Validity expires on 04.02.2025

सत्यमेव जयते

Proceedings of the State Environment Impact Assessment Authority Kerala

Present: Prof. (Dr.) K.P. Joy, Chairman, Dr. J. Subhashini, Member & Sri. P.H.Kurian I.A.S Member Secretary.

Sub: **SEIAA- Environmental Clearance for the Residential Apartment Project in Sy. Nos. 224/1 Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, Kerala by Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders - Granted-Orders issued**

State Environment Impact Assessment Authority, Kerala

No. 1114/EC/SEIAA/KL/2017 **dated, Thiruvananthapuram 05.02.2018**

Ref: 1. Application received on 02.03.2017 from Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders, 41/349 B, Skyline House, Rajaji Road, Cochin, Ernakulam, Kerala-682035
2. Minutes of the 73rd meeting of SEAC held on 30th & 31st May 2017
3. Minutes of the 75th meeting of SEAC held on 29th& 30th June 2017
4. Minutes of the 73rd meeting of SEIAA held on 15th September 2017
5. Minutes of the 74th meeting of SEIAA held on 09.10.2017
6. Minutes of the 75th meeting of SEIAA held on 28th October 2017
7. Minutes of the 78th meeting of SEIAA held on 15th December 2017
8. Affidavit dated 17.01.218 from Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders

ENVIRONMENTAL CLEARANCE NO.13/2018

Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders, 41/349 B, Skyline House, Rajaji Road, Cochin, Ernakulam, Kerala-682035, vide his application received on 02.03.2017 has sought Environmental Clearance under EIA Notification, 2006 for the Residential Project in survey No. 224/1 Poonithura Village, Kanayannur Taluk, Ernakulam District, Kerala. It is interalia, noted that the project comes under the Category B, 8(a) of Schedule of EIA Notification 2006.

The height of the proposed building is 83.25 m and the total plot area of the proposed project is 4,917.105 sq.m. The total built-up area of about 23,609.06 sq.m. with supporting infrastructure facilities. The total cost of the project is Rs. 41.40 Crores.

Details of the project as provided by the project proponent.

BASIC INFORMATION OF BUILDING PROJECT
(To be filled in by the Project Proponent)
PART A

Project details		
	File No	1114/EC/SEIAA/KL/2016
	Name /Title of the project	Environment Clearance for the Construction of Residential Project developed by M/s Skyline Builders
	Name and address of project proponent.	Mr. K.V. Abdul Azeez, (Managing Partner), M/s Skyline Builders, 41/349B, Skyline House, Rajaji Road, Cochin, Ernakulam, Kerala-682035.
	Owner of the land	Private owned land
	Survey Nos. District/Taluk/ and Village etc.	Survey No. 224/1, Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, Kerala.
	PROJECT DETAILS	
	Date of submission of Application	02-03-2017
	Total Built up Area	23,609.06 sq. m.
	No of apartments	41 Apartments
	Height of the building	83.25 m.
	Brief description of the project.	Proposed residential project in plot area of about 0.4917 ha. and built-up area of about 23,609.06 sq.m. and total no. of apartments 41 Apartments with supporting infrastructure facilities.
	Is it a new Project or expansion/modification of an existing project?	New
	Details of the Project Cost	Rs. 41.40 Crores
	Distance from nearby habitation	The project site is within the Cochin Corporation limits and several houses located within the 500 m. radius.
	Distance from nearby forest, if applicable	None within the area
	Distance from protected area, Wildlife Sanctuary, National Park etc.	*Mangalavanam* Bird Sanctuary - about 10 km. (SW)
	Distance from nearby streams/rivers/National Highway Roads and Airport	*Water body :-* Drain abutting the site (SW direction). *Highway* : N.H.-47 – about 1.5 km. (E)

