

EXECUTIVE SUMMARY
REDEVELOPMENT OF RESIDENTIAL
PROJECT

AT

F.P. NO. 732, TPS (III) OF MAHIM DIVISION,
SITUATED AT 9 LOHAR CHAWL, MAHIM,
MUMBAI

BY

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1. INTRODUCTION TO PROJECT

After recognizing the need of development of plot bearing F.P. No.732, TPS (III) of Mahim Division, Situated at 9 Lohar Chawl, Mahim, Mumbai, having one CEsSED and one NON CEsSED structure, having total 40 nos. of tenants (38 of CESS structure and 2 of NON CESS structure) residing at very dangerous building structure, which has been declared dangerous is now being proposed for redevelopment by Mr. Sabir Nirban. The developer of the plot is going to be redeveloped for Ground Floor + 1- 12 upper floors for residential use.

The existing CEsSED structure is of Ground Floor + 2 upper Floor having 38 nos. of Residential and NR tenants and two Non CEsSED structures having 2 nos. of Residential tenants, consuming 1171.42 sq mtrs and 53.73 sq. mtrs of built up area respectively, which is inclusive of staircase areas. The land use of the Existing plot is Residential and NR as per the certified tenants list by Executive Engineer, B.B.R & R Board, FN/GN Division, Bombay for the property situated in the Residential zone.

The existing CEsSED and Non CEsSED structures are now being redeveloped into a residential building of Ground Floor + 1- 12 upper Floors for Residential use. The surrounding of the existing plot is also of mixed use i.e. residential and commercial. The site is surrounded by many more authorized structures.

In this building, the ground floor will be used for car parking, substation room, meter room, one 1BHK flat and one 1RK flat. The 1st floor and second floor will be used for car parking. The 3rd floor will be used as service floor. The 4th to 6th floor will have four 1BHK flats and four 1RK flats on each floor. The 7th floor will have three 1RK flats, three multipurpose rooms and refuge area, which is attached to terrace area. The 8th – 10th floor will have two 1RK flats and four 1BHK flats.

The 11th floor will have one multipurpose room, one 1RK flat, three 1BHK flats and one 2BHK duplex, which is distributed on 11th and 12th floor respectively. The 12th floor will have two 1BHK flat. Thus there are total of 58 flats in the said proposal. Out of these flats, 40 flats/ tenements will be given for rehabilitation of existing residential tenants. Total 18 flats will be available for sale.

The work for the building has been completed till plinth level, as per the MCZMA NOC received in the past. The site under reference is affected by **CRZ-II zone**. It is on the landward side of the existing Swatanrya Veer Sawarkar Road. Hence the work is permitted subject to the approval of CRZ clearance. Thus property attracts the CRZ legislation, which is reflected in CZMP.

The development site does not fall or contain the environmentally sensitive areas as specified in the coastal Regulation zone notification.

The total cost of the project is Rs. 17,70,00,000/- (Rupees Seventeen Crores Seventy Lakhs Only) as per the valuation report carried by certified registered valuer.

2. PURPOSE OF THE REPORT

Proposed redevelopment is on plot bearing F.P. No. 732, TPS (III) of Mahim Division, situated at 9 Lohar Chawl, Mahim, Mumbai and thereby to obtain Environmental CRZ Clearance as per clause 33(7) of DCR – 1991 in force as on 6th January 2011. The Plot is occupied by a CESSSED A category structure along with two NON CESSSED structures, which are now proposed to be redeveloped. As per MoEF Notification dated 6/1/2011, redevelopment of dilapidated, cessed and unsafe buildings in CRZ areas are permitted with special advantages, in which the project is planned as per DCR's in force as on 6/1/2011 and staircase/ lobby/ lift area is claimed free of FSI, as per clause 35(2)c of DCR 1991. The proposal is submitted for prior CRZ clearance, as per the

requirement of amended CRZ notification-2011 and the check list finalised by MCZMA vide Office Memorandum dated 02/07/2011.

Current development thus will help the existing tenant to get permanent, safe structure. At present they are residing in unsafe building.

As the site under reference is affected by CRZ-II zone, it attracts the CRZ legislation as per 6th January 2011 notification for Coastal Regulation Zone (CRZ) and the regulating activities in the CRZ.

