



Thiru. K.V. GIRIDHAR, I.F.S.,
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY – TAMIL NADU
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Chennai-15.
Phone No. 044-24359973
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ENVIRONMENTAL CLEARANCE (EC)

Letter No. SEIAA-TN/F.No.7627/EC/8(a)/739/2020 dated: 23.01.2021

To

The Executive Engineer & ADO,
M/s.Tamil Nadu Housing Board,
Anna Nagar Division - Tamil Nadu Housing Board,
Thirumangalam Shopping Complex, Ambattur,
Chennai - 600 101.

Sir,

Sub: SEIAA, TN - Environmental Clearance - Proposed Construction of Mixed
Use Development (Residential & Commercial) at T.S.No.2, Block No.4 of
Arumbakkam Village, Aminjikkarai Taluk (Earlier Egmore – Nungambakkam
Taluk), Chennai District, Tamil Nadu, by M/s. Tamil Nadu Housing Board -
Issued - Regarding.

- Ref: 1. Online Proposal No. SIA/TN/MIS/161937/2020 dated 06.07.2020
2. Your application for Environmental Clearance dated: 10.07.2020
3. Minutes of the 182nd SEAC meeting held on 17.10.2020
4. Proponent reply dated 19.11.2020
5. Minutes of the 188th SEAC meeting held on 18.12.2020
6. Proponent reply dated 08.01.2021
7. Minutes of the 418th SEIAA meeting held on 11.01.2021 & 12.01.2021

This has reference to your application 1st cited, the proposal is for obtaining
Environmental Clearance to establish a Building and Construction projects under
Category B2 and Schedule (a) under the Environment Impact Assessment
Notification, 2006, as amended.



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The Competent Authority and Authorized Signatory furnished the detailed information in Form 1, Form 1A and liquidate enclosures are as Annexures:

Annexure 1

PROJECT DETAILS			
SL No	Description	Details	
1)	Name of the Project proponent and address	The Executive Engineer & ADO, M/s.Tamil Nadu Housing Board, Anna Nagar Division - Tamil Nadu Housing Board, Thirumangalam Shopping Complex, Ambattur, Chennai - 600 101.	
2)	Proposed Activity	Proposed Construction of Mixed Use Development (Residential & Commercial)	
3)	Schedule No.	8(a)	
4)	Project Location		
	i)Survey No	T.S.No.2, Block No.4	
	ii)Revenue Village	Arumbakkam	
	iii)Taluk	Aminjikkarai (Earlier Egmore - Nungambakkam Taluk)	
	iv)District	Chennai	
	V) Latitude & Longitude	13°4'35.98"N 80°12'13.29"E	13°4'37.74"N 80°12'14.53"E
		13°4'40.14"N 80°12'21.51"E	13°4'40.32"N 80°12'24.78"E
		13°4'37.91"N 80°12'24.93"E	
5)	Area of the Land	33,000 Sq.m	
6)	Built up Area	1,35,031.13 Sq.m	
7)	Brief description of the project	The project comprises of Commercial Block (Block I) & 2 Residential Blocks (Block II & Block III) with a total dwelling units of 304 units with total	



		built up area of 1,35,031.13 Sq.m and total land area of 33,000 Sq.m												
		<table> <tr> <th>Block</th><th>No. of Floors</th><th>Dwelling units</th></tr> <tr> <td>I</td><td>2 Basement + Ground + 19 Floors</td><td>Commercial Block</td></tr> <tr> <td>II</td><td>2 Basement + Stilt + 19 Floors</td><td>152</td></tr> <tr> <td>III</td><td>2 Basement + Stilt + 19 Floors</td><td>152</td></tr> </table>	Block	No. of Floors	Dwelling units	I	2 Basement + Ground + 19 Floors	Commercial Block	II	2 Basement + Stilt + 19 Floors	152	III	2 Basement + Stilt + 19 Floors	152
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III	2 Basement + Stilt + 19 Floors	152												
8)	Expected Occupancies (including Visitors)	7,546 Nos.												
9)	Green Belt	5060 Sq.m												
10)	Parking facilities	4769.70 Sq.m. (Surface Parking) Stilt & Basement Parking – 34,604.56 Sq.m.												
11)	UTILITIES-WATER													
	Total Water Requirement	519 KLD												
	a) Source from where the water is proposed to be drawn	CMWSSB												
	i) Domestic Purposes	304 KLD												
	ii) Toilet Flushing (Recycled Water)	195 KLD												
12)	Waste Water													
	i)Sewage	Grey Water Generation – 273 KLD Sewage Generation – 195 KLD												
	ii) Details of Treatment	Grey Water Treatment Plant – 280 KLD 1. Bar screen 2. Collection tank 3. Aeration tank 4. Secondary settling tank												



