

SL. NO. 18

BEFORE THE NATIONAL GREEN TRIBUNAL SITTING AT KOLKATA

**(Under Section 18(1) read with Section 16 of National Green Tribunal
Act, 2010)**

APPEAL No. of 2024/EZ

Between

Z-Estates Private Limited & Anr.

...Appellants

VERSUS

State Environment Impact Assessment Authority Odisha & Anr.

...Respondents

APPEAL

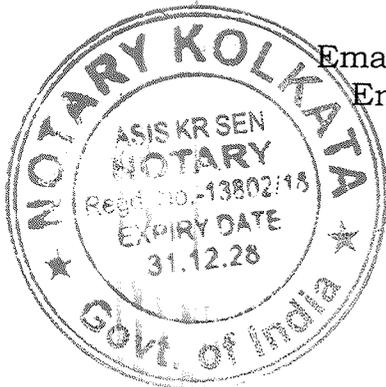
Akshita Bohra

Advocate-on-record:

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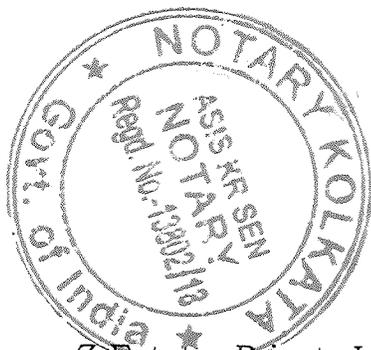
Email Id: akshita.bohra@argus-p.com
Enrolment no.: F/550/369/2019



1 MAY 2024

BEFORE THE NATIONAL GREEN TRIBUNAL SITTING AT KOLKATA

(Under Section 18(1) read with Section 16 of National Green Tribunal Act, 2010)



APPEAL No. of 2024/EZ

Between

Z-Estates Private Limited & Anr.

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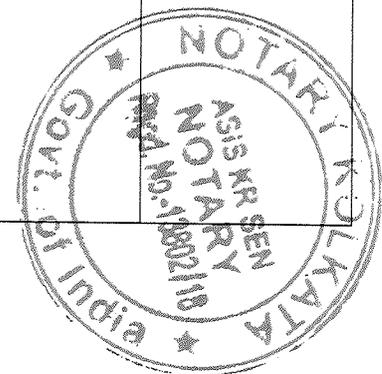
State Environment Impact Assessment Authority Odisha & Anr.

...Respondents

I N D E X

<u>Sl. No.</u>	<u>PARTICULARS</u>	<u>ANNEXURE</u>	<u>PAGES</u>
1.	Synopsis of the case		I-II
2.	List of Dates		III-IV
3.	Memorandum of Appeal with verification		1-27
4.	A copy of the application Form 1 and Form 1A submitted by the Appellant along with letters dated December 28, 2010, January 7, 2011, March 3, 2011, April 2, 2011, May 2, 2011, May 14, 2011, May 16, 2011 and July 1, 2011, and the Environmental Clearance dated August 16, 2011	P-1	28-98
5.	Copies of Form I and Pre-feasibility Report and the Amendment Environment Clearance dated February 23, 2016	P-2	99-165

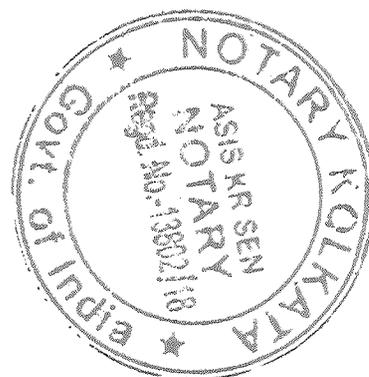
6.	A copy of the Occupancy Certificate with respect to Phase-I issued on August 27, 2016	P-3	166-167
7.	A copy of the application dated July 19, 2018 and the Environmental Clearance dated March 17, 2020	P-4	168-200
8.	A copy of the Occupancy Certificate with respect to Phase-II of the Project was issued on February 10, 2022	P-5	201-202
9.	A complete aerial view of the layout of the Project as per the Environmental Clearance granted for each phase	P-6	203
10.	A copy of the order dated May 1, 2023 passed in O.A. No. 11/2022/EZ	P-7	204-251
11.	A copy of the Report filed by the Joint Committee	P-8	252-309
12.	A copy of the show cause notice dated December 28, 2023 issued by the Respondent No. 1	P-9	310-311
13.	A copy of the reply dated January 11, 2024 (with annexures) filed by the Appellant	P-10	312-401
14.	A copy of the Impugned Order dated March 16, 2024, passed by the Respondent No. 1	P-11	402-405
15.	A copy of the Work Order dated August 19, 2022 issued by the Appellant	P-12	406-417
16.	Copies of the correspondences exchanged between the Appellants and Respondent No. 2 evidencing the delay in grant of approval by the Respondent No. 2 for the Solar Water Heating System	P-13	418-448



17.	Copies of the photographs of the installed rooftop solar water heating system	P-14	449-453
18.	The calculation and details of installing agency for the solar water heater system	P-15	454-456
19.	Photographs of the current three tier plantations indicating the Green Belt and Avenue Plantation developed at the project premises	P-16	457-484

Akshita Bolina

Advocate for Appellants



I

BEFORE THE NATIONAL GREEN TRIBUNAL SITTING AT KOLKATA

(Under Section 18(1) read with Section 16 of National Green Tribunal Act, 2010)

APPEAL No. of 2024/EZ

Between

Z-Estates Private Limited & Anr.

...Appellants

VERSUS

State Environment Impact Assessment Authority Odisha & Anr.

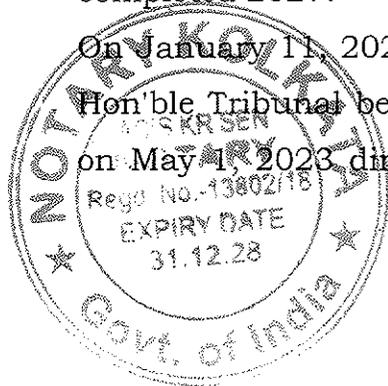
...Respondents

SYNOPSIS OF THE CASE

The Appellant No. 1 is a private company incorporated under the provisions of the *erstwhile* Companies Act, 1956 and an existing company under the provisions of the Companies Act, 2013. The Appellant is engaged in the business of real estate development in the state of Odisha. The Appellant is the Project Proponent of Z-1 Apartment Complex located at Kalarahanga, Patia, Bhubaneswar, Dist. – Khordha, Odisha (**'Project'**). The Respondent No. 1 is the State Environment Impact Assessment Authority, Odisha, a statutory body constituted by the Ministry of Environment, Forest & Climate Change under the provisions of the Environment (Protection) Act, 1986 (**'Environment Act'**). The Respondent No. 2 is the residents' welfare association of the Project.

The Project being a large one, is to be developed in phases. It is submitted that as on date the Project Proponent has completed 2 (two) phases and Phase-III is under progress. Phase-III of the Project is expected to be completed 2027.

On January 11, 2022, the Respondent No. 2 filed an application before this Hon'ble Tribunal being O.A. No. 11/2022/EZ which was finally disposed of on May 4, 2023, directing the Respondent No. 1 to inspect the Project site

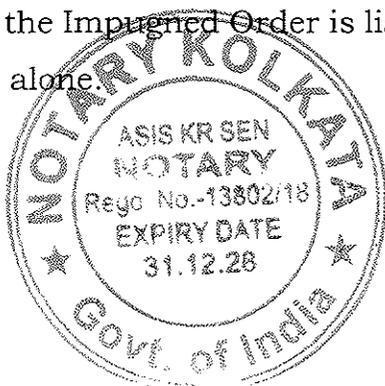


11

within one month and verify whether installation of Solar Power Generating System for Phase-I and installation of Solar Heater has been completed and with regard to completion of Green Belt and Avenue Plantation over at least 20% of the site area. The Joint Committee, constituted under the aegis of order dated May 1, 2023 visited the Project site on July 13, 2023 and subsequently filed its Report, recommending the Project Proponent to deposit Rs. 1,41,37,500/-. Thereafter, the Respondent No. 1 issued a Show Cause Notice ("**SCN**") dated December 28, 2023 as to why an amount of Rs. 1,41,37,500/- should not be imposed as penalty on the Appellant for alleged non-compliance of the EC conditions. The Appellant filed a detailed reply to the SCN through letter dated January 11, 2024 explaining the reasons for delay in compliance of the applicable EC conditions, which were entirely out of the control of the Appellant. The Solar Power Generating System had already been installed, however, the same was not under operation due to non-availability of permission from the residents' welfare association, *i.e.*, the Respondent No. 2. Furthermore, the Project is an integrated project and therefore there was no permanent boundary wall available for development of Green Belt and Avenue Plantation.

Thereafter, a hearing was scheduled on February 3, 2024 by the Respondent No. 1. The Appellant appeared before the Respondent No. 1 and presented its case as to why the penalty should not be imposed. Despite the reply dated January 11, 2024 and representations made on February 3, 2024, clearly explaining the reasons for delay in compliance of the applicable EC conditions, which were entirely out of the control of the Appellant, the Respondent No. 1 in complete disregard of the same have passed an order dated March 16, 2024 ("**Impugned Order**"). By way of the Impugned Order, the Respondent No. 1 had directed the Appellant to deposit Environmental Compensation amounting to Rs. 1,41,37,500/- for alleged violation of conditions of the Project Proponent's EC with respect to the Project.

Hence, the Impugned Order is liable to set aside, recalled or quashed on such ground alone.



III

BEFORE THE NATIONAL GREEN TRIBUNAL SITTING AT KOLKATA

(Under Section 18(1) read with Section 16 of National Green Tribunal Act, 2010)

APPEAL No. of 2024/EZ

Between

Z-Estates Private Limited & Anr.

...Appellants

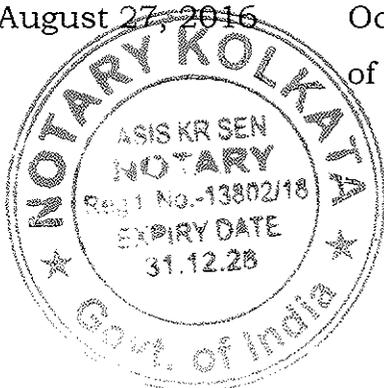
VERSUS

State Environment Impact Assessment Authority Odisha & Anr.

...Respondents

LIST OF DATES

- | | |
|--------------------|--|
| November 1, 2010 | The Appellant submitted Form 1 and Form 1A along with the scrutiny fees for obtaining Environmental Clearance (“EC”) |
| August 16, 2011 | EC was granted to the Appellant based upon the above submitted Form 1 and Form 1A |
| September 10, 2014 | Amendment application under Form 1 for obtaining approval for Phase-II of the Project was made by the Appellant |
| February 23, 2016 | EC was granted to the Appellant based upon the above submitted amended application under Form 1 |
| August 27, 2016 | Occupancy Certificate issued with respect to Phase-I of the Project |



IV

July 19, 2018 Appellant made online application for obtaining approval for Phase-III of the Project

March 17, 2020 EC was granted to the Appellant based upon the above submitted online application for Phase-III of the Project

January 11, 2022 Respondent No. 2 filed an application before this Hon'ble Tribunal being O.A. No. 11/2022/EZ

February 10, 2022 Occupancy Certificate issued with respect to Phase-II of the Project

August 19, 2022 Work Order issued by the Appellant to M/s. Solar Sack to execute the job of installing a solar system

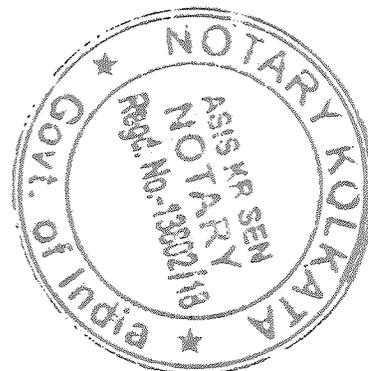
May 1, 2023 Order passed by the Hon'ble Tribunal in O.A. No. 11/2022/EZ directing the Respondent No. 1 to inspect the Project site within one month

July 13, 2023 The Joint Committee, constituted under the aegis of order dated May 1, 2023 visited the Project site

December 28, 2023 The Respondent No. 1 issued a Show Cause Notice ("SCN") under Section 5 of the Environment Act to the Appellant

January 11, 2024 The Appellant filed a detailed reply to the SCN issued by the Respondent No. 1

March 16, 2024 The Respondent No. 1 directed the Appellant to deposit Environmental Compensation amounting to Rs. 1,41,37,500/-



BEFORE THE NATIONAL GREEN TRIBUNAL SITTING AT KOLKATA

MEMORANDUM OF APPEAL

**(Under Section 18(1) read with Section 16 of National Green Tribunal
Act, 2010)**

APPEAL No. of 2024/EZ

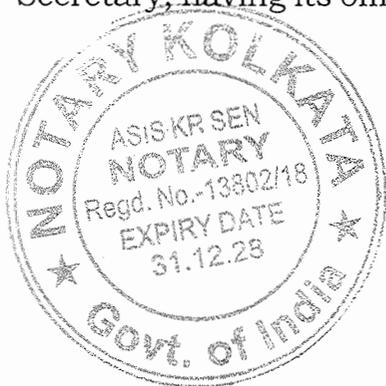
BETWEEN:

1. Z-Estates Private Limited, represented by the Director of the Company, having its registered office at M4/34, Acharya Vihar, Bhubaneswar – 751013, Odisha. Email ID: zestates@zestates.in
2. Tapan Kumar Mohanty, son of Late Bansidhar Sahoo, working for gain at Z-Estates Private Limited, having its registered office at M4/34, Acharya Vihar, Bhubaneswar – 751013, Odisha. Email ID: md.zestates@zestates.in

...APPELLANTS

VERSUS

1. State Environment Impact Assessment Authority Odisha, service through the Member Secretary, having its office at 5RF-2/1, Unit-IX, Bhubaneswar – 751022, Odisha. Email ID: seiaaodisha@gmail.com
2. Z1 Residents' Welfare Association, service through the General Secretary, having its office at Bidhubhusan Nayak, Tower 1, Flat No.



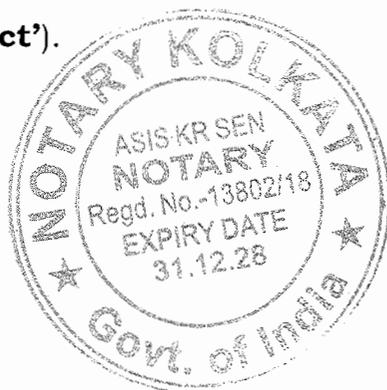
1304, Z1 Estate, Nadankanan Road, Kalarhanga, Patia,
Bhubaneswar – 751024, Odisha. Email ID: Z1rwa.bbsr@gmail.com

....RESPONDENTS

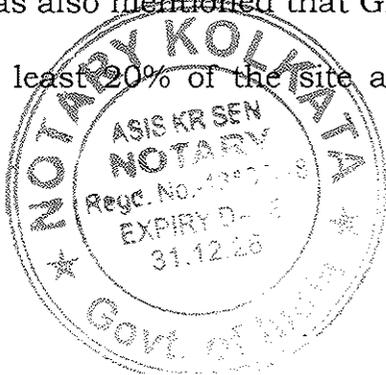
- (I) The address of the Appellants is as given above for the service of this appeal and that of their representative Argus Partners is 3rd Floor, Binoy Bhawan, 27B Camac Street, Kolkata – 700016.
- (II) The addresses of the Respondents are as given above for service of notices of the present appeal.
- (III) The Appellants above-named begs to present the Memorandum of Appeal against the order dated March 16, 2024 (**'Impugned Order'**) passed by the Respondent No. 1 hereinabove, on the grounds set out hereunder:

FACTS IN BRIEF:

1. The Appellant No. 1 is a private company incorporated under the provisions of the *erstwhile* Companies Act, 1956 and an existing company under the provisions of the Companies Act, 2013. The Appellant No. 2 is one of the directors of the Appellant No. 1 and is duly authorised to represent Appellant No. 1. The Appellant No. 1 is engaged in the business of real estate development in the state of Odisha. The Appellant No. 1 is the Project Proponent of Z-1 Apartment Complex located at Kalarahanga, Patia, Bhubaneswar, Dist. – Khordha, Odisha (**'Project'**).

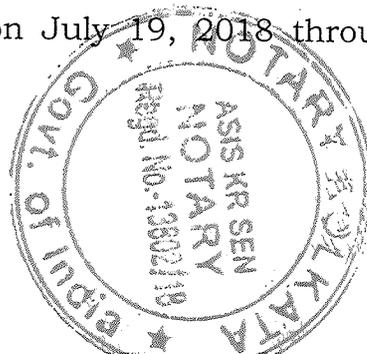


2. The Respondent No. 1 is the State Environment Impact Assessment Authority, Odisha, a statutory body constituted by the Ministry of Environment, Forest & Climate Change under the provisions of the Environment (Protection) Act, 1986 (**'Environment Act'**). The Respondent No. 2 is the residents' welfare association of the Project.
3. Your appellants state that on November 1, 2010, the Appellants submitted Form 1 and Form 1A along with the scrutiny fees for obtaining Environmental Clearance (EC) for the above proposed housing project. The Appellants submitted clarifications and additional information through subsequent letters dated December 28, 2010, January 7, 2011, March 3, 2011, April 2, 2011, May 2, 2011, May 14, 2011, May 16, 2011 and July 1, 2011. Thereafter, the Environment Clearance being Ref. No. 433/SEIAA/SEIAA-261/10 was granted to the Project Proponent through letter dated August 16, 2011 issued by the Respondent No. 1. Photocopies of the application Form 1 and Form 1A submitted by the Appellant along with letters dated December 28, 2010, January 7, 2011, March 3, 2011, April 2, 2011, May 2, 2011, May 14, 2011, May 16, 2011 and July 1, 2011, and the Environment Clearance dated August 16, 2011 are annexed hereto and collectively marked as **"Annexure P-1"**.
4. It is pertinent to mention that in the aforesaid EC, total plot area was 105962.07 sqm. corresponding to Built up area was 244092.73 sqm. It was also mentioned that Green Belt and Avenue Plantation of trees over at least 20% of the Site area shall be done using native tree species



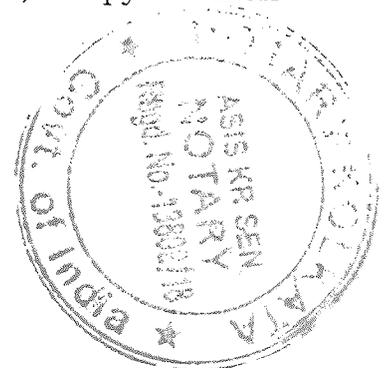
and/or plants improving greenery and keeping in view aesthetics considerations in the whole campus.

