



# SHIVAM DEVELOPERS

218, Prem Baug, Ground Floor, Sir Bhalchandra Road, Matunga (E), Mumbai 400 019. Tel: +91-22-2418 1096, Fax: +91-22-2410 0717

Date: 15/06/2017

To,  
**Regional Officer,**  
Maharashtra Pollution Control Board,  
Raikar Chambers, "A" wing, 216, 2<sup>nd</sup>  
floor, Deonar Gaon Road, Near Jain  
Mandir, Govandi (E), Mumbai - 400 088

**Sub: Submission of Compliance Report for Residential cum Commercial Project with SRA Scheme at village Akurli, Kandivali (East), Mumbai, State - Maharashtra.**

**Ref:** Environmental Clearance letter no. SEAC-2010/CR.280/TC.2 Dt. 08.09.2010

Dear Sir,

This is with reference to Environmental Clearance letter No. SEAC-2010/CR.280/TC.2 Dt. 08.09.2010 from Environment Department of Government of Maharashtra.

We are enclosing here with the detailed Compliance report (from December 16 to May 17) along with dully filed data sheet.

Thanking you,  
Yours faithfully,  
**For Shivam Developers**

  
**Project Proponent**

**Enclosed:** Hard Copy of Compliance Report for the period of from December 16 to May 17

**Cc:** 1. Environment Department, Mantralaya, Mumbai  
2. Director, MoEF, Nagpur

  
REGIONAL OFFICE, MUMBAI  
MAHARASHTRA POLLUTION CONTROL BOARD,  
RAIKAR CHAMBERS, "A" WING, 216, 2<sup>ND</sup> FLOOR  
DEONAR GAON ROAD, NEAR JAIN MANDIR,  
GOVANDI (E), MUMBAI - 400088



# SHIVAM DEVELOPERS

218, Prem Baug, Ground Floor, Sir Bhalchandra Road, Matunga (E), Mumbai 400 019. Tel: +91-22-2418 1096, Fax: +91-22-2410 0717

Date: 17/06/2017

To,  
**Ministry of Environment, Forest & Climate Change,**  
Regional office (WCZ),  
Ground Floor E wing,  
New Secretariat Building, Civil Line,  
Nagpur - 440 001

**Sub: Submission of Compliance Report for Residential cum Commercial Project with SRA Scheme at village Akurli, Kandivali (East), Mumbai, State - Maharashtra.**

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**Cc:**

1. Regional Office, MPCB, Govandi
2. Environment Department, Man...

SP APNA BAZAR <400610>  
EM757455241IN  
Counter No:1, OP-Code:VILAS  
To:DIR REG-OFFICE WCZ,  
Nagpur, PIN:440001  
From:SHIVAM DEVELOPERS, THANE  
Wt:94grams.  
Amt:46.00 ,17/06/2017 ,10:01  
Taxes:Rs.6.00<<Track on www.indiapost.gov.in>>





# SHIVAM DEVELOPERS

218, Prem Baug, Ground Floor, Sir Bhalchandra Road, Matunga (E), Mumbai 400 019. Tel: +91-22-2418 1096, Fax: +91-22-2410 0717

Date: 29/06/2017

To,  
**Member Secretary, SEIAA,**  
Environment Department,  
Mantralaya,  
Mumbai - 400032

29  
29-6-17  
आवक लिपिक  
पर्यावरण विभाग  
मंत्रालय, मुंबई-३२.

**Sub: Submission of Compliance Report for Residential cum Commercial Project with SRA Scheme at village Akurli, Kandivali (East), Mumbai, State - Maharashtra.**

