HARBOUR FRONT PROPERTIES PRIVATE LIMITED

CIN: U41001MH2023PTC413392

28th Oct 2024

To,
The Regional Director,
Central Pollution Control Board (CPCB),
Survey No. 110,
Dhankude Multi Purpose Hall,
Baner Road, Baner, Pune - 411045

Sub: Submission of Half yearly compliance report for period of April 2024 – September 2024

Ref: EC vide no EC23B038MH148459 dated 26.05.2023; file no SIA/MH/INFRA2/416970/2023

Respected Sir,

M/s Harbour Front Properties Private Limited has obtained Environmental Clearance vide no EC23B038MH148459 dated 26.05.2023 having file no SIA/MH/INFRA2/416970/2023 for Proposed redevelopment project located at CS no 932 of worli division, plot no 73(pt)-74, B G Kher road, Worli, G/south, Mumbai.

We are submitting our half yearly compliance report for the period of April 2024 – September 2024 herewith for your records and reference.

Thanking You,

Sincerely,
For Harbour Front Properties Pvt Ltd.

Authorized Signatory

Encl:

1. Half yearly compliance report April 2024 – September 2024

17th Floor, Avighna House, 82, Dr. Annie Besant Road, Nr. Worli Naka, Worli, Mumbai–18
Email: Compliance@avighna.in

HARBOUR FRONT PROPERTIES PRIVATE LIMITED

CIN: U41001MH2023PTC413392

28th Oct 2024

To,
The Member Secretary,
SEIAA - MAHARASHTRA
Environment and Climate Change Department,
Room no. 217, 2nd Floor,
Mantralaya, Mumbai – 400032.

Sub: Submission of Half yearly compliance report for period of April 2024 – September 2024

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HARBOUR FRONT PROPERTIES PRIVATE LIMITED MUMBAI

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Email: Compliance@avighna.in

HARBOUR FRONT PROPERTIES PRIVATE LIMITED

CIN: U41001MH2023PTC413392

28th Oct 2024

To,
Ministry of Environment & Climate Control,
Integrated Regional Office,
Ground Floor, East Wing,
New Secretariat Building, Civil Lines,
Nagpur- 440001.

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Email: Compliance@avighna.in

HARBOUR FRONT PROPERTIES PRIVATE LIMITED

CIN: U41001MH2023PTC413392

28th Oct 2024

To,
The Regional Officer – Mumbai,
Maharashtra Pollution Control Board,
Kalpataru Point, 3rd and 4th floor,
Sion (E), Mumbai – 400022

Sub: Submission of Half yearly compliance report for period of April 2024 – September 2024

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1. Half yearly compliance report April 2024 – September 2024

17th Floor, Avighna House, 82, Dr. Annie Besant Road, Nr. Worli Naka, Worli, Mumbai–18
Email: Compliance@avighna.in

HARBOUR FRONT PROPERTIES PRIVATE LIMITED

CIN: U41001MH2023PTC413392

28th Oct 2024

To,
The Director,
Maharashtra Coastal Zone Management Authority (MCZMA)
Environment Department,
15th Floor, New administrative building,
Opp Mantralaya, Mumbai – 400032

Sub: Submission of Half yearly compliance report for period of April 2024 – September 2024

Ref: EC vide no EC23B038MH148459 dated 26.05.2023; file no SIA/MH/INFRA2/416970/2023

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1. Half yearly compliance report April 2024 – September 2024.

17th Floor, Avighna House, 82, Dr. Annie Besant Road, Nr. Worli Naka, Worli, Mumbai–18
Email: Compliance@avighna.in

HALF YEARLY COMPLIANCE REPORT

April 2024 - September 2024

of

PROPOSED REDEVELOPMENT PROJECT

at

Plot bearing CS no 932, plot no 73(pt.)-74 of worli division, B G Kher Road, G/South ward, Worli, Mumbai

by

M/s Harbour Front Properties Pvt. Ltd.

(EARLIER M/s Harbour Front Properties LLP)

INDEX

PART A

Project Details:

SN	DESCRIPTION	DETAILS
1	EC Identification Number	EC23B038MH148459
2	Proposal Number	SIA/MH/INFRA2/416970/2023
3	Name of Project	Proposed Redevelopment of Residential & commercial building.
4	Address	Plot bearing C.S. no 932 of Worli Division, Plot no 73(pt)-74, B.G Kher Road worli G/South ward Mumbai 400018.
5	Plot Area	1,833.63 m^2
6	Net Plot Area	1,578.73 m^2
7	FSI Area	8,525.14 m^2
8	NON –FSI Area	16,060.64 m^2
9	Proposed Built-up Area (FSI+ NON FSI)	24,585.78 m^2

Construction Status

Proposed Configuration	3 Basements + Ground floor + 1st to 8th podium floors + service floor (above 8 Podium floor) + 9th to 19th Commercial floors +19th (pt) to 28th (pt) Residential floors
Date of Commencement (Actual)	29th May, 2023
Date of Completion (proposed)	1st December, 2026
Status of work (till September 2024)	Podium 8 Level

PART B

Point wise conditions and its compliance, laid down by the SEIAA - MAHARASHTRA in its Environmental Clearance letter No. EC23B038MH148459 dated 26th May 2023, attached herewith as **Annexure 01 - EC** is as submitted below:

SN	Specific Condition: A) SEAC	Compliance Status
1.	PP to Submit IOD / IOA /Concession Document / Plan Approval or any other form of documents as applicable clarifying its conformity with local planning rules and provision there under as per circular dated as per the circular dated 30.01.2014 issued by Environment Department, Govt. of Maharashtra	Submitted during the SEIAA meeting. Please refer **Annexure 02 – CS 932 MC concession Document Note sheet 4C**
2.	Submit following NOCs & remarks: a) Water supply b) Sewer Connection c) SWD remarks d) CFO NOC e) Tree NOC	Compiled and submitted during the SEIAA meeting. Please refer **Annexure 03 - NOCs**
3.	Submit approval of concessions received from Urban development Department.	Complied and submitted during the SEIAA meeting. Please refer **Annexure 04 - UD concession** with latest sanctions.
4.	Submit revised water balance chart by changing /removing the use of excess treated water for car washing; PP to submit NOC /undertaking from MCGM regarding use of excess treated water for gardening	Complied and submitted during the SEIAA meeting. Please refer Annexure **05 - Water Management**
5.	Submit revise wind analysis for proposed Height & accordingly submit revise mitigation measure	Complied and submitted during the SEIAA meeting. Please refer **Annexure 06 - Air Management**
6.	Use advanced technologies for dust suppression in addition to sprinkling of water in the construction phase & include the cost of the same in EMP of the construction phase and submit revised EMP.	Complied and submitted during the SEIAA meeting. Please refer **Annexure 06 - Air Management**
7.	Relocate UGT to 1st basement such that top of the UGT is flush to the ground level as mentioned in CFO NOC & submit revise layout of UGTs with cross section.	Complied and submitted during SEIAA meeting. Please refer **Annexure 05 - Water Management**
8.	Submit architect certificate mentioning% of paved, non-paved & podium RG provided is as per provisions ofDCPR-2034 provisions; PP to convert 5% of proposed RG area in to Miyawaki plantation & include the cost of same in EMP; PP to submit revised tree list with nos. of trees	Complied and submitted during SEIAA meeting. Please refer **Annexure 07 - Green Belt.**

	proposed with species to be planted in Miyawaki planation.	
9.	PP to submit details of proposed basement ventilation system along with air purification system & include the cost of same EMP.	Complied and submitted during SEIAA meeting. Please refer **Annexure 06 - Air Management**
10.	Submit revised energy calculation with terrace floor plan in accordance with shadow analysis & adequate area for maintenance of Solar PV panels & ensure that the energy savings from renewable sources shall be minimum 5 %.	Complied and submitted during SEIAA meeting. Please refer **Annexure 08 -RE Measures**
SN	**Specific Condition: B) SEIAA**	**Compliance Status**
1	Keep open space unpaved so as to ensure permeability of water. However, whenever paving is deemed necessary, PP provides grass pavers of suitable types of strength to increase the water permeable areas as well as to allow effective fire tender movement.	Complied. Paving not proposed in open space areas.
2	Achieve at least 5% of total energy requirement from solar/other renewable sources.	Complied. **Please Refer Annexure 08 - RE Measures.**

SN	General Conditions: A) Construction Phase	Compliance Status
1	The solid waste generated should be properly collected and segregated. Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.	Complied Separate bins for Dry and Wet waste are provided on site.
2	Disposal of muck, Construction spoils, including bituminous material during construction phase should not create any adverse effect on the neighbouring communities and be disposed of taking the necessary precautions for general safety and health aspects of people, only in the approved sites with the approval of competent authority.	Compiled. ● The construction debris that are to be sent to landfill are stored in bags in a covered area. ● Vehicles having valid PUCs and tracking systems are used to dispose of debris in authorized sites approved by BMC. Please refer **Annexure 09 - Construction phase measures.** ● Water sprinkling is done during loading of debris to avoid dust dispersion, debris are well covered and vehicle tyres are washed before leaving the site to avoid any spilling on the way. Please refer **Annexure 10 – SWM NOC**
3	Any hazardous waste generated during construction phase should be disposed of as per applicable rules and norms with	Noted and complied. No hazardous waste expected on the construction site.

	necessary approvals of the Maharashtra Pollution Control Board.	
4	Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.	Noted and compiled. ● Approximate 80 residential workers and 40 non-residential workers are deployed on site. ● Proper housekeeping & regular pest control has been carried out throughout construction. ● First Aid and medical facilities have been provided during construction. ● Site sanitation like safe & adequate Tanker water for drinking and domestic purpose, toilets, bathrooms and periodical medical checkup facilities have been provided. Please refer **Annexure 09 - Construction phase measures.** ● Waste generated from toilets and bathrooms is being disposed off to the existing Sewer line. Please refer **Annexure 03 NOC 2– Sewerage NOC**
5	Arrangement shall be made that wastewater and storm water do not get mixed.	Noted and complied. Provisions are made for storm water collection through the storm water drains of adequate capacity and will be discharged into the municipal SWD away from the sewer line.
6	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices	Noted and complied. GGBS is used to reduce the water demand. 20% of total required concrete is replaced by GGBS, thus significantly reducing the water demand.
7	The ground water level and its quality should be monitored regularly in consultation with the Ground Water Authority.	Noted and complied. Geotechnical investigations reported no ground water up to 30 meters below ground. Therefore, no testing is conducted. Please refer **Annexure 11 - Geotech report**
8	Permission to draw ground water for construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.	Not Applicable as ground water was not observed up to 30 meters below ground. Please refer **Annexure 11 - Geotech report**
9	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing device or sensor-based control.	Noted and complied. Building is a proposed green building with 20% reduction in water fixture flows from NBC 2016 flow rates.
10	The Energy Conservation Building code shall be strictly adhered to.	Noted and complied.

11	All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.	Not Applicable as it is a brown site redevelopment project.
12	Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that the natural drainage system of the area is protected and improved.	Noted and complied.
13	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Noted and complied. ● Soil testing is carried out during the pre-construction phase. Please refer **Annexure 12 - Soil test report** ● Ground water was not observed up to 30 metres as per the Geo tech report and therefore groundwater testing is not applicable.
14	Strictly adhere to all the conditions mentioned in Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 as amended during the validity of Environment Clearance.	Noted and complied. Please refer **Annexure 03 NOC 5 - for Tree NOC**
15	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.	Not Applicable. No DG sets are used for construction purposes. Project uses direct Supply from BEST. Please refer **Annexure 13 - BEST Permission Letter.**
16	Vehicles hired for transportation of Raw material shall strictly comply with the emission norms prescribed by Ministry of Road Transport & Highways Department. The vehicle shall be adequately covered to avoid spillage/leakages.	Noted and complied. Vehicles used for RMC's, debris etc have valid PUCs. The debris vehicles are properly covered prior to leaving the site. Please refer to photographs attached in **Annexure 09 - Construction phase measures.**
17	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during the construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.	Noted and complied. Ambient air, water and noise levels monitoring is being carried out Please refer **Annexure 14 – Environmental Monitoring Reports**
18	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during construction phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The	Not Applicable. No DG sets are used for construction purpose. Please refer above point no 27.

	height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel is preferred. The location of the DG sets may be decided within consultation with Maharashtra Pollution Control Board.	
19	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings by a separate environment cell /designated person.	Noted and complied.
SN	**General Conditions: B) Operation Phase**	**Compliance Status**
1	a) The solid waste generated should be properly collected & segregated. b) Wet waste should be treated by Organic Waste Converter & treated waste(manure) should be utilized in the existing premises for gardening & no wet garbage will be disposed outside the premises. c) Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.	Noted and complied. ● Segregation will be done at two levels. ● Primary segregation at unit level and secondary segregation at building common collection points. ● Wet waste will be treated in the onsite OWC of capacity 110 kg/day. ● Dry waste will be recycled through authorized third-party recyclers.
2	E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016.	Noted and complied.
3	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from SIP. b) PP to give lOO% treatment to sewage /Liquid waste and explore the possibility to recycle at least 50% of water. Local authorities should ensure this.	Noted and complied. ● Sewage treatment plant of 75 KLD based on MBBR technology is proposed to treat complete wastewater generated in the building. ● As shown in the water balance chart, treated wastewater will be used for meeting the entire flushing water, landscape water and artificial water bodies demand. Please refer **Annexure 05 - Water Management.**
4	Project proponents shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore the possibility of	Note and agree to comply with.

	utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement.	
5	The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms;	Note and agree to comply with.
6	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized, and no public space should be utilized.	Noted and compiled. Entire parking is proposed in the basements and podium floors of the building and no public space will be utilized.
7	PP to provide adequate electric charging points for electric vehicles (EVs).	Noted and compiled. 30% of parking spaces will be provided with a charging facility.
8	Green Belt Development shall be carried out considering CPCB guidelines including election of plant species and in consultation with the local DFO/ Agriculture Dept.	Note and agree to comply with.
9	A separate environment management cell with qualified staff shall be set up for implementation of stipulated environmental safeguard.	Noted and compiled.
10	Separate funds shall be allocated for implementation of environmental protection measures / EMP along with item-wise breaks-up. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes.	Noted and compiled. Separate funds have been allocated for implementation of environmental protection measures.
11	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that he project has been accorded environmental clearance and copies of clearance letter re available with the Maharashtra Pollution Control Board and may also be seen at website at parivesh .nic .in	Noted and compiled. **Please refer to Annexure 15 – EC ads**

12	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, ere received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Noted and compiled. Copy of clearance is sent to MPCB and MCGM.
13	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM, RSPM. S02, NOx (ambient levels as well as stack emissions) or critical sector parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Note and agree to comply.
SN	**General Conditions: C) General EC conditions**	**Compliance Status**
1	PP has to strictly abide by the conditions stipulated by SEAC & SEIAA	Noted and agree to comply.
2	If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.	Noted and complied. MPCB CTE was obtained in March 2023. **Please refer Annexure 16 – MPCB CTE**
3	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	Noted.
4	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Noted and agree to comply.
5	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution	Noted and agree to comply.

	Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	
6	No further Expansion or modifications, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the SEIAA. In case of deviations or alterations in the project proposal from those submitted to SEIAA for clearance, a fresh reference shall be made to the SEIAA as applicable to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted and agree to comply.
7	This environmental clearance is issued subject to obtaining NOC from Forestry & Wildlife angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.	Noted but not applicable.

Monitoring the Implementation of Environmental Safeguards

Ministry of Environment & Forests

Regional Office (W), Nagpur.

Monitoring Report

DATA SHEET

1.	Project type: River - valley/ Mining / Industry / Thermal / Nuclear / Other (specify)		Infrastructure 2 Category 8 (a) B 2
2.	Name of the project		"Proposed Redevelopment Project"
3.	Clearance letter (s) / OM No. and Date		EC23B038MH148459 Dated: 26th May 2023
4.	Location		
	a.	District (s)	Mumbai
	b.	State (s)	Maharashtra
	c.	Latitude / Longitude	Latitude: 18°59'46.38"N Longitude: 72°48'54.06"E
5.	Address for correspondence		
	a.	Address of Concerned Project Chief Engineer (with pin code & Telephone / telex / fax numbers)	**Mr. Amitava Chaudhary** **M/s. Harbour Front Properties Pvt.Ltd.** 17th Floor, Avighna House, 83, Dr Annie Besant Road, Worli, Mumbai 400018 Contact No: 022 6900 7900
	b.	Address of Executive Project: Engineer/Manager (with pin code/ Fax numbers)	**Mr. Dinesh Maheshwari** **M/s. Harbour Front Properties Pvt.Ltd.** 17th Floor, Avighna House, 83, Dr Annie Besant Road, Worli, Mumbai 400018 Contact No: 022 6900 7900
6.	Salient features		
	a.	of the project	**"Proposed Redevelopment Project"** C.S. no. 932 of Worli Division, Plot no. 73 (pt)-74, B.G. Kher road, Worli G/South ward, Mumbai.
	b.	of the environmental management plans	**Environmental Management Plans** **During construction** : Capital cost: Rs. 14.86 Lakhs have been allocated for the entire construction period. **During operation** : Capital cost: 380.83 lakhs Recurring cost:19.82 Lakhs per annum
7.	Break up of the project area		
	a.	submergence area forest & non-forest	Not applicable
	b.	Others	Total Plot area: 1,833.63 m^2 Total Construction Built-up Area: 24,585.78 m^2 Proposed FSI: 8,525.14 m^2
8.	Break up of the project affected Population with enumeration of Those losing houses/dwelling units Only agricultural land		Not Applicable.

	only, both Dwelling units & agricultural Land & landless labourers/artisan		
	a.	SC, ST/Adivasis	Not Applicable
	b.	Others (Please indicate whether these Figures are based on any scientific And systematic survey carried out Or only provisional figures, it a Survey is carried out give details And years of survey)	Not Applicable
9.	Financial details		
	a.	Project cost as originally planned and subsequent revised estimates and the year of price reference:	
	1.	Total Cost of the Project	**Rs. 99.24 Cr**
	b.	Allocation made for environ-mental management plans with item wise and year wise Break-up.	**Environmental Management Plans:** **During construction**: Capital cost: Rs. 14.86 Lakhs have been allocated for the entire construction period. **During operation**: Capital cost: 380.83 lakhs Recurring cost:19.82 Lakhs per annum
	c.	Benefit cost ratio/Internal rate of Return and the year of assessment	--
	e.	Actual expenditure incurred on the project so far	**Rs. 47.5 Crs.**
	f.	Actual expenditure incurred on the environmental management plans so far	**Rs. 16 Lakhs**
10.	Forest land requirement		
	a.	The status of approval for diversion of forest land for non-forestry use	Not Applicable
	b.	The status of clearing felling	Not Applicable
	c.	The status of compensatory afforestation, it any	Not Applicable
	d.	Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far	Not Applicable
11.	The status of clear felling in Non-forest areas (such as submergence area of reservoir, approach roads), with quantitative information.		Not Applicable
12.	Status of construction		Excavation and Raft construction
	a.	Date of commencement (Actual and/or planned)	29th May, 2023 (Actual)
	b.	Date of completion (Actual and/or planned)	1st December, 2026 (Planned)
13.	Reasons for the delay if the Project is yet to start		Not Applicable

14	Dates of site visits		
	a.	The dates on which the project was monitored by the Regional Office on previous Occasions, if any	Prior to obtaining Consent to Establish
	b.	Date of site visit for this monitoring report	Not yet visited
15.	Details of correspondence with Project authorities for obtaining Action plans/information on Status of compliance to safeguards Other than the routine letters for Logistic support for site visits) (The first monitoring report may contain the details of all the Letters issued so far, but the Later reports may cover only the Letters issued subsequently.)		--

THANK YOU

ENVIRONMENTAL CLEARANCE

PARIVESH (Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environmental Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), MAHARASHTRA)

To,

The -1

HARBOUR FRONT PROPERTIES LLP

17th Floor, Avighna House, 82, Dr. Annie Besant Road, Near Worli Naka, Worli, Mumbai 400018 -400018

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/MH/INFRA2/416970/2023 dated 04 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC23B038MH148459**
2.	**File No.**	SIA/MH/INFRA2/416970/2023
3.	**Project Type**	New
4.	**Category**	B
5.	**Project/Activity including Schedule No.**	8(a) Building and Construction projects
6.	**Name of Project**	Proposed Redevelopment project
7.	**Name of Company/Organization**	HARBOUR FRONT PROPERTIES LLP
8.	**Location of Project**	MAHARASHTRA
9.	**TOR Date**	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 26/05/2023

(e-signed)
Pravin C. Darade , I.A.S.
Member Secretary
SEIAA - (MAHARASHTRA)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

No. SIA/MH/INFRA2/416970/2023
Environment & Climate
Change Department
Room No. 217, 2nd Floor,
Mantralaya, Mumbai- 400032.

To
M/s.Harbour Front Properties Ltd.,
C.S. no. 932 of Worli Division,
Plot no. 73 (pt)-74, B.G. Kher road,
Worli G/South ward, Mumbai.

Subject : Environment Clearance for Proposed redevelopment project located at Plot bearing C.S. no. 932 of Worli Division, Plot no. 73 (pt)-74, B.G. Kher road, Worli G/South ward, Mumbai by M/s.Harbour Front Properties Ltd.

Reference : Application no. SIA/MH/INFRA2/416970/2023

This has reference to your communication on the above-mentioned subject. The proposal was considered by the SEAC-2 in its 199th meeting under screening category 8 (a) B2 as per EIA Notification, 2006 and recommend to SEIAA. Proposal then considered in 259th (Day-1) meeting of State Level Environment Impact Assessment Authority (SEIAA).

2. Brief Information of the project submitted by you is as below:-

SN	Description	Details	
1	Proposal Number	**SIA/MH/INFRA2/416970/2023**	
2	Name of Project	Proposed Redevelopment of Residential & Commercial building at plot bearing C.S. no 932 of Worli Division, Plot no 73(pt)-74, B.G Kher Road worli G/South ward Mumbai 400018.	
3	Project category	Category 8 (a) 'B'	
4	Type of Institution	Private	
5	Project Proponent	Name	Harbour Front Properties LLP
		Regd. Office address	17th Floor, Avighna House, 83, Dr Annie Besant Road, Worli, Mumbai 400018
		Contact number	9326517301
		e-mail	env@avighna.in
6	Consultant	Aditya Environmental Services Pvt. Ltd. Accreditation no: NABET/EIA/2225/RA 0262 Date of validity: 01.05.2025	
7	Applied for	Brownfield Project	
8	Location of the project	plot bearing C.S. no 932 of Worli Division, Plot no 73(pt),	

			74, B.G Kher Road worli G/South ward Mumbai 400018.				
9	Latitude and Longitude		Latitude: 18°59'45.42" N Longitude: 72°48'54.58" E				
10	Plot Area (sq.m.)		Total Plot area: 1,833.63				
11	Deductions (sq.m.)		254.90				
12	Net Plot area (sq.m.)		1,578.73 m^2				
13	Ground coverage (m^2) & %		56.7% (896.47 sq.m.)				
14	FSI Area (sq.m.)		8,525.14 m^2				
15	Non-FSI (sq.m.)		16,060.64 m^2				
16	Proposed built-up area (FSI + Non FSI) (sq.m.)		24,585.78 m^2				
17	TBUA (m^2) approved by Planning Authority till date		FSI Area: 8,525.14 m^2				
18	Earlier EC details with Total Construction area, if any.		Not Applicable				
19	Construction completed as per earlier EC (FSI + Non FSI) (sq.m.)		Construction not yet started				
20	**Previous EC / Existing Building**			**Proposed Configuration**			**Reason for Modification / Change**
	Building Name	**Configuration**	**Height (m)**	**Building Name**	**Configuration**	**Height (m)**	
	--	--	--	Redevelopment of Residential & Commercial	3 Basement + Ground floor + 1st to 8th Podium floor + service floor (above 8 podium floor) + 9th to 19th (pt) commercial floors + 19th(pt) to 28th(pt) Residential floors.	111.80 m	
21	No. of Tenements & Shops			Flats: 46 nos. Office: 4700.27 Sq.m			
22	Total Population			1449 nos.			
23	Total Water Requirements CMD			102.7 cmd			
24	Under Ground Tank (UGT) location			Basement 1			
25	Source of water			MCGM + STP recycled water on site + water tanker			
26	STP Capacity & Technology			1 stp of 75 cmd of MBBR Technology			
27	STP Location			Basement 3			
28	Sewage Generation CMD & % of			Sewage generation: 75 cmd			

	sewage discharge in sewer line	% of sewage discharge in sewer line: 7%		
29	Solid Waste Management during Construction Phase	**type**	**Quantity (Kg/d)**	**Treatment / disposal**
		Dry waste	12	will be segregated, and recyclable waste will be disposed of to authorized vendors.
		Wet waste	8	
		Construction waste	8000 brass	Surplus material will be disposed off as per C&D Waste Management Rules,2016.
30	Total Solid Waste Quantities with type during Operation Phase & Capacity of OWC to be installed	**Type**	**Quantity (Kg/d)**	**Treatment / disposal**
		Dry waste	154	will be segregated, and recyclable waste will be disposed off to authorized vendors.
		Wet waste	103	Proposed organic waste converters onsite.
		E-Waste	470 tonnes/annum	collected separately & will be disposed to MPCB authorized vendor
		STP Sludge	11	The dried STP sludge, after appropriate drying, will be used as manure for gardening to the extent possible.
		Capacity of OWC to be installed:	1 OWC of 110 Kg	
31	R.G. Area in sq.m.	RG required – 236.81 sqm. (15 % of Plot area) RG provided on Mother earth- 163.28 sqm. (68.9 %) RG provided on podium –85.81 Sq.m Total –249.09 sq.mt.		
		Existing trees on plot: 5 nos.		
		Number of trees to be planted: a) In RG area: 22 nos. b) In Miyawaki Plantation (with area): -50 Sq.m		
		Number of trees to be cut: 0 nos.		
		Number of trees to be transplanted: 0 nos.		
32	Power requirement	During Operation Phase: Source: BEST Connected load: 1750 kW		

<table>
<tr><td></td><td></td><td>Demand load: 707 kW
Transformer: 1X1000 KVA
Emergency power back-up: 1 DG of 600 KVA</td></tr>
<tr><td>33</td><td>Energy Efficiency</td><td>a) Total Energy saving (%): 25.34 %
b) Solar energy (%): 5 %</td></tr>
<tr><td>34</td><td>D.G. set capacity</td><td>
<table>
<tr><th>Capacity (kva)</th><th>DG Sets (Nos)</th><th>Total (kva)</th></tr>
<tr><td>1000 kva</td><td>1</td><td>1000</td></tr>
</table>
</td></tr>
<tr><td>35</td><td>No. of 4-W & 2-W Parking with 25% EV</td><td>2W – 15 Nos.
4W- 122 Nos.
25% of parking on EV</td></tr>
<tr><td>36</td><td>No. & capacity of Rain water harvesting tanks /Pits</td><td>1 no. of rainwater harvesting tank of capacity 35 cum</td></tr>
<tr><td>37</td><td>Project Cost in (Cr.)</td><td>INR 99.24 crore</td></tr>
<tr><td>38</td><td>EMP Cost</td><td>During Construction phase:
<table>
<tr><th>Environment Protection Measure</th><th>Capital Cost (Rs. In Lakh)</th><th>Recurring Cost per annum (Rs. In Lakh)</th></tr>
<tr><td>Sanitation+ Drinking water + first aid arrangement</td><td>5.00</td><td>1.00</td></tr>
<tr><td>Dust Suppression</td><td>0.36</td><td>0.00</td></tr>
<tr><td>Portable STP</td><td>9.50</td><td>1.20</td></tr>
<tr><td>Environmental monitoring</td><td>--</td><td>1.50</td></tr>
<tr><td>TOTAL</td><td>14.86</td><td>3.7</td></tr>
</table>
During Operation Phase:
<table>
<tr><th>Environment Protection Measure</th><th>Capital Cost (Rs. In Lakh)</th><th>Recurring Cost per annum (Rs. In Lakh)</th></tr>
<tr><td>Sewage Treatment Plant</td><td>40.00</td><td>1.2</td></tr>
<tr><td>Basement Ventilation</td><td>35.00</td><td>1.5</td></tr>
<tr><td>Low Flow Devices (ONLY IN COMMON AREAS)</td><td>2.00</td><td>0.02</td></tr>
<tr><td>Solid Waste Management</td><td>09.50</td><td>5</td></tr>
<tr><td>Rainwater Harvesting</td><td>08.00</td><td>0.60</td></tr>
<tr><td>Green Belt & Landscaping</td><td>35.00</td><td>4.5</td></tr>
</table>
</td></tr>
</table>

		(Including Miyawaki)		
		Energy Saving Measures Solar PV	51.33	2.5
		Environmental monitoring	--	1.5
		Disaster Management Plan	200	3
		TOTAL	**380.83**	**19.82**
39	CER Details with justification if any....as per MoEF&CC circular dated 01/05/2018	As per EMP		
40	Details of Court Cases/litigations w.r.t the project and project location, if any.	Nil		

3. Proposal is a new construction project. Proposal has been considered by SEIAA in its 259th (Day-1) meeting and decided to accord Environment Clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implantation of following terms and conditions-

Specific Conditions:

A. SEAC Conditions-

1. PP to submit IOD/IOA/Concession Document/Plan Approval or any other form of documents as applicable clarifying its conformity with local planning rules and provisions thereunder as per the circular dated 30.01.2014 issued by the Environment Department, Govt. of Maharashtra.
2. PP to submit following NOCs & remarks:

a) Water supply; b) Sewer Connection; c) SWD remarks; d) CFO NOC; e) Tree NOC.

3. PP to submit approval of concession received from Urban development Department.
4. PP to submit revised water balance chart by changing/removing the use of excess treated water for car washing; PP to submit NOC/undertaking from MCGM regarding use of excess treated water for gardening.
5. PP to submit revise wind analysis for proposed height & accordingly submit revise mitigation measures.
6. PP to use advanced technologies for dust suppression in addition to sprinkling of water in construction phase & include the cost of same in EMP of construction phase and submit revised EMP.
7. PP to relocate UGT to 1st basement such that top of the UGT is flush to the ground level as mentioned in CFO NOC & submit revise layout of UGTs with cross section.
8. PP to submit architect certificate mentioning % of paved, Non-Paved & podium RG provided is as per provisions of DCPR-2034 provisions; PP to convert 5% of proposed RG area in to Miyawaki plantation & include the cost of same in EMP; PP to submit revised tree list with nos. of trees proposed with species to be planted in Miyawaki planation.

9. PP to submit details of proposed basement ventilation system along with air purification system & include the cost of same EMP.
10. PP to submit revised energy calculation with terrace floor plan in accordance with shadow analysis & adequate area for maintenance of Solar PV panels & ensure that the energy savings from renewable sources shall be minimum 5 %.