5. Your Appellants state that on September 10, 2014, the Appellants submitted Form 1 and Pre-feasibility report along with the scrutiny fees for obtaining Environmental Clearance for the proposed modernization for construction of Housing Colony and Shopping Mall (Phase II) of the Project and additional information was submitted through letters dated January 12, 2015, March 17, 2015, July 13, 2015, and October 20, 2015. Thereafter, the Amendment Environment Clearance being Ref. No. SEIAA/827 was granted to the Project Proponent through letter dated February 23, 2016 issued by the Respondent No. 1. It is pertinent to mention that in the said Form I, the modified plot area was 1,23,717 sqm. corresponding to total Built Up area 2,75,042 sqm. Photocopies of the aforesaid Form I and Pre-feasibility Report and the Amendment Environment Clearance dated February 23, 2016 are annexed hereto and collectively marked as **“Annexure P-2”**.
6. Your Appellants state that Occupancy Certificate with respect to Phase-I was issued on August 27, 2016, a copy of which is annexed hereto and marked as **“Annexure P-3”**.
7. Your Appellants state that the Appellants further submitted proposal for proposed expansion for construction of housing colony and convenient shopping (Phase III) of the Project on July 19, 2018 through online

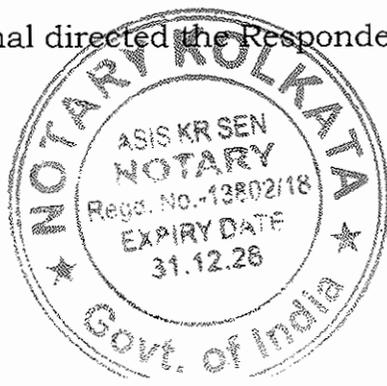


application under File No. SIA/OR/NCP/30018/2018. The Environment Clearance being Ref. No. 7991/SEIAA dated March 17, 2020 was issued by the Respondent No. 1 in favour of the Appellants. Photocopies of the aforesaid application dated July 19, 2018 and the aforesaid Environment Clearance dated March 17, 2020 are annexed hereto and collectively marked as **“Annexure P-4”**.

8. It is respectfully submitted that in the aforesaid Environment Clearance dated March 17, 2020, it was specifically recorded that the total area for Phase I and Phase II of the Project was 1,23,717 sqm. corresponding to Built up area was 73,958.9 sqm for Phase I and 1,11,945.98 sqm for Phase II respectively. The total area for Phase III of the Project was 17,873.23 sqm corresponding to Built up area was 2,09,960.21 sqm. It was also mentioned that total green belt area was 30,929.22 sqm for Phase I and Phase II of the Project and total green belt area was 20,922.87 sqm for Phase III of the Project.
9. The Project being a large one, is to be developed in phases. It is submitted that as on date the Project Proponent has completed 2 (two) phases and Phase-III is under progress. Phase-III of the Project is expected to be completed by 2027.
10. Your Appellants state that the Occupancy Certificate with respect to Phase-II of the Project was issued on February 10, 2022, a copy of which is annexed hereto and marked as **“Annexure P-5”**.



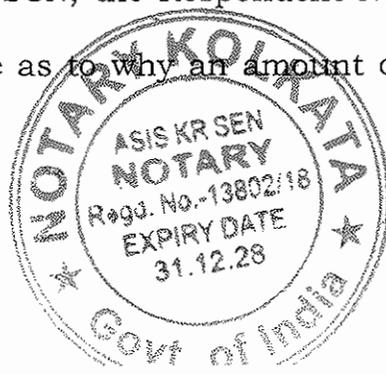
11. A complete aerial view of the layout of the Project as per the Environmental Clearance granted for each phase is annexed hereto and marked as **“Annexure P-6”**. The actions of the Appellants are therefore in pursuance of the representations which were made before the Respondent No. 1 and the permissions granted as a consequence thereof. The Appellants have therefore made every endeavour to ensure that the mandate of the terms and conditions of the Environment Clearance (hereinafter referred as **“EC”**) have not been violated other than situations where the Appellants endeavours were obstructed by factors not within its control.
12. On January 11, 2022, the Respondent No. 2 filed an application before this Hon'ble Tribunal being O.A. No. 11/2022/EZ (*Z1 Residents' Welfare Association vs. Z Estates Private Limited & Ors.*) alleging non-compliance of certain EC conditions by the Appellants and praying for appropriate orders. The Appellants craves the leave of this Hon'ble Tribunal to refer to and rely upon the pleadings in the above application at the time of hearing, if necessary.
13. The matter was heard at length on several occasions by this Hon'ble Tribunal and was finally disposed of on May 1, 2023. Through order dated May 1, 2023 passed in O.A. No. 11/2022/EZ (*Z1 Residents' Welfare Association vs. Z Estates Private Limited & Ors.*), this Hon'ble Tribunal directed the Respondent No. 1 to inspect the Project site within



one month and verify whether installation of Solar Power Generating System for Phase-I and installation of Solar Heater has been completed. Further, with regard to completion of Green Belt and Avenue Plantation over at least 20% of the site area, a Joint Committee was directed to re-visit the Project premises and verify whether at least 20% of the Green Belt has been achieved by the Appellant. A copy of the aforesaid solemn order dated May 1, 2023 passed in O.A. No. 11/2022/EZ is annexed hereto and marked as **“Annexure P-7”**.

14. The Joint Committee, constituted under the aegis of order dated May 1, 2023 visited the Project site on July 13, 2023 and subsequently filed its Report, which was purportedly signed on December 18, 2023, recommending the Project Proponent to deposit Rs. 1,41,37,500/- (Rupees One Crore Forty-One Lakhs Thirty-Seven Thousand Five Hundred) to the Forest, Environment & CC Department, Government of Odisha, and that amount to be used for remedial measures for plantation and installation of Solar Light & Solar Heater at the Project. A copy of the Report filed by the Joint Committee is annexed hereto and marked as **“Annexure P-8”**.

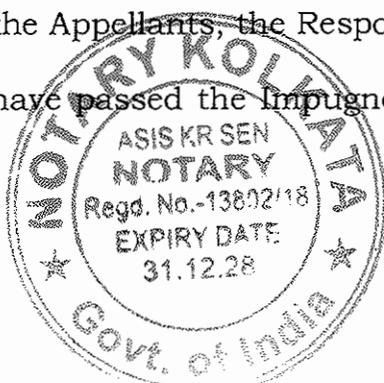
15. Thereafter, the Respondent No. 1 issued a Show Cause Notice dated December 28, 2023 (Reference File No. SEIAA-68/07-2023) under Section 5 of the Environment Act (hereinafter referred to as **‘SCN’**). By way of the SCN, the Respondent No. 1 has directed the Appellants to show cause as to why an amount of Rs. 1,41,37,500/- should not be



imposed as penalty on the Appellants for alleged non-compliance of the EC conditions applicable to the Appellants with respect to the Project. A copy of the SCN dated December 28, 2023 issued by the Respondent No. 1 is annexed hereto and marked as **“Annexure P-9”**.

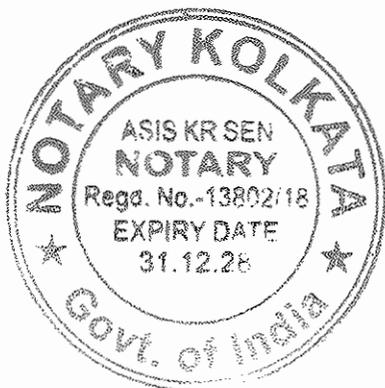
16. The Appellants filed a detailed reply to the SCN through letter dated January 11, 2024 explaining the reasons for delay in compliance of the applicable EC conditions, which were entirely out of the control of the Appellants. It was submitted that the Solar Power generating System has already been installed, however, the same is not under operation due to non-availability of permission from the residents' welfare association, *i.e.*, the Respondent No. 2. It was further submitted that the Project is an integrated project and therefore there is no permanent boundary wall available for development of Green Belt and Avenue Plantation. A copy of the reply dated January 11, 2024 (with annexures) filed by the Appellants is annexed hereto and marked as **“Annexure P-10”**.

17. Thereafter, a hearing was scheduled on February 3, 2024 by the Respondent No. 1. The Appellants appeared before the Respondent No. 1 and presented its case as to why the penalty should not be imposed. Despite the reply dated January 11, 2024 and representations made on February 3, 2024, clearly explaining the reasons for delay in compliance of the applicable EC conditions, which were entirely out of the control of the Appellants, the Respondent No. 1 in complete disregard of the same have passed the Impugned Order. By way of the Impugned Order, the

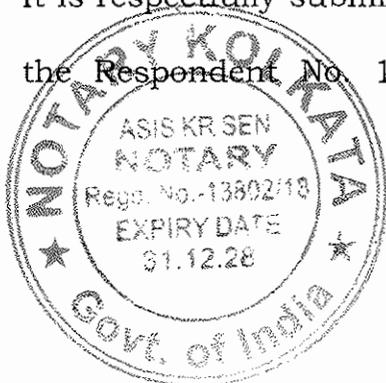


Respondent No. 1 has directed the Appellants to deposit Environmental Compensation amounting to Rs. 1,41,37,500/- for alleged violation of conditions of the Project Proponent's Environmental Clearance (EC) with respect to the Project. A copy of the Impugned Order dated March 16, 2024, passed by the Respondent No. 1 is annexed hereto and marked as **"Annexure P-11"**.

18. It is submitted that in the aforesaid Impugned Order dated 16.03.2024, the residential project of the Appellants has been treated as Red Category Unit by the Respondent No. 1 at the time of calculation of Environmental Compensation of Phase I Building of the appellants. The residential building of the Appellants is the Orange Category of Industry in terms of the Direction dated March 7, 2016 under Memo No. B-29012/ESS(CPA)/2015-16 passed by the Central Pollution Control Board. Your Appellants crave leave to produce the aforesaid Direction dated March 7, 2016 before the Hon'ble Tribunal at the time of hearing, if necessary.
19. It is respectfully submitted that at the of assessing the Calculation of Environmental Cost, the Pollution Index of the residential project of the Appellants has been fixed as 80 as Red Category Industry by the Respondent No. 1. The Pollution Index of the Project of the Appellants should be 50 as Orange Category Industry.

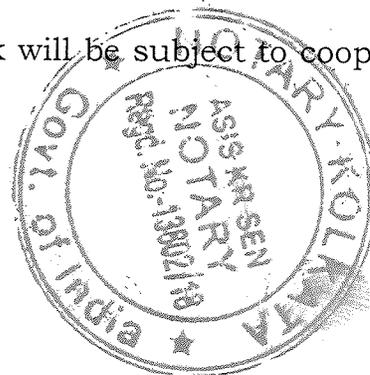


20. It is submitted that the Impugned Order has been passed without application of mind and without application of a proper formula to arrive at the compensation amount. The same is also evident from the Report filed by the Joint Committee.
21. The Impugned Order and the Report incorrectly record that the Solar Power Generating System has not been installed at the premises. Further, the Impugned Order and the Report fail to take into consideration the fact that the Project is an integrated project, and therefore in the absence of a permanent boundary wall, the Appellants are facing impediments in developing Green Belt and Avenue Plantation. The facts pertaining to the situation on ground are detailed below.
22. It is also pertinent to mention that the Joint Committee of the Respondent No. 1 had visited the Project area of the Appellants on July 13, 2023. In the Report, it was stated that as per the site visit and Google Earth Map KML file, it reveals that there is no separate boundary for Phase I, Phase II and Phase III. The Green Belt area for Phase I of the Project area is approximately 9000 Sqm area and for Phase II of the Project area is approximately 11,000 sqm. Thereafter, the total area of Green Belt of the Project area for both Phase I and Phase II is 20,000 Sqm.
23. It is respectfully submitted that at the time of inspection conducted by the Respondent No. 1, 20,000 Sqm. Green Belt has already been



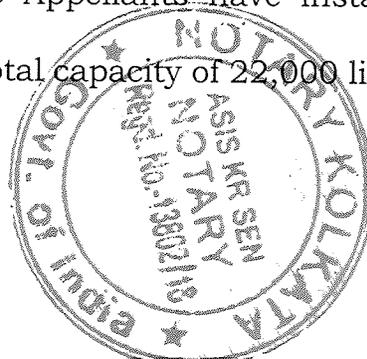
completed by the Appellants. Rest of Green belt, in terms of the EC dated March 17, 2020, could not been completed due to non-availability of the boundary wall of the Phase II of the site area.

24. With respect to the installation of the Solar Water Heating System, *i.e.*, Solar Streetlight and Solar Heater, it is submitted that the Appellants explored the market for a good, sustainable, and service oriented vendor agency and after several rounds of discussion, including discussion with an expert from IIT Bhubaneswar, and the Appellants issued a Work Order dated August 19, 2022 to M/s. Solar Sack to execute the job of installing the requisite solar system. A copy of the Work Order dated August 19, 2022 issued by the Appellant is annexed hereto and marked as **“Annexure P-12”**.
25. However, it is pertinent to note that all installation works at the Project site were subject to approval of Respondent No. 2. It is submitted that all materials were procured by the Appellants and were ready to be installed but unfortunately, there was a delay in obtaining the approval of Respondent No. 2.
26. It is pertinent to mention that in the aforesaid Original Application, the Appellants had submitted Compliance affidavit dated 15.11.2022 before the Hon'ble Tribunal thereby stating that the aforesaid Solar Water Heating System installation work will be completed by 31.01.2023, but such completion of installation work will be subject to cooperation and



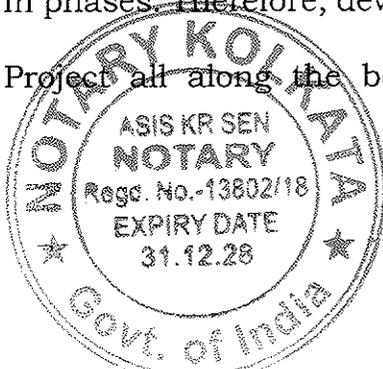
permission rendered and granted by the applicants, *i.e.*, Respondent No. 2 herein.

27. After several rounds of discussion with Respondent No. 2, the Appellants finally received the permission to execute the job over the rooftop of the Phase-I building on November 29, 2022. Thereafter, installation by Solar Sack was completed within two months. The correspondences exchanged between the Appellants and Respondent No. 2 which evidences that the delay in grant of approval by the Respondent No. 2 are annexed hereto and collectively marked as **“Annexure P-13”**.
28. Even though the Appellants have completed the installation of the entire system long back, the same is not under operation till date due to non-availability of permission from the Respondent No. 2. Copies of the photographs of the installed rooftop solar water heating system are annexed hereto and marked as **“Annexure P-14”**.
29. It is submitted that the Appellants approached the Respondent No. 2 for obtaining the necessary approval for operating the solar system, however, it was informed that the Respondent No. 2 is renovating the water supply ring line on such rooftop and necessary clearance to make the installed solar system operative can only be accorded pursuant to completion of such renovation works.
30. It is further submitted that the Appellants have installed a SOLAR WATER HEATER SYSTEM for a total capacity of 22,000 litres catering to



all eight towers in the Project. The same is equivalent to 748 KW electricity which is 7.48 times in excess than the actual requirement of 100 KW as per the terms of EC. The calculation and details of installing agency are annexed hereto and marked as **"Annexure P-15"**.

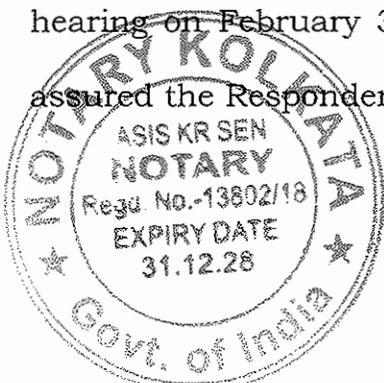
31. Therefore, it is apparent that the delay in operation of the Solar System is not attributable to the Appellants as grant of approval by the Respondent No. 2 is beyond the control of the Appellants.
32. The above situation was brought to the attention of the Respondent Nos. 1 through reply letter dated January 11, 2024 and in the hearing dated February 3, 2024. However, the Respondent No. 1 has failed to take the same into consideration while passing the Impugned Order. Hence, the Impugned Order is liable to set aside, recalled or quashed on such ground alone.
33. It is pertinent to note that the Impugned Order records that the Solar System has been installed but is not under operation due to non-availability of permission from Respondent No. 2, however, despite such observation, the Respondent No. 1 has passed the Impugned Order in a mechanical manner.
34. With respect to the Green Belt Development and Avenue Plantation, it is submitted that the Project is a large integrated project being developed in phases. Therefore, developing the Green Belt from the beginning of the Project all along the boundary wall is not advisable, because such



greenery will get disturbed as and when the subsequent phases within the vicinity of the Green Belt and Avenue Plantation are taken for construction work or completion in the future. Therefore, the Green Belt and Avenue Plantation can only be fully developed by the Appellants where the phase wise construction along with a permanent boundary wall is completed.

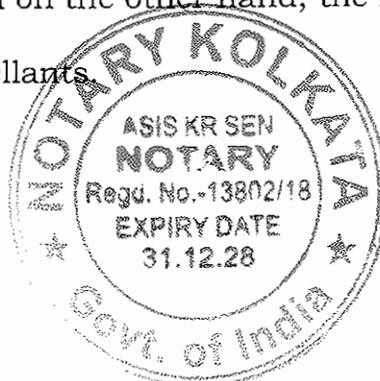
35. It is submitted that the Phase I of the Project was constructed in such a way that there is no permanent boundary wall available for developing a Green Belt. Therefore, only Avenue Plantation comprising of some local species and decorative species of plants was developed initially. Therefore, after completion of Phase II where some portion of a permanent boundary wall was available, the Appellant developed a thick Green Belt along such portion of the available permanent boundary wall with three tier plantation using local species like – Neem, Swarna-Champa, Bakul, Karanja, Radha-chuda, Krushna-chuda, Panas, Mango, etc., along with Avenue Plantation. Photographs of the current three tier plantations indicating the Green Belt and Avenue Plantation developed at the Project premises are annexed hereto and marked as **“Annexure P-16”**.