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2. Director, MoEF, Nagpur

# COMPLIANCE REPORT

**(DECEMBER 2016 TO MAY 2017)**

**For**

## **RESIDENTIAL CUM COMMERCIAL PROJECT WITH SRA SCHEME**

**(Environmental Clearance Letter No. SEAC-2010/CR.280/TC.2 Dt. 08.09.2010)**

**At**

**Plot Bearing CTS no. 163-A (pt) of Village Akurli, Kandivali (East),  
Mumbai, State – Maharashtra**

***Proposed By***

**M/s. SHIVAM DEVELOPERS.**

## PROJECT DETAILS

Sr.No	Particulars	Details
1	Project type :River- valley/mining /Industry/Thermal/Nuclear/other(specify)	Construction Project
2	Name of the Project	Proposed Residential cum Commercial Project with SRA Scheme.
3	Clearance letter(s)/OM and Date	Environmental clearance letter SEAC-2010/CR.280/TC.2 Dt. 08.09.2010.
4	Location	Plot Bearing CTS no. 163-A (pt) of Village Akurli, Kandivali (East), Mumbai, State – Maharashtra
	a) District(s)	Mumbai
	b) State(s)	Maharashtra
	c) Latitude/Longitude	19°11'47.79"N 72°52'02.92"E
5	Address of correspondence	
	a) address of concerned Project Chief Executive (with pin code & telephone/telex/fax numbers)	<b>Mr. Girish Chheda</b> <b>M/s. Shivam Developers</b> 218, Prem Baug, Sir Bhalchandra Road, Matunga C.R., Mumbai 400019 Tel.no.:9987262088 E mail:girishchheda@gmail.com
	b) Address of Executive Project Engineer /Manager (with pin code/fax numbers)	Same as above
6	Salient features	
	a) of the Project	<b>8 Buildings comprises following:</b> 1. Residential flats: 1377 nos. 2. Shops: 117 Nos. 3. R/C: 24 Nos. 4. Amenities: 51 nos. 5. PAP: 166 Nos. <b>Reservation:</b> Secondary School: 157.92 m <sup>2</sup> Primary school: 378.90 m <sup>2</sup> <b>Sale component:</b> 6 buildings with 1202 nos. of flats & Shops with BUA: 1845 m <sup>2</sup> .
	b) of the Environmental Management Plan	Sewage Treatment Plant, Rain Water Harvesting and Solid waste management details are given in Annexure
7	Break up of the project area	
	a) submergence area : forest & non-forest	NA
	b) Others	Total Plot area: 38,637.81 m <sup>2</sup>
		FSI area 1,08,487.37 m <sup>2</sup>
		Non FSI area 58,959.36 m <sup>2</sup>
		Total Construction Area: 1,67,446.73 m <sup>2</sup>

8	Break up of the project affected population with enumeration of those losing houses/dwelling unit only agricultural land only, both dwelling units & agricultural land & landless laborers/	N. A.
	a) SC, ST / Adivasi	N.A.
9	Financial details:	
	a) Project cost as originally planned and subsequent revised estimates and the year of price reference	Rs.388.5 Crore
	b) Allocation made for environmental management plans with item wise and year wise break-up	Capital Cost 421.54 Lakhs Operation & Maintenance Cost 108.64 Lakhs
	c) Benefit cost ratio/Internal rated of Return and the year of assessment	N.A.
	d) Whether (c) includes the cost of environmental management as shown in the above	N.A.
	e) Actual expenditure incurred on the environmental management plans so far	N.A.
10	Forest land requirement	No Forest Land Required.
	a) The status of approval for diversion of forest land for non-forestry use	N.A.
	b) The status of clearing felling	N.A.
	c) The status of compensatory	N.A.
	d) afforestation, if any	N.A.
	e) Comments on the viability & sustainability of compensatory afforestation programme in the light of actual field experience so far	N.A.
11	The status of clear felling in non-forest area (such as submergence area of reservoir, approach roads), if any with quantitative information	N.A.
12	Status of construction	
	a) Date commencement (Actual and/or planned)	A5: Actual November 2015 A4: Actual August 2011 Sale: Actual Jan 2015
	b) Date of completion (Actual and/or planned)	A5: Actual December 2012 A4: Planned June 201. A4: Progressing, estimated completion June 2017. Sale: Planned June 2021
13	Reasons for the delay if the project is yet to start	NA
14	Dates of site visits	
	a) The dates on which the project was monitored by the Regional office on previous occasions, if any	Site not yet visited by official of MoEF Regional Office, Nagpur.

	b) Date of site visit for this monitoring report	Not yet finalized.
15	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits) (The first monitoring report may contain the details of all the letters issued so far, but the later reports may cover only the letters issued subsequently)	Environmental clearance letter SEAC-2010/CR.280/TC.2 Dt. 08.09.2010.



