

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 16TH MAY, 2024**

The SEAC met on 16th May, 2024 at 04:00 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

- | | | |
|-------------------------------|---|-----------------------|
| 1. Sri Shashi Paul | - | Chairman (through VC) |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Dr. Chittaranjan Panda | - | Member (through VC) |
| 4. Prof. (Dr.) H.B. Sahu | - | Member (through VC) |
| 5. Sri Jayant Das | - | Member (through VC) |
| 6. Er. Fakir Mohan Panigrahi | - | Member (through VC) |
| 7. Prof. (Dr.) B.K. Satapathy | - | Member (through VC) |
| 8. Dr. K.C.S Panigrahi | - | Member (through VC) |
| 9. Prof. (Dr.) Abanti Sahoo | - | Member (through VC) |
| 10. Dr. Ashok Kumar Sahu | - | Member (through VC) |
| 11. Dr. Rabinarayan Patra | - | Member (through VC) |
| 12. Er. Kumud Ranjan Acharya | - | Member (through VC) |

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

The compliances furnished by the proponents were verified by the members through e-mail and also proceedings of the meeting were confirmed by the members through e-mail. The decision of the committee on case-to-case basis as follows:

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S PRIME INDUSTRIES FOR CHROME ORE BENEFICIATION PLANT WITH THROUGHPUT CAPACITY OF 18,500 TPA WITHIN THE EXISTING CHROME MONOLITHIC UNIT IN RAHANJA INDUSTRIAL ESTATE, VILLAGE RAHANJA OF BHADRAK DISTRICT OF SRI SUMAN SWAIN - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference (ToR) for obtaining Environmental Clearance of M/s Prime Industries for Chrome ore beneficiation plant with throughput capacity of 18,500 TPA within the existing Chrome monolithic unit in Rahanja Industrial Estate, village Rahanja of Bhadrak District of Sri Suman Swain.
3. **Category:** The proposed project is for beneficiation facility of Chrome ore with throughput of 18500 TPA capacity. The project comes under sector 2 (b) and Category B2 (<20000 TPA) as per EIA Notification 2006 and subsequent amendments (OM dated 24th December 2013).

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)

J. Nayak
Environmental Scientist, SEAC

4. **Project details:** This is an existing unit of Prime industries which is a chrome monolithic unit and is operating since 2015.
5. The existing unit is operating with the consent to establish vide CTE letter no 409 dated 03.03.2015 and valid consent to vide letter no. 1003/CTO-2846/2015 on dated 19.05.2022 which is valid for the period up to 31.03.2026 from Odisha State Pollution Control Board.
6. The existing chrome monolithic unit does not attract Environment Clearance as it is only mixing of raw materials without any use of heat and chemical treatment.
7. Existing production from the unit are Chrome Monolithics :18000MT/annum, Refractory Mortar :18000MT/annum and Ferro Alloy Metals (Reclaimed from Ferro alloy slag) : 720 MT/annum
8. **Location and connectivity:** The proposed unit is located at IDCO Plot No-29 & 32, Rahanja Industrial State of Bhadrak District, Odisha. Odisha. The land area required for the project will be 0.198 Acres which comes under Mouza- Ranja bearing Khata no. 1 & 247 and Rev. plot no- 526(p), 527(p) and 528 (p) (sabik) and belongs to the project proponent. The area falls in toposheet number F45O/12. Nearest National Highway is NH 16 at a distance of 0.17Km, SEE from the project site. Nearest railway station is at Ranital road railway station located at a distance of 3.30 Km from the project site. The NH- 16 is located at a distance of 0.18km, SEE from the project site. There is no wild life sanctuary, corridor, National Park, biosphere reserve located within 10Km buffer zone of the project site. Nearest Wildlife Sanctuary is Kuldhia Forest & Wildlife Sanctuary located at a distance of 26Km.
9. The proposed project for establishment of Chrome ore Beneficiation plant over an area of 0.798 Acres with throughput capacity of 18,500 TPA within the existing Chrome monolithic unit of M/s Prime Industries. The throughput capacity of the beneficiation unit will be 18500 TPA and beneficiated ore production will be 13800 TPA. The low-grade chrome ore will be procured from mines of OMC, Sukinda through auction process.

Existing product of the project:

- a) Chrome Monolithics :18000MT/annum
- b) Refractory Mortar :18000MT/annum
- c) Ferro Alloy Metals (Reclaimed from Ferro alloy slag) : 720 MT/annum

Proposed unit:

1. Chrome ore Beneficiation Plant: 18500TPA

Units	Products and By Products	Existing	Additional	After Expansion
TPA	Chrome Ore	--	18500	18500

From the Chrome Ore beneficiation will be maximum i.e. 4700 TPA (<10% Cr₂O₃) (25%) will be generated.

MATERIAL BALANCE

INPUT		OUTPUT	
Chrome Ore Beneficiation Plant			
Raw Material (37% Cr ₂ O ₃)	18500 TPA	Beneficiated Ore (50% Cr ₂ O ₃) (Recovery 75%)	13800 TPA

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INPUT		OUTPUT	
		Tailings (<10% Cr ₂ O ₃) (25%)	4700 TPA
Total	18500 TPA		18500 TPA
Chrome Monolithic Plant			
Beneficiated Ore (50% Cr₂O₃)	12000 TPA	Chrome Monolithic as per Market requirement	18000 TPA
Tailing (<10% Cr₂O₃)	4500 TPA		
Bentonite, Lime and Alumina	1500 TPA		
Total	18000 TPA		18000 TPA

10. Waste generation and management: The major solid waste will be the tailings generated from beneficiation process. The quantity of tailings to be 4700 TPA having <10% Cr₂O₃. The tailing generated will be utilized for blending in the chrome refractory mortar plant and there will be no solid waste dumping in long term. The tailing will be stored in the tailing dump. After drying the tailing will be blended in the chrome refractory mortar as per the demand of the customer. An area has been demarcated for storage of tailing within the plant premises. After beneficiation the tailings will flow down to the settling tank. An area of 225 m² has been earmarked, for storage of tailings and can store dry tailings upto two months. The tailings generated on daily basis will be shifted to the monolithic unit.

19. Baseline Study Details: Baseline study is under progress.

11. Water Requirement and waste water management: Total water requirement for the proposed project will be 153 KLD and make up water requirement will be 13 KLD. Out of the makeup water requirement 1 KLD used for drinking purpose which will be sourced from nearby village through tankers and rest water requirement of 12 KLD will be sourced from Rain Water Harvesting Pond. The water utilized in the process will be recycled resulting in zero discharge of wastewater. The tailing pond of adequate capacity will be constructed with suitable impervious lining to prevent percolation into ground water.

Description	For COB Plant (KLD) NON - MONSOON PERIOD		
	Fresh Water	Recycled	Total
Beneficiation (Make-up) from proposed rain water harvesting unit	3	7	10
Dust suppression	1.0	-	-
Green belt	1.0	-	-
Domestic	1.0	-	3.0
Total	6.0	7.0	13.0

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Description	For COB Plant (KLD) MONSOON PERIOD		
	Fresh Water	Recycled	Total
Beneficiation (Make-up) from proposed rain water harvesting unit	3	7	10
Dust suppression	0.5	-	0.5
Green belt	0.5	-	0.5
Domestic	1.0	-	1.0
Total	5.0	7.0	12.0

12. **Power Requirement and solar power details:** The power requirement is estimated as 100 KVA and will be procured from TPCODL, Odisha. Also proposed to install 125 kVA DG set.

13. **Rain water Harvesting Details:** There will be construction of rain water recharge pit used for recharge of rain water in the premises.

14. **Green belt:** Green belt will be developed over an area of 1063 sq.m area with 250 saplings.

PROPOSED GREEN BELT PLAN			
Location	Area Under Plantation (Sq.m)	No. of saplings Proposed	Species Proposed
Green Belt around the plant boundary. Near entrance gate	840 (3m width)	200	Dalbergia sisoo, Cassia siamea, Gmelia arborea, Tectona grandis, Alstonia scholaris, Azadirachta indica, Mangifera indica, Bamboo sps, Phyllanthus emblica, Punica granatum, Psidium guajava, Mimosa elengi, Hibiscus rosa sinensis, Nerium oliander
Plantation in open space (SE part of plant)	223 Sq.m	50	Dalbergia sisoo, Cassia siamea, Gmelia arborea, Acacia sps, Tectona grandis, Alstonia scholaris
Total	1063	250	
The proposed Green belt will be developed within 1 years of the plant operation			

15. **Manpower:** Proposed employment generation from proposed project will be 12 direct employments which includes operator -2, supervisor 2, 4 no of semi-skilled labor and 4 no of unskilled labour.

16. **Project Cost:** Total project cost is approx 5.195 Crore rupees and proposed EMP cost will be 32.0 lakhs and CSR cost will be 10.0 Lakhs.

Sl. No	Particulars	Amount (Rs in Lakhs)
Capital Cost		
01	Pollution Control Measures	18.00
02	Acoustics	5.00
03	Env. monitoring and management	3.00
04	Green Belt Development	2.0
05	Occupational Health & safety	2.0

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)


 Environmental Scientist, SEAC

Sl. No	Particulars	Amount (Rs in Lakhs)
Total		32.0
Recurring Cost		
01	Environmental Monitoring	3.00
02	Occupational health & safety	1.00
03	Greenbelt Development and maintenance	1.0
Total		5.0

17. **Environment Consultant:** The Environment consultant **M/s Kalyani Laboratories Pvt Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

18. The SEAC in its meeting held on dated **09-02-2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of TOR application:

- i) Complete layout of existing monolithic plant and proposed plant.
- ii) Specify the area earmarked for existing and proposed dumping stockyard and submit plant layout for existing and proposed unit.
- iii) Copy of Agreement (MOU) with raw material suppliers for the existing Monolithic plant and proposed chrome ore beneficiation Plant.
- iv) Submit water balance, material balance, chromium content and hexavalent Chromium content in the whole process.
- v) Layout of the whole plant demarcating the settling pond, jigging plant, spiral area, parking area, storage space and Surface Runoff treatment system.
- vi) Submit Particle size analysis.
- vii) The SEAC observed that, the existing land is insufficient for all the total setup of the proposed plant and the Terms of Reference (TOR) can be considered subjected to acquisition of additional land.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- i) Environmental compliance of the existing project and adequacy of the land available for setting of the proposed project.
- ii) Construction activities if any carried out for the proposed project.
- iii) Drainage network at the site.
- iv) Discharge point for discharge of treated waste water and distance of the discharge point from the project site.
- v) Area available for tailings management.
- vi) Road connectivity to the project site.
- i) Any other issues including local issues.

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)

J Nayak
Environmental Scientist, SEAC

19. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Complete layout of existing monolithic plant and proposed plant.	Complete layout showing the existing and proposed plant is given as Annexure 1	Copy submitted
2.	Specify the area earmarked for existing and proposed dumping stockyard and submit plant layout for existing and proposed unit.	There will be no separate stacking of raw material for monolithic unit and proposed chrome ore beneficiation. The raw material for chrome ore beneficiation is low grade chrome ore which will be stacked in the existing stack yard and the product of the beneficiation unit will be used as raw material for monolithic plant. However the material stack yard is demarcated in the layout plan.	-
3.	Copy of Agreement (MOU) with raw material suppliers for the existing Monolithic plant and proposed chrome ore beneficiation Plant.	Copy of MoU for raw material sourcing is attached as Annexure 2	Consent letters to supply raw materials to Prime Industries by Kamarda & Sauraubil Chromite mines is submitted.
4.	Submit water balance, material balance, chromium content and hexavalent Chromium content in the whole process.	Water balance and material balance and chromium content in the process is attached Annexure 3	Water balance and material balance submitted.
5.	Layout of the whole plant demarcating the settling pond, jigging plant, spiral area, parking area, storage space and Surface Runoff treatment system.	Layout plan demarcating the settling pond, jigging plant, spiral area, parking area, storage space and Surface Runoff treatment system is attached Annexure 1	Copy submitted
6.	Submit Particle size analysis.	Particle size analysis will be submitted along with the EIA report.	-
7.	The SEAC observed that, the existing land is insufficient for all the total setup of the proposed plant and the Terms of Reference (TOR) can be considered subjected to acquisition of additional land.	Additional area of 0.3 acres has been acquired for the proposed project. The tailing disposal area and rain water harvesting will be constructed in this area. Additional land document is attached as Annexure 4 .	Copy submitted

After detailed discussion, the SEAC decided to take decision on the proposal after a site visit of the Sub-Committee of SEAC.