36. The above submissions were brought to the attention of the Respondent No. 1 through reply letter dated January 11, 2024 and at the time of hearing on February 3, 2024. Further, the Appellants undertook and assured the Respondent No. 1 that it would develop the requisite Green

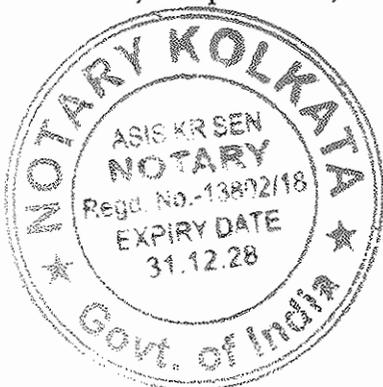


Belt and Avenue Plantation as and when the future phases of the Project are completed, and a permanent boundary wall is available for such purpose. The Appellants also undertook that upon completion of the entire Project, the Appellants will develop the requisite Green Belt and Avenue Plantation along the entire boundary wall as per the EC requirement.

37. However, despite the above, the Respondent Nos. 1 has passed the Impugned Order in a mechanical manner without taking into consideration the fact of the situation. Therefore, the Impugned Order is liable to set aside, recalled or quashed on this ground also.
38. It is submitted that the factors on the ground, as detailed hereinabove, made it impossible for the Appellants to progress further in the matter.
39. It is pertinent to note that the fact of non-availability of separate boundary wall for different phases of the Project was also observed by the Joint Committee in its Report. However, despite such observation, the Respondent No. 1 have passed the Impugned Order holding that the 20% Green Belt is not achieved for Phase-1 building because the entire Project is an integrated and interlink building and construction project. On the one hand the Respondent No. 1 has agreed that the Project is an integrated project and on the other hand, the Respondent have imposed a penalty on the Appellants.

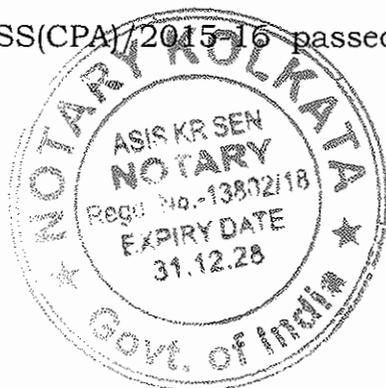


40. The above alleged non-compliances are outside the control of the Appellants. The Appellants undertake to complete the works within a time bound manner as and when the above-mentioned impediments are removed.
41. It is submitted that the liability to perform its duty in terms of the action plan undertaken by the Appellants cannot and does not arise for the simple reason that the Appellants were prevented from executing the work despite there being a specific request to that effect.
42. It is submitted that the operation of the Solar Power Generating System as well as making it functional is completely within the domain and discretion of Respondent No. 2 and the same cannot be interfered with by the Appellant. Respondent No. 2 has consciously omitted to refer the Appellant's side of the story and hence there is no occasion and/or cause of action for the Respondent No. 1 to pass the Impugned Order in as much as the same is premature.
43. It is submitted that the Impugned Order does not specify the provision of law under which the compensation has been calculated, therefore, the same is manifestly arbitrary, illegal and without any basis.
44. It is submitted that the Impugned Order is liable to be modified, set aside, recalled, or quashed, on the following amongst other grounds.

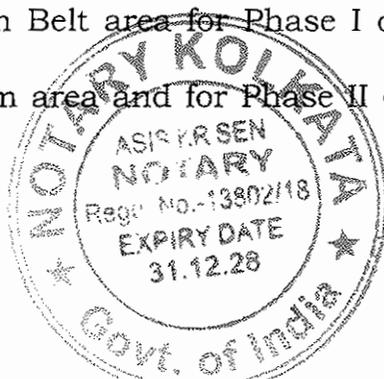


GROUND:

- I. FOR THAT the Impugned Order has no legs to stand on and there is no negligence on part of the Appellants.
- II. FOR THAT in the aforesaid EC dated March 17, 2020, it was specifically recorded that the total area for Phase I and Phase II of the Project was 1,23,717 sqm. corresponding to Built up area was 73,958.9 sqm for Phase I and 1,11,945.98 sqm for Phase II respectively. The total area for Phase III of the Project was 17,873.23 sqm corresponding to Built up area was 2,09,960.21 sqm. It was also mentioned that total green belt area was 30,929.22 sqm for Phase I and Phase II of the Project and total green belt area was 20,922.87 sqm for Phase III of the Project.
- III. FOR THAT Project being a large one, is to be developed in phases. It is submitted that as on date the Project Proponent has completed 2 (two) phases and Phase-III is under progress. Phase-III of the Project is expected to be completed by 2027.
- IV. FOR THAT in the aforesaid Impugned Order dated 16.03.2024, the residential project of the appellants has been treated as Red Category Unit by the Respondent No. 1 at the time of calculation of Environmental Compensation of Phase I Building of the Appellants. The residential building of the Appellants is the Orange Category of Industry in terms of the Direction dated March 7, 2016 under Memo No. B-29012/ESS(CPA)/2015-16 passed by the Central Pollution Control Board.

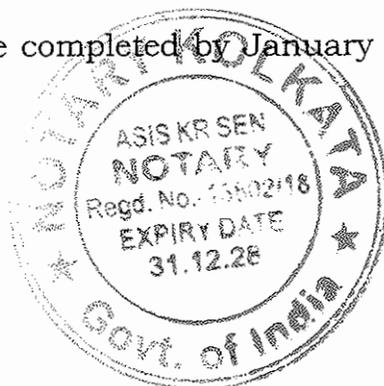


- V. FOR THAT at the time of assessing the Calculation of Environmental Cost, the Pollution Index of the residential project of the Appellants has been fixed as 80 as Red Category Industry by the Respondent No. 1. The Pollution Index of the Project of the Appellants should be 50 as Orange Category Industry.
- VI. FOR THAT the Impugned Order has been passed without application of mind and without application of a proper formula to arrive at the compensation amount. The same is also evident from the Report filed by the Joint Committee.
- VII. FOR THAT The Impugned Order and the Report incorrectly record that the Solar Power Generating System has not been installed at the premises. Further, the Impugned Order and the Report fail to take into consideration the fact that the Project is an integrated project, and therefore in the absence of a permanent boundary wall, the Project Proponent is facing impediments in developing Green Belt and Avenue Plantation.
- VIII. FOR THAT the Joint Committee of the Respondent No. 1 had visited the Project area of the Appellants on 13.07.2023. In the Report, it was stated that as per the site visit and Google Earth Map KML file, it reveals that there is no separate boundary for Phase I, Phase II and Phase III. The Green Belt area for Phase I of the Project area is approximately 9,000 Sqm area and for Phase II of the Project area is approximately



11,000 sqm. Thereafter, the total area of Green Belt of the Project area for both Phase I and Phase II is 20,000 Sqm.

- IX. FOR THAT at the time of inspection conducted by the Respondent No. 1, 20,000 Sqm. Green Belt has already been completed by the Appellants. Rest of Green belt, in terms of the Environment Clearance dated 17.03.2020, could not been completed due to non-availability of the boundary wall of the Phase II of the site area.
- X. FOR THAT the Appellants explored the market for a good, sustainable, and service oriented vendor agency and after several rounds of discussion, including discussion with an expert from IIT Bhubaneswar, and the Appellants issued a Work Order dated August 19, 2022 to M/s. Solar Sack to execute the job of installing the requisite solar system.
- XI. FOR THAT all installation works at the Project site were subject to approval of Respondent No. 2. It is submitted that all materials were procured by the Appellants and were ready to be installed but unfortunately, there was a delay in obtaining the approval of Respondent No. 2.
- XII. FOR THAT in the aforesaid Original Application, the appellants had submitted Compliance affidavit dated 15.11.2022 before the Hon'ble Tribunal thereby stating that the aforesaid Solar System installation work will be completed by January 31, 2023, but such completion of



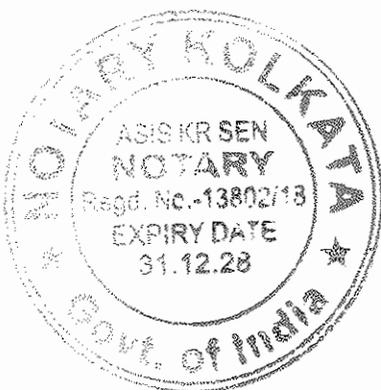
installation work will be subject to cooperation and permission rendered and granted by the applicants, i.e., Respondent No. 2 herein.

XIII. FOR THAT after several rounds of discussion with Respondent No. 2, the Appellants finally received the permission to execute the job over the rooftop of the Phase-I building on November 29, 2022. Thereafter, installation by Solar Sack was completed within two months.

XIV. FOR THAT even though the Appellants have completed the installation of the entire system long back, the same is not under operation till date due to non-availability of permission from the Respondent No. 2.

XV. FOR THAT the Appellants approached the Respondent No. 2 for obtaining the necessary approval for operating the solar system, however, it was informed that the Respondent No. 2 is renovating the water supply ring line on such rooftop and necessary clearance to make the installed solar system operative can only be accorded pursuant to completion of such renovation works.

XVI. FOR THAT the Appellants have installed a SOLAR WATER HEATER SYSTEM for a total capacity of 22,000 litres catering to all eight towers in the Project. The same is equivalent to 748 KW electricity which is 7.48 times in excess than the actual requirement of 100 KW as per the terms of EC.



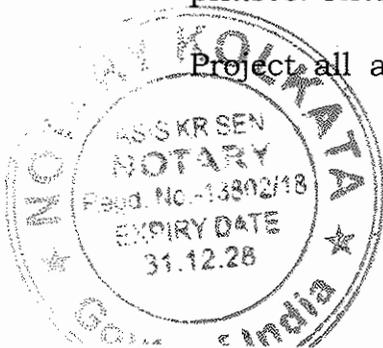
XVII. FOR THAT the Appellants have installed a SOLAR WATER HEATER SYSTEM for a total capacity of 22,000 litres catering to all eight towers in the Project. The same is equivalent to 748 KW electricity which is 7.48 times in excess than the actual requirement of 100 KW as per the terms of EC.

XVIII. FOR THAT the delay in operation of the Solar System is not attributable to the Appellants as grant of approval by the Respondent No. 2 is beyond the control of the Appellants.

XIX. FOR THAT the above situation was brought to the attention of the Respondent No. 1 through reply letter dated January 11, 2024, and in the hearing dated February 3, 2024. However, the Respondent No. 1 has failed to take the same into consideration while passing the Impugned Order. Hence, the Impugned Order is liable to set aside, recalled or quashed on such ground alone.

XX. FOR THAT the Impugned Order records that the Solar System has been installed but is not under operation due to non-availability of permission from Respondent No. 2, however, despite such observation, the Respondent No. 1 has passed the Impugned Order in a mechanical manner.

XXI. FOR THAT the Project is a large integrated project being developed in phases. Therefore, developing the Green Belt from the beginning of the Project all along the boundary wall is not advisable, because such

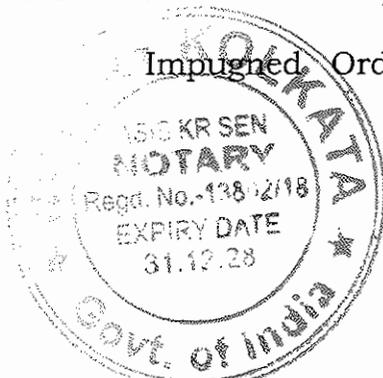


greenery will get disturbed as and when the subsequent phases within the vicinity of the Green Belt and Avenue Plantation are taken for construction work or completion in the future. Therefore, the Green Belt and Avenue Plantation can only be fully developed by the Appellants where the phase wise construction along with a permanent boundary wall is completed.

XXII. FOR THAT the Phase I of the Project was constructed in such a way that there is no permanent boundary wall available for developing a Green Belt. Therefore, only Avenue Plantation comprising of some local species and decorative species of plants was developed initially. Therefore, after completion of Phase II where some portion of a permanent boundary wall was available, the Appellants developed a thick Green Belt along such portion of the available permanent boundary wall with three tier plantation using local species like – Neem, Swarna-Champa, Bakul, Karanja, Radha-chuda, Krushna-chuda, Panas, Mango, etc., along with Avenue Plantation.

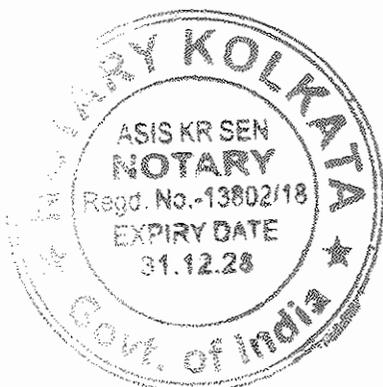
XXIII. FOR THAT the Appellants also undertook that upon completion of the entire Project, the Appellants will develop the requisite Green Belt and Avenue Plantation along the entire boundary wall as per the EC requirement.

XXIV. FOR THAT despite the above, the Respondent No. 1 have passed the Impugned Order in a mechanical manner without taking into

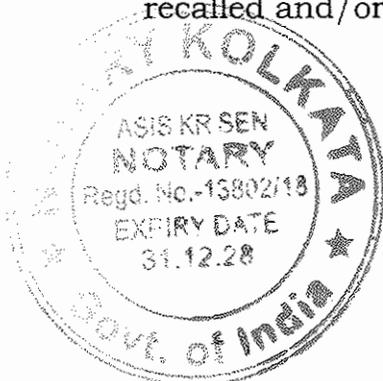


consideration the fact of the situation. Therefore, the Impugned Order is liable to set aside, recalled or quashed on this ground also.

- XXV. FOR THAT the fact of non-availability of separate boundary wall for different phases of the Project was also observed by the Joint Committee in its Report. However, despite such observation, the Respondent No. 1 has passed the Impugned Order holding that the 20% Green Belt is not achieved for Phase-1 building because the entire Project is an integrated and interlink building and construction project. On the one hand the Respondent No. 1 has agreed that the Project is an integrated project and on the other hand, the Respondent has imposed a penalty on the Appellants.
- XXVI. FOR THAT alleged non-compliances are outside the control of the Appellants. The Appellants undertake to complete the works within a time bound manner as and when the above-mentioned impediments are removed.
- XXVII. FOR THAT the Appellants have not violated any law for the time being in force.
- XXVIII. FOR THAT the Impugned Order has been passed without application of mind and without taking into consideration the fact of the situation on the ground.



- XXIX. FOR THAT the Respondent No. 1 has passed the Impugned Order without considering the submissions made by the Appellant.
- XXX. FOR THAT the Impugned Order records that the Solar System has been installed by the Appellants however the same is not operational due to non-availability of permission from the Respondent No. 2, however, despite such observation the Respondent No. 1 has passed the Impugned Order, which is totally contrary to the facts of the case.
- XXXI. FOR THAT the Appellants cannot be made liable to pay for purported non-installation of the Solar System, when in fact the Solar System has already been installed long back.
- XXXII. FOR THAT the Impugned Order records that the Project is an integrated project and therefore there is no permanent boundary available at the moment to develop the requisite Green Belt and Avenue Plantation, however, despite such observation the Respondent No. 1 has passed the Impugned Order in a mechanical manner.
- XXXIII. FOR THAT the Impugned Order passed is manifestly arbitrary, illegal and without any basis since it does not specify the provision of law under which the compensation amount has been calculated.
- XXXIV. FOR THAT the Impugned Order is liable to be modified, set aside, recalled and/or quashed.



XXXV. FOR THAT the Impugned Order ought to be stayed or kept in abeyance till the disposal of the present appeal.

LIMITATION:

That the instant appeal is being filed not within 30 days from the date of the Impugned Order dated March 16, 2024 passed by the Respondent No. 1, which was communicated to the Appellants on March 18, 2024. The Appellants have also filed an application for condonation of delay alongwith the instant appeal.



P R A Y E R:

Under the circumstances, the Appellants abovenamed most humbly prays before this Hon'ble Tribunal to grant the following reliefs and/or pass the following orders –

- a. An order directing stay of the Impugned Order dated March 16, 2024 passed by the Respondent No. 1 under Section 5 of the Environment (Protection) Act, 1986 till the disposal of the instant appeal;
- b. An order directing modification, setting aside, recalling and/or quashing the Impugned Order dated March 16, 2024 as being unwarranted, unfair, unjust and/or passed without application of mind;
- c. Ad-interim orders in terms of prayer (a) above; and
- d. Such other or further order and/or orders, direction and/or directions Hon'ble Tribunal may deem fit and proper in the facts and circumstances of the case.

And your Appellants as in duty bound shall ever pray.

Akshita Bohara
Advocate

Jagan Kumar Mohanty



VERIFICATION

I, Tapan Kumar Mohanty, son of Late Bansidhar Sahoo, aged about 69 years, resident of Jhanjirimangala Gada, Badambadi, Cuttack - 753009 and presently camped at 27B, Camac Street, Kolkata - 700016, do hereby verify that the contents of paragraphs (1) to 2 are true to my personal knowledge, the contents of paragraphs 3 to 17, 24, 27 to 30 and 35 are based on records maintained by the Appellant company and the rest are my humble submissions before this Hon'ble Tribunal' and that I have not suppressed any material fact.

Date: May 1, 2024

Place: Kolkata.

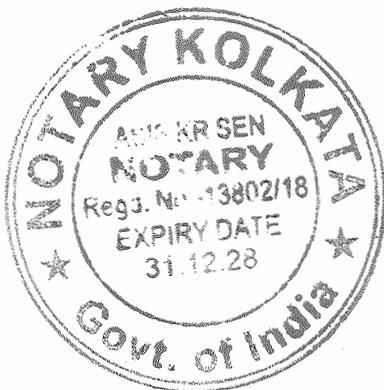


Tapan Kumar Mohanty
Signature of Appellant

Identified by me

Akshita Behera

Enrolment No.: F/550/369/2019



Solemnly affirmed and done
before me on identification
Anis Kumar Sen
ANIS KUMAR SEN
City Civil Court, Kolkata
Notary
Reg. No. - 13802/18

01 MAY 2024



Z ESTATES PRIVATE LIMITED

28

ANNEXURE - P-1

Dated: 01st November 2010

To,

The Member Secretary,
State Level Environmental Impact Assessment Authority
Qtr. No.- 5RF-2/1, Unit - IX
Bhubaneswar- 22
Orissa

Subject: Submission of Form 1 and Form 1A along with scrutiny fees for Environmental Clearance for the Proposed Housing Project, M/s Z Estates Pvt. Ltd at Kalarahanga, Bhubaneswar, Odisha.