**Present Status of Proposed Residential cum Commercial Project with SRA Scheme at  
Village Akurli, Kandivali (East), Mumbai, State – Maharashtra.**

- A5 building: completed and Occupied (Building Constructed under SRA Scheme)
- A4 building: Completed in all respect from 1<sup>st</sup> floor to terrace. Ground floor works are in progress. Estimated completion is 30 Jun 2017.
- Sale building: Raft, footing and Retaining wall is in progress for 'A' wing.

**SRA Building Photo**



**Sale Building Photo**





**Compliance to Environmental Clearance Letter SEAC-2010/CR.280/TC.2 Dt. 08.09.2010.at Village Akurli, Kandivali (East), Mumbai, State – Maharashtra.**

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(i)	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 before approving layout plan & before according commencement certificate to proposed work. ULB should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.	Building plans are approved by MCGM as per norms.
(ii)	“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.	Consent for establishment was obtained from the State Pollution Control Board vide letter no. BO/ RO(HQ) /Mumbai/CE/CC-17 dated 20.10.2010.
(iii)	All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.	Temporary sanitation with separate toilets with septic tanks, soak pits for ladies and gents are provided on the site.
(iv)	A First Aid Room will be provided in the project both during construction and operation of the project.	We have provided the essential medical assistance to the workers. In case of accidents during construction as well as operation phase. The room have first aid box contains: 1) Disposable syringes 2) Cotton 3) Disposable needles 4) Bandage 5) Sofframicine 6) Burnol 7) Dettol

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(v)	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 etc.	Pressure cooker, kerosene and other household material, mobile toilets, safe drinking water, medical health care, crèche etc. is supplied to the workers.
(vi)	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.	Sanitation and BMC water Supply is provided to Worker.  The waste generated from the labour camps is mostly household waste which is collected and disposed in Municipal Solid waste Management system.
(vii)	Arrangement shall be made that waste water and storm water do not get mixed.	We will make such arrangement that storm water and wastewater not get mixed.
(viii)	All the topsoil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.	During construction phase the construction activities involve excavation and land filling which adversely affects the soil erosion. To avoid this, top layer of soil is reused for the development of green belt.
(ix)	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.	No additional soil is required for levelling as we have done backfilling from the soil generated from site.
(x)	Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dpt.	The landscape will be developed considering CPCB guidelines including selection of plant species. The tree species which planted will be of local variety.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(xi)	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 approval sites with the approval of competent authority.	Re-utilization and recycling strategy for construction debris is followed. Recycled aggregate is used for filling application.
(xii)	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.	We have tested Soil and Ground water samples through MoEF recognized laboratory. The copies of the reports are attached
(xiii)	Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminant watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.	Such types of wastes are not anticipated in this activity. There is no major water body around the project site. However, all possible measures are taken to avoid contamination of water bodies/streams.
(xiv)	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.	No hazardous waste will generate during construction and operation phase. As it is Residential project.
(xv)	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.	The D. G. set will be enclosed type and as per CPCB norms.
xvi	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.	The diesel required for operating DG sets will be stored in Barrels.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
xvii	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.	<ul style="list-style-type: none"> <li>Regular maintenance of construction vehicles is carried out to keep them in good condition. The vehicles having PUC certificate is used.</li> <li>Adequate parking space is made available for construction vehicles inside the construction premises to lessen the impacts on traffic in surrounding areas</li> </ul>
(xviii)	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.	The noise levels as well as air pollution is monitored regularly from MoEF recognized laboratory. Copy of reports is attached.
(xix)	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 27 <sup>th</sup> August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations)	Ready mix concrete with fly ash is used in the construction.
(xx)	Ready mixed concrete must be used in building construction.	Ready mix concrete is used for building construction.
(xxi)	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.	We agree
(xxii)	Storm water control and its re-use as per CGWB and BIS standards for various applications.	Noted and will be Complied