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)


 Environmental Scientist, SEAC

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. EASTERN ESTATES CONSTRUCTION AND DEVELOPERS PVT LTD FOR EXPANSION OF "DIAMOND CITY, CUTTACK" IS A RESIDENTIAL APARTMENT WITH COMMERCIAL BUILDING ON A LAND MEASURING 2.86 ACRES (11556.61 SQ.M) WHICH IS LOCATED AT VILLAGE: PRATAPNAGARI, NUAGADA, DISTRICT: CUTTACK OF SRI SANJEEV KUMAR - EC

1. This proposal is for Environmental Clearance of M/s. Eastern Estates Construction and Developers Pvt Ltd for Expansion of "Diamond City, Cuttack" is a Residential Apartment with Commercial Building on a land measuring 2.86 acres (11556.61 sq.m) which is located at Village: Pratapnagari, Nuagada, District: Cuttack of Sri Sanjeev Kumar.
2. **Category:** This project falls under Category "B" under 8(a) - Building and Construction projects as per EIA Notification dated 14th Sept, 2006 and its amendments.
3. **Location and connectivity:** The project site is located at Khata No. 96, 985/664, 985/927, 985/928, 985/941, 985/1305, 985/1294, 985/1296, 985/1288, 985/1287, 985/1026, 985/1026, 985/1970, 985/1970 and Plot No. 2340, 2340/3563, 2343, 2333/5410, 2343/5411, 2344, 2334/6142, 2346/5962, 2347, 2347/5956, 2348, 2248/5496, 2248/5497, 2353/6397, 2353/6403 at Village- Pratapnagari, Nuagada, Cuttack, Odisha. The geographical co-ordinates of project site are 20°23'28.19"N & 85°53'6.89"E. The Toposheet no. F45T15. The nearest Airport is Biju Patnaik International Airport which is 17.284 KM away from the project site in SW direction. The nearest railway station is Bhubaneswar New Junction which is 5.337 KM away from the project site in W direction. The nearest ring road is 1.95 KM, SH-16 is 7.36 KM and NH-16 is 0.06 KM away from the project site in ENE, N & SW direction respectively. 5. The Chandaka Reserved Forest is about 11.33 km in SW direction, Nandan Kanan Zoo is about 6.20 km in W direction & Churhanga Reserve Forest is about 7.19km in WNW direction.
4. The site is coming under Cuttack Development Authority.
5. The total plot area is 11556.61 sq.mt./2.86 Acre with total built-up area is 65660.35 sq.mt.
6. Statutory Clearances obtained so far for the project are;
 - a. The project was earlier granted EC by SEIAA, Odisha vide letter no 441322/121-INFRA2/09-2023 dated 30.10.2023 for a total plot area of 2.48 acre or 10039.85 m² and total built-up area of 54,514.323 m².
 - b. CGWA NOC has been obtained vide letter no. CGWA/NOC/INF/ORIG/2023/19261 valid from 18/09/2023 to 17/09/2028.
 - c. The NOC for Water Supply and Sewerage connection has been obtained from Office of the General Manager, WATCO Division, Cuttack vide letter no. 10468 dated 19/09/2022.

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)

J Nayak
Environmental Scientist, SEAC

7. Comparative Area Statement -

S. No.	Particulars	As per earlier EC granted	Expansion	Total
1	Total Plot Area (Acres)	2.48	0.38	2.86
2	Total Plot Area (Sq.m)	10039.85	1516.76	11556.61
3	Total FAR Area (Including Services) (sq.m)	40346.04	10624.52	50970.56
4	Ground Coverage (Permissible) 40% (sq.m)	4015.94	606.70	4622.64
5	Achieved Coverage 35.76% (sq.m)	3865.34	267.35	4132.69
6	Non Far (Combined Stilt and Basement built-up area) (sq.m)	12168.26	2521.53	14689.79
7	Miscellaneous Area (Guard Room, STP, UGT etc.) (sq.m)	2000.00	-2000.00	0.00
8	Total Built-up Area (3+8+9) (sq.m)	54514.30	11146.05	65660.35
9	Green belt Area (sq.m) (25% of total plot area)	2514.85	374.30	2889.15
10	Paved Open Green & Avenue Green area (sq.m) (13% of total plot Area)	1305.18	197.18	1502.36
11	Surface Parking Area (sq.m)	880.00	275.66	1155.66
12	Road and Open Area (sq.m)	1857.38	19.37	1876.75
13	Parking (ECS)	396	157	553

8. The total population is 3163 Nos (as per earlier EC & Expansion).

9. **Power Requirement:** The power supply is supplied by (Odisha State Electricity Board). The connected load for Project is approx. 2500 KVA (As per earlier granted EC & Expansion). There is provision of 4 no. of DG sets of total capacity 1010 KVA (1*150 + 1*62.5 + 2*400 KVA each) for power back up in the Project. The DG sets is equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

10. **Water requirement:** During operation phase, the total water requirement will be approx. 393 KLD (After Expansion) out of which fresh water demand will be 256 KLD.

11. **Wastewater details:** The project will generate approx. 334 KLD (After Expansion) of wastewater. The wastewater will be treated in onsite STP of 350 KLD capacity. The treated effluent will be reused for flushing and landscaping purpose. About 163 KLD surplus water in summer season and 166 KLD surplus water in monsoon season will be discharged in existing drain/external sewer.

S. No.	Particulars	As per earlier granted EC (KLD)	Expansion (KLD)	Total (As per earlier granted EC + Expansion) (KLD)
1	Total Water Requirement	280	113	393
2	Fresh Water Requirement	181	76	256
3	Treated Water	100	38	137

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Environmental Scientist, SEAC

S. No.	Particulars	As per earlier granted EC (KLD)	Expansion (KLD)	Total (As per earlier granted EC + Expansion) (KLD)
4	Flushing Water	91	38	129
5	Wastewater Generated (80% of Fresh + 100% flushing)	235	99	334
6	STP Capacity (Approx. 10% higher than the wastewater generated)	280	70	350

12. **Rainwater harvesting details:** They have proposed for 10 no. of RWH pits of 9.81 cubic meter capacity each within the project site.
13. **Parking details:** Total parking area provided is 14689.79m². Total no. of 553 ECS parking is proposed.
14. **Solid waste generation:** During the operation phase, the solid waste will be generated as per the below table;

S. No.	Category	Kg per capita per day	Total Waste generated (kg/day)
1	Residents (Nos.)	2778 @ 0.5 kg/day	1389
2	Staff (Nos.)	150 @ 0.25 kg / day	37.5
3	Visitor (Nos.)	335 @ 0.15 kg /day	50.25
4	Landscape waste (2889.15 m ²)	0.71 @0.2 kg/acres	0.142
Total			1476.89

15. **Fire fighting Installations:** Fire fighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weather proof).
16. **Greenbelt:** Green belt will be developed over an area of 2889.15 sqm which is 25% of the total plot area. Total no. of 150 plants to be planted and 3-meter spacing between plants in 2 tier plantation. There will be a provision of Paved Open Green & Avenue Green area over an area of 1502.36 sqm which is 13% of total plot Area.
17. **Project cost:** The estimated project cost is 87 Crores or 8700 Lakhs and cost for EMP is 1.74 Crores or 174 Lakhs i.e. 2 % of the total project cost.
18. **Environment Consultant:** The Environment consultant **M/s. Oceao-Enviro Management Solutions (India) Pvt. Ltd, Ghaziabad** along with the proponent made a presentation on the proposal before the Committee on 28.02.2024.
19. The SEAC in its meeting held on dated **28-02-2024** recommended the following:

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)

J Nayak
Environmental Scientist, SEAC

A. The proponent may be asked to submit the following for further processing of EC application:

- i) Comparison table for previous and present status w.r.t. greenbelt, solar power utilization, parking requirement, water requirement and pollution load etc.
- ii) NOC for water usage; separately for commercial unit and domestic purpose.
- iii) Revised traffic study report incorporating the additional load in traffic due to revised plan.
- iv) Mitigation measures to be followed during construction phase.
- v) No. of labourers to be employed during the construction period.
- vi) Explore possibility for solar power utilization by incorporation of rooftop panels.
- vii) Lightening of the internal roads to be done by utilizing the solar power generated.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

20. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC											
i.	Comparison table for previous and present status w.r.t. greenbelt, solar power utilization, parking requirement, water requirement and pollution load etc.	Comparison table for previous and present status w.r.t. greenbelt, solar power utilization, parking requirement, water requirement and pollution load etc. is enclosed as an Annexure I .	Copy submitted											
ii.	NOC for water usage; separately for commercial unit and domestic purpose.	<p>There is no building, which is dedicated to commercial purpose. The Block A in the map is facilitating convenient shopping which will be mostly residents of society.</p> <table border="1"> <thead> <tr> <th rowspan="2">Particulars</th> <th colspan="3">Fresh Water Requirement (KLD)</th> </tr> <tr> <th>Residential</th> <th>Commercial</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>As per earlier granted EC</td> <td>179</td> <td>1.3</td> <td>180</td> </tr> </tbody> </table>	Particulars	Fresh Water Requirement (KLD)			Residential	Commercial	Total	As per earlier granted EC	179	1.3	180	<ul style="list-style-type: none"> • Fresh water consumption – 256KLD and excess treated water discharge to drain is 163KLD(Non Monsoon) /166KLD(Monsoon) • All required
Particulars	Fresh Water Requirement (KLD)													
	Residential	Commercial	Total											
As per earlier granted EC	179	1.3	180											

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 Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent				Views of SEAC
		Expansion	75	0.03	76	
		Total	254	1.27	256	<p>approval copies has been submitted.</p> <ul style="list-style-type: none"> Here the PP has mentioned commercial unit will be used by residents only. Same to be added in specific conditions.
		<ul style="list-style-type: none"> NOC for ground water abstraction has been taken for both commercial and residential block cumulatively. For earlier EC, 180 KLD (179 KLD for residents & 1.3 KLD for commercials) as required against which NOC for 194 KLD has already been obtained vide NOC No. CGWA/NOC/INF/ORIG/ 2023/19261 dated 18/09/2023. (Annexure II) Application for additional water requirement submitted to CGWA vide application No. 21-4/4745/OR/INF/2023 dated 22/03/2024 for fresh water demand of 256 KLD. (Annexure III) Detailed water requirement of the unit is attached as an Annexure IV. 				
iii.	Revised traffic study report incorporating the additional load in traffic due to revised plan.	Traffic study had been conducted, considering additional load due to expansion in the project and future 10 years incremental traffic load. Same is attached as an Annexure V.				Traffic Study done by PP. LOS comes to "B" as estimated for expansion in the project and future 10 years incremental traffic load.
iv.	Mitigation measures to be followed during construction phase.	Detailed mitigation measures to be followed during both construction phase and operational phase has been enclosed as Annexure VI.				Copy submitted
v.	No. of labourers to be employed during the construction period.	The no. of labours employed during construction phase are: Permanent – 30 No's Temporary – 70 No's				-
vi.	Explore possibility for solar power utilization by incorporation of rooftop panels.	Total Power requirement: 2500 kVA. Total energy conservation proposed: 891.2 kVA (20.4%) Provision of Solar roof panels (grid supply) = 380 kVA (15.2%) <ul style="list-style-type: none"> Provision of Solar water heater = 25 kVA (1%) Provision of 40 No's of Solar street lightning = 50 kVA (2%) Calculation of Energy Conservation is attached as an Annexure VII.				Copy submitted
vii.	Lightening of the internal roads to be done by utilizing the solar power generated.	40 No's of Solar Street Lights i.e. 2% of total power requirement (50 KVA) will do lightening of the internal roads. Refer Annexure VII.				Copy submitted

After detailed discussion, the SEAC decided to take decision on the proposal after a site visit of the Sub-Committee of SEAC.