		Airport : Cochin Int. Airport, (Nedumbassery) - about 25 km.
	Is ESA applicable? If so distance from ESA limit	Not applicable
	Impact on water	
	Details of water requirement per day in KLD	The total domestic water requirement of about 28 KLD (which includes daily fresh water requirement of about 19 KL). Treated water from STP to be used for flushing of toilets (about 10 KLD), Horticulture requirement (about 3 KLD).
	Water source/sources.	Source :- Stored Rain water (Tanks), Wells, KWA water supply and treated water from STP.
	Details of water requirements met from water harvesting.	The project has provision for rain water storage tanks which will be used as source of water during rainy days & non-rainy days. The total capacity of tanks (about 320 KL).
	What are the impacts of the proposal on the ground water?	The project has provisions for well waters supply as standby arrangement during non rainy days and minimal use of ground water.
	WASTE MANAGEMENT	
	Explain the facilities for 1) Liquid waste Management	The treated water from STP to be used for flushing of toilets (about 10 KLD), Horticulture requirement (about 3 KLD).
	2) Solid Waste Management	The Solid Waste Management Rules, 2016 will be followed in the Solid Waste Disposal Mechanism at the site during operation phase. Provision of bio-gas generation plant/bio-bin system within the project site for disposal of the bio-degradable solid waste.
	3) E-Waste Management	Not applicable
	4) Facilities for Sewage Treatment Plant	Provision of STP for treatment of sewage and it's partially recycling for meeting the water requirement for flushing & horticulture water requirement within the site.
	How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	The treated water from STP to be used for flushing of toilets (about 10 KLD), Horticulture requirement (about 3 KLD).
	What is the incremental pollution load from waste water generated from the proposed activities?	Disposal of excess treated water from STP (with BOD level as per KSPCB norms) will be only after providing additional aeration in the final treated water storage tank.
	How is the storm water from within the site managed?	➢ Provision of roof rain water storage tanks with total water storage capacity of about 320 KL. ➢ The excess roof rain water and the surface

		runoff of the site will be chanalized through garland drain and will be chanalized to the public drain. The excess run-off will be discharged only after de-siltation & oil removal.
	Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	Solid waste generation from the project during construction phase will be about 40 Kg/day and domestic sewage will be about 11 KL/day. The non-biodegradable waste and other packaging material will be sold to the vendors. The bio-degradable solid waste will be disposed in a bio-bin system for microbial composting and a mobile STP for the treatment of domestic sewage from the labour colony.
	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 & facilities for recycling and disposal)	Provision of STP of about 30 KL capacity within the project premises to treat the sewage during operation phase. The technology for the treatment of the sewage is up to tertiary level treatment. The total quantity of sewage generation will be about 22 KL/day. The treated water will be partially recycled for meeting the flushing & horticulture water requirement. There will be minimal sewage discharge from the proposed project premises after development of the proposed project.
	Give details of dual plumbing system if treated waste is used for flushing of toilets or any other use.	Treated water from STP to be used for flushing of toilets (about 10 KLD), Horticulture requirement (about 3 KLD).
	Energy Conservation	
	Details of power requirement and source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area ? How have you tried to minimize energy consumption?	Power requirement :- about 1200 kW Source :- KSEB & D. G. Sets (320 kVA x 2 nos. as back-up) Energy conservation measures :- ➢ Building design to have maximum lighting in the inside portion of the building so as to minimize the energy requirement for lighting. ➢ Use of LED lamps which consume less energy would be adopted in the common areas. ➢ Use of solar street lights would be adopted in the green area and along the internal roads and in the open parking of the proposed project. ➢ The roof will be insulated to minimize heat gain with 50 mm expanded polystyrene or equivalent insulation.
	What type of, and capacity of power back-up to you plan to provide?	D. G. Sets (320 kVA x 2 nos. as back-up)
	What are the characteristics of the glass you plan to use? Provide specifications of its	The glass used will be low emissivity and having U value as per ECBC norms.