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(xxiii)	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Water demand during construction is reduced by use of pre-mixed concrete, curing agents and other best practices.
(xxiv)	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.	The ground water quality is monitored through MoEF recognized laboratory. As regards to ground water level we will consult with ground water authority
(xxv)	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. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% gray water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Maharashtra Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.	We have provided STP for SRA Building No. A4 & A5. For Remaining buildings we will provide the STP to treat the sewage generated during operational phase.  STP will be certified by an independent expert and a report in this regard will be submitted to the Ministry before the project is commissioned for operation.  Sewage will be treated up to tertiary level. The treated sewage will be reused for gardening and flushing purpose
(xxvi)	Project proponent shall ensure completion of STP, MSW disposal facility prior to occupation of the buildings and should obtain completion certificate for these systems/aspects from MPCB.	We have provided STP for SRA Building No. A4 & A5.,  Work of other buildings are going on. STP for other buildings, green belt, MSW facilities will be provided prior to occupation.
(xxvii)	Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.	Noted.
(xxviii)	Permission to draw ground water shall be obtained from the competent Authority prior to construction/ operation of the project.	We are not using ground water for any purpose.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(xxix)	Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.	We will use dual plumbing line for separation of gray and black water.
(xxx)	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.	Water efficient sanitary features include showers, low flush, dual cistern will be provided.
(xxxi)	The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/ inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material	The solid waste generated is properly collected, Segregated. Wet garbage will be composted on site. Dry/inert solid waste will be send to disposal site through vendor
(xxxii)	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.	The use of glass is less than 40%
(xxxiii)	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.	Noted



<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(xxxiv)	Energy conservation measures like installation of CFLs/TFLs for 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 systems. Project proponent should install, after checking feasibility, solar plus hybrid non conventional energy source as source of energy.	Energy conservation measures like installation of CFLs/TFLs for lighting the areas outside the building and Solar hot water system will be provided.
(xxxv)	Diesel power generating sets proposed as source of backup 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 DG sets may be decided with in consultation with Maharashtra Pollution Control Board.	We will comply to above & make necessary arrangements.
(xxxvi)	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	The noise levels are monitored regularly from MoEF recognized laboratory Noise Monitoring report is attached.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(xxxvii)	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.	Entry & exit to the proposed project are located in such way that it won't affect traffic on the adjoining roads. Also sufficient parking is provided.
(xxxviii)	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.	Opaque wall is not provided as it was not considered while designing the project.
(xxxix)	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	The Buildings have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation to the premises.
(xl)	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.	The Regular supervision is carried out by the project in-charge and supervisors are trained in Environmental Management measures.
(xli)	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.	We have obtained environmental clearance vide letter no . SEAC-2010/CR.280/TC.2 Dt. 08.09.2010. As per the EC, we have started the construction.
(xlii)	Six monthly monitoring reports should be submitted to the Department and MPCB.	We have submitted the Six monthly monitoring reports to the department and MPCB.
(xliii)	A complete set of all the documents submitted to Department should be forwarded to the MPCB.	We have submitted all the project details and plans to MPCB while applying to Consent to Established and accordingly MPCB has granted Consent to Establish vide letter no. BO/ RO(HQ) /Mumbai/CE/CC-17 dated 20.10.2010.
(xliv)	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.	We have applied for amendment in environmental clearance in approved proposal.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(xlv)	No land development/ construction work preliminary or otherwise relating to the project shall be taken up without obtaining due clearance from respective authorities.	We have already received Environmental Clearance vide letter no SEAC-2010/CR.280/TC.2 Dt. 08.09.2010. As per the EC, we have started the construction.
(xlvi)	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Separate funds allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up is as given in Annexure
(xlvii)	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.	Separate funds allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up is as given in Annexure
(xlviii)	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <a href="http://envis.maharashtra.gov.in">http://envis.maharashtra.gov.in</a>	The advertisement was given in two local news papers. Copy of the same was submitted alongwith previous compliance reports.
(xlix)	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1 <sup>st</sup> June & 1 <sup>st</sup> December of each calendar year.	We have submitted the compliance report to the MoEF, MPCB and Environmental Department Mantralaya.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(i)	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.	Noted
(ii)	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, SO <sub>2</sub> , NO <sub>x</sub> (Ambient level as well as stack emissions) or critical sectoral 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.	The monitoring Reports are sent with Compliance reports to MoEF, Nagpur and MPCB.
(iii)	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.	The monitoring Report was sent with Compliance reports to MoEF, Nagpur and MPCB.

