

Government of Maharashtra

SEAC-2012/CR- 115/TC-2
Environment department
Room No. 217, 2nd floor,
Mantralaya Annexe,
Mumbai- 400 032.
Dated: 25th March, 2014

To,
M/s. Raheja Universal Ltd.
Raheja Centre Point,
294, CST Road, Near Mumbai University,
Kalina, Santacruz (East), Mumbai

Subject: Environmental clearance for Proposed Residential Project at Sub Plot 'A' of Property bearing New CS No.434 (old S.No.1/433, 434, 435,1/435, 470,471,472) of Lower Parel Division, Mumbai by M/s. Raheja Universal 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 1st, 4th, 13th & 14th 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 62nd & 66th Meetings.

2. It is noted that the proposal is for grant of Environmental Clearance for Proposed Residential Project at Sub Plot 'A' of Property bearing New CS No.434 (old S.No.1/433, 434, 435,1/435, 470,471,472) of Lower Parel Division, Mumbai. 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 Project	Proposal for construction of Residential Building 'Raheja Imperia', in Lower Parel, Mumbai
Name of Proponent	M/s. Raheja Universal Ltd.
Consultant	Aditya Environmental Services Pvt. Ltd
Type of project	Housing Project
Location of the project	Plot 'A' of property bearing New C.S.No. 434 (old C.S.No. 1/433, 434, 435, 1/435, 470, 471, 472) of Lower Parel Division, situated at Shankar Rao Naram Path, Lower Parel, Mumbai
Total Plot Area	Total Plot Area: 22,065.28 Sq m
Deductions	Deductions: 751.67 Sq m
Net Plot Area	Net Plot Area: 21,313.61 Sq m
Permissible (including TDR etc.)	FSI 38,268.59 Sq m
Proposed Built-up Area (FSI & Non-FSI)	<ul style="list-style-type: none">• FSI area (sq. m.): 38,268.59 Sq m• Non FSI area (sq. m.):53004.00 Sq m• Total BUA area (sq. m.):91272.59 Sq m

Ground coverage Percentage (%)	58 %
Estimated cost of the project	450 Crores
No. of buildings & its configuration	1 Residential Building Building comprises of Stilt at Gr.level for parking + one Podium+ top of 2 nd Podium for Driveway + Stilt + partly RG + 5nos Car parking floors + 41 Nos. Residential upper floors having total height of 190.55mts. 1 Single Structure One Ground Floor Structure
No. of expected residents /users	Residents 1170 Nos Visitors and servants 351 Nos Clubhouse 200 Nos
Tenant density/ hectare	532
Height of the building (s)	190.55 mts
Right of the way	13.40 mts.
Turning radius	12.00M
Total Water Requirement	Dry season: <ul style="list-style-type: none"> • Fresh water (CMD): & Source:112 cmd • Recycled water (CMD):95 cmd • Total Water Requirement (CMD):207 • Swimming pool make up (Cum): 10 cmd • Fire fighting (Cum): As per Fire Noc received For Hydrant system 200 cum & for sprinkler system. Wet Season: <ul style="list-style-type: none"> • Fresh water (CMD): & Source: 112 cmd , • Recycled water (CMD): 72.cmd (Irregation water supply deducted) • Total Water Requirement (CMD): 184.96 cmd • Swimming pool make up (Cum): 10 cmd • Fire fighting (Cum): As per Fire Noc received For Hydrant system 200 cum & for sprinkler system.100 cmd
Rain Water Harvesting (RWH)	Size, no of recharge pits and Quantity: Size of percolation pit: Recharging Pit: 3Mt x 3Mt x 3Mt Depth, (collection tank with borewell),12 nos Grease cum desilting chamber: 2Mt x 0.9Mt x 2Mt depth • Budgetary allocation (Capital cost and O&M cost) Cap: 60 lakh O& M 72,000/-
Storm Water Drainage	Natural water drainage pattern: Gravity swd drain channel Quantity of storm water: 0.579 cum/sec. Size of SWD: 600mm Wide & depth = 1.3m+0.3m F.B.

<p>Sewage and Waste water</p>	<ul style="list-style-type: none"> • Sewage generation (CMD): 159.03 cmd • STP technology: SAFF Technology • Capacity of STP (CMD): 160 cmd • Location of STP: Please refer drawing • DG sets (during emergency): 2 nos. 750KVA & during emergency for common load only 750kva-2Nos. • Budgetary allocation (Capital cost and O&M cost) Cap : 128lacs Op : 16 lacs/anum 										
<p>Solid waste Management</p>	<ul style="list-style-type: none"> • Quantity of the top soil to be preserved: The top soil generated shall be preserved and used for landscaping • Disposal of the construction way debris: Debris generated during construction will be collected at one place and will be disposed off to MCGM approved land filling sites. <p>Waste generation in the operation Phase: 695 Kg/day</p> <ul style="list-style-type: none"> • STP Sludge (Dry sludge) (Kg/day):0.127 kg/day • Biodegradable waste (Kg/day): 428 Kg/day • Non biodegradable waste (Kg/day): 267 Kg/day <p>Mode of Disposal of waste: Wet and dry garbage will be segregated.</p> <ul style="list-style-type: none"> • Dry waste: Dry garbage will be further segregated into recyclable and non-recyclable, Dry Garbage will be handed over to the authorized recycler • The biodegradable waste will be converted to compost using OWC:. • STP Sludge (Dry sludge): The dried sludge will be used as manure for gardening <p>Area requirement: Location(s) and total area provided for the storage and treatment of the solid waste: West side at P0 Level. (Approx 57 sq mts.)-168 m² Budgetary allocation (Capital cost and O&M cost) Cap 12 lacs O & M 1.2 lac</p>										
<p>Green Belt Development</p>	<p>Total RG area: Required as per DCR = 5032.00 Sq.Mt</p> <p>RG area under green belt: Proposed</p> <ul style="list-style-type: none"> • RG on the ground (sq. m.): 600 sq.mt • RG on the podium (sq. m.): 5835 sq.mt <p>Plantation:</p> <table border="1" data-bbox="626 1780 1328 1969"> <tr> <td>Existing trees on site</td> <td>31</td> </tr> <tr> <td>Trees to be retained</td> <td>21</td> </tr> <tr> <td>Trees to be transplanted</td> <td>10</td> </tr> <tr> <td>New trees to be planted</td> <td>368</td> </tr> <tr> <td>Hence total number of trees</td> <td>399</td> </tr> </table> <p>4. Budgetary allocation (Capital cost and O&M cost)</p>	Existing trees on site	31	Trees to be retained	21	Trees to be transplanted	10	New trees to be planted	368	Hence total number of trees	399
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	Cap 4 lacs O & M 1 lac																		
Energy	<p>Power supply:</p> <ul style="list-style-type: none"> • Maximum demand: 2887.33 KW • Connected load: 6291.94 KW • Source: Public source and DG sets • Detail calculations & % of saving: 43.34% • Budgetary allocation (Capital cost and O&M cost): CAPEX : 320 Lacs OPEX : 16 Lacs <p>DG Set:</p> <ul style="list-style-type: none"> • Number and capacity of the DG sets to be used: 750KVA x 5 nos • Type of fuel used: Diesel 																		
Traffic Management	<p>Nos. of the junction to the main road & design of confluence: One Parking details:</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Area</th> <th>Car Park</th> </tr> </thead> <tbody> <tr> <td>P0</td> <td>11503 sq.mt</td> <td>251</td> </tr> <tr> <td>P1</td> <td>11583 sq.mt</td> <td>251</td> </tr> <tr> <td>P2</td> <td>1629 sq.mt</td> <td>20</td> </tr> <tr> <td>P3</td> <td>1927 sq.mt</td> <td>12</td> </tr> <tr> <td>CP(1)-CP(5)</td> <td>2583 x 5 sq.mt (12,915 sq.mt)</td> <td>24</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Total Parking area: 24192 sq.mt • Area per car: 34.46 sq.mt • 2-Wheeler: - 28 nos. • Parking required as per MCGM 468+117(25% visitors+117(25%)) <p>Parking (4-Wheeler) proposed : 702 Nos</p> <ul style="list-style-type: none"> • Public Transport <p>Width of all Internal roads (m): 12.00M TO 18.00M</p>	Level	Area	Car Park	P0	11503 sq.mt	251	P1	11583 sq.mt	251	P2	1629 sq.mt	20	P3	1927 sq.mt	12	CP(1)-CP(5)	2583 x 5 sq.mt (12,915 sq.mt)	24
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Environmental Management plan Budgetary Allocation		Capital	O & M (per annum)
	Water sprinkling	5 lac	--
	STP	32 lac	8.64 lac
	RWH	60 lacs	72,000
	RG	4 lacs	1 lac
	Solid Waste	12 lacs	1.2 lac

