

Government of Maharashtra

SEAC- 2013/CR-205 /TC-1
Environment department
Room No. 217, 2nd floor,
Mantralaya Annexe,
Mumbai- 400 032.
Dated: 23 December, 2013

To,
M/s. Ravechi Infrastructure Projects Pvt. Ltd.
301 "A" Wing, 3rd Floor,
Fortune-2000, Bandra Kurla Complex (BKC)
Bandra (E), Mumbai- 400 051

Subject: Environmental clearance for the proposed Project "Neelkanth Woods" of village Majiwade, Thane at Mulla Baug, Hill Crest Society, Ghodbunder Road, Thane by M/s. Ravechi Infrastructure Projects Pvt. Ltd.

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-II, Maharashtra in its 5th & 15th meetings decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 63rd Meeting.

2. It is noted that the proposal is for grant of Environmental Clearance for the proposed project "Neelkanth Woods" of village Majiwade, Thane at Mulla Baug, Hill Crest Society, Ghodbunder Road, Thane. SEAC considered the project under screening category 8(a) B2 as per EIA Notification 2006.

Brief Information of the project submitted by Project Proponent is as:

Name of the project	"Neelkanth Woods"
Project Proponent	M/s. Ravechi Infrastructure Projects Pvt. Ltd.,
Consultant	SENES Consultants India Pvt. Ltd
Type of the project:	Housing Project
Location of the project	Site for the proposed development is located at Mulla baug, near Hill Crest Society, off Ghodbunder Road, Thane (W). Survey numbers for the proposed plot are 312/1A, 313/3, 314/5, 314/7, 314/9, 315/3, 316 (PT), 317/4, 318/1D and 321/3B. Site for the proposed development falls in village Majiwada of Tehsil Thane.
Total Plot Area (sq. m.)	Total plot area: 1,77,780 m ²
Deductions	Deductions: 92,639.75 m ²
Net Plot area	Net Plot Area: 85,140.25 m ²
Permissible FSI (including TDR etc.)	Permissible FSI: 1.00 Max. 80% TDR on plot area is additional
Proposed Built-up Area	FSI area (sq. m.): 1,65,272.25 m ²

(FSI & Non-FSI)	Non FSI area (sq. m.): 1,82,038.6 m ² Total BUA area (sq. m.): 3,47,310.9 m ²
Ground-coverage Percentage (%)	Total ground coverage for the proposed "Neelkanth Woods" is 46.84%.
Estimated cost of the project	Rs. 914 Crores
No. of building & its configuration(s)	12 residential towers (Stilt + 29 Floors), 72 bungalows (Stilt + 2 Floors), a club house with fitness center and a commercial set-up (Gr. Floor)
Number of tenants and shops	No. of tenants (existing + proposed): 1910 No. of shops: 5
Number of expected residents / users	Residential population: 9550 Commercial population: 62
Tenant density per hecter	115.5/hecter
Height of the building(s)	92 m
Right of way	40 m wide DP road
Turning radius	12 m (internal)
Total Water Requirement	Dry season: Fresh water (CMD): ~ 868 & Source: Thane Municipal Corporation (TMC) Recycled water (CMD): ~ 660 (flushing: 448 & landscaping: 212) Total Water Requirement (CMD): ~1528 Fire fighting (Cum): 1500 (in underground and overhead fire fighting tanks) Wet Season: Fresh water (CMD): ~ 868 & Source: TMC Recycled water (CMD): ~ 448 (flushing) Total Water Requirement (CMD): 1316 Fire fighting (CMD): 1500 (in underground and overhead fire fighting tanks)
Rain Water Harvesting (RWH)	Level of the Ground water table 6 m below ground cover Size and no of RWH tank(s) and Quantity 1 RWH tank of capacity 12 cum per tower and RWH tank of capacity 25 cum for the bungalows. Size, no of recharge pits and Quantity For Tower - 3 m dia. harvesting pits (4 No.) and for Bungalow - 5 No of pits of size 1.2m X 1.2m Budgetary allocation (Capital cost and O&M cost) Capital cost: 40 Lakh O&M cost: 3 lakh
Storm water drainage	Natural water drainage pattern The proposed site has natural water stream flowing through it. The same has been retained while developing the storm water drainage plan for the project. Quantity of storm water: 2135cum/day for towers and 633 cum/day for bungalows Size of SWD: 450mm, 600m and 900 mm wide SWD
Sewage and waste water	Sewage generation (CMD): 1049 cum/day from towers and 70 cum/day from bungalows STP technology: Moving Media Bio Reactor (MMBR) for towers

