of
STP + OWC



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Annexure-VI

Environment Management Plan

ENVIRONMENT MANAGEMENT PLAN

1.0 ENVIRONNEMENTAL MANAGEMENT PLAN

The Environment Management Plan (EMP) would consist of all mitigation measures for each activity to be undertaken during the construction, operation phase to minimize adverse environmental impacts as a result of 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 site including fire.

1.1 Objective of EMP

Present EMP is designed to minimize the potential adverse environmental impacts, if any, due to the proposed commercial project. The EMP reflects the commitment, of the developers, to safeguards for environment as well as the surrounding population. The potential impacts on the environment from the proposed Building Project are identified based on the nature of the various activities associated with the location, and operation of the proposed project and also on the current status of the environmental quality around the project area.

EMP will include following issues:

1. Water Pollution Management
2. Air pollution control
3. Solid Waste Management
4. Noise Control
5. Greenbelt Development
6. Energy Conservation

1.2 Water Pollution Management:

1.2.1 Construction Phase

Total water requirement during construction phase is expected to be about 22.0 KLD, which will be sourced through Tankers. The following control measures will be adopted in order to minimize the construction impacts on water quality of the area:

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- ✓ Monsoon season would be avoided for construction activity.
- ✓ Appropriate sanitation facilities will be provided for the labours to reduce impact on water quality.

1.2.2 Operation Phase

Water requirement:

Total water requirement for the project will be approx. 100.0 KLD. The fresh water demand will be 62.0 KLD and 38.0 KLD will be recycled water (treated water from STP). Fresh water will be sourced from Ahmedabad Municipal Corporation (AMC) water supply.

Rain water harvesting:

Rain water harvesting with filtration system & recharge wells will be provided for the purpose of recharging ground water. It is proposed to collect all the Rain Water falling on the roof surface will be channelize into the Rain Water catch basins with in-built recharge pits around the periphery of the project.

Percolating Well Calculation:

One Percolation Well required per **4000 sqm** area

Land area is **4295.00** sqm

Required Percolation Well = **4295.00 /4000** = **1.07** nos.

Provided Percolation Well = **2 nos.**

Wastewater Generation, Treatment and disposal

Approx. 86.5 KLD (52.0 KLD Grey w/w, 34.5 KLD Soil w/w) of sewage will be generated during the operational phase. Grey w/w (52.0 KLD) will be treated in in-house STP. Out of the total treated water; 37.1 KLD will be re-used within the premises (for gardening & flushing). Balance 49.5 KLD [treated water from STP (15.0 KLD) and soil w/w (34.5 KLD)] will be discharged to AMC drainage line.

Raw sewage from the domestic application will be collected and treated in on-site Sewage Treatment Plant (STP). Capacity of STP 60 m^3/day will be provided. Details of STP are given in below section.

1.2.3 Sewage Treatment Plant

Design capacity of the STP is 60 KLD. Proposed sewage treatment comprising of aeration tanks chlorine dosing with add on biological treatment process of MBR (Membrane Bioreactor) is proposed for secondary and tertiary treatment.

Details of STP unit with its H.R.T.

Sr. No.	Name of the Equipment	Nos.	Dimension in m	Volume (m^3)	Hydraulic retention time (hrs)
1	Bar screen	1	Standard supply	-	-
2	Oil and Grease Trap	1	1.0 x 1.0 x 1.2	-	0.6
3	Collection Tank	1	3.0 x 3.0 x 3.5 + 0.5 F.B	27	11.0
4	MBBR Tank – Aeration Tank	1	3.0 x 3.0 x 4.0 + 0.5 F.B	31.5	12.6
5	Settling Tank	1	3.0 x 3.0 x 2.5+ 0.5 F.B	--	9.0 surface area
6	Chlorine Contact Tank	1	2.0 x 2.0 x 3.0 + 0.5 F.B	10	4.0
7	Buffer Tank	1	3.0 x 3.0 x 3.5 + 0.5 F.B	27	11.0
8	Pressure Sand Filter	1	Standard supply	--	3.0 m3/hr
9	Activated Carbon Filter	1	Standard supply	--	3.0 m3/hr
10	Final Treated Sewage Tank	1	3.0 x 3.0 x 3.5 + 0.5 F.B	27	11.0
11	Sludge Drying Bed	2	3 x 2 x 1.2	--	12 surface area
12	Hypo Dosing Tank	1	-	-	-

1.2.4 Use of treated Water and sludge

After treatment, treated water will be utilized for flushing & greenbelt development in project area. Sludge generation from STP will be 120 kg/day. It will be collected, and used as manure for greenbelt development within premises after drying.