	characteristics related to both short wave and long wave radiation?	
	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project	All the applicable relevant features are incorporated like the orientation of the building, shading effect etc.
	Does the layout of streets & 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 ? Substantiate with details	Due consideration has been taken for maximum use of the solar energy while preparation of layout plan. The project proponent shall made provision for solar panel system for common area lighting, street lighting & open recreation areas in the proposed project
	Is the shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?	All the relevant features are incorporated like the orientation of the building, shading effect etc.
	Do the structure use energy-efficient space conditioning , lighting and mechanical systems? Provide technical details. Provide details of transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.	Suitable energy optimization will be adopted during the calculation of energy load of the proposed project. The space heating load will be minimized using passive solar structure and suitable buildings envelop material. Uses of incandescent lamp and halogen lamps have been avoided and energy efficient LED lamps will be used for all common area. The diesel generator sets shall be automatically controlled to optimize their usage based on the actual load requirements at any time. Variable frequency drive systems would be adopted for the lifts, etc to maximize the energy saving.
	What are the likely effects of the building activity in altering the micro-climates ? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?	More open spaces are proposed within the site to creation of any heat islands. The roads and parking spaces would be with paving tiles intermittent with grass on surrounding.
	What are the thermal characteristics of the building envelope? (a) roof (b) external walls; and (c) fenestration?	The building construction material namely cement blocks, concrete and steel are being used in the construction. U-factor, also known as Thermal Transmittance, is heat transmission in unit time

	Give details of the materials used.	through unit area of a material or construction and the boundary air films, induced by unit temperature difference between the environments on each side. Other details are given below :- WALLS (Cement plaster + Insulative internal plaster + 200 mm thick Cement Blocks, External enamel coating) with wall insulation. ROOF (115 mm RCC + heat reducing reflective paint for thermal insulation. GLASS (Single Clear 4 mm Glass).
	What is the rate of air non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used.	The use of non-conventional source of energy in the proposed construction project are as follows: - o Use of Solar Street Light o Use of LED Lamps o Buildings of the proposed project is designed with natural ventilation and natural light so that the use of lights during day time can be minimized.
	Details of renewable energy (non – conventional) used.	Solar power operated lights in common areas.
	IMPACT ON AIR ENVIRONMENT	
	What are the mitigation measures on generation of dust, smoke , odours, fumes or hazardous gases	The dust generation during construction phase will be controlled by enclosures at appropriate locations and also by sprinkling of water for suppression of dust. The gas/smoke generation expected is from D.G. sets only and the gases will be vented out through stack of appropriate height as per norms.
	Details of internal traffic management of the site.	The proposed project would provide vehicle parking facilities within the project premises. The parking plan for this project would follows KMBR guidelines. The total number of parking proposed is 114 Cars + 80 two wheelers. The proposed site development will provide minimum drive way as per KMBR for easy & smooth vehicular movement. It is proposed to have 7 m. wide entry/exit for the smooth movement of vehicles. Provision through ramps is proposed for access of the physically challenged people and parking space for their vehicles.
	Details of noise from traffic, machines and vibrator and mitigation measures	The proposed project is a residential project and there would be some increase in noise and vibration due to the vehicular movement within the project site. The project has provision of large area for the parking for the vehicles and the parking arrangement which is planned, that there would be easy movement of vehicles within the project area and smooth movement is provided for the vehicles to reduce the traffic congestion.

	Air quality monitoring in detail	The proposed project is housing project and it will not increase atmospheric concentration of gases, the project has provision of D.G. Sets for standby arrangement of electricity and will run only during power failure. The stack attached to the proposed D.G. Sets will follow all the rules and regulations of State Pollution Control Board and Central Pollution Control Board. The ambient air quality of the site carried out through an accredited laboratory.
	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 & exit to the project site.	No
	Provide details of the movement patterns with internal roads, bicycles tracks, Pedestrian pathways, footpaths etc., with areas under each category	The conceptual plan shows the internal traffic management with entry and exit to the proposed project site, all internal roads with width, pedestrian path ways etc. Further provision of ramps are proposed for the easy access to the building for physically challenged persons.
	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.	The proposed project is a residential project and there would be some increase in noise and vibration due to the vehicular movement within the project site. The project has provision of large area for the parking for the vehicles and the parking arrangement which is planned, that there would be easy movement of vehicles within the project area and smooth movement is provided for the vehicles to reduce the traffic congestion.
	What will be impact of DG sets & other equipments on noise levels & vibration in & ambient air quality around the project site? Provide details	The D.G. sets which would be used for the project will be with sound proof acoustic enclosures and hence there will be no impact to the surroundings. The D.G. sets would be attached with proper anti vibration pads to reduce any vibration impact to the site surrounding. The flue gases from the D.G. sets will be vented out through stack of appropriate height as per K.S.P.C.B. norms to reduce the impacts on air quality around the project site. The ambient noise level of the site is carried out through an accredited laboratory.
	SOCIO- ECONOMIC ASPECTS	
	Will the proposal result in any change to the demographic structure of	The proposed project is a housing project. During operation phase, on full occupancy of the project, the maximum population expected is about 205