	<p>and extended aeration for bungalows (already operational), schematic flow diagram for MMBR Capacity of STP (CMD): 1050 cu.m/day for towers + 100 cu.m/day for bungalows & club house (already operational) DG sets (during emergency): 4 D.G. sets of 380 kVA each + 2 D.G sets of 110 kVA are already present on site Budgetary allocation (Capital cost and O&M cost) Capital cost: 163 lakh O&M cost: 25lakhs</p>
<p>Solid waste Management</p>	<p>Waste generation in the Pre Construction and Construction phase: Waste generation: 10,664.1 MT total excavation quantity 185881 cum Quantity of the top soil to be preserved: 18212.60 Cum 20,953cum</p> <p>Waste generation in the operation Phase: Dry waste (Kg/day): 2.74 T/day for towers and 0.193 T/day for bungalows & club house Wet waste (Kg/day): 1.82 T/day for towers and 0.128 T/day for bungalows & club house Hazardous waste (Kg/month): 185 L/month of waste oil from D G sets (assuming 2 hours of operation per day)</p> <p>Mode of Disposal of waste: Dry waste: Segregated for disposal to authorized recycling vendors Wet waste: Will be composted using OWC Hazardous waste: will be disposed as per standard norms of MoEF with the help of authorized agencies. STP Sludge (Dry sludge): Manure</p> <p>Details of waste disposal: Municipal solid waste will be disposed off as per Municipal Solid Waste Handling and Management Rules. Recyclables (tin, glass, paper, cardboard, leather, metals etc.) will be segregated and sold over to local recyclers. Biodegradable waste will be treated using Organic Waste Converter (OWC). Hazardous waste will be disposed as per standard norms of MoEF with the help of authorized agencies. STP sludge will be used as manure after drying and compaction, if required.</p> <p>Area requirement: OWC's located at convenient places within the complex green areas or open spaces will be provided for treatment of biodegradable waste. Area requirement for OWC's is as given below: OWC 1 = 12M X 5M OWC 2 = 18M X 7.5M OWC 3 = 9.8 X 4M A Vermi composting pit is present on site for treatment of biodegradable waste being generated from the bungalows.</p> <p>Budgetary allocation (Capital cost and O&M cost) Capital Cost: 13 lakh O&M: ~91 thousand</p>

Green Belt Development	Club house & Swimming pool = 2681.17 m ² RG area under green belt: RG on the ground (sq. m.): 17179.72 m ² RG on the podium (sq. m.): 5180.11m ² Total area proposed = 25041.00 m ² Plantation: As per DC regulation 1670 no. of trees needs to be planted on site. 216 trees will be cut for construction of Neelkanth Woods. Budgetary allocation (Capital cost and O&M cost) Capital cost = 25 lakh O& M cost = 5 lakh																												
Energy	Power supply: Maximum demand: 10 MVA Connected load: 11012 KW Source: MSEDCL % of saving : 10% Budgetary allocation (Capital cost and O&M cost) Capital cost = 5 Crore O&M cost = 5 lakh DG Set: Number and capacity of the DG sets to be used: 4 D.G. sets of capacity 380 kVA each. 2 D.G. sets of 110 kVA each are already present on site Type of fuel used: High Speed Diesel (HSD)																												
Traffic Management	Parking details: Number and area of podia: No. 3 & area 89004.68m ² Total Parking area: 95138.61 m ² Area per car: 28.63 m ² Area per two wheeler:17.38 m ² 2-Wheeler: 1870 Nos. 4-Wheeler: 2166 Nos. Width of all Internal roads (m): 15 m, 12 m and 7.5 m																												
Environmental Management plan Budgetary Allocation	<table border="1"> <thead> <tr> <th>Description</th> <th>Capital cost (Rs. Lakh)</th> <th>O&M cost (Rs. Lakh)</th> </tr> </thead> <tbody> <tr> <td>Air quality monitoring & Dust Control Plan</td> <td>25</td> <td>-</td> </tr> <tr> <td>Noise Control & Mitigation Plan</td> <td>10</td> <td>1</td> </tr> <tr> <td>Water Quality Monitoring & Treatment</td> <td>5</td> <td>-</td> </tr> <tr> <td>Sewage Treatment</td> <td>17.25</td> <td>4</td> </tr> <tr> <td>Storm water and rainwater harvesting</td> <td>40</td> <td>-</td> </tr> <tr> <td>Solid Waste Treatment</td> <td>-</td> <td>2</td> </tr> <tr> <td>Landscape</td> <td>25</td> <td>-</td> </tr> <tr> <td>Total</td> <td>122.25</td> <td>7</td> </tr> </tbody> </table>	Description	Capital cost (Rs. Lakh)	O&M cost (Rs. Lakh)	Air quality monitoring & Dust Control Plan	25	-	Noise Control & Mitigation Plan	10	1	Water Quality Monitoring & Treatment	5	-	Sewage Treatment	17.25	4	Storm water and rainwater harvesting	40	-	Solid Waste Treatment	-	2	Landscape	25	-	Total	122.25	7	
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Operation Phase (with Break-up)- <ul style="list-style-type: none"> • Capital cost • O&M cost (Please ensure manpower and other details) 																													