3. The proposal has been considered by SEIAA in its 62nd & 66th meetings & 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. Judgments/orders issued by Hon'ble High Court, Hon'ble NGT, Hon'ble Supreme Court regarding DCR provisions, environmental issues applicable in this matter should be verified. If any discrepancy found in the plans submitted or details provided in the above para may be reported to environment department. 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) PP has to abide by the conditions stipulated by SEAC & SEIAA.
- (iii) 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.
- (iv) "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.
- (v) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) 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

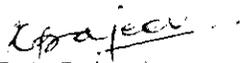
- (x) Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.
- (xi) Arrangement shall be made that waste water and storm water do not get mixed.
- (xii) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- (xiii) 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.
- (xiv) Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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.
- (xx) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.
- (xxi) 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.
- (xxii) 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.
- (xxiii) 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).
- (xxiv) Ready mixed concrete must be used in building construction.
- (xxv) 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.
- (xxvi) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (xxvii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xxviii) The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.

- (xxix) 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.
- (xxx) Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc.
- (xxxii) Permission to draw ground water and construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.
- (xxxiii) Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.
- (xxxiiii) 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.
- (xxxv) 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.
- (xxxvi) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement
- (xxxvii) 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.
- (xxxviii) 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.
- (xxxix) 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.
- (xl) 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.
- (xli) 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
- (xlii) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

- (xlii) 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.
- (xliii) 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.
- (xliv) Six monthly monitoring reports should be submitted to the Regional office MoEF, Bhopal with copy to this department and MPCB.
- (xlv) A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB.
- (xlvi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.
- (xlvii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xlviii) 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.
- (xlix) 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>.
- (l) 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.
- (li) 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.
- (lii) 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.
- (liii) 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.
- (liv) 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. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
10. Select file (TC-3).

(EC Uploaded on 25/3/14)

MUNICIPAL CORPORATION OF GREATER MUMBAI

DYCHE/36 41 / (B.P.) CITY dated 30th November 2017

Office of the
Dy. Chief Engineer (Bldg. Proposal) City
New Municipal Bldg., Bhagwan Valmiki Chowk,
Vidyalankar Marg, Opp. Hanuman Mandir,
Antop Hill, Wadala (E), Mumbai-400037

To,
M/s. Prakash Cotton Mills Ltd,
G.K. Marg, Lower Parel,
Mumbai.

Sub: Environmental clearance for the Residential project on plot bearing new C.S. No. 434 (old c.s. no. 1/433, 434, 435, 1/435, 470, 471, 472) of Lower Parel division, Shankar Rao Naram Path, Lower Parel, Mumbai (Prakash Cotton Mills). (EB/947/GS/A)

Ref: Proposal submitted by Consultant M/s Enviro Analysts and Engineers Pvt. Ltd. On 29/9/2017 & 08/11/2017 (ENV/City/3)

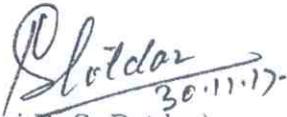
Sir,

Your aforesaid proposal for Environmental Clearance submitted by you through Qualified Building Environment Auditor (QBEA) M/s Enviro Analysts and Engineers Pvt. Ltd. is hereby approved by the undersigned as recommended by Environmental Cell Members of MCGM. A copy of the same duly signed by undersigned is enclosed herewith for information. This approval is valid for a period of 5 year from the date of issue

You are now requested to submit the regular building proposal in consonance with the above said Environmental Clearance approval.

Encl: Appendix II (Form 1A) and Appendix A.

Yours faithfully,


(Shri R. S. Potdar)
Dy. Ch. Engineer
(Building Proposal) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

8034

APPENDIX II

(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

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

1. Land Environment(Attach panoramic view of the project site & the vicinity)

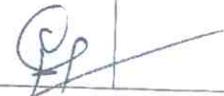
Sr. No.	EC Members	Particulars	Architect / L.S. / Consultant Remarks Yes / No	Architect / L.S. / Consultant's detail remarks	Attach Clips	EC Members recocomendation
1.		LAND ENVIRONMENT (Attach panoramic view of the Project site and the vicinity)				
1.1	Recourse Efficiency Including Building Material	Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved Master Plan/Development Plan of the area. Change of land use if any and the statutory approval from the competent authority are submitted). Attach	No	<ol style="list-style-type: none"> 1. This is on-going project in the city of Mumbai in G-South ward. 2. The Proposed project is Residential project in residential zone as per DCR. 3. The site is under Jurisdiction of Municipal Corporation of Greater Mumbai. 4. The work of construction 47th floor is already done. 5. The site is having accessibility to the road, sewerage network, storm water etc. 6. The project is in the well developed area having adequate infrastructure. 	<p><u>Google Image</u>(ANNEXURE I)</p> <p><u>Layout Plan</u>(ANNEXURE II)</p> <p><u>Contour Map</u> (ANNEXURE III)</p> <p><u>DP Sheet</u> (ANNEXURE IV)</p> <p>Site Photographs</p>	Seen


Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales.			(ANNEXURE V)							
1.2	Recourse Efficiency Including Building Materials	List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.	Yes	<p>Name & location: Expansion of Project 'Raheja Imperia' Plot 'A' of property bearing New C.S.No. 434 (old C.S.No. 1/433, 434, 435, 1/435, 470, 471, 472) of Lower Parel Division, situated at Shankar Rao Naram Path, Lower Parel, Mumbai.</p> <p>Proposed Building Details :</p> <table border="1"> <thead> <tr> <th>Building Nos.</th> <th>Previous Configuration</th> <th>Expansion Configuration</th> </tr> </thead> <tbody> <tr> <td>Residential Building No. 1</td> <td>Stilt at Gr. Level for Parking + One Podium + Top of 2nd Podium for Driveway + Stilt + Partly RG + 5 Nos. Car Parking Floors + 41 Nos. Residential Upper Floors having total height of 190.55 mtr.</td> <td>Stilt at Gr. Level for Parking + One Podium + Top of 2nd Podium for Driveway + Stilt + Partly RG with Club House + 5 Nos. Car Parking Floors + 46 Nos. Residential Upper Floors + Multi-purpose room having total height of</td> </tr> </tbody> </table>	Building Nos.	Previous Configuration	Expansion Configuration	Residential Building No. 1	Stilt at Gr. Level for Parking + One Podium + Top of 2 nd Podium for Driveway + Stilt + Partly RG + 5 Nos. Car Parking Floors + 41 Nos. Residential Upper Floors having total height of 190.55 mtr.	Stilt at Gr. Level for Parking + One Podium + Top of 2 nd Podium for Driveway + Stilt + Partly RG with Club House + 5 Nos. Car Parking Floors + 46 Nos. Residential Upper Floors + Multi-purpose room having total height of	Valid EC dtd. 25.03.2014 (ANNEXURE VI)	As proposed
Building Nos.	Previous Configuration	Expansion Configuration										
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Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		213.95mtrs. upto terrace level & 228.0 mtrs. upto top of elevation crown feature .
Residential Building no:2	Ground floor structure having total height of 3.80 mtr.and BUA of 141.44 sq. mtr.	Ground floor + two residential upper floors having total height of 10.20 mtr.and BUA of 519 sq. mtr.