Sir,

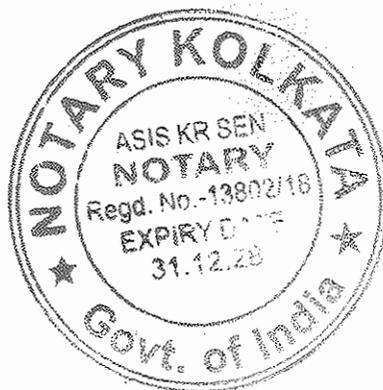
Please find enclosed herewith the copy of Form 1 and Form 1 A along with a D.D. (No. 034445 dated 01.11.2010) amounting to Rs. 5,00,000/- (Rupees Five Lakhs Only) towards scrutiny fees for the proposed Housing Project at Kalarahanga, Bhubaneswar by M/s Z Estates Pvt. Ltd. for your necessary appraisal for award of onward Environmental Clearance.

Thanking You,

Yours Faithfully

Z ESTATES PVT. LTD.

Jagan Kumar Mohanty
MANAGING DIRECTOR



Encl:- 1. Copy of Form -1 and Form-1A

2. D.D. for Rs. 5,00,000/- towards scrutiny fees.

*Received with D.D.
of Rs 5 (Five) Lakhs
being No. 034445 dt. 1.11.10*





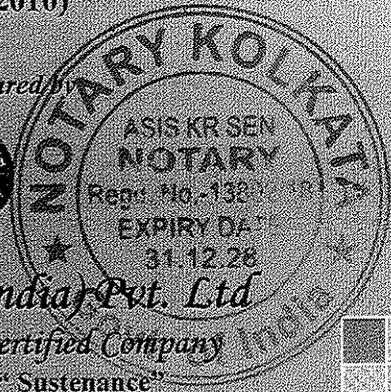
Z ESTATES PVT. LTD.

Form 1 and Form 1A

**FOR PROPOSED CONSTRUCTION
OF HOUSING PROJECT
AT KALARAHANGA,
BHUBANESWAR, ODHISA**

(October 2010)

Report Prepared by



S.S. Environics (India) Pvt. Ltd

An ISO 9001: 2008 Certified Company

Plot No : 361/2314 "Sustenance"

At/P.O : Patrapada, Dist : Khurda, Bhubaneswar-751019



Z ESTATES PVT. LTD.

FORM 1 AND FORM 1A

FOR PROPOSED CONSTRUCTION
OF HOUSING PROJECT
AT KALARAHANGA,
BHUBANESWAR, ODHISA

(October 2010)
Report Prepared by

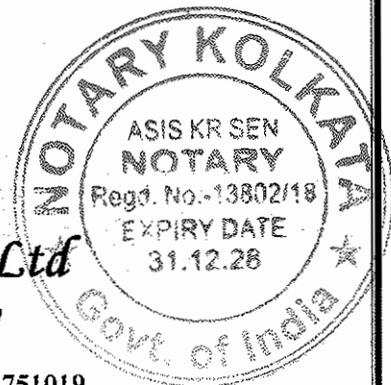


S.S Environics (India) Pvt. Ltd

An ISO 9001: 2008 Certified Company

Plot No : 361/2314 "Sustenance"

At/P.O : Patrapada, Dist : Khurda, Bhubaneswar-751019



Application for Prior Environmental Clearance (EC)

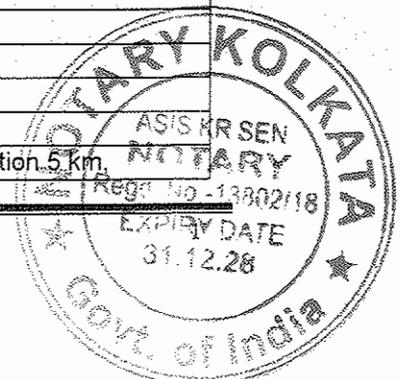
FORM 1

(See Paragraph – 6 Notification dtd.14th September 2006)

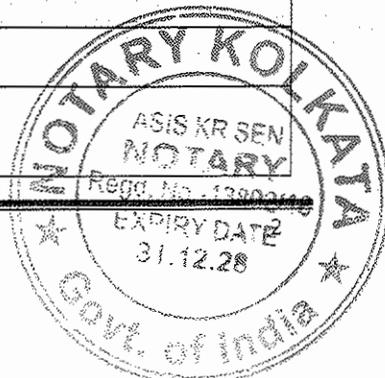
As amended to EIA Notification, 2006 issued vide S.O. 3067(E) on Dt.- 01.12.2009.

(I) Basic Information

S. No.	Item	Details
1.	Name of the project/s	Construction of Housing Colony and Shopping Mall at Kalarahanga, Bhubaneswar
2.	S. No. in the schedule	8b
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	Plot Area: 105962.1 sq.m. Built up area: 244092.7 sqm Ground Coverage: 25430.9 sq.m. Number of DUs: 1450 units, 31 villas and 1 mall and multiplex
4.	New/Expansion/Modernization	New
5.	Existing capacity/area etc.	Not applicable (new project)
6.	Category of the project i.e. 'A' or 'B'	B
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location	Kalarahanga, Bhubaneswar, Odisha
	Plot/Survey/Khasra No.	84(P), 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 99, 100, 101(P), 104, 105, 106(P), 107, 108(P), 110, 111(P), 112(P), 115, 116, 120, 128(P), 131(P), 132(P), 133, 138, 139, 141, 142(P), 143(P), 144, 145, 146, 147, 148(P), 149, 150, 151(P), 152, 153, 154, 155, 156(P), 157, 158, 159, 160(P), 161, 162, 163, 164(P), 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 199(P), 200, 201, 202, 203, 204, 205, 208(P), 209(P), 210, 211, 212, 217, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 244, 245, 2540, 2585(P), 2586, 2587, 2603, 2608(P), 2609
	Village	Kalarahanga
	Tehsil	Kalarahanga
	District	Khurda
	State	Odisha
10.	Nearest railway station/airport	Railway Station: Barang station, 5 km.



	along with distance in kms.	Bhubaneswar Station, 11 km Airport: Biju Patnaik Airport, Bhubaneswar, 12 km
11.	Nearest town, city, District Headquarters along with distance in Kms.	Town/ city/ district head quarter: Bhubaneswar, District Khurda
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal address with telephone nos. to be given)	Village: Kalarahanga Local Body: Bhubaneswar Development Authority
13.	Name of the applicant	Z Estates Pvt. Ltd.
14.	Registered Address	M4/34, Acharya Vihar, Bhubaneswar, Odisha - 751013
15.	Address for correspondence:	
	Name	Sri Tapan Kumar Mohanty
	Designation (Owner/Partner/CEO)	Managing Director
	Address	M4/34, Acharya Vihar, Bhubaneswar, Odisha
	Pin Code	751013
	E-mail	zestates@zestates.in
	Telephone No.	0674-2540806
	Fax No.	0674-2540698
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	NA
17.	Interlinked Projects	NA
18.	Whether separate application of interlinked project has been submitted?	NA
19.	If yes, date of submission	NA
20.	If no, reason.	NA
21.	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. (a) The forest (Conservation) Act, 1980? (b) The wildlife (Protection) Act, 1972? (c) The C.R.Z. Notification, 1991?	The project land is in residential zone as per the City Development Plan by Bhubaneswar Development Authority and does not belong to any forest land and protected area hence does not attract the mentioned approvals.
22.	Whether there is any Government Order/Policy relevant/ relating to the site?	No
23.	Forest land involved (hectares).	No
24.	Whether there is any litigation pending against the project and/or land in which the	No



project is proposed to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	
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Project Cost: Rs.300/- Crores

Activity

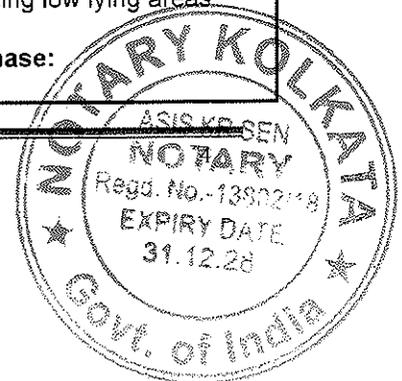
1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sl.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	At present the land is being used as agricultural purpose. Construction of the project will change the land use pattern from agricultural to residential. Converted Land Use map is given in annexure IV.
1.2	Clearance of existing land, vegetation and buildings?	Yes	The land is filled with grasses and native shrubs. This will require clearing of the site. Apart from this, a patch of land consists of 18 banana trees, bamboo, tulsii and china rose. Since all these species are native and available in abundance in the region, loss of these plant species will not have any significant impact. There is a temporary structure used as security guard room and will be cleared during site preparation.
1.3	Creation of new land uses?	No.	The entire land has been earmarked for development of residential area by the Bhubaneswar Development Authority.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	The site is effective to sustain multistoried building structures.
1.5	Construction works?	Yes	Since the proposed project is for construction of residential complexes and mall, there will be construction allied activities as required for construction of housing complexes.
1.6	Demolition works?	Yes	The existing temporary security

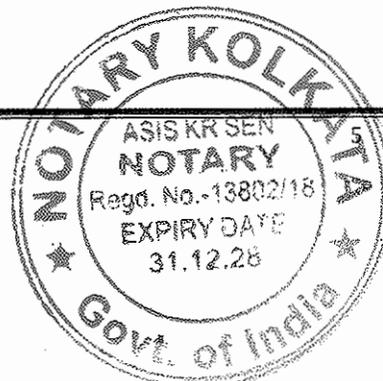
34

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

Sl.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
			guard room will be demolished before construction of the project. There is no other structure requiring demolition.
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	Temporary structures will include construction of project office area, labours resting area, construction of stores and security area. All the structures will be confined within the project site only.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Above ground building structures of G+11, G+14, G+19 and G+24 towers along with 31 villas and one mall and multiplex buildings
1.9	Underground works including mining or tunneling?	Yes	Basement will be constructed within the project site for parking and STP. There will be no mining or tunneling activity
1.10	Reclamation works?	No	No reclamation work will be required
1.11	Dredging?	No	No dredging is required
1.12	Offshore structures?	No	No offshore structure is required
1.13	Production and manufacturing processes?	No	This is a housing complex. Hence no production or manufacturing activity will be take place.
1.14	Facilities for storage of goods or materials?	Yes	Separate material handling yard will be made. Cement will be separately stored under cover in bales. Sand will be stacked neatly under tarpaulin cover. Bricks/ concrete blocks and steel will be laid in open. Storage of fuel for DG sets and paints will be stored separately. The raw material handling yard will be located within the project site and separated by enclosures.
1.15	Facilities for treatment or disposal of solid or liquid effluents?	Yes	Construction Phase: Solid Waste: Solid waste will include waste arising out from construction activities, from labour resting units and project office block. Construction wastes will be recycled as much as possible or utilized within the project. Balance waste will be disposed off in the Designated landfill site/ filling low lying areas. Operation Phase: Solid Waste:



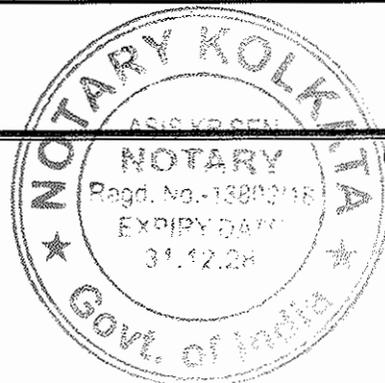
Sl.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
			<p>Solid waste will be collected from door to door basis and will be taken to a common point for segregation. Biodegradable waste will be composted in organic waste composter. Recyclable waste will be sold to the authorized recyclers. E-wastes will be collected separately and handed off to Orissa State Pollution Control Board/ CPCB approved recycler.</p> <p>Liquid Effluent: Liquid waste will be in the form of sewage generating from the toilets and kitchen from the households. Liquid effluent will be generated amounting to 928.2 KLD. This will be treated in an in house STP with capacity of 1000 KLD and treated waste water will be obtained accounting to 742.5 KLD. This treated water will be used for flushing (386.7 KLD), HVAC (82.5 KLD), Washing and cleaning common area (105 KLD) and Horticulture purpose (166.13 KLD). Balance 2.18 KLD water will be unused and will be discharged.</p>
1.16	Facilities for long term housing of operational workers?	No	The operational workers will be recruited from the local area who will commute from their respective residences.
1.17	New road, rail or sea traffic during construction or operation?	No	Not applicable
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Not applicable
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not applicable
1.20	New or diverted transmission lines or pipelines?	No	Not applicable



36

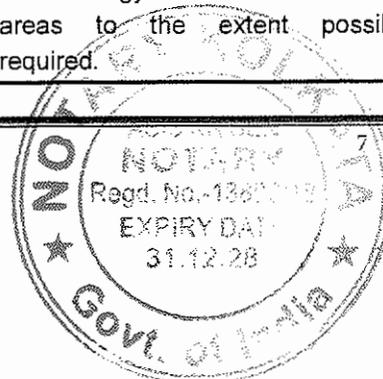
Form I and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

Sl.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not applicable
1.22	Stream crossings?	No	Not applicable
1.23	Abstraction or transfers of water form ground or surface waters?	Yes	The project will attract ground water abstraction of 773.5 KLD for operation of the buildings temporarily, till water supply is being done by the Public Health Department. After the supply line is in operation in the area, the source of water supply will be done through the public health water supply line. There will be no surface water abstraction for the project.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?		There will be no change in the water bodies.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Construction materials will be brought from the nearest available market of the same area. The labour, who comes from other part of the city will use the available public transport.
1.26	Long-term dismantling or decommissioning or restoration works?	No	Not applicable
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not applicable
1.28	Influx of people to an area in either temporarily or permanently?	No	Approx. 80-100 nos. local labours from nearby area will be hired in the construction phase during peak construction phase. There will be no influx of labours from outside the city.
1.29	Introduction of alien species?	No	Not applicable
1.30	Loss of native species or genetic diversity?	No	The project site presently has few banana trees, bamboo and shrubs that will be cleared during preparation of the site.
1.31	Any other actions?	No	None



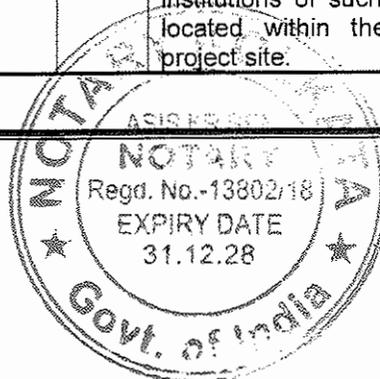
2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S.No.	Information/checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	The proposed project site was used for agriculture purpose. However, after the change in land use by the Bhubaneswar Development Authority into residential area, various construction activities has already begun in the area.
2.2	Water (expected source & competing users) unit: KLD	Yes	The water requirement of 773.5 KLD will initially be met from the ground water till the site is not connected with the public health water supply line. Once the site gets connected with Public Health water supply line, ground water extraction will not be done.
2.3	Minerals (MT)	No	Not applicable
2.4	Construction material – stone, aggregates, sand / soil (expected source)	Yes	Construction Materials includes: <ul style="list-style-type: none"> • Sand • Cement • Coarse Aggregate • Glass • Fly Ash • Ready Mix Concrete etc. All these materials will be procured from local market and are readily available.
2.5	Forests and timber (source – MT)	Yes	Use of timber is only restricted to doors and windows only.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Power requirement for the project will be 10 MVA. This is supported by 10 number of DG sets with capacity of 3 nos. of 380 kVA, 5 nos. of 500 kVA and 2 nos. of 625 kVA as backup power supply during electricity failure.
2.7	Any other natural resources (use appropriate standard units)	Yes	Solar energy will be used in different areas to the extent possible/ required.



3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	This is a Housing Project and no storage of hazardous chemicals (as per MSIHC rules) will be done, apart from spent oil. Suitable management practice will be adopted for the same. It will be stored in HDPE drums and kept in enclosed area, under lock, and will be handed over to the authorized vendor's only. Specialized care will be taken to prevent leaks and /or spills. HSD (low sulphur variety) will be used for DG sets. However, the quantity stored will be below the threshold limit specified by the MSIHC rules.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Suitable drainage and waste management measures will be adopted during construction as well as during operational phase which will restrict stagnation of water or accumulation of waste. This will effectively restrict the reproduction and growth of disease vectors.
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Use, storage, transport, handling or production of any harmful product is not envisaged from the proposed project. Thus no major adverse impacts on the human health/ environment is expected. Moreover this project will provide employment to approx. 80-100 local labours during peak construction phase and 25-30 peoples during operation phase.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not applicable as the project is just construction of housing complex, and further, there are no hospital, emergency centre, old age home or institutions of such sensitive kind is located within the vicinity of the project site.