3. DESCRIPTION OF THE PROJECT

3.1 NATURE OF THE PROJECT

This is a proposal for redevelopment of residential building situated at F.P. No. 732, TPS (III) of Mahim Division, situated at 9 Lohar Chawl, Mahim, Mumbai, in CRZ-II belt, as the same is situated within 500 mtr. from Arabian Sea. (Approx distance 215 mtrs)

The proposal is for redevelopment of residential building, which is situated on the landward side of existing Swatantrya Veer Sawarkar Road, which is **in existence prior to 19/2/1991, as may be seen from CZMP of Mumbai.**

The Plot is situated in Residential zone and not under any reservation as per 1967 DP as well as Revised 1993 DP. The FSI proposed on the plot under reference is 2.77, as per DCRs in force as on 6th Jan 2011, which is worked out on the governing criteria of rehab plus 50% incentive plus the built up area of Non CESSSED category structures.

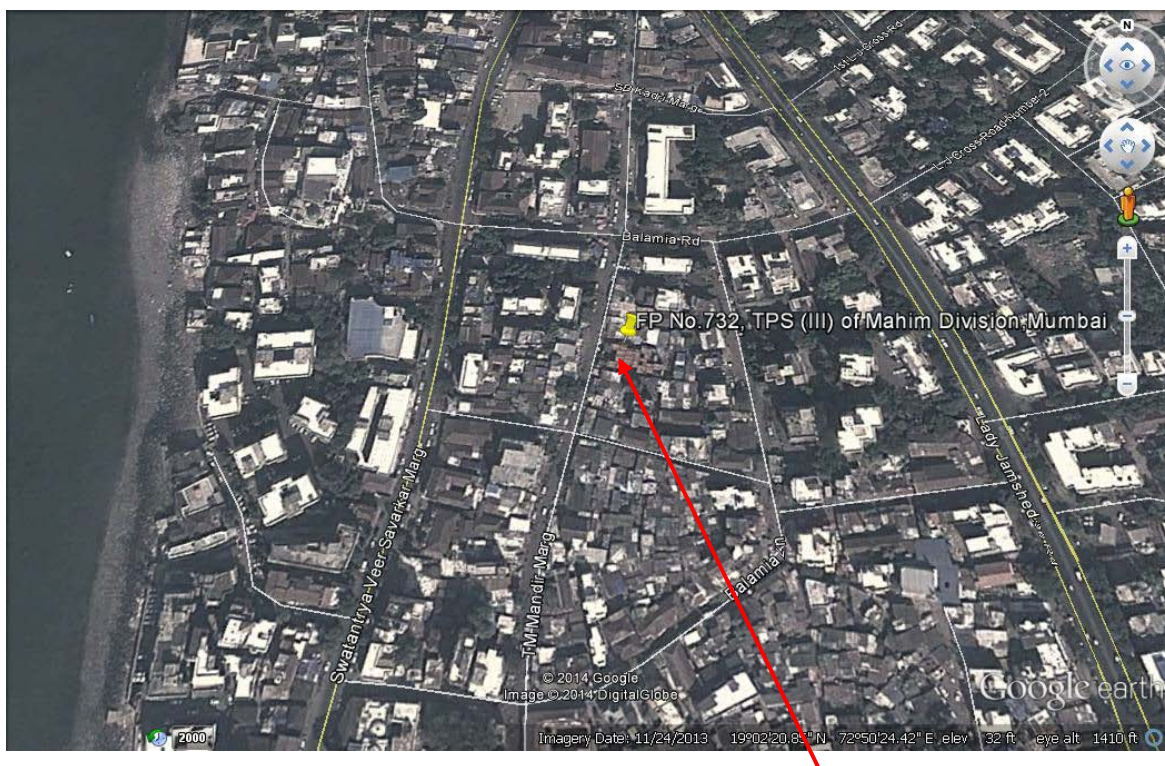
3.2 SIZE OF THE PROJECT

Total Area of the said plot is 697.33 sq. mtr. out of which 656.93 sq.mtr. plot area is having CEsSED structure on the plot and 40.40 sq. mtrs. is the land component of NON CEsSED structure on the plot.