<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(liii)	The environmental statement for each financial year ending 31 <sup>st</sup> 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 Officers of MoEF by e-mail.	Noted & will be complied.
(liv)	The environmental clearance is being issued without prejudice to the 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 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.	There are no litigations pending against this project.
(4)	Project proponent should submit exactly same document for approval of building plans to the concern authority as per the documents submitted to the SEIAA for prior Environmental Clearance.	Yes. We have submitted same documents for approval of building plans as per the documents submitted to the SEIAA.
(5)	Project proponent shall not make any change in Layout Plan/ master Plan submitted to the Authority without its prior permission and shall submit approved layout plan to Department before commencement of construction work.	We have not made any changes in layout plan/master plan.

CONDITIONS		
	Conditions	Compliance
(6)	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.	We agree
(7)	The Environmental 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.	We agree
(8)	<b>Validity of Environment Clearance:</b> The environmental clearance accorded shall be valid for a period of 5 years.	Noted.
(9)	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	There is no deviation or alteration in the project.
(10)	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.	We agree



<b>CONDITIONS</b>		
	<b>Conditions</b>	<b>Compliance</b>
(11)	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Act, 1997.	Noted

## **Annexure – I**

### **PROJETCT DETAILS**

<b>Name of the Project</b>	Proposed slum rehabilitation project
<b>Project Proponent</b>	M/s. Shivam Developers
<b>Location of the project</b>	Plot bearing CTS No. 163-A9 (pt) of village Akurli, at Hanuman Nagar, Kandivali (E), Mumbai

### **AREA STATEMENT**

<b>Sr. No.</b>	<b>Details</b>	<b>Area</b>
1	Total Plot area	38,637.81 m <sup>2</sup>
2	Built up area as FSI	1,08,487.37 m <sup>2</sup>
3	Built up area as Non- FSI	58,959.36 m <sup>2</sup>
4	Total Built up area	1,67,446.73 m <sup>2</sup>

### **BUILDING CONFIGURATION AND TENAMENT DETAILS**

- Eight buildings compromises following:
  1. Residential Flats :1337nos.
  2. Shops 117 Nos.
  3. R/C: 24 Nos.
  4. Amenities :51 Nos.
  5. PAP:166 Nos.
  - Reservation : Secondary School : 157.92 m<sup>2</sup>
  - Primary School :378.90 m<sup>2</sup>
  - Sale Component : 6 Buildings with 1202 nos. of flats & shops with BUA:1845 m<sup>2</sup>

## **ANNEXURE – II**

### **SOLID WASTE MANAGEMENT PLAN**

- Total Solid waste Generation:6,281 kg/day
- Wet Garbage: 4,359 kg/day
- Dry Garbage: 1,922 kg/day
- The biodegradable and non-biodegradable waste will be segregated at source of waste generation. Then this will be separately disposed in municipal waste disposal system.
- Biodegradable garbage will be composted using mechanical composting
- STP Sludge would be used as manure