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		5. Clear water tank 6. Pressure sand filter 7. Activated carbon filter 8. UV disinfection 9. Treated water tank 10. Watering roadside trees and OSR development Sewage Treatment Plant – 200 KLD 1. Bar screen 2. Oil skimmer 3. Collection tank 4. Neutralization tank 5. Pressure sand filter 6. Activated carbon filter 7. UV disinfection 8. Treated water tank 9. Ultra filtration 10. UF treated water tank
	iii) Mode of Disposal with quantity	Treated Grey Water – 271 KLD Treated Sewage – 193 KLD Toilet Flushing – 195 KLD Green Belt Development & OSR Area Maintainance – 20 KLD Watering roadside trees, Avenue Plantation & OSR development – excess treated grey water (56 KLD) along with sewage generation (193 KLD)
13)	SOLID WASTE	
	I) Municipal Solid Waste	2239 Kg/day
	i) Bio degradable - 896 Kg /day	Organic Waste Converter (2 Nos)
	ii) Non Bio degradable	Authorized Recyclers



	1343 Kg/day	
	iii) STP sludge - 5 kg/day	Manure for Gardening
14)	POWER REQUIREMENT	
	i) Electricity Board	6500 kVA
	ii) Details of DG set with capacity	2 Nos of 1500 kVA & 2 Nos of 2000 kVA
	iii) Air Pollution Control Measures (Stack)	70 m from GL
15)	Project Cost	Rs. 399.84 Crores
16)	EMP Cost	<u>For Operation Phase:</u> Capital Cost – Rs. 1141.65 Lakhs (including CER) Operation cost – Rs. 39 Lakhs

Annexure 2- Affidavit

The proponent has furnished affidavit in hundred Rupees stamp paper attested by the Notary stating that

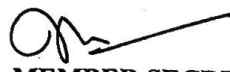
I, **K. Ravichandran**, Executive Engineer & ADO representing M/s. Tamil Nadu Housing Board - Anna Nagar Division, having office at Thirumangalam Shopping Complex, Chennai - 600101, proposed to construct a Mixed Use Development (Residential & Commercial) project at T.S.No. 2, Block No. 4 of Arumbakkam Village, Aminjikarai Taluk (previously Egmore – Nungambakkam Taluk) Chennai District.

An application submitted by us seeking Environmental Clearance under the EIA Notification, 2006 is under scrutiny in the Authority. I'm furnishing the following undertaking to the Authority.

CMWSSB has given a letter of commitment to supply fresh water (330 KLD) for our project and Chennai Corporation has agreed to utilize our excess treated STP water of 290 KLD for watering nearby Parks & Avenue Plantation.

Based on the above commitment we commit to SEIAA that the daily fresh water requirement for our proposed development will be met from CMWSSB Supply and




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necessary provision in this regard will be done by us before handing over of the flats or before obtaining completion certificate from the competent authority, whichever is earlier.

The Total quantity of treated greywater generated from the above development is 271 KLD; out of which 195 KLD will be utilized for flushing, 20 KLD utilized for greenbelt development, and for OSR Area maintenance for the entire period of operation (*The treated water used for greenbelt development inside the project premises will not pollute the soil/ground water/adjacent canals/lakes/ponds etc*). The remaining treated grey water 56 KLD and generated treated sewage of 193 KLD will be utilised for watering Parks, Avenue Plantation and OSR Development.

The total quantity of solid waste generated from the residential development is 2239 Kg/Day out of which 896 Kg/Day Bio-Degradable waste which will be converted into manure using 2 nos. of Organic Waste Converter (OWC) & utilized for greenbelt development, and 1343 Kg/Day Non Bio-Degradable waste will be disposed to authorized recyclers. STP Sludge of 5 Kg/Day will be dried & used as manure for greenbelt area within the premises.