3.3 LOCATION

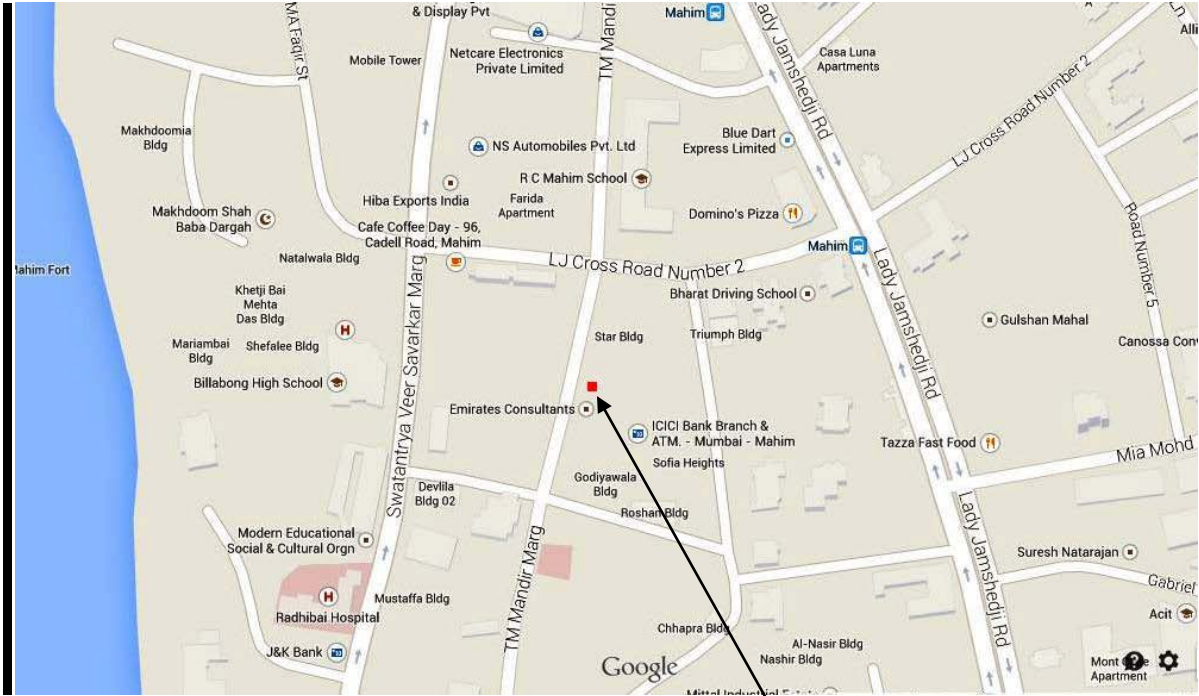
The F.P. No. 732, TPS (III) of Mahim Division, situated at 9 Lohar Chawl, Mahim, Mumbai is in the heart of the city. The nearest railway station is Mahim Railway Station, 0.93 Km from the site, on the western line. The nearest bus stop is Mahim bus stop, which is 200 meters away from the site.