B. SEIAA Conditions-

1. PP to keep open space unpaved so as to ensure permeability of water. However, whenever paving is deemed necessary, PP to provide grass pavers of suitable types & strength to increase the water permeable area as well as to allow effective fire tender movement.
2. PP to achieve at least 5% of total energy requirement from solar/other renewable sources.
3. PP Shall comply with Standard EC conditions mentioned in the Office Memorandum issued by MoEF& CC vide F.No.22-34/2018-IA.III dt.04.01.2019.
4. SEIAA after deliberation decided to grant EC for – FSI – 8525.14 m2, m2, Non FSI-16,060.64 m2,Total BUA- 24,585.78 m2.(Plan approval No. P12946/2022/(932)/G/ South/WORLI /337/1/New, dated. 17.01.2023)

General Conditions:

a) Construction Phase :-

I. The solid waste generated should be properly collected and segregated. Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.
II. Disposal of muck, Construction spoils, including bituminous material during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in the approved sites with the approval of competent authority.
III. Any hazardous waste generated during construction phase should be disposed of as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
IV. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
V. Arrangement shall be made that waste water and storm water do not get mixed.
VI. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices.
VII. The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
VIII. Permission to draw ground water for construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.
IX. Fixtures for showers, toilet flushing and drinking should be of low flow either by use

of aerators or pressure reducing devices or sensor based control.

X. The Energy Conservation Building code shall be strictly adhered to.

XI. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

XII. Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.

XIII. Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

XIV. PP to strictly adhere to all the conditions mentioned in Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 as amended during the validity of Environment Clearance.

XV. The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.

XVI. Vehicles hired for transportation of Raw material shall strictly comply the emission norms prescribed by Ministry of Road Transport & Highways Department. The vehicle shall be adequately covered to avoid spillage/leakages.

XVII. Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.

XVIII. Diesel power generating sets proposed as source of backup power for elevators and common area illumination during construction phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel is preferred. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.

XIX. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings by a separate environment cell /designated person.

B) Operation phase:-

I. a) The solid waste generated should be properly collected and segregated. b) Wet waste should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. c) Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.

II. E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016.

III. a) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/ reused to the maximum extent

possible. Treatment of 100% grey water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP. b) PP to give100 % treatment to sewage /Liquid waste and explore the possibility to recycle at least 50 % of water, Local authority should ensure this.

IV. Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement.

V. The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms.

VI. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.

VII. PP to provide adequate electric charging points for electric vehicles (EVs).

VIII. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.

IX. A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.

X. Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes.

XI. The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at parivesh.nic.in

XII. A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

XIII. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM. SO2, NOx (ambient levels as well as stack emissions) or critical sector parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

C) General EC Conditions:-

I. PP has to strictly abide by the conditions stipulated by SEAC& SEIAA.
II. If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
III. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
IV. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
V. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
VI. No further Expansion or modifications, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the SEIAA. In case of deviations or alterations in the project proposal from those submitted to SEIAA for clearance, a fresh reference shall be made to the SEIAA as applicable to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
VII. This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.

4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. This Environment Clearance is issued purely from an environment point of view without prejudice to any court cases and all other applicable permissions/ NOCs shall be obtained before starting proposed work at site.

6. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.

7. Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, amended from time to time.

8. The above stipulations would be enforced among others under the Water (Prevention and

Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

9. Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D-Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Pravin Darade
(Member Secretary, SEIAA)

Copy to:

1. Chairman, SEIAA, Mumbai.
2. Secretary, MoEF & CC, IA- Division MOEF & CC
3. Member Secretary, Maharashtra Pollution Control Board, Mumbai.
4. Regional Office MoEF & CC, Nagpur
5. District Collector, Mumbai City.
6. Commissioner, Municipal Corporation of Greater Mumbai.
7. Regional Officer, Maharashtra Pollution Control Board, Mumbai.

Annexure 2- Amended plan

BRIHANMUMBAI MUNICIPAL CORPORATION

Amended Plan Approval Letter

File No. P-12946/2022/(932)/G/South/WORLI/337/3/Amend dated 07.02.2024

To,
VIVEK JAGANNATH BHOLE
C-101, SAJ TOWER, SODAWALA LANE, BORIVALI(W) na

CC (Owner),
Harbour Front Properties Pvt. Ltd.
17th Floor, Avighna House, Plot No 941, Dr. Annie Besant Road, Near Warli Naka, Mumbai

Subject : Proposed Redevelopment On Plot Bearing C.S. No. 932, Plot No 73(pt)-74, scheme no 58, Worli Estate Scheme, Situated In G/South Ward, Mumbai 400 018..

Reference : Online submission of plans dated 30.01.2024

Dear Applicant/ Owner/ Developer,
There is no objection to your carrying out the work as per amended plans submitted by you online under reference for which competent authority has accorded sanction, subject to the following conditions.

1) That all the conditions of I.O.D. under even No. dated 14/03/2023. and amended plan approved letter dated 31/08/2023 shall be complied with.
2) That the revised structural design / calculations / details / drawings shall be submitted before extending/endorsement C.C.
3) That the C.C. shall be got endorsed as per the amended plan.
4) That the work shall be carried out strictly as per approved plan.
5) That the guidelines regarding Air Pollution Mitigation mentioned in the UD's Notification u/No. CAP-2023/CR-170/TC-2 dated 27/10/2023 and BMC Cicular u/No. MGC/F/1102/ dated 25/10/2023 shall be followed strictly on site.
6) That the revised parking NOC shall be submitted before asking C.C. above plinth
7) That the revised CFO NOC shall be submitted before asking CC above plinth

Digitally signed by GANESH A HARNE
Date: 07 Feb 2024 15:43:32
Organization :Brihanmumbai Municipal Corporation
Designation :Executive Engineer

For and on behalf of Local Authority

Municipal Corporation of Greater Mumbai

Executive Engineer . Building Proposal

City

Copy to :

1) Assistant Commissioner, G/South
2) A.E.W.W., G/South
3) D.O. G/South

- Forwarded for information please.

Annexure 03NOC 01
WATER SUPPLY NOC

BRIHANMUMBAI MUNICIPAL CORPORATION

HYDRAULIC ENGINEER'S DEPARTMENT Remark Issued u/n HE/003678/2023/G/S/CTY Dated : 21 Nov 2023

Office of the :

Office of Ex. Eng.(P & R) 'B' Ward Office,
3rd Floor, Near J J Hospital, Babula Tank
Cross Road, Mumbai-400009.

To,

Shri. VIVEK JAGANNATH BHOLE
C-101, SAJ TOWER, SODAWALA LANE, BORIVALI
(W)na

CC,
Harbour Front Properties LLP
17th Floor, Avighna House, Plot no 941, Dr.
Annie Besant Road, Near Worli Naka, Worli,
Mumbai 400 018

Subject : Hydraulic Engineer's Department Remark for proposed building on Plot bearing CTS / CS Number 932 of Village / Division 2045 at City, G/South, Mumbai.

Reference : 1) Your online application - Application Number P-12946/2022/(932)/G/South/WORLI-HE/1/New dated 21 Nov 2023

2) Scrutiny fee receipt Number 21/11/2023/14340

As per the data furnished by Architect / Consultant / LS / LP the proposed building under reference is a Residential. Total water requirement of the building works out to 3375 lpd for residential purpose, 23400 lpd for commercial purpose and 0 lpd for other purpose.

It is to inform that, Hydraulic Engineer's Remark for the proposed Individual building under reference are as follows :-

1. Water supply for the Resi+Comm building will be made available as per prevailing norms, on submission of occupation certificate.
2. Municipal water supply will not be made available for the Swimming pool / Air conditioning purpose. Water supply brought from other than Municipal source shall not be mixed with Municipal water supply at any stage. Separate water storage tank and separate water mains, painted with red colour, shall be used for the same.
3. As the plot is located at high elevation, water supply will be made available only after making arrangements of Auxiliary Suction tank & pump delivery network. The auxiliary suction tank shall be located at lower level, and near to Municipal water main on self occupied land of the Owner / Developer in consultation with registered licensed Plumbing Consultants with MCGM. The design of the pump delivery main network shall be obtained from registered licensed plumbing consultant with MCGM .
4. The owner / Developer shall on demand, pay the prorata cost of laying adequate size of water main D.P. Road abutting to / passing through the plot under reference.
5. Water supply as per condition number 1, will be made available only after compliance of condition number 3,4,5
6. If borewell is to be dug on site an Register Under Taking from Architect / Consultant / LS / LP to be submitted for proposed location of borewell with latitude and longitude of borewell.
7. Physically separate underground and overhead water storage tanks of adequate capacities for domestic and flushing purpose shall be provided. Capacity of underground water storage tank shall be obtained from consultant. Underground suction tank shall be located as close as possible to the existing water main in Municipal Road and the same shall not be in 1.5 M vicinity of drainage / Sewer line / Manhole / Inspection Chamber and shall be at minimum distance of 6.00 mt from proposed STP. Top of manhole shall be maintained at about 60 cm above adjacent ground / floor level and minimum head clearance of 1.20 M shall be maintained for inspection and cleaning of tanks.

8. The internal water distribution system within building shall be provided by Terrace loop & downtake system. The design for same shall be obtained from consultant and shall be self certified.
9. Adequate precaution shall be taken while designing and execution of the structural members continuously in contact, with chlorinated Municipal water in the suction tank, located in the basement / stilt of the building. As suction tank is located within the building line, adequate care shall be taken to avoid contamination and adequate arrangements shall be made to drain out the overflow water.
10. Automatic level control censors system & Ball Cock arrangement shall be provided in overhead & underground water storage tanks to avoid overflow from tanks.
11. Water conservation devices such as dual flushing cisterns (ISI marked) / dual flush valves for W.C.'s and sensor operated taps for wash basins & urinals, shall be installed in the building.

Above Remark are issued as per data furnished by Architect / Consultant / LS / LP while amendment in building plans, if water demand of the building exceeds above 10% to the above water demand, then this Remark shall be treated as cancelled and fresh Remark shall have to be obtained by providing revised data.

Notes:

1. The above remarks are system generated based on the input data submitted by Architect / Consultant / L.S. / L.P. and if in future it is found that the data is incorrect / fraudulent then the remarks deemed to be treated as cancelled and necessary action will be initiated.
2. The above remarks are system generated and does not require any signatures.

ANNEXURE 03 NOC 2-
SEWERAGE NOC

BRIHANMUMBAI MUNICIPAL CORPORATION

Office of the Dy.Chief Engineer(Sewerage Project), P&D, Engg. Hub, Stores Bldg., 2nd Floor, Dr. E. Moses Road, Worli, Mumbai - 400 018

System generated Sewer remark Number 4536/REM/2018/SP/515 Dated 20 Dec 2023.

To,

Shri. VIVEK JAGANNATH BHOLE (L.P Number 5512)
C-101, SAJ TOWER, SODAWALA LANE, BORIVALI(W)na

CC,
Gurav Vishal Vilas
C/35, Samrat Shopping Centre, Manvelpada Road, Morya Nagar, Virar (East), Thane-401305.

CC,
Harbour Front Properties Pvt. Ltd.
C/35, Samrat Shopping Centre, Manvelpada Road, Morya Nagar, Virar (East), Thane-401305.

Subject:- Sewerage remarks for proposed on plot bearing CTS Number 932 of village Zone 2 at ward G/South
Reference:- Application Number 5512 and date 31 Mar 2023

It is to inform you that , there is no objection to connect proposed Resi+comm to 0 mm dia municipal sewer by laying 150 mm dia pipe sewer street connection from sewer trap chamber of proposed development / building to municipal sewer manhole, subject to the following conditions:

1. That work shall be carried out as per the Municipal Specifications and drainage bye-laws after obtaining necessary permission from concerned ward.
2. Sewer street connection from sewer trap chamber of proposed development / building to municipal sewer manhole line shall be laid as per Municipal Specifications using R.C.C. pipes NP3 class (I.S.I. Mark only) duly encased with 15 cm. thick M-15 cement concrete all around along with provision, in 1:80 slope for 150 mm dia and 1:135 slope for 230 mm dia from connection.
3. That the vent shaft of adequate size (minimum 150 mm dia) shall be provided at sewer trap chamber and at every 150 m. intervals, along the sewer line.
4. That the work shall be carried out through licensed plumber / plumbing consultants only.
5. The work shall be commenced from the downstream of the network.
6. That all necessary permissions from concerned officials / departments like Traffic Police, Ward Office, etc. shall be obtained before starting the work.
7. That house drains for all the buildings at the above mentioned premises should be got approved form the concerned A.E (B.P) / Self Certification.
8. You shall be solely responsible for safety of other underground services pipe lines etc. and safety of third party including injury / death of any person. Any harm done as a consequence of work being carried out by you shall be compensated solely by you.
9. The necessary road reinstatement charges shall be borne by developer.
10. That fresh remarks should be obtained in case of amendment in plans.
11. That after the work is completed the Drainage Completion Certificate along with L-section of completed work must be uploaded for acceptance to concerned E.E(SP)P&D before obtaining part OCC / Full OCC of the building.
12. In the event of proposed development the remarks are generated showing the connection to the existing municipal sewer network and it is not feasible practically to connect then Arch / L.P / plumbing consultants has to make a sump or pump arrangement at his / her own risk and cost.
13. Any additional / separate street connection required to be laid for the proposed building same has to be approved by EE SP (P&D).
14. If the proposed development exceeds built-up area of 20000 sq. m. then the street connection to be treated as overflow connection of only excess treated sewage from STP provided in the building development.
15. If any short recovery in payment of prorata charges, scrutiny fee etc. to be paid to MCGM is observed then the same shall be paid to MCGM as and when demanded.

CONTINUED ON PAGE 2.....

Note:

1. The remarks are generated without prejudice to the ownership of land and status of the land and structures there on.
2. The said remarks are generated as per plan submitted by the Architect / Consultant / L.S / L.P.
3. If there is any amendment / change in Plan / layout revised remark will have to be obtained before completion.
4. The sole responsibility of Auto generated remarks lies with Architect / Consultant / L.S / L.P Only.
5. Without prejudice the remarks are generated on input/ data entered by applicant for calculation of prorata charges and if any discrepancy / shortfalls is observed then the prorata charges as intimated by concerned E.E(SP)P&D shall be paid within stipulated period.
6. The above remarks are system generated based on the input data submitted by the Architect / Consultant / L.S / L.P and if in future it is found that the data is incorrect/ fraudulent, then the remarks deemed to be treated as cancelled and necessary action will be initiated.
7. The above remarks are system generated and does not require any signatures.

Annexure 3 NOC 03
SWD NOC

BRIHANMUMBAI MUNICIPAL CORPORATION

Storm Water Drain Remarks Issued u/n /000881/2023/G/S/CTY Dated : 28 Dec 2023

Office of the :

Dy. Ch. Eng. (Storm Water Drains)
P.C. Eng. Hub Bldg. Dr.E. Moses Road,
Acharya Atre Chowk , Worli Naka,
Worli, Mumbai-400018

To,

Shri. VIVEK JAGANNATH BHOLE
C-101, SAJ TOWER, SODAWALA LANE, BORIVALI (W)na

CC,

Gurav Vishal Vilas , L.P. No. - 5512,
C/35, Samrat Shopping Centre,
Manvelpada Road, Morya Nagar, Virar (East), Thane-401305.

CC,

Harbour Front Properties Pvt. Ltd.
17th Floor, Avighna House, Plot No 941, Dr. Annie Besant Road, Near Warli Naka,
Mumbai

Subject : Storm Water Drains Remark for C.T.S./C.S. No. 932 of Village/Div. 2045 at City,G/South, Mumbai.

Reference: 1) Application No. P-12946/2022/(932)/G/South/WORLI/SWD/1/Amend dated 27 Dec 2023

2) I.O.D No.P-12946/2022/(932)/G/South/WORLI-IOD dated 3/14/2023 1:39:26 PM

Dear Applicant,

With reference to the above referred letter at Sr. No. 1, the Storm Water Drain remarks for the plot under reference is as per, subject to the following conditions :-

1. The minimum formation / ground level of plot under reference shall be at least 28.04 M. (92.00') THD or 15 cm. (6") above the formation level of proposed footpath, if any, raised footpath / existing access, abutting / proposed road, whichever is higher.

2. The Storm Water Drain suggested shall be laid as per Municipal Specifications using R.C.C. pipes NP2 class below 450 mm. dia. and NP3 class pipe for 450 mm. dia. and above pipes, (I.S.I. Mark only) duly encased with 15 cm. thick M-15 cement concrete all around along with provision of water entrances at 10 m c/c / catch pits having minimum size of 450mm. x 450mm. covered with M.S. / C.I. gratings. The built up drain shall be covered with Precast R.C.C. / C.I. grating for entire length. The velocity of flow shall be maintained at 1.2M. / Sec. (4' / sec.) while the drain is running full.

3. The access / internal layout roads / D.P. Roads shall be provided with closed Storm Water Drain with regular water entrances at 15 M.., (50')and manholes at 15 M.., (50') c/c at developer's cost.

4. Required catch pit chambers shall be provided at suitable location/ junctions. which shall be 60 cm (2') below the invert of pipes. The internal S. W. Drain arrangement shall be provided as follows :-

   a) 300 mm. dia. R.C.C. pipes (slope 1:150) shall be provided.

   b) 300 mm. dia built up drain for RG/PG shall be in cement concrete of Grade M-20 having minimum thickness of walls of 20 cm. which shall be covered with gratings where ever required with minimum depth of 300 mm. at starting point @ slope 1:400.

   c) In case of Podium is proposed then the down take pipes of 100 mm. dia. from podium / terrace level up to ground level shall be provided which shall be connected to the water entrance on ground level within property. The slope to the surface of podium /

terrace shall be given in such a way that all the storm water from podium / terrace will flow towards down take pipes without stagnation.

5. The side / marginal open spaces shall be leveled, consolidated and paved with cement concrete with proper slope in such a way to discharge the storm water into proposed storm water entrances.

6. Before starting of the work, invert levels of manhole on Municipal storm water drain to which internal S. W. Drain is to be connected shall be confirmed on site with respect to invert level of last catch pit chamber.

7. You shall carry out the entire S.W.D. work through the Licensed Plumber and under supervision of Licensed Supervisor.

8. These remarks are given from the point of view of disposal of storm water only, without prejudice to the boundaries of the plot shown, ownership of plot, status of existing structures on it, if any, and use of the land under reference.

9. That during the execution work of the proposed building, if any Storm Water Drain, is found existing within the plot shall be brought to the notice of this office immediately & the drain shall be diverted in coordination with SWD dept..

10. These remarks are offered without taking into consideration the system of rain water harvesting. If rain water harvesting system is proposed in future, then overflow connection of 300mm dia RCC pipe from the Rain Water Harvesting well/ tank shall be provided and the same shall be connected to the nearest water entrance within the plot.

11. Architect shall upload the plan showing proposed storm water drain arrangement.

12. REGARDING STREET CONNECTION :

a) You shall make min 1 or 2 connections as per site conditions minimum 300 mm duly encased with 15 cm. Thick Min of M-15 grade cement concrete all around from last catch pit chamber to Municipal S.W. Manhole, along with shifting of any utilities if necessary, at Developer's risk and cost and certificate for shifting of water entrance from A.E.(SWM) of concerned Ward shall be submitted to this office. The connection shall be made only after the necessary permission for road opening is obtained from A.E. (Maint) of concerned Ward.

b) The work of providing S.W. Drain from last catch pit chamber to Municipal S.W. Drain shall be carried out under the supervision and as per suggestions of A.E. (SWM.) of concerned Ward.

c) In case, if it is not possible to connect internal S.W. Drain to existing manhole on Municipal Storm Water Drain due to site conditions / difficulties or if the existing manhole is far away from the plot, then the internal S.W. Drain shall be connected to Municipal S.W. Drain by constructing additional manhole on Municipal S.W. Drain at developer's cost.

13. REGARDING SETBACK PORTION AND BASEMENT

a) The necessary arrangement shall be provided in basement / Car Lift Pit parking in accordance with I.S. 12251 - 1987(Re - affirmed) for proper collection and disposal of storm water.The arrangement shall also be made to pump out / drain out the water of the basement / Car Lift Pit parking to the nearest water entrance within the property by providing sump well.

b) An Indemnity Bond duly notarized on stamp paper of Rs. 200/- shall be submitted to the Ex. Eng. (S.W.D.) Planning Cell indemnifying M.C.G.M. against any losses, damages, etc., if occurred, due to flooding in the basement/ Car lift pit under reference and stating that the same will be binding on Owner / Developer and their legal heirs / successors or whosoever deriving title

through them.

14. REGARDING COMPLETION CERTIFICATE : -

You shall apply online for completion certificate on completion of internal storm water drain work and after street connection is done along with following details.:-

a) Certificate in appendix II format along with completion plan of SWD as carried out on site as per municipal specifications duly certified by Architect/ LS / Licensed plumber.

b) Remarks and sketch from office of the concerned ward about street connection completion from last catch pit chamber to Municipal S.W. Drain.

c) Remarks and sketch from office of the concerned ward about shifting of water entrances Completion if affected by road setback.

15. The Completion Certificate shall be obtained on completion of the work of internal Storm Water Drain as per Municipal specifications from this office.

Notes:

1. The above remarks are system generated based on the input data submitted by Architect / Consultant / L.S. / L.P. and if in future it is found that the data is incorrect / fraudulent then the remarks deemed to be treated as cancelled and necessary action will be initiated
2. The above remarks are system generated and does not require any signatures.
3. All the carriage entrances / culverts shall be designed and constructed considering - “AA” class loading.

Annexure 03 NOC 4 - CFO NOC

BRIHANMUMBAI MUNICIPALCORPORATION
MUMBAI FIREBRIGADE.

Office of the Dy. Chief Fire Officer (R-II), Wadala Fire Station, ShaikhMistryDargah road, C.G.S. Colony, Opp. MHADA Colony, Antop Hill, Wadala, Mumbai-400 037.Telephone No. 24132058 Fax No. 24153027

Sub: Fire Protection & Fire Fighting requirements for the proposed plans for The proposed redevelopment under regulation 33(7)A of DCPR-2034 Of property bearing C.S. No.932 plot No.73 (p) & 74, of Scheme No. 58 B.G.Kher road worli G/South ward Mumbai -400018.

Ref: Online proposal U/No.P-12946/2022/(932)/G/South/WORLI-CFO/1/New dated 09/12/2022 by Mr. Kunal S. Bhalerao, License Surveyor, Mumbai.

Mr. Kunal S. Bhalerao,
License Surveyor, Mumbai.

You have uploaded application dated 10/01/2023, building detail Form-1 &2 , proposed plans under redevelopment scheme of Regulation 33(7)A of DCPR-2034 for proposed construction of High rise residential cum commercial building having 3 level Basements + Ground Floor + 1st to 8th podium floor + Service floor (above 8th podium floor) + 9th to 19th (pt) Commercial floor + 19th (pt) to 28th (pt) Residential floor having height of 111.80mtrs. from general ground level to terrace level ,as shown on the plans.

- **THREE LEVELS BASEMENTS AS SHOWN ON THE PLANS (-10.85mtrs.):-**

The proposed three level basement (–10.85mtrs.) wherein 1st level is proposed for surface parking by means of 06.00 mtrs.wide ramp, Electric substation service and 2nd levelbasement is proposed for surface car parking by means of 06.00 mtrs. wide ramp, and 3rd level basement is proposed for 06.00 mtrs. wide ramp, STP, Pumproom & underground Water storage Tanks.

You have mentioned that the basement is provided with natural/mechanical ventilation as per norms, through ventilation cut out/ shaft and side ventilators as shown in the plan.

- **PROPOSED FLOOR WISE USER AS SHOWN ON THE PLANS:**

Floors	Users
1st level basement	Surface car parking by means of 06.00 mtrs. wide ramp, Electric substation service and Utility service room.
2nd level basement	Surface car parking by means of 06.00 mtrs. wide ramp.
3rd level basement	06.00 mtrs. wide ramp, Fire Pump room, S.T.P.,U.G water tanks. D.G.room& Vermiculture bin.
Ground floor	Entrance lobby, Commercial shop, car lift & staircase, Fire control room.
1st Podiumfloor	Surface car parking by means of car lifts, Society Office, staircase, Drivers Toilet.
2nd Podium	Surface car parking by means of car lifts, Electric meter room & Drivers Toilet.
3rd to 6th podium parking floor	Surface car parking by means of car lifts, Drivers Toilet
7th podium parking floor	Surface car parking by means of car lifts, Drivers Toilet and tank
8th podium parking floor	Surface car parking by means of car lifts, Fitness center, Swimming Pool.

Service Floor	Service Floor.
9th & 16th floors	Commercial and Refuge Area.
10^{th} to 15^{th}& 17^{th} to 19^{th} (pt)	Commercial Area.
19th (pt) to 28th (pt) Floors	Residential floor.
Terrace	Open to sky, L.M.R.,O.H.T.

- **PROPOSED STAIRCASE AS SHOWN ON THE PLAN:-**

Staircase	Width	Type	No. of Staircases
Leading from 3rd level basement to terrace floor level.(Diverted on ground floor)	2.00mtrs.	Enclosed	01 No.
Internal staircase leading from ground floor to terrace floor level.	2.00mtrs.	Enclosed	01 No.
The proposed staircase is enclosed type, externally located & naturally ventilated to outside air as shown in plans			

- **PROPOSED LIFTS AS SHOWN ON THE PLAN:-**

Lifts Type	Profile	Nos.
Passenger lift (Fire man Lift)	Ground floor to top floor level	01No.
Fire Evacuation lift	Ground floor to top floor level	01No.
Passenger lift	Ground floor to top floor level	02No.
Freight Lift/stretcher lift	3rd level basement to top floor level.	01No.
Fire lift shall be installed as per norms. The lift lobby at each floor level is naturally ventilated to outside air as shown in the plan.		

You have shown on the plans that the building abuts on the access road i.e. 18.00 mtrs. wide B.G.Kher Road on the East side.

PROPOSED OPEN SPACES AS SHOWN ON THE PLAN:-

Sides	Building line to plot boundary	Building line to podium line	Podium line to plot boundary
North	08.97 to 10.09mtrs.	Flushed	08.95 to 09.43mtrs.
South	09.48 mtrs. to 09.55mtrs.	05.95 mtrs. to 05.96 mtrs.	03.52 to 03.61 mtrs.
East	04.48 mtrs. to 06.01 mtrs. + 18.00 mtrs. wide B.G. Kher Road	Flushed	04.47to 04.85 mtrs + 18.00 mtrs. wide B.G. Kher Road
West	05.59mtrs. to 07.00mtrs	02.98 mtrs. to 07.00 mtrs.	02.43 to 02.43mtrs

PROPOSED REFUGE AREAS AS SHOWN ON THE PLAN;

Floor	Required 4%	Proposed	At the height of refuge floor from ground level.
9th	117.17	117.86	33.80 Mtrs
16th	117.17	117.86	61.10 Mtrs

23th	97.17	102.42	88.40 Mtrs
In addition to that terrace of the building will be treated as refuge area Excess refuge are shall be counted in FSI.			

- **The proposal has been considered favourably taking into consideration the following facts:**

a) That, you have stated that the proposal falls u/s of Regulation33(7)A of DCPR-2034.
b) The Site abuts on 18.00 mtrs. wide B.G. Kher Road on the East side.
c) Provided mechanical light and ventilation to the basement
d) The building will be protected with advance in built fire fighting system such as wet riser, hydrant system, fire alarm & fire detection system & sprinkler system, integrated system, voice evacuation system, public address system, BMS system etc.
e) The fire resistance rating for staircase F.R.D., Lift lobby / protected lobby & the lift doors as per N.B.C. provisions
f) Efficient P.A. system is recommended for building with standard Building Management System.
g) The building will be provided by IOT based microprocessor controller device.

In view of above as far as this department is concerned, the fire-fighting & fire-protectionrequirements are stipulated below to do the compliance, for the proposed plans for proposed construction of High rise residential cum commercial building having three level basements (-10.85 mtrs.) + Ground floor (commercial user) + 1st to 7th podium parking levels + 8th podium parking levels and (mix User) +Service Floor + 9th to 28th (28th part) upper residential floors having height of 111.80 mtrs. from general ground level to terrace level ,as shown on the plans ,signed in token of approval, which are as follows.

1) <u>ACCESS:-</u>

a) There shall be no compound wall on the road sides i.e. on the East side however removable bollard with link chain may be provided.
b) Courtyard shall be flushed with road levels.
c) Archways, if any over the entrance gates, shall have height clearance of not less than 06.00 Mtrs.

2) <u>COURTYARDS:-</u>

a) The available courtyards on all the sides of the building shall be sufficiently hardened to bear the load of fire engines weighting up to 53 M. tones with point load of 10 kg/sq.cm. A certificate to that effect, shall be obtained from the chartered Structural Engineer before applying for obtaining compliance remarks to this department.
b) All the courtyards shall be in one plane.
c) Courtyards around the building shall be maintained free from encumbrances / encroachments.

3) <u>PROTECTION TO STRUCTURAL STEEL:-</u>

a) All the structural steel members i.e. columns, beams, etc., shall be protected with the fire resisting materials and methods as stipulated under IS 1942-1960 as application for residential building.
b) A certificate to that effect that the fire resistance protection has been provided as above shall be obtained from the chartered Structural Engineer, before applying for obtaining compliance remarks to this department.

4) <u>STAIRCASE:-</u>

a) The flight width of staircase as shown on the plans shall be maintained throughout its length.
b) The layout of the staircase shall be of enclosed type throughout their height shall be

approached (gained) at each floor level at least two hours fire resistant self- closing door (45 mm thickness) placed in the enclosed wall of the staircase.

c) The staircase shall be adequately ventilated to outside air.

d) Permanent vent at the top equal to 5% of the cross sectional area of the staircases shall be provided.

e) Open able sashes or R.C.C. grills with clear opening of not less than 0.5 sq.mtrs. Per landing on the external wall of the staircase shall be provided.

- **Terrace Staircase Door Manners:**

a) The terrace door shall be provided in the following manners:

b) The top half portion of the door shall be provided with louvers.

c) The latch-lock shall be installed from the terrace side at the height of not more than 1 meter.

d) The glass front of 6 inch diameter with the breakable glass shall be provided just above the latch lock so as to open the latch in case of an emergency by breaking the glass.

e) The door shall either be fitted with magnetic lock connected to console & detection system or shall be synchronized with fire detection and alarm system.

5) CORRIDORS/LIFT LOBBY:-

a) Corridor / lift lobby at each floor level shall be ventilated to outside air, as shown on the plan.

b) The common corridor / lift lobby at each floor level shall be kept free from obstruction at all times.

c) Self –glowing/ fluorescent exit signs in green colour shall be provided showing the means of escape at each floor of building.

d) Portable lights / insta light shall be provided at strategic location in the staircase and lift lobby.

6) STAIRCASE AND CORIDOR LIGHTINGS:-

a) The staircase and corridor lighting shall be on separate circuits and shall be independently connected so that they could be operated by one switch installation on the ground floor easily accessible to fire fighting staff at any time irrespective of the position of the individual control of the light points, if any.

b) Staircase and corridor lighting shall also be connected to alternate electricity supply.

c) Double throw switches should be installed to ensure that lighting in the staircase and the corridor does not get connected to two sources of supply simultaneously. A double throw switch shall be installed in the service room to terminate the stand-by-supply.

d) Emergency lights shall be provided in the staircases/corridors.

e) All the electrical installations, electrical wirings etc. shall be as per prevailing electricity Act & Rule. The certificate to that effect from the Govt. Approved Licensed electrician shall be obtained before applying for obtaining compliance remarks to this department.