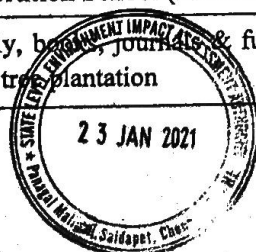
Greenbelt development of our proposed residential development will be 5060.00 Sqm, which covers 15.33% of the total land area.

Common facilities including Greenbelt Development, Rain Water Harvesting, Sewage Treatment Plant, Treated Sewage Disposal, Solid Waste Disposal and Environmental Monitoring will be maintained & monitored for an initial period of ten years by us.

The excess storm water disposed through external storm drain which will not carry any untreated/treated sewage.

We will allocate Rs. 599.70 Lakhs (1.5% of the Total Project Cost) towards the below CER activity.

CER Activities	Cost (in Lakhs)
1. Municipal Corporation School (Arumbakkam)	
Providing water supply, borewells, journals & furniture for library, sanitary facilities, computer & tree plantation	125.70



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2. Chennai Corporation Government School (Koyambedu)	
Providing water supply, books, journals & furniture for library, sanitary facilities, computer & tree plantation	125
3. Maintenance & Beautification of Coovum River	
Bund Strengthening & Tree Plantation along the bund	349
Total	599.70

We are aware that we can be prosecuted under the relevant Act and Rules if we are not ensuring the adherence of the above commitment.

Commitment signed by me on Friday the day of 16th October, 2020 as the project proponent before the SEIAA, Tamil Nadu.

SEAC Recommendations:

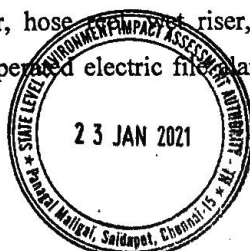
The proposal was placed in the 188th SEAC Meeting held on 18.12.2020. After detailed deliberations, SEAC decided to recommend the proposal for the grant of Environmental Clearance to SEIAA subject to the following conditions in addition to standard conditions stipulated by the MoEF&CC:

1. The proponent shall comply with all the conditions imposed in the NOC on inundation point of view issued by PWD/WRD vide Lr. No. DB/T5(3)/F-NOC-Arumbakkam/2020/dated 03.10.2020.
2. The project proponent shall provide Sewage treatment plant & Grey water treatment system as reported and continuously operate and maintain Sewage treatment plant & Grey water treatment system to achieve the standards prescribed by the TNPCB/CPCB.
3. The sludge generated from the Sewage Treatment plant shall be collected and dewatered using filter press and the same shall be utilized as manure for green belt development after composting.
4. The proponent shall make proper arrangements for the disposal of the excess treated grey water from the proposed site in Division 100 parks and nearby areas as detailed in the EE/Zone VIII/ GCC Lr. No.Zo.VIII No SPL 2020 dated 16.11.2020 subject to the conditions stated therein.
5. The project proponent shall provide entry and exit points for the OSR area Community Hall day area as per the norms for the public usage as committed.




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6. The project proponent shall necessarily comply with the provisions given under Construction & Demolition Waste Management Rules, 2016.
7. As reported, the proponent shall treat the Bio-degradable waste generated through Bio-methanation plant/ Organic Waste Converter & Non-Biodegradable waste shall be disposed to Authorized Recyclers.
8. The Proponent shall provide the dispenser for the disposal of Sanitary Napkins.
9. The proponent shall always ensure no waste of any type shall be disposed of in any other way than the approved one.
10. The height of the stacks of DG sets shall be provided as per the CPCB norms.
11. The proponent shall earmark the greenbelt area with dimension and GPS coordinates all along the boundary of the project site with at least 3 meters wide and the same shall be included in the layout out plan to be submitted for CMDA/DTCP approval. The total green belt area should be minimum 15% of the total area and the same shall not be used for car parking.
12. Proper drainage facility should be provided for the entire above mentioned survey fields.
13. The Proponent shall provide rain water harvesting sump of adequate capacity for collecting the rooftop, paved and unpaved road runoff as committed.
14. The proponent shall ensure that, the storm water flows from the upstream side without any hindrance by designing the storm water drainage arrangement in accordance with the contour levels of the proposed project area and considering the surrounding development to avoid the future flood inundation at the project site.
15. Tapping of solar energy should be at least 10% of total energy consumption Solar energy usage mainly for the illumination of common areas, street lighting etc.,
16. Adequate fire protection facilities shall be installed including fire detectors, fire alarm and fire fighting system to guard the building against fire. All fire protection facilities shall be designed as per the National Building Code 2016. According to prospective plans, fire-fighting arrangements such as fire extinguisher, hose, fire riser, yard hydrant, automatic sprinkler system, manually operated electric fire alarm system, underground water storage tank,




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terrace tank, pumps shall be provided considering maximum building height as per NBC of India, 2016.