Google Earth Image of the site

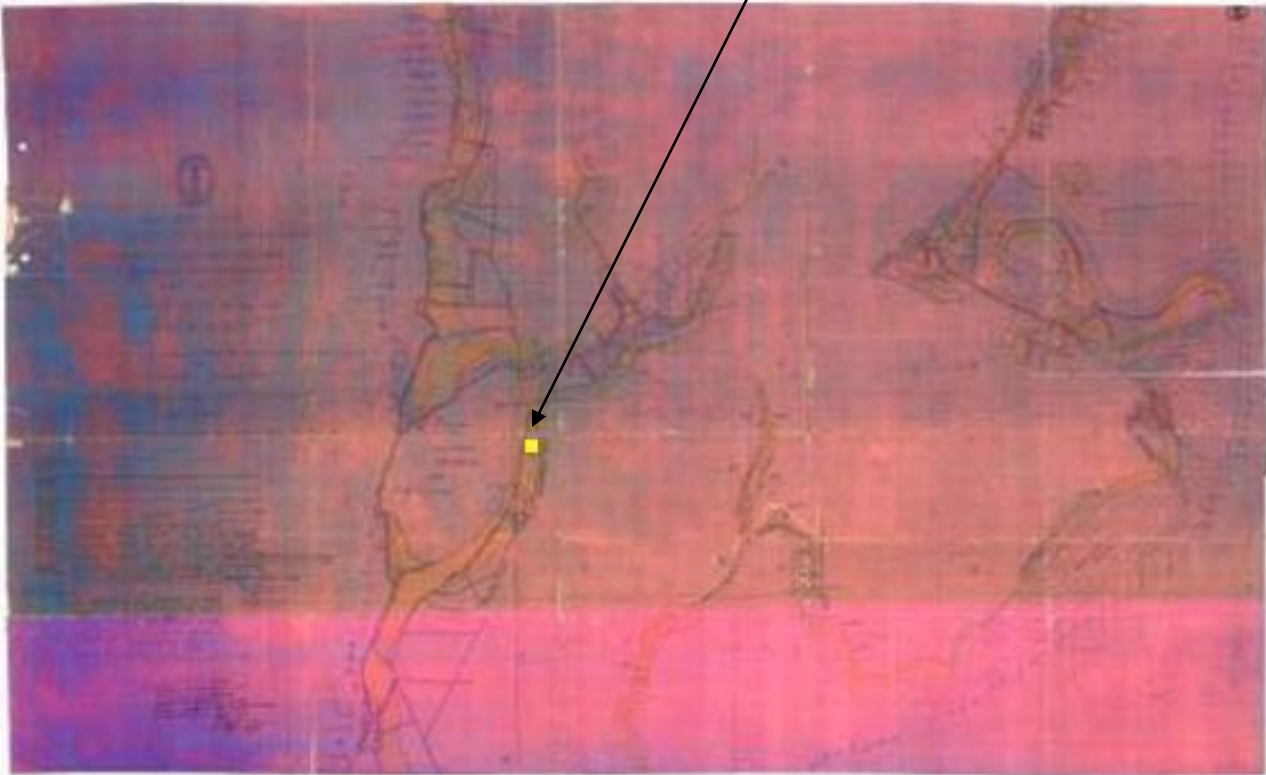


SITE UNDERREFERENCE

Location Map of the reference plot



SITE UNDER REFERENCE



CZMP Plan showing location of reference Plot

3.4 SITE DESCRIPTION

The site under reference is fully affected by CRZ-II zone and the property fall on landward side of the existing Swatantrya Veer Sawarkar, which is reflected in CZMP plan. Thus property attracts the CRZ legislation as per CRZ 2011.

The development site does not fall or contain the environmentally sensitive areas as specified in the coastal Regulation zone notification. Total plot Area is 697.33 sq. mtr. The proposed redevelopment of CEsSED building is having plot area of 656.93 sq.mt consuming BU Area 1171.42 sq mtrs and NON CEsSED building has the plot area of 40.40 sq.mtrs. consuming BU Area 53.73 sq mtrs

Town / Tehsil	:	Mumbai
District	:	Greater Mumbai
State	:	Maharashtra
Latitude	:	19° 2'21.49"N
Longitude	:	72°50'24.96"E

3.5 PROPOSED DEVELOPMENT

3.5.1 AREA

Sr.No.	Description	Details
1.	Area of plot	697.33 sq.mtrs.
2.	Deductions for	
	a) Road set back area	0.00 sq.mtrs.
	b) Proposed Road	0.00 sq.mtrs.
	c) Area of NON CESS structure (as per certified by MHADA)	0.00 sq.mtrs.
	d)Area of Existing Area	0.00 sq.mtrs.
3.	Total Deductions(a+b+c)	0.00 sq.mtrs.
4.	Balance Area of plot	697.33 sq.mtrs.
5.	Deductions for Recreational Ground (if deductible)	0.00 sq.mtrs.
6.	Net area of plot	697.33 sq.mtrs.
7.	Additions for FSI	
	2(a) 100%	0.00 sq.mtrs.
	2(b) 100%	0.00 sq.mtrs.
8.	Total area of plot	697.33 sq.mtrs.
	Land component of NON CESS structure	40.40 sq mtrs
9.	Total area of plot	697.33 sq.mtrs.
10.	FSI Permissible (2.50 or 50% Incentive) 1271.33 + 635.66	1907.00 sq.mtrs.
11.	Permissible Floor Area	
	(I)For CESS 656.93 x 2.50	NIL

	(II) For NON CESS 40.40 x 1.33	53.73 sq.mtrs.
12.	Additions NON CESS Structure	0.00 sq.mtrs.
13.	Permissible Floor Area	1960.73 sq.mtrs.
14.	Existing Floor Area (as per Approved Drawing)	0.00 sq.mtrs.
15.	Proposed Area	1931.47 sq.mtrs.
16.	Excess Balcony Area	1.3 sq.mtrs.
17.	Total Proposed Area	1932.77 sq.mtrs.
18.	Balance built up area	27.96 sq.mtrs.
19.	FSI Consumed	2.77
20.	Total Construction Area	7000 sq.mtrs. (Approx.)
21.	Parking required by MCGM Rule	12
22.	Parking provided	12