Area Statement:

Sr. No	Description	As per EC Dtd. 25/03/2014	Expansion
1	Plot Area	22,065.28	22,065.28
2	FSI Area	38,268.59	47,704.16
3	Non FSI Area	53,004.00	55,668.40
4	Total Construction Area	91,272.59	1,00,372.56

A. Parking Statement :

Sr. No	Description	As per EC Dtd. 25/03/2014	Expansion
1	4 Wheelers	702	772
2	4 Wheelers	28	40

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

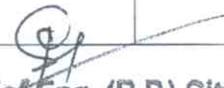
FORM-1A

B. Occupancy Load:			
Sr. No	Description	As per EC Dtd. 25/03/2014	Expansion
1	Residential Tenements	234	262
2	Expected Residents/Users	1170	1310

C. Water requirement :
Construction phase : 50 KLD
Source: Tanker (depending upon construction activity)
Operation Phase:
Source of Water supply: -MCGM + Recycled Water

Sr. No	Description	As per EC Dtd. 25/03/2014	Expansion
1	Fresh Water (KLD)	112	148
2	Recycled Water (KLD)	95	91
3	Swing pool make up (KLD)	10	
4	Fire Fighting	As per Fire NOC received for Hydrant system 200 cum & for sprinkler system	

As proposed


 Dy. Chief Eng. (B.P.) City 4

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

				D. Power Requirement :			
				Source: TATA/Reliance			
				Operation Phase :			
Sr. No	Description	As per EC Dtd.	Expansion				
1	Residential Building	Connected Load: 6291.94 KW Maximum Demand : 2887.33 KW DG set = 5 x 750 KVA	Connected Load: 7234 KW Maximum Demand : 3300 KW DG set = 2 x 500 KVA				
				Low Sulphur diesel (HSD) will be used as fuel to run standby D.G. sets.			
1.3	Recourse Efficiency Including Building Materials & Environmental Planning including Air quality management	1.3. What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use, disturbance to the local ecology)	No	The project activity has multiplier positive effects on the surrounding area and there will be no impact on existing facilities. The proposed activity improves the basic infrastructure facilities of the area. Open spaces, community facilities are simultaneously being augmented in the surroundings. No rare or endangered species of fauna are reported to exist in the area. There is no disturbance to the local ecology. The impact due to the proposed project may be increase in the traffic loads, increase in the noise levels during construction activities, and dust emissions emanating from various construction activities. Since the project is in the residential zone, there is a provision in DP plan for other infrastructure like open spaces, community facilities etc. in the close vicinity.	--	As proposed	
1.4.	Recourse	Will there is any	No	There is no significant land disturbance due to the	--	As proposed	

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

	Efficiency Including Building Materials	significant land distribution resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given)		project. The existing terrain is retained.		
1.5	Recourse Efficiency Including Building Materials	Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)	No	The site is almost flat. There will be no alteration of natural drainage, however in the site proper storm water drainage will be provided to prevent flooding. Water storage tanks also proposed.	<u>Contour Map</u> (ANNEXURE III)	As proposed
1.6.	Recourse Efficiency Including Building Materials	What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)	No	Excavation & filling is already done as per the requirement. The soil thus excavated of was backfilled, wherever required, within the project site. Top cover of the soil was preserved and used for developing green belt.	--	As proposed
1.7.	Water conservation & Management	Give details regarding water supply, waste handling etc. during the construction period.	Yes	Construction phase: It is expected to house about 50-60 labours at site; SOURCE : Tanker (Depending upon construction activity) Requirement: 50 KLD Temporary sanitary toilets are provided during	--	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

				<p>construction. The waste water generated from human settlements is collected in a septic tank and soak pits. Construction debris will be collected and suitably used on site as per construction waste management plan.</p>		
1.8.	Water conservation & Management	Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)	No	No low lying area, no wetlands within 500 m around the site.	--	
1.9.	Waste Management	Whether construction debris & waste during construction cause health hazards? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)	No	<p>The construction debris will include sand, soil bricks and tiles. All this material will be utilized on the same site or used for land fillings or other development sites. No hazardous waste is involved. Precautions are taken to reduce dust generation during construction phase.</p> <ul style="list-style-type: none"> • RMC use eliminates the handling of cement, sand and concrete thus dust emission will be minimized. • RMC use also reduces the trucks trips. • Tarpaulins are used to cover trucks carrying debris. • Water sprinkling is done at regular intervals to reduce control of dust generation. • Hazardous substances like (Cantering oil, formwork oil, wood dust, chemicals, admixtures, sealants, adhesives solvents, paints, pigments, dyes and primers, etc) will be produced during construction phase. The anticipated quantity is expected to be minimal. 	--	As proposed
2.		WATER				


Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		ENVIRONMENT																							
2.1	Water conservation & Management	Give the total quantity of water requirement for the proposed project with the break-up of requirements for various uses. How will the water requirements met? State the sources & quantities and furnish a water balance statement.	Yes	<p>Total 239 KLD of total water will be required for the project. Water requirement will be fulfilled by MCGM / Recycled water</p> <p>The details of water requirement during operation phase are given below:</p> <table border="1"> <thead> <tr> <th>Requirement</th> <th>Quantity (KLD)</th> </tr> </thead> <tbody> <tr> <td>Domestic</td> <td>148</td> </tr> <tr> <td>Flushing</td> <td>82</td> </tr> <tr> <td>Landscape</td> <td>9</td> </tr> <tr> <td>Total</td> <td>239</td> </tr> </tbody> </table> <p>Sewage Generation:</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Quantity of Sewage generated (KLD)</th> <th>Treatment/ Disposal</th> </tr> </thead> <tbody> <tr> <td>Construction phase</td> <td>10</td> <td>Septic Tank and Soak pit.</td> </tr> <tr> <td>Operational Phase</td> <td>195.03</td> <td>Treated sewage will be used for Flushing and Gardening. Excess treated sewage will be disposed to existing sewer line.</td> </tr> </tbody> </table>	Requirement	Quantity (KLD)	Domestic	148	Flushing	82	Landscape	9	Total	239	Description	Quantity of Sewage generated (KLD)	Treatment/ Disposal	Construction phase	10	Septic Tank and Soak pit.	Operational Phase	195.03	Treated sewage will be used for Flushing and Gardening. Excess treated sewage will be disposed to existing sewer line.	Water Balance Chart (Annexure VII)	As proposed
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2.2	Water conservation & Management	What is the capacity (dependable flow or yield) of the proposed source of water?	Yes	For water supply the project will be dependent on MCGM/recycled water. The source of water for gardening & flushing is dependable one as we will be providing recycled water.	Water Balance Chart (Annexure VII)	As proposed																			
2.3	Water conservation & Management	What is the quality of water required, in case, the supply is not from a municipal	Yes	There is adequate Water supply from Municipal Corporation of Greater Mumbai. There is no chance of scarcity of water supply.	--	As proposed																			