17. All the mitigation measures committed by the proponent for the flood management, Evacuation plan, Solid waste disposal, Sewage treatment & disposal etc., shall be followed strictly.
18. As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020, and 20/10/2020 the proponent shall furnish the detailed EMP mentioning all the activities as proposed in the CER and furnish the same before placing the subject to SEIAA.

SEIAA Recommendations

The proposal was placed in the 418th Authority meeting held on 11.01.2021 & 12.01.2021. After detailed discussion the Authority unanimously accept the recommendation of SEAC and decided to grant Environmental Clearance subject to the conditions as recommended by SEAC & normal condition in addition to the following condition.

1. The proponent shall ensure that the treated/untreated sewage/Grey water should not be disposed directly or indirectly to the nearby Coovum or inside / outside their premises.
2. The proponent shall necessarily obtain the Stability Certificate from the reputed institution/Government Institution before starting construction activity as the proposal is abutting the River Coovum.
3. The proponent shall ensure that the Solid waste generated should not be dumped in the Coovum River.
4. The proponent shall ensure that no material should be stored or dumped near the Coovum during constructional/operational phase.
5. As per the MoEF & CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall furnish the detailed EMP to TNPCB, mentioning CER activities for Rs.599.70 lakhs as committed and the CER activities shall be carried out before obtaining CTO from TNPCB.

Part - A – Common conditions applicable for Pre-construction, Construction and Operational Phase




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Part - B – Specific Conditions – Pre construction phase

Part - C – Specific Conditions – Construction phase

Part - D – Specific Conditions – Operational Phase / Post constructional Phase /
Entire life of the project.

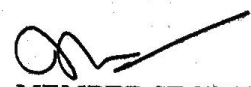
Validity:

The SEIAA hereby accords Environmental Clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 as amended, with validity for Seven years from the date of issue of EC, subject to the compliance of the terms and conditions stipulated below:

Part - A – Common conditions applicable for Pre-construction, Construction and Operational Phases:

1. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
2. The construction of STP, Solid Waste Management facility, E-waste management facility, DG sets, etc., should be made in the earmarked area only. In any case, the location of these utilities should not be changed later on.
3. The Environmental safeguards contained in the application of the proponent /mentioned during the presentation before the State Level Environment Impact Assessment Authority / State Level Expert Appraisal Committee should be implemented in the letter and spirit.
4. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire and Rescue Services Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wild Life (Protection) Act, 1972, State / Central Ground Water Authority, Coastal Regulatory Zone Authority, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the concerned competent authorities.
5. The SEIAA reserves the right to add additional safeguard measures subsequently, if non-compliance of any of the EC conditions is found and to take action, including withdrawing this Environmental Clearance as the case may be.




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6. A proper record showing compliance of all the conditions of Environmental Clearance shall be maintained and made available at all the times.
7. 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. The status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Chennai by e-mail.
8. The Regional Office of the Ministry located at Chennai shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
9. "Consent for Establishment" shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be submitted to the SEIAA, Tamil Nadu.
10. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained before implementation.
11. The conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law, including the Hon'ble National Green Tribunal relating to the subject matter.
12. The Environmental Clearance shall not be cited for relaxing the other applicable rules to this project.
13. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.




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14. 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, Chennai, the respective Zonal Office of CPCB, Bengaluru and the TNPCB. The criteria pollutant levels namely; PM10, PM2.5, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored.
15. The SEIAA, TN may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the Environmental Clearance.
16. The Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance.
17. The SEIAA, TN may alter/modify the above conditions or stipulate any further condition in the interest of environment protection, even during the subsequent period.
18. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
19. Where the trees need to be cut, compensation plantation in the ratio of 1:10 (i.e. planting of 10 trees for every one tree that is cut) should be done with the obligation to continue maintenance.
20. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive who will report directly to the Head of the Organization and the shortfall shall be strictly reviewed and addressed.