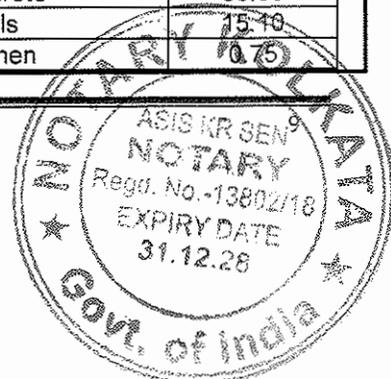
39

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

3.5	Any other causes	None	--
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4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data												
4.1	Spoil, overburden or mine wastes	No	No such spoil, overburden or mine wastes will be generated												
4.2	Municipal wastes (domestic and or commercial wastes)	Yes	Wastes includes paper, card board, plastic cans etc. and kitchen wastes from house holds. Papers card boards and plastic cans will be sold for recycling and kitchen wastes will be disposed in the organic waste composter which will be installed on project site. Expected quantity of waste likely to be generated from the entire complex will be 2.55 Tons per day.												
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Spent Oil from DG sets is the only hazardous waste generated from the site. This spent oil will be carefully stored in HDPE drums in isolated covered facility. This spent oil will be sold to vendors authorized by Orissa Pollution Control Board for the treatment of same. Suitable care will be taken so that spills/ leaks of spent oil from storage could be avoided.												
4.4	Other industrial process wastes	No	Not applicable												
4.5	Surplus product	No	Not applicable												
4.6	Sewage sludge or other sludge from effluent treatment	No	Sewage generation is expected to be 928.2 KLD and sludge generation is expected to be 10.8 Tons/month												
4.7	Construction or demolition wastes	Yes	Total construction waste generated is as following: <table border="1"> <thead> <tr> <th>Particular</th> <th>Approx. Qt (in MT)</th> </tr> </thead> <tbody> <tr> <td>Soil, Sand & Gravel</td> <td>108.76</td> </tr> <tr> <td>Bricks & masonry</td> <td>93.65</td> </tr> <tr> <td>Concrete</td> <td>80.06</td> </tr> <tr> <td>Metals</td> <td>15.19</td> </tr> <tr> <td>Bitumen</td> <td>1.50</td> </tr> </tbody> </table>	Particular	Approx. Qt (in MT)	Soil, Sand & Gravel	108.76	Bricks & masonry	93.65	Concrete	80.06	Metals	15.19	Bitumen	1.50
Particular	Approx. Qt (in MT)														
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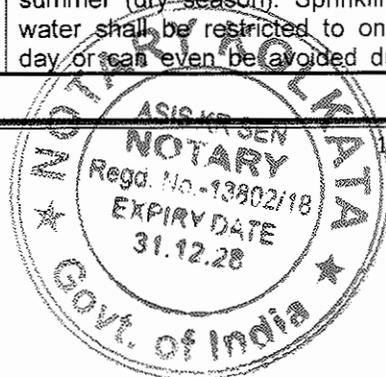
40

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data						
			<table border="1"> <tr> <td>Wood</td> <td>0.75</td> </tr> <tr> <td>Other</td> <td>3.02</td> </tr> <tr> <td>Total Construction Waste Generated</td> <td>302.12</td> </tr> </table> <p>(source: as per CPHEEO manual of Municipal Solid Waste Management and TIFAC Report Abstract on Construction Industry)</p> <p>This type of waste will be generated only in the construction phase.</p>	Wood	0.75	Other	3.02	Total Construction Waste Generated	302.12
Wood	0.75								
Other	3.02								
Total Construction Waste Generated	302.12								
4.8	Redundant machinery or equipment	No	Not applicable						
4.9	Contaminated soils or other materials	No	Not applicable						
4.10	Agricultural wastes	No	Not applicable						
4.11	Other solid wastes	No	Not applicable						

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Emission will be from 3 nos. of 380 kVA, 5 nos. of 500 kVA and 2 nos. of 625 kVA DG set to meet power requirement as power backup.
5.2	Emissions from production processes	No	Not applicable
5.3	Emissions from materials handling including storage or transport	Yes	Restricted to the construction phase of the project and also limited to the project site only
5.4	Emissions from construction activities including plant and equipment	Yes	Restricted to the construction phase of the project and also limited to the project site only
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Generation of dust is likely to take place during construction phase of the project. This will be abated with sprinkling of water. Water sprinkling shall be done twice a day (i.e. in morning and evening) during summer (dry season). Sprinkling of water shall be restricted to once a day or can even be avoided during

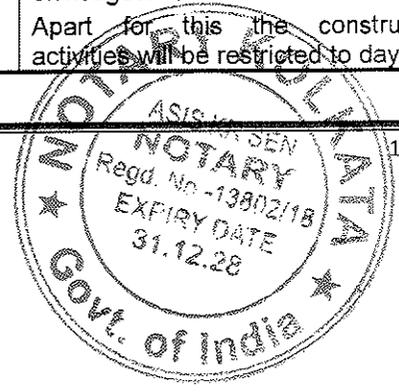


44

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
			monsoon or moist weather condition. The supervisor in charge shall be the responsible to assess the condition and take decision regarding. Generation of odor likely to occur from sources municipal wastes. It will however, be the planed in such a way that there is no likelihood for sludge gathering and decomposition of wastes. Domestic wastes will be collected from the residents shall be brought to the central collection station and disposed off regularly through the solid waste composter; However, the central waste collection station within the project site shall be cleaned and disinfected everyday. It will also taken into consideration that there shall be no water logging especially around the waste collection point under any circumstance.
5.6	Emissions from incineration of waste	No	Not applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Burning of any substances including biomass, slash materials and/ or construction debris will be prohibited
5.8	Emissions from any other sources	No	Not applicable

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	During construction the machinery used for construction will be of highest standard of reputed make and will adhere to national/international standard. These standards itself take care of noise pollution control/ vibration control and air emission control. Hence insignificant impacts due to construction machinery are envisaged. Apart for this the construction activities will be restricted to day time

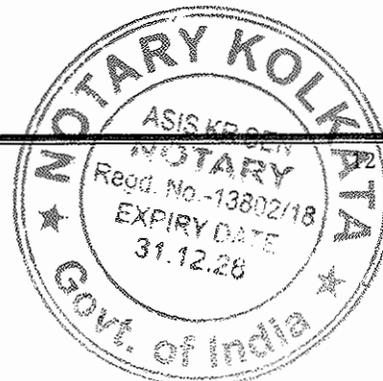


42

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
			only. Source of noise in the operational phase will be DG sets only. The DG sets will be in operation during power failure only and will generate noise level of 75 dB (A) each. The DG sets so procured for this purpose shall adhere CPCB standard and it will also be ensured the DG set in operation shall be confined into proper enclosure.
6.2	From industrial or similar processes	No	Not applicable
6.3	From construction or demolition	Yes	Due to the various construction activities, there will be short-term noise impacts in the immediate vicinity of the project site. The construction activities will include the following noise generating activities: <ul style="list-style-type: none"> ▪ Operation of DG sets, concreting and mixing ▪ Excavation activities ▪ Construction plant and heavy vehicle movement. It has been estimated that during construction period the average noise level will be around 75-80 dB(A) during peak construction hours.
6.4	From blasting or piling	No	No blasting activities will take place. However, piling will be required for structural support of the building blocks.
6.5	From construction or operational traffic	Yes	Vehicles like, earth movers, JCB, compactors, trucks etc will generate noise due to their movement and operation.
6.6	From lighting or cooling systems	Yes	Water cooled structure will be located at the roof of the convenient shopping
6.7	From any other sources	No	Not applicable

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:



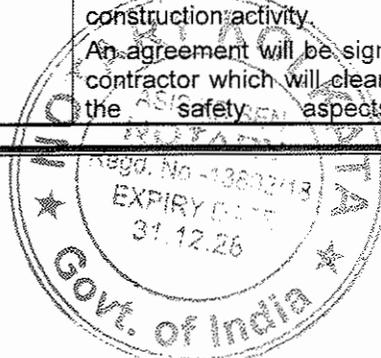
43

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	No hazardous waste material will be used during construction process. The operation phase spent oil will be generated and will be handled with utmost care, it will be stored in HDPE drums stationed over paved platforms and will be directly transferred to vendors authorized to handle such hazardous material.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	Generated Sewage from the residential and office complex shall be discharged into sewer line.
7.3	By deposition of pollutants emitted to air into the land or into water	No	No pollutants are expected to get emitted from this project to such an extent that there is likely impact of deposition of pollutants into land or water body in the down wind direction.
7.4	From any other sources	No	Not applicable
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	No. There are no risk of long term build up of pollutants in the environment from any of such source as in this type of project

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	<p>This is a construction project for residential housing complex and does not involve major hazardous construction activity. Hence chances of explosions, spillages, fires are minimal.</p> <p>During construction all the labours will be provided with suitable personal protective equipment (PPE) as required under the health & safety norms. Training and awareness about the safety norms will be provided to all supervisors and labours involved in construction activity.</p> <p>An agreement will be signed with the contractor which will clearly deal with the safety aspects during</p>

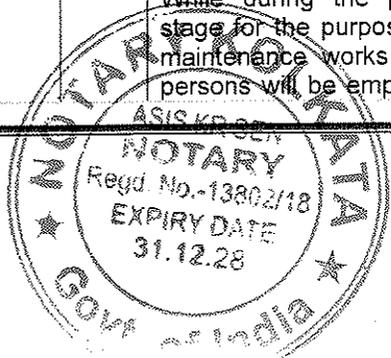


44

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
			construction. No major hazardous waste is being stored within the project site. No industrial or process activity is involved in this project hence chances of chemical hazards and accidents are minimal. However, suitable fire fighting measures will be provided.
8.2	From any other causes	No	Not applicable
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	The project area is located at seismic zone III according to Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, have to be adopted while designing the structures. There are no chances of flood and landslide in the area.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project, which could have impact on the environment e.g.: <ul style="list-style-type: none">Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)	Yes	Appropriate infrastructure like, roads, power supply and waste management will be developed within the site so that chances of occurrence of any adverse impacts are minimized. During construction, about 80-100 skilled, unskilled and professional work force including temporary and permanent employees shall be required. This workforce shall be hired locally in order to generate the employment to the local people. While during the project operation stage for the purposes of day-to-day maintenance works about 25 to 30 persons will be employed. Moreover,



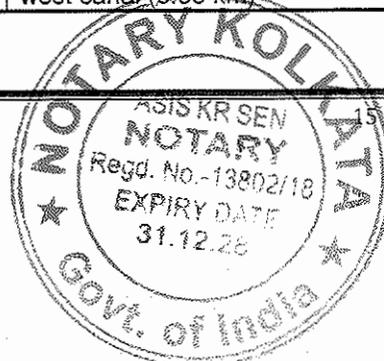
45

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
	<ul style="list-style-type: none"> housing development 	Yes	<p>some more employment will be created as a result of positive induced developed in the immediate vicinity of project site.</p> <p>The project will expose international standard of living and ambient living environment to the community. The residential society will be equipped with dedicated internal road, adequate parking, internal water distribution system, fire fighting system, internal sewage collection network, rain water harvesting, lighting facilities and power backup facility.</p>
	<ul style="list-style-type: none"> extractive industries 	No	Not applicable
	<ul style="list-style-type: none"> supply industries 	No	Not applicable
	<ul style="list-style-type: none"> other 	No	Not applicable
9.2	Lead to after-use of the site, which could have an impact on the environment	No	--
9.3	Set a precedent for later developments	No	--
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	--

(III) Environmental Sensitivity

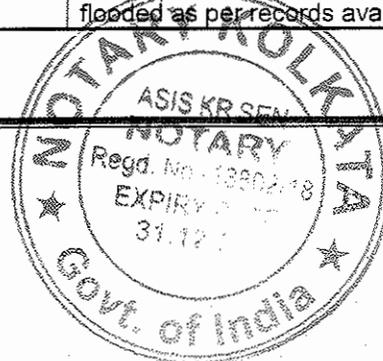
S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Yes	Nandan Kanan (3.5 km north), Chandka-Dhampada (7 km NW)
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	Jagannathprasad R.F. (4 km SW), Churang R.F. (5 km NW), Bharatpur R.F. (5 km SW), Patia P.F. (1.5 km SW), Nuarally P.F. (6.5 km SW) Water bodies : Puri main canal (5 km NE), Daya west canal (0.35 km)



46

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Yes	Nandan Kanan area is important for habitat of white tigers and Chandka-Dhampada for elephant sanctuary
4	Inland, coastal, marine or underground waters	No	Not located within 15 kms of the proposed project location. Underground water is present. The aquifer is about 20 m below ground level at the project site.
5	State, National boundaries	No	- -
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	The site does not fall under any route to any pilgrim, tourist or recreational area.
7	Defence installations	No	No such installation is located at the vicinity of the project site
8	Densely populated or built-up area	No	The surrounding of the project site is vacant. There are houses/ colonies being constructed in the area.
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	Yes	Hospital: KIMS (2.5 km South) Lingaraj Temple 14.44 km
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	Yes	The area does not contain important, high quality or scarce resources. But the areas like Nandan Kanan-3.5 km, Udaigiri - Khandagiri 12.4 km and Lingaraj Temple 14.44 km are within 15 km of the project site
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	No	- -
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)	Yes	The area under study falls in Zone-III, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, have to be adopted while designing the structures. There are no possibilities of the proposed project site getting flooded as per records available.



47

(IV) Proposed Terms of Reference for EIA studies

Not Applicable, as per the Stage (2) Scoping of Clause 7, S.O. 1533, All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

"I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

Date:

Place: Bhubaneswar

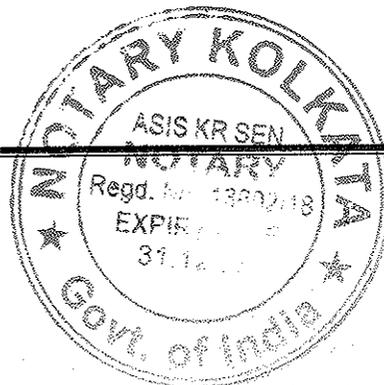
Signature of the Proponent

Sri Tapan Kumar Mohanty

Managing Director

Z Estates Pvt. Ltd.

M4/34, Acharya Vihar
Bhubaneswar, Odhisa



48

Construction of Housing and Shopping Mall at Kalarahanga, Bhubaneswar

FORM-1 A (CHECKLIST OF ENVIRONMENTAL IMPACTS)

1. LAND ENVIRONMENT

1.1. Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved Master Plan / Development Plan of the area. Change of land use, if any and the statutory approval from the competent authority be submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.

> Land Use:

The proposed project site is located at Kalarahanga, Bhubaneswar. The area is located in the northern part of the city. The area is demarcated for development of residential area by the Bhubaneswar Development Authority. Since the proposed project is construction of residential complex and will be used for residential and shopping purpose only, the landuse conforms to the prescribed land use by the Bhubaneswar Development Authority.

> Project Site Location:

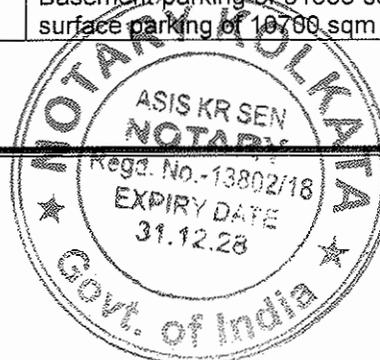
The project site is located at north side of Bhubaneswar along Nandan Kanan Road. The site is located at Latitude 20°21' N and 85°49' E.

Plans Attached along with this report:

- a) Master Plan of the area conforming to the land use: Annexure IV
- b) Site Location (Google Location): Annexure II
- c) Surrounding Features of project site within 500 m: Annexure V
- d) Contour Plan of the project site: Annexure VI

1.2 List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

Sl.No.	Details	Details
1	Total Plot Area	105962.07 sqm
2	Built up Area	244092.73 sqm
3	Total Water Consumption	1513.91 KLD
	Fresh Water Consumption	773.52 KLD
4	Power Requirement	10 MVA
5	Connectivity	Adjacent to Bhubaneswar – Nandan Kanan road
6	Community Facilities	3 number of crèche, 1 convenient shopping, 1 health centre, 2 club house and community centre
7	Parking	Basement parking of 61653 sqm and surface parking of 10700 sqm



49

- 1.3 What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use, disturbance to the local ecology).

Since the area is demarcated as land development for residential use, there will be no change in the land use pattern in the area. At present, the area is still being developed for residence purposes. Therefore the project will not have any impact in the surrounding area.

- 1.4 Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).

There will be no significant land disturbance resulting in erosion, subsidence and instability.

- **Soil Type:**
The soil in the area is alluvium.
- **Slope Analysis**
The area is fairly plain land. Therefore the area is stable for construction purpose.
- **Vulnerability to subsidence**
The area does not fall in the tectonic plate zone. Therefore vulnerability to subsidence is not anticipated.
- **Seismicity:**
The area under study falls in Zone-III, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, have to be adopted while designing the structures.

- 1.5 Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)

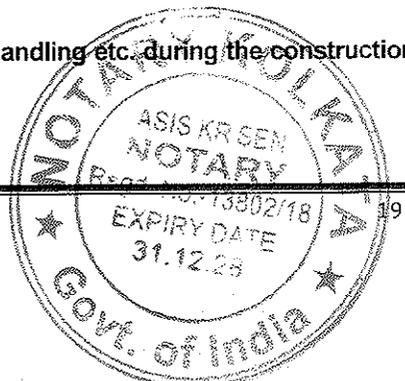
The proposed project activities will not cause any alteration of natural drainage system. No changes are expected outside from project premises. The project will implement planned drainage system within the site and there will be a positive change in the drainage pattern. Further there will be no stagnation of water due to planned drainage system. Contour plan is attached as annexure VI.

- 1.6 What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)

Earthwork generated from cutting will be from excavation for basement. This will involve cutting of 37,000 cum of earthworks.

Earthwork required for filling will be approximately 129500 cum. Out of this, 37000 cum earth will be utilized from the excavated earth from the basement and remaining 92500 cum will be used in the form of murrum and sand that are available locally.

- 1.7 Give details regarding water supply, waste handling etc. during the construction period.



➤ **Water Supply:**

During construction stage, water will be supplied by tankers and will be the responsibility of the contractor. Engineer in charge will be responsible person to supervise the restriction of use of ground water during this period.

➤ **Waste Generation and Handling:**

Soil excavated will be reused for backfilling and the fertile top soil will be reused for horticultural purpose. Spillage of oil from the machinery will be properly collected and disposed off. For construction laborers, proper sanitary facilities & wash areas will be constructed and good hygienic conditions will be maintained.

1.8 Will the low lying areas and wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)

No. Low lying area and wet lands will not get altered.

1.9 Whether construction debris and waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)

The construction debris and wastes generated during construction of the project will not pose any health hazard. The construction debris generated from the construction project will be common in nature and will not cause any health hazard to associate and nearby population. The construction debris will be used for land leveling and landscaping according to its composition. Metal will be recycled. Waste concrete will be reused as aggregate in construction process.

Approximately 80 - 100 labours will work during peak construction period. Proper sanitary facilities will be provided to Construction laborers through mobile toilets. Wash areas will be constructed and good hygienic conditions will be maintained.

2. WATER ENVIRONMENT

2.1 Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.