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		source? (Provide physical, chemical, biological characteristics with class of water quality)																
2.4	Water conservation & Management	How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)	Yes	Total Recycled water 91 KLD will be used at maximum extent for : <table border="1"> <tr> <td>Flushing</td> <td>82 KLD</td> </tr> <tr> <td>Gardening</td> <td>9 KLD</td> </tr> </table>	Flushing	82 KLD	Gardening	9 KLD	Water Balance Chart (Annexure VII)	As proposed								
Flushing	82 KLD																	
Gardening	9 KLD																	
2.5	Water conservation & Management	Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)	No	No diversion is anticipated.	-	As proposed												
2.6	Waste Management	What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)	Yes	The sewage generation from the proposed project will be 195.02 KLD. STP of total capacity 200 KLD will be provided for treating the waste water. Expected Characteristics of Raw Sewage Untreated sewage Characteristics: <table border="1"> <tr> <th>Description values</th> <th>units</th> </tr> <tr> <td>PH</td> <td>6 - 8.5</td> </tr> <tr> <td>Total Suspended Solids</td> <td>180-250 mg/lit</td> </tr> <tr> <td>BOD₅ (27^oc)</td> <td>250-400 mg/lit</td> </tr> <tr> <td>COD</td> <td>600-800 mg/lit</td> </tr> </table> Treated Sewage Characteristics. <table border="1"> <tr> <th>Description values</th> <th></th> </tr> </table>	Description values	units	PH	6 - 8.5	Total Suspended Solids	180-250 mg/lit	BOD ₅ (27 ^o c)	250-400 mg/lit	COD	600-800 mg/lit	Description values		Water Balance Chart (Annexure VII)	
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Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

				units		
				PH	6.5- 8.5	
				Total Suspended Solids	Less than 10 mg/lit	
				BOD ₅ (27 ^o c)	20 mg/lit	
				COD	Less than 30 mg/lit	
				The pollutant load will be reduced due to recirculation of treated water		
2.7	Water conservation & Management	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.	Yes	12 Nos of recharge pits are will be provided for RWH as per earlier EC condition. A RWH tank of 90 Cum capacity is proposed for the expansion.	RWH Water Calculations (Annexure VIII) RWH Certificate (Annexure IX)	As proposed
2.8	Water conservation & Management	What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (Quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?	Yes	The run-offs will be channelized properly through storm water drain and will be diverted to recharging pits. The overflow of this pit will be diverted to the storm water drain. Management plan for Flood is as follows: <ul style="list-style-type: none"> Storm water drain shall be cleaned at regular interval. Demarcating the areas within or leading in or out of the building that will be water logged, flooded or isolated due to the flood. The areas will be marked after completion of the project (as final ground levels etc. will be available after completion). Dewatering pumps shall be installed at vulnerable locations. 	SWD Remarks dtd. 15.09.2014 (Annexure X)	
2.9	Water conservation & Management	What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table,	No	There will be no ground water extraction. But, recharging of ground water will be done by rain water harvesting system. For operational phase water demand would be met by a connection from MCGM.	--	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		recharging capacity, and approvals obtained from competent authority, if any)				
2.10	Water conservation & Management	What precautions/measure s are taken to prevent the run-off from construction activities polluting land and aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)	Yes	<p>Run off from the construction will be comparatively less i.e 0.413 m³/sec against the runoff of 0.579 m³/sec during the operation phase. and the run-off from the site will be taken to storm water drainage system. There will not be any pollution of land/aquifer.</p> <p>The following measures will be adopted.</p> <p>Specially during rainy seasons:</p> <p>Construction material will be stored at the earmarked places and will be covered with a temporary shed ensuring that no leachates or spoilage of land occurs.</p> <ul style="list-style-type: none"> • Providing stilt trap and bar screen to arrest solid material • The construction waste will be stored at the earmarked place to ensure that the same is not carried away with the storm water. • The rain water entering into the pit will be screened for the removal of heavy silt and other materials. • Diverting up-slope water with turf and not mixing mortar in locations that will drain into storm water system. • Preventing wastewater from brick cutting activities and stockpiles entering the storm water system. • Excavation work will not be carried out during monsoon season. • Cleaning all mud and dirt deposited on roads from construction-related activities. 	--	As proposed
2.11	Recourse Efficiency Including	How is the storm water from within the site managed?	Yes	Storm water drain of adequate size will be provided to manage storm water from within the site. Proper rainwater harvesting structure will be developed and	SWD Remarks dtd. 15.09.2014(Anne	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

	Building Materials	(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)		storm water will be used for recharging ground water. RWH tanks of 90 Cum capacity is proposed for the expansion.	xure X) <u>RWH Water Calculations</u> (Annexure VIII)	
2.12	Waste Management	Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	Yes	During construction phase the sewage generated is around 15 KLD and is treated in septic tank and soak pit. Hence it does not lead to unsanitary conditions around the project site. <ul style="list-style-type: none"> • Proper sanitation facilities have been provided at site for construction labours and staff. • Temporary toilets with septic tank and soak pit will be provided considering peak labour force • There will be no stagnant water at site, as the runoff will be systematically drained into the storm water line. • The domestic solid waste generated will be disposed off to authorized vendors/local body. • The construction waste generated is filled in low-lying areas within the premises. 	<u>Photographs for Labour Facilities</u> (Annexure XI)	As proposed
2.13	Waste Management	What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology &	Yes	The waste water generated to the tune of 195.02 KLD will be treated in STP of capacity of 200 KLD and 91 KLD will be used for gardening and flushing purpose the excess 84.52 KLD of treated waste water will be drain into Municipal Sewer line. <u>STP Technology & its details in brief:</u> (MBBR)Moving Bed Bio reactor: Developed at the patrons end with utmost precision, these plants are built using high-grade raw material along with other components procured from the effective sources of the market. Besides, these products are used to for	<u>STP Calculations & Location</u> (ANNEXURE XII)	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		facilities for recycling and disposal)		<p>quick & convenient sewage for various water drainages. Appreciated for corrosion resistance, this range is available at competitive prices.</p> <p>Other details:</p> <ul style="list-style-type: none"> • It is a continuous operating non-clogging bio film reactor • No back washing • Requires low head loss • High specific bio film surface area • Achieved by having the biomass to move along with the water in the reactor • The movement within the reactor is generated by aeration in the aerobic reactor • These bio-film carriers are made of special grade plastic with density close to that of water • The overall efficiencies are 85 to 90%. <p>Sewage specification after treatment in STP.</p> <table border="1"> <thead> <tr> <th rowspan="2">Parameter</th> <th colspan="2">Value</th> </tr> <tr> <th>Before Treatment</th> <th>After Treatment</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>7 – 8.5</td> <td>7.0 – 7.5</td> </tr> <tr> <td>BOD (Mg / L)</td> <td>250 – 400</td> <td>Less than 5 Mg / L</td> </tr> <tr> <td>Suspended Solids (Mg / L)</td> <td>200 – 450</td> <td>Less than 50 Mg / L</td> </tr> <tr> <td>COD (Mg / L)</td> <td>600 – 800</td> <td>Less than 10 Mg / L</td> </tr> <tr> <td>Oil & Grease (Mg / L)</td> <td>Up to 20</td> <td>Less than 5 Mg / L</td> </tr> </tbody> </table>	Parameter	Value		Before Treatment	After Treatment	pH	7 – 8.5	7.0 – 7.5	BOD (Mg / L)	250 – 400	Less than 5 Mg / L	Suspended Solids (Mg / L)	200 – 450	Less than 50 Mg / L	COD (Mg / L)	600 – 800	Less than 10 Mg / L	Oil & Grease (Mg / L)	Up to 20	Less than 5 Mg / L		
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2.14	Waste Management	Give details of dual plumbing system if treated wastewater is used for flushing of toilets or any other	Yes	There will be separate pipelines for the supply of treated water from STP and the fresh water. Treated water will be used for the flushing purposes and landscaping purposes, while the fresh water will be used for domestic consumption. Colour coding for	Dual Plumbing Drawing (Annexure XIII)	As proposed																				


Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		use.		dual plumbing system shall be done as per standard practices.		
3		VEGETATION				
3.1.	Recourse Efficiency Including Building Materials	Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)	No	The project site is surrounded by developed roads. The local ecosystem and biodiversity will not be hampered because of this development.	Google Image(ANNEXURE I) DP Sheet (ANNEXURE IV)	As proposed
3.2	Recourse Efficiency Including Building Materials	Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)	No	There is not cutting of trees for the development. As per Tree NOC issued, (Ref. Ref. DYSG/TA/MC/44/25-04-2012, CASE NO-288/11-12) Out of total 31 trees, 10 trees are permitted to transplant on site. Out of which 3 trees has been transplanted. Total proposed trees: 288 nos.	Tree NOC (Annexure XIV)	As proposed
3.3	Recourse Efficiency Including Building Materials	What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)	Yes	Proposed landscape will improve the environment. RG on the ground (paver) : 600 Sq. m RG on the podium (paver+unpaved) : 5845.32 Sq. m The plot area under development is 22065.28 sq. mts. and @ 1 tree for 80 Sq. m., the tree plantation required are 276 Nos. of trees. No. of proposed trees: 288 No's	RG Details and RG Drawing (Annexure XV)	As proposed
4.		FAUNA				
4.1	Environment	Is there likely to be	No	There will be no displacement of fauna - both	--	

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-IA

	al Planning including Air quality management	any displacement of fauna – both terrestrial and aquatic or creation of barriers for their movement? Provide the details.		terrestrial and aquatic and there will be no barrier on their movement. There is no endangered species found except the local species.		As proposed
4.2	Environment al Planning including Air quality management	Any direct or indirect impacts on the avifauna of the area? Provide details.	No	There will be no impact on the avifauna (birds) of the area. The site was not found to be nesting/breeding/feeding ground for any significant bird species. The trees planted may attract birds in the future creating a positive impact on the avifauna.	--	As proposed
4.3	Environment al Planning including Air quality management	Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna.	No	The project is located on landmass and there is no need to provide corridors and fish ladders etc.	--	As proposed
5.		AIR ENVIRONMENT				
5.1	Environment al Planning Including Air Quality Management	Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result	No	The proposed project activity will not increase any atmospheric concentration of gases and result in heat islands. Air emissions will increase due to vehicular movements.	--	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		of the proposed constructions)				
5.2	Environmental Planning Including Air Quality Management	What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.	Yes	There is burning of fuel through D.G. sets, traffic movements, operation of construction machines / equipment and domestic activities at site. Construction activities lead to dust generation, emission of NO ₂ and SO ₂ . However, the impacts on the ambient air quality during construction phase are temporary and reversible in nature (for short duration) and are restricted to only a small area. During operation phase, D.G. set will be having adequate stack height, there will be development of green-area and maintenance of vehicles, all these efforts will reduce the impact.	--	As proposed
5.3	Transport Planning and management.	Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry and exit to the project site	No	The proposed project will provide sufficient parking to its occupants and visitors. Adequate measures have been proposed to manage the traffic within and outside the site. A main entry point will be provided. The vehicular traffic movement within the complex will be such that it will not disturb the landscaped areas and organized open spaces. Entry and exit will be provided to ensure that no hindrance is caused to the site traffic.	<u>Traffic Study Report</u> (Annexure XVI)	As proposed. However, no. of parking spaces, maneuverability of vehicles & requisite dimensions in parking layout shall be scrutinized as per prevailing policy & relevant DCR/IRC regulations by competent authority of local body.
5.4	Transport Planning and Management	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways,	Yes	Roads of sufficient width will be provided. Necessary arrangements will be made for smooth entry and exit of vehicles.	<u>Traffic Study Report</u> (Annexure XVI)	Traffic congestion near the entry & exit points from the roads adjoining the

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		footpaths etc., with areas under each category				proposed project site must be avoided. Parking should be fully internalized & no public space should be utilized.
5.5	Transport Planning and Management	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.	No	As the entry and exit will be made safe and smooth, there will be no noise and vibrations due to increased traffic. During construction activity vehicular movement is the major source of Noise & Vibrations. While during Operational Phase D.G sets, machines and vehicular movement will be the major source.	Traffic Study Report (Annexure XVI)	
5.6	Environmental Planning Including Air Quality Management	What will be the impact of D.G. sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.	No	The D.G. sets will be installed at ground level and will be enclosed in acoustic enclosures to reduce the impact of noise generated from the D.G. set. As the reliability of main source is most reliable, DG set use will be for periodical checks and for mock drill.	DG set location (Annexure XVII)	As proposed
6.		AESTHETICS				
6.1	Recourse Efficiency Including Building Materials	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into	No	The proposed construction activity does not result in the obstructions of a view, scenic amenity or landscapes. But better designed structure and well planned landscape for add up aesthetics of that zone.	--	As proposed


Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		account by the proponents?				
6.2	Recourse Efficiency Including Building Materials	Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?	No	There will be no adverse impact due to expansion of existing construction.	--	As proposed
6.3	Recourse Efficiency Including Building Materials	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.	No	The design of the project is influenced by the regulation set out by local authority and modern needs of the society.	--	As proposed
6.4	Recourse Efficiency Including Building Materials	Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.	No	No anthropological or archaeological sites or artefacts are found near the site area.	--	As proposed
7		SOCIO-ECONOMIC ASPECTS				
7.1	Recourse Efficiency Including Building Materials	Will the proposal result in any changes to the demographic structure of local population? Provide the details.	No	There will be no change to the demographic structure of local population due to the proposed activity. The expected population will be 1310 Nos. The proposed project shall provide value addition to the existing infrastructure, as due to development of this Project facility such as public transport, water supply, telex communications, power lines, road	--	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

				maintenance etc. shall be upgraded in and around the project premises. The project is situated in the Residential zone and hence there will be no change in demographic structure.		
7.2	Recourse Efficiency Including Building Materials	Give details of the existing social infrastructure around the proposed project.	No	Proposed project is located within the Residential zone of high urban infrastructure region.	--	As proposed
7.3	Recourse Efficiency Including Building Materials	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?	No	The proposed project will not cause any adverse effects on local communities, disturbance to sacred sites or other cultural values.	--	As proposed
8		BUILDING MATERIALS				
8.1	Recourse Efficiency Including Building Materials	May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy	No	The basic engineering materials like aggregate, cement, sand and bricks/blocks will be purchased locally. Energy conservation measures in the selection of building materials and their energy efficiency : Cement shall be used which already contains Fly ash, Construction materials from nearest source are chosen to minimize energy consumption for transportation.	--	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		efficiency)										
8.2	Recourse Efficiency Including Building Materials	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	Yes	Adequate mitigative measures are adopted. Construction equipment's with idling control technologies will be used. Regular maintenance of the equipments is carried out. The construction activities are carried out during the daytime only. The workers exposed to high noise generating equipments are provided with ear plugs and ear muffs. Spraying of water is carried out regularly to mitigate fugitive dust emissions.	--	As proposed						
8.3	Recourse Efficiency Including Building Materials	Are recycled materials used in roads and structures? State the extent of savings achieved?	No	Demolished debris and construction material will be recycled in the same or other development site.	--	As proposed						
8.4	Waste Management	Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.	Yes	<p>The solid waste management facility will be proposed as per MSW rules. Garbage will be collected manually from each of the building in the garbage collection room. The garbage collected from area will be segregated into wet and dry garbage.</p> <p><u>Operation Phase:</u></p> <table border="1"> <tr> <td>Total solid wastes</td> <td>1083.7 Kg/Day</td> </tr> <tr> <td>Biodegradable waste</td> <td>664.2 Kg /Day</td> </tr> <tr> <td>Non-Biodegradable waste.</td> <td>419.5 Kg/Day</td> </tr> </table> <p><u>Treatment & Disposal :</u></p> <ul style="list-style-type: none"> The biodegradable waste 664.2 Kg/Day will be processed in OWC. Non- Biodegradable waste will be handed over to local vendors. <p>Sludge Quantity= 1 Kg Dry sewage sludge will be used as manure for</p>	Total solid wastes	1083.7 Kg/Day	Biodegradable waste	664.2 Kg /Day	Non-Biodegradable waste.	419.5 Kg/Day	<u>Solid Waste Calculations</u> (Annexure XVIII)	As proposed
Total solid wastes	1083.7 Kg/Day											
Biodegradable waste	664.2 Kg /Day											
Non-Biodegradable waste.	419.5 Kg/Day											