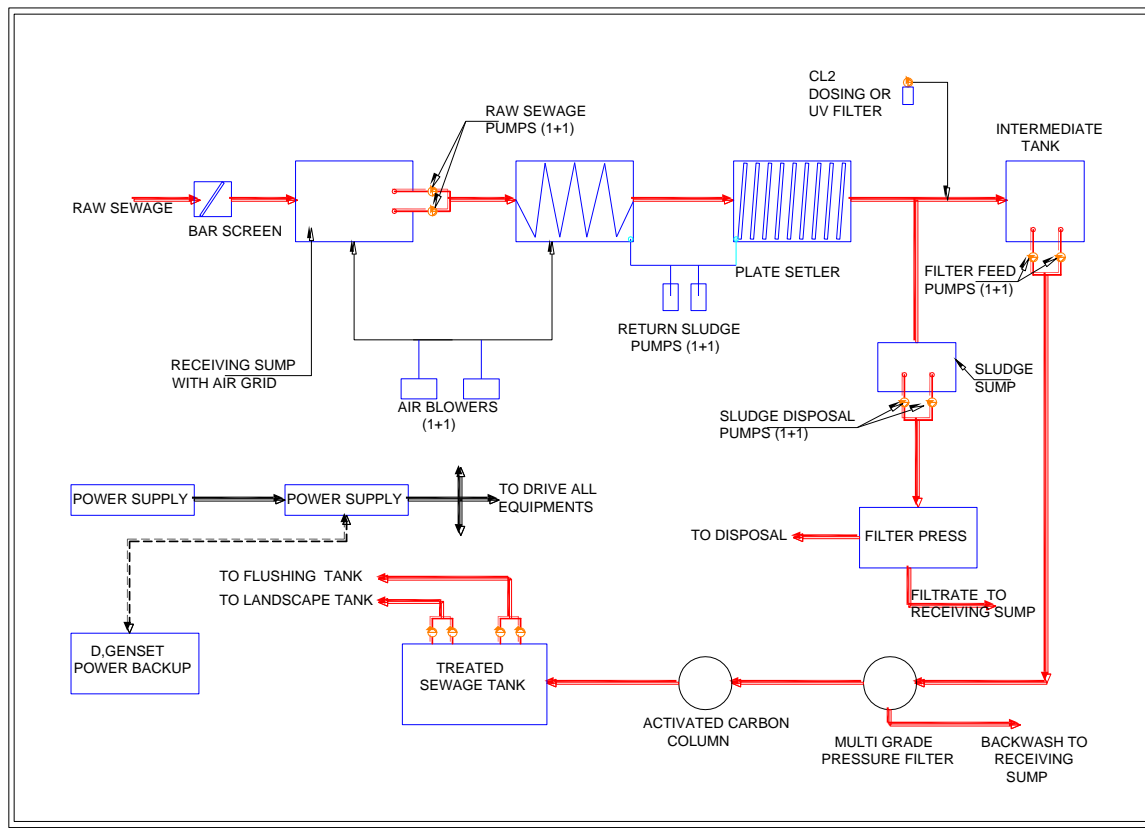
**ANNEXURE III**

**SEWAGE TREATMENT PLANT**

**STP UNITS**

<b>Name of the Unit</b>	<b>Purpose</b>
Bar Screen Chamber	For removing unwanted floating materials
Equalization Tank	To even out the flow variations, and continuous uniform mixing operations with coarse bubble.
Aeration Tank	Activated Sludge Process For developing the bacterial culture, which stabilizes the waste aerators.
Secondary clarifier/Plate settler	To separate out the solids from the treated sewage, And to separate clear supernatant water, Clarifloculator has been proposed with flash mixer to add coagulant to allow more settlement of fine particles.
Pre- Filtration Tank	To collect the supernatant clear water from the settling tank for further treatment.
Filter Press	A Sludge holding tank has been provided with filter press for dewatering sludge. Sludge cakes shall be used as manure.
Pressure Sand Filter	To filter out minute suspended solids if any in the treated water.
Activated Carbon Filter	To remove color and Odor if any in the filtered water.
Final holding tank	To collect the final treated water from the outlet of Activated carbon filter for reuse

## STP FLOW SHEET



**ANNEXURE IV****WATER BUDGET**

<b>Water Demand</b>	<b>Quantity</b>	<b>Unit</b>
Water consumption	1859	m <sup>3</sup> /day
Sewage generation	1592	m <sup>3</sup> /day
STP capacity	1675	m <sup>3</sup> /day
Excess Treated Water to proposed sewer Line	779	m <sup>3</sup> /day
Fresh water	1205	m <sup>3</sup> /day
Recycled water	654	m <sup>3</sup> /day
No. of STP	2	Nos.

**RAIN WATER HARVESTING**

1. Rain water from terrace area will be collected in Rain water harvesting Tank and will be used for domestic purpose after treatment . 6 RWH Tanks of total 345 m<sup>3</sup> will be provided
2. Rainwater from the landscape area and landscape rae will be used to recharge the ground water sources . 12 rechargs pits will be provided.

**ENERGY**

- Power requirement during the operational phase connected load 22743 kW and Maximum Demand 14820kW
- DG sets of 600kVA capacity will be provided during operational phase.