PROJECT DEVELOPMENT DETAILS

Proposed development		
1	Structure of Building	Ground Floor + 1-12 upper floors including upper parking floors, refuge areas.
2	Tenements existing	38 including Commercial and Residential plus 2 Non CESS category tenements.
3	Tenements proposed	58 Residential
4	Height of Building from Ground level	44.80 mtrs
5	Emergency Power supply (D.G. Nos. x KVa	1 no. 35 KVa
6	Area required for D.G sets	5 sq. mt
7	Salient features of the project	
	<ul style="list-style-type: none"> • Earthquake Resistance Building structure • Rain water Harvesting System in the complex • Energy Conservation; Provision of Solar water heating system. • Eco-Friendly Measures • Optimum use of Timber 	

3.5.2 UTILITIES

The Utilities required during the construction phase are water, power, fuel and Labour.

i) **WATER:** (Expected Consumption – total 35 cum/day)

For Construction activities: 30 cum/day & For Domestic use: 5 cum/day

Water Balance (Construction Phase)				
Sr. No.	Consumption	Input m³/Day	Loss m³/Day	Effluent m³/Day
1.	Construction Activities	30	30 (Tanker consumption)	Nil
2.	Domestic (50 Site Workers)	5	1	4
Total		35	31	4

Water Balance (Operation Phase)					
Sr. No.	Component/ Head	Occupants	Water Requirement		Remarks
			Domestic	Flushing	
1 .	Total residential population	290	26.1	13.05	@ 90/45 lpcd
2 .	Total non residential population	30	0.6	0.75	@ 20/25 lpcd
3.	Car washing	0.06 CMD			12 cars (@5L per car)
4.	Total Quantity of Water Required	40.56 CMD			For a total population of 320
5.	Sewage generated	31.79 CMD			21.36 CMD to Treatment plant (capacity 51 CMD)
6.	Sludge generated	0.64 CMD			
7.	STP treated recycled water	31.73 CMD			

1] Source: - Water will be available from Mumbai (MCGM) for domestic use and from Tanker for construction purpose.

2] Storage: -Water for construction will be stored in open tank.

Drinking water will be stored in HDPE tank.

ii) POWER**DURING CONSTRUCTION**

(Expected Consumption- about 0.30 MW)

1] An Electricity supply of 0.30 MW will be available from BEST. It is mainly required for some construction equipments, general lighting etc.

2] All Fire & Safety measures will be taken as appropriate and will be supervised by the Authority.

DURING OPERATION

Total Energy consumption: 0.37 MW

The electricity supply will be available from BEST/ TATA Undertaking.

iii) FUEL**DURING CONSTRUCTION PHASE**

Diesel (5 L/day during excavation & 10 L/day post excavation).

All the equipment are electrically driven except JCB, porcelain, and concrete mixers.

DURING OPERATION PHASE

Diesel will be required to run the D. G. Set in case of power failure. Hence the quantity of diesel consumed will vary depending upon the usage of D. G set.

1. Storage: Diesel and oil will be stored in drums / tins with proper identification mark/labels in identified areas only.
2. Fire and safety measures will be taken as per the guidelines from concerned authority.
3. All Safety and fire precautions will be followed.

iv) MANPOWER**DURING CONSTRUCTION PHASE**

(Expected Manpower – about 50)

Approximately 50 persons will be working during the peak time of construction phase. These persons will be on the project site during 0900 hrs. Except Security Personnel, who will be on the field round the clock for twenty – four hours.

DURING OPERATION PHASE**POPULATION**

There will be about 290 persons residing in the building, 30 persons will be non residential staff including drivers, security personals population in the building.

4. CONSTRUCTION PHASE

The type of Construction Materials, Equipments used during the construction phase and persons involved in various activities on the field affect the status of environment to a great extent. The impact of construction activities on various components of environment on the on the project site and surrounding area is predicated in this section.

4.1 LIST OF MATERIALS

The approximate construction material required for the proposed redevelopment is given below.

Sr. No.	Item	Unit	Quantity	Source	Process
1.	Sand	CUM	2062	River bed	Nil
2.	Aggregate	CUM	4586	Quarry	Crushing
3.	Standard Bricks		1660	Red Soil	Heating, Moulding
4.	Timber	M.T	75	Forest	Cutting & Trimming
5.	Construction Waste	Kg/ Day	141	-	-

- The basic engineering materials like aggregate, cement, sand and bricks/blocks will be purchased locally. However, finishing materials will be purchased keeping in mind the energy conservation aspect.