7) ELECTRIC CABLE DUCT & ELECTRIC METER ROOM/PANEL:-

a) Electric cable shaft shall be exclusively used for electric cables & should not open in staircase enclosure.

b) Inspection doors for the shafts shall have two hours fire resistance. Form-A issued by Govt.approved licensed agency for the same shall be obtained before applying for obtaining compliance remarks to this department.

c) Electric cable shaft shall be sealed at each floor level with non-combustible materials such as vermiculite concrete. No storage of any kind shall be done in electric shaft.

d) Electric wiring/ cable shall be non-toxic, non-flammable, low smoke hazard having copper core / fire resistance for the entire building with provision of E.L.C.B. / M.C.B.

e) Electric meter room/panel shall be provided at location marked on the plans with electric emergency switch at the ground floor level. It shall be adequately ventilated & easily

accessible.

f) Low & medium voltage wiring running in shaft & in false ceiling should run in separate conduits.

g) Water mains, telephone lines, intercom lines, gas pipes or any other service line should not be laid in the duct for electrical cables; use of bus bar / solid rising mains instead of cables is preferred.

h) Separate circuits for fire fighting pumps, lifts, staircases & corridor lighting shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes, so that fuse in one circuit will not affect the others. Such circuits shall be protected at origin by an automatic circuit breaker with its no-volt coil removed.

i) Master switches controlling essential service circuits shall be clearly labelled& provide in the lobby for emergency operations.

j) Automatic Smoke detection system shall be provided in duct.

k) All the electrical installations, electrical wirings etc. shall be as per prevailing electricity Act & Rule. The certificate to that effect from the Govt. Approved Licensed electrician shall be obtained before applying for obtaining compliance remarks to this department.

8. **FALSE CEILING (IF PROVIDED):-**

False ceiling if provided in the building shall be of non-combustible material. Similarly the suspenders of the false ceiling shall be of non-combustible material.

9.) MATERIALS FOR INTERIOR DEORATION / FURNISHING:-

The material which are combustible in the nature and may spread toxic fumes / gases should not be used for interior decoration / furnishing, etc.

10) IOT based devices for electrical installation of the building:

a. IOT based micro controller devices shall be provided in the electrical installations of the building as per the requirement stipulated in Circular No. शासन परिपत्रक क्र. मुविनि-2021/प्र. क्र.114/ऊर्जा-5.

b. The IOT based Micro Controller Devices shall be tested and verified by NABL accredited testing agency/laboratory in accordance with the recognized IS:732-2019 code for practice for Electrical wiring installation.

c. The complete installation of IOT based Micro controller Devices shall be checked and certified by the Chief Electrical Inspector, Govt. of Maharashtra and certificate to that effect shall be issued at the time of compliance.

d. The data and the alert generated by IOT based Micro controller Devices shall be monitored by building management system and necessary corrective measures shall be taken by the Owner, Occupier immediately.

e. The data generated by IOT based Micro controller Devices shall be made available to fire brigade department as and when required to investigate the cause of fire.

11**) FLAT ENTRANCE, KITCHEN DOORS & EXIT/ ENTRANCE STAIRCASE:-**

a) Entrance of each occupancy, flat entrance and kitchen doors shall be of solid core having fire resistance of not less than one hour (solid wood of 45mm thickness.)

b) The fire resistance rating for staircase F.R.D., Lift lobby / protected lobby & the lift doors as per N.B.C. provisions.

c) “Form-A” for the installation of F.R.D. from Govt. Approved Licensed agency shall be obtained before applying for obtaining compliance remarks to this department.

12) BASEMENT(-10.85 mtrs.):-

a) Each basement shall be separately ventilated. Vents with cross, sectional area (Aggregate) not less than 2.5 percent of the floor area spread evenly around the perimeter of the basement shall be provided in the form of grills or breakable stall boards lights or pavement lights or by way of shafts. Alternatively, a system of air inlets shall be

provided at basement floor level and smoke outlets at basement ceiling level. Inlets and outlets may be terminated at ground level with stall boards or pavement lights as before but ducts to convey fresh air to the basement floor level shall have to be laid. Stall boards and pavement lights should be in position easily accessible to the fire Brigade personal and rescue teams and clearly marked 'SMOKE OUTLET' or 'AIR INLET' with an indication of area served at or near the opening.

b) The basement shall be used for designated purpose only as shown in the plan.

c) The basement shall be provided with natural/mechanical ventilations through the ventilators, open cut outs as shown in the plan.

d) The basement beyond building line shall be paved, suitably to bear the load of fire engines weighing upto 53 m. tones each with point load of 10 kgs./sq. cms.

e) The staircases of the basement shall be of enclosed type and entry to basement areas shall be through two hours fire resistance self-closing door provided in the enclosed wall of the staircase and through smoke check / cut off lobby.

f) Smoke check lobby, Staircases, common passages & escape routes of the entire building shall be painted with fire retardant paint. Certificate to that effect shall be produced at the time of obtaining compliance remarks of this department.

g) Basement area shall be divided in compartments as per rule.

h) The ventilation requirement of the basement shall be in accordance with prevailing norms. Certificate to that effect from the approved MEP consultant shall be obtained before applying for obtaining compliance remarks to this department.

i) Exhaust duct, mechanical ventilation duct should not pass through exit or entry.

j) Ventilation system shall start automatically on actuation of detector provided in the basement area.

k) Mechanical ventilation shall be provided to the basements with 06 air changes per hour with an arrangement to accelerate the rate of air changes to 12 per hour in the event of a fire emergency.

l) The ducts of the mechanical ventilations system shall be of substantial metal gauge as per the relevant I.S. standard.

m) The operating switches of the mechanical ventilation shall be located in the control room with appropriate zonal indications.

n) Exhaust duct shall be provided to draw out exhaust at ground level of the basement.

o) The certificate of approval for entire mechanical ventilation systems in the entire building issued by BMC's "M & E" department shall be obtained before applying for obtaining compliance remarks to this department.

p) Suitable signage's shall be provided in the basement showing exit direction, way to exits etc.

q) Automatic sprinkler system shall be provided in the basement including all the parking areas. The System shall be installed as per the standards laid down by N.B.C. or relevant IS specifications. Certificate to that effect from Govt. Approved Licensed agency shall be obtained before applying for obtaining compliance remarks to this department.

r) Staircase and lift lobby shall have illuminated by inverter operated exits signs with IP 54 enclosure. Luminance of the signage's shall be such that they are visible from a distance of 12 to 16 meters.

s) One Dry Chemical Powder fire extinguisher ABC type of 06 kgs. capacity each shall be kept for every 100 sq. mtrs. area in each basement.

t) Two F-500 type of Fire extinguishers of 09 kg. capacity bearing IS mark shall be provided in each basement near car parking area.

13) <u>PODIUM /CAR PARKING FLOORS:-</u>

a) All the sides of the stilted / covered car parking shall be kept open as per relevant circular /policy.

b) The driveways shall be properly marked and maintained unobstructed, proper illuminated signage shall be provided for escape route, ramps etc at prominent location.

c) Minimum 75% see through opening area of proposed peripheral area shall be provided.
d) All the sides of the stilted / covered car parking shall be kept open except parapet walls of not more than 0.75 meters height.
e) Automatic sprinkler system shall be provided on all the parking floors. The System shall be installed as per the standards laid down by N.B.C. or relevant IS specifications. Certificate to that effect from Govt. Approved Licensed agency shall be obtained before applying for obtaining compliance remarks to this department.

14. SERVICE DUCT (If Provided):-

a. All electrical and fire service ducts shall have 2 hr. fire resistance.
b. Inspection door of electrical & fire service ducts shall have 2 hr. fire resistance.
c. Duct for water service, drainage line, shall be separate from that of electrical cable duct.
d. All electrical and fire service duct shafts shall be sealed at each floor level with non-combustible materials such as vermiculite concrete. No storage of any kind shall be done in the shaft.

15) LIFTS:-

A. PASSANGERS LIFT:-

a) Walls enclosing lift shaft shall have a fire resistance of not less than two hours.
b) Shafts shall have permanent vent of not less than 0.2 Sq.Mtrs. in clear area immediately under the machine room.
c) Landing doors and lift car doors of the lift shall be of steel shuttered with fire resistance of one hour. No collapsible shutter shall be permitted.
d) One of the lift from each lift bank shall be converted into fire lift and shall be as per specifications laid down under the regulations a toggle switch shall be provided to this lift for the use of Firemen.
e) Threshold of non-combustible material shall be provided at the entrance of each landing door

B. FIRE LIFT:-

a) To enable fire services personnel to reach the upper floors with the minimum delay one fire lift shall be provided and shall be available for the exclusive use of the firemen in an emergency.
b) The lift shall have a floor area of not less than 1.4 Sq.Mtrs It shall have loading capacity of not less than 545 kg (08 persons lift) with automatic closing doors of minimum 0.8 m. width.
c) The electric supply shall be on a separate service from electric supply mains in a building and the cables run in a route safe from fire that is within the lift shaft Light & fans in the elevators having wooden panelling or sheet steel construction shall be operated on 24 volt supply.
d) Fire lift should be provided with a ceiling hatch for use in case for emergency so that when the car gets stuck up, it shall be easily open able.
e) In case of failure normal electric supply, it shall automatically changeover to alternate supply. For apartment, this changeover of supply could be done through manually operated changeover switch. Alternatively, the lift shall be so wired that in case of power failure it comes down at the ground level and comes to stand-still with door open.
f) The operation of fire lift should be by a simple toggle or two-button switch situated in glass-fronted box adjacent to the lift at the entrance level. When the switch is on, landing call points will become inoperative and the lift will be on car control only or on a priority control device. When the switch is off, the lift will return to normal working. Then this lift can be used by the occupants in normal times.
g) The words "Fire lift" shall be conspicuously displayed in fluorescent paint on the lift landing doors at each floor level.
h) The speed of the fire lift shall be such that it can reach the top floor from ground level with in one minute.

i) The installations/specifications for the said lift shall also be in accordance with prevailing norms. Certificate from Chief Electrical Inspector (PWD) shall be obtained before applying for obtaining compliance remarks to this department.

C. FIREMAN EVACUATION LIFT:

Capacity of Fireman Evacuation Lift shall be of 845 to 1000 kgs. /8 to 15 persons and it shall be terminated on ground floor where facility of assembly or evacuation is available in case of emergency.

a. Fireman Evacuation Lift shall be housed in a separate core having smoke check lobby with opening on each floor and shall be connected with one of the staircases and required access to the staircase on each landing through fire resistance of two hours rating. Alternatively, firemen evacuation lift shall be provided on every mid-landing of one of the enclosed staircases and the staircase shall be protected with smoke check lobby by means of fire resistance door/ fire curtain or fire resistance glass having two hours rating.
b. All the requirements pertaining to civil and electrical aspects mentioned in NBC for Fire Lift shall be applicable for Fireman Evacuation Lift.
c. Fireman Evacuation Lift car doors and landing doors shall have two hours fire resistance and shall have provision of glass vision for both doors of minimum 1 ft. X 2 ft. And the glass shall also have two hours fire resistance.
d. Fireman Evacuation Lift shall have emergency operation switch which will be only operated by fire brigade personnel. On actuation of the switch the Fireman Evacuation Lift will operate from inside and the lift car door shall not open automatically but shall have control from inside to open it. The emergency operation switch shall also be provided in the ground floor lobby.
e. The backup electric supply shall be through UPS for at least 30 min and it shall be supported online by another regular and alternate emergency supply.
f. Two-way communication systems shall be provided in Fireman Evacuation Lift car as well as at every landing level including lobby at ground floor.
g. All the electrical cable shall be fire retardant with low smoke hazard complying relevant BIS standards.
h. Fireman Evacuation Lift car shall be of made of non-combustible material including interior having minimum two hours resistance.
i. Lift maintenance shall be carried out only by Lift Manufacturing or Installation Company.
j. Fireman Evacuation Lift and the staircase attached to it shall be clearly marked mentioning FIRE ESCAPE LIFT/STAIRCASE at each landing door at each floor level.
k. The smoke check lobby with evacuation lift shall have positive level difference of minimum 75 mm with respect to staircase landing or mid landing level to avoid ingress of water in fireman lift shaft.

D. STRETCHER LIFT:

i) The stretcher lift shall accommodate ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (A hospital shaped elevator allowing the stretcher to roll straight into the elevator, which meets other handicap requirements, will be acceptable.

ii) The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both side soft the hoist way doorframe

iii) Landing doors and lift car doors of the lifts shall be of steel shuttered with fire resistance of two hours. No collapsible shutter shall be permitted.

iv) One hour FRD shall be provided to stretcher lift with the vision glass & shall increase beyond NBC provisions by half an hour after every 70 mtrs. Height of

the building.

E) CAR LIFTS

i) All the structural steel members of the car lift well i.e. columns, beams etc shall be protected with the fire resisting/ retardant materials and methods as stipulated under relevant IS specification. A certificate to that effect shall be furnished from chartered structural Engineer.

ii) The electrical cables used internally shall be fire retardant and heat resistant of capacity 105-degree cent regrade.

iii) Emergency stop switch shall be installed inside the auto parking system at the top of the car lift, near the driving unit and on the main control panel for activation in case of any emergency, for the power cut off to the main motor and all operations to stop.

iv) Blue & Red display lamps indicating whether system is ready to accept the car shall be installed at the entry point of the car. When the red lamp is on, car should not enter into the tower.

v) Threshold of non-combustible material shall be provided at the entrance of each landing door.

16) FIRE FIGHTING REQUIREMENTS:-

A. Under ground water storage tank:-

An underground water storage tank of 3,50,000 litres capacity shall be provided for ,at locations marked on the plan, as per the design specified in the rules with baffle wall and fire brigade collecting breaching. The layout of which shall be got approved from H.E.'s department prior to erection.

B. Overhead terrace water storage tank:-

A tank of 50,000 litres capacity on the each staircase shall be provided at the terrace level, the layout of which shall be got approved from H. E.'s departments prior to erection. The tanks shall be connected to wet risers through a booster pump through a non-return valve gate valve.

C. Wet riser cum down comer:-

Wet riser cum down comer of internal dia. of 15 cms.of G.I. 'C' Class pipe shall be provided adjoining the lobby with double hydrant outlet & hose reel at each floor in such a way as not to reduce the width of the common corridor. Pressure reducing discs or orifices shall be provided at lower level, so as not to exceed the pressure of 5.5 kgs. Per sq. cms.

D. Fire service inlet :-

a) A fire service inlet on the external face of the building near the tank directly fronting the courtyards shall be provide to connect the mobile pump of the fire service independently to the wet riser , sprinkler system.

b) Breeching connection inlet shall be provided to refill U.G. tank.

c) Operating switches of fire pumps shall be also provided in glass fronted boxes at ground floor.

E. Automatic sprinkler system:-

a) Automatic sprinkler system shall be provided in entire building including each habitable area in each flat, fitness centre, lift lobby & common corridor at each floor level, in basement level etc.

b) Automatic sprinkler system shall be provided on all the parking floors. System shall be installed as per the standards laid down by N.B.C. or relevant IS specifications. Certificate to that effect from Govt. Approved Licensed agency shall be obtained & produced at the time of obtaining compliance certificate.

c) Stacked/Surface Car parking in the basement shall be protected with Early Response type Automatic sprinkler system in the form of water spray projector system conforming to the standards laid down by T.A.C. and relevant I.S. specification shall be provided with

sprinkler head at each level below each pallet on engine side as well as rear side.
Automatic sprinkler system shall be installed as per the standards laid down by N.B.C. or relevant IS specifications. Certificate to that effect from Govt. Approved Licensed agency shall be obtained& produced at the time of obtaining compliance certificate.

F. Automatic smoke/Heat detection system:-

Appropriately automatic smoke/heat detection system shall be provided as per IS specification in Entire building, basement, electric meter /panel room, electric ducts, fitness centre, society office, lift machine room with response indicator and same should be connected to main console panel on ground floor level.

G. Fire pump, booster pump, sprinkler pump and jockey pump:-

a) Wet-riser shall be connected to a fire pump at ground level U.G. Tank of capacity 2850 litres/min. capable of giving a pressure of not less than 3.2 kgs / sq. cms. At the top most hydrant outlet along with jockey pump of suitable size.
b) Booster pump of 900 litres / min capacity giving a pressure of not less than 3.2 kgs./sq.cms. at the top most hydrant out let of the wet riser shall be provided at the terrace level connected to O.H. tank.
c) Sprinkler pump of suitable capacity along with jockey pump shall be provided for automatic sprinkler system.
d) Electric supply (normal) to these pumps shall be independent circuit.
e) Operating switches of booster pumps shall be also provided in glass fronted boxes in lift lobby at ground floor.
f) The fire pumps provided shall be surface mounted type or vertical turbine mounted type and not submersible type.

H) Stand by Pumps :-

A set of separate stand-by pumps (electric powered) shall be provided at site which shall be used as an alternate. This will also be backed-up with an alternate power source OR Diesel Generator OR Diesel driven pumps of equivalent capacity shall be provided at site which shall be used as an alternate.

I. External hydrants:-

Courtyard hydrants shall be provided within confines of the wet riser for every 30 meters distance around entire building. Hose boxes each with two hoses of length 50 feet RRL standard size and branch shall be kept and equally distributed in courtyard area.

J. AUTOMATIC DRENCHER SYSTEM: for all podiums /parking floors and Service floors:-

Automatic drencher system shall be provided on the periphery of the top of podium parking floors/car parking floors, Service floors& shall be at the external wall at the ceiling level of the parking floors& shall be connected to the main sprinkler pump as per the standard laid down in relevant I.S. specification.

K. Hoses & Hose Boxes :

One Hose Box with two hoses of 15mtrs. length of 63mm dia. along with branch shall be provided at each courtyard hydrant at ground & on each floor at easily accessible place.

L. Control Panel boards of fire fighting system:-

Control Panel boards for Wet riser system, Automatic sprinkler system etc. shall be installed on ground floor at easily accessible location.

M. FIRE ALARM & FIRE DETECTION SYSTEM: -

i) The building shall be provided with intelligent analogue addressable fire alarm system with microprocessor based main control panel at ground floor level and addressable call points and hooters at each floor level. The design of fire alarm system shall be in accordance with I.S. specification and based on NFPA 72 guidelines (as per 2010 edition).

ii) The addressable fire alarm system shall be equipped with the latest evacuation features such as digital voice evacuation capabilities; fire fighters telephone system, directional sounders etc. The main entry / exit points shall be provided with fire fighters interactive interface to enable viewing of critical information in event of fire.

iii) Appropriate fire detection system shall be installed in kitchen area.

iv) Access control system, close circuit cameras shall be installed in the entire building & connected to B.M.S. control at reception.

N. Public Address System :-

The entire building shall be provided with the public address system in common / areas as per the with main control operator at console panel at ground floor reception area.

O. Voice Evacuation System:-

The voice evacuation system shall be integrated to Fire Alarm system so as to facilitate the co-ordination activities in case of fire emergencies. The actuation of the fire alarm control panel shall automatically activate the Voice Evacuation system. A pre-recorded message shall be broadcast on the affected floor, one floor below & two floors above the affected floor.

P. Signage's:-

Self-glowing /fluorescent exit signs in green colour shall be provided showing the means of escape for entire building.

Q. Alternate source of electricity supply:-

Alternate source of L.V./H.V. supply from a separate electric substation **AS WELL AS** D. G. Set with appropriate change over switch shall be provided for fire pumps, sprinkler pump booster pump, jockey pump, staircase and corridor lighting circuits, manual fire alarm system & fire detection system. It shall be housed in a separate cabin. Certificate from electricity service provider company shall be obtained before applying for compliance remarks of this department.

R. Emergency Escape Route Plan:-

Emergency exit route plan framed in glass shall be displayed in the common corridor, cross passages, staircase/lift lobbies of each floor level.

17. Fire protection requirements at the Construction stage of Building:-

Following fire protection arrangement shall be provided with the following fire protection measures shall be provided & same shall be maintained in good working condition at all the times.

a) Dry riser of minimum 10 cm diameter pipe with hydrant outlets on the floor constructed with fire service inlet to boost the water in the dry riser & maintenance should be in accordance with good practice.

b) Drums of 2000 liters capacity filled with water & two fire buckets shall be kept on each floor for every 100 sq. mtrs area.

c) Water storage tank of minimum 20,000 liters capacity shall be kept at site ready to use in case of emergency, which may be used for other construction purpose also.

18) Fire drills / Evacuation drills:-

Fire Drills and evacuation drills shall be conducted regularly in consultation with Mumbai Fire Brigade and log of the same shall be maintained.

19. PORTABLE FIRE EXTINGUISHERS:-

a. Dry Chemical Power (ABC type) fire extinguishers of, 06 Kgs. Capacity having ISI certification mark and two bucket filled with dry, clean sand shall be kept in Electric meter as well as Lift Machine Room.

b. Dry Chemical Power (ABC type) fire extinguishers of, 06 Kgs. Capacity having ISI certification mark shall be kept on each floor level at prominent place and each refuge area , car parking area & podium floor.

c. F-500 (Encapsulating Agent) type fire extinguishers of, 09 Kgs. Capacity having ISI certification mark shall be kept near car parking area on ground & podium floor level at prominent places for every 100sq. mtrs. (Electric vehicles) .

d. One AVD type (Aqueous Vermiculite Dispersion) fire extinguishers of 9 litres capacity having ISI certification mark shall be kept near car parking area on ground & podium floor level at prominent places for every 100sq. mtrs. (Electric vehicles) .

20. RATE OF RISE DETECTORS:

Rate of rise detectors shall be installed in the hot areas i.e. kitchen, pantry, etc and same shall be connected to main console at ground floor level.

21. L.P.G./P.N.G. DETECTOR SYSYTEM:

L.P.G./P.N.G. detector system shall be installed in Kitchen of every flat.

22. BREATHING APPARATUS SETS:

Two Self-contained Compressed Air Breathing Apparatus (SCBA) sets of 45 minutes' duration each shall be kept in the fire control room & two Self-contained Compressed Air Breathing Apparatus sets of same capacity shall be kept in each of the refuge areas in consultation with C.F.O.

23. INTEGRATED SYSTEM:

The entire fire-fighting system shall be of the type "Integrated Building Automation System" combining all the systems. Flasher light shall be installed at the top of the building which will be switched on in case of incident of fire in that building to indicate involvement of building in fire. It will also help the incoming fire brigade appliances to reach the spot in time without delay.

24. **PRESSURIZATION OF LIFT LOBBY/SHAFT/STAIRCASE, ETC. (Wherever provided):**

Pressurization of lift lobby/ lift shaft/staircases/firemen lobby, etc. as applicable/provided as shown on the plan, shall be as per the provision of NBC. A certificate from Ch. Engg. (M&E) of MCGM shall be obtained for pressurization systems as applicable before occupation.

25. **TRAINED FIRE OFFICER & SECURITY GUARDS:-**

i) A qualified full time fire officer with experience of not less than 3 years shall be appointed who will be available on the premises at all times. Alternative full time qualified fire officers working in shift duty system shall be placed round the clock on the premises.
ii) The trained security / fire supervisor along with trained security guards having basic knowledge of fire-fighting & fix fire-fighting installation shall be provided / posted in the building.
iii) Maintenance of all the first aid fire-fighting equipment's, fixed installations & Other fire-fighting equipment's/appliance in good working condition at all times.
iv) Imparting training to the occupants of the building in the use of firefighting equipment provided on the premises & kept them informed about the fire & other emergency evacuation procedures.
v) To liaise with the City Fire Brigade on regular & continual basis.

26. DISASTER MANAGEMENT PLAN:

i) Disaster management plan for fire & other emergency shall be prepare and kept ready at the control room.
ii) The mock drill with the designated fire marshal for any operation of disaster management plan shall be carried out regularly after occupation as per National building code.
iii) Emergency exit route plan framed in glass shall be displayed in the common corridor, cross passages, staircase/lift lobbies of each floor level.

27. EMERGENCY EVACUATION FLOOR PLAN:

Emergency exit route plan framed in glass shall be displayed in the common corridor, cross passages, staircase/lift lobbies of each floor level of the building.

28. FIRE CONTROL ROOM:

i) Separate Fire Control room as marked in plan, with well qualified man power shall be established on Ground floor.
ii) Plan of each floors indicating means of egress as well escape shall be maintained.
iii) Control panel of fire safety system shall be located in the control room.
iv) The size of the control room shall be in accordance with the MEP consultant for the project.
v) The location of control room shall be close to the main entrance gate for directing fire appliances responding to any emergency.

29. BUILDING MANANGEMENT SYSTEM (B.M.S. ROOM):

i) The entire building should be provided with intelligent & properly designed/ programmed building management system having its main control at the location shown on the plan.
ii) Addressable wireless system with connectivity to nearby fire station shall be provided.

30. D.G. SET:

a) D.G. set with appropriate change over switch shall be provided for fire pumps, sprinkler pump, booster pump, staircase and corridor lighting circuits, manual fire alarm system, Fire lift & Firemen Evacuation lift.
b) For proposed D.G. Set acoustic enclosure shall be provided for safe operation.
c) Entire Installation of D.G. Set shall be conforming to the Indian Electrical Act / Rules in practice.
d) A deep tray shall be kept under the fuel tank of the D.G. Set to collect the spillage and the same shall be disposed off daily without fail.
e) Cables in the cable trenches shall be coated with fire retardant material.
f) Electric wiring shall be having copper core having the fire resistance and low smoke hazard cables for the entire building with provision of ELCB/MCB.
g) In electrical installation of the building Bus Bar System shall be provided for vertical electrical shaft with feeder pillar box after a gap of every 24.00 metres height of building.
h) Adequate air and ventilation for Switchgear Room is essential to prevent condensation of moistures.
i) The capacity of the D.G. Set shall beprovided to cater all fire and life safety loads.
j) The door of D.G. Set room shall be of two hours fire resistance.
k) The D.G. Set shall be properly grounded.
l) Exhaust of D.G. set shall not be directed in to the exit / entrance of any adjoining structures.
m) Sand bed of 6 inches thickness shall be provided below the D.G. Set.
n) Electric cable of the D.G. Set shall be of FRLS type.
o) Adequate quantity of spare diesel shall be stored in its original container near the D.G. Set, away from the electric switches or any source of ignition.
p) Automatic built-in circuit breaker shall be provided to the D.G. Set.
q) Rubber pad shall be provided to the D.G. set for absorbing vibration, if any.
r) The D.G. Set area shall be kept prohibited and no unauthorized person shall be allowed to enter in the area.
s) Structural stability of the building regarding absorption of the vibrations of D.G. set shall be checked by Structural Engineer before installation of D.G. set.
t) Two Foam type fire extinguishers of 09 liters capacity each with ISI certification mark coupled with four buckets filled with dry, clean sand shall be kept in the D.G. Set Cabin.

31. **ELECTRIC SUB-STATIONS (DRY TYPE):-**

a. Only dry type substation/transformers shall be installed.
b. Entire installation of substation including switchgear room, capacitors, transformer etc. shall be confirmed to the Indian Electric Act/Rules in practice.
c. Cables in the cable trenches shall be coated with fire retardant material.
d. Automatic built-in circuit breakers shall be provided in the substation/transformer.
e. The door of the sub-station shall be of two hours fire resistance.
f. The capacity of the sub-station shall be as per service provider's requirement.
g. All parts of switch gear and transformer are to be examined frequently and carefully for signs of overheating, tracking etc.
h. The substation/transformer area shall be kept prohibited and no unauthorized person shall be allowed to enter in the area. Page 15 of 18
i. Ventilation shall be provided at the ceiling level.
j. H.V./L.V. cable ducts shall be as per Indian Electricity Rules.
k. The danger signage on the substation with the electric voltage load.
l. Two dry chemical power type (Class ABC type) fire extinguishers of 09 kgs. Capacity each with BIS certification mark coupled with four buckets filled with dry clean sand and shall be kept on the sub-station.

32. **GARBAGE DUCT (if provided):**

a. It should be made M.S. / Non-combustible material.
b. It should have opening with fire resistance door of half an hour fire resistance.
c. It should be fitted with smoke detector at 1st floor level of building.

33. OTHER NOC / PERMISSIONS:

Necessary permissions / N.O.C. for swimming pool, licensable trade, addition/ alteration, interior work, etc. shall be obtained from competent Municipal Authorities & CFO's Department.

34. REFUGE AREA:-

i) Refuge area has been provided as shown in plan shall be conforming to the following requirements: Manner of refuge area

a) The refuge area shall be so located that it shall preferably face the wider open space of the building.

b) The refuge area shall be provided with railing / parapet of 1.20 mt.

c) The refuge area shall have a door which 'shall be painted or fixed with a sign in luminous paint mentioning "REFUGEAREA"

d) The lift/s shall not be permitted to open into the refuge areas.

e) The refuge area provided within building line shall be accessible from common passage/ staircase.

ii) **Use of refuge area :**

a. The refuge area shall be earmarked exclusively for the use of occupants as temporary shelter and for the use of Fire Brigade Department or any other organization dealing with fire or other emergencies when occur in the building and also for exercises/drills if conducted by the Fire Brigade Department.

b. The refuge areas shall not be allowed to be used for any other purpose and it shall be the responsibility of the owner/occupier to maintain the same clean and free of encumbrances and encroachments at all times.

iii) Facilities to be provided at refuge area

a) Adequate emergency lighting facility shall be provided.

iv) Terrace floor as a refuge floor:

a. The necessary facilities such as emergency lighting, drinking water etc shall be provided.
b. The access door/s from the enclosed staircase/s to the terrace floor shall have louvers at top half portion of the door. The entrance doors to the terrace shall be painted or fixed with sign painted in luminous paint mentioning "REFUGEAREA".

v) Excess refuge area (above 4%) shall be counted in FSI

35. ELEVATION FEATURES:- (IF PROVIDED) :-

a) The elevation treatment proposed shall be of non-combustible materials and it should not obstruct fire-fighting activities.

b) The proposed elevation features of the building shall be as per requirement stated in the circular no- CHE/DP/GEN/110-2019-2020 dated 30.01.2020.

- **The concerned has paid the scrutiny fee & fire service fee as mentioned below:**

A .Scrutiny Fee:-

Now vide your letter dated 23/12/2022; you have certified the gross built up area as 24585.78 Sq. Mtrs. and online paid the scrutiny fees of Rs. 20,54,310/-vide Online Receipt No./CFC Receipt No. CHE/BP/98212/22, dated 09/12/2022.Further paid additional scrutiny fee of Rs 10/- vide online Receipt No./CFC Receipt No.CHE/CFO/98405/22 ,dated 12/12/2022.

B. Fire Service Fee:-

Vide your letter dated 23/12/2022; you have certified the gross built up area as 24585.78Sq. Mtrs. & the height of the high-rise residential building as 111.80Mtrs. And as per schedule II of section 11(1) of Maharashtra fire prevention & life safetyMeasure act 2006, has paid "Fire Service Fee" of Rs.3,75,790/- vide online Receipt No./CFC Receipt No. CHE/CFO/98405/22, dated 12/12/2022.

However, you are requested to verify the gross built-up area and inform this department, if it is more for the purpose of levying additional scrutiny fees, if required.The plans approved along with the requirements stipulated to do the compliance, areapproved as submitted online by Architect as per EODB circular without prejudice to legalmatters pending in court of law and from Fire risk/Fire safety point of view only. Approval ofthese plans does not mean in any way permission to start the proposed work . It is the Architects/Developer's responsibility to obtain necessary prior approvals from all concernedcompetent authorities & others as per relevant regulation of MMC act for the proposedconstruction of the building.