**ENERGY CONSTRUCTION:**

1. Use of CFL/T5 tubes and bulbs will be used whenever possible.
2. Timer for switching on/off of common area lights for sale building.
3. Alternate circuit for common area light (through timer) for sale building
4. Use of solar energy for area lighting.
5. Under deck insulation will be used for the roof to reduce heat gain through roof for sale building.
6. Use of building management system (BMS) to have effective control to save energy.
7. PP cement will be used which contain 15% ash



## ANNEXURE V

ENVIRONMENTAL MANAGEMENT PLAN  
DURING CONSTRUCTION PHASE

Sr. No.	Environmental Components	Predicted Impacts	Probable source of Impact	Mitigation Measures	Remarks
<b>CONSTRUCTION PHASE</b>					
1.	Ambient Air Quality	Negative impact inside construction site premises. No negative impact outside site.	Dust emissions from excavation, air emissions from machinery and other construction activities at site.	Dust reduction measures such as road watering. Periodic maintenance of construction equipment. Use of good quality fuels. Use of Personal Protective Equipments	Impacts are temporary during construction phase. Impacts are confined to short distances, as coarse particles get settle within the short distance from activities.
2.	Noise	Negative impact near noise generation sources inside premises. No significant impact on ambient noise levels in the surrounding area.	Noise generated from construction activities and operation of construction equipment and DG sets	Use of well maintained equipment. Heavy construction activity limited to day-time hours only. Use of noise mufflers in and construction vehicle. Use of earplugs/muffs by construction staff.	Temporary impacts during construction phase. No blasting or other high noise activities envisaged.
3.	Water	No significant negative impact.	Surface runoff from project site. Oil/fuel and waste spills. Improper debris disposal. Discharge of sewage from labour camp.	Silt fences to reduce run-off Secondary containment and dykes in material storage areas. Sewage treatment in septic tanks.	Labour employed to reduce size of labour camps. No perennial surface water resource adjacent to site.

4.	Land	Minor negative impact	Excavation, Construction debris, waste from labour camp.	Reutilization and recycling of construction debris Waste from labour camps collected and composted on site. Non compostable waste is transported to landfill site. Topsoil is conserved and used for landscaping in functional phase.	-
5.	Aesthetics	Minor negative impacts	Construction activities and Excavation	The impacts are compensated by extensive tree plantation and gardening in the use phase.	Short term impact restricted only in the initial stages of construction.

## ANNEXURE VI

## EMP COST

## EMP COST DURING CONSTRUCTION PHASE

SR. NO.	PARAMETER	TOTAL COST (IN LAKHS)
1	WATER FOR DUST SUPPRESSION	0.72
2	SITE SANITATION	0.50
3	ENVIRONMENTAL MONITORING	1.08
4	DISINFECTION	1.80
5	HEALTH CHECK UP	18
	<b>TOTAL COST</b>	<b>22.1</b>

## EMP COST DURING OPERATION PHASE

Component	Capital Cost (Rs. In Lakhs)	O & M Cost (Rs. In Lakhs/year)
STP (Tertiary)	183	75.54
Solar	134	0.03
Solar Lights	7.5	0.15
Rainwater harvesting Tanks	24.15	1.21
Rainwater harvesting Pits	3.6	0.18
Solid Waste Composting plant	40	6.0
Gardning	32.28	5.17
Environemental Monitoring	Outside MoEF approved agency for monitoring	20.36
<b>Total Cost</b>	<b>424.54</b>	<b>108.64</b>



# Mahabal Enviro Engineers Pvt. Ltd.

Pollution monitoring, Engineers & Contractors in Environmental Management

## RESIDENTIAL CUM COMMERCIAL PROJECT WITH SRA SCHEME AT VILLAGE AKURLI, KANDIVALI (EAST), MUMBAI, STATE – MAHARASHTRA.

### WATER SAMPLING RESULTS

APRIL 2017

Parameter	Units	Sample		
Source				
Location				
Date of collection of sample		12.04.2017		
Remark-Grab/Composite		Grab		
Sample collected by				
			<b>Limits</b>	
Colour	Hazen	4	<b>5</b>	Hazen
Odour		Unobjectionable		
Taste		Agreeable		
pH		7.23	6.5-8.5	
Turbidity	NTU	2.3	5	NTU
Alkalinity	mg/l	172	200	mg/l
Total Hardness	mg/l	285	300	mg/l
Total Dissolved Solids	mg/l	173	500	mg/l
Chloride	mg/l	98	250	mg/l
Calcium	mg/l	30.5	75	mg/l
Magnesium	mg/l	42.1		mg/l
Sulphate	mg/l	30.6	200	mg/l
Copper	mg/l	0.02	0.05	mg/l
Nitrate	mg/l	16	45	mg/l
Fluoride	mg/l	ND	1.00	mg/l
Phenolic Compound	mg/l	ND	0.001	mg/l
Mercury	mg/l	ND	0.001	mg/l
Cadmium	mg/l	ND	0.01	mg/l
Arsenic	mg/l	ND	0.05	mg/l
Lead	mg/l	ND	0.05	mg/l
Cyanide	mg/l	ND	-	mg/l
Zinc	mg/l	0.16	5	mg/l
Iron	mg/l	ND	0.3	mg/l
Hexavalent Chromium	mg/l	ND	0.05	mg/l
Anionic Detergent	mg/l	ND	0.2	mg/l
Bacteriological Test				mg/l
M.P.N	per 100 ml	<2	10/100ml	per100ml
E-Coli	per 100 ml	<2	10/100ml	per100ml