Description	Capital cost (Rs. Lakh)	O&M cost (Rs. Lakh)
D.G set maintenance	-	2
Sewerage /STP/reuse	163	25
OWC	13	0.9
Storm water and rainwater harvesting	-	2.8
Landscape	-	5
Energy Conservation	41	5

3. The proposal has been considered by SEIAA in its 63rd meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :

- (i) This environmental clearance is issued subject to land use verification. Local authority / planning authority should ensure this with respect to Rules, Regulations, Notifications, Government Resolutions, Circulars, etc. issued if any. This environmental clearance issued with respect to the environmental consideration and it does not mean that State Level Impact Assessment Authority (SEIAA) approved the proposed land use.
- (ii) The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work. Plan approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.
- (iii) "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.
- (iv) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
- (v) Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.
- (vi) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche and First Aid Room etc.

- (vii) 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.
- (viii) The solid waste generated should be properly collected and segregated. dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- (ix) Wet garbage 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. Local authority should ensure this.
- (x) Arrangement shall be made that waste water and storm water do not get mixed.
- (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 leveling 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) Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xiv) Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xv) 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.
- (xvi) Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.
- (xvii) Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
- (xviii) 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.
- (xix) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.
- (xx) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

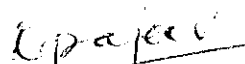
- (xxi) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.
- (xxii) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations).
- (xxiii) Ready mixed concrete must be used in building construction.
- (xxiv) The approval of competent authority shall be obtained for structural safety of the buildings due to any possible earthquake, adequacy of fire fighting equipments etc. as per National Building Code including measures from lighting.
- (xxv) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (xxvi) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xxvii) The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
- (xxviii) 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 Ministry before the project is commissioned for operation. Discharge of this unused treated effluent, if any should be discharge in the sewer line. Treated effluent emanating from STP shall be recycled/refused to the maximum extent possible. Discharge of this unused treated effluent, if any should be discharge in the sewer line. Treatment of 100% gray water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP.
- (xxix) Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.
- (xxx) Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
- (xxxi) Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.
- (xxxii) 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.
- (xxxiii) Use of glass may be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.

- (xxxiv) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
- (xxxv) Energy conservation measures like installation of CFLs /TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heaters system. Project proponent should install, after checking feasibility, solar plus hybrid non conventional energy source as source of energy.
- (xxxvi) Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation 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. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.
- (xxxvii) Noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (xxxviii) 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.
- (xxxix) Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement
- (xl) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- (xli) 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.
- (xlii) 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.
- (xliii) Six monthly monitoring reports should be submitted to the Regional office MoEF, Bhopal with copy to this department and MPCB.
- (xliv) A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB
- (xlv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.

- (xlvi) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xlvii) 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 and year-wise expenditure should reported to the MPCB & this department.
- (xlviii) 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 <http://ec.maharashtra.gov.in>.
- (xlix) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
- (l) 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.
- (li) 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, NO_x (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.
- (lii) 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.
- (liii) 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.
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. In case of submission of false document and non compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environmental Clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.
6. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
7. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years.
8. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
9. 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.
10. Any appeal against this environmental clearance shall lie with the National Green Tribunal , Van Vigyan Bhawan, Sec- 5, R.K. Puram, New Dehli – 110 022. if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act. 2010.


(R.A. Rajeev)
Principal Secretary,
Environment department &
MS, SEIAA

Copy to:

1. Shri. R. C. Joshi, IAS (Retd.), Chairman, SEIAA, Flat No. 26, Belvedere, Bhulabhai desai road, Breach candy, Mumbai- 400026.
2. Shri. Ravi Bhushan Budhiraja, Chairman, SEAC-II, 5-South, Dilwara Apartment, Cooperage, M.K.Road, Mumbai 400021
3. Additional Secretary, MOEF, 'Paryavaran Bhawan' CGO Complex, Lodhi Road, New Delhi – 110510
4. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.

5. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
6. Commissioner, Municipal Corporation, Greater Mumbai (MCGM)
7. Collector, Mumbai.
8. Regional Office, MPCB, Mumbai.
9. CEO, Slum Rehabilitation Authority, Bandra (E), Mumbai
10. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
11. Select file (TC-3).

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