Wind Analysis Report

Of

Proposed Project – "Acme - Ozone"

At

Gut No. 61/1/1, 61/1/2, 3, 4 & 61/2/1,2,3

Village Chitalsar –Manpada,

Taluka & District - Thane

Proposed by

M/s. Acme Housing India Pvt Ltd

Prepared by

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Wind Analysis

1.0 About the Project:

The proposed project is a development of residential project at Gut. No. 61/1/1, Gut. No. 61/1/2, 3, 4, 61/2/1, 2, 3 village Chitalsar -Manpada, Taluka& District Thane. The detail location is shown in **Figure 1.1.**

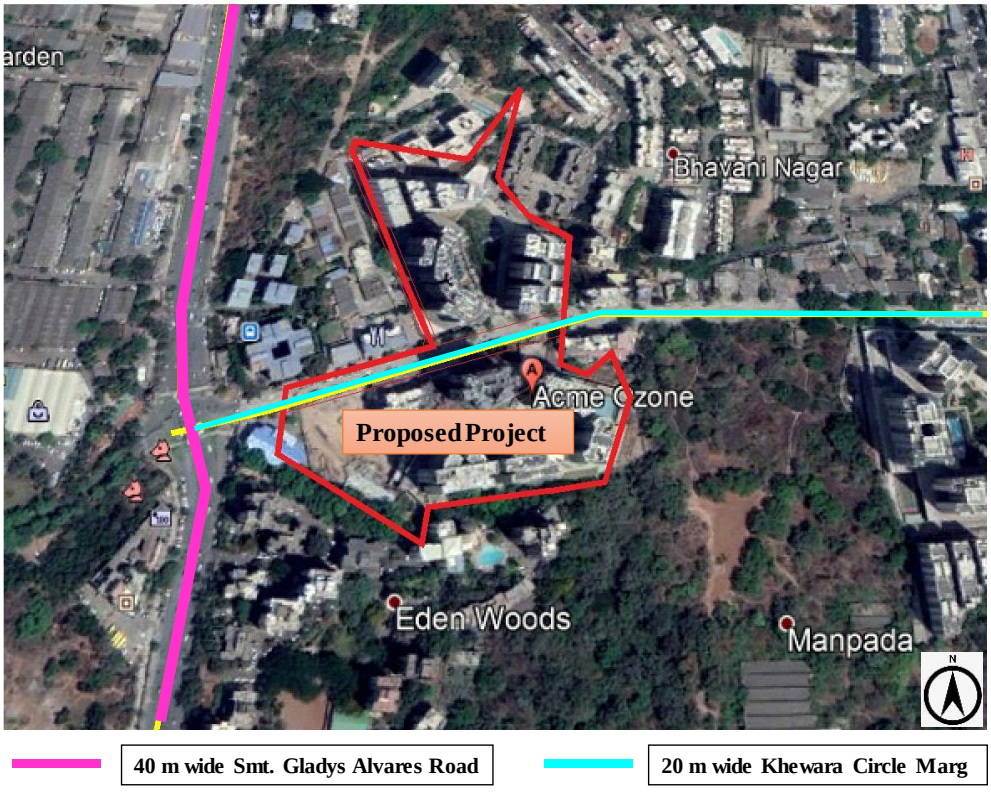


Figure 1.1: Location of the proposed project

Project layout shown in **Figure 1.2**

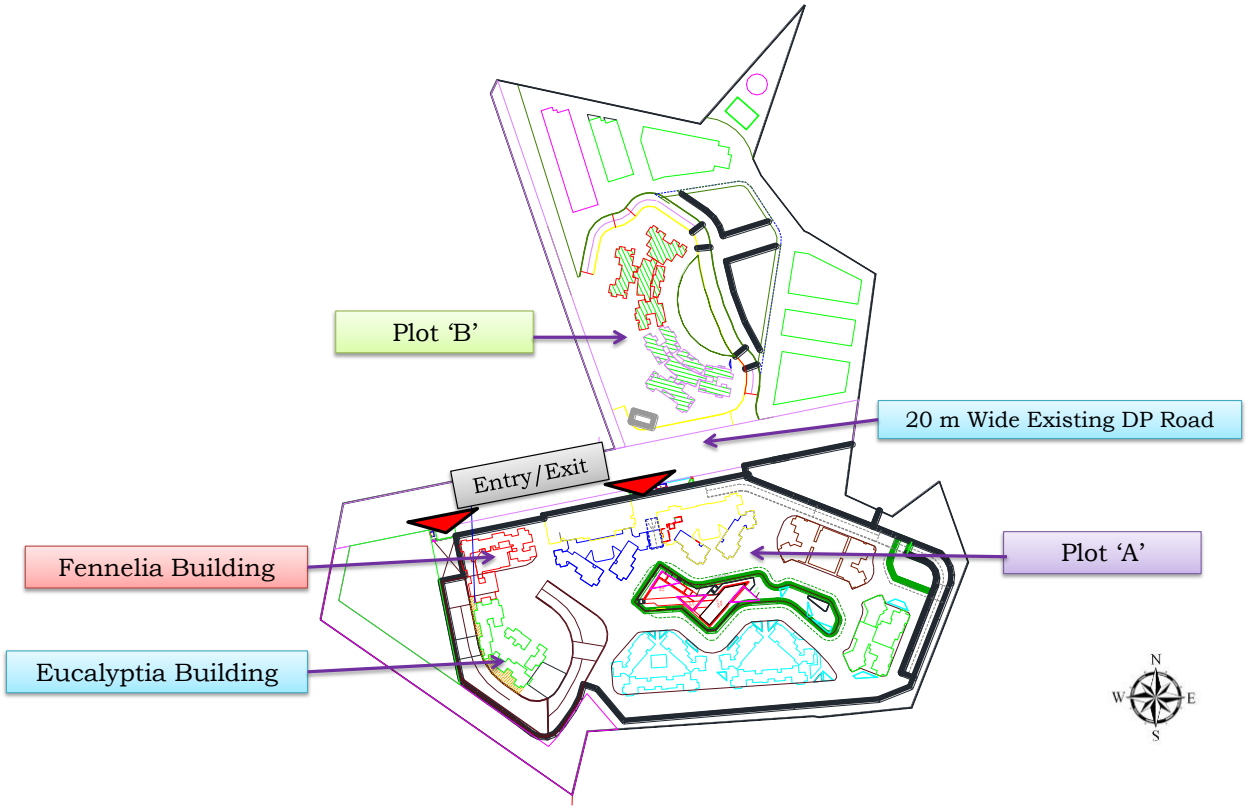


Figure 1.2: Layout plan of the proposed project

The project buildings details are given in **Table 1.1**.

Table 1.1 Project buildings

Name of Building	Previous Status		Current Status		Remarks
	Configuration	Height (m)	Configuration	Height (m	
Eucalyptia	Gr. + 2P + ST + 27 Floor	91.8	2 level Basement + 3 level Podium (Gr.+2P) +Stilt +1st to 19th floor + Fire Check floor + 20th to 35th (Pt) floors	118.87	Basement is added and also increases in floor from 27th to 35th floor. Height increased from 91. 8 m to 118.87 m

Name of Building	Previous Status		Current Status		Remarks
	Configuration	Height (m)	Configuration	Height (m	
Fenelia	Gr. + 2P + ST + 27 Floor	91.8	2 level Basement+ Gr (Pt.)/ 1st level Podium + 1st floor (pt)/2nd level Podium + 2nd Floor (pt)/3rd Podium +Stilt + 1st to 19th floor +fire Check floor +20th - 35th (Pt) floor	118.87	Basement is added and also increases in floor from 27th to 35th floor. Height increased from 91. 8 m to 118.87 m