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1.3 AIR QUALITY MANAGEMENT

1.3.1 Construction Phase

During construction phase, major sources of dust & smoke are D.G. Set, vehicular movement & construction activities. To mitigate these effects, regular water sprinkling will be done all around the construction area and building materials will be stored in covered area by way of covering them with tarpaulin or keeping them in temporary sheds.

Management:

- ✓ Regular sprinkling of water on the haul road will be carried out to moist the soil so that the fugitive emissions will be low during movement of vehicles.
- ✓ Construction material storage will be shielded.
- ✓ The construction area will be shielded with the help of tarpaulin to contain the air emissions within the premises.
- ✓ During construction phase monitoring (of air, water, and noise) will be done at different points (within the sites).
- ✓ All transportation vehicles will be suitably covered with tarpaulin & overloading of the vehicles will be avoided.

1.3.2 Operational Phase

The sources of air emissions from the proposed project are the stack attached to D.G set exhaust. The D.G set will run only in case of power failure and hence air emission from the D.G set is restricted to only such occasions.

The impact of Air Emissions can be minimized in following ways

- ✓ Stack height, of min 3.0 m from the ground level if installation will be far from the near building or 3.5 m from the roof top of nearest building will be provided.
- ✓ It will be ensured that the stack emissions from D.G set meet prescribed standards.
- ✓ The D.G set will be maintained regularly as per preventive maintenance schedules and engine tuning of D.G set carried out as per recommendations by the manufacturers to ensure stack emission quality within desired limits.

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- ✓ The secondary source of air emissions is from vehicles movement. It shall be ensured that all such vehicles are maintained on regular basis and meet PUC norms.
- ✓ Moreover, Green Belt will be developed & maintained within the project premises.

1.4 SOLID WASTE MANAGEMENT

1.4.1 Construction Phase:

Excavated soil, top soil, construction debris, cement bags, waste paper, cardboard, packing materials will be generated as solid waste during construction phase.

Management:

- ✓ The estimated quantity of excavated earth will be about 21000 cum. It will be used for land filling in low laying area within premises. The construction site will be demarked and the excavated earth will be stacked properly for reuse.
- ✓ The top soil of about 2500 sq m will be reused in landscape development and tree plantation areas. The surplus soil will be provided to the other users for the site development and raising the ground level for the developmental works. Due care will be taken to conserve the available top soil.
- ✓ The construction waste will be stacked properly. Construction debris will be refilled at low lying areas within the project premises.
- ✓ Cement bags, waste paper, cardboard, packing materials will be sold off to recyclers. Unusable steel scrap will be collected and sold to scrap vendors.
- ✓ The inert waste (masonry, concrete, etc.) will be used for road making, filling and for strengthening the approach roads.

1.4.2 Operational Phase

The collection, transportation and disposal of the solid waste generated during the operation phase of the Proposed Project will be done as per the Solid Wastes Management Rules, 2016 (SWM Rules). Total solid waste generated during the operation phase will be 299.2 kg/day. It will be segregated into

organic & inorganic wastes. Recyclable items like, paper, glass, timber products etc. will be sold to local vendors.

Solid waste will be collected in separate bins for biodegradable and non-biodegradable waste. Total 25 nos. of bins will be provided. Organic waste will be processed within premises using Organic Waste Composter (OWC). Processed organic waste will be used as manure for greenbelt development.

Separate storage facilities will be created and established by taking into account quantities of waste generation. Sewage Sludge generation from STP will be 120 kg/day. It will be collected, and used as manure for greenbelt development within premises after drying.