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21. The EMP cost shall be deposited in a nationalized bank by opening separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SEIAA annually.
22. The Project Proponent has to provide 29 nos (size 1.2 dia x 3m depth) of percolation pits and rain water collection sump capacity of 3 sump of 100 cu.m capacity to recover and reuse the rain water during normal rains as reported.
23. The project activity should not cause any disturbance & deterioration of the local bio diversity.
24. The project activity should not impact the water bodies. A detailed inventory of the water bodies and forest should be evaluated and fact reported to the Forest Department & PWD for monitoring.
25. All the assessed flora & fauna should be conserved and protected.
26. The proponent should strictly comply with Tamil Nadu Government Order (Ms) No.84 Environment and forests (EG-2) Department dated 25.06.2018 regarding ban on one time use and throwaway plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.
27. Necessary permission shall be obtained from the competent authority for the drawl / outsourcing of fresh water before obtaining consent from TNPCB.
28. The proponent shall appoint an Environmental Engineer with necessary qualification for the operation and maintenance of STP (Sewage Treatment Plant).
29. The Proponent shall provide the dispenser for the disposal of Sanitary Napkins.
30. All the mitigation measures committed by the proponent for the flood management, Solid waste disposal, Sewage treatment & disposal etc., shall be followed strictly.
31. No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.
32. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided.
33. The safety measures proposed in the report should be strictly followed.
34. Environment Clearance is subject to the outcome of the Hon'ble High Court in the W.P.(C) 2517/2018 & M APPL. 48579/2018 and W.P.(C)




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12570/2018 & CM Appl. 48897/2018.

Part - B – Specific Conditions – Pre construction phase:

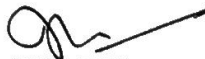
1. The project authorities should advertise with basic details at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of clearance. The press releases also mention that a copy of the clearance letter is available with the State Pollution Control Board and also at website of SEIAA, TN. The copy of the press release should be forwarded to the Regional Office of the Ministry of Environment and Forests located at Chennai and SEIAA-TN.
2. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained before implementation.
3. A copy of the clearance letter shall be sent by the proponent to the Local Body. The clearance letter shall also be put on the website of the Proponent.
4. The approval of the competent authority shall be obtained for structural safety of the buildings during earthquake, adequacy of fire fighting equipments, etc as per National Building Code including protection measures from lightning etc before commencement of the work.
5. All required sanitary and hygienic measures for the workers should be in place before starting construction activities and they have to be maintained throughout the construction phase.
6. Design of buildings should be in conformity with the Seismic Zone Classifications.
7. The Construction of the structures should be undertaken as per the plans approved by the concerned local authorities/local administration.
8. No construction activity of any kind shall be taken up in the OSR area.
9. Consent of the local body concerned should be obtained for using the treated sewage in the OSR area for gardening purpose. The quality of treated sewage shall satisfy the bathing quality prescribed by the CPCB.
10. The height and coverage of the constructions shall be in accordance with the existing FSI/FAR norms and Coastal Regulation Zone Notification, 2011.




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11. The Project Proponent shall provide car parking exclusively for the visiting guest in the proposed residential apartments as per CMDA norms.
12. The project proponent shall ensure the entry of basement shall be above maximum flood level.
13. The proponent shall prepare completion plans showing Separate pipelines marked with different colours with the following details
 - i. Location of S.T.P, compost system, underground sewer line.
 - ii. Pipe Line conveying the treated effluent for green belt development.
 - iii. Pipe Line conveying the treated effluent for toilet flushing
 - iv. Water supply pipeline
 - v. Gas supply pipe line, if proposed
 - vi. Telephone cable
 - vii. Power cable
 - viii. Storm water drains; and
 - ix. Rain water harvesting system, etc., and it shall be made available to the owners
14. A First Aid Room shall be provided in the project site during the entire construction and operation phases of the project.
15. The present land use surrounding the project site shall not be disturbed at any point of time.
16. The green belt area shall be planted with indigenous native trees.
17. Natural vegetation listed particularly the trees shall not be removed during the construction/operation phase. In case any trees are likely to be disturbed, shall be replanted.
18. During the construction and operation phase, there should be no disturbance to the aquatic eco-system within and outside the area.
19. The Provisions of Forest conservation Act 1980, Wild Life Protection Act 1972 & Bio diversity Act 2002 should not be violated.
20. There should be Fire fighting plan and all required safety plan.
21. Regular fire drills should be held to create awareness among owners/ residents.