	local population ? Provide the details.	persons (residents) and hence there will be influx of people (fixed) to the project area and surrounding.
	Give details of the existing social infrastructure around the proposed project	There are several schools, colleges, religious places, commercial and residential buildings, Govt. and private offices, hospitals which are located around the proposed project.
	Will the project cause adverse effects on local communities, disturbances to sacred sites or other cultural values? What are the safeguards proposed?	The project would not cause any adverse effects on local communities, disturbance to sacred sites or other cultural values. The proposed project is a multistoried apartment project and thereby the living index of the people around the project site will definitely improve.
	BUILDING MATERIALS	
	May involve the use of building materials with high –embodied energy. Are the construction materials produced with energy efficient process? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)	The proposed housing project and the housing building is not a centrally air conditioned building, the selection of building materials plays a major role in the energy consumption. The proposed project will make all attempts to use to avoid building materials with high embodied energy. The river sand will be replaced by manufactured sand from stone crushers. The glass used will be low emissivity and having U value as per ECBC norms.
	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	All vehicles which bring construction material to the site would possess Pollution Under Control Certificates (PUC). All vehicles would be of close body to avoid spread of dust from the loose materials, and vehicles which bring sand, stone dust, etc. would ensure that the above mentioned material are properly wetted during transportation to avoid dust generation. Pucca Road to be made in the construction site for the vehicle movement so that the dust generation due to the vehicular movement within the project site can be minimized. Stacking of construction material shall be confined to the project site only. All the D.G. Sets would have attached with Acoustic Enclosure for the sound pollution control and all sound generating construction activity to be minimized. Further barricading of the site with GI sheets of 10 ft. height in the side abutting the public road during construction phase.
	Are recycled materials used in roads and structures? State the extent of savings achieved?	NA
	Give details of the methods of collection, segregation &	➢ The Solid Waste Management Rules, 2016 will be followed in the solid waste disposal.

	disposal of the garbage generated during the operation phases of the project.	➢ The construction & demolition waste management rules, 2016 will be followed during construction phase. ➢ Collection & segregation within the site (bio-degradable waste (green bins), non-biodegradable waste (blue bins) and domestic hazardous waste (yellow bins). ➢ The recyclable waste like packaging material, paper etc. would be sold through vendors and the area earmarked for the storage of the same. ➢ The Bio-degradable waste would be disposed through the bio-gas generation unit/bio-bin to be installed within the site. ➢ The bio-gas generated will be utilized within the site and the manure generated will be utilized for green area development within the premises. ➢ The domestic hazardous waste which includes discarded painted drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge etc. generated at the household level will be collected in yellow bins and to be handed over to authorized waste pickers or waste collectors. ➢ The hazardous waste (used oil & discarded batteries attached to D.G. sets) will be stored in the designated services area and will be disposed to CPCB / SPCB authorized vendors only.
	Risk Management	
	Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site during construction & post construction phase.	Yes
	Storage of explosives/hazardous substance in detail	NA
	What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans	All precautions & safety measures are proposed against the fire hazards as per norms of Fire & Rescue Department, Govt. of Kerala.
	AESTHETICS	
	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these	There is no scenic beauty near the project site. The drain which is located in the western side will be protected during the operation phase.