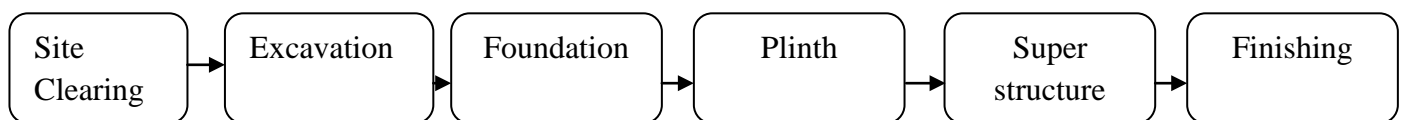
4.2 LIST OF EQUIPMENTS

The construction equipments required for the residential building is given below.

Sr. No.	Equipments	Numbers	Operation	Duration
1.	JSB,Poclain	1	Diesel	Short
2.	Dumpers	2	Diesel	Short
3.	Goods lifts / Personal lifts	1	Electric	Total
4.	Vibrators	4	Electric	Total
5.	Dewatering Pumps	1	Electric	Total
6.	Concrete Mixers	1	Electric	Total
7.	Wood Cutting Machine	1	Electric	Total
8.	Drill Machine	1	Electric	Total

4.3 CONSTRUCTION PROCEDURES

The outline of the construction procedure is described below schematically.



Note:

- 1] The project is expected to be completed within three years (Maximum) period Construction Parameters and Quality will be strictly adhered to as per the approved architectural design data/map. All the regulations of government authorities will be followed.
- 2] All the safely precaution will be observed as per the guidelines during the construction phase. Personal Protective Equipments (PPE) will be provided to all the personnel involved in the construction activities.
- 3] Site barricading by corrugated tin sheets up to height of 5.0 mtrs will be done to protect the surrounding area of the project site from nuisance /dusting.
- 4] All electrical connections & cables will be checked by authorized persons to ensure the safety of workers on field.
- 5] Water sprinkling will be done, wherever required to reduce the dusting in atmosphere. Jute barricading along building / plot boundary shall be provided to minimize noise level from construction activities.
- 6] The safety and security officers shall supervise the site.
- 7] Safety helmets will be mandatory to all the persons present on the site during the construction activities.
- 8] Hand gloves and dust masks will be provided to persons handing construction materials during the operation.
- 9] Safety belts will be provided to the persons working at height during the operation.
- 10] Safety nets will be arranged at a height at about 5.0mtr.when the structures get raised above the required height from the ground.

5. ENVIRONMENTAL CONCERNS

5.1 AIR POLLUTION

1] Source: - The source of Air Emissions is from the use of some equipment like concrete pumps, mixers, etc. These equipments consume Diesel as fuel during their operation. Carbon Monoxide, Hydrocarbons, Oxides of Nitrogen and Particulate Matter etc. will be the major pollutants.

Fugitive Emissions i.e. Emissions from construction activities will mainly consist of dust. Movement of Heavy & light vehicles, for loading and unloading of Construction Materials, transporting people, will also add on to source of emissions.

Parameter	Permissible Range	CPCB Limits	AVG Range Before Activity	During Activity
SPM ($\mu\text{g}/\text{m}^3$)	100 ~ 200	200	80-100	150-200
RSPM ($\mu\text{g}/\text{m}^3$)	50 ~ 100	100	20-30	50-100
SO ₂ ($\mu\text{g}/\text{m}^3$)	50 ~ 80	80	10-15	10-15
NO _x ($\mu\text{g}/\text{m}^3$)	40 ~ 80	80	5-10	5-10

Ref: 24 Hourly values as per Central Pollution Control Board, National Ambient Air Quality Monitoring, Notification 11th April, 1994, Schedule 1.

5.2 AIR POLLUTION MITIGATION

Sr. No.	Source	Mitigation	
1.	Vehicle	i]	All the vehicles coming to the site will be ensured to be in good condition having PUC.
		ii]	Public awareness to use Green Fuel will be done.
2.	Solid Waste	i]	Proper segregation and collection of waste will be ensured.
		ii]	Location of loading and unloading will be fixed.
		iii]	Good Housekeeping practices will be ensured at the premises.
3.	Construction Activities	i]	Noise / Dust nuisance preventions by barricading site up to 5.0 meter height by GI Sheets
		ii]	Water sprinkling on dry site, sand.
		iii]	Maximum use of electrical driven construction equipments with regular maintenance.