Note :

a) Stipulating Fire protection & Fire fighting requirements to do the compliance is for minimizing the chance of occurrence of Fire through active & passive measures. The consequential life & property loss due to fire, due to any noncompliance at any instance the owner/occupier/ user/ society as the case may be will be solely responsible.

b) The fire-fighting installations shall be carried out as per prevailing standard code of practising by Govt. Approved Licensed agency and certificate of that effect and certified schematic drawing of the same shall be obtained from Govt. Approved Licensed agency before applying for compliance remarks of this department.

c) This approval is issued only from Fire Protection & Fire-Fighting requirements point of view and shall not be treated as authorized/legal document. Any authorized or legal matter shall be cleared by owner/ occupier/ developer/ architects etc. It is issued for instant proposal only, considering the online application/information by Architect. It shall not be used as precedent for other proposals.

d) If any matter in this case, not in consonance with DCPR 2034 then this proposal shall be referred back to this department for issuing fresh remarks.

e) The width of abutting road & open spaces are mentioned in plans as submitted by the Architect/ License Surveyor attached herewith and these parameters shall be certified by the Architect/ License Surveyor. Same shall be complied before submission for obtaining the compliance to this department.

f) These Fire protection & Fire Fighting requirements stipulated to do the compliance, for the instant online proposal as per E.O.D.B. circular. It is valid only subject to necessary approvals from all the competent authorities.

Scrutinized & Prepared by
D.F.O. K.D.Ghadigaonkar

Approved by
C.F.O. S.Y.Manjrekar

Copy to :

E.E.B.P. (City)

Annexure 3 NOC 05
Tree NOC

BRIHANMUMBAI MUNICIPAL CORPORATION

TREE AUTHORITY

Office of the Supdt of Gardens
Veermata Jijabai Bhosale Udyan
Dr. Ambedkar Road, Byculla (E),
Mumbai-400 027.

To
M/s. Harbour Front Properties LLP.
17 th Floor,Avighna House,
Dr A.B.Road, Worli Naka, Mumbai – 400018

Dy.S.G./C/ 93 /CC-OC/Prop/DD/ /MDG/ II
Date:- 17 . 3 . 2023 .

Sub:NOC for getting Commencement Certificate for proposed building on plot bearing CS. No.932 of Worli Division Plot No.73 (P) & 74 of Scheme No. 58, B.G.Kher Road, Worli G/South Ward.

Ref: P-12946/2022/(932)/G/South/Worli/337/1/New dtd.14.03.2023

Dear Sir.

Please refer to your letter No-Nil-dated 15.03.2023 on the above cited subject There is no objection to allow you to develop the property as proposed in the plan submitted by you as no trees are coming in the construction of proposed building .

Further, N.O.C. for planting requisite no of trees in the open spaces at the rate of two trees per 100 Sq. mt. and 5 trees per 100 Sq M. in RG, should be obtained from the Tree Officer before getting Occupation/Completion Certificate.

There are **07 (Seven)** numbers of trees existing in the said plot should be preserved where they are. Further requisite number of new trees should be planted as per the norms at the said plot.

Pro-rata charges of **06 (Six)** number of trees should be paid before handing over the set-back area to BMC.

Thanking you.

Yours faithfully,

Supdt. of Gardens
& Tree Officer

Annexure 4 UD letter

महाराष्ट्र प्रादेशिक व नगर रचना अधिनियम, १९६६
सी.एस.क्र.९३२, वरळी डिव्हीजन, मुंबई या
जमिनीसंदर्भातील फ़ेरबदलास उक्त अधिनियमाचे
कलम ३७(२) अन्वये मंजूरीबाबत

महाराष्ट्र शासन
नगर विकास विभाग
शिबिर कार्यालय, नागपूर- ४४०००१.
क्रमांक :- टिपीबी -४३२३/१३७/प्र.क्र.८७/२०२३/नवि-११
दिनांक :- १३ डिसेंबर, २०२३

शासन निर्णय : सोबतची अधिसूचना महाराष्ट्र शासनाच्या साधारण राजपत्रात प्रसिध्द करण्यात यावी.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

Patil
(अमर पाटील)
अवर सचिव महाराष्ट्र शासन

प्रत -:

१. मा. राज्यपाल यांचे प्रधान सचिव, राजभवन, मुंबई.
२. मा. मुख्यमंत्री महोदय यांचे अप्पर मुख्य सचिव, मंत्रालय, मुंबई.
३. मा.उप मुख्यमंत्री तथा गृह मंत्री महोदय यांचे सचिव, मंत्रालय, मुंबई.
४. मा.उप मुख्यमंत्री तथा वित्त व नियोजन मंत्री महोदय यांचे सचिव, मंत्रालय, मुंबई
५. मा. विरोधी पक्षनेता, विधानपरिषद / विधानसभा, महाराष्ट्र विधानमंडळ सचिवालय.
६. मा. उपसभापती, महाराष्ट्र विधानपरिषद, महाराष्ट्र विधानमंडळ सचिवालय, मुंबई.
७. मा. उपाध्यक्ष, महाराष्ट्र विधानसभा, महाराष्ट्र विधानमंडळ सचिवालय, मुंबई.
८. मा.प्रधान सचिव (नवि-१), नगर विकास विभाग, मंत्रालय, मुंबई.

प्रति,

(१) आयुक्त, बृहन्मुंबई महानगरपालिका, मुंबई.
(२) संचालक, नगर रचना, महाराष्ट्र राज्य, पुणे.
(३) उपसंचालक, नगर रचना, बृहन्मुंबई, इन्साहटमेंट, महापालिका मार्ग, मुंबई- ४००००१.
(४) व्यवस्थापक, शासकीय मध्यवर्ती मुद्रणालय, चर्नीरोड, मुंबई.
(त्यांना विनंती करण्यात येते की, सोबतची अधिसूचना महाराष्ट्र शासनाचे साधारण राजपत्रात भाग-१ मध्ये प्रसिध्द करुन त्याच्या प्रत्येकी १० प्रती १)नगर विकास विभाग नवि-११), मंत्रालय, मुंबई २) आयुक्त, बृहन्मुंबई महानगरपालिका, मुंबई ३) संचालक, नगर रचना, महाराष्ट्र राज्य, पुणे व ४) उपसंचालक, नगर रचना, बृहन्मुंबई यांना पाठविण्यात याव्यात.)
(५) कक्ष अधिकारी, कार्यासन नवि-२९, यांना विनंती करण्यात येते की, सोबतची अधिसूचना विभागाच्या वेबसाईटवर प्रसिध्द करावी.
(६) निवड नस्ती (नवि-११).

Maharashtra Regional and Town Planning Act, 1966.
Sanction to modification in respect of Land bearing C.S. No.932, Worli Division, Mumbai Under Section 37(2) of the said Act.

GOVERNMENT OF MAHARASHTRA
Urban Development department,
Camp office, Nagpur-440001.
Date : 13th December, 2023.

NOTIFICATION

No.TPB-4323/137/C.R.87/2023/UD-11

Whereas, the Municipal Corporation of Greater Mumbai is the Planning Authority for the area within its jurisdiction (hereinafter referred to as "the said Corporation") as per the provision of Maharashtra Regional and Town Planning Act, 1966 (hereinafter referred to as "the said Act");

Whereas, in exercise of the powers conferred by sub Section (1) of Section 31 of the said Act, the State Government vide Notification No. TPB-4317/629/CR-118/2017/DP/UD-11, Dt. 08/05/2018 (hereinafter referred to as "the said Notification") has accorded sanction to the Draft Development Plan-2034 of Greater Mumbai (hereinafter referred to as "the said Development Plan") along with the Development Control and Promotion Regulations-2034 (hereinafter referred to as "the said Regulations") for Greater Mumbai with modifications shown in SCHEDULE-A appended to the said Notification excluding the substantial modifications as shown in SCHEDULE-B appended to the said Notification. And whereas, Government has issued corrigendum of even number dt. 22nd June, 2018; And whereas, thereafter Government has issued a Corrigendum and Addendum of even number dt. 29th June, 2018 to the said Notification, which is published in Government Gazette dt. 30th June, 2018; and whereas, the said Regulations have come into force from 1/09/2018;

And whereas, as per the said Development Plan, the reservation of "Garden/Park (ROS1.5)" (Part of larger reservation) (hereinafter referred to as "the said Reservation") is shown on the land bearing C.S.No.932, Worli Division, Mumbai. (hereinafter referred to as "the said Land");

And whereas, Government in Urban Development Department has received a letter dtd.20/03/2023 from the said Corporation (hereinafter referred to "the said letter"); And whereas, it is stated in the said letter that, M/s Harbour Front Properties LLP vide their letter dtd.21/08/2022 has requested the said Corporation to delete the said Reservation shown on the said land stating that "*95% of the RG reservation on adjoining plot is approx 6 m higher than the rest 5% RG. The RG portion on the adjoining plot (i.e. 95%) has already been handed over at the time of development of that plot and access to the RG portion in captioned plot is not feasible due to contour. Furthermore, it is mentioned that, Ground + 3 storey building has been existing on the BMC Estate plot i.e. plot under reference and that no part of plot has been earmarked for reservation on site. Applicant has intended to redevelop this plot and occupant of the building would be rehabilitated under the provision of Reg 33(7) A.*"

And whereas, considering the abovesaid request, in exercise of the powers conferred under Sub-Section (1) of Section 37 of the said Act, the said Corporation has initiated modification

proposal to delete the said Reservation shown on the said land (hereinafter referred to as 'the proposed modification'); And whereas accordingly, the said Corporation had issued Notice for inviting suggestions/objections from the general public with regard to the proposed modification which is published in Maharashtra Government Gazette on 09-15 February,2023; And whereas, the said Corporation after completing all the legal procedure regarding the proposed modification as stipulated under Section 37(1) of the said Act, has submitted the modification proposal vide said letter to the Government for sanction;

And whereas, Director of Town Planning, Maharashtra State, Pune vide his letter dated 07/06/2023 has submitted his report to the Government on the proposed modification;

And whereas, the Government in Urban Development Department has issued directives dated 20/04/2016 under section 154 of the said Act regarding levying of premium charges in the cases of modification proposals in respect of change of landuse in sanctioned Development Plans of the Planning Authorities (hereinafter referred to as 'the said directives'); And whereas, the MCGM vide its letter dated 20/11/2023 has informed to the Government that, as per the said directives, the land owner/developer has paid the requisite amount of Rs.7,80,100/- towards premium share (50%) of Planning Authority to MCGM and the remaining requisite amount of Rs.7,80,100/- towards premium share (50%) of the State Government has been paid by the applicant to the Deputy Director of Town Planning office;

And whereas, after considering the request of the said Corporation and after consulting the Director of Town Planning, Maharashtra State, the Government is of the opinion that the proposed modification is required to be sanctioned;

Now, therefore, in exercise of the powers conferred upon it under Section 37(2) of the said Act, the Government hereby:-

A) Sanctions the proposed modification as described more specifically in the Schedule hereinunder.
B) Fixes the date of publication of this Notification in the Official Gazette as the date of coming into force of this modification.
C) Directs the Municipal Corporation of Greater Mumbai that in the Schedule of Modifications sanctioning the said Development Plan, after the last entry, the Schedule referred to at (A) above shall be added.

SCHEDULE

"The reservation of "Garden/Park (ROS1.5)" shown on the land bearing C.S.No.932, Worli Division, Mumbai is deleted and the land so deleted is included in Residential Zone."

This Notification shall also be published on the Maharashtra Government website- www.maharashtra.gov.in (Acts/ Rules)

By order and in the name of the Governor of Maharashtra

नगर विकास विभाग, मंत्रालय, मुंबई - 32

(Amar Patil)
Under Secretary to Government

महाराष्ट्र प्रादेशिक व नगर रचना अधिनियम,१९६६
सी.एस.क्र.९३२, वरळी डिव्हीजन, मुंबई या जमिनीसंदर्भातील
फ़ेरबदलास उक्त अधिनियमाचे कलम ३७(२) अन्वये मंजूरीबाबत

महाराष्ट्र शासन
नगर विकास विभाग
शिबिर कार्यालय, नागपूर- ४४०००१,
दिनांक :- १३ डिसेंबर, २०२३

अधिसूचना

क्र. टिपीबी-४३२३/१३७/प्र.क्र.८७/२०२३/नवि-११

ज्याअर्थी, महाराष्ट्र प्रादेशिक व नगर रचना अधिनियम, १९६६ (यापुढे ज्याचा उल्लेख "उक्त अधिनियम" असा करणेत आलेला आहे.) च्या तरतुदींनुसार बृहन्मुंबई महानगरपालिका त्यांचे अधिकार क्षेत्राकरीता (यापुढे ज्याचा उल्लेख "उक्त महानगरपालिका" असा करणेत आलेला आहे.) नियोजन प्राधिकरण आहे;

ज्याअर्थी, उक्त अधिनियमाचे कलम ३१ पोट-कलम (१) अन्वये प्राप्त अधिकारांचा वापर करून राज्य शासनाने अधिसूचना क्र. टिपीबी-४३१७/६२९/प्र.क्र.१९८/२०१७/वियो/नवि-,११ दि.८/०५/२०१८ (यापुढे याचा उल्लेख "उक्त अधिसूचना" असा करणेत आलेला आहे) द्वारे बृहन्मुंबई प्रारूप विकास योजना २०३४ (यापुढे याचा उल्लेख "उक्त विकास योजना" असा करणेत आलेला आहे) सह विकास नियंत्रण व प्रोत्साहन नियमावली २०३४ ला (यापुढे याचा उल्लेख "उक्त नियमावली" असा करणेत आलेला आहे) उक्त अधिसूचनसोबतचे परिशिष्ट-ब मध्ये दर्शविलेले सारभूत स्वरुपाचे फेरबदल (ई.पी.) वगळून उक्त अधिसूचनेत परिशिष्ट-अ मध्ये दर्शविलेल्या सुधारणेसह मंजूरी दिली आहे; आणि ज्याअर्थी, शासनाने उक्त अधिसूचनेस सम क्रमांकाचे शुध्दीपत्रक दि.२२ जून २०१८ रोजी निर्गमित केले आहे; आणि ज्याअर्थी, त्यानंतर उक्त अधिसूचनेस शासनाने समक्रमांकाचे शुध्दीपत्रक व पुरकपत्र दि. २९ जून, २०१८ रोजी पारित केले असून सदर शुध्दीपत्रक व पुरकपत्र महाराष्ट्र शासनाच्या राजपत्रात दि. ३० जून, २०१८ रोजी प्रसिध्द करण्यात आले आहे; आणि ज्याअर्थी, उक्त नियमावली, दि.१/०९/२०१८ पासून अंमलात आली आहे;

आणि ज्याअर्थी, उक्त विकास योजनेनुसार, सी.एस.क्र.९३२, वरळी डिव्हीजन, मुंबई या जमिनीवर (यापुढे याचा उल्लेख "उक्त जमिन" असा करणेत आलेला आहे.) उद्यान/बगीचा (ROS1.5) चे आरक्षण (मोठ्या आरक्षणाचा भाग) दर्शविण्यात आले आहे. (यापुढे याचा उल्लेख "उक्त आरक्षण" असा करणेत आलेला आहे.)

आणि ज्याअर्थी, उक्त महानगरपालिकेकडील दि.२०/०३/२०२३ रोजीचे पत्र (यापुढे याचा उल्लेख "उक्त पत्र" असा करणेत आलेला आहे.) शासन नगर विकास विभागास प्राप्त झाले आहे; आणि ज्याअर्थी, उक्त पत्रात नमूद केल्याप्रमाणे, मे. हार्बर फ्रंट प्रॉपर्टीज यांनी दि.२१/०८/२०२२ रोजीचे उक्त महानगरपालिकेस सादर केलेल्या पत्रामध्ये "*मनोरंजन मैदानाच्या आरक्षणापैकी ९५% आरक्षण हे लगतच्या भूखंडावर म्हणजेच वरळी डिव्हीजन मधील भू.क्र.९३० या भूखडावर स्थित असून, उर्वरित ५% आरक्षण भू.क्र.९३२ या भूखंडावर स्थित आहे. तसेच सदर भूभागाच्या भूपृष्ठामध्ये अंदाजे ६ मीटर इतकी तफावत आहे. शेजारच्या भूभागाच्या विकासाच्या वेळी मनोरंजन मैदानाचे आरक्षण (म्हणजेच ९५%) आधीच सुपूर्द करण्यात आले आहे. यास्तव, भू.क्र.९३२ वर स्थित असलेल्या मनोरंजन मैदानाच्या आरक्षणावर सुपूर्त करण्यात आलेल्या मनोरंजन*

मैदानावरून प्रवेश करणे शक्य नाही. शिवाय, महापालिकेच्या मालमत्ता विभागातील ह्या भूभागावर तळमजला + ३ मजली इमारत अस्तित्वात आहे आणि सदर भूभागाचा कोणताही भाग आरक्षणासाठी निश्चित केलेला नाही. अर्जदाराचा या भूखंडाचा पुनर्विकास करण्याचा हेतू आहे आणि इमारतीतील रहिवाश्यांचे पुनर्वसन विकास नियंत्रण व प्रोत्साहन नियमावली-२०३४ च्या विनियम ३३(७)अ च्या तरतुदीनुसार केले जाईल" असे नमूद केले असून उक्त जमिनीवर दर्शविण्यात आलेले उक्त आरक्षण वगळण्याबाबत विनंती केली आहे;

आणि ज्याअर्थी, वर नमूद विनंती विचारात घेऊन उक्त महानगरपालिकेने उक्त अधिनियमाचे कलम ३७ चे पोट कलम (१) नुसार प्राप्त अधिकारांतर्गत उक्त जमिनीवर दर्शविण्यात आलेले उक्त आरक्षण वगळणेबाबत फ़ेरबदल प्रस्ताव कार्यान्वित केला आहे (यापुढे याचा उल्लेख "प्रस्तावित फ़ेरबदल" असा करणेत आलेला आहे.); आणि ज्याअर्थी, उक्त महानगरपालिकेने सदर प्रस्तावित फ़ेरबदलाची सूचना सामान्य जनतेच्या सूचना/हरकतीकरिता महाराष्ट्र शासन राजपत्रात दि.०९-१५ फ़ेब्रुवारी,२०२३ रोजी प्रसिध्द केली आहे; आणि ज्याअर्थी, उक्त महानगरपालिकेने उक्त अधिनियमाचे कलम ३७(१) अन्वये प्रस्तावित फेरबदलाची वैधानिक कार्यवाही पूर्ण करुन उक्त पत्रान्वये फेरबदल प्रस्ताव शासनाचे मान्यतेसाठी सादर केला आहे;

आणि ज्याअर्थी संचालक, नगर रचना, महाराष्ट्र राज्य, पूणे यांनी त्यांचेकडील दि.०७/०६/२०२३ रोजीचे पत्राद्वारे सदर प्रस्तावित फ़ेरबदलावर अहवाल सादर केला आहे;

ज्याअर्थी, शासन नगर विकास विभागाकडील उक्त अधिनियमाचे कलम १५४ खालील दि.२०/०४/२०१६ रोजीचे निदेशान्वये (यापुढे याचा उल्लेख 'उक्त निदेश' असा करणेत आलेला आहे) नियोजन प्राधिकरणांच्या मंजूर विकास योजनेतील जमिन वापर बदलासंबंधीचे फ़ेरबदल प्रस्तावांमध्ये अधिमुल्य वसुल करून घेणेबाबत निदेश दिण्यात आले आहेत; आणि ज्याअर्थी, उक्त महापालिकेने दि.२०/११/२०२३ रोजीचे पत्रान्वये, जमिनमालक/विकासक यांनी उक्त निदेशानुसार भरणा करावयाचे एकूण अधिमूल्य रकमेपैकी नियोजन प्राधिकरणाचे हिश्यापोटी (५०%) देय असलेल्या रु.७,८०,१००/- अधिमुल्य रक्कमेचा भरणा उक्त महापालिकेस केला असल्याचे व राज्य शासनाचे हिश्यापोटी (५०%) देय असलेल्या उर्वरित रु.७,८०,१००/- अधिमुल्य रकमेचा भरणा उपसंचालक, नगर रचना, बृहन्मुंबई या कार्यालयाच्या लेखाशिर्षामध्ये शासन कोषागारात केला असल्याचे शासन नगर विकास विभागास कळविले आहे;

आणि ज्याअर्थी उक्त महानगरपालिकेची विनंती विचारात घेऊन व संचालक, नगर रचना, महाराष्ट्र राज्य, पूणे यांचेशी सल्लामसलत केल्यानंतर प्रस्तावित फ़ेरबदल मंजूर करणे आवश्यक असल्याचे शासनाचे मत झालेले आहे;

आता त्याअर्थी, उक्त अधिनियमाच्या कलम ३७(२) अन्वये प्राप्त अधिकारात आणि त्या संदर्भातील सर्व शक्तींचा वापर करुन शासन याद्वारे: -

अ) उक्त प्रस्तावित फेरबदलाचे प्रस्तावास खालील परिशिष्टामध्ये नमूद केलेप्रमाणे मंजूरी देत आहे.

ब) सदरची अधिसूचना शासकीय राजपत्रामध्ये प्रसिध्द झालेचा दिनांक हा उक्त फेरबदल अंमलात आलेचा दिनांक असेल.

क) बृहन्मुंबई महानगरपालिकेच्या उक्त विकास योजनेच्या मंजूरी सोबतच्या फेरबदलाचे परिशिष्टामध्ये शेवटच्या नोंदीनंतर खालील परिशिष्ट समाविष्ट करणेचे निर्देश देत आहे.

नगर विकास विभाग, सत्यमेव जयते, मंत्रालय, मुंबई - 32.

परिशिष्ट

"The reservation of "Garden/Park (ROS1.5)" shown on the land bearing C.S.No.932, Worli Division, Mumbai is deleted and the land so deleted is included in Residential Zone."

सदर अधिसूचना महाराष्ट्र शासनाच्या www.maharashtra.gov.in (कायदे /नियम) या वेबसाईटवर देखील उपलब्ध करण्यात आली आहे.

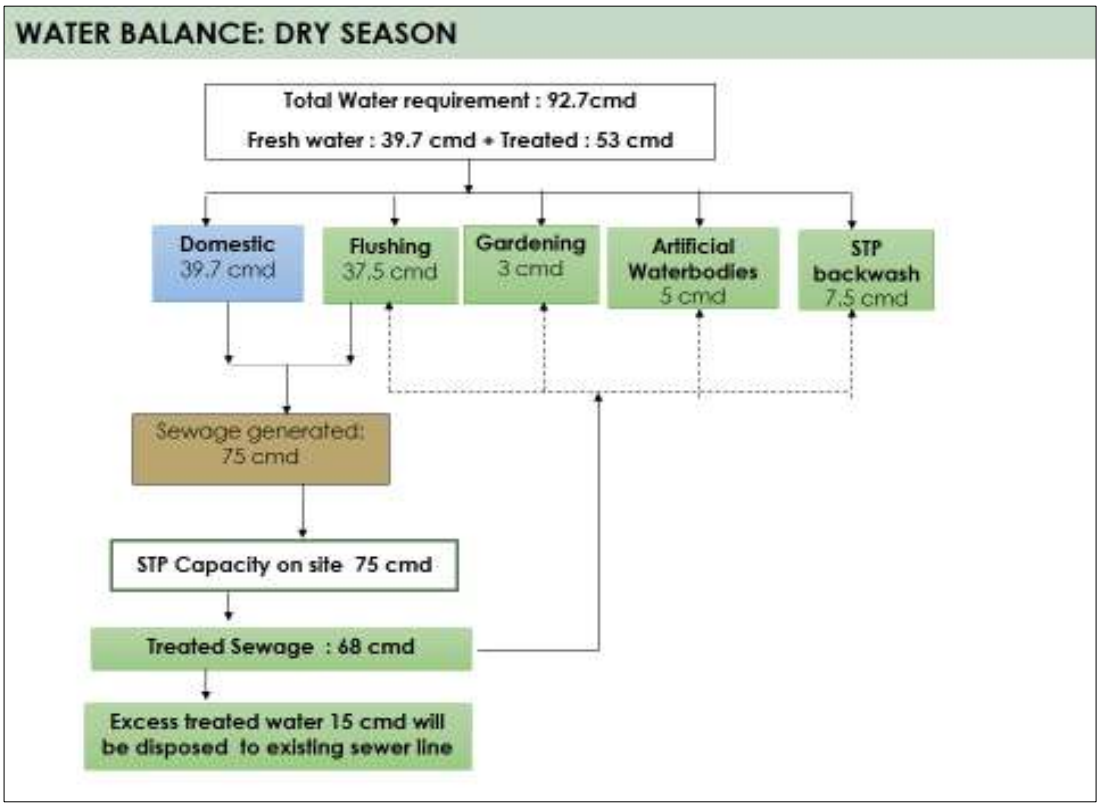
महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

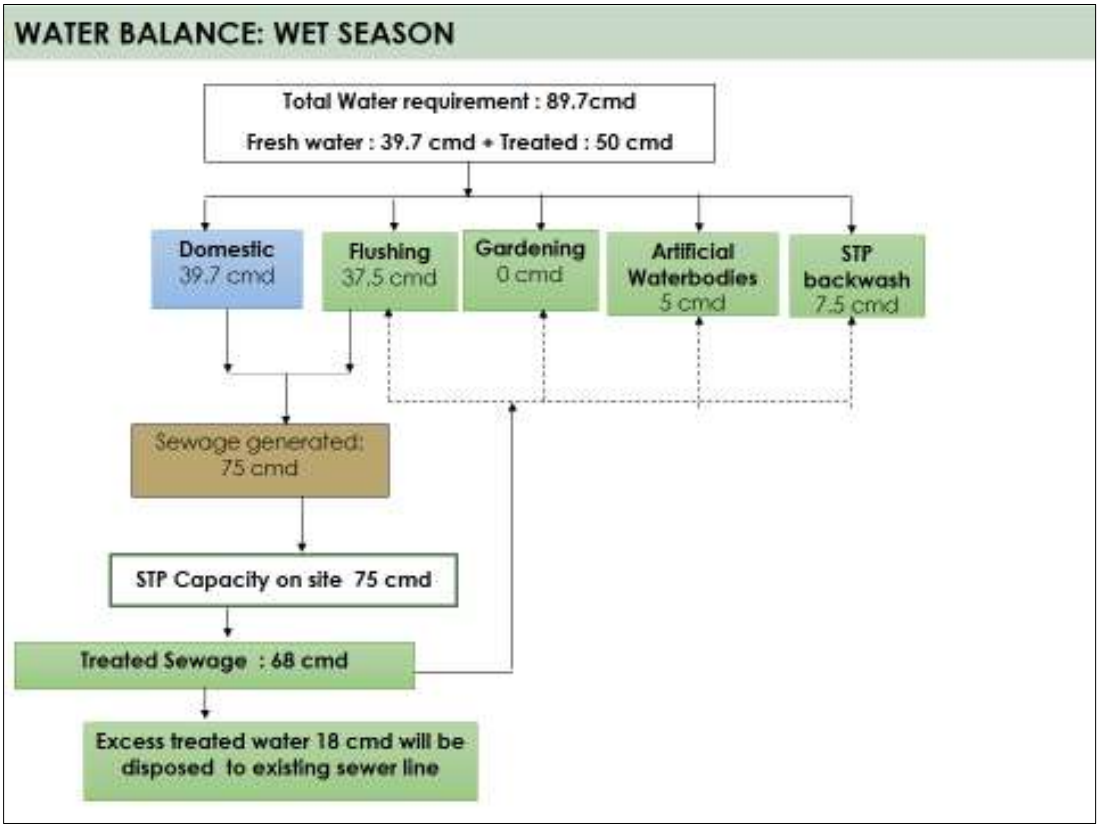
(अमर पाटील)
अवर सचिव, महाराष्ट्र शासन

Annexure - 5 Water Management

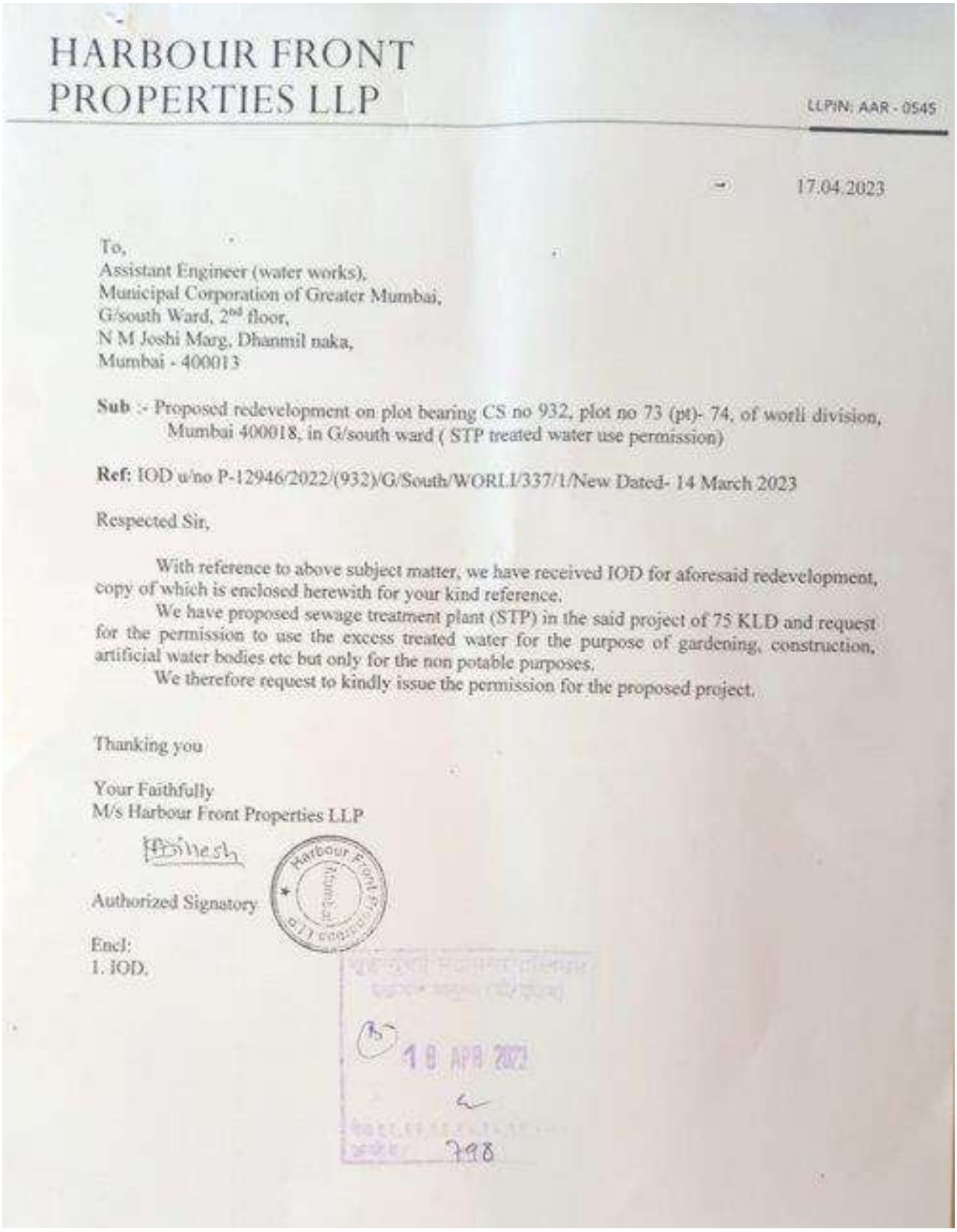
SEAC Condition 3: PP to submit revised water balance Chart by Changing/removing the use of excess treated water for car washing. PP to submit NOC/undertaking from MCGM regarding use of excess treated water for gardening.

Reply: The revised water balance chart by changing /removing the use of excess treated water for car washing is as follows :





NOC /undertaking from MCGM regarding use of excess treated water for gardening: Request letter submitted to MCGM.