<table>
<tr><td></td><td>considerations taken into account by the proponents?</td><td></td></tr>
<tr><td></td><td>Will there be any adverse impacts from new constructions on the existing structures? What are considerations taken into account?</td><td>The surrounding area is residential / offices / institutional developments. In north-east direction there is access road to the site and in south west direction a drain is flowing. Also, there are multi-storied apartments, individual houses with plantations are located within the surrounding area. There will be no any adverse impacts due to the development of the proposed project.</td></tr>
<tr><td></td><td>Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.</td><td>The proposed project would be constructed in conformity with the Kerala Municipal Building Rules (KMBR).
As per seismic classification, the project site falls in Zone-III. No reported cloudburst in the area. Also, there is no hilly area around the project site, there is no chance of landslide. Structural design aspects as per the seismic codes – IS 1893 (2002), IS 13920 (1993) and IS 456 (2000) as applicable would be incorporated in our project.</td></tr>
<tr><td></td><td>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</td><td>The proposed project is located in Cochin Corporation. There is no report of existence of any anthropological or archaeological site nearby the project area.</td></tr>
<tr><td></td><td>Details of CSR activity and the amount set apart</td><td>Yes.
A detailed study on social status of the project site surroundings & need base study on proposed CSR activities were carried out. The summary of the report is given below :-
<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Rs in lakhs (approx.)</th></tr>
<tr><td>1</td><td>Sustainable Environment</td><td>Rs. 3.50 Lakhs (Recurring)
Rs. 5.0 Lakhs (Non-Recurring)</td></tr>
<tr><td>2</td><td>Promotion of Education</td><td>Rs. 1.0 Lakhs (Recurring)
Rs. 5.0 Lakhs (Non-Recurring)</td></tr>
<tr><td>3</td><td>Infrastructure Development</td><td>Rs. 1.0 Lakhs (Recurring)
Nil (Non-Recurring)</td></tr>
<tr><td>4</td><td>Health Care</td><td>Rs. 2.40 Lakhs (Recurring)
Nil (Non-Recurring)</td></tr>
<tr><td></td><td>Total</td><td>About Rs. 7.90 Lakhs (Recurring) During construction phase.</td></tr>
</table></td></tr>
</table>

				About Rs. 10.0 Lakhs (Non-Recurring)
	Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details	M/s Environmental Engineers & Consultants Pvt. Ltd. (NABET Accredited Consultant Organization) Head Office :- A1-198, Janak Puri, New Delhi. Branch Office:- C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala. Accreditation no. :- NABET/EIA/1518/RA010		
	Details of Authorized Signatory and address for correspondence	Mr. K.V. Abdul Azeez, (Managing Partner), M/s Skyline Builders, Skyline House, 41/349B, Skyline House, Rajaji Road, Cochin, Ernakulam, Kerala-682035. Ph. 0484-2363695, Mobile 09895240634.		
	Summary and Conclusion			
	a) Overall justification for implementation of the project.	The proposed project is a construction of residential project and the total implementation / completion period for the construction is about 24 months.		
	b) Explanation of how adverse impact have been mitigated.	It is predicted that socio-economic impact due to this project will positively increase the chance of more employment opportunities for local inhabitants. There are no Resettlement and Rehabilitation issues involved in this project. The project infrastructures will be of use to people of the area. The revenue of the State Govt. will be definitely increase due to the proposed activity. The entire project area is devoid of any endemic / endangered flora and fauna. As part of the eco restoration with native species to a maximum possible extent. Also, rain water tanks are proposed for storage of rain water and for its subsequent use so as to conserve fresh water consumption. The municipal solid waste will be handled and disposed as per norms. Thus the proposed project is not likely to affect the environment or adjacent ecosystem adversely and will ensure a sustainable development.		

2. The proposal was placed in the 73rd meeting of SEAC held on 30th & 31st May 2017. The Committee sought more clarity/ assurance from the proponent on the following points.

a) *Adequacy of the source of water*

b) In view of the nearby water body whether the site needs clearance under the CRZ notification

c) Proof of having applied for the wildlife clearance.

d) Portion of energy requirements proposed to be met from non-conventional sources

The proponent agreed to set apart an amount of Rs.25 lakh over a period of 3 years for CSR activities for the welfare of the local community in consultation with the local body. The Committee decided to defer the item for field inspection.