Details of waste generation and disposal

Sr. No.	Description	Quantity (kg/day)	Mode of disposal
Municipal Solid Waste Details (Construction Phase)			
1	Domestic (80 workers x 250 gm/person/day)	20.0	Disposed off into AMC disposal site. AMC authority will collect accumulated municipal waste from the site.
Municipal Solid Waste Details (Operational Phase)			
1	**Residential:** (132 residential units x 4 persons x 500 Gm/Person/Day) **Commercial:** [(47 Shops x 3 persons x 250 Gm/Person/Day) +	**299.2** (264.0+ 35.2)	Separate color coded bins will be provided to collect dry and wet waste.
	Dry Garbage 60%	179.5	Collected into bins (Blue color) to be provided within premises disposed through door to door waste collection system of AMC.
	Wet Garbage 40%	119.7	Collected into bins (Green color) to be provided within premises. It will be processed within premises by putting Organic Waste Converter (OWC) machine. Manure will

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			be used for greenbelt development within premises.
Other Solid wastes			
1.	STP Sludge	120 kg/day	Collection, storage and used as manure for greenbelt development within premises.
2.	Manure from OWC	8 kg/day	

1.5 NOISE

Noise will be generated during construction as well as post construction phase. The major sources of noise are operation of D.G set, heavy machinery and vehicular movements. D.G set will be used only in during the power cut.

1.5.1 Construction Phase

- ✓ Complete construction work especially heavy earth work will be done during day time.
- ✓ Equipment generating minimum noise and vibration will be selected for construction phase.
- ✓ Acoustic enclosures will be provided to the high noise generating machineries including D.G set.
- ✓ The construction area will be shielded with help of tarpaulin.
- ✓ The vehicles will be regularly maintained and optimum use of the same will be made.
- ✓ Temporary noise barriers will be provided all round the project site.
- ✓ Ear plugs & muffs will be providing to the construction workers and job rotation will also be practiced.

1.5.2 Post-Construction Phase

- ✓ During the operational phase, noise will be generated from the D.G set, compressors, pump rooms & vehicles movement.
- ✓ D.G. set will be housed in an inbuilt acoustic enclosure.
- ✓ The driveways will have sufficient width so that there is no congestion of vehicles during peak hours which lead to increase in the noise level.
- ✓ Dense plantation will be done at the periphery so that it can act as a sound barrier between the road and the building.
- ✓ Entry and exits will be managed with trained and efficient security to ensure smooth flow of vehicles.

1.6 GREEN BELT DEVELOPMENT AND LANDSCAPING

Tree plantation is one of the effective remedial measures to control the air pollution and noise pollution. It also causes aesthetics improvement of the area. Total 10.0% of total plot area will be under greenery is 489.67 m^2 and 4% of total plot area i.e. 171.8 m^2 will be under thick plantation.

Design of Green Belt

As far as possible, following guidelines will be considered in greenbelt development.s

- ✓ The spacing between the trees will be maintained as per CPCB guideline i.e. 1 tree/4 sqm.
- ✓ Spaces, so that the trees may grow vertically and slightly increase the effective height of the greenbelt.
- ✓ Planting of trees in each row will be in staggered orientation.

Planting methodology

The plantation shall be done in pits. The pit shall be refilled with soil after the planting. The sampling of healthy, nursery raised, seedlings in polythene containers shall be transported in baskets. Planting shall be done after first monsoon showers. The level of soil is about 10 cm above of ground level. The soil around the plant shall be pressed to form a low through. About 25 gm chemical fertilizers shall be added. Watering shall be continued after plantation if any dry spells follows. Planted area shall be inspected and mortality rate ensured for each species. The dead and drying plant shall be replaced by fresh seedlings.

Selection of species for greenbelt

For the development of greenbelt, plants having simple big leaves and native species are preferred to the plants. The plants are suitable for greenbelt development based on gaseous exchange capacity of foliage which is ascertained by the following characteristics:

- ✓ The plant should be fast growing.
- ✓ It should have thick canopy cover.
- ✓ It should be perennial and evergreen.
- ✓ It should have large leaf area index.

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- ✓ It should be indigenous.
- ✓ It should be efficient in absorbing pollutants without significant effects on plant growth.

The objective of the greenbelt development is to improve the micro-environment. The success depends on the type of land available and selection of suitable tree species for pollution control. It is also advisable to select suitable tree species and adopt simple techniques which require minimum investment and care.

Floral species recommended for greenbelt

Azadirachtaindica (Neem), Albizialebbeck (Siris), Pongamiapinnata (Karanj), Ficusreligiosa (Peepal) are suggested for the greenbelt development with respect to this particular area. They are mostly deciduous and evergreen tree types suitable to be grown in the area.

Survival rate of trees and post plantation care

Considering the availability of water and general survey of surrounding area, the survival rate is expected to be around 70-75%. Moreover, the wire net guards will be provided to protect the saplings. The same will be properly manured and watered so that it can grow well.