5.3 WATER POLLUTION

1] **Use:** - The MCGM water will be used for domestic purpose i.e. drinking water for staff and laborers working on the field whereas bore well water/tanker water will be used for various constructions activities like, Concreting, Plastering , Flooring & Finishing etc.

2] **Effluent:** - There will be no generation of effluent from construction activities as the water used for concreting; Plastering, Flooring and Finishing etc. will get evaporated during drying or curing

time. All the construction activities are physical in nature. The domestic effluent will be generated due to the persons working on the site who will require water for drinking, cleaning, bathing etc.

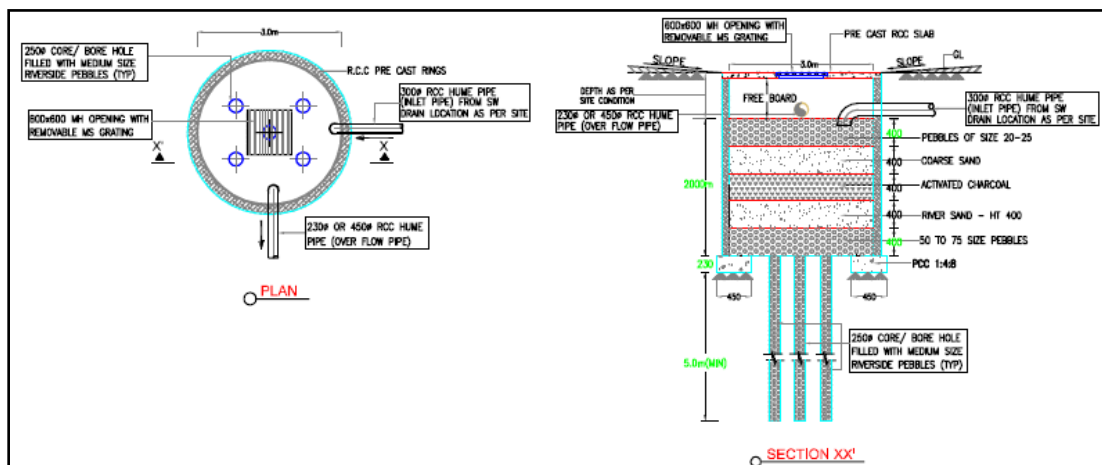
Sewage generated during operation phase will amount to 31.73 CMD which will be treated in the Sewage Treatment Plant. The treated water will be used for non domestic purposes such as gardening, flushing etc.

3] **Treatment & Disposal:-** The Domestic Effluent generated in construction phase will be disposed off in existing MCGM Sewer.

4] **Rain Water Harvesting:-** The Plot is occupied by a CESSÉD A category building along with one Non CESSÉD building. The said CESSÉD category building is now proposed to be redeveloped. The said CESSÉD category building is now proposed to be redeveloped in ground + 12 Upper Floor building. The plot area considered for redevelopment of CESSÉD category building is 697.33 sq mtrs, which is very small. Hence roof rain water harvesting is proposed in the project. The permeable paver blocks are proposed along with 1 Recharge pits to increase the percolation of rain water into the soil rather than flowing to the drain.

*** (AS PER MOEF GUIDELINES)**

- **Percolation Pits: 1 nos. (0.5 * 0.5 * 2m)**



5] Storm Water Discharge:

Storm water drains will be constructed for proposed facility as per the norms. The recharge pits and Rain water recharge pits will help to reduce the run off and reduce the load on external storm water drain.

5.4 NOISE POLLUTION

Location	Range dB (A)
	Day Time
National Ambient Air Quality Standards (For Residential Zone)	55

5.5 NOISE LEVEL MITIGATION

Sr. No.	Source	Mitigation
1.	Near Residential Areas	<p>i] Site Barricading by corrugated tin sheets will be done to protect the surrounding area.</p> <p>ii) Construction Activity will be carried out during daytime only.</p>
2.	Nearby Traffic	<p>i] All the vehicles coming to the site will be ensured in good condition, having Pollution Under Check (PUC).</p> <p>ii] Smooth Roads will be maintained in a project site.</p>
3.	Construction Equipments	<p>i] All the equipments will be run during daytime only.</p> <p>ii] Lubricants will be applied to all the equipments at proper interval.</p> <p>Iii] Acoustic Enclosure will be provided for all the Equipments</p>

2] It is evident from the nature of operation (i.e. Construction) that the Concentration of suspended particulate matter would be higher than the other two parameters.