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)


 Environmental Scientist, SEAC

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S BIVAB DEVELOPERS PRIVATE LIMITED FOR CONSTRUCTION OF B1+B2+G+11 STORIED RESIDENTIAL AND B1+B2+G+8 STORIED COMMERCIAL BUILDING OVER AN BUILT-UP AREA 66662.28 SQ. MT. LOCATED AT: SIPASURUBILI, DIST - PURI OF SRI BINAY KRISHNA DAS - EC

1. This proposal is for Environmental Clearance of M/s. Bivab Developers Private Limited for construction of B1+B2+G+11 storied residential and B1+B2+G+8 storied commercial building over a built-up area 66662.8 sq.mt. located at: Sipasurubili, Dist - Puri of Sri Binay Krishna Das.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) - Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and connectivity:** The project site is located at Plot no. 605, 606, 607, 608 & 609, Mouza- Sipasurubili, Dist- Puri, Odisha. The geo coordinates of the project are: Latitude and Longitude of 4 corners of the site (19° 47' 28.1" N, 85° 46' 57.7" E), (19° 47' 26.7" N, 85° 46' 53.9" E), (19° 47' 31.5" N, 85° 46' 52.4" E) and (19° 47' 32.4" N, 85° 46' 55.3" E) at four corners respectively. The project site lies adjacent to NH-316, 6 km from Sri Jagannath Temple of Puri, 1km from Sea Beach of Puri, 177m from Dhaudia River (NuaNai), 1.18 km from Dhaudia River Confluence with Sea and 1.07 km from Bay of Bengal. The site is well connected with Bus Stand of Puri at 8.3 km, 7.3 km from Railway Station of Puri, 34.5 km from Sun Temple of Konark and 63 km from Biju Patnaik International Airport of Bhubaneswar. The project site is covered under Survey of India Toposheet no. 74E/13 and kismam of the land is designated as Gharbari.
4. The project site is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC and CRZ area.
5. Total Plot area measures 15909.93m² (3.93 acre) and the proposed built-up area is 66662.28 m². The project comprises of: Residential Area and Commercial Block.
6. **Composition of Composition of Residential Area**
 - 3 Blocks : with 12 Floors (G+11).
 - 1 Block : with 11 Floors (G+10).
 - Total no. of Dwelling Units: 332
 - Studio Apartment: 44 nos.
 - 1 BHK: 180 nos.
 - 2 BHK: 108 nos.
7. **Broad Facilities for Commercial Block**
 - 1 Block with 9 floors (G+8).
 - 44 Shops
 - 3 Banquet Halls
 - Hotel with 68 Guest Rooms
 - Restaurant and Food Court
 - Spa and Gym

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8. Area Statement:

S. No.	PARTICULARS	AREA (sq.m.)
i)	Ground Coverage	4702.88
ii)	Open Parking	291.37
iii)	Green Belt	3200
iv)	Set Back	1507.29
v)	Road & Misc.	6208.39
	Total plot Area	15909.93

9. **Water requirement:** The total water requirement during construction phase is 48 KLD which will be met from Ground water source. Bore well (5 nos.) have been proposed to fulfil the water requirement for which permission has been accorded by CGWA. During operational phase the water requirement is 270 KLD. The source of water during operation phase will be ground water. Out of total requirement of 270 KLD; 50 KLD will be met through fresh water (from ground water) and 220 KLD from recycled treated waste water from STP.

10. **Wastewater details:** The project will generate approx. 232 KLD of wastewater. The wastewater will be treated in STP of 250 KLD capacity which will be used for both commercial and residential units. The treated effluent (approx. 220KLD) will be reused for flushing, floor washing, chiller and gardening. Hence, there will 100% utilisation of treated waste water. During monsoon season, 30 KLD treated water will be discharged to the NH drain passing adjacent to the plot.

11. **Rainwater harvesting details:** Rain water @ 18360m³ per year will be harvested considering 1500 mm of annual rain fall over Ground Coverage (4700 m², Run Off Coefficient 0.9), Open Parking (291 m², Run Off Coefficient 0.8), Road (8922 m², Run Off Coefficient 0.8), Green Belt (3200 m², Run Off Coefficient 0.2). There will be 12 nos. of recharge pits each having dimension of 4.5 m length X 1.5 m width X 6 m depth. The excess storm water will be diverted through storm water drain to the external drainage system. The entire site shall be sub divided for recharging structures. It has been proposed to provide recharge pits for the desired purpose. Through the internal drainage network rain water will be diverted into percolation chamber to the recharge well.

12. **Parking details:** Total parking area provided will be 17552.77 Sq. Mt. The parking area will be provided in the basement and open parking area. Details of parking break up and ECS is as follows:

Parking Area Break Up

Particulars	Basement - 1	Basement - 2	Open/ Surface Parking	Total	Remarks	ECS (in nos.) (NBC)
Commercial Parking (in m ²)	2095.58	5675.71		7771.29		243
Residential Parking (in m ²)	4559.47	4930.64		9490.11	Residential Parking: 9053.12 Sq. M.	297

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					Residential Parking (EWS): 436.99 Sq. M.	
Open Parking/ Surface Parking (in m ²)			291.37	291.37		13
				17552.77		553

- 13. Power Requirement:** There will be 2 separate transformer units for the residential and commercial block respectively. The electricity requirement for the project will be supplied from the TPCODL, Puri, Odisha. The total electrical load for the operation is expected to be 2000 KW or 2.5 MVA. For backup power, 2 nos. x 550 KVA DG will be installed within the premises. The solar panels will also contribute to 5% of the total electricity requirement of the project.
- 14. Fire fighting Installations:** A peripheral road of 7.5m width having a load bearing capacity of 45 tons has been proposed for any fire emergency. Another 7.5m wide road will be running internally connecting the buildings which will also have a load bearing capacity of 45 tons and the fire tender path will be kept clear of any type of big plantations. 11th floor of every building will have a refuge area towards the external wall of the building where the people wait for the fire fighters in case of any emergency. The width of the staircase has been kept 1.5 m to 2m for easy movement during the time of any emergency. An external fire staircase with fire resistant doors to with stand fire up to 2-3 hours have been proposed for fighting such eventualities. Provision for wet risers and dry risers have all been provided for having sufficient measures to fight fire emergencies.
- 15. Solid waste generation:** The waste generated would be approximately 574 Kg per day, including both the residential and commercial units. Out of which 230 Kg (574 x 40%) will be organic waste and 344 Kg. (574 x 60%) will be inorganic waste. Inorganic waste will be disposed through Puri Municipality. Individual waste bins will be installed at approach points for collection of inorganic waste by the Municipal workers and for organic waste a composting yard will be provided at ground floor with a Bio-Mechanical Waste Composter machine. Disposal of solid waste through segregation, collection and treatment and disposal in an environmentally sound manner to minimize the adverse impact on the environment. Segregation of waste in to three streams, Wet (Biodegradable), Dry (Plastic, Paper, metal, wood, etc.) and domestic hazardous wastes (diapers, napkins, empty containers of cleaning agents, mosquito repellents, etc.) and handover segregated wastes to authorized rag-pickers or waste collectors or local bodies.
- 16. Greenbelt:** Green belt will be developed over an area of 3200 sq. mt. which is 20% of the total plot area. Total 800 nos. of plants to be planted and the spacing will be 2 m. for trees, 1 m. for shrubs. The plantation mainly will be carried out along the boundary and the open space. It will be 3 tier plantations.
- 17. Traffic study** - As per the traffic monitoring carried out on Junction Point of NH-316 & SH-59 the traffic density on the junction will be 69 vehicles per hour equivalent to 72.3 PCU per hour. The Level of service is V/C = 0.06; LOS- A (Excellent). Existing road is found adequate

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for the present traffic scenario including the additional traffic due to the proposed project. From the study it can be observed that the level of service on the road will remain unchanged due to the proposed the construction project.

18. **Project cost:** Total estimated cost of the proposed project is Rs.112.46 Cr. the capital cost for EMP is Rs.45 Lakh and the recurring cost for EMP is Rs.12 Lakh per annum.

Proposed Budgets for Environmental Protection Measures (Capital Cost)

Sl. No.	Particulars	Amount (Rs. in Lakhs)
1	Installation of STP within the project site	20
2	Construction of Rain Water Harvesting structure and recharge pits	8
3	Plantation along the project boundary and transplantation of existing trees in the green belt area	5
4	Construction of Surface Water Drains	4.5
5	Construction of stack for DG sets	3.80
6	Solid waste Management	3.8
Total		45.1

Proposed Budgets for Environmental Protection Measures (Recurring Cost)

Sl. No.	Activities	Allocated Budget (in Rs.)/ Annum
1.	Maintenance of STP	4,00,000/-
2.	Plantation and maintenance of the green belt and avenue plantation	3,00,000/-
3.	Regular maintenance of DG set and monitoring of DG stack	3,00,000/-
4.	Environmental Monitoring	2,00,000/-
Total		12,00,000/-

19. **Environment Consultant:** The Environment consultant M/s. Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 20.11.2023.

20. The SEAC in its meeting held on dated **20-11-2023** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- i) Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone.
- ii) The water balance needs to be revised from an expert to justify the amount of water to be re-utilized in the chiller.
- iii) The bottom RL of Rainwater Harvest recharge pits, bottom RL of STP and Ground water table RL during the summer and rainy season. Ensure that the difference between both RLs should be atleast 1m gap to prevent seepage.
- iv) Traffic study report vetted by institute of repute.
- v) Mitigation plan for management of sand deposition in drains due to wind action.

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- vi) Since, the exit gate is common for both residential and commercial purpose, it needs to be widened to 7.5m.
- vii) NOC from CGWA and permission from the WR Department. Govt.of Odisha for usage of ground water for commercial purposes.
- viii) Location of the project superimposed in CRZ map. Clarification from the CRZ authority that the project is not coming under the CRZ area.
- ix) Structural Stability Certificate from a reputed institute.
- x) Copy of approval of the project by PuriKonark Development Authority (PKDA).
- xi) Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

21. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone.	We have already approached District Collector, Puri seeking clarification that the project location is not coming sweet water zone. Copy of the same is enclosed as Annexure -1 .	Application has been submitted.
2.	The water balance needs to be revised from an expert to justify the amount of water to be re-utilized in the chiller.	Water Balance Diagram has been vetted by an expert and the same is enclosed as Annexure-2 .	Revised water Balance submitted by PP suggest ZLD Revised in Non Monsoon period. There is no clarity regarding the quantity of excess treated water discharge to nearest drain. Also there is no water balance given for Monsoon period.
3.	The bottom RL of Rainwater Harvest recharge pits, bottom RL of STP and Ground water table RL during the summer and rainy season. Ensure that the difference between both RLs should be at least 1m gap to prevent seepage.	We do undertake to ensure that the difference between the RL of the STP will be at least 1 meter above the ground water table RL during summer and rainy season.	-

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
4.	Traffic study report vetted by institute of repute.	The traffic study report has been prepared by School of Mechanical Engineering, KIIT University, Bhubaneswar and the same is enclosed as Annexure-3 .	LOS comes to be A – Excellent and there will be no change in LOS after inclusion of project.
5.	Mitigation plan for management of sand deposition in drains due to wind action.	The drains will be covered and it will be cleaned periodically.	-
6.	Since, the exit gate is common for both residential and commercial purpose, it needs to be widened to 7.5m.	The exit gate is 7.79 meter width as mentioned in the drawing attached as Annexure-4 .	-
7.	NOC from CGWA and permission from the WR Department. Govt. of Odisha for usage of ground water for commercial purposes.	NOC from CGWA is enclosed as Annexure -5 and letter from office of the Executive Engineer, P.H. Division, Puri is attached as Annexure-6 .	NOC from CGWA is attached. Letter from Executive Engineer, P.H. Division, Puri mentioning they will provide PHED water after inclusion of this area in Puri Municipality zone.
8.	Location of the project superimposed in CRZ map. Clarification from the CRZ authority that the project is not coming under the CRZ area.	We have already approached to the Director, Forest Environment and Member Secretary, Odisha for Coastal Zone Management Authority and is attached as Annexure-7 .	Application by PP has been submitted for NOC from the CRZ authority.
9.	Structural Stability Certificate from a reputed institute.	Structural Stability Certificate from a reputed institute is attached as Annexure – 8 .	Copy submitted
10.	Copy of approval of the project by Puri Konark Development Authority (PKDA).	Copy of approval of the project by Puri Konrak Development Authority (PKDA) is attached as Annexure-9 .	Copy submitted
11.	Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.	The drainage drawing as approved by NHAI is enclosed as Annexure-10 . Moreover we also approached NHAI to obtaining the permission for utilization of their drainage for discharge of excess rain water vide our letter dated 23.03.2024 and the same is enclosed as Annexure-11 .	<ul style="list-style-type: none"> Provisional NOC has been given by NHAI for road accessibility to the project site after payment of requisite fee to the central govt.account. Application by PP to discharge excess treated water to nearest drain has been submitted to Director NHAI, Bhubaneswar.