Accordingly the Sub Committee members consisting of Sri Sreekumaran Nair, Sri S. Ajayakumar, Sri John Mathai, Sri KG Padmakumar, Sri George Chackacherry and Sri EA Jayson conducted the site visit on 22nd June 2017. The report is as follows;

The proposal is located along the Stadium link road behind Kaloor international stadium and adequate access is available. The proposal is for the expansion of the existing building under construction with a valid permit received on 10.1.2013. A drain is passing through the western side of the plot with 8 m setback. Storm water can be let out into the drain. Parking is adequate with satisfactory manoeuvring facility. Road having a width of 5 m is available all around. STP is proposed below ground level and adequate. RWH of 320 KL capacity is adequate. Solid waste disposal facility and MRF are adequate.

3. The proposal was placed in the 75th meeting of SEAC held on 29th & 30th June 2017. The Committee appraised the Form I, Form IA, Conceptual plan, field visit report and all other documents. The Committee verified the additional documents submitted by the proponent and found satisfactory. The Committee decided to Recommend for issuance of EC subject to the general conditions and a written commitment about the quantity of energy proposed to be met from solar source.

The proponent agreed to set apart an amount of Rs.25 lakh over a period of 3 years for CSR activities for the welfare of the local community in consultation with the local body.

4. The proposal was placed in the 73rd meeting of SEIAA held on 15th September 2017. Authority noticed that the field inspection states that the proposal is for the expansion of the existing building under construction with a valid permit received on 10.01.2013. As the vertical expansion of building is going on without EC, the Authority authorized the Chairman to ascertain whether the construction already carried out attract violation proceedings by visiting the site for consideration in the next meeting.

Field visit to the Residential Project "The Legend" by M/s Skyline Builders at Poonithura Village, Kanayannur Taluk, Ernakulam was carried out on 16.09.2017 by the Chairman, SEIAA and the reported as follows;

Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders, 41/349 B, Skyline House,Rajaji Road, Cochin, Ernakulam, Kerala-682035, vide his application received online, has sought Environmental Clearance under EIA Notification, 2006 for the proposed Residential Project in survey Nos. 224/1 Poonithura Village, Kanayannur Taluk, Ernakulam District, Kerala. It is interalia, noted that the project comes under the Category B, 8(a) of Schedule of EIA Notification 2006. The height of the proposed building is 83.25 m and the total plot area of the proposed project is 4,917.105 sq.m. The total built-up area is about 23,609.06 sq.m. with supporting infrastructure facilities. The total cost of the project is Rs. 41.40 Crores.

As per the inspection report of SEAC, the proposal is for the expansion of the existing building under construction with a valid permit received on 10.1.2013. However in the Form

I application there is no mention that the building is an expansion of the existing project. When the Chairman visited the site it was found that the construction is going on and it needs verification whether it is an expansion and has crossed the permissible limit of 20,000 sq.mts. Even otherwise vertical expansion of the building without EC is to be considered as a case of violation. The proponent being a large construction sector in the state the Chairman recommends that the proponent may be called to SEIAA for a verification and explanation as to why they have started construction of such a large structure without prior EC and hence why violation proceedings should not be taken.

5. The proposal was placed in the 74th meeting of SEIAA held on 09.10.2017. Authority decided to call the proponent in the next meeting to clarify with all documents why they have started construction of such a large structure without prior EC.

6. The proposal was placed in the 75th meeting of SEIAA held on 28.10.2017. The authorised representative of the proponent presented their views in the meeting.

In the case of high rise buildings, the structural designs of the foundation is worked out considering the static and dynamic load including the wind load for the whole building considering all floors. Accordingly the foundation work is constructed for the full building. There are lots of environmental impacts involved with the foundation work of a building construction project.

The project proponent has constructed the foundation of the building as per the structural design for the entire building with the built up area of 23609.06 m^2

But during hearing of the proponent on 28.10.2017, he argued that in this case as on date of the issue of the first building permit a building above 20000m^2 couldn't have been constructed because of the then prevailing FAR of 2.5. But subsequently the scenario changed, the FAR was raised to 4 and the applicant became entitled to construct a building of plinth area above 20,000 m^2. Therefore wilful attempt to bypass the environmental rules cannot be established in this case. The Authority decided that the structural strength of the existing building may be assessed by an institute of repute like CET, Trivandrum or Government Engineering College, Thrissur to ascertain whether it is sufficient enough to support the proposed expansion, before the issuance of EC.