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Part - C - Specific Conditions – Construction phase:

1. Construction Schedule:

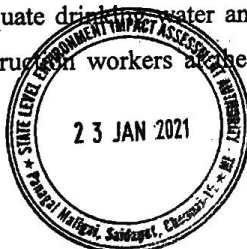
- i) The Project proponent shall have to furnish the probable date of commissioning of the project supported with necessary bar charts to SEIAA-TN.

2. Labour Welfare:

- i) All the labourers to be engaged for construction should be screened for health and adequately treated before and during their employment on the work at the site.
- ii) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contradictions due to exposure to dust and take corrective measures, if needed.
- iii) Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.

3. Water Supply:

- i) The entire water requirement during construction phase may be met from ground water source from the source with approval of the PWD Department of water resources/ may be out sourced.
- ii) Provision shall be made for the housing labour within the site with all necessary infrastructures and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iii) Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The treatment and disposal of waste




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water shall be through dispersion trench after treatment through septic tank. The MSW generated shall be disposed through Local Body and the identified dumpsite only.

- iv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices prevalent.
- v) Fixtures for showers, toilet flushing and drinking water should be of low flow type by adopting the use of aerators / pressure reducing devices / sensor based control.

4. Solid Waste Management:-

- i) In the solid waste management plan, the STP sludge management plan for direct use as manure for gardens is not acceptable; it must be co-composted with biodegradables.
- ii) House hold hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016.
- iii) Domestic solid wastes to be regularly collected in bins or waste handling receptacles and disposed as per the solid waste management rules 2016.
- iv) No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.
- v) E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016 and subsequent amendment.

5. Top Soil Management:

- i) All the top soil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.

6. Construction Debris disposal:

- i) Disposal of construction debris during construction phase should not create any adverse effect on the neighboring communities and be disposed off only in approved sites, with the approval of Competent Authority with necessary precautions for general safety and health aspects of the people. The construction and demolition waste shall be




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managed as per Construction & Demolition Waste Management Rules, 2016.

- ii) Construction spoils, including bituminous materials and other hazardous materials, must not be allowed to contaminate watercourses. The dump sites for such materials must be secured so that they should not leach into the adjacent land/ lake/ stream etc.

7. Diesel Generator sets:

- i) Low Sulphur Diesel shall be used for operating diesel generator sets to be used during construction phase. The air and noise emission shall conform to the standards prescribed in the Rules under the Environment (Protection) Act, 1986, and the Rules framed thereon.
- ii) The diesel required for operating stand by DG sets shall be stored in underground tanks fulfilling the safety norms and if required, clearance from Chief Controller of Explosives shall be taken.
- iii) The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems, cooling water tower etc.

8. Air & Noise Pollution Control:

- i) Vehicles hired for bringing construction materials to the site should be in good condition and should conform to air and noise emission standards, prescribed by TNPCB/CPCB. The vehicles should be operated only during non-peak hours.
- ii) Ambient air and noise levels should conform to residential standards prescribed by the TNPCB, both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during the construction phase. The pollution abatement measures shall be strictly implemented.
- iii) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site shall be avoided. Parking shall be fully internalized and no public space should be utilized. Parking plan to be as per CM. The traffic department shall be consulted and




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any cost effective traffic regulative facility shall be met before commissioning.

- iv) The buildings should have adequate distance between them to allow free movement of fresh air and passage of natural light, air and ventilation.
- v) The project proponent should ensure that adequate Air Pollution Control measures shall be provided from buses and other vehicles, which will be entering the bus terminal. Further, water sprinkling system shall be provided and same shall be used at regular interval to control the dust emission within the project site.

9. Building material:

- i) Fly-ash blocks should be used as building material in the construction as per the provision of Fly ash Notification of September, 1999 and amended as on 27th August, 2003, and Notification No. S.O. 2807 (E) dated: 03.11.2009.
- ii) Ready-mix concrete shall alone be used in building construction and necessary cube-tests should be conducted to ascertain their quality.
- iii) Use of glass shall be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, high quality double glass with special reflecting coating shall be used in windows.