HARBOUR FRONT
PROPERTIES LLP

LLPIN: AAR - 0545

17.04.2023

To,
Assistant Engineer (water works),
Municipal Corporation of Greater Mumbai,
G/south Ward, 2nd floor,
N M Joshi Marg, Dhanmil naka,
Mumbai - 400013

Sub :- Proposed redevelopment on plot bearing CS no 932, plot no 73 (pt)- 74, of worli division, Mumbai 400018, in G/south ward (STP treated water use permission)

Ref: IOD u/no P-12946/2022/(932)/G/South/WORLI/337/1/New Dated- 14 March 2023

Respected Sir,

With reference to above subject matter, we have received IOD for aforesaid redevelopment, copy of which is enclosed herewith for your kind reference.

We have proposed sewage treatment plant (STP) in the said project of 75 KLD and request for the permission to use the excess treated water for the purpose of gardening, construction, artificial water bodies etc but only for the non potable purposes.

We therefore request to kindly issue the permission for the proposed project.

Thanking you

Your Faithfully
M/s Harbour Front Properties LLP

Authorized Signatory

Encl:
1. IOD.

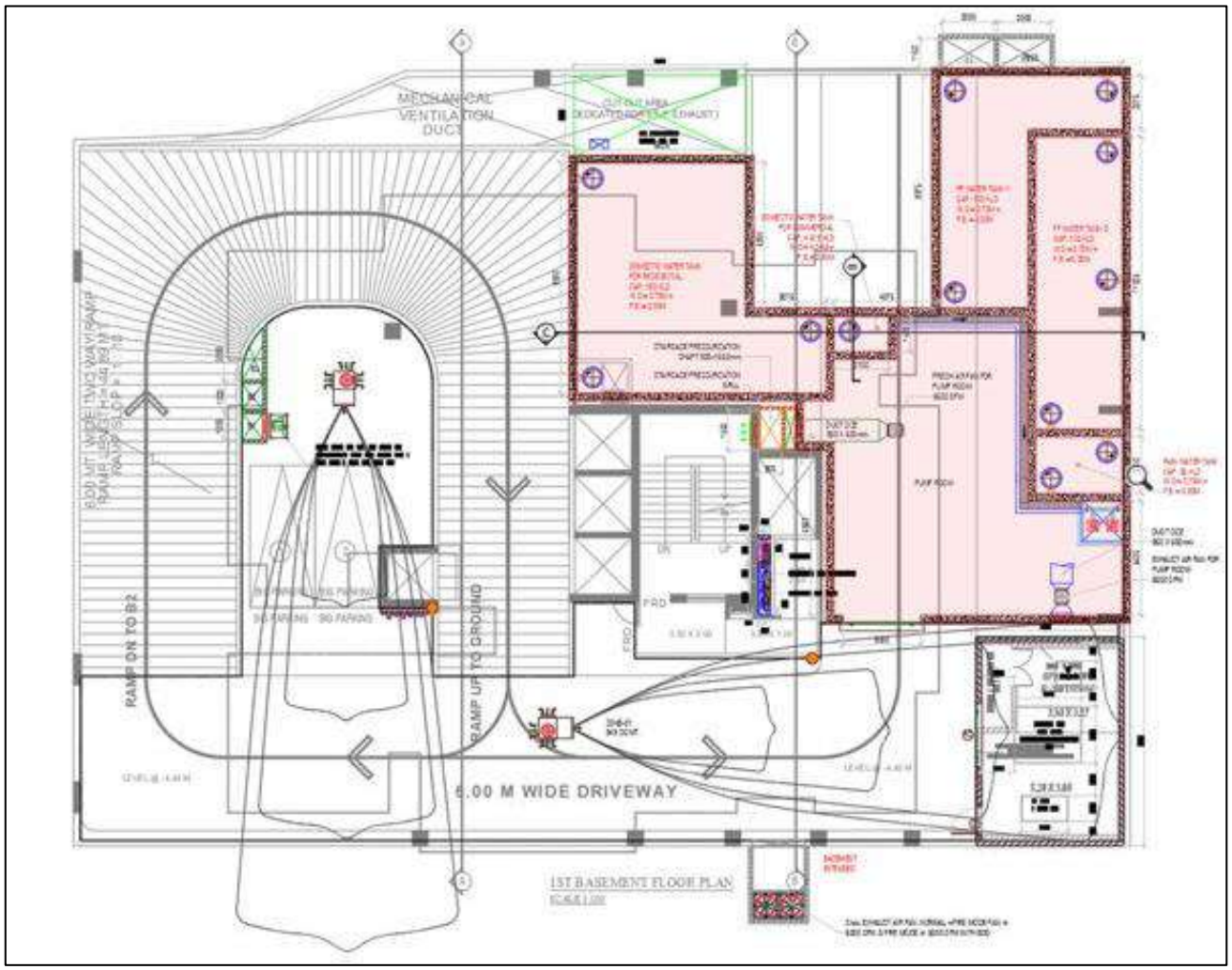
18 APR 2023

398

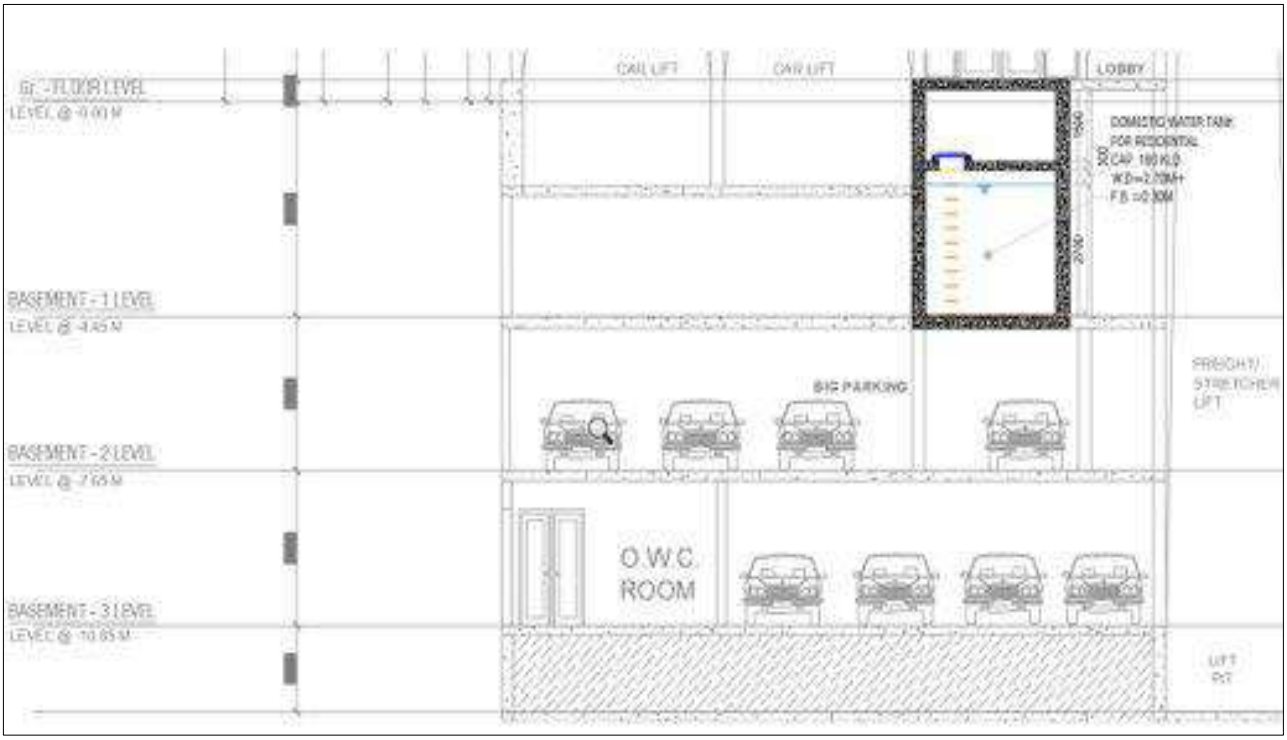
SEAC Condition 7: PP to relocate UGT to 1st basement such that top of the UGT is flush to the ground level as mentioned in CFO NOC & submit revised layout of UGTs with cross section.

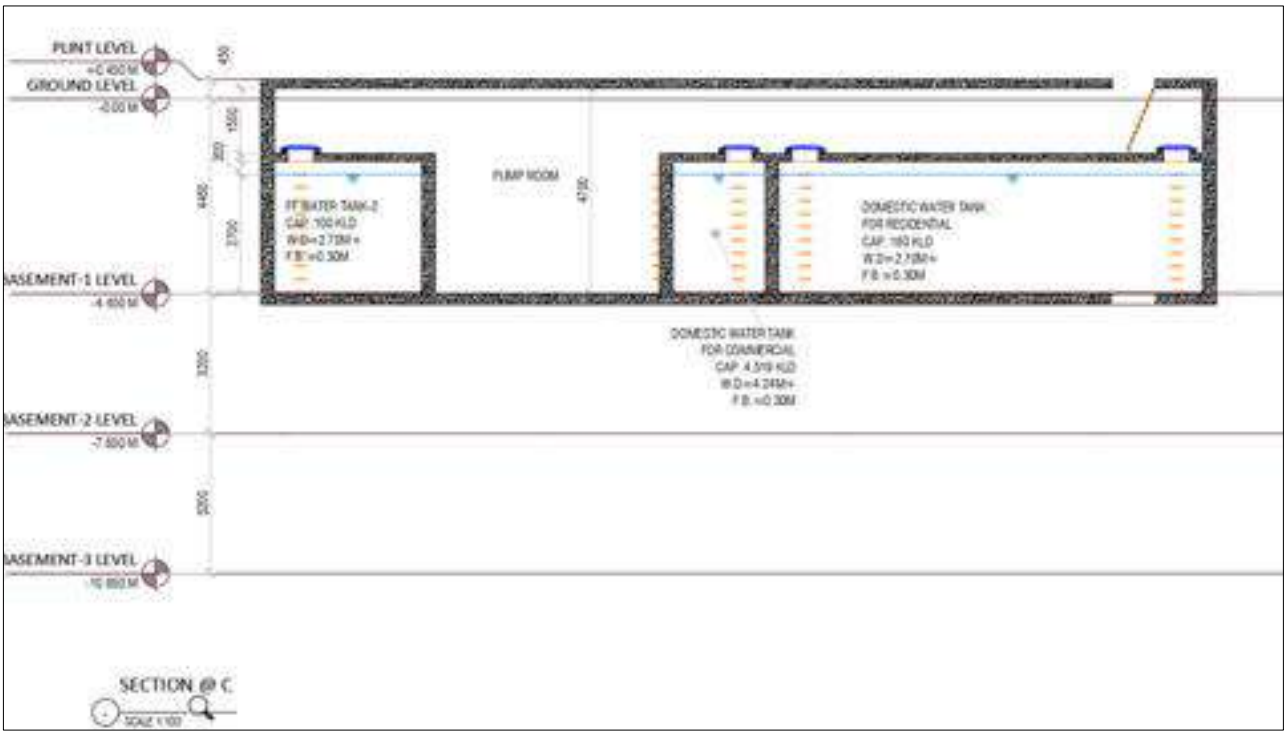
Compliance: As directed, we have relocated the UGT to 1st basement such that top of the UGT can be accessed from the ground level.

LOCATION OF UG TANKS: BASEMENT 1



Section of UG tanks – Basement 1





General Condition | Construction Phase:

Condition no 6: Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices.

Compliance: Complied. The proposed building is planned to be a sustainable building and therefore water demand for construction will be reduced in two ways:

1. **Curing agent**: The ground granulated blast furnace slag (GGBS) is the waste slag produced when smelting pig iron in steel plants. It is used as a supplementary cementitious material in concrete. Advantages of GGBS over other admixtures are:
   - Conservation of non-renewable sources
   - Recycling of waste and reductio of waste to landfill
   - Higher Compressive Strength
   - Improved Aesthetics
   - Reduces Carbon Footprint
   - Chemically Stable Concrete
   - Reduces voids in concrete hence reducing permeability
   - Reduced maintenance and repair cost of structures
   - Possesses good pumpable and compaction characteristics
   - Reduces permeability and thereby enhances durability of the concrete structure
   - Reduction in construction water demand
   - Reduces sulphate, chloride, alkali-silica and thermal cracks

   Approximate 15% of GGBS will be used to the total concrete demand of the project.

2. **Treated water for construction:** STP treated waste water will be used as per availability for construction works, thus reducing the fresh water demand of the project for construction. The treated water

General Condition | Operation Phase:

Condition no 3:

A: Installation of STP to be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Treated effluent emanating from STP should be recycled to maximum extent possible. Treatment of 100% of grey water by decentralized treatment should be done. Necessary measures should be made to mitigate odour problem form STP.

B:PP to give 100% treatment to sewage and explore the possibility to recycle atleast 50% water, local authority should ensure this.

Compliance: Complied.

100% sewage and grey water generated in the project will be treated in the proposed 75KLD STP.

is accepted only after testing and as per standards of IS 456:2000

Annexure – 6 (Air)

Compliance point 5 - Submit revised wind analysis for proposed height & accordingly submit revise mitigation measures.

Reply: The revised wind analysis for proposed height and revise mitigation measures is as follows:

The Beaufort Wind scale

- Based on the Beaufort scale data, the wind speed observed in the analysis falls under the Strong Breeze category, with a maximum wind speed of 12m/s.
- This wind speed is not expected to have any significant impact on the building's structural integrity.
- Structural consultant has designed the building with due consideration to IS code -875-2015, with consideration of wind speed of 44 Mts/sec (50 years of return period)for the said structure.

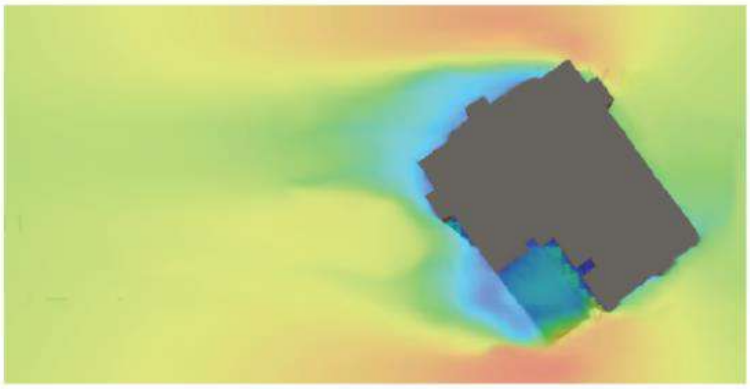


Figure 5.2. CFD Slice in Z axis at 28th floor with maximum wind velocity of 12m/s.

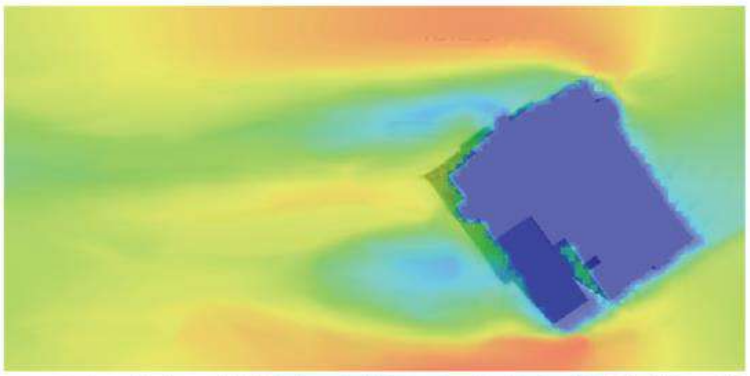


Figure 5.3. CFD Slice in the Z axis at 16th floor height through the refuge area.

Force	Wind Speed (m/s)	Wind Descriptive Terms
0	<0.3	Calm
1	0.3 to 1.5	Light air
2	1.6 to 3.3	Light breeze
3	3.4 to 5.4	Gentle breeze
4	5.5 to 7.9	Moderate breeze
5	8.0 to 10.7	Fresh breeze
6	10.8 to 13.8	Strong breeze
7	13.9 to 17.1	High wind
8	≥17.1	Gale

UniSteps CONSULTING

Ref: P-589/R0 Date: 18.04.2023

TO WHOMSOVER IT MAY CONCERN

Subject: Proposed Development on plot bearing C.S No 932, Plot No.73 (pt)-74, Scheme no 58,of worli Division Mumbai - 400018.

Dear Sir / Madam,

I hereby certify that the structural work of the above proposal has been Designed and carried out for the structure comprising of 3 basement levels+ ground floor + 1st to 8th podium floor + 9th to 28th upper floors as per my structural design and details with due consideration to IS code -875-2015, we had considered wind speed of 44 Mts. /sec (50 years of return period), also for the said structure, there are no any special facade features proposed in all elevations, which have any adverse effect on building due to the wind force.

In addition to wind load factors considerations, the structural work for the said structure has been carried-out with due consideration to seismic forces as per prevalent 1. S. Code No.4326-1993. IS Code 1893- 2016. (The code for earthquake Resistant Structure), 13920-1993-2016 (ductile detailing of reinforced concrete structures subject to seismic forces, 456-2000 (Code of practice for plain and reinforced concrete) and 875-1987 (code of practice for design loads).

& hence, the said structure shall be safe and stable in all aspects for the purpose for which it is intended for to the best of my knowledge and belief today.

Thanking You.
For M/s Unisteps Consulting Pvt Ltd.

Rupesh Chowdhary

RUPESH CHOWDHARY
Consulting Engineer
Reg. No. STR/C/40

Compliance Point 6: Use advanced technologies for dust suppression in addition to sprinkling of water in construction phase & include the cost in same EMP

Reply: we have proposed misting machine for the dust suppression in addition to sprinkling of water in construction phase.

DUST SUPPRESSION MEASURES

For mitigation of impacts due to dust generation / air pollution during construction phase, following measures will be implemented:

a) Creation of steel barriers and covering of construction area with green cloth
b) Installation of misting machines for control of fine dust particles
c) Plantation of Oxygen generating trees

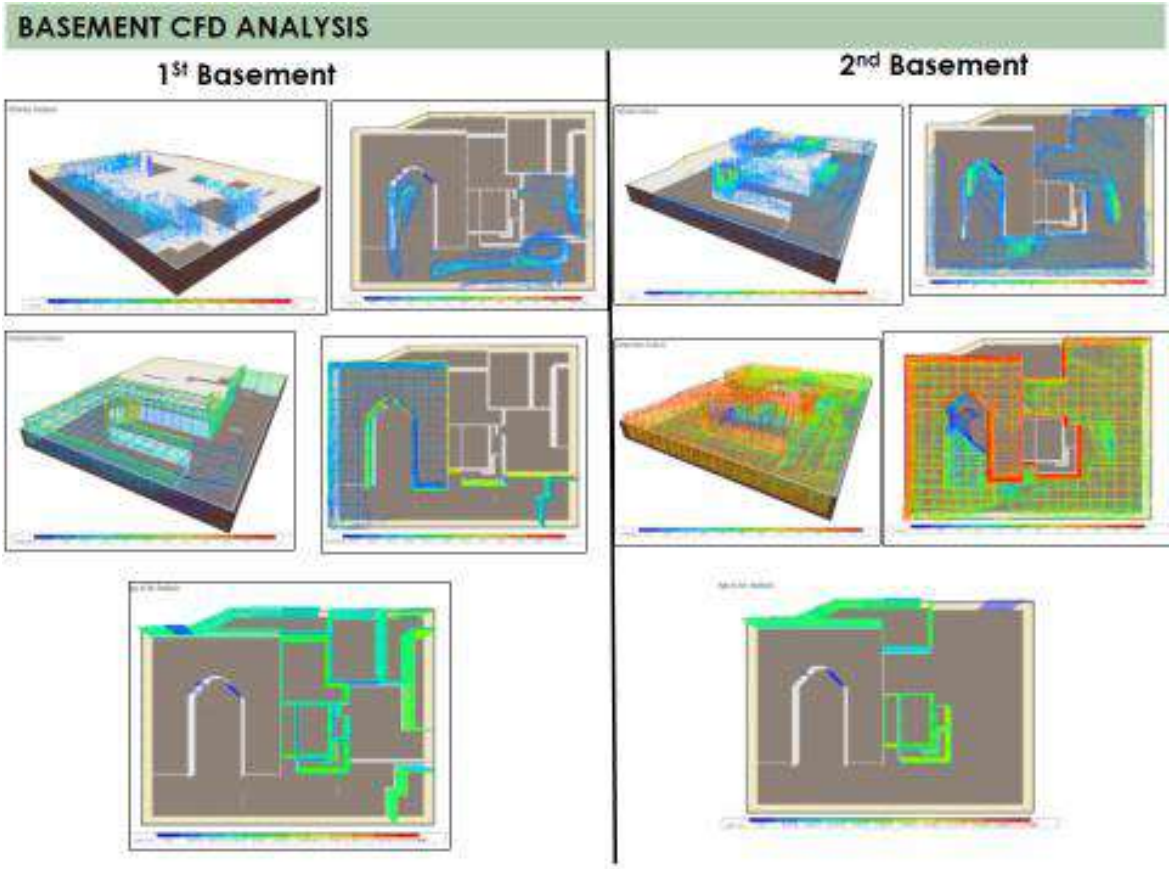
EMP: BUDGETARY ALLOCATION

During Construction Phase

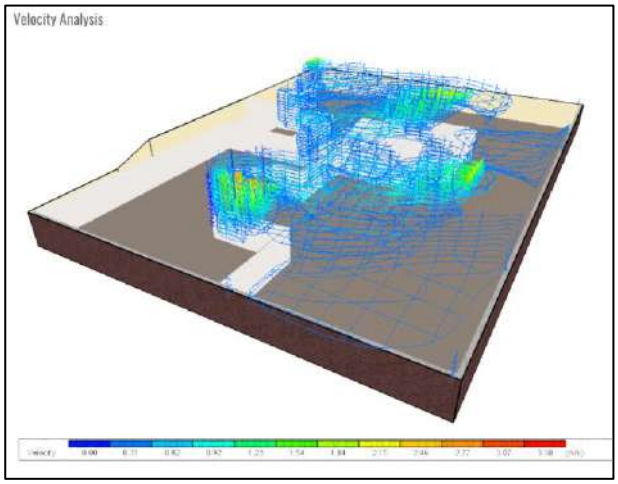
Environment Protection Measure	Capital Cost (Rs. In Lakh)	Recurring Cost per annum (Rs. In Lakh)
Sanitation+ Drinking water + first aid arrangement	5.00	1.00
Dust Suppression	3.80	0.57
Portable STP	9.50	1.20
Environmental monitoring	--	1.50
TOTAL	18.3	4.27

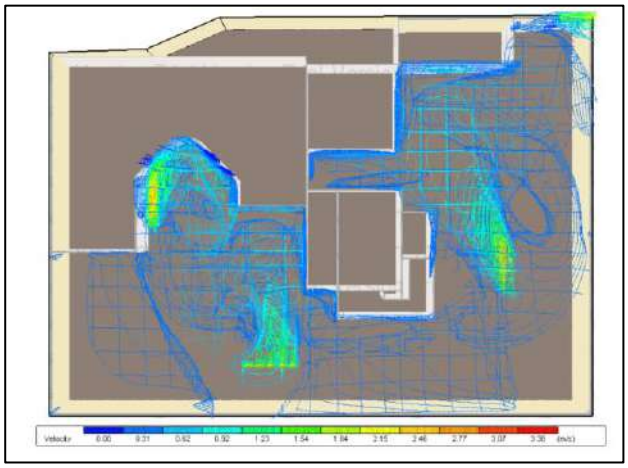
Compliance Point 8: PP to submit details of proposed basement ventilation system along with air purification System & include the cost of Same EMP.

Reply: Revised basement ventilation system along with the air purification system is as follows.



BASEMENT CFD ANALYSIS





CONCLUSION

- CFD simulations show located at the north end of the basement, has a high flow rate of 5700 l/s, which ensures efficient removal of contaminated air.
- The temperature distribution in the basement parking areas is uniform, with no hotspots or cold spots.
- ventilation system is also effective in removing toxic fumes like SOx, NOx, and CO from the basement parking areas.
- CFD analysis shows that the fresh air ventilation system in the proposed building project with two basement parking areas is well optimized and provides a safe and healthy indoor environment.
- The optimized ventilation system design ensures that the building project is compliant and provides a safe and healthy indoor environment for the occupants.
- As per NBC 2016, Basement will be divided into compartments of area not more than 3000 Sq.mt. With water curtains. Mechanical Exhaust & Fresh air System shall be provided at 6 ACPH (air changes per hour) for normal mode & at 12 ACPH for fire mode. The fresh air and exhaust air shall be drawn inside the basement with the help of tube axial fans and shall be distributed throughout the basement with the help of Jet fans.
- Car Park Exhaust is achieved through two systems, the Normal Mode Exhaust System consisting of Tube Axial Fans, these shall be designed for a flow rate of 6 ACPH, and the Fire Mode Axial Fans shall be designed for a flow rate of 6 ACPH. In case of fire the normal as well as the fire mode fans shall operate and hence the exhaust would be at the rate of 12 ACPH.
- The Ventilation Fans in all Basements shall be operated by monitoring the CO levels in the Basement. CO sensors are located at various places and would give indication of the level of CO prevalent at various locations. Ventilation system is integrated with the software and as per CO level it will operate the axial and jet fans. This system is effective and energy efficient. The fresh air & exhaust air shafts shall be separate for each zone

Calculations for Basement Ventilations

BASEMENT VENTILATION CALCULATIONS

VENTILATION CALCULATIONS										
ZONE NAME	TYPE	MODE	AREA (SQ MT)	AREA (SQ FT)	HEIGHT (FT)	ACPH	VOLUME (CU FT)	CFM	FAN CFM	QTY
BASEMENT-01										
ZONE 01	FA	NORMAL + FIRE	343	3691	15	6	56896	5690	6000	1
		FIRE	343	3691	15	6	56896	5690	6000	1
	EX	NORMAL + FIRE	343	3691	15	6	56896	5690	6000	1
		FIRE	343	3691	15	6	56896	5690	6000	1
BASEMENT-02										
ZONE 01	FA	NORMAL + FIRE	755	8128	10	6	78646	7865	8000	1
		FIRE	755	8128	10	6	78646	7865	8000	1
	EX	NORMAL + FIRE	755	8128	10	6	78646	7865	8000	1
		FIRE	755	8128	10	6	78646	7865	8000	1
BASEMENT-03										
ZONE 01	FA	NORMAL + FIRE	766	8246	10	6	79792	7979	8000	1
		FIRE	766	8246	10	6	79792	7979	8000	1
	EX	NORMAL + FIRE	766	8246	10	6	79792	7979	8000	1
		FIRE	766	8246	10	6	79792	7979	8000	1

ANNEXURE 7 GREEN BELT

Compliance Point: PP to Submit architect certificate mentioning % of paved, Non-Paved & podium RG provided is as per provision of DCPR 2034 provisions. PP to convert 5% of proposed RG area into Miyawaki Plantation & include the cost of same in EMP, PP to submit revised tree list with nos. of trees Proposed with species to be planted in Miyawaki Plantation.

Reply: The revised architect certificate mentioning % of paved, Non-Paved & podium RG provided is as per provision of DCPR 2034 provisions:

VIVEK BHOLE ARCHITECTS PVT. LTD.
1ST FLOOR, PINNACLE BUSINESS PARK, MAHAKALI CAVES ROAD, MIDC ANDHERI (EAST) MUMBAI - 400093. PH. 91-22-66130100.
www.vivekbhole.com, E-mail : info@neomodernarch.com / neomodernarch@gmail.com

Architect Certificate for RG area

Date: 18.04.2023

To,
Chairman,
State Environment Impact Assessment Authority (SEIAA)
C/o. Environment Dept., Govt. of Maharashtra
15th Floor, New Administrative Building,
Mantralaya, Mumbai – 400032

Subject: Recreation Ground (RG) for proposed redevelopment of residential & commercial at plot bearing C.S. no 932 of Worli Division, Plot no 73(pt)-74 , B.G Kher Road worli G/South ward Mumbai 400018 by Harbour Front Properties LLP.
(Proposal No.: SIA/MH/ INFRA2/416970/2023)

Sir,

We, hereby declare that Harbour Front Properties LLP. proposed redevelopment of residential & commercial at plot bearing C.S. no 932 of Worli Division, Plot no 73(pt)-74 , B.G Kher Road worli G/South ward Mumbai have proposed mandatory Recreation Ground (RG) area of 249.09 m^2 on ground and part thereof is located on podium as per DCPR 2034. This mandatory RG area is kept open to sky and also enable plantation of trees.

Yours,

Authorized Signatory

VIVEK J BHOLE

(Arch.Vivek J.Bhole)
(Lic. No. CA/95/18735)

The landscape plan showing 5% of proposed RG area into Miyawaki Plantation revised tree list with nos. of trees Proposed with species to be planted in Miyawaki Plantation and the costing of the same is included in EMP:

RG AREA DETAILS- LANDSCAPE PLAN | GROUND FLOOR

RG AREA STATEMENT	
Net Plot Area	1578.73sq mts
15% RG	236.81sq mts
Proposed RG	249.09sq mts
RG on Ground	163.28sq mts
8th Podium Floor	85.81sq mts

TREE STATEMENT	
Existing trees (retained)	5Nos
Proposed trees	17Nos
Total on plot	22Nos

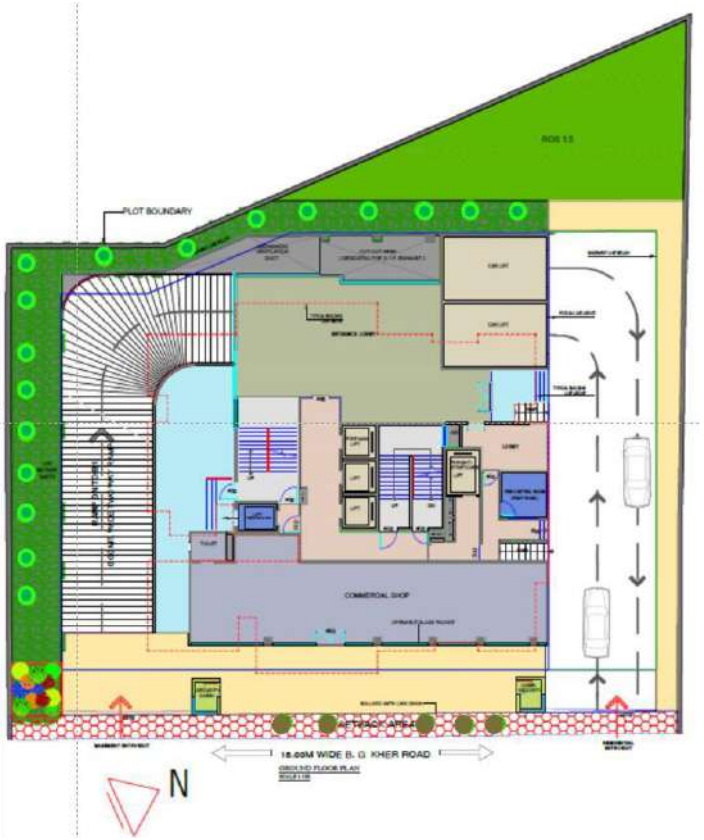
TREE SPECIES EXISTING	
Coconut	4 Nos
Mango	1 No

TREE SPECIES PROPOSED	
Ashoka	6 Nos
Neem	6 Nos
Badam	5 nos.