Protection of plantation site:

- ✓ Protection from grazing will be done by erecting tree guards a rounded planted sapling.
- ✓ During the first-year watering will be done twice in a day. There after watering will be done twice in a week.
- ✓ The manuring will be done when plantation take up. For this propose cow dung will be dump in the pit. No other manuring will require for proposed plantation. Cow dung is easily available in the study area.
- ✓ Damaged plants will be replaced with new plants.
- ✓ Strict surveillance will be made to increase the survival rate of the trees.

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1.7 ENERGY CONSERVATION MEASURES

1.7.1 Construction Phase

- ✓ The transportation of construction material will be minimized to the construction site as well as the material will be procured from the nearest places to minimize the consumption of fossil fuels.
- ✓ Large size windows to get the sufficient day light.
- ✓ Light emission will be reduced by the using cut off shield fixtures of site.
- ✓ Eco friendly construction material such as Fly ash bricks, aerated blocks, fly ash paving blocks, RMC (Ready Mix Concrete), pozzolana cement will be used.

1.7.2 Post-Construction Phase:

- ✓ The D.G. set will be used only in case of power cuts or failure for back up in the common areas only. HSD will be used as fuel.
- ✓ Energy efficient compact fluorescent lamps to be used as these CFL gives same illumination with less wattage compare to other GLS lamps.
- ✓ Energy Efficient lifts, use of solar LED lights in the common areas, maximum use of natural light through proper building orientation etc.

Details on solar panels to be installed

Availability of area: 1370 m^2

Numbers of solar panel: It may not fix because it depends on the size of solar panel.

Capacity: There is no capacity of solar panel but capacity is calculated based on the below mentioned equation.

Type: PV (Photo-voltaic) Solar panel

Location: Roof top

Stand-alone solar PV systems work with batteries. The solar energy is stored in the battery and used to feed building loads after conversion from DC to AC power with a stand-alone inverter.

Rooftop and Installation Requirements:

General factor for calculation of electricity generation is considering 12 m^2 area of a rooftop for about 1 kW (KiloWatt). This number includes provision for clearances between solar PV array rows. Project proponents have around

1370 m^2 of rooftop to install solar PV. Based on the area available, around 103 KW energy will be generated with following formula used for calculation.

KW energy = Free rooftop area (1370 in m^2) x 0.9 (to left out Margin area) ÷ 12 **= 102.75 KW say 103 KW**

Precaution: The solar panels install on the roof of the building with a south facing tilt angle that varies in 11 – 13 degrees. Sufficient area shall be available for servicing the system. The minimum clearance required for cleaning and servicing of the panels is 0.6 m from the parapet wall and in between rows of panels. In between the rows of solar panels sufficient gap needs to be provided to avoid the shading of a row by an adjacent row. The solar grid inverter shall be placed indoor in a safe and easily accessible place.

System Components: A grid-connected solar PV system consists of the following main components: – Solar PV (photo-voltaic) array – Solar PV array support structure – Solar grid inverter – Protection devices – Cables Solar PV System Capacity Sizing The size of a solar PV system depends on the 90% energy consumption of the building and the shade-free rooftop (or other) area available.

1.8 ENVIRONMENTAL MONITORING PROGRAMME

Monitoring/Sampling stations will be fixed to assess the ambient levels in relevant areas of environment after the commissioning of the project. An environmental monitoring programme is important as it provides useful information on the following aspect:

- ✓ It helps to verify the predictions on environmental impacts presented in this study.
- ✓ It helps to indicate warnings of the development of any alarming environmental situations, and thus, provides opportunities for adopting appropriate control measures.
- ✓ Evaluate the performance and effectiveness of mitigation measures proposed in the EMP and suggest improvements in management plan, if required,
- ✓ Satisfy the legal and statutory obligations.

The monitoring programme in different areas of environment is outlined below;

Post-Project Environment Monitoring Plan

Nature of Analysis	Frequency of sampling	Parameters to be analyzed	No. of location
DG Stack Monitoring	Quarterly by external agency	SPM, SO_2, NO_x	Stack of D G Set
Ambient Air Quality Monitoring	Quarterly by external agency	PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO	2 locations
Noise level	Quarterly by external agency	Day and Night Time equivalent noise (Leq) level	5 to 6 locations

1.9 ENVIRONMENT MANAGEMENT CELL

An Environment Management Cell (EMC) will be responsible for implementation of the post project monitoring plan for this project. The composition of the EMC and responsibilities of its various members are given in below table.