Quantity of Water Supply

Sl. No.	Utility	Quantity, KLD	Remarks
1	Dwelling Units (Non Flushing)	746.16	Fresh Water
2	Dwelling Units (Flushing)	373.08	Recycled water
3	Crèche (Non Flushing)	2.66	Fresh Water
4	Crèche (Flushing)	1.33	Recycled water
5	Community Centre (Non Flushing)	1.33	Fresh Water
6	Community Centre (Flushing)	0.66	Recycled water
7	Convenient Shopping (Non Flushing)	2	Fresh Water
8	Convenient Shopping (Flushing)	1	Recycled water
9	Health Care (Non Flushing)	1.33	Fresh Water

51

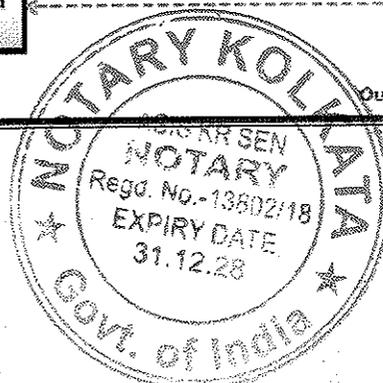
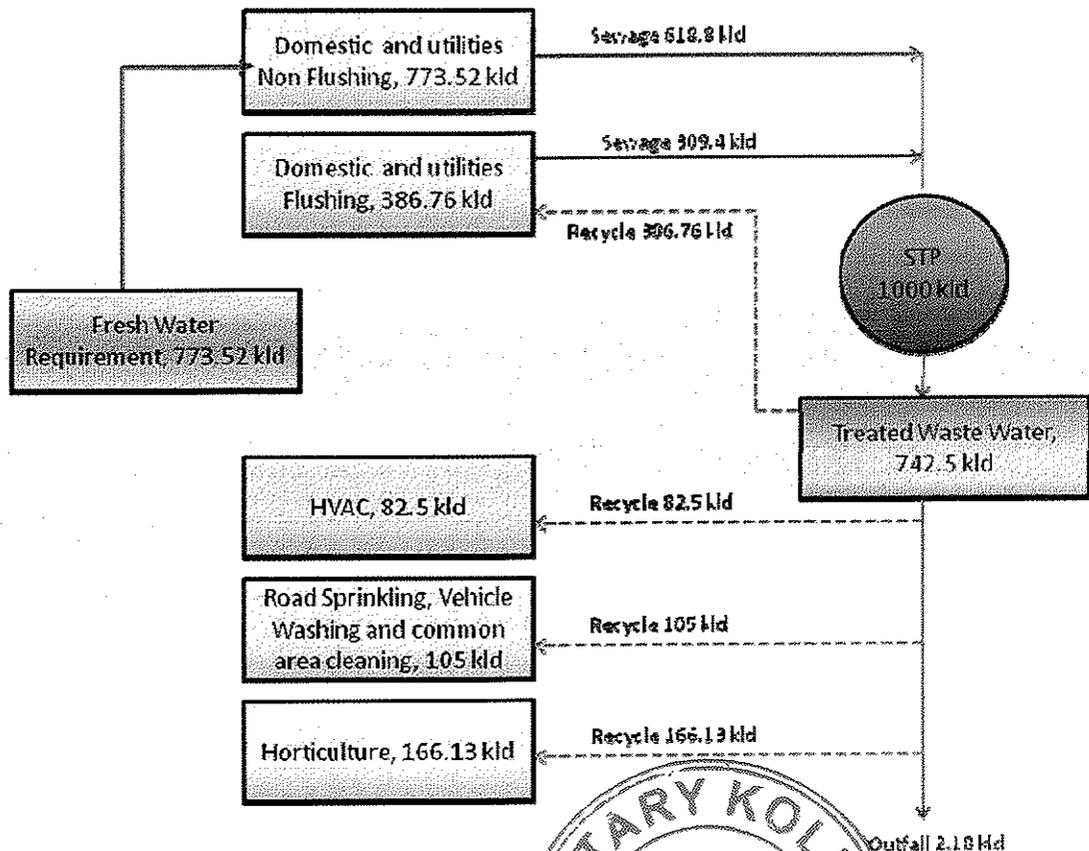
Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

10	Health Care (Flushing)	0.66	Recycled water
11	Club House (Non Flushing)	4.07	Fresh Water
12	Club House (Flushing)	2.03	Recycled water
13	Retail Outlet (Non Flushing)	15.95	Fresh Water
14	Retail Outlet (Flushing)	7.97	Recycled water
15	Horticulture	166.13	Recycled water
16	HVAC Cooling	82.5	Recycled water
17	Road sprinkling, vehicle washing and sweeping of common area	105	Recycled water
Total Water Requirement		1513.91 KLD	

It is estimated that the total water requirement for the project will be 1513.91 KLD. Out of this, only 773.52 KLD fresh water will be required and remaining 740.29 KLD water requirement will be met from recycling of the treated waste water from the in house STP.

Till date, there is not water supply line in the area. Public Health Department, Bhubaneswar will be providing water supply line and will permit usage of PH supply after the supply line is commissioned. At present the project proponent will use ground water as a source of water supply for the project during operation phase. Request for obtaining permission from central ground water board has already been placed before CGWB.

Water Balance diagram is given below:



52

2.2 What is the capacity (dependable flow or yield) of the proposed source of water?

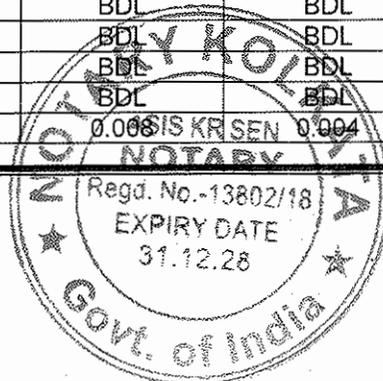
This area is underlain by semi-consolidated Upper Gondwana formations consisting of alternate layers of sandstone and shale (Athgarh Formations). Granitic rocks occur as base rock. The weathered and fractured sandstone and granite form the potential aquifers in this area and the aquifers in general are restricted within 100m depth. The yield from Gondwana rocks generally varies from 5 to 30 lps with the average of 6 to 8 lps. At places due abundance of shaley material the yield is low (1 to 2 lps). The depth of static water levels varies between 8 to 12m during summer and the drawdown is generally within 30m.

2.3 What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)

The salient features of the groundwater quality in the study area are summarized and presented in the **Table 6** below.

Table 6 Statistical Analysis of Groundwater Quality in the Study Area*

Sl. No	Parameter	Standard as per BIS: 10500	Sampling Locations	
			At Project site	Open Well at Kalarahanga
Essential Characteristics				
1	Colour	5	CL	CL
2	Odour	U/O	U/O	U/O
3	Taste	Agreeable	AL	AL
4	Turbidity (NTU)	5	2.6	4.1
5	pH Value	6.5-8.5	7.0	6.9
6	Total Hardness (as CaCO ₃), mg/l, max	300	112	92
7	Iron (as Fe), mg/l	0.3	0.12	0.10
8	Chloride (as Cl), mg/l	250	2.1	2.6
9	Residual, free Chlorine, mg/l	0.2	ND	ND
Desirable Characteristics				
10	Dissolved Solids, mg/l	500	87	107
11	Calcium (as Ca), mg/l	75	14.1	15.6
12	Copper (as Cu), mg/l	0.05	BDL	BDL
13	Manganese (as Mn), mg/l	0.1	BDL	BDL
14	Sulphate (as SO ₄), mg/l	200	2.4	3.1
15	Nitrate (as NO ₃), mg/l	45	2.1	3.6
16	Fluoride (as F), mg/l	1.0	0.14	0.21
17	Phenolic Compounds (as C ₆ H ₅ OH), mg/l	0.001	BDL	BDL
18	Mercury (as Hg), mg/l	0.001	BDL	BDL
19	Cadmium (as Cd), mg/l	0.01	BDL	BDL
20	Selenium (as Se), mg/l	0.01	BDL	BDL
21	Arsenic (as As), mg/l	0.05	BDL	BDL
22	Cyanide (as CN), mg/l	0.05	BDL	BDL
23	Lead (as Pb), mg/l	0.05	0.008	0.004



53

Sl. No	Parameter	Standard as per BIS: 10500	Sampling Locations	
			At Project site	Open Well at Kalarahanga
24	Zinc (as Zn), mg/l	5	0.21	0.37
25	Anionic Detergents (as MBAS), mg/l	0.2	ND	ND
26	Chromium (as Cr ⁺⁶), mg/l	0.05	0.007	0.003
27	Mineral Oil, mg/l	0.01	ND	ND
28	Alkalinity, mg/l	200	31	42
29	Aluminium as Al, mg/l	0.03	0.002	BDL
30	Boron mg/l	1	0.17	0.35

It is clear from the above result that the ground water quality in the project site is potable

2.4 How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)

Out of 1513.91 KLD, 773.52 KLD water will be met from fresh water. Waste water generation is expected to be 928.2 KLD. Treated waste water generated from STP will be 742.5 KLD. Out of this, 740.29 KLD treated waste water will be recycled in the form of flushing water, horticulture, HVAC cooling and vehicle washing and cleaning. Therefore, 99.7 percent of the treated waste water obtained will be utilized for various purpose within the project site.

2.5 Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)

There will be no diversion of water from other users. Since the area is demarcated as residential zone by BDA, and there is no extensive development in the area, impact on other user is not anticipated.

Further, ground water as a source will be temporary. Once the PH water supply connection is being implemented, water supply will be carried out from the PH supply only.

2.6 What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)

Total quantity of waste water generated from the project site is 928.2 KLD. This waste water will be treated within the site by a 1000 KLD capacity STP. The treated waste water generated from the STP will be 742.57 KLD. Out of this 740.29 KLD water will be recycled back for various utilization and accounting to 99.7 percent recycling. Only 2.18 KLD treated waste water will be available for discharge.

Therefore, there will not be much incremental pollution load from waste water generation.

Composition of the treated waste water will be:

BOD – less than 5 mg / lit

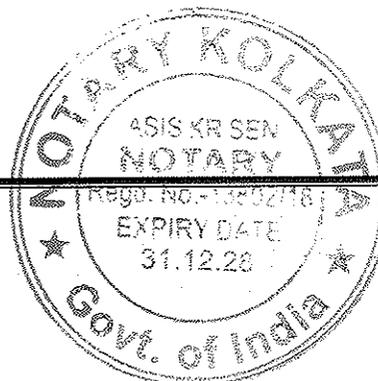
TSS – less than 10 mg / lit

PH-6.5–7.5

Turbidity - < 2 NTU

E-Coli = None

Cl- > 1 mg/l.



54

2.7 Give details of the water requirements met from water harvesting? Furnish details of the facilities created.

Storm water from terraces, garden and paved areas will be collected through rainwater down take pipes and connected to nearest deep drain with 150-200 mm dia pipes. The channels will lead to twenty six numbers of rain water harvesting pits. The pits will have an effective dia of 4 m with effective depth of 4 m. The pits will be laid with 500 mm thick layer of 1.5-2.0 mm average dia coarse sand, over 500 mm thick layer of 5-10 mm dia gravels, which, in turn will be laid on 500 mm thick layer of 10-30 mm dia loose boulders. A perforated PVC pipe of 150 mm dia, laid inside a 2500 mm dia bore, will transfer the excess rain water to sandy layer. Casing will be provided with cleansed pea gravel of 3-6 mm average dia. It is estimated that annually recharge potential will be 13938.43 cum/year (after considering 20% of water loss).

For collecting storm water, storm water drainage network will be provided during the design stage as per the guidelines defined by the CGWB. In the project design, it shall be ensured that no mixing of the storm water with waste effluent takes place. All the storm water will be diverted to rain water-harvesting pits proposed in the complex.

The runoff so collected will pass through sedimentation, oil and grease trap before its fall into rain water harvesting pits.

The depth of the borewells will be 5 m above the ground water aquifer.

2.8 What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?

The project site is comparatively plain land. The surrounding area of the project site is vacant and not yet being developed. Therefore there will be no impact on the runoff characteristics of the area in the post construction phase on a long term basis.

2.9 What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)

Ground water will be used temporarily till permanent water supply connection is done from the PH department.

Quantity of ground extraction for operation purpose will be 773.52 KLD. Ground water is available at a depth of about 30 m during summer season. Request for approval from CGWB is in place for ground water extraction.

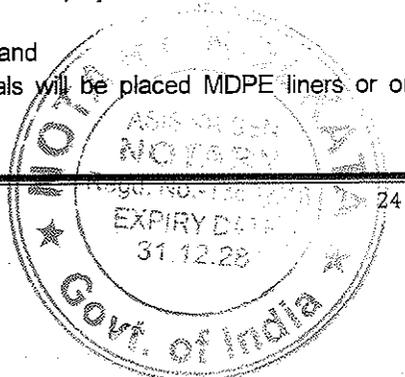
2.10 What precautions/measures are taken to prevent the run-off from construction activities polluting land and aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)

During the construction phase, the entire site will be enclosed by boundary wall at the very first stage. This will enable enclosure of the entire site from the surrounding.

Proper drainage arrangement will be made within the project site to let the free flow for the runoff.

No waste will be allowed to be dumped in open land

Oil, grease, paints and other spill-able materials will be placed MDPE liners or on concrete base.



55

Mobile toilets will be placed to avoid any fecal and urinal contamination.
Construction of basement will be taken over during non-monsoon period.
Application of these measures will avoid run-off contamination of land and aquifers.

- 2.11 How is the storm water from within the site managed? (State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)**

There will be a provision of storm water drain along the site. Storm water from run offs will be collected and chanelized to rain water harvesting pits. Water so collected will pass through de-silting-cum-filter chamber.

- 2.12 Will the deployment of construction laborers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)**

There will be no labour camp within the site. However, temporary rest rooms, office and first aid/ safety office will be provided on site. Proper sanitation facility will be made available on site by providing mobile toilets.

- 2.13 What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology and facilities for recycling and disposal)**

It is estimated that 928.22 kld waste water will be generated during the operation phase of the project. The waste water will be treated in an STP of 1000 KLD capacity which will be installed within the project site. Proper sewerage collection network will be provided within the project site.

After treatment, 742.57 kld treated waste water will be generated. This water will be utilized for various purposes such as flushing, HVAC cooling, horticulture etc.

For this purpose, treated water storage tanks will be provided along with dual plumbing lines for flushing and sprinkler system for horticulture purposes.

The STP design is attached as Annexure IX.

- 2.14 Give details of dual plumbing system if treated waste water is used for flushing of toilets or any other use.**

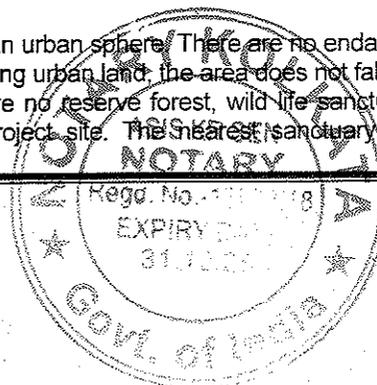
Flushing water requirement for the project (including residences, community, shopping and other utilities) during operation phase is 386.76 KLD. This requirement will be met from recycling the treated waste water generated from the STP.

There will be a separate treated water storage tank for storing the treated waste water. There will be a separate pipeline leading to the roof top flushing water tank. This pipeline will be painted in order be identified as dual plumbing line for future servicing purpose.

3. VEGETATION

- 3.1 Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)**

The proposed project area is located within an urban sphere. There are no endangered plant or animal species in the region. The being urban land, the area does not fall under the path of any migratory species. There are no reserve forest, wild life sanctuary or protected area within the vicinity of the project site. The nearest sanctuary is the



56

Nandan Kanan and is located 3.5 km in the northern side of the project site. No threat to biodiversity is envisaged due to commencement of the project.

3.2 Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)

The project site is covered with sporadic grasses, shrubs and bushes. Some plantation includes banana (18 numbers) and bamboo is observed at the project site. Shrubs include china rose, tulsi etc have been found existing at the project site.

These will be required to be cleared during the time of site preparation.

Further to this, after the site is being developed, there will be plantation of 933 number of native trees and this will ensure increase in tree plantation.

3.3 What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)

The project site is 105962.07 sqm. The project will have area under green of 41534.173 sqm accounting to 39.19 percent of the plot area.

Out of this, area dedicated for tree plantation will include 23325 sqm accounting to 56.15 percent of the green area. Total 933 number of native tropical deciduous trees will be planted within the project site.

About 8099.17 sqm area will be dedicated for shrubs and remaining 10110 sqm area will grass cover for park, open spaces etc..

4. FAUNA

4.1 Is there likely to be any displacement of fauna-both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

No fauna has been recorded from the project influenced area. Since this site is not a natural host to any sensitive creature. Therefore, no faunal habitat is likely to be effected due to construction of the proposed building.

4.2 Any direct or indirect impacts on the avifauna of the area? Provide details.

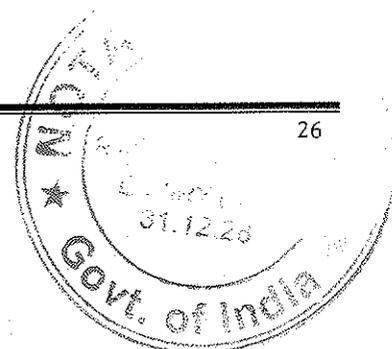
No direct or indirect impact on the avifauna of the area is envisaged.

4.3 Prescribe measures such as corridors, fish ladders etc. to mitigate adverse impacts on fauna.

Measures such as corridors, fish ladders are not applicable for this project.

5. AIR ENVIRONMENT

5.1 Will the project increase atmospheric concentration of gases and result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)



57

The project will not have much impact on the concentration of gases as this project is being developed for residential purpose.

Heat island:

About 39.19 percent of the project area will have green cover. Therefore, there will be minimum heat island effect due to the project.

Background air quality levels is given in the following Table: 8

Table 8: Background air quality*

Table: Summarized Results of PM₁₀ (µg/m³)

Sl. No.	Location	Code	Maximum	Minimum	Average	98 Percentile
1.	Inside Project area	A1	69.00	48.00	58.23	67.50
2.	Patia village	A2	67.00	44.00	56.62	66.50
3.	Kalarahanga	A3	65.00	43.00	54.65	64.00
4.	KIITS Campus	A4	79.00	53.00	68.12	78.50
5.	Bhabanipur	A5	74.00	52.00	63.81	74.00
6.	Patharagadia	A6	63.00	44.00	52.12	61.50
7.	Kalyanpur	A7	67.00	45.00	55.96	67.00

Source: S.S Environics (I) Pvt. Ltd, BBSR

Period: March-May'2010.

Site Specific AAQ Data

Table: Summarized Results of PM_{2.5} (µg/m³)

Sl. No.	Location	Code	Maximum	Minimum	Average	98 Percentile
1.	Inside Project area	A1	45.30	31.20	37.99	45.20
2.	Patia village	A2	42.80	29.70	34.67	42.00
3.	Kalaradhang	A3	41.20	28.60	34.30	40.50
4.	KIITS Campus	A4	55.10	36.60	46.10	55.05
5.	Bhabanipur	A5	46.10	31.50	39.25	45.85
6.	Patharagadia	A6	42.10	28.30	34.44	41.65
7.	Kalyanpur	A7	42.50	28.80	34.72	42.25

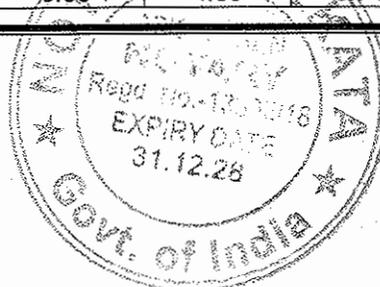
Source: S.S Environics (I) Pvt. Ltd, BBSR

Period: March-May'2010.