10. Storm Water Drainage:

- i) Storm water management around the site and on site shall be established by following the guidelines laid down by the storm water manual.
- ii) Storm water management plan shall be obtained by engaging the services of Anna University/IIT.

11. Energy Conservation Measures:

- i) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material, to fulfill the requirement.
- ii) Opaque wall should meet prescribed requirement as per Energy Conservation Building Code which is mandatory for all air conditioned



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spaces by use of appropriate thermal insulation material to fulfill the requirement.

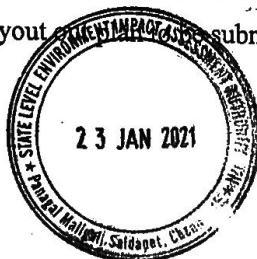
- iii) All norms of Energy Conservation Building Code (ECBC) and National Building Code, 2005 as energy conservation have to be adopted Solar lights shall be provided for illumination of common areas.
- iv) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting. A hybrids system or fully solar system for a portion of the apartments shall be provided.
- v) A report on the energy conservation measures conforming to energy conservation norms prescribed by the Bureau of Energy Efficiency shall be prepared incorporating details about building materials & technology; R & U factors etc and submitted to the SEIAA in three month's time.
- vi) 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.

12. Fire Safety:

- i) Adequate fire protection equipments and rescue arrangements should be made as per the prescribed standards.
- ii) Proper and free approach road for fire-fighting vehicles upto the buildings and for rescue operations in the event of emergency shall be made.

13. Green Belt Development:

- i) The Project Proponent shall plant tree species with large potential for carbon capture in the proposed green belt area based on the recommendation of the Forest department well before the project is completed.
- ii) The proponent has to earmark the greenbelt area with dimension and GPS coordinates for the green belt area all along the boundary of the project site with at least 3 meter wide and the same shall be included in the layout submitted for CMDA/DTCP approval.




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- iii) The proponent shall develop the green belt as per the plan furnished and area earmarked for the greenbelt shall not be alter at any point of time for any other purpose.

14. Sewage Treatment Plant:

- i) The Sewage Treatment Plant (STP) installed should be certified by an independent expert/ reputed Academic institutions for its adequacy and a report in this regard should be submitted to the SEIAA, TN before the project is commissioned for operation. Explore the less power consuming systems viz baffle reactor, etc., for the treatment of sewage.
- ii) The Proponent shall install STP as furnished. Any alteration to satisfy the bathing quality shall be informed to SEIAA-TN.
- iii) The project proponent shall operate and maintain the Sewage treatment Plant and grey water treatment plant effectively to meet out the standards prescribed by the CPCB.
- iv) The project proponent shall continuously operate and maintain the Sewage treatment plant and Grey water treatment plant to achieve the standards prescribed by the CPCB.
- v) The project proponent has to ensure the complete recycling of treated sewage & Grey water after achieving the standards prescribed by the CPCB.
- vi) The project proponent has to provide separate standby D.G set for the STP for the continuous operation of the STP in case of power failure.

15. Rain Water Harvesting:

- i) The proponent/ Owner of the Flats shall ensure that roof rain water collected from the covered roof of the buildings, etc shall be harvested so as to ensure the maximum beneficitation of rain water harvesting by constructing adequate sumps so that 100% of the harvested water shall be reused.
- ii) Rain water harvesting for surface run-off, as per plan submitted should be implemented. Before recharging the surface run off, pre-treatment with screens, separators etc. must be done to remove suspended matter, oil and grease, etc.




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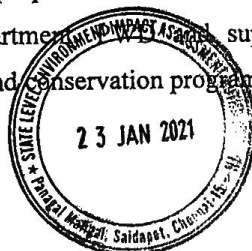
- iii) The Project Proponent has to provide 29 nos (size 1.2 dia x 3m depth) of percolation pits and rain water collection sump capacity of 3 sump of 100 cu.m capacity to recover and reuse the rain water during normal rains as reported.
- iv) The project activity should not cause any disturbance & deterioration of the local bio diversity.

16. Building Safety:

Lightning arrester shall be properly designed and installed at top of the building and where ever is necessary.