ND: Not detectable

The above parameters of Drinking water are within the limits

*A. Patel*



**Plot No. F-7, Road No.21, Wagle Estate, Thane West - 400604, Maharashtra, India**

(600 m from Hotel Rukhmini Palace Turn Opp Toyota Show Room. Near J B Sawant Bus Stop Wagle Agar/Lokmanya Nagar Bus Route)

**Phone: 2582 0658/ 3139/ 1663/ 3154 Fax: 91-22-25823543 thane@mahabal.com**



**RESIDENTIAL CUM COMMERCIAL PROJECT WITH SRA SCHEME AT  
VILLAGE AKURLI, KANDIVALI (EAST), MUMBAI, STATE – MAHARASHTRA.**

**AMBIENT AIR MONITORING REPORT**

**APRIL 2017**

Location No.	Unit	P1		
Location Details		Project Site		
Date of Survey		12.04.2017		
Duration of survey	hr	24		
Temperature Max. / Min.	<sup>0</sup> C	42/24		
Relative Humidity Max. / Min.	%	71/48		
Wind Speed Average	Km/hr	6.8	Ref. No.	
			NAAQMS	Units
Respirable Particulate Matter (PM) <sub>10</sub>	µg/Nm <sup>3</sup>	68.3	100	µg/Nm <sup>3</sup>
Respirable Particulate Matter (PM) <sub>2.5</sub>	µg/m <sup>3</sup>	38.3	60	µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	28.6	80	µg/m <sup>3</sup>
Oxides of Nitrogen (NO <sub>x</sub> )	µg/m <sup>3</sup>	36.4	80	µg/m <sup>3</sup>

NAAQMS: National Ambient Air Quality Monitoring Standard.

The above parameters of ambient air are within the limits.





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## RESIDENTIAL CUM COMMERCIAL PROJECT WITH SRA SCHEME AT VILLAGE AKURLI, KANDIVALI (EAST), MUMBAI, STATE – MAHARASHTRA.

### NOISE MONITORING REPORT

APRIL 2017

Location No.	Unit	1		
Details		Project Site		
Date of Survey		12.04.2017	Ref. No.	
Night	Time		NAAQS	Units
A - human ear Fast	dB(A) Leq	54.6	55	Day dB(A) Leq
A - human ear Fast	dB(A) Leq	44.6	45	Night dB(A) Leq

MoEF: Ministry of Environment & Forests.





**RESIDENTIAL CUM COMMERCIAL PROJECT WITH SRA SCHEME AT  
VILLAGE AKURLI, KANDIVALI (EAST), MUMBAI, STATE –**

**SOIL ANALYSIS REPORT**

**APRIL 2017**

Parameter	Short Name	Unit	Sample
Source			Soil
Date of collection of sample			12.04.2017
Remark – Grab / Composite			
pH			7.46
Moisture		%	2.6
Organic Carbon	TOC	%	0.51
Available Nitrogen	N <sub>2</sub>	Kg/ha	52.5
Available Phosphorus	PO <sub>4</sub>	Kg/ha	146
Chloride	Cl	mg/kg	38.2
Sulphate	SO <sub>4</sub>	mg/kg	42.8
Copper	Cu	mg/kg	3.2
Zinc	Zn	mg/kg	2.3
Lead	Pb	mg/kg	ND
Cadmium	Cd	mg/kg	ND
Total Chromium	Cr	mg/kg	ND
Oil and Grease	O & G	mg/kg	ND

The above parameters of Soil analysis are within the limits.