Site Specific AAQ Data

Table: Summarized Results of SO₂ (µg/m³)

Sl. No.	Location	Code	Maximum	Minimum	Average	98 Percentile
1.	Inside Project area	A1	9.30	4.70	7.09	9.00
2.	Patia village	A2	7.50	4.60	6.26	7.40
3.	Kalaradhang	A3	6.50	4.70	5.53	6.50
4.	KIITS Campus	A4	10.20	5.80	7.84	10.00
5.	Bhabanipur	A5	10.40	5.40	7.68	10.10
6.	Patharagadia	A6	6.80	4.00	5.36	6.65
7.	Kalyanpur	A7	9.30	4.50	6.74	8.80



58

Source: S.S Environics (I) Pvt. Ltd, BBSR

Period: March-May'2010.

Site Specific AAQ Data

Table: Summarized Results of NO_x (µg/m³)

Sl. No.	Location	Code	Maximum	Minimum	Average	98 Percentile
1.	Inside Project area	A1	14.50	9.80	11.88	14.40
2.	Patia village	A2	14.50	9.60	11.67	14.10
3.	Kalaradhang	A3	14.30	9.50	12.00	14.25
4.	KIITS Campus	A4	18.50	11.70	15.44	18.40
5.	Bhabanipur	A5	15.20	9.60	11.93	14.75
6.	Patharagadia	A6	12.40	BDL	10.33	12.35
7.	Kalyanpur	A7	15.20	9.80	12.43	15.05

Source: S.S Environics (I) Pvt. Ltd, BBSR

Period: March-May'2010.

Site Specific AAQ Data

BDL – 9 µg/m³Table: Summarized Results of CO (mg/m³)

Sl. No.	Location	Code	Maximum	Minimum	Average	98 Percentile
1.	Inside Project area	A1	0.170	0.110	0.137	0.165
2.	Patia village	A2	0.160	0.110	0.130	0.160
3.	Kalaradhang	A3	0.160	0.100	0.121	0.155
4.	KIITS Campus	A4	0.190	0.110	0.152	0.185
5.	Bhabanipur	A5	0.160	0.110	0.129	0.155
6.	Patharagadia	A6	0.13	BDL	0.11	0.13
7.	Kalyanpur	A7	0.15	0.11	0.13	0.15

Source: S.S Environics (I) Pvt. Ltd, BBSR

Period: March-May'2010.

Site Specific AAQ Data

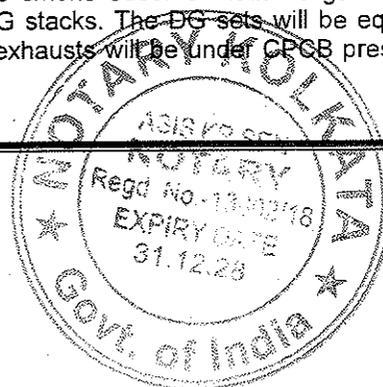
BDL – 0.1 mg/m³

It is observed from the data that maximum values of PM 2.5, PM 10, SO₂, NO_x and CO values are within the prescribed standards.

Air quality dispersion model is attached as Annexure XII.

5.2 What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.

No such impacts are envisaged such as smoke odour or hazardous gases. Only source of air emissions area from the DG stacks. The DG sets will be equipped with pollution control measures and the exhausts will be under CPCB prescribed limit.



- 5.3 Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.**

The project site provides sufficient parking space in the form of basement parking and surface parking. Parking has been provided separately for shopping and commercial area and also for visiting population. The parking provided conforms to the BDA bylaws. Details of the parking are given below.

Requirement as BDA bylaws:

Parking area for apartments: 65231.934 sqm (30% of builtup area)

Parking area for retail outlet 6131.5496 sqm (60% of builtup area)

Parking provided:

Residential (at basement): 56633 sqm (1750 ECS)

Residential (on surface): 9000 sqm (330 ECS)

Total: 65633 sqm (2080 ECS)

Retails (at basement): 5020 sqm

Retail (on surface): 1700 sqm

Total: 6720 sqm

- 5.4 Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.**

There will be 5 m, 6m and 7.5 m wide road for internal movement. This will enable free movement of traffic. The roads will also have pavements for pedestrian pathways and footpaths.

- 5.5 Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.**

It is envisaged that there shall be maximum movement of light motor vehicles and 2-wheelers inside the complex campus, hence this will have insignificant rise in noise level. Moreover, this will be further minimized by plantation on the sides of internal roads, on the open spaces inside and around the periphery of whole complex. Proper maintenance of the internal roads will be carried out and Informatory signboards shall be provided to encourage vehicle owners to maintain their vehicle, not to blow horns and follow the emission standards fixed by Government Authorities. Ambient noise level monitoring has been carried out at the study area.

- 5.6 What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.**

There will be 10 number of DG sets. The capacity of the DG sets are 3 number of 380 kVA, 5 number of 500 kVA and 2 number of 625 kVA. DG sets procured will be silent type and will maintain CPCB noise emission criteria.

All the DG sets will be kept within acoustically enclosed chamber.

Further the DG sets will be equipped with inbuilt pollution control measures and the emission will conform to the CPCB prescribed standard.

The operation of DG sets will not have severe impact on the local environment.

60

6. AESTHETICS

- 6.1 Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?**

There are no scenic amenity or landscape near the project site.

- 6.2 Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?**

There are no existing structures within and adjoining the project site.

- 6.3 Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.**

Bhubaneswar is a city which is rapidly expanding its urbanization and today has become at par with many A Class cities in India. In this preview, the modern-urban infrastructure system has already been developed within the city. The proposed project conforms to the modern development plan of the city.

- 6.4 Are there any anthropological or archaeological sites or artifacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.**

No anthropological or archeological site is envisaged within the vicinity of the project site. Therefore no impact for the same is envisaged. However, places like Udaigiri, Khandagiri and Lingaraj Temple are far away from the project site and not visible.

7. SOCIO-ECONOMIC ASPECTS

- 7.1 Will the proposal result in any changes to the demographic structure of local population? Provide the details.**

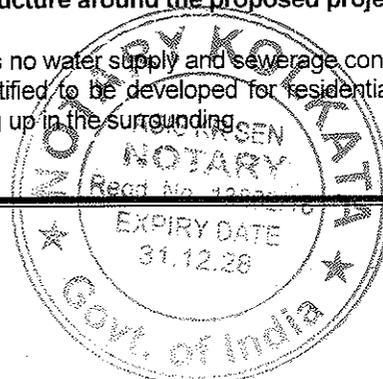
The area and the surrounding is scantily populated as the area has been newly demarked as residential area by the BDA.

During peak operation phase of the project, it is estimated that 80-100 number of labours will be working in the project site. This will attract establishment of small shops in the surrounding. This development will also get enhanced as it is expected that the area will attract further development for residential purpose.

During operation phase, it is estimated that about 10220 persons will reside within the residential complex. This will lead to increase in population in the area.

- 7.2 Give details of the existing social infrastructure around the proposed project.**

At present the area is undeveloped. There is no water supply and sewerage connection in the area. Since the area has been identified to be developed for residential area, rapid development of residences are coming up in the surrounding.



61

The area will be connected with Public Health water supply and sewerage network.

7.3 Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

The proposed construction will not have any adverse effects on local communities, disturbance to sacred sites and other cultural values.

8. BUILDING MATERIALS

8.1 May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)

The major materials required for construction of the proposed project will be steel, cement, bricks, concrete, metal, flooring tiles/stones, sanitary and hardware items, electrical fittings, water, etc.

All the items to be used in the proposed project will be as per the national building code specification. If the building materials with high-embodied energy are locally available, it will be used in construction. Ready mixed concrete will be used in construction.

It will also be ensured that **fly ash will be used** in the concrete, beams and columns up to 25 percent. Laboratory tests will be done to check the load bearing capacity of such structures.

8.2 Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?

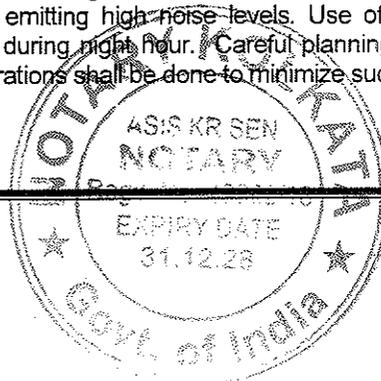
➤ **Mitigation Measures for Air Pollution during Construction Stage**

Air Quality around the project site will be adversely impacted during construction stage. Various construction activities especially related to handling of loose material like to cause generation of fugitive dust, that adversely impact the air quality of the surrounding area of the project site. To minimize such impact following measures shall be taken:

All the loose material either stacked or transported shall be provided with suitable covering such as tarpaulin, etc. Water sprinkling shall be done at the location where dust generation is anticipated. To minimize the occupational health hazard, proper personal protective gears i.e. mask shall be provided to the workers who are engaged in dust generation activity.

➤ **Mitigation Measures for Noise Pollution during Construction Stage**

During the construction stage, expected noise levels shall be in the range of 80-85 dB(A) which will decrease with increase in distance as per the Inverse Square Law. Administrative as well as engineering control of noise will be implemented. Isolation of noise generation sources and temporal differentiation of noise generating activities will ensure minimum noise at receiver's end. To prevent any occupational hazard, ear muff / ear plug shall be given to the workers working around or operating plant and machinery emitting high noise levels. Use of such plant or machinery shall not be allowed during night hour. Careful planning of machinery operation and scheduling of operations shall be done to minimize such impact.



62

8.3 Are recycled materials used in roads and structures? State the extent of savings achieved?

As there is no availability of recyclable building material in the vicinity of proposed project site so recyclable materials cannot be used in the construction process of proposed project.

However, bricks made from the fly-ash will be used for construction of pavements, side walls, boundaries for parks etc. Flush doors (made of waste wood) will be used for doors in the buildings. Readymade concrete (RMC) will be used in construction.

8.4 Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

As per the manual on municipal solid waste prescribe by Central Public Health and Environmental Engineering Organization (CPHEEO), the quantity of solid waste generated varies between 0.2 – 0.6 kg/capita/ day. The solid waste will comprise biodegradable waste e.g. domestic waste, food waste, horticultural waste etc. and recyclable waste, like plastic, paper etc. For estimating the quantum of waste 0.35 kg/capita/day waste has been considered **Table 10**.

Table 10: Estimated Quantities of Solid Waste Generated during Operation Phase

Details	Quantity (tpd)
Total waste generation	2.55
Biodegradable waste	1.9
Inert	0.65

Waste Management:**Municipal Solid Waste**

In residential complex, private sweepers are generally engaged for handling domestic waste, which should identify appropriate site for keeping bin/container for the collection of waste.

Appropriate site for keeping bin/container for the collection of waste has been identified on the basis of use.

Adequate number of collection bins separately for biodegradable and non-biodegradable waste shall be provided as per The Municipal Solid Waste (Management and Handling) Rule, 2000 will be provided. Waste from such bin shall be collected separately on daily basis.

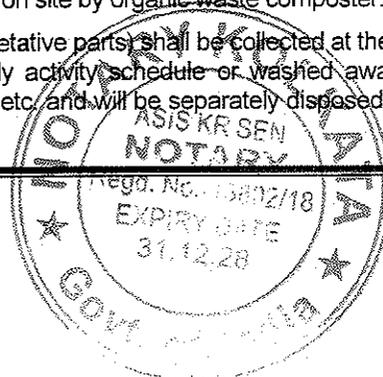
All the collection bins will be properly maintained and cleared on regular basis.

The solid waste will be collected and taken to a separate centralized collection facility within the project site.

Final segregation of solid waste into biodegradable, non-biodegradable, and inert fraction into the centralized collection fraction

Biodegradable waste will be decomposed on site by organic waste composter.

Horticultural waste (leaves, grass and vegetative parts) shall be collected at the secured location such that it shall not hinder daily activity schedule or washed away by the surface run off causing choking of drains, etc. and will be separately disposed off along with biodegradable waste.



63

9. ENERGY CONSERVATION

9.1 Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?

➤ **Power requirement and Source of Supply:**

For the project power will be supplied electricity board.

The total power required for the project is estimated to be as around 10 MVA. Appropriate arrangements for drawing power from electrical sub-stations (ESS) and suitable distribution arrangements will be made. There will be 10 number of 1250 kVA and 2 number of 750 kVA transformers in the ESS.

Backup Source:

The entire load of the complex will be provided with ample standby power supply. Power back up system has been provided by 3 No's 380kVA + 5 No's 500kVA + 2 No's of 625 kVA . Upon mains failure DG set will start automatically and feed to common area lighting, street lighting, water supply pumps and lifts. Fuel for DG sets will be HSD (Low Sulphur variety).

As per the latest CPCB norms DG sets have to be installed in acoustic enclosure and silencer.

➤ **Energy Conservation Measures & Management Plan:**

In the Operational Phase, appropriate energy conservation measures & management plan will be adopted in order to minimize the consumptions of non-renewable fuel. The following measures are suggested to be adopted.

Compact fluorescent lamps will be used in place of incandescent and T5 CFLs with retrofitting instead of halogen lamps in all common areas and basement parking.

Energy conservation measures includes:

- The water supply pumping system shall be provided with variable speed drive to conserve energy at part load.
- It is suggested to replace the 250 W high pressure sodium lamps to 85 W CFL lights by retrofitting, replace 60 W bulbs to 15 W CFLs and 40 W tube lights to 28 W T5 luminaries.
- Roof and wall insulation shall be planned to conserve energy.
- Capacitor banks shall be planned for improving the power factor of the power supply.

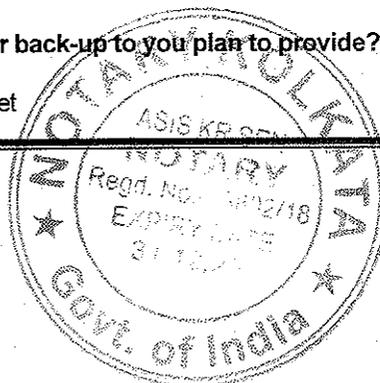
Solar energy will also be used to meet electricity requirements as it would reduce dependence on non-renewable sources of energy and make environment cleaner. Solar street lights will be installed within the building complex. The street lamps will be equipped with solar panel for lightening purpose. Fifty percent of the solar street lights will also have direct connection to the power supply and will be used only during emergency condition(s) i.e. during failure of the solar panel(s).

The DG sets shall be automatically controlled to optimize the usage based on the actual load requirement at any given time.

These measures will effectively cut down the electricity/ diesel consumption.

9.2. What type of, and capacity of, power back-up to you plan to provide?

1) Type: D.G. Set



64

II) Capacity: 3 No's 380kVA + 5 No's 500kVA + 2 No's of 625 kVA

9.3 What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?

Since the building is residential building, glass used will be normal glass. Further, in the residential buildings and shopping centre, the glass to wall ratio is less than 40 %. However the glass used for shopping area will be 6 mm tinted glass. The characteristics of the glass is given in annexure XXIII.

9.4 What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.

The towers and the buildings have been designed in the east – west direction, with maximum exposure in the north and south direction.

9.5.1 Does the layout of streets & buildings maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.

There are provisions for solar street lights. Solar street lights will be placed in 100 m distance from each other.

9.6 Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?

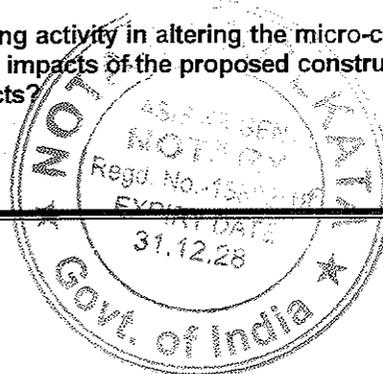
The buildings have been designed along the east west direction, with maximum exposure in the north south direction.

9.7 Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.

In the residential buildings, air conditioners will be installed by the dwellers. All room air conditioning system are being manufactured and available in the market are of four star and five star rating. Therefore, these are energy efficient systems.

The shopping area will have HVAC system. The HVAC system will be water cooled, with minimum efficiency of 3.05 COP, timer controlled device, insulated piping and ducts and proper sealing between the ducts, Air and Hydronic system balancing etc. The hydronic system will be variable flow type. The condensers will be located away from heat discharge from nearby systems.

9.8 What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?



68

The proposed project is the construction of residential complex due to which there will not be any significant effects on the surrounding environment of proposed project. Further the project will envisage 39.19 percent as green area. All pavements will be soft pavement instead of hard pavement. In addition, the surface parking will be soft parking instead of hard parking.

- 9.9 What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.**

The building envelope for external walls will be made of concrete and steel. The R-values for concrete range from 0.78-1.25 K.m².W-1 that for steel range from 1.07-1.25 K.m².W-1, and for bricks approx. 0.87 K.m².W-1.

- 9.10 What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.**

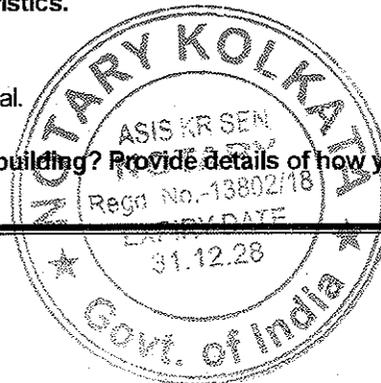
In design component of the project, adequate measure has being taken as per the provisions of the National Building Code (SP 7: 1983 Part IV Amendment No 3 of January 1997 to provide for fire protection services. Sufficient quantity of water will be stored within the premise to subdue fire if at all required. Water will be supplied from the under ground water storage reservoir. Apart from providing sufficient water for firefighting, other measures that have been considered includes:

- Minimum six meter wide internal approach road shall be kept free of all hindrances such as planters, parking, street light stands, chajjas etc. for easy movement of vehicles
- All the building blocks will be provided with open set back area as per Building Bye Laws
- All the blocks have been designed in such a way that every block is accessible to fire engines through approach road width
- The internal road will have sufficient load bearing capacity to withstand fire engines
- The building materials shall be of appropriate fire resistance standard. Further, design shall include provision for the following:
- The electrical systems shall be provided with automatic circuit breakers activated by the rise of current as well as activated by over current.
- Fire detection systems
- Fire Alarm systems at appropriate places
- Means of escape,
- Access for fireman
- Adequate fire fighting requirement shall be taken into account while designing the electrical distribution system

- 9.11 If you are using glass as wall material provides details and specifications including emissive and thermal characteristics.**

The project will not have glass as wall material.

- 9.12 What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.**



66

The source of air infiltration into the building are the openings/ gaps in the doors and windows and ventilation.