3] Control of Emission: - Proper precaution will be taken to reduce the particulate matter by water sprinkling on the dry site area, barricading the periphery by corrugated tin Sheets of 5.0 mtrs height to protect the surrounding area from dusting. The pollution generated will be controlled by, allowing vehicles that will comply to mass Emission Standard (Bharat Stage –II) stipulated by

Central Pollution Control Board (CPCB)–Ministry of Environment & forest (MoEF), New Delhi. Also it will be ensured that the vehicles will carry PUC certificate. To minimize air pollution efforts shall be made by use of equipments, which area electric power driven.

5.6 SOLID WASTE

1] Normal debris, waste concrete, soil, broken bricks, waste plasters etc. will be collected properly and will be reused for land filling in the premises.

2] Total solid waste (Quantity about 160 kg per day) and organic waste (49 Kg/ day) will be segregated properly and stored in a separate bins and will be disposed off as per MCGM rules.

3] Metallic Waste and paper waste will be collected separately and will be salvaged or recycled or sold to authorized recyclers.

6. PROJECT SCHEDULE AND COST ESTIMATES

The Proposed Project is Redevelopment project and will be started as soon as all government NOC's and CRZ Clearance is received to start the work. The projected Date of Start is December 2014 while the date of completion will be December 2016 if everything went as per planning.

7. TRAFFIC MANAGEMENT

7.1 CONSTRUCTION PHASE

- Storage and Godown area will be properly identified.
- There will be about adequate wider space for movements of vehicles and parking.
- The area for loading and unloading will be located at proper demarcated location in the premises.
- Thus the traffic management on the project site will be easily and smoothly monitored without any hindrance to the regular flow of traffic on the main road.

7.2 OPERATIONAL PHASE

- About 12 cars per day are expected to be accommodated in the premises. The parking space will be provided in basement and under stilt / parking floors. There is ample car parking space in the building on all sides; there will be smooth movements of cars.
- There will be 6.0 mtrs wide approach road to the building from municipal road for movements of vehicles and parking.
- Traffic Management Plan system will be approved from concern MCGM Authority.
- Thus the traffic management will be easily and smoothly monitored without any hindrance to the regular flow of traffic on the main road.

8. ENVIRONMENTAL, HEALTH AND SAFETY

All the safety and security measures shall be observed at constructions site. Safety precautions will be observed as per the guidelines during the construction phase. Personal Protective Equipments (PPE) will be provided to all the personnel involved in the construction activities. The project authorities will ensure use of safety equipments for workers during execution process. The safety and security officers shall supervise the site. Proper training will be given to workers and authorities to handle the hazard situation.

8.1 SAFETY MEASURES ON SITE

- 1] Parameters and Quality will be strictly adhered to as per the approved architectural design data/map. All the regulations of government authorities will be followed.
- 2] All the safely precaution will be observed as per the guidelines during the construction phase. Personal Protective Equipments (PPE) will be provided to all the personnel involved in the construction activities.
- 3] Site barricading by corrugated tin sheets up to height of 5.0mtr will be done to protect the surrounding area of the project site from nuisance /dusting.
- 4] All electrical connections & cables will be checked by authorized persons to ensure the safety of workers on field.
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- 6] The safety and security officers shall supervise the site.
- 7] Safety helmets will be mandatory to all the persons present on the site during the construction activities

8] Hand gloves and dust masks will be provided to persons handling construction materials during the operation.

9] Safety belts will be provided to the persons working at height during the operation.

10] Safety nets will be arranged at a height at about 5.0 mtrs when the structures get raised above the required height from the ground.

9. BENEFITS OF THE PROJECT

- The proposed redevelopment will initiate redevelopment of surrounding old building.
- The surrounding area will also be developed from residential point of view.
- It will provide employment opportunities to the local people in terms of labour during construction and services personnel during operational phase.
- Modern sanitation and infrastructure facilities will have minimal impact on living condition of local people.
- The project will improve living standard and welfare of the area and local people.

SEISMIC ZONE MAP OF INDIA