MIYAWAKI	
Proposed	12.45 sq mts
Tree / sq mts	4 No

MIYAWAKI FOREST

SR. NO.	SYMBOL	QTY.	DESCRIPTION
01		10	SITA ASHOKA (Saraca Asoka)
02		06	KADAMBA (Burflower)
03		06	AMLA (Phyllanthus emblica)
04		06	CHAFA (Temple tree)
05		06	MANGO (Mangifera indica)
06		08	SHRUB (Clerodendron paniculata)
07		08	SHRUB (Bauhinia kockiana)
TOTAL TREES -		50	



Miyawaki plantation area : 5 % of 249.09 sq mts = 12.45 sq mts

LANDSCAPE PLAN | 8th FLOOR

Species list
Pisonia Alba
Alpina variegata
Catharanthus roseus
Combretum indicum (Rangoon creeper)
Plumeria

EMP allocation:

During Construction Phase

Environment Protection Measure	Capital Cost (Rs. In Lakh)	Recurring Cost per annum (Rs. In Lakh)
Sanitation+ Drinking water + first aid arrangement	5.00	1.00
Dust Suppression	3.80	0.57
Portable STP	9.50	1.20
Environmental monitoring	--	1.50
TOTAL	18.3	4.27

During Operation Phase

Environment Protection Measure	Capital Cost (Rs.In Lakh)	Recurring Cost per annum (Rs.In Lakh)
Sewage Treatment Plant	40.00	1.2
Basement Ventilation	35.00	1.5
Low flow Devices (ONLY IN COMMON AREAS)	2.00	0.02
Solid Waste Management	09.50	5
Rainwater Harvesting	08.00	0.60
Green Belt & Landscaping (Including Miyawaki)	35.00	4.5
Energy Saving Measures Solar PV	51.33	2.5
Environmental monitoring	--	1.5
Disaster Management Plan	200	3
TOTAL	380.83	19.82

Annexure 8

Energy Calculations -

Compliance Point 10: PP to submit revised energy calculation with terrace floor plan in accordance with shadow analysis & adequate area for maintenance of solar PV panels & ensure that the energy savings from renewable source shall be minimum 5%

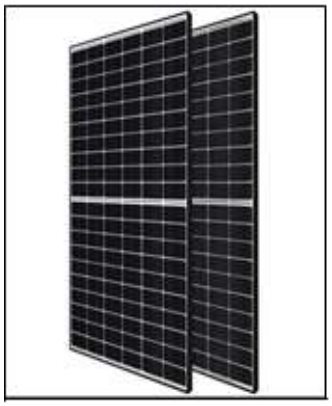
Energy Saving Calculation

ENERGY CONSERVATION STATEMENT FOR CS 932 PROJECT				
Sl.No.	Description	Conventional Units / Day	Energy Saving Units Saved / Day (kWh/ Day)	% of Energy Saving / Day
1	TOWER	121.30	54.85	54.78
2	External Areas (Considering 20% for common area lighting of all towers and External area)	6.72	2.90	56.80
3	Lifts on VFD's for TOWER	444.00	390.72	12.00
4	Domestic Pumps-Set	14.40	12.96	10.00
5	Flushing Pumps-Set	7.20	6.48	10.00
6	Hydropneumatic Pump Domestic	10.80	9.72	10.00
7	Hydropneumatic Pump Flushing	10.80	9.18	15.00
8	Dewatering Pump at Pump Room	14.40	12.96	10.00
9	Dewatering Pump at STP Room	14.40	12.96	10.00
10	STP	33.60	30.24	10.00
11	OWC	10.56	9.50	10.00
12	WTP	4.80	4.32	10.00
13	Irregation Water Transfer Pump	14.40	12.96	10.00
		707.38	**569.76**	
			569.76	
	Total Savings / Year	**47306.90**	**21272.35**	
	Total Savings / Day		**58.28**	
TOTAL ENERGY SAVINGS PER YEAR			**22.39%**	

Solar PV Calculation

Total Energy Saving by Solar PV panel per Annum		
Total kWh unit Generation by Solar per annum	**3060**	**kWh**
Annual Energy consumption IN (kWh/annum)	**47,306.90**	**kWh**
Total Energy Saving of project (kWh / annum)	**21,272.35**	**kWh**
Contribution in above energy saving by Solar PV panels	**14.38**	**%**
Annual energy consumption covered by solar panels	6.47	%

TOTAL INSTALLED CAPACITY OF SOLAR IN kW	**10**	**KW**
No of Solar Panels	17	
watt/panel	600	watts
1 panel area	2.847	sq mt
Total Propsoed over head tank roof top area	48.47	sq mt



Wattage	600W
Solar Cell Type	Monocrystalline
Voltage	24 V DC
Warranty	25 Year
MNRE Approved	Yes
Short Circuit Current	2.80 A
Frame Material	High Strength Aluminium

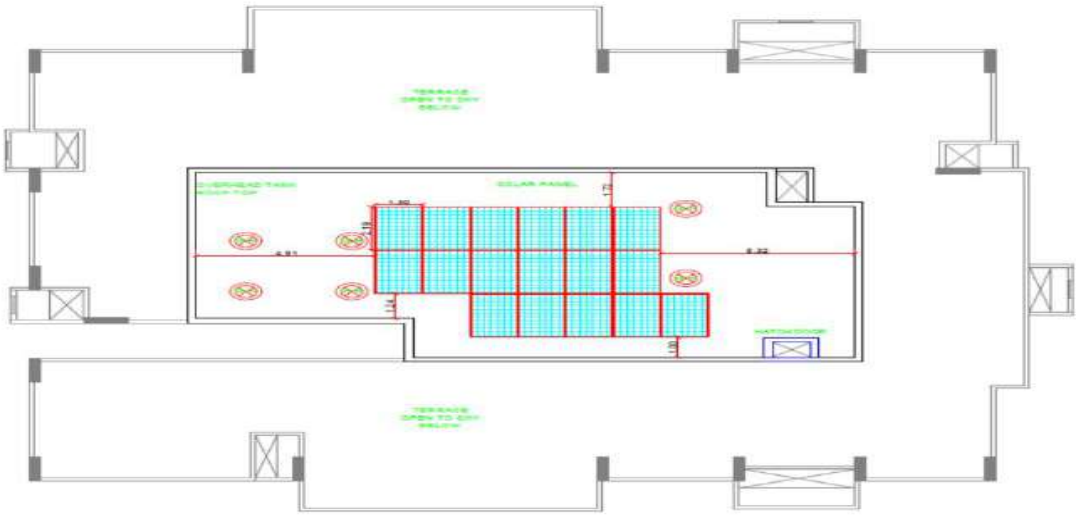
Shadow analysis

Non-Shaded Area – Terrace Area

Shaded Area – Terrace Area

Shaded Area – Terrace Area

Solar PV Calculation



For M/s Harbour Front Properties Private Limited.

ARKA SERIES
WSMD-580 to WSMD-600

WAAREE
One with the Sun

ELECTRICAL CHARACTERISTICS

Models	Pmax (W)		Vmp (V)		Imp (A)		Isc (A)		Voc (V)		Module Eff. (%)
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
WSMD-580	580	436.2	34.21	32.20	16.96	13.53	17.73	14.29	41.56	39.10	20.35
WSMD-585	585	440.1	34.34	32.40	17.04	13.57	17.78	14.33	41.76	39.30	20.52
WSMD-590	590	444.1	34.39	32.60	17.16	13.63	17.84	14.37	41.90	39.40	20.70
WSMD-595	595	448.7	34.44	32.80	17.29	13.68	17.90	14.42	42.05	39.60	20.88
WSMD-600	600	452.4	34.62	32.90	17.35	13.75	17.98	14.49	42.18	39.70	21.06

*Standard Test Conditions (STC) - 1000 W/m2 irradiance, Air Mass 1.5 and 25°C cell temperature. Nominal Operating Cell Temperature (NOCT) - 800 W/m2 irradiance, Air Mass 1.5, Ambient temperature 20°C and Wind speed 1 m/s. Average power reduction of 4.3% at 200 W/m2 as per IEC 60904-1. Measuring Uncertainty ± 3%.

System Voltage	1500 V	Series Fuse Rating	30 A

MECHANICAL CHARACTERISTICS

Length x Width x Thickness (L x W x T)	2190 mm (L) x 1302 mm (W) x 35 mm (T)
Weight	31 kgs
Solar Cells per Module (Units) / Arrangement	120 cells / (10x6 || 10x6)
Solar Cell Type & Size	Mono PERC, 105 x 210 mm
Front Glass	3.2 mm Low Iron and Tempered glass with ARC coating
Encapsulate	PID Free & UV Resistant
Junction Box (Protection degree/ Material)	IP68 / Weatherproof PPO
Cable & Connector (Protection degree / Type)	IP68 rated / MC4 compatible
Cable cross - section & Length	4 mm^2 & 500mm
Frame	Anodized Aluminium Alloy

Solar PV panel layout
Location: Overhead water tank roof top

Annexure 9

Construction phase Analysis

Compliance Point 4 - Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.

Provision of Adequate drinking water and Sanitary facilities For Construction Workers.

Air Pollution Control Measures

PUC OF VEHICLES

Debris Vehicle PUC

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Maharashtra

Date	:	18/05/2024
Time	:	12:45:27 PM
Validity upto	:	17/11/2024

Certificate SL. No.	:	MH00302480009336
Registration No	:	MH48AG5140
Date of Registration	:	15/Nov/2016
Month & Year of Manufacturing	:	September-2016
Valid Mobile Number	:	******2281
Emission Norms	:	BHARAT STAGE III
Fuel	:	DIESEL
PUC Code	:	MH0030248
GSTIN	:	
Fees	:	Rs.150.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 30 mm

Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	0.57

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to https://puc.parivahan.gov.in

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Maharashtra

Date	:	25/10/2024
Time	:	18:27:47 PM
Validity upto	:	24/10/2025

Certificate SL. No.	:	MH04301120035259
Registration No.	:	MH01CV9528
Date of Registration	:	15/Feb/2020
Month & Year of Manufacturing	:	December-2019
Valid Mobile Number	:	******9877
Emission Norms	:	BHARAT STAGE IV
Fuel	:	DIESEL
PUC Code	:	MH0430112
GSTIN	:	
Fees	:	Rs.150.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 30 mm

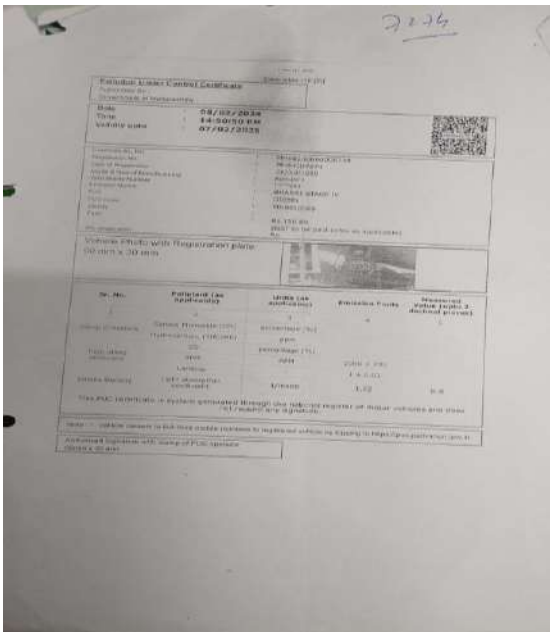
Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	1.62	0.4

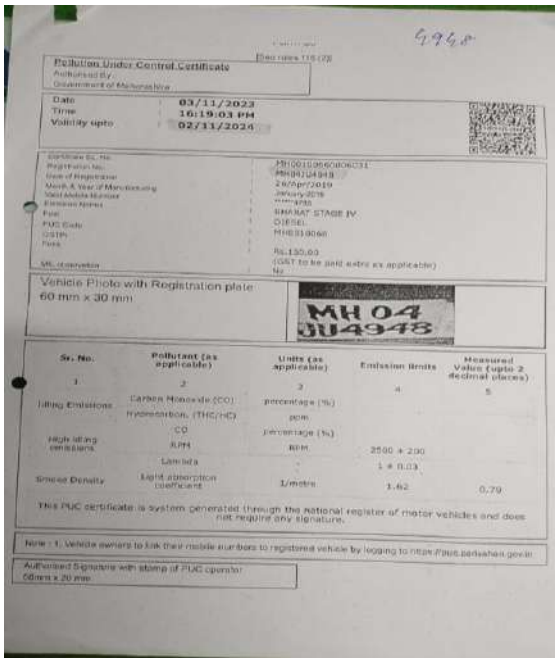
This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to https://puc.parivahan.gov.in

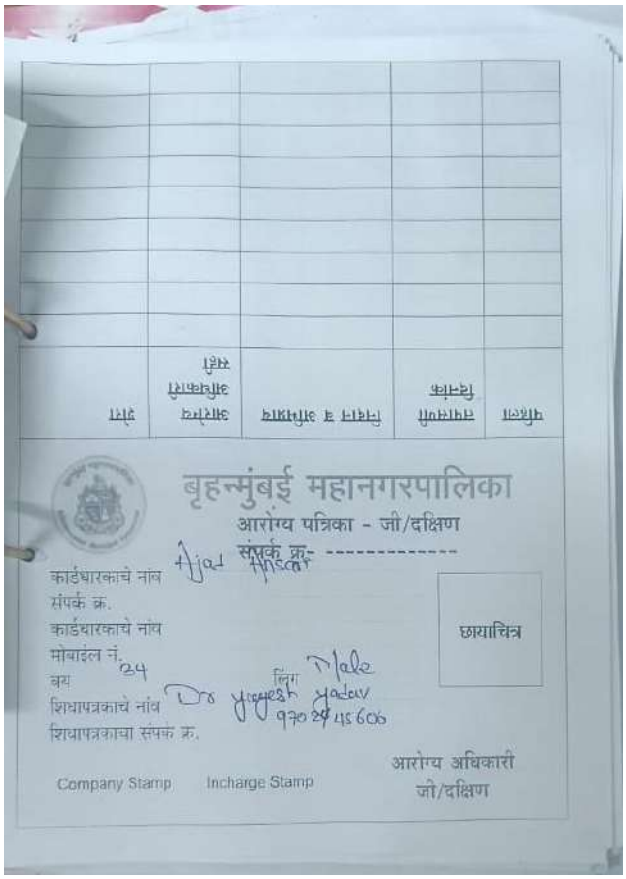
Authorised Signature with stamp of PUC Operator
60mm x 20 mm

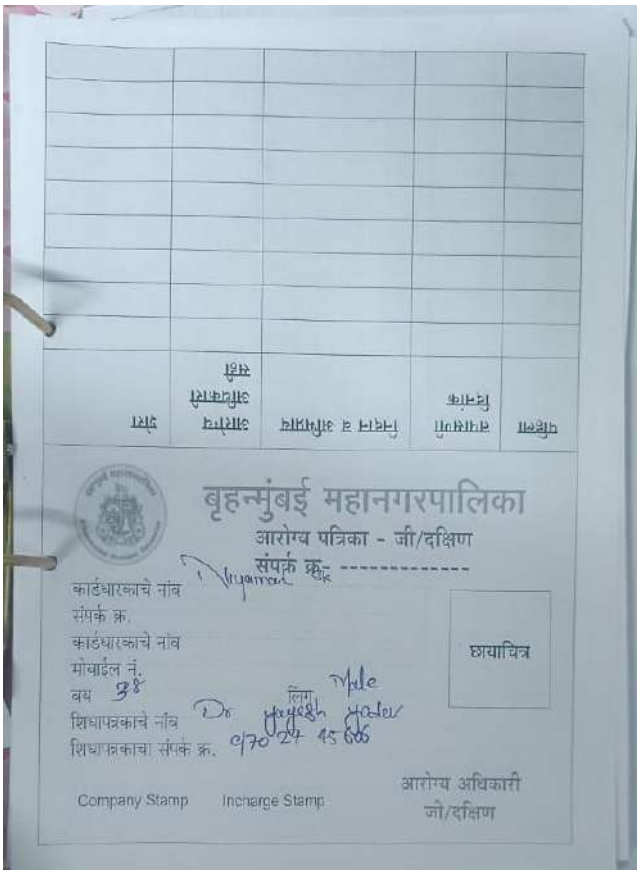
RMC Vehicle PUC





Workers health card copy





Annexure10 SWM NOC

BRIHANMUMBAI MUNICIPAL CORPORATION

(Solid Waste Management Department)

Office of Executive Engineer,

SWM SWM Zonal Office 2,

Application Number - P-12946/2022/(932)/G/South/WORLI/SWM/4/Amend, dated - 20 May 2024

Issued remarks Number SWM/20358/2024/G/S/CTY Dated 20 May 2024.

To (Architect / L.S),
VIVEK JAGANNATH BHOLE
C-101, SAJ TOWER, SODAWALA LANE,
BORIVALI(W)na

CC (Owner),
Harbour Front Properties Pvt. Ltd.
17th Floor, Avighna House, Plot no 941, Dr. Annie Besant Road, Near Worli Naka, Worli, Mumbai 400 018

Subject :- Approval to Construction & Demolition Waste Management Plan for the site at CTS/CS Number 932 of village 2045 at ward G/South.

Reference :- Your application / online submission for C&D Waste Management Plan levelling & filling at designated site dtd. 20 May 2024.

With reference to your application/ online submission, the Debris Management Plan submitted by you has been approved as per "Construction and Demolition Waste Rules 2016" and you are allowed to transport Construction & Demolition/ Excavation Material from construction site to the unloading site subject to following terms & conditions.

1. This approval is subject to the orders given by Hon. Supreme Court u/no. in SLP (Civil) No. D23708/2017 dated 15.3.2018. You shall follow this order of Hon. Supreme Court and instructions therein.
2. You shall handle & transport Construction & Demolition Waste / Excavation Material to the extent of 50 Brassto designated unloading site - "Survey No. 27, 28, 29, 30, 31, 32, 33, 34/1/A, 34/1/B, at village – Dive- Anjur, Taluka-Bhiwandi, District-Thane (Part – C). (Applicant: M/s. Indreshwar Traders) "Mr. Shivkumar Patel -9029409400 Mr. Suraj Mishra-9221936360 & validity 22 Apr 2025.
3. You shall transport the C&D waste with proper precautions and employ adequate measures safe guards to dispersal of particles through the air.
4. You have mentioned designated site for transportation of C&D waste for filling and levelling purpose. The C&D waste shall be transported and deposited at the designated site only The Landfill site (unloading site) shall be governed by the Construction and Demolition Waste Management Rules, 2016 and Solid Waste Management Rules, 2016.
5. In the event for any reason whatsoever, the consent given by the Designated Site / Agency is revoked or the time limit for the designated site has expired or the capacity of unloading site is exhausted. In such case the builder / developer shall forthwith stop the transportation activities. The builder / developer shall submit revised Construction and Demolition waste management plan along with required valid documents for revalidation of existing C&D waste Management Plant.
6. The construction & Demolition Waste shall be transported through your Transport Contractor. The details of the same shall be uploaded in the system by the applicant at the time of actual transportation.
7. The deployed vehicles shall abide by all the R.T.O. rules and regulations. You shall ensure that the vehicles should be properly covered with tarpaulin or any other suitable material firmly to avoid any escape / fall of waste on road from moving vehicle. The body and wheels shall be cleaned and washed thoroughly to avoid spreading of waste on road.
8. The copy of approved Construction and Demolition Management Plan Shall be accompanied with each and every vehicle under this approval. The developer shall issue the proper Challan for each and every trip of vehicles and that shall be acknowledged by the agency of unloading site. The developer shall maintain record of C&D material transported and shall make it available to MCGM and / or Monitoring Committee whenever required for inspection.

9. The approval is granted presuming that the papers submitted by the applicants / Owners are genuine. For any dispute arising out of documents submitted by applicant, POA / Occupant / Owner shall be held responsible as prescribed under the law prevailing in force.
10. The approval granted hereto does not absolve the other approval required from the other department of M.C.G.M. OR Govt. authorities.
11. In case of disputes, court matters etc. related to the subject site / land / property, this approval cannot be treated as a valid proof.
12. In case of any breach of condition is brought to the notice of MCGM or Monitoring Committee, Show Cause Notice will be issued and decision will be taken within one month as expeditiously as possible, which shall be binding on you / land owner.
13. This approval is not a permission for excavation or permission for dumping but this is the only approval under Construction & Demolition Waste Management Plan for the transportation of Construction & Demolition Waste for unloading at designated unloading site.
14. You / Land owner shall submit valid Bank Guarantee from the bankers approved by the MCGM and the amount applicable as per attached table. The bank guarantee remains valid till grant of Occupation Certificate (OCC).
15. The license architect / license engineer shall upload compliance report in respect of Construction & Demolition Waste Management Plan, any breach will entitle the cancellation of building permission and work will be liable to stop immediately.
16. (A) Project Total Estimated Qty (Brass) :9000
    (B) Obtained NOC(s) Total Qty (Brass): 6630

Note:

1. The above remarks are system generated based on the input data submitted by Architect / Consultant / L.S and if in future it is found that the data is incorrect / fraudulent then the remarks deemed to be treated as cancelled and necessary action will be initiated.
2. The above remarks are system generated and does not require any signatures.
3. This C & D approval is issued subject to obtaining valid IOD / CC. Actual transportation shall begin after obtaining valid IOD / CC only.

Annexure 11 Geo Report

GEOTECHNICAL INVESTIGATION REPORT
PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING
ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI
FOR HARBOUR FRONT PROPERTIES LLP

Table of Contents

GEOTECHNICAL INVESTIGATION REPORT
PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING
ON PLOT-73 (PART) & 74, CS. NO. 932, BG KHER MARG, WORLI
FOR HARBOUR FRONT PROPERTIES LLP

1.0 INTRODUCTION

Harbour Front Properties LLP plans construction of a building in Worli, Mumbai. The proposed building will consist of Triple Basement + Ground + 7 Podiums + 23 Upper Floors. The work of geotechnical investigation was awarded to Geotech Enterprises. The field work for the geotechnical investigation was completed by Geotech Enterprises in June 2022. This report prepared by Geocon International Pvt. Ltd. presents results of the geotechnical investigation along with foundation recommendations for proposed building.

2.0 EXPLORATION PROGRAM

2.1 Exploration Scope

Five boreholes (BH-01 to BH-05) were completed for the project as illustrated on the Borehole Location Plan in the Annexure.

2.2 Subsurface Conditions

Subsurface profile at this site generally consists of fill overlying residual soil underlain by completely weathered rock and then by hard bedrock. Encountered soil/rock layers are described below;

LAYER I: FILL

Fill was encountered at ground surface in the boreholes. The lower boundary of this layer was encountered at depths of 0.2m to 1.5m below ground surface.

LAYER II: RESIDUAL SOIL

Residual soils, consisting mostly of brownish / yellowish sand were encountered below fill layer in few boreholes. The lower boundary of this layer was encountered at depths of 0.5m to 1.2m below ground.

LAYER III: COMPLETELY WEATHERED ROCK (CWR)

Completely weathered rock was encountered at depths of 0.2m to 1.5m below ground surface in the boreholes. This layer is formed by the complete in-place disintegration of parent bedrock material, but still partially retains the original rock mass structure. SPT tests conducted in this layer encountered refusals. Core recoveries were less than 35%. The

lower boundary of this layer was encountered at depths of 1.0m to 3.0m below ground surface.

LAYER IV: HARD TUFF BEDROCK

Yellowish hard tuff bedrock was encountered at depths of 1.0m to 3.0m below ground surface. The bedrock was moderately weathered to sound. Core Recoveries varied from 47% to 100%, while Rock Quality Designation (RQD) ranged from NIL to 100%. Compressive strength of rock samples ranged from 17.6 kg/cm^2 to 146.84 kg/cm^2. The boreholes were terminated in this layer at depths of 29.7m to 30.0m below ground surface.

2.3 Ground Water Levels

Groundwater accumulation in boreholes was monitored during and after completion of drilling activities. Groundwater was not observed in any of the boreholes. Seasonal and annual fluctuations in ground water levels can be expected.

3.0 FOUNDATION RECOMMENDATIONS

Hard bedrock was encountered at depths of 1.0m to 3.0m below ground surface in the boreholes. Spread foundations for proposed building with triple basement supported on this hard bedrock can be designed for a maximum net allowable bearing capacity of 120 t/m^2. Hard rock founding strata can be identified as it offers complete refusal to bucket excavators. Depths to CWR & hard rock are given in Table A below.

TABLE A
DEPTHS TO HARD ROCK

Borehole Numbers	Depths to CWR	Depths to Hard Rock
BH-01	1.5m	2.7m
BH-02	1.1m	3.0m
BH-03	0.5m	1.0m
BH-04	1.2m	1.5m
BH-05	1.4m	3.0m

Maximum settlement of foundations will be less than 12mm. A Modulus of subgrade reaction of 10,000 t/m^3 can be utilized for design of foundations. Excavation sides should be sloped at a maximum slope of 1:1 (Horizontal: Vertical) or flatter within top 1.5m thick overburden soils and 1:2 (Horizontal: Vertical) below this depth.

3.1 Basement Consideration

Excavation sides should be sloped at a maximum slope of 1:1 (horizontal: vertical) or flatter within the top 1.5m thick overburden soils and 1:2 (horizontal: vertical) below this depth. If adequate space is not available for this side sloping then excavation shoring with bored piles should be provided.

Basement floors and walls should be adequately water-proofed. Adequate uplift resistance in the form of dead weight or rock anchors should be provided. An allowable grout/rock bond stress of 30 t/m^2 can be utilized for design of rock anchors. Maximum groundwater table for uplift design can be taken at ground surface.

3.2 Lateral Earth Pressures

Basement walls and pile shoring walls, if any, will be subjected to lateral earth pressures. Lateral earth pressure parameters for design of pile shoring walls and basement walls are given in Tables B1 and B2 below. Hydrostatic pressures and surcharge pressures, if any, should also be considered.

TABLE B1
LATERAL EARTH PRESSURE PARAMETERS
FOR DESIGN OF PILE SHORING WALLS

Depth	Soil Type	Unit weight	Active earth pressure coefficient (k_a)	Passive earth pressure coefficient (k_p)	Cohesion
0.0m- 0.5m	Fill	1.8 t/m^3	0.33	3.0	0 t/m^2
0.5m- 1.5m	Residual Soil	1.8 t/m^3	0.33	3.0	0 t/m^2
1.5m to 3.0m	CWR	2.2 t/m^3	0.17	7.5	0 t/m^2
Below 3.0m	Tuff Bedrock	2.5 t/m^3	1	1	66 t/m^2

TABLE B2
LATERAL EARTH PRESSURE PARAMETERS
FOR DESIGN OF BASEMENT WALLS (WITHOUT ADJACENT SHORING PILES)

Depth	Soil Type	Unit weight	Earth pressure coefficient (k_o)	Cohesion
0.0m- 0.5m	Fill	1.8 t/m^3	0.50	0 t/m^2
0.5m- 1.5m	Residual Soil	1.8 t/m^3	0.50	0 t/m^2
1.5m to 3.0m	CWR	2.2 t/m^3	0.17	0 t/m^2
Below 3.0m	Tuff Bedrock	2.5 t/m^3	1	66 t/m^2

3.3 Foundation Protection

A ‘Moderate’ Exposure Condition was assigned to this site. Therefore following precautions are recommended to protect subsurface concrete and reinforcement.

Type of Cement:	OPC or PPC
Minimum Grade of Reinforced Concrete:	M25
Minimum Cement Content for Spread Foundation:	300 kg/m^3
Maximum Water Cement Ratio:	0.50
Minimum Cover to Reinforcement:	50mm

4.0 FIELD EXPLORATION PROCEDURES

The sub-surface investigation was completed generally as per IS: 1892-1979. The field investigation was carried out using rotary rigs (Calyx, 8 HP, Engine). Casing was used to support sides of borehole until sufficiently stiff strata was encountered. Standard Penetration Tests (i.e. SPT) were carried out at every 1.5m vertical interval up to bedrock, in accordance with IS 2131-1981. Using this procedure, a 5 cm outside diameter split-barrel sampler is driven into the soil by 63.5 kg. Weight falling through 75 cm height. After an initial set of 15cm, the number of blows required to drive the sampler an additional 30 cm, is known as the “penetration resistance” or “N value”.

After SPT refusal was obtained, NX sized rock coring was done in maximum of 1.5m runs, using diamond bit and double tube core barrel. Percent Rock Core Recovery and percent Rock Quality Designation (%RQD) were determined. % RQD = 100 x Sum of length of rock pieces in cms, each having lengths greater than 10cms/Total length of core run in cms.

Sincerely,

GEOCON INTERNATIONAL PVT. LTD.

_____

Jaydeep Wagh
B.E., M.S., P.E. (Geotechnical)

REFERENCES

1) Foundation Analysis and Design, J.E. Bowles, McGraw Hill Publication, 5th Edition, 1996.

2) Canadian Foundation Engineering Manual.

3) Soil Mechanics in Engineering Practice, 2nd Edition, Terzaghi K. and Peck R. B., John Willey and Sons, 1967.

4) Foundation Design Manual, N. V. Nayak, 5th Edition, 1996.

5) IS:6403-1981, Code of Practice for Design and Construction of Shallow Foundations on Soils.

6) IS 12070: 1987, Code of Practice for Design and Construction of Shallow Foundations on Rocks.