22. The proposed site was visited by the sub-committee of SEAC on **09.03.2024**. Following are the observations of the sub-committee:

- a) The PP explained the layout. The project is for both residential with commercial activities.

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- b) It is side of the Puri bypass road. They have separate entry for residential and commercial with wider exit gate. No construction made.
- c) The PP is raising the ground level about a meter above the road. He was asked to submit the RL as basement parking is planned. Site does not appear to be flood prone.
- d) All statutory permission including the new proposed airport at Puri to be taken from appropriate authority.
- e) Permission from Highway authority for construction of drain and discharge of storm water and excess treated water to be taken from appropriate authority including internal drain approval.
- f) Parking (residential, commercial) and green belt to be furnished in percentage. Also, area for visitors parking in residential area to be submitted.
- g) All other points asked during presentation to be complied.

After detailed discussion, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent.

- a) Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone. Only application has been submitted by PP.
- b) Revised water Balance submitted by PP suggest ZLD in Non Monsoon period. There is no clarity regarding the quantity of excess treated water discharge to nearest drain. Also there is no water balance given for Monsoon period.
- c) Permission from the WR Department. Govt. of Odisha for usage of ground water for commercial purposes to be submitted.
- d) The PP has submitted application to CRZ authority. NOC from the CRZ authority that the project is not coming under the CRZ area.
- e) The PP has submitted application for NHA for discharge of excess rain water to nearest land. Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.
- f) Submit the RL as basement parking is planned.
- g) Permission from Highway authority for construction of drain and discharge of storm water and excess treated water to be taken from appropriate authority including internal drain approval.
- h) Parking (residential, commercial) to be furnished in percentage form. Also, area for visitors parking in residential area to be submitted.

ITEM NO - 4

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KALYANPUR - A AND B SAND BED MINES CLUSTER ON RIVER KUAKHAI OVER AN AREA OF 34.475 HA IN VILLAGE KALYANPUR, UNDER BHUBANESWAR TAHASIL OF KHORDHA DISTRICT OF SMT. MINAKSHI PRADHAN - EC

1. This proposal is for Environmental Clearance of Kalyanpur - A and B Sand Bed Mines cluster on river Kuakhai over an area of 34.475 Ha. in village Kalyanpur, under Bhubaneswar Tahasil of Khordha District of Smt. Minakshi Pradhan.
2. **Category:** As per EIA Notification, 2006, and subsequent amendments, the project falls under category B1 of Schedule 1(a) - Mining of minerals as the lease area is more than 5.0 Ha.
3. **TOR Details:** Terms of Reference (TOR) issued by State Environment Impact Assessment Authority (SEIAA), Odisha vide letter no. 1486/SEIAA dated 07.06.2021.
4. **Public hearing details:** The Public Hearing meeting was held on 15.12.2021 at Block Conference Hall, Bhubaneswar situated under Bhubaneswar Tahasil in Khurda District, Odisha at 10.30 am. Major issues raised during public hearing are employment and skill development, making of pond as community bathing place, education, pollution control measures. A total expense to be incurred according to action plan of public hearing is 16 lakhs.
5. Tahasildar, Bhubaneswar has been granted the Quarry lease Kalyanpur A to Smt. Minakshi Pradhan (Successful Bidder) vide letter no.5210 on dated 06.08.2020 and the Quarry lease Kalyanpur B granted to Sri Sarat Behera, (Successful Bidder) vide letter no.9015 on dated 26.11.2020 for mining of river sand for five years.
6. **Mining plan:** The modification of mining plan has been approved by Authorized Officer & Deputy Director Geology, Bhubaneswar vide memo no. 4833/DG on dated 06.07.2020 for Kalyanpur A and vide memo no. 4835 on dated 06.07.2020 for Kalyanpur B.
7. **Location and connectivity:** The Lease Cluster is located in Khata no. 221 Plot no. 1058,947,948,949,950,951,952,953,954,955,956,957,958 for Kalyanpur A and Plot no. 1061 for Kalyanpur B, and falls within survey of India toposheet no. (F45T15). The geo coordinates of Kalyanpur A is - latitude of 20°22'08.04"N to 20°22'34.30"N and longitudes of 85°52'03.02"E to 85°52'15.76"E and Kalyanpur B is - latitude of 20°22'08.04"N to 20°22'34.30"N and longitudes of 85°52'03.02"E to 85°52'15.76"E. Nearest Railway station is Baranga Railway Station at 04 Km from the project site. The nearest roads are Nandankanan road at 4 Km and Baranga road at 5km. The site is well connected to NH-203 & SH-60 at 8 Km & 3.5 Km. Nearest airport is Bhubaneswar airport at a distance of 15Km from the mining Lease Cluster. Nearest river embankment at 100m, road bridge at 4.6km. Other than Kuakhai river, nearest water bodies are Kathajodi River at 3.5km and Mahanadi at 5km.
8. The study area within 10 Km of the project site is devoid of any Biosphere reserves, wild life corridors, tiger reserves etc. Chandaka Wildlife Sanctuary is located at a distance of 10Km

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Environmental Scientist, SEAC

from the project site. Nandankanan Zoo (National Park) is located at a distance of 6Km from the project site. The area is also devoid of any kind of vulnerable, endangered and critically endangered flora and fauna

9. **Topography and drainage:** The Kalyanpur Sand bed cluster represents a gently sloping to almost flat terrain with highest altitude of 22.00 mRL. The general slope is towards east. The drainage of the district is mainly controlled by rivers like Mahanadi, Kuakhai, Kushabhadra, Daya, Ran, Kalijiri, Sulia, Kharia & the Kusumi. Being a coastal district, the river basins are much wider and the sand sources are very much suitable for construction purposes. The lease cluster is on Kuakhai River. In buffer zone several water bodies are present. Serua River is present at a distance of 4km from the lease area at NE direction. Puri main canal is located at a distance of 600m from the project site. Jhumuka Nala is located at a distance of 7 Km from lease cluster.
10. **Cluster Certificate** - As per the certificate from Tahsildar, Kalyanpur Cluster consists of only two nos. of individual mines and no other mines located within 500m radius of this project.
11. **Reserves:** The geological reserve of the cluster is 999308 cum (Kalyanpur A - 196820 cum + Kalyanpur B - 802488 cum). The mineable reserve of the cluster is 521523 cum (Kalyanpur A -93685 cu.m +Kalyanpur B - 427838 cum).
12. **Benching Pattern:** Benchng pattern is not feasible in case of sand, as the angle of repose of sand is 35°, based on this the Ultimate pit slope Limit has been taken as 35° . The maximum depth of mining will be of 2m or up to water table whichever is less.
13. **Replenishment Study Report** – The study was conducted in Pre and Post-Monsoon season (Survey was done in Month of June and November 2021) only the reserve has been assessed. The methodology of calculation as per approved mining plan was in surface area method but attempt has been taken to calculate Geological resources and mineable reserve in cross sectional area method. It was observed that there is an average increase of river bed RL by 0.31 m due to sediment deposition during the monsoon season. So replenished quantity of sand available in each year within the sand bed = 72000m² x 0.31m = 22,320m³.The post monsoon mineable reserve is 78,695 m³ and the extractable amount is 47,217m³ (60% of the mineable reserve). Keeping in view of the post monsoon extractable sand, the annual rate of excavation comes to the tune of **9,443 m³**. The approved mining plan production capacity is **18700cum/year** and total production is 93500cum.
14. **Water requirement:** For the Kalyanpur A, 2 KLD of water will be required (drinking & domestic purpose -1KLD, green belt development and dust suppression -1 KLD). For Kalyanpur B total water requirement will be 4 KLD (drinking & domestic purpose - 1.5 KLD and dust suppression and plantation purpose - 2.5 KLD). Total water requirement for cluster will be 6KLD.
15. **Fuel Requirement:** Tipper & Dumper will be used for transportation. The approximate quantity of the fuel/Diesel used per day is 100Lit/day.
16. **Employment generation:** Due to the proposed sand mining, there will be generation of employment for 107 persons in Kalyanpur mines. Out of which 21 personnel will be engaged

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with Kalyanpur A and 86 persons will be engaged with Kalyanpur B cluster. From these 20 nos are skilled, 26 semiskilled, 53nos are unskilled.

17. Baseline study-

PERIOD	October to December 2020	Applicable Standards
AAQ PARAMETERS AT 7 LOCATIONS	PM2.5 – 18.8 to 34.4 µg/cu.m	60 µg/cu.m
	PM10 – 40.0 to 61.4 µg/cu.m	100 µg/cu.m
	SO2 – 5.2 to 11.1 µg/cu.m	80 µg/cu.m
	NOx – 10.2 to 21.3 µg/cu.m	80 µg/cu.m
Ground water Quality at 6 Location	pH – 6.8 to 7.3	6.5 to 8.5
	Total Hardness – 132 to 188 mg/l	600 mg/l
	Chloride - 15.3 to 38.3 mg/l	250 mg/l
	Fluorides – 0.2 to 0.85 mg/l	1.5 mg/l
	TDS – 202 to 410 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.001, Hg<0.0005) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 4 locations	pH – 7.5 to 8.2	
	Dissolved Oxygen – 6.8 to 7.3 mg/l	
	Biochemical Oxygen Demand – 1.2 to 2 mg/l	
	Chemical Oxygen demand – 6 to 10 mg/l	
Noise at 7 locations	Day (dBA Leq) 32.4 to 45.6	55
	Night (dBA Leq) - 25.6 to 35.6	45
Soil Quality at 4 locations	pH – 6.30 to 6.90, Potassium – 43 to 107.5 Kg/ Ha, Phosphorous – 16 to 51.7 Kg/ Ha, Nitrogen – 87.9 to 125.5 Kg/Ha, Electrical Conductivity- 102 to 435 ms/Cm	

18. Project cost: The total cost of the project is Rs. 20 lakhs and the updated capital cost and recurring cost (per annum) for the environmental facilities for the proposed mining project works out to be Rs. 6.5 lakhs which include 3.0 Lakhs for Kalyanpur A mines and 3.5 Lakhs for Kalyanpur B mines.

19. Environment Consultant: The Environment consultant M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 17.02.2023.

20. The SEAC in its meeting held on dated **17.02.2023** recommended the following:

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A) The proponent may be asked to submit the followings for further processing of EC application;

- i) 2.5 km inter-cluster certificate certified from Tahasildar.
- ii) Replenishment study report.
- iii) Topography map based on grid points.
- iv) Revised Annual Production Report.

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- i) Environmental settings of the lease area.
- ii) Mining activity, if any carried out in the lease area.
- iii) Sand deposit in lease area as KML file shows no sand deposit.
- iv) Road connectivity to the lease area.
- v) Distance of the road and railway bridge from the boundary of the lease area.
- vi) Distance of embankment from sand deposit.
- vii) Any other issues including local issues.

21. The proposed site was visited by Sub-Committee of SEAC on dated **03.06.2023** and following observations as mentioned below:

- a) PP, RI and Consultant were present along with other team members. The Mine is in Kuakhai River and there are no ongoing mining activities.
- b) The area shown by the RI. It was observed that there is enough sand available in Bed A but Pocket sand available in Bed B. Both A and B beds are at opposite sides of the active channel of river.
- c) Approach roads are available for both sand beds at their respective side. RI also confirmed that the approach roads are on Government land for both sand beds.
- d) The bed B with pocket sands is mostly filling grade with some amount of construction grade sand. The lease area is filled with bushes and sand patches.
- e) PP was advised to submit the Replenishment study report separately for both beds with a summary of mining quantity proposed based on replenishment study finding.
- a) No road/ railway bridge or high-tension line nearby was observed.
- f) PP was asked to submit required documents as asked during presentation.