Then the proponent has submitted the Certificate from the College of Engineering Trivandrum Department of Civil Engineering vide Letter No.CET/CCE No.2035/17-18 dt.04.12.2017 stating that the strength of the building is sufficient enough to support the proposed future expansion of the additional four floors.

7. The proposal was placed in the 78th meeting of SEIAA held on 15th December 2017. In view of the above Certificate and the explanation, Authority decided to issue EC subject to general conditions and a written commitment about the quantity of energy proposed to be met from solar source.

As per the landmark judgment dated 3rd September 2017 of the Principle Bench of National Green Tribunal (NGT), developers should give a satisfactory explanation on the facilities provided for open space, recreational grounds and parking facilities at the project site as they have an important bearing on the life of people. The above direction has to be complied by the Proponent.

2% of the total project cost should be set apart for CSR activities for taking up welfare activities of the local community in consultation with the local body. The CSR amount should be utilised before the completion of the project and include in the annual account of the company and the expenditure statement should be submitted to SEIAA along with the compliance report after getting certified by a Chartered Accountant. A notarised affidavit for the commitment of CSR activities and also agreeing all the general conditions should be submitted before the issuance of EC. The proponent has submitted the affidavit vide reference 8th cited satisfying all the above conditions and also committing a quantity of 990 kWh/Year of energy proposed will be met from solar source.

8. Environmental Clearance as per the EIA Notification 2006 is therefore granted for the Residential Project in survey No. 224/1 at Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, Kerala by Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders, 41/349 B, Skyline House, Rajaji Road, Cochin, Ernakulam, Kerala-682035, subject to the conditions in para 7 above and the usual general conditions for projects other than mining appended hereto and the following green conditions should be strictly adhered to.

Green Conditions.

1. Adequate rain water harvesting facilities shall be arranged for.
2. Technology and capacity of the STP to be indicated with discharge point (if any) of the treated effluent.
3. Effluent water not conforming to specifications shall not be let out to water bodies.
4. Maximum reuse of grey water for toilet flushing and gardening and construction work shall be ensured.
5. Dual plumbing for flushing shall be done.
6. Provisions for disposal of e-wastes, solid wastes, non-biodegradables and separate parking facility for the buildings shall be provided.
7. Generation of solar energy to be mandatory for own use and/or to be provided to the grid.
8. There shall be no compromise on safety conditions and facilities to be provided by the project proponent, which shall be ensured for occupation, regularisation or consent to operate.

9. The Clearance will also be subject to full and effective implementation of all the undertakings given in the application form, all the environmental impact mitigation and management measures undertaken by the project proponent in the documents submitted to SEIAA, and the mitigation measures and waste management proposal as assured in the Form - 1 and Form-1A, Environment Management Plan as submitted. The assurances and clarifications given by the proponent in the application and related documents will be deemed to be part of these proceedings as conditions as undertaken by the proponent, as if incorporated herein.

10. Validity of the Environmental Clearance will be seven years from the date of issuance of E.C, subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of any of the conditions stipulated herein or genuine complaints from residents within the scrutiny area of the project.

11. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its agencies and also by the Regional Office of the Ministry of Environment and Forests, Govt. of India, Bangalore.

i. Necessary assistance for entry and inspection by the concerned officials and staff should be provided by the project proponents.

ii. Instances of violation if any shall be reported to the District Collector, Ernakulam to take legal action under the Environment (Protection) Act 1986.

iii. The given address for correspondence with the authorized signatory of the project is, Mr.K.V.Abdul Azeez, Managing Partner, M/s Skyline Builders, 41/349 B, Skyline House, Rajaji Road, Cochin, Ernakulam, Kerala-682035.