SAMPLE CALCULATION OF ALLOWABLE BEARING CAPACITY FOR FOUNDATIONS ON HARD BEDROCK

_____ GL +0.0m

Layer I, Fill

_____-0.2 to 1.5m

Layer II, Completely Weathered Rock

_____-1.0m to -3.0m

Layer III, Hard Tuff Bedrock

Allowable bearing capacity = (Nj) x Qu (Ref. 6, Clause 6.2, pg. 7)

Where,

Nj = Joint condition factor = 0.1 to 0.4 (Ref. 6, Table 4, clause 6.2, pg. 9)
Assumed as 0.1 for hard rock

Qu = Rock Compressive strength = minimum of 176 t/m^2 (Annexure, Laboratory Test Result)

Therefore, Allowable Bearing Capacity = 0.3 x 412 = 123.5 t/m^2

Restricted to 120 t/m^2

CALCULATION OF SETTLEMENTS OF SPREAD foundations (3m x 3m) EXERTING PRESSURE OF 120 t/m^2:

Settlement = $S = q_0 B' \frac{1-\mu^2}{E_s} m I_s I_f$

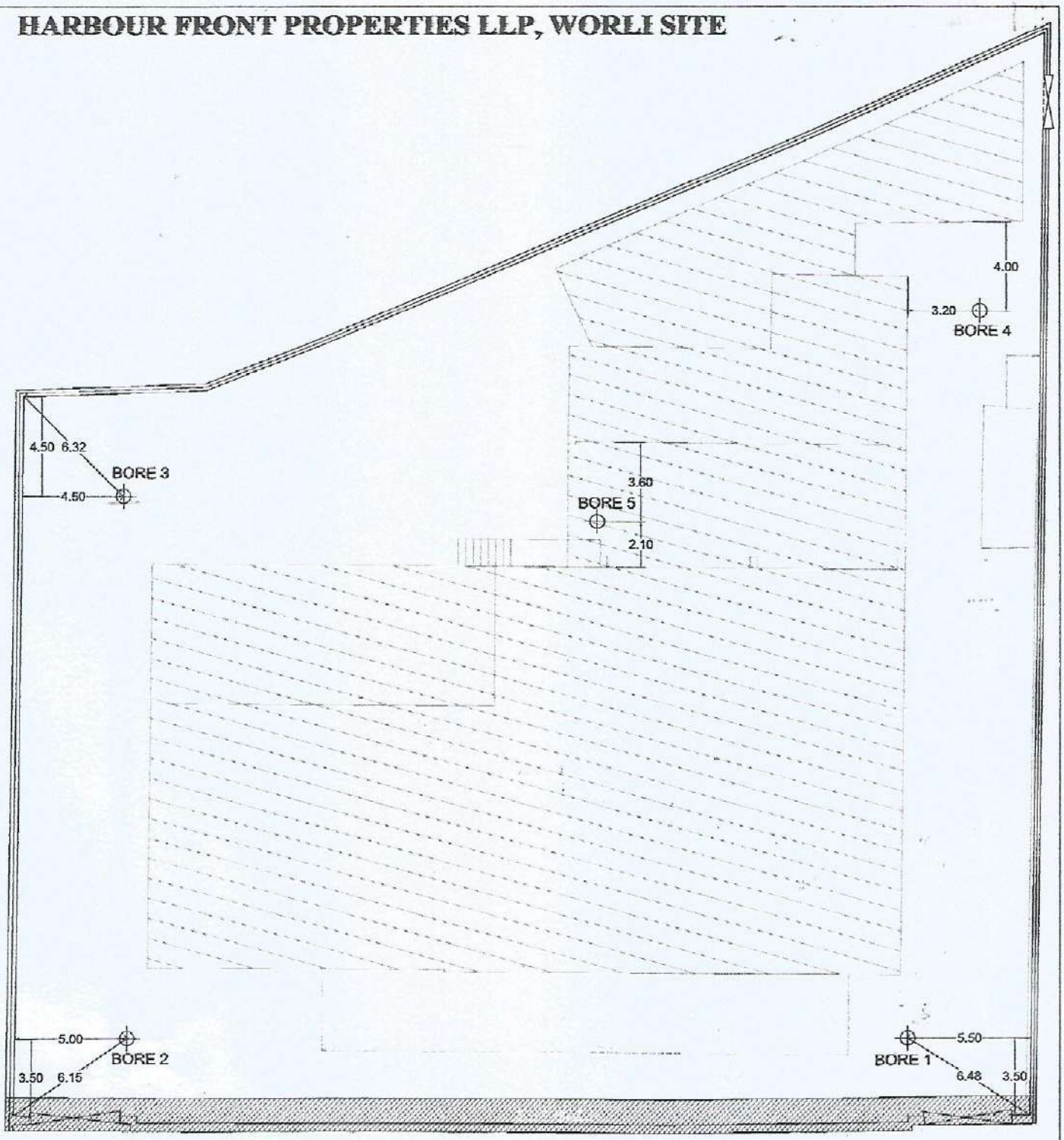
Where,
q_0 = Footing Pressure = 120 t/m^2
B' = B/2 (Where B is the width of pressure distribution
μ = Poisson's ratio = 0.25
E = Modulus of Elasticity
I_s = Influence Factor (Obtained from Table 5-2, Reference No. 1)
I_f = Depth Factor (Obtained from Figure 5-7, Reference No. 1)
m = 4 for center of footing

E value for tuff bedrock = 3,00,000 t/m^2 (Reference No. 1)
Using 1/3rd of this value, E = 1,00,000 t/m^2

L' =3/2 =1.5, B' = 3/2 = 1.5, H=15m, and D=8m
Therefore, M=L/B=1; and N=H/B'=10 and D/B=2.67
Corresponding, I_s = 0.53, Conservative I_f = 1.0 (From Table 5-2, Reference 1)

Settlement of Layer = $S_1 = 120x1.5x\frac{1-0.25^2}{1,00,000}x4x0.53x1.0$ = 0.0035m = 3.5mm

HARBOUR FRONT PROPERTIES LLP, WORLI SITE



BOREHOLE LOCATION PLAN (AS PER SITE)

SHIV SHAKTI PROJECT, WORLI

DATE: 23-06-2022

BOREHOLE NO. BH-1

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DATE STARTED 17-6-22 **COMPLETED** 22-6-22 **GROUND ELEVATION** 0 m **HOLE SIZE** 100MM

DRILLING CONTRACTOR Geotech Enterprises **DRILLING METHOD** Rotary Drilling

LOGGED BY Palash Patil **G.W.T.** m.

CHECKED BY Aniket Dudhane **NOTES**

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲
0.0							20 40 60 80
0.5		RCC					
1.0		Yellowish Silty SAND with Stone Chilps (Back Filling)					
1.5			SPT 1			65	
2.0		Yellowish Silty SAND with Gravels (MURRUM)		28	0		
2.5							
3.0		Yellowish Highly to Moderately Weathered TUFFACEOUS Rock		53	17		
3.5							
4.0							
4.5				70	25		
5.0		Grayish Moderately to Slightly Weathered TUFFACEOUS Rock					
5.5							
6.0				80	76		
6.5							
7.0							
7.5				73	73		
8.0							
8.5							
9.0				80	68		
9.5							
10.0							

(Continued Next Page)

BOREHOLE NO. BH-1

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ 20 40 60 80
10.0							
10.5		Grayish Moderately to Slightly Weathered TUFFACEOUS Rock					
11.0				80	29		
11.5							
12.0				74	53		
12.5							
13.0							
13.5				74	50		
14.0							
14.5							
15.0				80	77		
15.5							
16.0							
16.5				75	48		
17.0							
17.5							
18.0				80	35		
18.5							
19.0							
19.5				75	39		
20.0							
20.5		Grayish Moderately to Slightly Weathered TUFFACEOUS Rock					
21.0				74	60		

(Continued Next Page)

BOREHOLE NO. BH-1

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
21.5							
22.0							
22.5							
				77	53		
23.0							
23.5							
24.0							
				80	73		
24.5		Grayish Fresh TUFFACEOUS Rock					
25.0							
25.5							
				78	8		
26.0							
26.5							
27.0							
				87	55		
27.5							
28.0							
28.5							
				83	64		
29.0							
29.5							
30.0							
		Borehole terminated at a depth of 30.0 m below G.L.					

BOREHOLE NO. BH-2

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DATE STARTED 19-6-22 **COMPLETED** 27-6-22 **GROUND ELEVATION** 0 m **HOLE SIZE** 100MM

DRILLING CONTRACTOR Geotech Enterprises **DRILLING METHOD** Rotary Drilling

LOGGED BY Palash Patil **G.W.T.** m.

CHECKED BY Aniket Dudhane **NOTES**

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
0.0							
0.5		PCC Reddish Silty SAND with Gravels					
1.0							
1.5		Yellowish Silty SAND with Stone Chips (Back Filling)	SPT 1			50	
2.0		Yellowish Silty SAND with Gravels (MURRUM)		24	0		
2.5							
3.0		Yellowish Brownish Gray Highly to Moderately Weathered TUFFACEOUS Rock		49	17		
3.5							
4.0							
4.5				51	22		
5.0							
5.5							
6.0		Grayish Moderately to Slightly Weathered Fractured Rock		75	59		
6.5							
7.0							
7.5				74	59		
8.0							
8.5							
9.0				75	30		
9.5							
10.0							

(Continued Next Page)

BOREHOLE NO. BH-2

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
10.0							
10.5		Grayish Moderately to Slightly Weathered Fractured Rock					
11.0				87	80		
11.5							
12.0							
12.5				75	57		
13.0							
13.5							
14.0				75	46		
14.5							
15.0							
15.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock		89	89		
16.0							
16.5							
17.0				85	51		
17.5							
18.0							
18.5				81	49		
19.0							
19.5							
20.0				73	46		
20.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
21.0							
				87	78		

(Continued Next Page)

BOREHOLE NO. BH-2

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ 20 40 60 80
21.5							
22.0							
22.5							
23.0				80	6		
23.5							
24.0							
24.5				79	27		
25.0							
25.5							
26.0				83	40		
26.5							
27.0							
27.5				80	45		
28.0							
28.5							
29.0				97	90		
29.5							
30.0							
		Borehole terminated at a depth of 30.0 m below G.L.					

BOREHOLE NO. BH-3

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DATE STARTED 12-6-22 **COMPLETED** 18-6-22 **GROUND ELEVATION** 0 m **HOLE SIZE** 100MM

DRILLING CONTRACTOR Geotech Enterprises **DRILLING METHOD** Rotary Drilling

LOGGED BY Palash Patil **G.W.T.** m.

CHECKED BY Aniket Dudhane **NOTES**

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲
0.0							20 40 60 80
0.5		RCC		23	17		
1.0		Yellowish Silty SAND Grayish Highly Weathered TUFFACEOUS Rock					
1.5							
2.0				30	15		
2.5							
3.0							
3.5		Grayish Highly to Moderately Weathered TUFFACEOUS Rock		55	0		
4.0							
4.5							
5.0				63	48		
5.5							
6.0							
6.5				60	0		
7.0							
7.5							
8.0				67	33		
8.5							
9.0							
9.5				69	15		
10.0							

(Continued Next Page)

BOREHOLE NO. BH-3

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
10.0							
10.5		Grayish Highly to Moderately Weathered TUFFACEOUS Rock					
11.0		Grayish Fresh TUFFACEOUS Rock		80	23		
11.5							
12.0				81	77		
12.5							
13.0							
13.5				82	59		
14.0							
14.5							
15.0				81	66		
15.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
16.0							
16.5				79	67		
17.0							
17.5							
18.0				83	45		
18.5							
19.0							
19.5				79	31		
20.0							
20.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
21.0				86	63		

(Continued Next Page)

BOREHOLE NO. BH-3

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ 20 40 60 80
21.5							
22.0							
22.5							
23.0				75	51		
23.5							
24.0							
24.5				80	33		
25.0							
25.5							
26.0				79	51		
26.5							
27.0							
27.5				77	73		
28.0							
28.5							
29.0				82	75		
29.5							
30.0							
		Borehole terminated at a depth of 30.0 m below G.L.					

BOREHOLE NO. BH-4

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DATE STARTED 10-6-22 **COMPLETED** 16-6-22 **GROUND ELEVATION** 0 m **HOLE SIZE** 100MM

DRILLING CONTRACTOR Geotech Enterprises **DRILLING METHOD** Rotary Drilling

LOGGED BY Palash Patil **G.W.T.** m.

CHECKED BY Aniket Dudhane **NOTES**

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
0.0							
0.5		PCC Yellowish Silty SAND with Gravels		20	0		
1.0							
1.5		Grayish Highly Weathered TUFFACEOUS Rock		47	0		
2.0							
2.5							
3.0				63	20		
3.5		Grayish Highly to Moderately Weathered TUFFACEOUS Rock					
4.0							
4.5				65	35		
5.0							
5.5							
6.0				67	50		
6.5							
7.0							
7.5				57	6		
8.0							
8.5							
9.0				67	53		
9.5							
10.0							

(Continued Next Page)

BOREHOLE NO. BH-4

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
10.0							
10.5		Grayish Highly to Moderately Weathered TUFFACEOUS Rock					
				68	44		
11.0							
11.5							
12.0							
				77	72		
12.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
13.0							
13.5							
				80	74		
14.0							
14.5							
15.0							
				83	59		
15.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
16.0							
16.5							
				78	67		
17.0							
17.5							
18.0							
				80	39		
18.5							
19.0							
19.5							
				81	42		
20.0							
20.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
21.0							
				81	61		

(Continued Next Page)

BOREHOLE NO. BH-4

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ 20 40 60 80
21.5							
22.0							
22.5		Grayish Slightly Weathered TUFFACEOUS Rock					
23.0				70	11		
23.5							
24.0							
24.5				80	38		
25.0							
25.5							
26.0				77	20		
26.5							
27.0							
27.5				73	61		
28.0							
28.5							
29.0				87	75		
29.5							
30.0							
		Borehole terminated at a depth of 30.0 m below G.L.					

BOREHOLE NO. BH-5

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DATE STARTED 23-6-22 **COMPLETED** 29-6-22 **GROUND ELEVATION** 0 m **HOLE SIZE** 100MM

DRILLING CONTRACTOR Geotech Enterprises **DRILLING METHOD** Rotary Drilling

LOGGED BY Palash Patil **G.W.T.** m.

CHECKED BY Aniket Dudhane **NOTES**

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ (20 40 60 80)
0.0							
0.5		PCC and Back Filling					
1.0		Yellowish Silty SAND (MURRUM)		11	0		
1.5			SPT 1			50	
2.0		Yellowish Highly Weathered TUFFACEOUS Rock		20	0		
2.5							
3.0		Grayish Moderately to Slightly Weathered TUFFACEOUS Rock		70	11		
3.5							
4.0							
4.5				73	20		
5.0							
5.5							
6.0				77	53		
6.5							
7.0							
7.5				77	63		
8.0							
8.5							
9.0				80	60		
9.5							
10.0							

(Continued Next Page)

BOREHOLE NO. BH-5

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ 20 40 60 80
10.0							
10.5		Grayish Moderately to Slightly Weathered TUFFACEOUS Rock					
				67	41		
11.0							
11.5							
12.0							
				74	57		
12.5							
13.0							
13.5		Grayish Slightly Weathered to Fresh TUFFACEOUS Rock					
				80	99		
14.0							
14.5							
15.0							
15.5		Graysih Slightyl Weathered TUFFACEOUS Rock		79	79		
16.0							
16.5							
				80	62		
17.0							
17.5							
18.0							
				81	53		
18.5							
19.0							
19.5							
20.0		Grayish Moderatly to Slightly Weathered TUFFACEOUS Rock		74	37		
20.5		Grayish Moderatly to Slightly Weathered TUFFACEOUS Rock					
21.0							
				79	67		

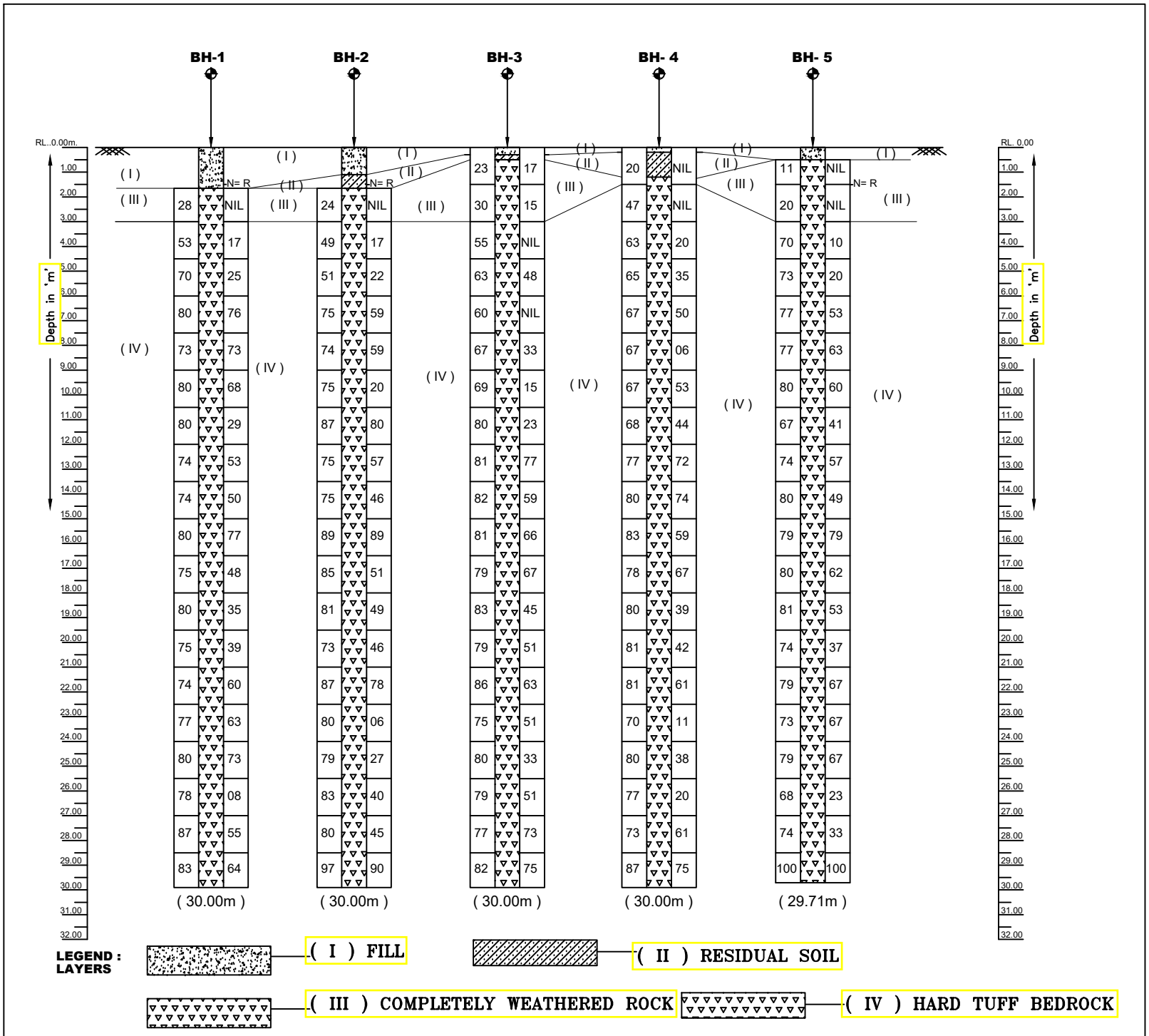
(Continued Next Page)

BOREHOLE NO. BH-5

CLIENT HARBOUR FRONT PROPERTIES LLP **PROJECT NAME** PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING

PROJECT NUMBER 19223 **PROJECT LOCATION** BG KHER MARG, WORLI

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	CORE RECOVERY %	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	▲ SPT N VALUE ▲ 20 40 60 80
21.5							
22.0							
22.5							
				73	67		
23.0							
23.5							
24.0		Grayish Moderatly to Slightly Weathered TUFFACEOUS Rock					
				79	67		
24.5							
25.0							
25.5							
				68	23		
26.0							
26.5							
27.0							
				74	33		
27.5							
28.0							
28.5							
				100	100		
29.0							
29.5							
		Borehole terminated at a depth of 29.7 m below G.L.					


BH-1
BH-2
BH-3
BH- 4
BH- 5
RL..0.00m.
RL. 0.00
Depth in 'm'
(I)
(II)
(III)
(IV)
N= R
(30.00m)
(30.00m)
(30.00m)
(30.00m)
(29.71m)
LEGEND : LAYERS
(I) FILL
(II) RESIDUAL SOIL
(III) COMPLETELY WEATHERED ROCK
(IV) HARD TUFF BEDROCK

TEST RESULTS OF ROCK CORES As per IS 9143, 8764, 13030

CLIENT: HARBOUR FRONT PROPERTIES LLP

PROJECT: PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

Date : 04.07.2022

Sr. No.	Bore Hole No.	Core No.	Depth, m	Diameter, cm	Height, cm	H : D (1:H/D)	Correction Factor	Condition of Test	Failure Load	Uniaxial Compressive Strength	Modulus of Elasticity	Point Load Index	Brazilian Test	Porosity	Water Absorption	Dry Density	Specific Gravity	Remark
				cm	cm				kN	kg/cm2	kg/cm2	kg/cm2	kg/cm2	%	%	gm/cm3		
1	BH-01	10	3.00-4.50	4.92	4.45	0.90	1.00	Soaked	0.2	-	-	0.8	-	10.59	5.03	2.10		
2	BH-01	31	6.00-7.50	5.09	6.56	1.29	1.00	Soaked	0.3	-	-	1.2	-	5.49	2.83	1.94		
3	BH-01	37	7.50-9.00	5.44	11.01	2.02	1.00	Soaked	11.4	50.02	-	-	-	9.91	4.49	2.21		
4	BH-01	73	13.50-15.00	5.40	10.79	2.00	1.00	Soaked	19.2	85.49	-	-	-	6.16	2.84	2.17		
5	BH-01	111	19.00-21.00	5.34	10.14	1.90	1.00	Soaked	26.9	122.48	-	-	-	10.80	5.42	1.99		
6	BH-01	124	25.00-27.00	5.38	10.32	1.92	1.00	Soaked	30.2	135.47	-	-	-	2.37	1.01	2.34		
7	BH-02	15	3.00-4.50	5.46	6.00	1.10	1.00	Soaked	1.3	-	-	4.4	-	6.01	2.61	2.31		
8	BH-02	36	7.50-9.00	5.40	10.93	2.02	1.00	Soaked	29.2	130.02	-	-	-	5.31	2.36	2.25		
9	BH-02	44	9.00-10.50	5.47	8.26	1.51	1.00	Soaked	0.8	-	-	2.7	-	5.44	2.81	1.93		
10	BH-02	63	12.00-13.50	5.44	9.77	1.80	1.00	Soaked	8.0	35.10	-	-	-	10.70	5.36	2.00		
11	BH-02	46	18.00-19.50	5.41	10.87	2.01	1.00	Soaked	33.1	146.84	-	-	-	3.57	1.58	2.27		
12	BH-03	24	4.50-6.00	5.41	10.93	2.02	1.00	Soaked	14.1	62.55	-	-	-	6.94	3.28	2.11		

GEOCON INTERNATIONAL PVT. LTD. MUMBAI ISO 9001:2015

Job. No. : L-22/687

Checked by: Aniket

TEST RESULTS OF ROCK CORES As per IS 9143, 8764, 13030

CLIENT: HARBOUR FRONT PROPERTIES LLP

PROJECT: PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

Date : 04.07.2022

Sr. No.	Bore Hole No.	Core No.	Depth, m	Diameter, cm	Height, cm	H : D (1:H/D)	Correction Factor	Condition of Test	Failure Load	Uniaxial Compressive Strength	Modulus of Elasticity	Point Load Index	Brazilian Test	Porosity	Water Absorption	Dry Density	Specific Gravity	Remark
				cm	cm				kN	kg/cm2	kg/cm2	kg/cm2	kg/cm2	%	%	gm/cm3		
13	BH-03	50	7.50-9.00	5.44	8.90	1.64	1.00	Soaked	0.5	-	-	1.7	-	3.21	1.45	2.21		
14	BH-03	85	10.50-12.00	5.53	6.30	1.14	1.00	Soaked	0.3	-	-	1.0	-	1.02	0.43	2.34		
15	BH-03	99	12.00-13.50	5.44	10.92	2.01	1.00	Soaked	21.5	94.33	-	-	-	5.45	2.37	2.30		
16	BH-03	129	18.00-19.50	5.47	10.82	1.98	1.00	Soaked	27.2	118.03	-	-	-	5.99	2.88	2.08		
17	BH-03	163	22.50-24.00	5.45	10.69	1.96	1.00	Soaked	33.4	146.00	-	-	-	4.33	1.82	2.38		
18	BH-04	35	4.50-6.00	5.44	11.30	2.08	1.00	Soaked	10.2	44.75	-	-	-	5.12	2.24	2.28		
19	BH-04	45	7.50-9.00	5.46	6.37	1.17	1.00	Soaked	0.4	-	-	1.4	-	10.75	4.83	2.22		
20	BH-04	67	12.00-13.50	5.45	10.88	2.00	1.00	Soaked	23.4	102.29	-	-	-	6.00	2.70	2.22		
21	BH-04	84	16.50-18.00	5.44	10.81	1.99	1.00	Soaked	29.7	130.31	-	-	-	4.12	1.92	2.14		
22	BH-04	107	19.50-21.00	5.43	8.33	1.53	1.00	Soaked	0.3	-	-	1.0	-	7.96	3.51	2.27		
23	BH-04	151	25.50-27.00	5.18	11.34	2.19	1.00	Soaked	31.4	151.94	-	-	-	3.27	1.39	2.36		
24	BH-05	30	4.50-6.00	5.45	8.40	1.54	1.00	Soaked	1.0	-	-	3.4	-	0.71	0.30	2.34		

GEOCON INTERNATIONAL PVT. LTD. MUMBAI ISO 9001:2015

Job. No. : L-22/687

Checked by: Aniket

TEST RESULTS OF ROCK CORES As per IS 9143, 8764, 13030

CLIENT: HARBOUR FRONT PROPERTIES LLP

PROJECT: PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

Date : 04.07.2022

Sr. No.	Bore Hole No.	Core No.	Depth, m	Diameter, cm	Height, cm	H : D (1:H/D)	Correction Factor	Condition of Test	Failure Load	Uniaxial Compressive Strength	Modulus of Elasticity	Point Load Index	Brazilian Test	Porosity	Water Absorption	Dry Density	Specific Gravity	Remark
				cm	cm				kN	kg/cm2	kg/cm2	kg/cm2	kg/cm2	%	%	gm/cm3		
25	BH-05	52	7.50-9.00	5.43	9.34	1.72	1.00	Soaked	0.9	-	-	3.1	-	3.07	1.31	2.34		
26	BH-05	74	12.00-13.50	5.41	10.80	2.00	1.00	Soaked	9.3	41.26	-	-	-	10.48	4.99	2.10		
27	BH-05	87	15.00-16.50	5.28	10.16	1.92	1.00	Soaked	19.9	92.68	-	-	-	8.80	3.92	2.24		
28	BH-05	128	19.50-21.00	5.40	10.82	2.00	1.00	Soaked	25.6	113.99	-	-	-	7.18	3.32	2.17		
29	BH-05	144	24.00-25.50	5.38	10.45	1.94	1.00	Soaked	33.4	149.83	-	-	-	7.40	3.35	2.21		

GEOCON INTERNATIONAL PVT. LTD. MUMBAI ISO 9001:2015

Job. No. : L-22/687

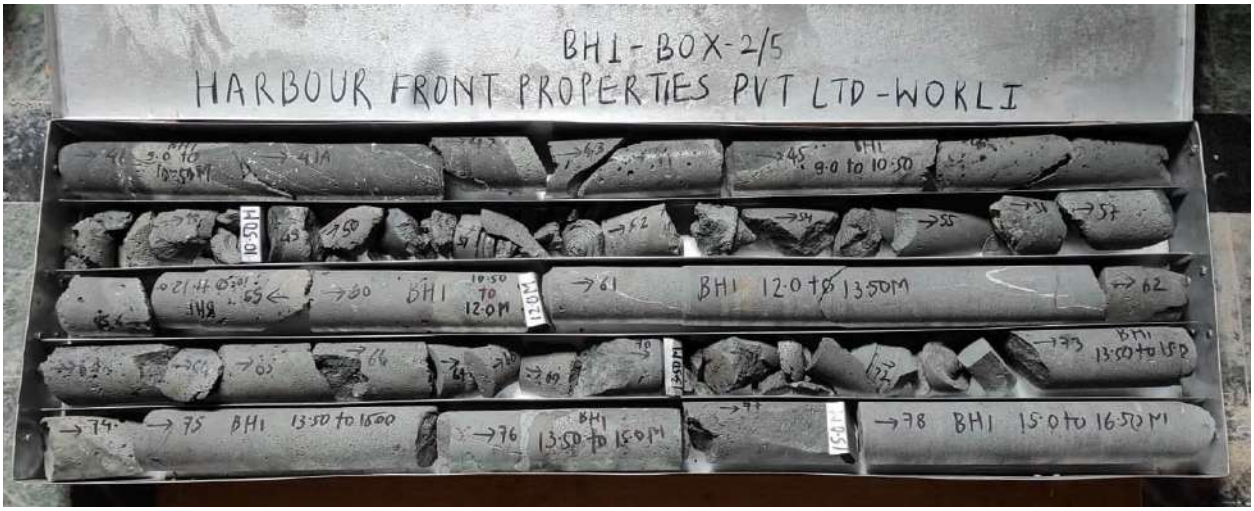
Checked by: Aniket

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-01
Box 1.1

Box 1.2



CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-01
Box 1.3

Box 1.4

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-01
Box 1.5

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-02
Box 1.1

Box 1.2

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-02
Box 1.3

Box 1.4

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-02
Box 1.5

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-03
Box 1.1

Box 1.2

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-03
Box 1.3

Box 1.4

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-03
Box 1.5

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-04
Box 1.1

Box 1.2

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-04
Box 1.3

Box 1.4

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

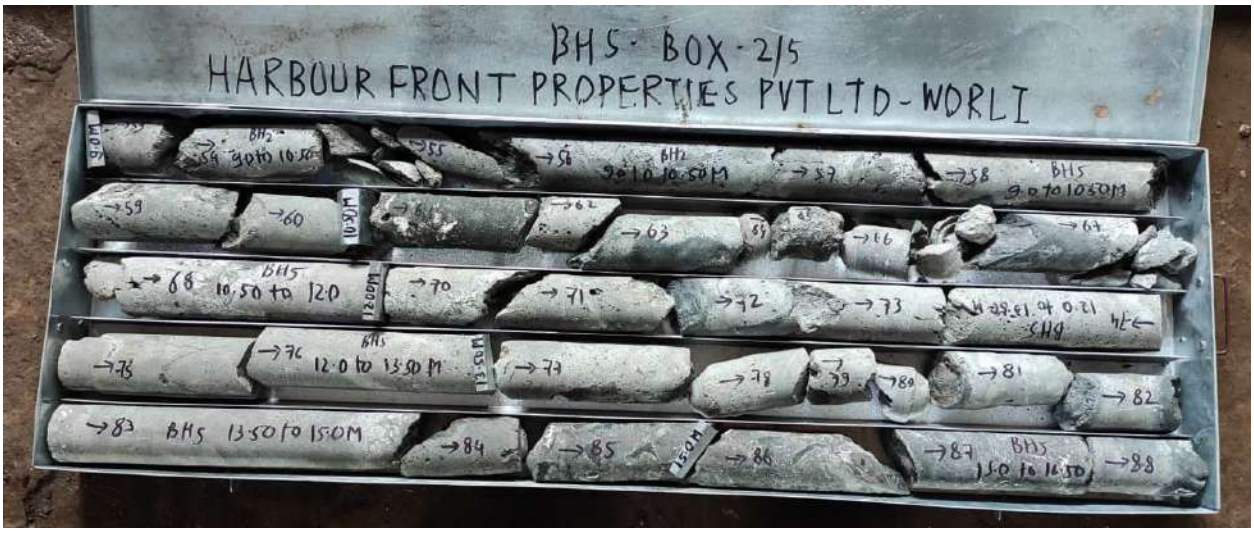
BH-04
Box 1.5

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-05
Box 1.1

Box 1.2



CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-05
Box 1.3

Box 1.4

CLIENT - HARBOUR FRONT PROPERTIES LLP

PROJECT- PROPOSED RESIDENTIAL CUM COMMERCIAL BUILDING ON PLOT-73 (PART) & 74 , CS. NO. 932, BG KHER MARG, WORLI

BH-05
Box 1.5

ADITYA ENVIRONMENTAL SERVICES PVT. LTD.
Testing Laboratory is certified by **ISO 9001:2015**& **ISO 45001:2018**
Recognized by **MoEFCC** as **"Environmental Laboratory"** valid up to 24.04.2025
Laboratory: P-1, MIDC Commercial Plots, Mohopada, Rasayani, Raigad Pin 410222
E-mail: pglab@aespl.co.in Tel: 9112844844
CIN: U74999MH2001PTC132091 **UDYAM**-MH-19-0029787
TC-7085

Test Report
(Soil)

Ref. No.: AESPL/LAB/C/S-24/09/39 **Issue Date:** 10/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	CS 932 Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Mumbai 400018			
Nature of Sample	:	Soil	**Location of Sample**	:	Near Gate No.1
Date of Sample Drawn	:	29/09/2024	**Time of Sample Drawn**	:	11:40 am
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	S-24/09/39
Sample Quantity & Container	:	1kg; PG bag & Aluminum container			
Date of Sample Analysis	:	30/09/2024 to 08/10/2024			
Environmental Conditions at site	:	**Area**: Clean, **Colour**: Brown			
Transportation Condition	:	Kept soil in polythene bag in a dry place			
Project/ Job number	:	--			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/S-01			
Environmental Condition while Testing	:	Ambient Temperature: 29.2°C and Humidity: 64%			

Sr. No.	Parameter with Unit	Result		Method of analysis
1.	pH@25°C	7.51		IS 2720 (part 26); RA2021
2.	Water content, %	9.2		IS 2720 (part 2); RA2020
3.	Organic Carbon, %	0.38		IS 2720 (part 22); RA2020
4.	Available Nitrogen, %	0.0108		AESPL/LAB/SOP/7.2.1.2/S-05 ;01.07.22
5.	Available Phosphorus, kg/ha	48		AESPL/LAB/SOP/7.2.1.2/S-07; 01.07.22
6.	Potassium as K, kg/hector	60		AESPL/LAB/SOP/7.2.1.2/S-06; 01.07.22
7.	Chloride, mg/kg	49		AESPL/LAB/SOP/7.2.1.2/S-08; 01.07.22
8.	Available Sulphur, mg/kg	38		AESPL/LAB/SOP/7.2.1.2/S-10; 01.07.22
9.	Texture, %	Clay	74	AESPL/LAB/SOP/7.2.1.2/S-17; 01.07.22
		Silt	14	
		Fine	12	

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. Any query related to this report will be entertained within 15 days of the report issue date only and the sample will also be retained for the same period.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Sushma A. Gujar.
(Authorized Signatory)

Himani P. Joshi.
(Report Reviewed By)

-End of Test Report-

ADITYA ENVIRONMENTAL SERVICES PVT. LTD.
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E-mail: pglab@aespl.co.in Tel: 9112844844
CIN: U74999MH2001PTC132091 **UDYAM**-MH-19-0029787

Test Report
(Soil)

Ref. No.: AESPL/LAB/C/S-24/09/39 **Issue Date:** 10/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	CS 932 Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Mumbai 400018			
Nature of Sample	:	Soil	**Location of Sample**	:	Near Gate No.1
Date of Sample Drawn	:	29/09/2024	**Time of Sample Drawn**	:	11:40 am
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	S-24/09/39
Sample Quantity & Container	:	1kg; PG bag & Aluminum container			
Date of Sample Analysis	:	30/09/2024 to 08/10/2024			
Environmental Conditions at site	:	**Area**: Clean, **Colour**: Brown			
Transportation Condition	:	Kept soil in polythene bag in a dry place			
Project/ Job number	:	--			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/S-01			
Environmental Condition while Testing	:	Ambient Temperature: 29.2°C and Humidity: 64%			

Sr. No.	Parameter with Unit	Result	Method of analysis
10.	Silica as SiO_2, mg/kg	< 0.8	EPA Method 300B 2:1996
11.	Arsenic as As, mg/kg	< 0.02	EPA Method 300B 2:1996
12.	Lead as Pb, mg/kg	< 0.02	EPA Method 300B 2:1996

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. Any query related to this report will be entertained within 15 days of the report issue date only and the sample will also be retained for the same period.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Sushma A. Gujar.
(Authorized Signatory)

Himani P. Joshi.
(Report Reviewed By)

-End of Test Report-

Reg. Office: 110, Hiren Light Industrial Estate, Mogul Lane, Mahim, **Mumbai - 400016Tel:** 022 42127500 **E-mail:** contact@aespl.co.in

Annexure 13 BEST NOC

बृहन्मुंबई विद्युत पुरवठा आणि परिवहन उपक्रम (बृहन्मुंबई महानगरपालिका)

नियोजन जालव्यूह विभाग, बँकबे वीज भवन, जनरल जे. भोसले मार्ग, नरीमन पॉईंट, मुंबई - ४०० ०२१.