22. The SEAC in its meeting held on dated **12-07-2023** recommended to consider the proposal after the proponent furnish the information / documents as pointed out by the Sub-Committee of SEAC in the site visit dated 03.06.2023 in addition to the information/ documents as sought vide SEAC letter no. 221(6)/ SEAC-(Misc)-28, dated: 03.04.2023.

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23. The proponent has furnished the compliance and the SEAC verified the same as follows:

i)	2.5 km inter-cluster certificate certified from Tahasildar	Copy submitted	-
ii)	Replenishment study report	Copy submitted	RSP of Kalyanpur B sand Mine has been submitted.
iii)	Topography map based on grid points		-
iv)	Revised Annual Production Report		Revised Annual production has been calculated to 30000cum/annum for current period.

After detailed discussion, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent raised during site visit.

- a) PP was advised to submit the Replenishment study report separately for both beds with a summary of mining quantity proposed based on replenishment study finding. The PP has submitted Replenishment study report of Kalyanpur B sand Mine as asked during presentation.

ITEM NO. 05

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. ASSOTECH SUN GROWTH ABODE LLP FOR PROPOSED RESIDENTIAL APARTMENT BUILDING "AVENUE-7, ASSOTECH WORLD" OVER AN BUILT-UP AREA 2,24,655.00 SQM AT PLOT NO. 317, 318, 319, 327/11161, 327/11159 & OTHERS OF MOUZA-RUDRAPUR, PS-BALIANTA, TEHSIL-BHUBANESWAR, DIST-KHURDA OF SRI SASHANK SEKHAR ROUT - EC

1. This proposal is for Environmental Clearance of M/s. Assotech Sun Growth Abode LLP for Proposed Residential Apartment Building "Avenue-7, Assotech World" over a built-up area 2,24,655.00 sqm at Plot No. 317, 318, 319, 327/11161, 327/11159 & others of Mouza-Rudrapur, PS - Baliana, Tehsil-Bhubaneswar, Dist - Khurda of Sri Sashank Sekhar Rout.
2. **Category:** This project falls under Category "B", Project or Activity 8(b): Township & Area Development Projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and connectivity:** The proposed site is located at Mouza-Rudrapur, PS-Baliana, Tehsil-Bhubaneswar, Dist- Khurda, Odisha. The Geographical co-ordinate of the project site is: Latitude -200 19' 24.5" to 200 19' 32.03" N & Longitude - 85° 53' 17.75"to 85° 53' 26.47" E. The project site is well connected with National Highway NH-16 at a distance of approx 0.6 Km in West direction. The nearest railway station is Mancheswar Railway station at a distance of approx 4.5 Km in West direction & Bhubaneswar Railway Station at a distance 9.2 Km in South-west direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 11.5 Km in South-west direction from project site.
4. The site is coming under Bhubaneswar Municipal Corporation (BMC).

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5. Statutory clearances obtained:

- BMC has provisionally approved the building plan vide letter no. 20629/BMC, dated 28.04.2023.
- Drainage permission from BMC vide letter no. 31277, dated 03.07.2023.
- Ground Water permission from CGWA vide NoC no. CGWA/NOC/INF/ORIG/2021/12208, dated 03.07.2021.
- Height Clearance from AAI Vide NoC No. BHUB/EAST/B/072522/685895, dated 26.08.2022.
- NoC from Public Health Division for Water & Sewerage connection vide letter no. 6010, dated 31.05.2023.

6. The EIA/EMP report has been prepared in conformity with all issues brought out in the detailed ToR issued by SEIAA, Odisha vide File No. SIA/OR/INFRA2/442119/2023, dated 19.01.2024.

7. Total Plot area measures 34982 m² and the total built-up area is 2,24,655m².

8. Area Statement:

Particular	Proposed	Permissible
Net Plot Area of Avenue 7	34,982.00 sqm	--
Ground Coverage	18,287.00 sqm	--
FAR Area	1,62,805.00 sqm	--
Total Built up Area	2,24,655.00 sqm	--
Maximum Height	86.90 m	150 m
Road Area	5,478.00 sqm	--
Stilt Parking Area	15,987.00 sqm	40,463.00 sqm
Basement Parking Area	29,160.00 sqm	
Open Parking Area	500.00 sqm	
Total Parking Area	45,647.00 sqm	
Green Belt Area	9,580.00 sqm (27.0 %)	6,996.36 sqm (20 %)
Maximum No. of Floor	B+S+25	--
Power Requirement	4350.0 KVA	--
Solar	218.0 KVA	
No. of DG sets	2x1500 KVA	--
Fresh Water requirement	524.40 KLD	--
Sewage Treatment Plant	STP Capacity - 700 KLD	--
Estimated Population- Residential, Commercial, Floating/visitors	6438 nos.	--

9. **Water requirement:** Fresh make up of 524.4m³/day will be required for the project which will be sourced from Ground Water. Total waste water generated from the residential building is

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681.7 KLD which is treated in STP of Capacity 700 KLD. Rain Water harvested through 14 nos. of Rain Water recharging pits.

10. **Wastewater details:** The project will generate 681.70 KLD of wastewater which will be in STP. The wastewater will be treated in the STP of capacity of 700 KLD.
11. **Rainwater harvesting details:** Total 14 nos. of Rainwater harvesting pits will be provided for storage of rain water of quantity 885cum.
12. **Parking details:** Total parking area provided is 45647 m² and total 1502 nos. of ECS and location of parking area is Basement, Stilt & Open.
13. **Power Requirement:** Total Power requirement of the proposed residential building is 4350.0 KVA, Source is TPCODL, 2x1500KVA DG Sets is provided. Total 218.0 KVA Solar Power Generation which is 5.0% of total power required in project.
14. **Solid waste generation:** Solid waste generated and its management is as follows:

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents	5448 @ 0.40 kg/day	2179.2
2.	Floating Population	330 @ 0.15 kg/day	49.5
TOTAL SOLID WASTE GENERATED			2228.7 kg/day

Sl. No.	Description of Waste	Organic Quantity Kg/ Day	Inorganic Quantity Kg/ Day	Method of Collection	Method of Disposal
1.	General Garbage	891.48	1337.22	Manual	Organic waste converter sold to recycler
2.	STP Sludge including office and Amenity	80.0		Manual	On Own Land for Gardening

15. **Greenbelt:** Greenbelt is developed over an area of 9,580.00 sqm which is 27% of the total plot area. Total 437 nos. of plants to be planted and 3 tier plantation.
16. **Project cost:** Total estimated cost of the proposed project is ₹600Cr. and cost for EMP is ₹2.21 Crores.
17. **Environment Consultant:** The Environment consultant **M/s. Enviro Infra Solutions Pvt. Ltd., Ghaziabad** along with the proponent made a presentation on the proposal before the Committee on 22.03.2024.
18. The SEAC in its meeting held on dated **22-03-2024** decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Since the project is located adjacent to local drainage system, therefore,	Permission has been obtained from Bhubaneswar Municipal Corporation	• Permission granted for PP own water supply

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	NOC/Permission from concerned department (Irrigation division, Watershed Department) shall be submitted; clarifying that the construction of project will not affect the natural flow of local drainage pattern in that area to nearby nala.	vide letter no. 31277, dated 03.07.2023. Permission letter is attached in Annexure-1 and the proposed construction project will not affect the natural flow of local drainage system.	and sewerage disposal system. • Permission granted for discharge of excess storm water to nearest drain.
2.	NOC/ permission from concerned department for discharge of excess treated water to the nearby existing drain.	NoC for Water supply & Sewerage connection from existing system to proposed building is obtained from Public Health Division vide letter no. 6010, dated 31.05.2023. PH Permission letter is attached in Annexure-2. Permission has been obtained from Bhubaneswar Municipal Corporation vide letter no. 31277, dated 03.07.2023. Permission letter is attached in Annexure-1.	Permission granted for PP own water supply and sewerage disposal system.
3.	Since the area falls in water logging areas, submit details of the RLs of groundwater table in rainy season, bottom RL of STP and Rain water Harvesting pits, surface RL, Developed RL water logging areas within the lease area.	As per the existing study and data for the Reduced Level of Ground Water table in rainy season is 12.00 Meter from BGL, Bottom reduced level of STP is 19.25 Meter, Rain Water Harvesting pits bottom reduced level is 21.40 Meter, Natural Ground Reduced level (NGL) is 22.00 Meter and the Development Reduced Level is 24.40 Meter.	-
4.	Detailed note on the management of the excavated soil, its utilization and precautionary measures to be taken to avoid soil spillage during transportation.	Management of Excavated Soil: <ul style="list-style-type: none"> • Topsoil should be stripped up and stored at the far edge of the right-of-way • Fence the stored top soil areas prior to any disturbance to the surrounding. • If grading the right-of-way is necessary for construction, topsoil should be stripped from the entire area to be graded in order to avoid mixing. • Use of conserved top soil in developing plantation during operation phase. • Wind erosion, rain and sheet erosion plays major role on loss of top soil. • Soil protect existing vegetation improve tree & plant growth. • Reusing organic "wastes" like 	-

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		sludge to restore soil function. • Excavated earth will be properly collected and stored within the project area and which will be used for filling up the road embankment.	
5.	Undertaking by Project Proponent that no construction has been carried out till date for the proposed project.	No construction work has been started at site till date, an undertaking regarding this is attached in Annexure -3.	Copy submitted.

19. The proposed site was visited by the sub-committee of SEAC on 01.11.2023 before issue of ToRs for EIA Study and the proponent had complied to the observations of the sub-committee of SEAC before issue of ToRs.

Considering the information furnished and the presentation made by the consultant, **M/s. Enviro Infra Solutions Pvt. Ltd., Ghaziabad** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

- i) Since the project is located adjacent to local drainage system, therefore, **NOC/Permission from concerned department (Irrigation division, Watershed Department) shall be obtained; clarifying that the construction of project will not affect the natural flow of local drainage pattern in that area to nearby nala.**
- ii) **Permission has been granted to PP for construction of his own water supply and sewerage disposal system as there is no such facility by WATCO at present. NOC/ permission from concerned department for discharge of excess treated water to the nearby existing drain shall be obtained.**
- iii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- iv) Greenbelt shall be developed in minimum 20% (excluding land scaping).
- v) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- vi) The proponent shall obtain permission from concerned authority for connecting drain to the road side drain with approval of drain layout and discharge of excess treated water.
- vii) The proponent shall approve drain layout and sewage layout with plan for treatment and disposal of sewage waste.

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- viii) The proponent shall take appropriate measures to reduce the discharge of water. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.
- ix) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- x) The proponent shall obtain permission from concerned Fire Safety Authority.
- xi) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- xii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- xiii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- xiv) Before starting the construction physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xv) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR M/S ZONEX INFRA PROJECTS PVT. LTD. OF PROPOSED (B+G+18) STORIED MIG RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 40,827.928 SQM LOCATED AT MOUZA- RAGHUNATHPUR, TAHASIL- BHUBANESWAR, DIST- KHURDA OF SRI GAURANGA CHARAN BARIK - EC

1. This proposal is for Environmental Clearance for M/s Zonex Infra Projects Pvt. Ltd. of Proposed (B+G+18) Storied MIG Residential Apartment Building over an built-up area 40,827.928 sqm located at Mouza - Raghunathpur, Tahasil - Bhubaneswar, Dist - Khurda of Sri Gauranga Charan Barik.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and Connectivity** – The proposed site is located at Mouza - Raghunathpur, Bhubaneswar, Dist - Khurda, Odisha. The Geographical co-ordinates of the project site is: Latitude- 20° 22' 58.52"N & Longitude- 85° 49' 25.63"E. The project site is well connected with Nandan Kanan road which take towards National Highway-16 (Kolkata-Chennai Road). Nandan Kanan road is 0.1 Km from proposed site. The nearest railway station is Bhubaneswar Railway station at a distance of approx 13.2 Km in South direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 14.5 Km in South West direction from project site. The site is easily accessible from Nandan Kanan Road. Kuakhai River at a distance of 6.2 km from project site.