Sd/-
P.H.KURIAN I.A.S
Member Secretary (SEIAA)

To,

Mr.K.V.Abdul Azeez,
Managing Partner, M/s Skyline Builders,
41/349 B, Skyline House, Rajaji Road,
Cochin, Ernakulam,
Kerala-682035

Copy to:

1. MoEF Regional Office, Southern Zone, KendriyaSadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Additional Chief Secretary to Government, Environment Department
3. The District Collector, Ernakulam
4. The District Town Planner, Ernakulam
5. The Tahsildhar, Kanayannur Taluk, Ernakulam
6. The Member Secretary, Kerala State Pollution Control Board
7. The Secretary, Cochin Corporation, Shenoys, Ernakulam – 682 011
8. Chairman, SEIAA, Kerala
9. Website
10. Stock file
11. O/c

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

Forwarded/By Order

Administrator, SEIAA

GENERAL CONDITIONS *(for projects other than mining)*

(i) Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified elsewhere.

(ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

(iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.

(iv) The project shall incorporate devices for solar energy generation and utilization to the maximum possible extent with the possibility of contributing the same to the national grid in future.

(v) Safety measures should be implemented as per the Fire and Safety Regulations.

(vi) STP should be installed and made functional as per KSPCB guidelines including that for solid waste management.

(vii) The conditions specified in the Companies Act, 2013 should be observed for Corporate Social Responsibility.

(viii) The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.

(ix) Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity.

(x) All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.

(xi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.

(xii) The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

(xiii) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

(xiv) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.

(xv) Provision should be made for supply of kerosene or cooking gas and pressure cooker to the labourers during construction phase.

(xvi) Officials from the Regional of MOEF, Banglore who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional Office of MOEF, Bangalore.

(xvii) These stipulations would be enforces among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control Pollution) at 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

(xviii) Environmental Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

(xix) 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.

(xx) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.

(xxi) A copy of the clearance letter shall be sent by the proponent to concerned GramaPanchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.

(xxii) The proponent shall submit half yearly 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)** and 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 respective Regional Office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.

(xxiii) The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.

(xxiv) The proponent should provide notarized affidavit *(indicating the number and date of Environmental Clearance proceedings)* that all the conditions stipulated in the EC shall be scrupulously followed.

SPECIFIC CONDITIONS

I.Construction Phase

i. "Consent for Establishment" shall be obtained from Kerala State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.

ii. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.

iii. A First Aid Room will be provided in the project both during construction and operation of the project.

iv. 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.

v. All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.

vi. Disposal of muck during construction phase should not create any adverse effect on the neighbouring 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.

vii. 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.

viii. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.

ix. Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the Kerala State Pollution Control Board.

x. The diesel generator sets to be during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.

xi. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.

xii. 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 the applicable air and noise emission standards and should be operated only during non-peak hours.

xiii. 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/KSPCB.

xiv. Fly ash should be used as building material in construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August 2003. (The above condition is applicable Power Stations).

xv. Ready mixed concrete must be used in building construction.

xvi. Storm water control and its re-use per CGWB and BIS standards for various applications.

xvii. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xviii. Permission to draw ground shall be obtained from the Computer Authority prior to construction/operation of the project.

xix. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.

xx. 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.

xxi. Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on airconditioning. If necessary, use high quality double glass with special reflective coating in windows.

xxii. Roof should meet prespective requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.

xxiii. Opaque wall should meet perspective requirement as per energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfil requirement.

xxiv. The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National, Building Code including protection measures from lightening etc.

xxv. 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.

xxvi. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the protect proponent if it was found that construction of the project has been started without obtaining environmental clearance.

II. **Operation Phase**

i. 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 affluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the Kerala State Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.

ii. 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.

iii. 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 Kerala State pollution Control Board.

iv. 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.

v. The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.

vi. Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.

vii. Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts.above the highest ground water table.

viii. The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.

ix. Traffic congestion near the entry and exit points from the roads adjoining the purposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.

x. A Report on the energy conservation measures confirming to energy conservation norms finalise by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.

xi. 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.

xii. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.

xiii. The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

III Post Operational Phase

Environmental Monitoring Committee with defined functions and responsibility should foresee post operational environmental problems e.g. development of slums near the site, increase in traffic congestion, power failure, increase in noise level, natural calamities, and increase in suspended particulate matter etc. solve the problem immediately with mitigation measures

For Member Secretary, SEIAA