Structure of Environment Management Cell

Sr. No.	Designation	Proposed responsibility
1	Chairman of Society	Overall responsibility for environment management and decision making for all environmental issues
2	Secretary	Hires a consultant and fulfills all legal requirements as per MoEFCC/GPCB/CPCB
3	Supervisor	Ensure environmental monitoring as per appropriate procedures

1.10 ENVIRONMENTAL MANAGEMENT BUDGET ALLOCATION

Budgetary provision for environment & safety management system has been made in the project planning with **Rs. 59.7 Lakhs** will be used for Environmental Management System as capital cost and **Rs. 11.55 Lakhs** as recurring cost per annum.

Environment Management Cost

S. No.	Description	Capital cost (Rs. in Lakhs)	Recurring cost (Rs. in Lakhs)
1.	Water pollution management	10.0	3.6
2.	Air Pollution management	1.5	0.5
3.	Solid waste management	5.5	1.5
4.	Installation of energy efficient appliances	37.0	2.25
5.	Environment Monitoring	0.0	2.0
6.	Rain water harvesting	5.0	1.0
7.	Greenbelt development	0.7	0.7
	Total	**59.7**	**11.55**

1.11 SOCIO-ECONOMIC ACTIVITIES

Corporate Environmental Responsibility (CER) refers to a company's duties to withdraw from damaging natural environments. The term derives from Corporate Social Responsibility (CSR). Also can be referred as corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare. The term generally applies to companies efforts that go beyond what may be required by regulators or environmental protection groups.

CSR is a way of conducting business, by which corporate entities visibly contribute to the social good. Socially responsible companies do not limit themselves to using resources to engage in activities that increase only their profits. They use CSR to integrate economic, environmental and social objectives with the company's operations and growth.

CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives ("Triple-Bottom-Line-Approach"), while at the same time addressing the expectations of shareholders and stakeholders. The term "Corporate Social Responsibility (CSR)" can be referred as corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare. The term generally applies to companies efforts that go

beyond what may be required by regulators or environmental protection groups.

Target Project Area

- Largely affected by project
- Vicinity to the project site
- Sourcing of employees from these areas
- Low level socio-economic status of the people
- Lack of adequate intervention of voluntary organization in the area

The focus area of comprehensive program includes: health, education, sanitation, sustainable livelihood & infrastructure development.

Details of expenditure for ESR activities:

Cost of the proposed project : Rs. 75 Crores

Expenditure earmarked towards ESR: Rs. 1.5 Crores

(2.0% of the total project cost)

Activities & fund to be utilized under CER within 5 years

Proposed Activities	Selected areas or villages	Frequency	Financial provision in Lakhs
Educational			
Uniform to poor children around 550 pairs	Primary school of Amiyapur village	Ones in a year up to five years	(550 x Rs. 450/-) x 5 Years **Total 12.37**
Computer supply in school	10 computer Primary school of Amiyapur village	One time	75000 x 10 **Total 7.5**
	10 computer Secondary school of Amiyapur village		75000 x 7 **Total 7.5**
Scholarship to poor children around 70 students	70 student of Primary school of Zundal village	Every year up to five years	12000 x 70 x 5 Years **Total 42.0**
Environment Sustainability			
Tree Plantation in road side, local school area & health Centre area	Zundal & Amiyapur village area around 2400 sqm	Every year up to five years	2400 x 180 x 5 Years **Total 21.60**

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Recurring cost	--	--	20000 x 12 5 Years **Total 12.00**
Water pond widening and restructuring	Amiyapur village	One time	**Rs. 24.00**
Drinking water & Sanitation facility			
Water Cooler, RO	1 sets of RO and water cooler at Primary school of Zundal 1 sets of RO and water cooler at Primary school of Amiyapur	Onetime	300000 x 2 **Total 6.00**
Operating and maintenance cost	--	Five Years	5000 x 12 x 5 **Total 3.0**
Medical camp with free medicine	Zundal & Amiyapur village during rainy days	Five Years	**Rs. 26.00**
		Total	**Rs. 155.97**

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Annexure-VII

Energy Conservation Measures

KGB BUILDCON LLP

Energy Conservation Measures

Internal Building Lighting for the Common Area:

The light fixture will be selected so as to achieve highest utilization factor. The UF will range between 70 to 75%. This type of fixture has higher download to upward ratio and p5 type reflectors.