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4. The site is coming under which Development Authority – Bhubaneswar Development Authority (BDA).
5. BDA has provisionally approved the building vide Letter No. SUJOG/OBPS/NOC/2023/044, Bhubaneswar, Dated: 11/07/2023.
6. The total plot area is 7,431.33 sq.mt. with total built-up area 40,827.928 sq.mt.
7. The Building Area Details of the Project in tabulated form

Particular	Permissible	Proposed
Plot Area	Total Plot Area- 8,122.19 sqm Road Affected Area- 690.86 sqm Net Plot Area- 7,431.33 sqm	
Ground Coverage		2,660.42 sqm (35.8%)
FAR	7.5	4.39
Total Built up Area	--	40,827.928 sqm
Maximum Height	--	58 m
Road Area	--	1114.70 sqm
Open Visitor Parking	--	835.106 sqm
Basement Parking	--	6,034.964 sqm
Ground Floor Parking	--	1,395.794 sqm
Total Parking Area	8,158.077 sqm (25% of FAR Area)	8,265.864 sqm
Green Area	1,486.266 sqm (20% of Plot Area)	1,490.85 sqm (20.06% of Plot Area)
Maximum No. of Floor	--	B+G+18
Power/Electricity Requirement & Sources	--	842.0 KW Source: TPCODL
No. of DG sets	--	1 x 750 KVA
Solar Energy	--	44.3 KW (5.3%)
Water requirement & Sources	--	82.0 KLD
Wastewater Generation	--	104.5 KLD
Sewage Treatment & Disposal	--	STP Capacity – 120 KLD
Solid Waste Generation	--	461.5 kg/day
No. of Dwelling Unit	--	176 Nos.
Estimated Population-Residential, Floating/visitors	--	Residential- 880 Nos. Floating- 88 Nos.

8. **Water requirement:** Fresh make up of 82.0 m³/day will be required for the project which will be sourced from Ground Water. Total waste water generated from the proposed building will be 104.5 KLD which is treated in STP of capacity 120.0 KLD. Rain Water harvested through 21 nos. of Rain Water recharging pits.

Sl.	Description	Total	Per Capita	Water Requirement
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No.		Population	Consumption (ltr/day)	Domestic	Flushing	Total
i)	Residential Building	880 nos	135	79.2	39.6	118.8
ii)	Visitor @ 10 %	88 nos	45	2.2	1.7	3.9
TOTAL				81.4	≈ 41.3	≈ 122.7
				82.0	41.0	123.0

9. **Wastewater management:** The wastewater will be treated in the STP of capacity of 120 m³/day provided within the complex. Out of which 99.3 m³/day will be recycled within the project for flushing (41.0 m³/day), landscaping (6.5 m³/day), STP loss (5.2 m³/day) & Dust suppression in Road Area (8.5 m³/day). 43.3 m³/day will be discharged to drain in case of non-monsoon period.

Details	Water (KLD)
Water requirement for domestic purpose	82.0
Wastewater generated from domestic use (@ 80 % of domestic water requirement)	65.6
Water requirement for Flushing Purpose	41.0
Wastewater generated from Flushing (@ 95 % of flushing requirement)	38.9
Total Wastewater generated	65.6+38.9 = 104.5 KLD
Sewage Treatment Plant Capacity	120.0 KLD
STP Loss (5 % of wastewater generation)	5.2
Recycled water form STP @ 95 % of wastewater generated	99.3

10. **Power requirement:** Total Power requirement of the proposed residential building is 842.0 KW, Source is TPCODL, 1x750 KVA DG Set will be provided. Total 44.3 KW Solar Power Generation which is 5.3% of total power required in project.
11. **Rain Water Harvesting:** Total 137 cum Rain Water is harvested through 21 no. of recharge pits.
12. **Parking Requirement:** Total parking area provided is 8265.86 Sq.mt. and total 272 nos. of ECS and location of parking area is Basement & Ground Floor.

Parking Area Provided			
Basement Parking			6034.964 sqm
Ground Floor Parking			1395.794 sqm
Open Parking			835.106 sqm
Total Parking	--	--	8265.864 sqm
Equivalent Car Space Provided			
	Area (sqm)	Area/ECS	
Basement Parking	6034.964	32	189 ECS
Ground Floor Parking	1395.794	28	50 ECS
Open Parking	835.106	25	33 ECS
Total Parking Provided			272 ECS
Total Four-Wheeler Parking			195 Nos.
Total Two-Wheeler Parking			100 Nos.
Parking for Visitor (10%)			831.53 sqm

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13. **Green Belt Development:** Green belt is developed over an area of 1,490.85sqm which is 20.06% of the total plot area. Total 96.0nos. of plants to be planted and 3 tier plantation to be carried out.

14. **Solid Waste Management:** Solid waste generated, and its management is given in the following table:

Detail of Solid Waste Management

S. No.	Category	Counts (heads)	Waste generated (kg/day)
i)	Residents	880 @ 0.45 kg/day	396.0
ii)	Floating	88 @ 0.15 kg/day	13.2
iii)	STP sludge		52.3
TOTAL SOLID WASTE GENERATED			461.5 kg/day

15. **Project cost:** The estimated project cost is 75.0 Crores and cost for EMP is 1.7 Crores.

16. **Environment Consultant:** The Environment consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 22.09.2023.

17. The SEAC in its meeting held on dated **22-09-2023** recommended the following:

A. **The proponent may be asked to submit the following for further processing of EC application:**

- i) Certificate from concerned DFO that the project is not located within the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandankanan Sanctuary.
- ii) Land documents and Kissam of land.
- iii) Copy of land use map.
- iv) NOC/permission from PWD / concerned Department for discharge of excess treated water to public drain. The project proponent also to confirm unhindered access to the proposed point of storm water / excess sewage treated water drain discharge from its project site.
- v) Correct drainage map as suggested by PP and if deposited for approval from the concerned authority.
- vi) Reduced Level (RL) of ground water and place where STP is installed during summer and rainy season.
- vii) Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.
- viii) Method and detailed technique to be used for disinfection in STP.
- ix) Traffic study Report vetted by institute of repute.
- x) Structural stability certificate prepared by reputed institutes like NIT/IIT, Odisha
- xi) Copy of affidavit as mentioned in Drainage Permission Letter.

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B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- i) Environmental settings of the project site.
- ii) Extent of construction activity if any.
- iii) Road connectivity to the project site.
- iv) Drainage network at the site.
- v) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vi) Greenbelt area.
- vii) Any other issues including local issues.

18. The proposed site was visited by Sub-Committee of SEAC on dated **29.09.2023** and following observations as mentioned below:

- a) The Project site is located adjacent to Jaydev Vihar - Nandan Kanan main road of about 100 ft wide. The Project proponent and Team explained the Layout plans.
- b) It was observed that there are no construction activities in the land. The land is connected to the main road having drain at the side.
- c) The PP explained that the excess treated water will be discharged to the road side drain along with storm water. PP was asked to submit the document/permission in support of the same from appropriate authority.
- d) The stack height to be maintained as per CPCB norm. All statutory clearance to be taken before project implementation.
- e) Traffic study to be vetted and submitted, if not done.
- f) All other points covered during presentation to be complied.

19. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Certificate from concerned DFO that the project is not located within the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandankanan Sanctuary.	Certificate has been obtained from Deputy Director, Nandankanan Zoological Park vide letter no. 1697/3F-609/2024, dated 30th March, 2024. NoC letter copy is attached in Annexure-1 . NoC has been obtained from DFO Chandaka Wildlife Division vide letter no. 2163/4F (F.C. Act & Lease)-19/2023, dated 17.03.2023. NoC letter is attached in Annexure-2 . As per this letter the proposed project is not located within the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and	Copies submitted.

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J Nayak
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Nandankanan Sanctuary.	
2.	Land documents and Kissam of land.	Total land requirement of the project is 7431.33 sqm which is already acquired and the kissam of land is Gharabari. Land document is attached in Annexure-3 .	Copies submitted.
3.	Copy of land use map.	Land use map of the proposed project site is attached in Annexure-4 .	Copy submitted
4.	NOC/permission from PWD / concerned Department for discharge of excess treated water to public drain. The project proponent also to confirm unhindered access to the proposed point of storm water / excess sewage treated water drain discharge from its project site.	The treated wastewater will be discharged to nearby municipal drain which is adjacent to the project site. The drainage plan has been vetted by Office of the Chief Engineer Drainage, Gandarpur, Cuttack vide letter no. 4061, dated 04.09.2023 and EIDP Plan is also recommended by Technical Committee, BDA on 23.08.2023. The Technical Committee meeting and Chief Engineer Drainage letter is attached in Annexure-5 .	Copy submitted
5.	Correct drainage map as suggested by PP and if deposited for approval from the concerned authority.	Drainage Map of the area is attached in Annexure-6 . Drainage plan is already submitted to the drainage authority.	Copy submitted
6.	Reduced Level (RL) of ground water and place where STP is installed during summer and rainy season.	As per the existing study and data for the Reduced Level of Ground Water level is 41.00 mtr from BGL and the STP will be installed in the Basement.	-
7.	Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.	As per the existing study and data for the Reduced Level of Ground Water table in rainy season is 13.00 mtr from BGL, Bottom reduced level of STP is 20.45 mtr from BGL, Rain Water Harvesting pits is 22.13 mtr from BGL, Existing surface level is 23.0 mtr from BGL and the Development Reduced Level is 25.32 mtr from BGL.	-
8.	Method and detailed technique to be used for disinfection in STP.	For disinfection we are using UV & UF in the STP.	-
9.	Traffic study Report vetted by institute of repute.	Traffic Study Report has been vetted by Indian Institute of Technology (IIT) Bhubaneswar & the vetted traffic study report is attached in Annexure-7 .	LOS comes to be B after 10 years after inclusion of project.
10.	Structural stability certificate prepared by reputed institutes like NIT/IIT, Odisha	Structural Stability certificate is attached in Annexure-8 .	Copy submitted

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J. Nayak
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
11.	Copy of affidavit as mentioned in Drainage Permission Letter.	Affidavit regarding drainage permission is attached in Annexure-9.	Copy submitted

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – B** in addition to the following specific conditions.

- i) Affidavit has been submitted by PP that they will construct drain for the above residential project at their own cost and expenses and will obtain clearance from private land owners as well as from Govt. Authority in which drain will be constructed to nearest available disposal point. The PP shall strictly follow it, failing to which EC shall be revoked.
- ii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- iii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iv) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- v) The proponent shall obtain permission from concerned Fire Safety Authority.
- vi) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- viii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- ix) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- x) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.
- xi) The stack height to be maintained as per CPCB norms. All statutory clearance to be taken before project implementation.

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Jayak
Environmental Scientist, SEAC

xii) Before starting the construction physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. TRIDENT PROPERTIES PVT. LTD FOR RESIDENTIAL PROJECT OVER A BUILT-UP AREA 4,45,308 M² LOCATED AT MOUZA-PAIKARAPUR, TEHSIL-BHUBANESWAR, DISTRICT-KHORDHA OF SRI MV SHASHI KUMAR - EC

1. This proposal is for Environmental Clearance of M/s. Trident properties Pvt. Ltd for residential project over a built-up area 4,45,308 m² located at Mouza-Paikarapur, Tehsil-Bhubaneswar, District-Khordha of Sri Mv Shashi Kumar.

2. **Category:** This project falls under Category "B", Project or Activity 8(a) Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.

3. **Terms of Reference Details** - Standard TOR issued by SEAC, Odisha vide letter no. TO24B3813OR5396462N.