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

9		ENERGY CONSERVATION		gardening.					
9.1	Energy Efficiency & Renewable Energy	Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of build-up area? How have you tried to minimize energy consumption?	Yes	<p>Power requirement: Source: TATA/Reliance Operation Phase :</p> <table border="1" data-bbox="1016 480 1556 619"> <tr> <td data-bbox="1016 480 1066 619">1</td> <td data-bbox="1066 480 1240 619">Residential Building</td> <td data-bbox="1240 480 1556 619">Connected Load: 7234 KW Maximum Demand : 3300 KW DG set = 2 x 500 KVA</td> </tr> </table> <p>Low Sulphur diesel (HSD) will be used as fuel to run standby D.G. sets. To minimize the energy consumption, solar energy will be utilized as much as possible.</p> <p>Energy conservation measures:</p> <ul style="list-style-type: none"> • Purchase of energy efficient appliance. • Use of common Area lights, luminary in landscaping area with LED Light Fixtures only. • 50% internal common area like Staircase + lobby lights lighting are proposed to work on solar power energy system of 25 KW Capacity on terrace. • All external Area Pole lights shall be working with Solar PV Power Panel. Total Installed Solar PV Panels for Pole Lights shall be 10KW in Capacity. • Parking area lighting shall be LED and partly on solar. The use of better performance glazing, AAC blocks, as well as the provision of 	1	Residential Building	Connected Load: 7234 KW Maximum Demand : 3300 KW DG set = 2 x 500 KVA	Energy Calculations (Annexure XIX)	Recommended as proposed, however it needs to be ensured that solar energy is utilized to the maximum extent possible.
1	Residential Building	Connected Load: 7234 KW Maximum Demand : 3300 KW DG set = 2 x 500 KVA							

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

				<p>overhangs and canopies as sun shades which shall reduce the direct heat gains on the building envelope, is proposed.</p> <ul style="list-style-type: none"> This shall considerably reduce solar heat gains in the building through building orientation. 20% of Hot Water requirements shall be catered by Solar Hot Water System of 6550 KLD to be installed on Terrace. 		
9.2	Energy Efficiency & Renewable Energy	What type of, and capacity of, power back-up to you plan to provide?	Yes	2 X 500 KVA D.G. sets will be provided. Low Sulphur diesel (HSD) will be used as fuel to run standby D.G. sets.	--	Recommended as proposed
9.3	Energy Efficiency & Renewable Energy	What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?	Yes	DGUs is used for buildings. They are very good for heat insulation as they do not allow the inside air to go out or the outside heat to come in. It acts as a barrier. This helps in energy saving and reducing recurring electrical costs. Also, it provides very good sound insulation.	--	Recommended as proposed
9.4	Energy Efficiency & Renewable Energy	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.	Yes	Building orientation, wall to window ratio and thermal properties of envelop are being looked into reduce solar heat gain and provide natural light and adequate ventilation to reduce humidity.	--	Building orientation, wall to window ratio and thermal properties of envelop shall be designed in such manner that complies with the statutory provisions.
9.5	Energy	Does the layout of	Yes	Yes. Solar lights will be provided for common	Energy	It is noted that

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

	Efficiency & Renewable Energy	streets and buildings maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex?		amenities like Street lighting, Garden lighting, Parking & Staircase Areas. The roof shall be insulated so that there will not be direct heat gain due to sunlight.	Calculations (Annexure XIX)	solar lights are being provided for common lighting, however it would have been more appropriate if total load which is proposed to be served by solar power would have been identified.
9.6	Energy Efficiency & Renewable Energy	Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and West and the Roof? How much energy saving has been effected?	Yes	Depending upon the site condition/location, efforts will be made by the Architects to maximize the shading of Walls on the East and West and the Roof.	--	Recommended as proposed.
9.7	Energy Efficiency & Renewable Energy	Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load	Yes	All the electrical installations and structures will confirm to energy efficiency norms.	--	Recommended as proposed that all the electrical installations and structures shall confirm to energy efficiency norms.

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

		assumptions? Are you using CFC and HCFC free chillers? Provide specifications.				
9.8	Environmental Planning including Air quality management	What are the likely effects of the building activity in altering the microclimates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat islands & inversion effects?	No	There will not be any effect of the building activity in altering the microclimates particularly creation of heat islands & inversion effects.	--	As proposed
9.9	Energy Efficiency & Renewable Energy	What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) Fenestration? Give details of the material used and the U-values or the R-values of the individual components	Yes	Roof will be of high quality concrete as per the NBC rules 2005.	--	Recommended as proposed.
9.10	Recourse Efficiency Including Building Materials	What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.	Yes	Adequate fire protection facilities will be installed including fire detectors, fire alarm and fire fighting system to guard the building against fires. All fire protection facilities will be designed as per the latest National Building Code and according to Chief Fire Officer, MCGM.	Fire NOC (Annexure XX)	As proposed
9.11	Energy Efficiency &	If you are using glass as wall	Yes	No glass will be used for walls, but only for windows.	--	Noted

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

	Renewable Energy	material, provide details and specifications including emissivity and thermal characteristics.				
9.12	Environmental Planning Including Air Quality Management	What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.	Yes	Proper ventilation will be providing in rooms. Air changes/hour is as per Bureau of Indian Standards (National Building Code, 2005).	Calculation for Openable Area as a Percentage of Carpet Area (Annexure XXI)	As proposed
9.13	Energy Efficiency & Renewable Energy	To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.	Yes	Every effort will be made to generate and use non-conventional energy and renewable energy, depending upon the circumstances and chances of generating energy. Solar energy utilisation is the major part of that.	--	It shall be ensured that renewable energy technologies are used to the maximum extent possible for power supply to the common amenities.
10.		ENVIRONMENT MANAGEMENT PLAN				
	Environmental Planning Including Air Quality Management	The Environment Management plan would consist of mitigation measures for each item wise activity to	Yes	The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental	EMP Plan (Annexure XXII) Environmental Management Cell Details	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

FORM-1A

	<p>& Energy Efficiency & Renewal Energy. & Waste Management (Solid & Liquid)</p>	<p>beundertaken during theconstruction, operation and thentire life cycle to minimizeadverse environmental impactsas a result of the activities of theproject. It would also delineatethe environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.</p>		<p>monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire. The detailed EMP for the proposed project is given below. Environmental Management Cell is formed. DETAILED EMP:</p> <table border="1" data-bbox="1008 518 1534 869"> <thead> <tr> <th>Parameter</th> <th>Total Set Up Cost (in Lakhs)</th> <th>O & M Cost Per Yr (in Lakhs)</th> </tr> </thead> <tbody> <tr> <td>STP Cost</td> <td>27</td> <td>7.1</td> </tr> <tr> <td>RWH</td> <td>55</td> <td>1.5</td> </tr> <tr> <td>Energy Saving</td> <td>20</td> <td>1.5</td> </tr> <tr> <td>Landscaping</td> <td>19</td> <td>3</td> </tr> <tr> <td>Solid Waste Management</td> <td>18</td> <td>3..65</td> </tr> <tr> <td>Total</td> <td>139</td> <td>19.74</td> </tr> </tbody> </table>	Parameter	Total Set Up Cost (in Lakhs)	O & M Cost Per Yr (in Lakhs)	STP Cost	27	7.1	RWH	55	1.5	Energy Saving	20	1.5	Landscaping	19	3	Solid Waste Management	18	3..65	Total	139	19.74	<p>(Annexure XXIX)</p>	
Parameter	Total Set Up Cost (in Lakhs)	O & M Cost Per Yr (in Lakhs)																									
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Dy. Chief Eng. (B.P.) City

Appendix-AEnvironmental Condition for Building and Construction.Category 3
(50,000 to 1,50,000 sq.mt.)