Part - D - Specific Conditions - Operational Phase/Post constructional phase/Entire life of the project:

1. There should be Fire fighting plan and all required safety plan.
2. Regular fire drills should be held to create awareness among owners/ residents.
3. House hold hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016.
4. The building should not spoil the green views and aesthetics of surroundings and should provide enough clean air space.
5. Solar energy saving shall be increased to atleast 10% of total energy utilization.
6. The Project proponent has to spend the CER as committed in the affidavit. The above activity shall be carried out before obtaining CTO from TNPCB.
7. The EMP cost shall be deposited in a nationalized bank by opening separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SEIAA annually
8. The EMP cost shall be printed in the Brochure / Pamphlet for the preparation of the sale of the property and should also mention the component involved.
9. The Project proponent shall get due permission from the wetland Authority before the commencement of the work, if applicable.
10. The Project proponent should discuss with the wet land Authority, Tamil Nadu Forest Department, support lake restoration cum improvement, awareness and conservation programs.



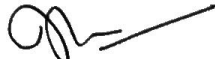

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11. The project activities should in no way disturb the manmade structures.
12. The Proponent shall do afforestation/ restoration programme contemplated to strengthen the open spaces shall preferably include native species along with the financial forecast for planting and maintenance for 5 years.
13. "Consent to Operate" should be obtained from the Tamil Nadu pollution Control Board before the start of the operation of the project and copy shall be submitted to the SEIAA-TN.
14. Raw water quality to be checked for portability and if necessary RO plant shall be provided.
15. The Proponent should be responsible for the maintenance of common facilities including greening, rain water harvesting, sewage treatment and disposal, solid waste disposal and environmental monitoring including terrace gardening for a period of 3 years. Within one year after handing over the flats to all allottees a viable society or an association among the allottees shall be formed to take responsibility of continuous maintenance of all facilities with required agreements for compliance of all conditions furnished in Environment Clearance (EC) order issued by the SEIAA-TN or the Proponent himself shall maintain all the above facilities for the entire period. The copy of MOU between the buyers Association and proponent shall be communicated to SEIAA-TN.
16. The ground water level and its quality should be monitored and recorded regularly in consultation with Ground Water Authority.
17. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. The treated sewage shall conform to the norms and standards for bathing quality laid down by CPCB irrespective of any use. Necessary measures should be made to mitigate the odour and mosquito problem from STP.
18. The Proponent shall operate STP continuously by providing stand by DG set in case of power failure.
19. It is the sole responsibility of the proponent that the treated sewage water disposed for green belt / avenue plantation should not pollute the soil/ ground water/ adjacent canals/ lakes/ ponds, etc




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20. Adequate measures should be taken to prevent odour emanating from solid waste processing plant and STP.
21. The e - waste generated should be collected and disposed to a nearby authorized e-waste centre as per E- waste (Management & Handling), Rules 2016 as amended.
22. Diesel power generating sets proposed as source of back-up power 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.
23. The noise level shall be maintained as per MoEF/CPCB/TNPCB guidelines/norms both during day and night time.
24. Spent oil from D.G sets should be stored in HDPE drums in an isolated covered facility and disposed as per the Hazardous & other Wastes (Management & Transboundary Movement) Rules 2016. Spent oil from D.G sets should be disposed off through registered recyclers.
25. The proponent is required to provide a house hold hazardous waste / E-waste collection and disposal mechanism.
26. The proponent/ Owner of the Plant shall ensure that storm water drain provided at the project site shall be maintained without choking or without causing stagnation and should also ensure that the storm water shall be properly disposed off in the natural drainage / channels without disrupting the adjacent public. Adequate harvesting of the storm water should also be ensured.
27. Used 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.
28. A copy of the Environmental clearance (EC) letter shall be made available to all the allottees along with the allotment order / sale deed.
29. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
30. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a




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later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.


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Copy to:

1. The Additional Chief Secretary to Government, Environment & Forests Dept,
Govt. of Tamil Nadu, Fort St. George, Chennai - 9.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan,
CBD Cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
3. The Member Secretary, Tamil Nadu Pollution Control Board,
76, Mount Salai, Guindy, Chennai - 600 032.
4. The APCCF (C), Regional Office, Ministry of Environment & Forest (SZ),
34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam,
Chennai - 34.
5. Monitoring Cell, I A Division, Ministry of Environment & Forests,
Paryavaran Bhavan, CGO Complex, New Delhi - 110 003.
6. The Commissioner, Chennai Metropolitan Development Authority, Chennai
7. Stock File.