4. **Location and connectivity:** M/s Trident Properties Private Limited proposes a Residential

Project located at Mouza- Paikarapur, Tehsil- Bhubaneswar, District- Khurda, Odisha. Land is partly owned by M/s Trident Properties Private Limited and also acquired through Development Agreement & General Power of Attorney (GPA) by Trident Properties Private Limited. The project site is located at Plot No- 1731/2995/5211, 1744/2943/3850, 1739/2117/3857, 1739, 1735, 1734/3858, 1736, 1744/3364, 1738/3237/3854, 1709/3672, 1693/2990, 1693/2877, 1790, 1724, 1730, 1731/2723, 1791/3668, 1744/2943, 1748, 1734/2368/3349, 1734/2368, 1734/11374, 1733, 1732/3041, 1742/3367, 1741, 1732, 1698, 1689, 1689/3040, 1747, 1745, 1688/2991, 1706/2101/2488, 1706/2116/2487, 1706/2582, 1709/3572, 1708/3576/5649, 1743, 1697, 1708/3576, 1693/2737, 1693/2738, 1694, 1695, 1696, 1680, 1700, 1702, 1703, 1739/2117/2725, 1738/2722, 1708/2717, 1742/2742, 1739/2117, 1753, 1723, 1731/2724, 1759, 1746, 1699, 1701, 1740, 1673/7074, 1704/3009/4906, 1704/3006/4143, 1704/3009/4144, 1704/3009/4141, 1704/3006/4142, 1704/3006, 1731/2995/5026, 1733, 1731/2995/6624, 1731/2995/5043, 1731/2995/5263, 1731/2995/5262, 1734/6623, 1734/6648, 1734/6647, 1734/6649, 1674/5929, 1673/4071, 1673/4066, 1673, 1673/4065, 1709/3358, 1708/3356/5910, 1708/3356/5925, 1715, 1715/5928, 1710, 1676/4422/6643, 1676/4422/6645, 1676/4422/6646, 1706/2101, 1706/2116, 1676/4657, 1676/3101, 1731/3102, 1676, 1710/3902, 1674/6687, 1674/6691, 1677/3010, 1677/3010/6705, 1676/2770, 1676/2770/4464, 1676/2770/4465, 1691/6799, 1706, 1791/3015, Khata No. 456/4057, 456/1611, 456/4057, 456/3174, 456/2401, 456/1612, 475/8, 456/2545, 456/1605, 456/4127, 456/3163, 456/3571, 475/351, 456/3185, 456/3171, 456/3162, 456/3156, 456/3161, 456/1530, 456/3187, 456/3180, 456/3182, 456/3157, 456/3348, 456/503, 456/505, 456/3183, 456/3158, 456/3920, 456/3386, 456/2095, 456/3946, 456/2175, 456/2176, 456/2173, 456/2174, 456/2177, 456/3155, 475/350, 456/4070, 456/3173, 456/3573, 456/3572, 456/4069, 456/4105, 456/4104, 456/4106, 456/3981, 456/12092, 456/2087, 456/2094, 456/2086, 456/3932, 456/3959, 456/3973, 456/4004, 456/3979, 456/3978, 456/2500, 456/4035, 456/4036,

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456/4031, 456/4047, 456/4037, 465/1879, 456/4157, 456/4164, 456/796, 456/4190, 456/4309, 456/4294, 456/4308, 456/4263, 456/4246, 456/804, 456/2079 at Mouza-Paikarapur, Tehsil- Bhubaneswar, District- Khurda, Odisha. The geographical co-ordinates of centre of project site are 20°15'54.40"N and 85°45'01.21"E. Toposheet no. F45T12. The connecting road is Ghatikia Main Road which is approx. 0.3 km towards NE direction of the project site. The Nearest Highway is NH-16 which is 2.6 km in SE direction, NH-316 is at approx. 11.5 km towards East direction and SH-13 is at approx. 12.1 km towards SSW direction from the project site. The nearest Railway Station is Sarkantra Railway Station is about 6 km (SE) away from the project site. Biju Patnaik International Airport is at 5.4 km (E) from project site. Ghatikia PF-Approx.0.05 km (E); Mendhashala RF-Approx.2.3 km (W); Shikarachandi Hill Forest-Approx. 11 km (NE); Barunai RF-Approx. 14.2 km (SW).

5. The site is coming under Bhubaneswar Development Authority
6. The project site is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC and CRZ area.
7. The plot area is 72,908.17 m² (18.02 Acres) with total built-up area 4,45,308.32 m².
8. There are some labour camps constructed at site by PP for one of their other project with approx. BUA = 8149 sqm which they will remove before start of construction work at site.
9. The project comprises of the following facilities:
Residential Dwelling Units (2,094 nos.)
Club House
Swimming Pool

10. Area Statement:

S. No.	Particulars	Total Area (m2)
1.	Total Plot Area	72,908.17
2.	Permissible Ground Coverage (@40%)	29,163.27
3.	Proposed Ground Coverage (@39.51%)	28,804.82
4.	Max. Permissible F.A.R (@4)	2,91,632.68
5.	Total Proposed FAR area (@3.985)	2,90,549.24
6.	Non-FAR Area (Incl. Basement& Stilt floor Area)	1,54,759.08
7.	Total Built Up Area (5 + 6)	4,45,308.32
8.	Green Area (@21.59%)	15,741.74
9.	Maximum Height of the building (m)	86.30
10.	Total Population	15,694 persons

11. **Water requirement:** During operation phase, the source of water supply will be Ground water. The total water requirement for the project will be approx. 1,828.5 KLD out of which domestic water demand is 1,765 KLD. The freshwater requirement will be 1,161 KLD.

S. No.	Description	Occupancy	Rate of water demand (LPCD)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	Domestic Water						
	Residents	12,557	90	45	1,130.13	565.065	1,695.195

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	Staff (Maintenance, Club)	753	25	20	18.825	15.06	33.885
	Visitors	2,384	5	10	11.92	23.84	35.76
	Total	15,694	---		1,161 KLD	604 KLD	1,765 KLD
Total Domestic Water = 1,765 KLD							
B.	Swimming Pool	---			2.5 KLD		
C.	Horticulture	15,230.52 m ²	4 l/sqm		61 KLD		
Grand Total (A + B + C) = 1,828.5 KLD							

12. **Wastewater details:** The project will generate approx. 1,533 KLD of wastewater. The wastewater will be treated in onsite STP of 1,600 KLD capacity. The treated effluent will be reused for flushing & horticulture. 715 KLD in Summer season and 768KLD in Monsoon season surplus treated effluent will be discharged to external sewer.

Domestic Water Requirement		1,764 KLD
•	Fresh	1,161 KLD
•	Flushing	604 KLD
Wastewater [@80% fresh + 100% flushing]		928.8 + 604 = 1,533 KLD
STP Capacity		1,600 KLD (1.6 MLD)

13. **Rainwater harvesting details:** 8 RWH tanks having total capacity of 1740 m³ are proposed to collect rainwater.

14. **Parking details:** Parking required = 2094 ECS (As per State Bye laws). Proposed Parking Area = 1,25,413.34 m². Total 2,848 ECS parking is proposed.

15. **Power Requirement:** The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The total maximum demand load is estimated as 8195 kVA. 5% of the total power demand will be met through solar energy i.e. 410 kVA along with 5% for LED lighting and other conservation measures. Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption. There is provision of 7 nos. of DG sets of 5 x 750 & 2 x 500 kVA each capacity (total 4750 kVA) for power back up. The DG set will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion as per CPCB norms.

16. **Fire fighting Installations:** Firefighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

17. **Solid waste generation:** During the operation phase, waste will comprise domestic as well as horticultural waste. The solid waste generated from the project shall be approx. 7,034 kg per day (@ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the

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visitor, 0.25 kg per capita per day for the staff members and landscape waste @ 0.2 kg/acre/day.

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1.	Domestic Solid Waste			
	Residents	12,557	0.5	6278.5
	Staff (Maintenance, Club)	753	0.25	188.25
	Visitors	2,384	0.15	357.6
2.	Horticultural Waste (3.76 acres)		@ 0.2 kg/acre/day	0.752
3.	STP Sludge		Waste water x 0.35 x B.O.D difference/1000	209.25
Total Solid Waste = 7,034 kg/day				

18. **Greenbelt:** Green Belt will be developed over an area of 15,741.74 m² i.e. 21.59% of the plot area. Total 915 Nos. of plants to be planted and 3m spacing between plants and it will be 2 tier plantations.

19. **Baseline data was collected during period October 2023 to December 2023.**

20. **Project cost:** The estimated Project cost is 958.66 Crores (Land and Development Cost) and cost form EMP is 203.95 lakhs.

ENVIRONMENT MANAGEMENT PLAN (DURING OPERATION PHASE)		
COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	160	40
Rain Water Harvesting System	12	3
Solid Waste Management	14	3.5
Environmental Monitoring	0	9
Green Area/ Landscape Area	9.5	2.4
Others (Energy saving devices, miscellaneous)	10	2.5
TOTAL	205.5	60.4

21. **Environment Consultant:** The Environment consultant M/s. **Grass Roots Research & Creation India (P) Ltd., Noida** along with the proponent made a presentation on the proposal before the Committee on 13.03.2024.

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22. The SEAC in its meeting held on dated **13-03-2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- i) The proponent shall submit the complete water management plan for the proposed project. Supporting land documents in name of PP/ agreement with private owners for drain connectivity to the nearest public drain. Application to concerned Drainage department for discharge of treated water and storm water to nearest public drain needs to be submitted.
- ii) The Project proponent shall ensure to recharge atleast 50% of total water requirement to maintain proper balance of ground water usage.
- iii) The Project Proponent shall ensure that both solid and liquid wastes shall not dispose to nearest Ghatikia Protected forest which is at 0.05km.
- iv) Total area (with percentage) dedicated to visitor parking along with Layout plan to be submitted.
- v) Since the project falls under low lying areas, there are chances of flooding/water logging during heavy downpour. The PP shall furnish the details of the height and plinth level of the basement and RL of the road and shall ensure that no water logging occurs in the premises.
- vi) The wildlife conservation plan submitted by the proponent needs to be approved by PCCF Wildlife and Chief Wildlife Warden.
- vii) Compliance to notification of Housing and Urban Development Dept., Govt. of Odisha vide file no. 3810/HUD dtd. 16.02.2024.
- viii) Details of the groundwater withdrawal & usage and details of the recharge pits provided.
- ix) Explore the possibility of sourcing and utilizing water from PHD Deptt. for the project.
- x) Concrete action plan for noise management during construction phase.
- xi) The PP shall ensure that soil excavation during construction phase either store properly to use later in greenbelt or if transported to different place needs to be sent in tarpaulin covered vehicles to avoid spillage in public roads.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.

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vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vii) Any other issues including local issues.

23. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The proponent shall submit the complete water management plan for the proposed project. Supporting land documents in name of PP/ agreement with private owners for drain connectivity to the nearest public drain. Application to concerned Drainage department for discharge of treated water and storm water to nearest public drain needs to be submitted.	Water management plan is attached as Annexure-I . Wastewater discharge permission has been obtained from competent authority is attached as Annexure-II . There is no land required for drainage connection. Therefore, land documents are not applicable.	<ul style="list-style-type: none"> • Permission for discharge of storm water to natural drainage channel has given. • Permission for discharge of treated water has not been submitted.
2.	The Project proponent shall ensure to recharge atleast 50% of total water requirement to maintain proper balance of ground water usage.	We will provide 8 nos. RWH tanks, each having capacity of 1740 m3 which will be reused for domestic purpose after treatment. RWH calculation is attached as Annexure-III .	-
3.	The Project Proponent shall ensure that both solid and liquid wastes shall not dispose to nearest Ghatikia Protected forest which is at 0.05km.	Undertaking regarding the same is attached as Annexure-IV .	Undertaking submitted.
4.	Total area (with percentage) dedicated to visitor parking along with Layout plan to be submitted.	We will provide 10.10% of required parking for visitors i.e., 9,376.36 m2. Parking details along with layout plan is attached as Annexure-V .	layout plan is attached
5.	Since the project falls under low lying areas, there are chances of flooding/water logging during heavy downpour. The PP shall furnish the details of the height and plinth level of the basement and RL of the road and shall ensure that no water logging occurs in the premises.	Layout plan showing details of the height and plinth level of the basement and RL of the road is attached as Annexure-VI .	layout plan is attached
6.	The wildlife conservation plan submitted by the proponent needs to be approved by PCCF Wildlife and Chief Wildlife Warden.	Approved conservation plan from PCCF Wildlife and Chief Wildlife Warden is attached as Annexure-VII .	Approved conservation plan from PCCF Wildlife and Chief Wildlife Warden is attached
7.	Compliance to notification of Housing and Urban Development Dept., Govt. of Odisha vide file no. 3810/HUD dtd. 16.02.2024.	Undertaking regarding the same is attached as Annexure-IV .	Copy submitted