Sr. No	Medium	Environmental Cell Member	Environmental Condition	Architect's Remarks		Consultant's remarks	Attach clip	Recommendation by EC members
				Yes	No			
1.	Topography and Natural Drainage	Water Conservation and Management.	<p>a) The natural drain system is maintained for ensuring unrestricted flow of water.</p> <p>b) No construction shall be allowed to obstruct the natural drainage through the site.</p> <p>c) No construction is allowed on wetland and water bodies.</p> <p>d) Check dams, bio-swales, landscape and other sustainable urban drainage system (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.</p> <p>e) Buildings shall be designed to follow the natural topography as much as possible.</p> <p>f) Minimum cutting and filling should be done.</p>	Yes		<p>Storm water drainage network for the project is proposed as per the existing contours and final outfall is being send to existing Storm water drain.</p> <p>The site is almost flat.</p> <p>There is no alternation in the existing drainage pattern of the area.</p> <p>Adequacy of drain is examined. The complete study of the storm water drain passing through the plot is done and the work of laying storm water drain shall be done as per the approval of Local Body.</p> <p>Complied.</p> <p>There was no cutting filling involved.</p> <p>Due care is proposed in design to maintain the natural topography of the site.</p>	<p><u>Google Image</u> (ANNEXURE I)</p> <p><u>Lavout Plan</u> (ANNEXURE II)</p> <p><u>Contour Map</u> (ANNEXURE III)</p>	



Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

APPENDIX-A

2.	Water conservation, rain water harvesting & ground water recharge	Water Conservation and Management.	<p>a) A complete plan for rain waterharvesting, water efficiency and conservation is prepared.</p> <p>b) Use of water efficient appliances, should be promoted with low flowfixtures or sensors.</p> <p>c) If local bye-laws provisions are not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Bye-Law, 2016.</p> <p>d) A rain water harvesting plan is designed where the recharge bores (minimum one recharge bore per 5,000 square meters of built up area) is recommended.</p> <p>e) The Storage and reuse of the rain promoted.</p> <p>f) In areas where ground water recharge is not feasible, the rain water should be harvested and reuse.</p> <p>g) The ground water shall not be withdrawn without taking approval Competent Authority.</p> <p>h) All recharge should be limited to shall aquifer.</p>	Yes	<p>RWH tanks of 90 Cum considering two days capacity is proposed for the expansion. Total 12 nos. of RWH pits have been provided as per earlier EC.</p> <p>The geological investigation report revealed that, the ground water table is at depths between 2.7 meter and 3.5 meter below ground surface.</p> <p>Water from these Rain water harvesting tanks will be utilized for the domestic purpose of the project. No ground water withdrawal for the project is proposed. 12Nos of recharge pits are already provided for RWH as per earlier EC condition.</p>	<p><u>RWH Calculations</u> (ANNEXURE VIII)</p> <p><u>Geographical Survey Report</u> (ANNEXURE XXIII)</p>	As proposed
2(a)	--	Recourse Efficiency	a) At least 20% of the open spaces as required by the local	Yes	Total RG area required as per DCR is 5,032.00 Sq.m.	<u>RG Details & Drawing</u>	As proposed


Dy. Chief Eng. (B.P.) City

		Including Building Materials	buildingbye-laws shall be pervious. b) Use of Glass pavers, paver blocks with at least 50% opening,landscape etc. would be considered as previous surface.			The proposed RG area under green belt is 5245.32 Sq. m. which comprises of paved and unpaved R.G. on podium as approved by MCGM The paved RG area on the ground is : 600 Sq.m. No basement is proposed hence entire open space around the podium at ground level is treated as pervious surface.	(ANNEXURE XV)	
2(b)	--	Water Conservation and Management	a) Use of water efficient appliances should be promoted. b) Low flow fixtures or sensors be used to promote water conservation.	Yes		Yes, will be provided.	-	As proposed
2(c)	--	Water Conservation and Management	a) Separation of grey and black water should be done by the use of dual plumbing system. b) In case of single stack system, separate recirculation lines for flushing by giving dual plumbing system be done.			Dual Plumbing system for domestic and treated water is proposed.	Dual Plumbing Drawing (ANNEXURE XIII)	As proposed
3.	Solid Waste Management	Waste Management	Solid waste: a) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. b) The provisions of the Solid Waste (Management) Rules	Yes		3 bin system as per SWM rules 2016 is proposed. Dedicated area at ground level for the storage treatment and disposal of segregated waste from the project is proposed. OWC for treatment of 664.2	-	


 Dy. Chief Eng. (B.P.) City

DYCHE/ 3641/(B.P.) CITY dt- 30/11/2017

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

APPENDIX-A

			2016 and the e-waste (Management) Rules 2016 and the Plastics Waste (Management) Rules 2016 shall be followed.			Kg/day biodegradable waste is proposed.	
3(a)		Waste Management	a) All non-biodegradable waste shall be handed over to authorized recycles for which a written tie up must be done with the authorized recycles.	Yes		Non-biodegradable waste proposed to be handed over to local recyclers.	-
3(b)		Waste Management	a) Organic waste compost / Vermiculture pit with a minimum capacity of 0.3 kg/person/day	Yes		Calculation is on the basis of total waste of 0.5 kg/person/day and biodegradable waste of 0.3 kg/person/day. OWC of adequate capacity is proposed for total quantity biodegradable waste. CPHEEO norms are enclosed for reference	-
4.	Sewage Treatment Plan	Waste Management	<p>Sewage:</p> <p>a) Onsite sewage treatment of capacity of treating 100% waste water to be installed.</p> <p>b) Treated waste water shall be reused on site for landscape, flushing, cooling tower and other end – uses.</p> <p>c) Excess treated water shall be discharged as per CPCB norms.</p> <p>d) Natural treatment system shall be promoted.</p> <p>Sludge :</p> <p>a) Sludge from the onsite</p>	Yes		<p>Total sewage generation from the project will be 195.02 KLD.</p> <p>Sewage Treatment Plant of 200 KLD for treating 100% waste water is proposed.</p> <p>Treated waste water shall be reused on site for landscape and flushing. Excess treated water shall be discharged as per CPCB norms.</p> <p>Yes, sludge from sewage treatment plant will be used as fertilizer for gardening</p>	<p><u>Water Balance Chart</u> (ANNEXURE VII)</p> <p><u>STP Calculations & Location</u> (ANNEXURE XII)</p>


Dy. Chief Eng. (B.P.) City

			sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organisation(CPHEEO) Manual on Sewerage and Sewage Treatment System, 2013.				
5.	Energy	Energy Efficiency & Renewable Energy	<p>a) Compliance with the Energy Conservation Building Code(ECBC) of Bureau of Energy Efficiency shall be ensured.</p> <p>b) Buildings in the States which have notified their own ECBC,shall comply with the State ECBC.</p> <p>c) Outdoor and common arealighting is of Light Emitting Diode (LED).</p> <p>d) Concept of passive solar design that minimize energy consumption in buildings byusing design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the buildingdesign.</p>	Yes	<p>The proposal complies with the ECBC norms of BEE. All internal common area like Staircase + lobby lights lighting are proposed to work on solar power energy system on terrace and lights on should be high energy. Parking area lighting shall be LED and partly on solar. The use of better performance glazing, AAC blocks, as well as the provision of overhangs and canopies as sun shades which shall reduce the direct heat gains on the building envelope, is proposed. This shall considerably reduce solar heat gains in the building through building orientation Separate ECBC study report is attached and submitted. Building is pre certified as</p>	<p>ECBC Sheet (Annexure XXIV)</p> <p>IGBC Certificate (Annexure XXVII)</p>	Recommended as proposed.