Energy Efficient Lamp:

Use of solar LED lights in the common areas, use of energy efficient electrical appliances like LED (CFL), maximum use of natural light through proper building orientation etc.

Solar panels will be installed to utilize solar energy for common lighting facility.

Details on solar panels to be installed including their number & capacity, location & available space

Availability of area: 1370 m^2

Numbers of solar panel: It may not fix because it depends on the size of solar panel.

Capacity: There is no capacity of solar panel but capacity is calculated based on the below mentioned equation.

Type: PV (Photo-voltaic) Solar panel

Location: Roof top

Stand-alone solar PV systems work with batteries. The solar energy is stored in the battery and used to feed building loads after conversion from DC to AC power with a stand-alone inverter.

Rooftop and Installation Requirements:

General factor for calculation of electricity generation is considering 12 m^2 area of a rooftop for about 1 kW (KiloWatt). This number includes provision for clearances between solar PV array rows. Project proponents have around 1370 m^2 of rooftop to install solar PV. Based on the area available, around 103 KW energy will be generated with following formula used for calculation.

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KW energy = Free rooftop area (1370 in m^2) x 0.9 (to left out Margin area)

÷ 12 **= 102.75 KW say 103 KW**

Precaution: The solar panels install on the roof of the building with a south facing tilt angle that varies in 11 – 13 degrees. Sufficient area shall be available for servicing the system. The minimum clearance required for cleaning and servicing of the panels is 0.6 m from the parapet wall and in between rows of panels. In between the rows of solar panels sufficient gap needs to be provided to avoid the shading of a row by an adjacent row. The solar grid inverter shall be placed indoor in a safe and easily accessible place.

System Components: A grid-connected solar PV system consists of the following main components: – Solar PV (photo-voltaic) array – Solar PV array support structure – Solar grid inverter – Protection devices – Cables Solar PV System Capacity Sizing The size of a solar PV system depends on the 90% energy consumption of the building and the shade-free rooftop (or other) area available.

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Annexure-VIII

Safety Measures

KGB BUILDCON LLP

Safety Measures

About 80 nos. of workers will be involved during construction phase.

It is purposed to provide safety measures to the workers in the following manner:

- **Safety Measures including Personal Protective Equipments:**
  - The necessary PPE's will be provided to the workers:
  - Earmuff and other protecting devices shall be provided to labor working on high noise generating machines.
  - Provide fall protection like, safety nets, guard rails, safety belt for anyone working at 6 feet or more above lower levels.
  - Portable ladders not extended 3 feet above landing if higher than the top of the ladder must be fastened to a secure support and the employer must add a grab rail or similar grasping device to the ladder to help workers mount and dismount it.
  - For eye and face protection from dust, grit, tiny pieces of flying metal or wood, welding arc, developers face mask and goggles.
  - Fall protection–falls are the most common cause of fatal injury in construction. Developer will provide railing systems where work is in progress.
  - Developer will provide safety training to all employees who might be exposed to hazard work.
  - Developer will provide fall protection to any employee working on a low-slope roof with unprotected edges.
  - As part of an accident prevention program, developer will assign a competent person to conduct regular inspections of jobsites; materials and equipment to make sure hazards are eliminated or managed.
  - The medical facilities will be provided to all workers. Every week qualified doctors will visit site for examination of health of workers.

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- Safety Helmets and belts will be mandatory at site during working at height. Safety goggles during welding and gum boots while concreting will be provided to the workers.
- All safe work practices will be implemented and monitored.

❖ **Amenities provided to workers during construction phase:**

Following facilities will be provided by project proponent during the construction phase.

- 5 to 6 Nos Toilets facility will be provided.
- Washing facilities for workers will be provided for workers immediately after using the toilet or urinal. Washing facilities will be suitable and sufficient, kept clean and orderly and with basins or sinks large enough for people to wash their face, hands and forearms.
- The facilities include availability of fresh water; soap towels etc.
- Drinking water will be provided at readily accessible and suitable places.
- Changing rooms provided to workers for the purposes of their work and cannot be expected to change elsewhere. The rooms must be with seating, means of drying and keeping clothing and personal effects secure.
- First-aid box displaying its content and usage will be provided to the workers.

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