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
8.	Details of the groundwater withdrawal & usage and details of the recharge pits provided.	Details of ground water consumption is attached as Annexure- VIII and RWH calculation is attached as Annexure-III .	Fresh water – 1163.5KLD and 715KLD (Non Monsoon) and 768KLD (Monsoon) of treated water will be discharge to drain. Recharge of 1740 m ³ rain water is proposed.
9.	Explore the possibility of sourcing and utilizing water from PHD Deptt. for the project.	We have obtained CGWA NOC vide letter no. CGWA/NOC/INF/ORIG/2024/20345 dated 12.03.2024 and copy of the same is attached as Annexure-IX .	Annexure - IX was not found in compliance report.
10.	Concrete action plan for noise management during construction phase.	Noise management during construction phase is attached as Annexure- X .	Copy submitted
11.	The PP shall ensure that soil excavation during construction phase either store properly to use later in greenbelt or if transported to different place needs to be sent in tarpaulin covered vehicles to avoid spillage in public roads.	The topsoil of 150 mm (6 inch) depth shall be removed and stored separately within the site and shall be mixed with sweet soil. This is to be used for the development of proposed Landscape in the Project. The excess and unwanted soil transported outside the Project shall be sent in trucks, in covered conditions to avoid spillages in Public Roads. Undertaking regarding the same is attached as Annexure-IV .	Undertaking submitted
Reply to Site visit			
1.	Environmental settings of the project site.	The proposed project is fresh project. Land documents of the same is attached as Annexure-XI .	Copy submitted
2.	Verify if the site is a flood prone area.		
3.	Construction activity if any started at the site and extent of construction activity.	No construction has been started. Current status of the project along with photographs is enclosed as Annexure- XII .	Photographs submitted
4.	Road connectivity to the project site.	The connecting road is Nanadakanan Road which is adjacent to the project site. The Nearest Highway is NH-16 which is approx. 6.3 km in east direction from the project site, NH 316A is approx. 7.5 km (ESE) away, NH-55 is approx. 11.5 km (NE) away from the project site.	
5.	Drainage network at the site.	Wastewater discharge plan showing	

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		drain connectivity is attached as Annexure-I.	
6.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Details provided above in point no. 3.	
7.	Any other issues including local issues.	No other issues.	

24. The proposed site was visited by Sub-Committee of SEAC on dated **26.04.2024** and following observations as mentioned below:

- a) PP and his team with consultant were present. There was no construction activity found in the land. The land is connected by 40 ft road from 2 sides.
- b) The layout plan was explained in details with location of STP, Transformer etc
- c) PP needs to submit the following:
 - BDA Plan provisionally approved
 - No. of basements, stilts and floors
 - Parking percentage with ECS, complying to MOEF norms
 - Drainage approval and permission from appropriate authority to discharge the excess treated water and storm water to the near road side drain.
 - Rain water harvesting details and number of RWH recharge pits
 - Maximize use of treated water and submit revised water balance
 - Revise green belt plantation with percentage
- d) All other points asked during presentation to be complied.
- e) PP needs to maintain terrane with drain in all sides to avoid flooding situation.
- f) Project proponent needs to maintain safety & protection during transportation of excavated soil from the site to dumping yard.

25. The proponent has complied to the observations of sub-committee of SEAC in the reply to the ADS.

Considering the information furnished and the presentation made by the consultant, **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – C** in addition to the following specific conditions.

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) Greenbelt shall be developed in minimum 20% (excluding land scaping).
- iii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the

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- connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iv) The proponent shall obtain permission from concerned authority for connecting drain to the road side drain with approval of drain layout and discharge of excess treated water.
 - v) The proponent shall get approved drain layout and sewage layout with plan for treatment and disposal of sewage waste from competent authority.
 - vi) The proponent shall obtain approval of building plan from BDA.
 - vii) The proponent shall take appropriate measures to reduce the discharge of water. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.
 - viii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
 - ix) The proponent shall obtain permission from concerned Fire Safety Authority.
 - x) Trees located within the project area shall be transplanted to alongside the boundary green development area.
 - xi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
 - xii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
 - xiii) The project proponent shall maintain terrane with drain in all sides to avoid flooding situation.
 - xiv) Project proponent shall maintain safety & protection during transportation of excavated soil from the site to dumping yard.
 - xv) The proponent shall obtain permission for discharge of treated water to nearby drain.
 - xvi) The proponent shall comply to the MoEF&CC norms w.r.t. parking percentage with ECS.
 - xvii) The Project Proponent shall explore the possibility of sourcing and utilizing water from PHD Deptt. for the project.
 - xviii) The Project Proponent shall submit an undertaking to implement the Wildlife Conservation Plan as approved by The Chief Wildlife Warden, Odisha.
 - xix) Before starting the construction physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
 - xx) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

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ITEM NO. 08

PROPOSAL OF AMENDMENT ENVIRONMENTAL CLEARANCE FOR PRATAPNAGARI SAND QUARRY OVER AN AREA 5.26 HA OR 13.00 ACRES VILLAGE – PRATAPNAGARI, CUTTACK SADAR TAHASIL, CUTTACK DISTRICT OF SRI PRAKASH CHANDRA RAUTARAY - MOD EC

1. This proposal is for amendment Environmental Clearance for Pratapnagari Sand Quarry over an area 5.26 ha. or 13.00 acres Village Pratapnagari Cuttack sadar Tahasil Cuttack District of Sri Prakash Chandra Rautaray as per the Replenishment Study Report.
2. Environmental Clearance for the proposal was granted vide letter no. 1037 dated 26.03.2021.
3. In Approved Mining Plan, the annual production capacity is 16500 cum/year.
4. SEIAA has permitted for 15780 cum/year for 1st year for sand extraction, followed by submission of Replenishment Study Report.
5. Replenishment Study Report has been submitted by PP. Both Pre monsoon (April 2022) and Post Monsoon (Dec 2022) study has been carried out by field survey Method.
6. Amount of sand replenished is 12800cum and available mineable reserve is 29350cum.
7. The PP has proposed for same 12800 cum/year for 2nd year in application form.
8. The SEAC in its meeting held on dated **02nd, 03rd, 04th and 05th August 2023** decided to take decision on the proposal after receipt of the following information/documents from the concerned Tahasildar/PP:
 - i) Clarifications from project proponent on the discrepancies of pre-monsoon and post-monsoon survey dates mentioned at various places of the study report. The project proponent needs to state the date of pre-monsoon survey correctly. In page 53, it is mentioned May 2022 as pre-monsoon survey whereas page 61 post-monsoon survey date is mentioned as 21.05.2022. Similarly, Table 6 in page 70 states post-monsoon survey month October 2022. The project proponent to state clearly the dates of pre-monsoon and post-monsoon survey.
 - ii) The image plates of pre-monsoon survey with date stamp of the pre-monsoon survey date to be made available. Image plates of post-monsoon survey carried out on 19.11.2022 are only seen in the above-mentioned report.
9. The Project Proponent has submitted compliances of the SEAC by addressing the queries raised by SEAC in the replenishment study report in page no. 2, 10 & 70. The date of survey for pre & post monsoon has been incorporated as 21.05.2022 & 19.11.2022 respectively. The image for the quarry lease area has been given in page no 12 of the replenishment study report. Revised Replenishment Report has been submitted.
10. The SEAC in its meeting held on dated **07th, 08th and 11th September 2023** decided to take decision on the proposal after receipt of the following from the concerned Tahasildar/PP:
 - (i) Photographs of the ML site with date and time stamp of pre and post monsoon survey days have not been given. Only Google photo of ML area and relief map of ML area prepared by survey have been given.
11. The Project Proponent has submitted compliances of the SEAC by submitting photographs of Pre Monsoon and Post Monsoon periods.

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12. The SEAC observed the following:

- i) The Google image shows more than 90% of the lease area is covered with water.
- ii) The photographs submitted in compliance report, One cannot make out the position of pillars in the lease area.
- iii) Though vast area beyond the lease area looks covered with sand, the surface plan & geological plan shown in drawings are different than the actual satellite image. (iv) The calculation of volume of sand (mineable reserve as per Pre & Post monsoon study by cross sectional method) deposited is 10292cum.

13. The SEAC in its meeting held on dated 28th, 29th and 30th December 2023 decided to take decision on the proposal after site visit by sub-committee of SEAC to verify the availability of sand in the proposed quarry.

14. The proposed site was visited by Sub-Committee of SEAC on dated 30.03.2023 and following observations as mentioned below:

Following observations are made from KML file

- i) Size of the lease area: 154m x 90m.
- ii) 54m. towards south west is sand covered.
- iii) Top 100m. looks as bank of river with levels varying from 39 m. to 44m.
- iv) PHED water treatment plant is 90m. towards north east of the lease area.
- v) One playground at RL 47m. is located at 50m. towards north of lease area.
- vi) A bridge and Puri canal syphon crossing Kuakhai river is about 250m. Northward (Upstream) of lease area.

The observations at during site visit are as follows:-

- a) The lease area is completely free from water.
 - b) Pillars were not seen in lease area.
 - c) Access road to the quarry is not clear
- vii) The KML file photo shows vast area beyond lease area covers with sand and the site condition also reveals that only 20% of lease area is sand and balance is stabilized bank and not advisable for consideration of mining. Sand mining of the area may risk the flood protection facility of the river at the location
- viii) The entire lease area appears to be within 500 m of Downstream of existing Bridge and Syphon. As per annexure -2 of EC (03.06.2022), no mining should be done at 500m. D/S of bridge/ public civil structure. But para 7.15 of EC states "In case river bridge, no mining zone shall extend up to 200m. from the bridge and it may extend up to 500m in sensitive locations."

Observations: As per the guidelines 2020, the lease area may not be suitable for sand extraction as within distance of 500m from bridge and syphon. It is suggested to shift the location downward with adequate safety distance from vulnerable constructions and areas.

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)

J Nayak
Environmental Scientist, SEAC

After detailed discussion, the SEAC recommended to reject the proposal as the lease area may not be suitable for sand extraction as within distance of 500m from bridge and syphon. It is suggested to shift the location downward with adequate safety distance from vulnerable constructions and areas.



MEMBER SECRETARY, SEAC

Proceedings of the SEAC meeting held on 16.05.2024 (Old proposals – compliance received)



Environmental Scientist, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ASSOTECH SUN GROWTH ABODE LLP FOR PROPOSED RESIDENTIAL APARTMENT BUILDING "AVENUE-7, ASSOTECH WORLD" OVER AN BUILT-UP AREA 2,24,655.00 SQM AT PLOT NO. 317, 318, 319, 327/11161, 327/11159 & OTHERS OF MOUZA-RUDRAPUR, PS-BALIANTA, TEHSIL-BHUBANESWAR, DIST-KHURDA OF SRI SASHANK SEKHAR ROUT - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 524.40 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available.

This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 14 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall 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.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

23. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 700 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash 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 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 9,580.00sqm (27 % of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha 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 Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the 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 the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance 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&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ZONEX INFRA PROJECTS PVT. LTD. OF PROPOSED (B+G+18) STORIED MIG RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 40,827.928 SQM LOCATED AT MOUZA- RAGHUNATHPUR, TAHASIL- BHUBANESWAR, DIST- KHURDA OF SRI GAURANGA CHARAN BARIK - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 82 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 21 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall 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.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
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23. A certificate from the competent authority handling municipal solid wastes, indicating the

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 120 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
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29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
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31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
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AIR QUALITY AND NOISE

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40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

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GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1,490.85sqm (20.06% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

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 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
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53. Parking shall be prohibited on the access road to the proposed project site.
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56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
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OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha 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 Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the 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 the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance 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&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S. TRIDENT PROPERTIES PVT. LTD FOR RESIDENTIAL PROJECT OVER A BUILT-UP AREA 4,45,308 M² LOACTED AT MOUZA-PAIKARAPUR, TEHSIL-BHUBANESWAR, DISTRICT-KHORDHA OF SRI MV SHASHI KUMAR - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 1161 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 08 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall 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.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
23. A certificate from the competent authority handling municipal solid wastes, indicating the

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 1600 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.



34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash 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 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 15,741.74sqm (21.59 % of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
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47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
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