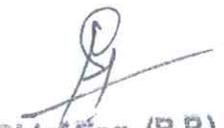

 Dy. Chief Eng. (B.P.) City

DYCHE/3641/(B.P.) CITY Dt:- 30/11/2017

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

APPENDIX-A

			e) Wall, window and roof u-values shall be as per ECBC specifications.			GOLD by IGBC.		
5(a)	--	Energy Efficiency & Renewable Energy	a) Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level / local building by-laws requirement, whichever is higher.	Yes		Solar energy of the proposed expansion shall meet electricity generation equivalent to 1% of the demand load. Total 2.3 KW of Solar PV installations is proposed at terrace level and will be used for terrace external lighting.	<u>Solar Energy Calculations</u> (ANNEXURE XXV)	Recommended as proposed.
5(b)	--	Energy Efficiency & Renewable Energy	a) Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. b) Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.	Yes		The solar water heating system is provided for the proposed expansion to meet 20% of the hot water demand. The total hot water proposed for heating is 6.55 KL which is 20% of hot water demand	<u>Solar Water Heating Calculations</u> (ANNEXURE XXVI)	Recommended as proposed.
5(c)	--	Energy Efficiency Including Building Materials	a) Use of environmental friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. b) These include fly ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks,	Yes		Fly ash bricks, AAC blocks shall be used along with other environment friendly materials during construction phase. Fly ash bricks shall be used for construction.	--	Recommended as proposed.


Dy. Chief Eng. (B.P.) City

			Compressed earth blocks, and other environment friendly materials. c) Fly ash should be used as building material in the construction as per the provisions of the Fly Ash Notification of September, 1999 as amended from time to time.				
6.	Air Quality and Noise	Environmental Planning Including Air Quality Management	a) Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. b) These measures shall include screens for the building under construction, continuous dust/wind breaking walls all around the site (at least 3 meter height). c) Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Wheel washing for the vehicles used be done. d) Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. e) Wet jet shall be provided for	Yes	Ambient Air Quality monitoring was done to check background air quality data. Also noise monitoring was done to check the noise levels. Site specific Environmental management plan is prepared & followed for control of environmental pollution during construction phase. Dust suppression and barricading the site (6 m height) for containing dust within the site only. Loading and unloading activities from plastic /tarpaulin sheet covered vehicles are monitored for reducing air pollution. Watersprinkling is done at regular interval for dust suppression shall be carried out at site. Transport of construction	EMP Sheet (ANNEXURE XXII) Site Logistic Plan (ANNEXURE XXVIII) Calculation for Openable Area as a Percentage of Carpet Area (Annexure XXI) Air Quality & Noise Reports (ANNEXURE XXX) Incremental Concentration due to proposed	As proposed


Dy. Chief Eng. (B.P.) City

			<p>grinding and stone cutting.</p> <p>f) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.</p> <p>g) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed.</p> <p>h) All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.</p> <p>i) All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.</p> <p>j) For indoor air quality the ventilation provisions as per National Building Code of India.</p>		<p>material is scheduled during non peak hours only to avoid inconvenience /accident probability for the nearby resident and traffic congestion.</p> <p>Transport of material outside the project is carried out in covered trucks.</p> <p>Regular environmental monitoring is carried out to keep a check on the compliance of the proposed mitigation and prevailing regulatory standards.</p> <p>Only PUC certified vehicles are allowed within the project site.</p> <p>Washing of the trucks tires is done before leaving the site.</p> <p>Transport of debris shall be done in covered trucks for disposal as per Construction and Demolition Waste Rules 2016.</p> <p>Dust suppression measure is included in debris management plan sheet.</p> <p>Construction debris is stored at dedicated place within the project site and regularly water sprinkled and kept covered.</p> <p>Good construction practice will be followed at site.</p>	<p>project (ANNEXURE XXXI)</p>	
--	--	--	--	--	--	--	--


Dy. Chief Eng. (B.P.) City

					<p>Worker working at construction site shall be provided with all necessary PPE like helmets, dusk mask, ear plugs etc.</p> <p>There will not be any major changes in air quality due to operation of proposed DG sets.</p> <p>Building proposed is designed considering adequate indoor light and ventilation as per NBC of India.</p>		
6(a)	--		a) The location of the DG set and exhaust pipe height shall be as per the provisions of the CPCB norms.	Yes	Complied	<u>DG set location</u> (Annexure XVII)	As proposed
7.	Green Cover	Recourse Efficiency Including Building Materials	<p>b) A minimum of 1 tree for every 80 sq.mt. of land should be planted and maintained.</p> <p>c) The existing trees will be counted for this purpose.</p> <p>d) Preference should be given to planting native species.</p>	Yes	<p>The plot area under development is 22065.28 sq. mts. and @ 1 tree for 80 Sq. m., the tree plantation required are 276 Nos. of trees.</p> <p>Total 288Nos. of native tree species are proposed for plantation.</p> <p>Out of total existing 31 trees, 10 trees are permitted to be transplanted on site, of which 3 trees have been transplanted.</p>	<u>RG Details and</u> <u>RG Drawing</u> (Annexure XV)	As proposed


 Dy. Chief Eng. (B.P.) City

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

APPENDIX-A

7(a)	--	Recourse Efficiency Including Building Materials	a) Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained.	No	No tree cutting is proposed.	-	As proposed
8.	Top Soil preservation and reuse	Environmental Planning Including Air Quality Management	a) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. b) It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.	Yes	Topsoil is already reused in plot levelling.	-	As proposed
9.	Transport	Transport Planning and Management	a) A comprehensive mobility plan, as per MOUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. b) Road should be designed with due consideration for environment, and safety of users. c) The road system can be designed with these basic criteria. 1. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.	Yes	Traffic management plan for the proposed project and provision according to it will be made so as to minimize the impact of the proposed project on the surrounding road network. Traffic report enclosed herewith. Separate pedestrian walkway along with separate min. Internal driveways are proposed for smooth vehicular movement. No. of proposed flats for amendment/expansion = 28 No's Proposed No's of parking for amendment/expansion = 70	Traffic Study Report (Annexure XVI)	As proposed. However, no. of parking spaces, maneuverability of vehicles & requisite dimensions in parking layout shall be scrutinized as per prevailing policy & relevant DCR/IRC regulations by competent authority of local body.

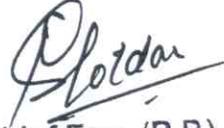

Dy. Chief Eng. (B.P.) City

			<p>2. Traffic calming measures.</p> <p>3. Proper design of entry and exit points.</p> <p>4. Parking norms as per local regulation.</p>			<p>No's. car parking Parking already provided as per earlier EC is 702 Nos. car parking All points are submitted in the traffic study and incorporated in the proposal.</p>		<p>Traffic congestion near the entry & exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized & no public space should be utilized.</p>
10.	Environment and Management Plan	Environment Planning Including Air Quality Management	<p>a) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified in item number 1 to 9 above.</p> <p>b) A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP.</p> <p>c) The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation,</p>	Yes		<p>EMP is prepared and will be implemented to ensure the EC condition compliance. Environmental Management Cell is created. Separate budgetary allocation for the same shall be made for the project. Regular environmental monitoring as per schedule will be carried out.</p>	<p>EMP Sheet (Annexure XXII)</p> <p>Environmental Management Cell Details (Annexure XXIX)</p>	As proposed

Proposed Expansion of Residential Project,
By Prakash Cotton Mills Pvt. Ltd.

APPENDIX-A

			solid waste management, renewable energy etc. are kept operational and meet the required standards. d) The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.					
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