2.0 Methodology:

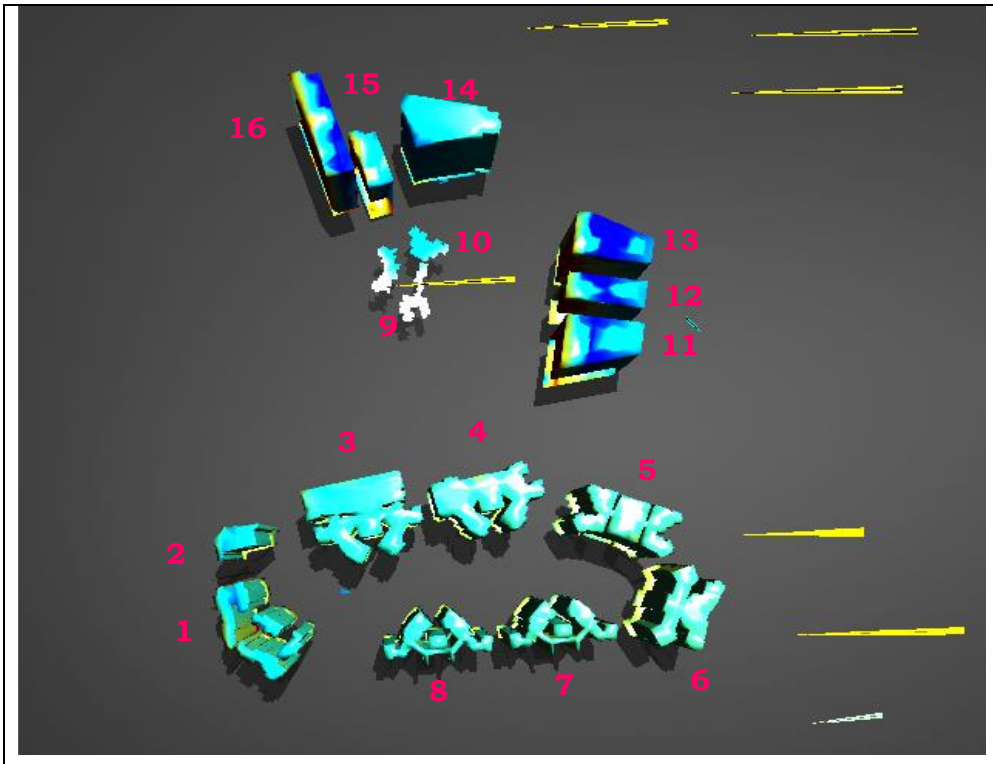
Simulation was carried out using Revit. The wind speed and its direction were procured from MPCB and they were used for stimulation. The annual average wind speed of Mumbai is 3.2 m/s. As per the simulation findings, a small portion of the wind was seen to be getting deflected from the test building.

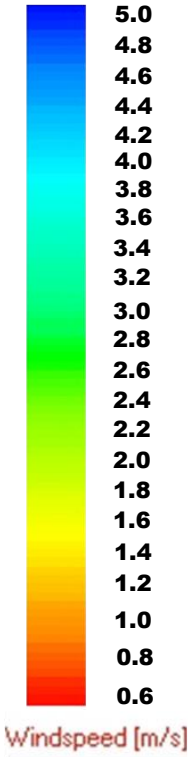
3.0 Findings:

The project contains 16 buildings out of which 2 buildings are for amendment. The project contains Eucalyptia Building with height having 118.87 m, Fenelia Building with height having 118.87 m. simulated finding showed that height and wind speed were directly proportional to each other. Based on Beaufort scale of winds researches have said that maximum average wind velocity of 5 m/s is a general outdoor comfort limit.

Applying this predicted simulated results; a representative scenario for proposed project is given in **Figure 1.3.** The uninterrupted wind was blowing through west direction of the

proposed project. After the construction of proposed project, reflection and deflection of wind would take place at the proposed location. Due to this inversion of air at the proposed location was observed at different zones. As per the simulated findings the inversion zone would have wind speed of about 1.4 m/s – 4.8 m/s and simulation is shown in **Figure 1.3.** These figures show the wind assessment simulations from different angles for the proposed buildings.







Legends:-			
1	Proposed Eucalyptia	9	Oakwood
2	Proposed Fenelia	10	Ashwood
3	Gingelia	11	MMRDA 1
4	Herbalia	12	MMRDA 2
5	Alpinia	13	MMRDA 3
6	Basilia	14	MMRDA 4
7	Centilia	15	MMRDA 5
8	Dandilia	16	MMRDA 6

Figure 1.3: Predicted representative scenario for wind movement around proposed project

The wind analysis for the proposed project is shown in **Table 1.1**

Table 1.1: Wind analysis for the proposed project

Particulars	Wind Velocity (m/s)
Eucalyptia Building	
Lower Floors	1.4 m/s – 2.0 m/s
Upper Floors	3.6 m/s – 4.0 m/s
Terrace level	4.0 m/s – 4.8 m/s
Fenelia Building	
Lower Floors	1.4 m/s – 2.0 m/s
Upper Floors	3.6 m/s – 4.0 m/s
Terrace level	4.0 m/s – 4.8 m/s

4.0 Conclusion and Recommendations: -

- The proposed project has been planned with proper wind movement as per prominent wind direction of Mumbai.
- At wind shadowed area, the wind speed could be ranging from 1.4 – 4.8 m/s.

Note: This is a predictive study and assumption was made for analysis. The assumptions were prominent wind direction which is west; its speed is about 3.2 m/s.