The Brihanmumbai Electric Supply & Transport Undertaking (of the Brihanmumbai Mahanagarpalika)

Planning (Network) Dept., Backbay Veej Bhavan, Gen. J. Bhonsale Marg, Nariman Point, Mumbai - 400 021.

टेलिफोन / TELEPHONE : (022) 22880950 - Ext. : 101

फॅक्स / FAX : (022) 22856776

Website : www.bestundertaking.com

E-mail : deplnet@bestundertaking.com
deplns@bestundertaking.com

सर्व पत्रव्यवहार नावाने न करता पदनामाने करावे

ADDRESS ALL COMMUNICATION BY TITLE, NOT BY NAME

संदर्भ / REF : Pl/Plan 37/(NW/40/22-23)/Sub/S-185/ 1526 /2022

दिनांक / DATE : 19 DEC 2022

M/s Harbour Front Properties LLP,
Plot 941,
Avighna House (Formerly Indage House),
Dr Annie Besant Road,
Near Worli Naka,
Mumbai 400018.

Dear Sir,

Sub: Letter of Requirement (LOR) for proposed redevelopment on Plot bearing C.S. No. 932 of Worli Division, Plot no. 73(pt)-74, Navoday House, B. G. Kher Road, Worli G/S Ward, Mumbai 400018.

Ref: 1) Application from M/s Harbour Front Properties LLP dtd. 07.11.2022
2) Application from M/s Harbour Front Properties LLP dtd. 19.10.2022 .
3) IOD as per plan: P-12946/2022/(932)/G/South/WORLI

1.0 This has reference to your application dated 19.10.2022 requesting clearance as regards provision of electric substation for proposed redevelopment. The Details of proposed redevelopment as per the non-approved plans submitted by you are as follows:

C.S. No.	:	932
Plot. No.	:	73(pt)-74
Plot Area	:	1833.63
Setback area	:	150.00
Net Plot Area	:	1683.63
FSI (Consumed)	:	3.54
Permissible BUA	:	6606.87
Permissible BUA (Including Fungible)	:	6482.86
Proposed BUA	:	8925.63

Proposed BUA (Including Fungible)	:	8751.78
Building Detail's	:	Single building with 3 Basement + Grd. + 1st to 8th Podium + 9th Floor (Refuge) + 10th to 29th Upper Floors having height of 136.74 m. for Residential + Commercial purposes.

2.0 In this context, it is to inform you that, the single transformer substation space of size **8m x 5.5m** is required **in replacement of existing Shivshakti Press DSS** in the party's plot. The marked space of size **5.917m x 6.200m on Ground** is generally feasible subject to party's structural details and pre-commissioning approval from Electrical Inspector. The exact location / size of proposed DSS may be decided with mutual consent.

3.0 You are requested to contact DCECC(N) for finalization of Distribution Substation along with location plan in the scale of 1:500 & 1:50 of the Distribution Substation as per Para 2.0 above. If the offered space is part of building, you are requested to submit structural/architectural drawing along with location plan of proposed Distribution Substation to prepare the site plan. The office of Dy. Chief Engineer Customer Care (North) is situated at 5th Floor, New Ancillary Building, Wadala Depot, Wadala, Mumbai 400031.

4.0 After receipt of the site plan of proposed Distribution Substation from BEST, you are requested to obtain approval of concerned authority i.e. EEBP on the site plan of proposed Distribution Substation and then contact DCECC(N) for entering into lease agreement.

5.0 In case of any change in plans mainly due to amalgamation of plot, increased FSI, increase in height and change in usage etc. leads to more load requirement, revised plan shall be submitted by you which will be studied again considering distribution network condition at that time and if required, substation may be asked.

6.0 To issue the NOC by BEST to obtain the Commencement Certificate from the concerned authority, you are requested to submit the approval of concerned authority on the site plan and produce the document regarding Lease Agreement of Distribution Substation.

7.0 Please note that this letter will not be treated as a NOC for the redevelopment of the plot under reference.

Thanking You,

Yours Faithfully,

Chauhan
19/12/2022

(D. J. Chauhan)
Divisional Engineer Planning Network

ADITYA ENVIRONMENTAL SERVICES PVT. LTD.
Testing Laboratory is certified by **ISO 9001:2015** & **ISO 45001:2018**
Recognized by **MoEFCC** as **"Environmental Laboratory"** valid up to 24.04.2025
Laboratory: P-1, MIDC Mohopada, Rasayani, Dist. Raigad, 410222, E-mail: pglab@aespl.co.in
Tel: 9112844844, **CIN**: U74999MH2001PTC132091 UDYAM-MH-19-00-29787
TC-7085

Test Report
(Water)

Ref. No.: AESPL/LAB/C/W-24/09/283 **Issue Date:** 10/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Worli, Mumbai 400018			
Nature of Sample	:	Drinking water	**Location of Sample**	:	Near Gate No. 2
Date of Sample Drawn	:	29/09/2024	**Time of Sample Drawn**	:	10.00 am
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	W- 24/09/283
Sample Quantity & Container	:	F-1 lit; Plastic can.			
Date of Sample Analysis	:	30/09/2024 to 08/10/2024			
Environmental Conditions at site	:	Water Temperature: 25°C, Air Temperature: 29°C, Water purifier and surrounding was clean.			
Transportation Condition	:	Water Temperature: < 6°C, Cold storage.			
Project/ Job number	:	WO/HFP-0086-A dt 30.09.24			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/W-01			
Environmental Condition while Testing	:	Ambient Temperature: 28.6°C and Humidity: 94%			

Sr. No.	Parameter, Unit	Result	Limits (IS 10500:RA2018)		Method of Analysis
			Acceptable	Permissible	
1.	pH value @ 25°C	7.35	6.5 – 8.5	No Relaxation	IS-3025(P-11) 2022
2.	Turbidity, NTU	< 2.0	1 Max	5 Max	IS-3025(P-10) 2023
3.	Hardness as $CaCO_3$, mg/l	36	200 Max	600 Max	IS-3025(P-21) RA 2023
4.	Calcium as Ca, mg/l	11.2	75 Max	200 Max	IS-3025(P-40) 2024
5.	Magnesium as Mg, mg/l	6.3	30 Max	100 Max	IS-3025(P-46) 2023
6.	Total Dissolved Solids, mg/l	70	500 Max	2000 Max	IS-3025(P-16)2023
7.	Chloride as Cl^-, mg/l	14	250 Max	1000 Max	IS-3025(P-32) RA2019
8.	Sulphate as SO_4^{2-}, mg/l	<5.0	200 Max	400 Max	IS-3025(P-24) 2022
9.	Fluoride as F^-, mg/l	0.30	1.0 Max	1.5 Max	IS-3025(P-60)2023
10.	Residual Chlorine, mg/l	< 0.56	0.2 Min	1.0 Min	IS-3025(P-26) 2021
11.	Iron as Fe, mg/l	0.030	0.3 Max	No Relaxation	IS-3025(P-53) 2024

Conformity Statement: Water sample is **Pass** as per IS 10500:RA2018 w.r.t. above mentioned tests.

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. Any query related to this report will be entertained within 15 days of the report issue date only and the sample will also be retained for the same period.
4. The results apply to the sample as received.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Reshma S. Patil.
(Authorized Signatory)

Himani P. Joshi.
(Report Reviewed By)

-End of Test Report-

Reg. Office: 110, Hiren Light Industrial Estate, Mogul Lane, Mahim, **Mumbai - 400016Tel:** 022 42127500 **E-mail:** contact@aespl.co.in

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E-mail: pglab@aespl.co.in Tel: 9112844844
CIN: U74999MH2001PTC132091 **UDYAM**-MH-19-0029787
TC-7085

Test Report
(Soil)

Ref. No.: AESPL/LAB/C/S-24/09/39 **Issue Date:** 10/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	CS 932 Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Mumbai 400018			
Nature of Sample	:	Soil	**Location of Sample**	:	Near Gate No.1
Date of Sample Drawn	:	29/09/2024	**Time of Sample Drawn**	:	11:40 am
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	S-24/09/39
Sample Quantity & Container	:	1kg; PG bag & Aluminum container			
Date of Sample Analysis	:	30/09/2024 to 08/10/2024			
Environmental Conditions at site	:	**Area**: Clean, **Colour**: Brown			
Transportation Condition	:	Kept soil in polythene bag in a dry place			
Project/ Job number	:	--			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/S-01			
Environmental Condition while Testing	:	Ambient Temperature: 29.2°C and Humidity: 64%			

Sr. No.	Parameter with Unit	Result		Method of analysis
1.	pH@25°C	7.51		IS 2720 (part 26); RA2021
2.	Water content, %	9.2		IS 2720 (part 2); RA2020
3.	Organic Carbon, %	0.38		IS 2720 (part 22); RA2020
4.	Available Nitrogen, %	0.0108		AESPL/LAB/SOP/7.2.1.2/S-05 ;01.07.22
5.	Available Phosphorus, kg/ha	48		AESPL/LAB/SOP/7.2.1.2/S-07; 01.07.22
6.	Potassium as K, kg/hector	60		AESPL/LAB/SOP/7.2.1.2/S-06; 01.07.22
7.	Chloride, mg/kg	49		AESPL/LAB/SOP/7.2.1.2/S-08; 01.07.22
8.	Available Sulphur, mg/kg	38		AESPL/LAB/SOP/7.2.1.2/S-10; 01.07.22
9.	Texture, %	Clay	74	AESPL/LAB/SOP/7.2.1.2/S-17; 01.07.22
		Silt	14	
		Fine	12	

Note:

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3. Any query related to this report will be entertained within 15 days of the report issue date only and the sample will also be retained for the same period.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Sushma A. Gujar.
(Authorized Signatory)

Himani P. Joshi.
(Report Reviewed By)

-End of Test Report-

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E-mail: pglab@aespl.co.in Tel: 9112844844
CIN: U74999MH2001PTC132091 **UDYAM**-MH-19-0029787

Test Report
(Soil)

Ref. No.: AESPL/LAB/C/S-24/09/39 **Issue Date:** 10/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	CS 932 Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Mumbai 400018			
Nature of Sample	:	Soil	**Location of Sample**	:	Near Gate No.1
Date of Sample Drawn	:	29/09/2024	**Time of Sample Drawn**	:	11:40 am
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	S-24/09/39
Sample Quantity & Container	:	1kg; PG bag & Aluminum container			
Date of Sample Analysis	:	30/09/2024 to 08/10/2024			
Environmental Conditions at site	:	**Area**: Clean, **Colour**: Brown			
Transportation Condition	:	Kept soil in polythene bag in a dry place			
Project/ Job number	:	--			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/S-01			
Environmental Condition while Testing	:	Ambient Temperature: 29.2°C and Humidity: 64%			

Sr. No.	Parameter with Unit	Result	Method of analysis
10.	Silica as SiO_2, mg/kg	< 0.8	EPA Method 300B 2:1996
11.	Arsenic as As, mg/kg	< 0.02	EPA Method 300B 2:1996
12.	Lead as Pb, mg/kg	< 0.02	EPA Method 300B 2:1996

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. Any query related to this report will be entertained within 15 days of the report issue date only and the sample will also be retained for the same period.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Sushma A. Gujar.
(Authorized Signatory)

Himani P. Joshi.
(Report Reviewed By)

-End of Test Report-

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Laboratory: P-1, MIDC Mohopada, Rasayani, Dist. Raigad, 410222, E-mail: pglab@aespl.co.in
Tel: 9112844844, **CIN**: U74999MH2001PTC132091 UDYAM-MH-19-00-29787
TC-7085

Test Report
(Noise)

Ref. No.: AESPL/LAB/C/N-24/09/143 **Issue Date:** 10/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Worli, Mumbai 400018			
Discipline & Group		Chemical**:** Atmospheric Pollution			
Description of Sample	:	Ambient Noise			
Location Details	:	At the Periphery of Site			
Date of Sampling	:	29/09/2024	**Period of Sampling**	:	Spot
Start & End Time of Sampling	:	11.20Hr - 11.35Hr	**Start & End Time of**	:	21.00Hr-21.15Hr
Monitored By	:	ACD	**Transported By**	:	ACD
Date of Data Receipt	:	30/09/2024	**Sample Identification**	:	N-24/09/143
Environmental Condition	:	**Climate:** Clear	**Ambient Temp:** 29^{0}C		
Transportation Condition	:	Noise Data sheet is kept in folder and safely transported to laboratory along with Noise meter.			
Sampling Equipment	:	Noise meter - Centre C-390 SL-I-01			
Calibration Status	:	Calibrated on 28/11/2023; calibration due on 27/11/2024			
Project/ Job Number	:	WO/FDLLP-0071-A dt 30.09.24			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling	:	IS 9989 RA:2023			

Sr. No.	**Location**	**Noise Day Time dB(A)**	**Noise Nighttime dB(A)**
1.	Near Gate No-01	62.5	42.3
2.	Near Gate No-0 2	62.9	42.4
3.	Near Podium-01	63.2	43.2
4.	Near Site Office	63.8	41.3
5.	Labour Comp Near Gate no -2	63.5	44.4
Limit as per EP Act for Residential area		**55**	**45**

Conformity Statement: Noise Levels at given location exceeds the stipulated limits as per EPA Standard for residential areas for Daytime.

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. Any query related to this report will be entertained within 15 days of the report issue date only and the sample will also be retained for the same period.
4. Exceedance in noise level is due to traffic in areas & construction activities done on site.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Reshma S. Patil
(Authorized Signatory)

Himani P. Joshi
(Report Reviewed By)

-End of Test Report-

ADITYA ENVIRONMENTAL SERVICES PVT. LTD.
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Laboratory: P-1, MIDC Mohopada, Rasayani, Dist. Raigad, 410222, E-mail: pglab@aespl.co.in
Tel: 9112844844, **CIN**: U74999MH2001PTC132091, **UDYAM**-MH-19-00-29787
TC-7085

Test Report
(Microbiology – Water)

Ref. No.: AESPL/LAB/B/Mw-24/09/272 **Issue Date:** 09/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	CS 932 Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Mumbai 400018			
Nature of Sample	:	Drinking water	**Location of Sample**	:	Near Gate No. 2
Date of Sample Drawn	:	29/09/2024	**Time of Sample Drawn**	:	10.00 am
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	Mw- 24/09/272
Sample Quantity & Container	:	250 ml; Glass bottle.			
Date of Sample Analysis	:	30/09/2024 to 07/10/2024			
Environmental Conditions at site	:	Surrounding area is clean.			
Transportation Condition	:	Water Temperature: < 6°C, Cold storage.			
Project/ Job number	:	WO/HFP-0086-A dt 30.09.24			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/M-01			
Environmental Condition while Testing	:	Ambient Temperature: 22.7°C and Humidity: 54 %			

Sr. No.	Parameter, Unit	Result	Limits as per: IS 10500 RA 2018	Method of Analysis
1.	Coliform/100ml	Absent /100ml	Absent /100ml	IS:15185 RA 2021
2.	E-coli/100ml	Absent /100ml	Absent/100ml	IS:15185 RA 2021

Conformity Statement: Water sample is **pass** as per IS 10500: RA2018 w. r. t. above mentioned tests.

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. The results apply to the sample as received.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Pranali N. Patil
(Authorized Signatory)

Himani P. Joshi
(Report Reviewed By)

-End of Test Report-

ADITYA ENVIRONMENTAL SERVICES PVT. LTD.
Testing Laboratory is certified by **ISO 9001:2015&ISO 45001:2018**
Recognized by **MoEFCC** as **"Environmental Laboratory"** valid up to 24.04.2025
Laboratory: P-1, MIDC Mohopada, Rasayani, Dist. Raigad, 410222, E-mail: pglab@aespl.co.in
Tel:9112844844, **CIN**: U74999MH2001PTC132091 UDYAM-MH-19-00-29787 TC-7085

Test Report
(Ambient Air)

Ref. No.: AESPL/LAB/C/A-24/10/34 **Issue Date:** 11/10/2024

Name of Customer	:	Harbour Front Properties Pvt Ltd			
Name of Site	:	Marquee Project, CS 932, plot no 73 Part & 74, B G Kher Road, Near Worli Naka, Worli, Mumbai 400018			
Discipline & Group	:	Chemical**:** Atmospheric Pollution			
Description of Sample	:	Ambient Air			
Location of Sampling	:	Near Gate No. 1			
Date of Sampling	:	29/09/2024			
Sampling Time	:	09:00 to 17:00 hr.	**Duration**	:	8 Hr.
Sample Drawn By	:	AESPL Consultancy Division	**Transported By**	:	AESPL Consultancy Division
Date of Sample Receipt	:	30/09/2024	**Sample Identification**	:	A-24/10/34
Sample Quantity & Container	:	SO_2:1 Bottle; NO_2:1 Bottle; PM_{10}-1; $PM_{2.5}$-1 Bladder:1.			
Date of Sample Analysis	:	30/09/2024 to 10/10/2024			
Sampling Environmental Conditions	:	Temperature:27-30°C; Rain fall: Yes; P_{bar}: 755 mmHg.			
Transportation Condition	:	Bottles < 5°C	Filter papers in plastic container		Bladder at ambient temp.
Sampling Equipment	:	RDS-I-12 & FDS-I-12			
Calibration Status	:	Calibration on 25/05/2024 due on 25/05/2025 & Calibration on 25/05/2024 due on 25/05/2025			
Project/ Job number	:	WO/HFP-0086-A dt 30.09.24			
Reference of Sampling	:	AESPL/LAB/QR/7.3.3/R-02			
Method of Sampling & Preservation	:	AESPL/LAB/SOP/7.3.1/A-01			
Environmental Condition while Testing	:	Ambient Temperature: 28°C and Humidity: 53 %			

Sr. No.	Parameter	Result	Limits #	Unit	Method of Analysis
1.	Sulphur dioxide as SO_2	23.65	80 *	µg/m³	IS 5182 (Part 2) RA2017
2.	Nitrogen dioxide as NO_2	38.30	80 *	µg/m³	IS 5182 (Part 6) RA2022
3.	PM_{10}	74.55	100 *	µg/m³	IS 5182 (Part 23) RA2022
4.	$PM_{2.5}$	26.25	60 *	µg/m³	IS 5182 (Part 24) RA2019
5.	Carbon monoxide as CO	0.59	04 **	mg/m³	IS 5182 (part 10) RA2019

[#] Specified under National Ambient Air Quality Standards by CPCB:
[*] 24 hourly monitoring values; [**] 1 hourly monitoring values.

Conformity Statement: The monitoring undertaken indicates that Ambient Air Quality Values for monitored parameters are within the levels stipulated under National Ambient Air Quality Standards (NAAQS)2009.

Note:

1. The test report shall not be reproduced except in full, without written approval of laboratory.
2. Results relate only to the items tested.
3. Any query related to this report will be entertained within 15 days of the report issue date only.
4. The results apply to the sample as received.

ADITYA ENVIRONMENTAL SERVICES PVT. LTD. RASAYANI

Reshma S. Patil
(Authorized Signatory)

Himani P. Joshi
(Report Reviewed By)

-End of Test Report-

PUBLIC NOTICE

Annexure15 EC ads

This is to inform all the members of the public that:

The proposed redevelopment of residential & commercial at plot bearing C.S. no 932 of Worli Division, Plot no 73(pt)-74 , B.G Kher Road worli G/South ward Mumbai 400018 by M/s. Harbour Front Properties LLP has been accorded Environmental Clearance by the State Level Environmental Impact Authority (SEIAA), Environment Department, Government of Maharashtra vide its Letter No. EC23B038MH148459 Dated: 26.05.2023.

Copy of the Environmental Clearance letter is available with web portal of Ministry of Environment, Forest and Climate Change Government of India at https://parivesh.nic.in/.

Date: 1/06/2023

Place: Mumbai

जाहीर नोटीस

सर्व संबंधितांना माहिती देण्यात येते की, वरळी विभागातील सीएस क्रमांक ९३२, भूखंड क्रमांक ७३(भाग)-७४, बीजी खेर रोड, वरळी, जी/दक्षिण प्रभाग, मुंबई ४००१८, महाराष्ट्र येथील मे. हार्बर फ्रंट प्रॉपर्टीज एलएलपी द्वारा प्रस्तावित निवासी व व्यावसायिक विकास प्रकल्पाला पत्रक क्र. EC23B038MH148459 दिनांक: २६ मे २०२३ नुसार महाराष्ट्र सरकारच्या राज्य स्तरीय पर्यावरणीय आघात मुल्यांकन (SEIAA) समितीने पर्यावरण संमती दिली आहे.

सदर पर्यावरणीय संमती पत्राची प्रत पर्यावरण, वन आणि हवामान बदल मंत्रालय, भारत सरकारच्या वेब पोर्टलवर https://parivesh.nic.in/ या संकेत स्थळावर उपलब्ध आहे.

स्थळ: मुंबई

दिनांक : ०१.०६.२०२३

Annexure 16 CTE

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24044532/4024068/4023516
Website: http://mpcb.gov.in
Email: jdwater@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

Infrastructure/ORANGE/L.S.I
No:- Format1.0/JD (WPC)/UAN No.0000159199/CE/2303001916

Date: 25/03/2023

To,
M/s. Harbour Front Properties LLP, CS 932,
Plot no 73(pt)- 74., Mumbai.

Your Service is Our Duty

Sub: Consent to Establish for Redevelopment of Declared Dilapidated Structure Project.

Ref: Application Submitted by SRO-Mumbai-I

Your application NO. MPCB-CONSENT-0000159199

For: grant of Consent to Establish under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal ofAuthorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundry Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I,II,III & IV annexed to this order:

1. **The Consent to Establish is granted for a period upto commissioning of project or up to 5 year whichever is earlier.**
2. **The capital investment of the project is Rs.99.24 Cr. (As per undertaking submitted by pp).**
3. **The Consent to Establish is valid for Redevelopment of Declared Dilapidated Structure Project named as M/s. Harbour Front Properties LLP, CS 932, Plot no 73(pt)- 74., Mumbai. on Total Plot Area of 1833.63 Sq.mtrs for construction BUA of 24585.78 Sq.Mtrs including utilities and services**
4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal
1.	Trade effluent	Nil	NA	NA
2.	Domestic effluent	73.13	As per Schedule - I	The treated effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be connected to the sewerage system provided by local body

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
S-1	DG Set- 1000 KVA	1	As per Schedule -II

6. **Conditions under Solid Waste Rules, 2016:**

Sr No	Type Of Waste	Quantity & UoM	Treatment	Disposal
1	Wet Waste	103 Kg/Day	OWC	use as manure
2	Dry Waste	154 Kg/Day	Segregation	sent to recycling to authorized agency.

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No.	Quantity	UoM	Treatment	Disposal
NA					

8. This Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government agencies.
10. The treated effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be utilized on land for gardening.
11. PP shall extend/submit BG to from total sum of Rs. 10 Lakhs towards compliance of EC and consent to establish condition.
12. Project Proponent shall install online monitoring system for the parameter pH, SS, BOD and flow at the outlet of STP.
13. Project Proponent shall provide Organic waste digester with composting facility or biodigestor with composting facility.
14. Project Proponent shall operate the Organic waste digester with composting facility or biodigestor with composting facility effectively
15. Project Proponent shall comply the Construction and Demolition Waste Management Rules, 2016 which is notified by Ministry of Environment, Forest and Climate Change dtd.29/03/2016.
16. The project proponent shall make provision of charging of electric vehicles in atleast 30 % of total available parking area.
17. The project proponent shall take adequate measures to control dust emission and noise level during construction phase.

18. PP shall obtain Environmental Clearance from competent authority for the proposed activity. PP shall not take effective steps towards construction without obtaining Environmental Clearance.
19. PP shall submit an affidavit in Boards prescribed format within 15 days regarding compliance of C to E & Environmental Clearance/CRZ Clearance.
20. PP shall comply with CRZ NOC obtained dtd. 03.03.2023 from MCZMA.

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	125000.00	TXN2302001120	08/02/2023	Online Payment

Copy to:

1. Regional Officer, MPCB, Mumbai and Sub-Regional Officer, MPCB, Mumbai I
- They are directed to ensure the compliance of the consent conditions.
- They are directed to obtained B.G. of Rs.10.0 Lakhs towards compliance of consent condition & obtaining E.C.
2. Chief Accounts Officer, MPCB,Sion, Mumbai

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1) A] As per your application, you have proposed to provide MBBR Technology based Sewage Treatment Plants (STPs) of combined capacity **75 CMD for treatment of domestic effluent of 73.13 CMD.**

B] The Applicant shall operate the sewage treatment plant (STP) to treat the sewage so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH
1	pH	5.5-9.0
2	BOD	10
3	COD	50
4	TSS	20
5	NH4 N	5
6	N-total	10
7	Fecal Coliform	less than 100

C] The treated domestic effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be utilized on land for gardening and connected to the sewerage system provided by local body.

2) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto.

3) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

4) **The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act,1974 and as amended, and other provisions as contained in the said act.**

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	0.00
2.	Domestic purpose	77.11
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00

5) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1) **As per your application, you have proposed to provide the Air pollution control (APC)system and also proposed to erect following stack (s) and to observe the following fuel pattern-**

Stack No.	Source	APC System provided/proposed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
S-1	DG Set-1000 KVA	Acoustic Enclosure	1.00	HSD 100 Kg/Hr	1	SO2	20.16 Kg/Day

2) The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards.

Total Particular matter	Not to exceed	150 mg/Nm3

3) The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacemenalteration well before its life come to an end or erection of new pollution control equipment.

4) The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

5) **Conditions for utilities like Kitchen, Eating Places, Canteens:-**

a) The kitchen shall be provided with exhaust system chimney with oil catcher connected to chimney through ducting.

b) The toilet shall be provided with exhaust system connected to chimney through ducting.

c) The air conditioner shall be vibration proof and the noise shall not exceed 68 dB(A).

d) The exhaust hot air from A.C. shall be attached to Chimney at least 5 mtrs. higher than the nearest tallest building through ducting and shall discharge into open air in such a way that no nuisance is caused to neighbors.

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent(C2E/C2O/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	Consent to Establish	10 Lakhs	within 15 days	Towards compliance of consent condition	upto commissioning of unit or five years	upto commissioning of unit or five years

** The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days of the date of issue of Consent. **# Existing BG obtained for above purpose if any may be extended for period of validity as above.**

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV

Conditions during construction phase

A	During construction phase, applicant shall provide temporary sewage and MSW treatment and disposal facility for the staff and worker quarters.
B	During construction phase, the ambient air and noise quality shall be maintained and should be closely monitored through MoEF approved laboratory.
C	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.

General Conditions:

1 The applicant shall provide facility for collection of samples of sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

2 The firm shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act,1981 and Environmental Protection Act 1986 and Solid Waste Management Rule 2016, Noise (Pollution and Control) Rules, 2000 and E-Waste (Management & Handling Rule 2011.

3 Drainage system shall be provided for collection of sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No sewage shall be admitted in the pipes/sewers downstream of the terminal manholes. No sewage shall find its way other than in designed and provided collection system.

4 Vehicles hired for bringing construction material to the site should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

5 Conditions for D.G. Set

a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.

b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.

c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.

d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.

e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.

f) D.G. Set shall be operated only in case of power failure.

g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.

6 Solid Waste – The applicant shall provide onsite municipal solid waste processing system & shall comply with Solid Waste Management Rule 2016 & E-Waste (M & H) Rule 2011.

7 Affidavit undertaking in respect of no change in the status of consent conditions and compliance of the consent conditions the draft can be downloaded from the official web site of the MPCB.

8 Applicant shall submit official e-mail address and any change will be duly informed to the MPCB.

9 The treated sewage shall be disinfected using suitable disinfection method.

10 The firm shall submit to this office, the 30th day of September every year, the environment statement report for the financial year ending 31st march in the prescribed Form-V as per the provision of rule 14 of the Environmental (Protection) Second Amended rule 1992.

11 The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before commissioning of the project.

This certificate is digitally & electronically signed.