The construction of the doors and windows will be carefully done to avoid formation of any gap. Special care will be taken for ventilations and gaps in the east-west direction of the gaps.

All the ventilation will have fenestrations especially in the east-west openings.

9.13 To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.

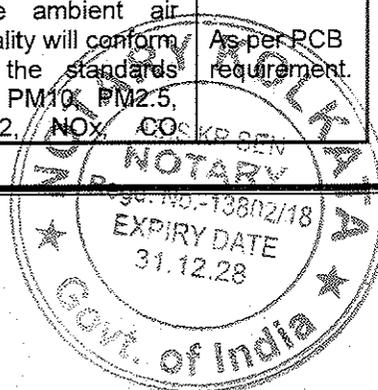
The project will have solar street lights and solar lights at open spaces.

10. Environment Management Plan

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.

Table F2-13: Environment Management Plan

Sl. No.	Potential Impact	Action	Parameters for Monitoring	Timing
I. Construction Phase				
1.	Air Emission	All equipments are Operated within specified design parameters.	Random checks of Equipment logs/ manuals	Construction activities
		Vehicle trips to be minimized to the extent Possible	Vehicle logs	Site Clearance and Construction activities
		Any dry, dusty materials stored in sealed containers or prevented from blowing.	Absence of stockpiles or open containers of dusty materials.	Construction activities
		Compaction of soil during various construction activities	Construction logs	Construction activities
		Ambient air quality within the premises of the proposed unit to be monitored.	The ambient air quality will conform to the standards for PM10, PM2.5, SO2, NOx, CO	As per PCB requirement.



67

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

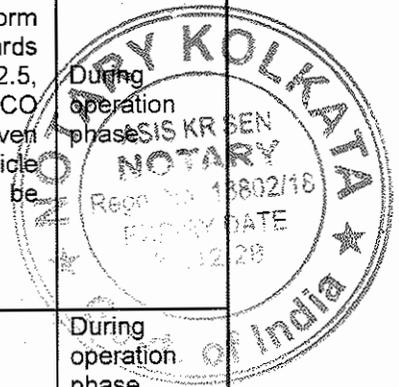
Sl. No.	Potential Impact	Action	Parameters for Monitoring	Timing
			and Pb	
2.	Noise	List of all noise generating machinery onsite along with age to be prepared. Equipment to be maintained in good working order.	Equipment logs, noise reading	During construction phase.
		Night working to be minimized.	Working hour records	Construction activities
		Generation of vehicular noise	Maintenance records of vehicles	During construction phase.
		Implement good working practices (equipment selection and siting) to minimize noise and also reduce its impacts on human health (ear muffs, safe distances, enclosures).	Site working practices records, noise reading	During construction phase.
		No machinery running when not required.		
		Acoustic mufflers / enclosures to be provided in large engines	Mufflers / enclosures in place.	Prior to use of Equipment.
		Noise to be monitored in ambient air within the plant premises.	Noise reading	As per PCB requirement or quarterly whichever is lesser.
		The Noise level will not exceed the permissible limit both during day and night times.		
		All equipment operated within specified design parameters.	Random checks of Equipment logs/manuals	During construction phase.
Vehicle trips to be minimized to the extent	Vehicle logs	During construction phase.		

68

Sl. No.	Potential Impact	Action	Parameters for Monitoring	Timing
		Possible		
3.	Wastewater Discharge	No untreated discharge to be made to surface water, groundwater or soil.	No discharge hoses in vicinity of watercourses.	During construction phase.
		The discharge point should be selected properly and sampling and analysis should be undertaken prior to discharge	Discharge norms for effluents as given in consent to operate by PCB.	During construction phase.
		Take care in disposal of wastewater generated such that soil and groundwater resources are protected.	Discharge norms for effluents as given in consent to operate by PCB.	
4.	Soil Erosion	Minimize area extent of site clearance, by staying within the defined boundaries	Site boundaries not extended / breached as per plan document.	During construction phase.
		Protect topsoil stockpile where possible at edge of site.	Effective cover in place.	During construction phase.
5.	Drainage and effluent Management	Ensure drainage system and specific design measures are working effectively. The design to incorporate existing drainage pattern and avoid disturbing the same.	Visual inspection of drainage and records thereof	During construction phase
6.	Waste Management	Implement waste management plan that identifies and characterizes every waste	Comprehensive Waste Management Plan in place and available	Prior to site Clearance. 31.12.28

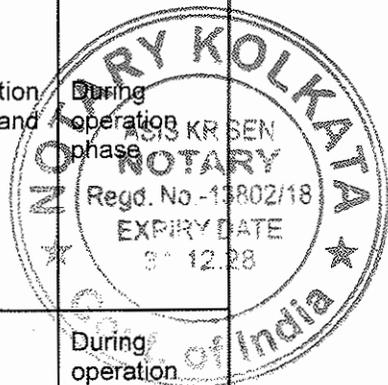
69

Sl. No.	Potential Impact	Action	Parameters for Monitoring	Timing
		arising associated with proposed activities and which identifies the procedures for collection, handling & disposal of each waste arising.	inspection on-site. Compliance with MSW Rules, 1998 and Hazardous Wastes (Management and Handling Rules), 2003	
7.	Non-routine events and accidental releases	Plan to be drawn up, considering likely emergencies and steps required to prevent/limit consequences.	Mock drills and records of the same	During construction phase
8.	Environmental Management Cell/Unit	The Environmental Management Cell/Unit is to be set up to ensure implementation and monitoring of environmental safeguards.	A formal letter from the management indicating formation of Environment Management Cell	During construction phase
II. Operational Phase				
9.	Air Emission	Stack emissions from DG set to be optimized monitored	The ambient air quality will conform to the standards for SPM, SO ₂ and NO _x as given by PCB.	During operation phase
		Ambient air quality within the premises of the proposed unit to be monitored. Exhaust from vehicles to be minimized by use of fuel efficient vehicles and well maintained vehicles having PUC certificate.	The ambient air quality will conform to the standards for PM ₁₀ , PM _{2.5} , SO ₂ and NO _x , CO and Pb as given by PCB. Vehicle logs to be maintained	During operation phase
		Vehicle trips to be minimized to the extent possible	Vehicle logs	During operation phase
10.	Noise	Noise generated	Maintain records	



76

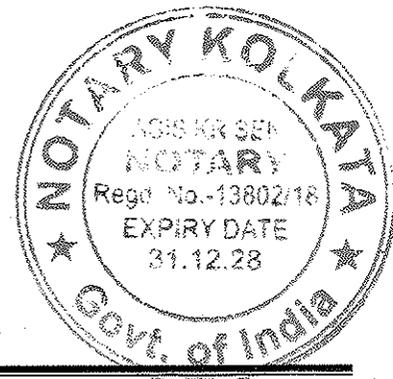
Sl. No.	Potential Impact	Action	Parameters for Monitoring	Timing
		from operation of DG set to be optimized and monitored DG sets to generate less than 75 dB(A) Leq at 0.5 m from the source DG sets are to be provided at basement with acoustic enclosures with height of chimney 5 m above roof level or as specified by PCB	of vehicles	
		Generation of vehicular noise	Maintain records of vehicles	During operation phase
11.	Wastewater Discharge	No untreated discharge to be made to surface water, groundwater or soil. Take care in disposal of wastewater generated such that soil and groundwater resources are protected	No discharge hoses in vicinity of watercourses. Discharge norms for effluents	During operation phase.
12.	Drainage and Effluent Management	Ensure drainage system and specific design measures are working effectively. Design to incorporate existing drainage pattern and avoid disturbing the same.	Visual inspection of drainage and records thereof	During operation phase
13.	Energy Usage	Replacement of conventional luminaries to energy efficient luminary fittings	Luminary parameters	During operation phase



71

Form 1 and Form 1A for Construction of Housing Project at Kalarahanga, Bhubaneswar

Sl. No.	Potential Impact	Action	Parameters for Monitoring	Timing
14.	Emergency preparedness, such as fire fighting	Fire protection and safety measures to take care of fire and explosion hazards, to be assessed and steps taken for their prevention.	Mock drill records, on site emergency plan, evacuation plan.	During operation phase
15.	Environment Management Cell/Unit	The Environment Management Cell/Unit to be set up to ensure implementation and monitoring of environmental safeguards.	A formal letter from the management indicating formation of Environment Management Cell	During operation phase





Z ESTATES PRIVATE LIMITED

72

Date: 28th December 2010

To
The Chairman,
State Level Environmental Impact Assessment Authority (SEIAA),
Qtr. No. 5RF-2/1, Unit-IX,
Bhubaneswar-22, Odisha

Sub: Compliance of additional clarification as proposed in the meeting with your kind self at SEIAA Office on 14th December 2010 for "Proposed Construction of Housing Project and Shopping Mall at village Kalarahanga, Bhubaneswar"

Ref: Our letter dated 01st November 2010 towards submission of Form 1 and Form 1A.

Dear Sir,

Please refer to our meeting mentioned above for the project "Proposed Construction of Housing Project and Shopping Mall at village Kalarahanga, Bhubaneswar". Please find enclosed point wise reply for the suggested queries.

Sl. No.	Your Suggestion	Compliance
1.	Water Demand Calculation	Attached as Enclosure I
2.	Flood Water Management	Attached as Enclosure II
3.	Water supply distribution details	Attached as Enclosure III
4.	Pre Construction, construction and post construction details	Attached as Enclosure IV
5.	Location of Car Wash Area	Attached as Enclosure V
6.	5 Km radius map of the project site	Attached as Enclosure VI
7.	Traffic Management Details	Attached as Enclosure VII
8.	Details of solid waste garbage chute/ shaft provision	Attached as Enclosure VIII

Thanking You

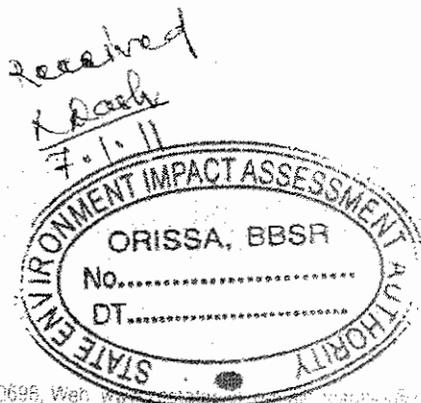
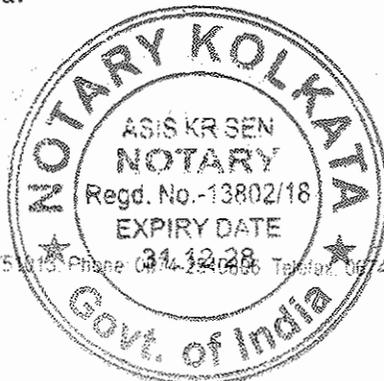
Yours Faithfully

Z ESTATES PVT. LTD.

Jagan Kumar Mohanty
MANAGING DIRECTOR

For Z Estates Pvt. Ltd.

Encl. As above.





Z ESTATES PRIVATE LIMITED

73

Dt. 07th January 2011

To,

The Member Secretary,
State Pollution Control Board,
Paribesh Bhawan, A/118,
Nilakantha Nagar, Unit VIII,
Bhubaneswar-751 012, Orissa

Sub: Application for "Consent to Establish" in respect of our proposed Construction of Housing Project and Shopping Mall at village Kalarahanga, Bhubaneswar, Orissa.

Dear Sir,

With reference to the captioned subject, we are enclosing herewith necessary application duly filled-in all respects along with necessary requisites including an A/C payee demand draft No. 121486 dated 07th January 2011 of Rs.2,00,000/- (Rupees Two Lakhs Only) drawn in favour of 'Member Secretary, State Pollution Control Board, Orissa' payable at Bhubaneswar for obtaining "Consent to Establish" for the proposed project.

You are requested to kindly issue the consent to establish for the above mentioned project.

Thanking you,

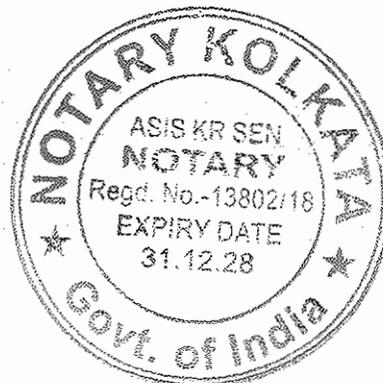
Yours faithfully,

Z ESTATES PVT. LTD.

Jagan Kumar Mohapatra
MANAGING DIRECTOR

For Z Estates Pvt. Ltd.

Encl: As above





Z ESTATES PRIVATE LIMITED

76

To

Date: 03rd March 2011

The Secretary
State Level Expert Appraisal Committee, Odisha
Bhubaneswar, Odisha

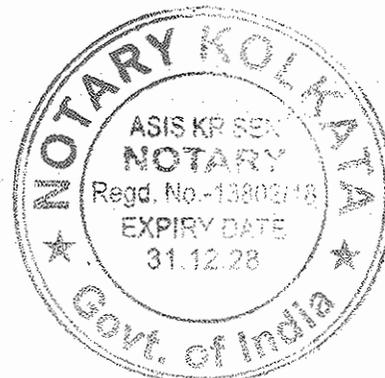
Sub: Reply to your query vide letter no. 071/SEAC-(Mis)-02 dated 27.01.2011 for Environmental Impact Assessment Study for the proposed construction of Residential and Commercial project at Village Kalarahanga, Bhubaneswar, Odisha

Dear Sir

Please refer to your letter mentioned above where reply to 12 queries were asked to be furnished.

Please find the point wise reply for the queries.

1. Permission status of water drawal
Reply: Enclosed as Annexure I
2. Drainage pattern of the area
Reply: Attached as Annexure II
3. Detail water balance diagram
Reply: Attached as Annexure III
4. Detail proposal for solid waste management and agreement for disposal for solid waste
Reply: Attached as Annexure IV
5. Detail proposal for treated waste water utilization
Reply: Attached as Annexure V
6. Detailed specification of STP
Reply: Attached as Annexure VI
7. Filled-in questionnaire
Reply: Attached as Annexure VII
8. BDA approved building plans (Elevation Plan etc.)
Reply: Has been cleared by D.P.B.P. Committee and approved by Authority (letter attached as annexure VIII)
The final approval will be issued only after few compliances made by us
9. Structural safety certificate from competent authority with drawing
Reply: The structural design has been submitted to IGIT – Sarang and the approval is awaited.



Contd /...



Z ESTATES PRIVATE LIMITED

FS

10. Undertaking to the effect that construction work has not been started
Reply: Attached as Annexure IX
11. Rain water harvesting details
Reply: Attached as Annexure X
12. Details of conservation of energy
Reply: Attached as Annexure XI

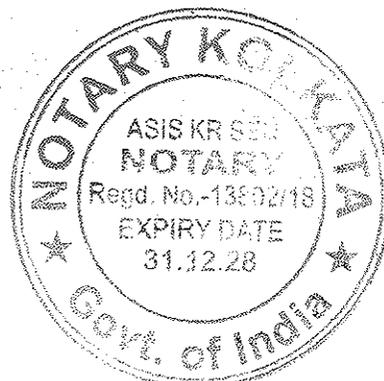
Thanking you

Yours Sincerely

Z ESTATES PVT. LTD.

Tapan Kumar Mohanty
MANAGING DIRECTOR

Managing Director
Tapan Kumar Mohanty
Z Estates Pvt. Ltd





Z ESTATES PRIVATE LIMITED

Date.02.04.2011

To,
The Secretary,
State Level Expert Appraisal Committee &
Member Secretary,
State Pollution Control Board,
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar-751012, Orissa

Sub : Final Appraisal for Environmental Clearance for construction of Housing Colony and Shopping Mall at Kalarahanga, Bhubaneswar with Plot area: 105962.1 sqm

Ref : SEAC Letter No. 193/SEAC-229, dated 22.03.11

Sir,

This has reference to the aforesaid letter received from SEAC, wherein the Subject of the letter says that the built up area of the project is 105962.1 sqm, which is a typographical error. Actually plot area of the project is 105962.1 sqm & built up area of the project is 244092.7 sqm. Therefore, it is our kind request for necessary correction of the typographical error i.e Built up area in the subject to be read as Plot area.

This is submitted for your kind information and necessary record.

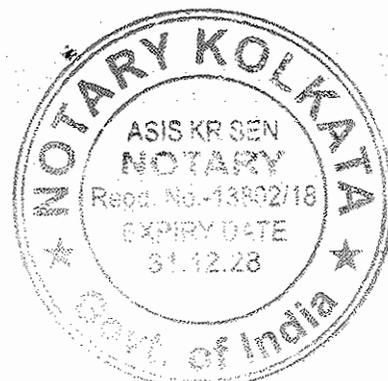
Thanking you,

Yours faithfully,

Z ESTATES PVT. LTD.

Jagan Kumar Mohapatra
MANAGING DIRECTOR

For Z Estates Pvt. Ltd.





Z ESTATES PRIVATE LIMITED

77

Date.02.05.2011

To
The Secretary,
State Level Expert Appraisal Committee &
Member Secretary, SPC Board, Orissa
Parivesh Bhawan
A /118, Nilakhanth Nagar, Unit VIII,
Bhubaneswar, 751012, Orissa

Subject: Submission of reply to the observation regarding construction of housing colony and shopping mall of M/s Z Estates Pvt. Ltd at Kalarahanga, Bhubaneswar

Sir,

Kindly refer to your letter no. 193/SEAC 229 dated 22/03/2011, please find enclosed herewith point wise reply.

Observation: 1: BDA approval for the project is awaited, and conceptual plan was presented. It should include all suggestions of SEAC regarding statutory clearances received/proposed to be obtained shortly.

Reply: Attached as per annex. 1

Observation: 2: The entry and exit criteria are most important. Since there is no scope for having Govt. road on any side other than the front approach. The suggestion of SEAC regarding two entry and exits on opposite cannot be implemented.

Observation: 3: Emission of Air pollutants must be estimated realistically and included in Form 1A

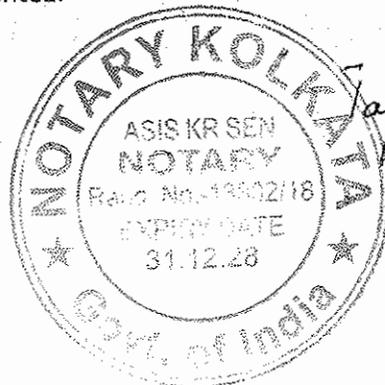
Reply: Attached as per annex. 2

Observation: 4: Placement and height of 10 number of D.G set along with chimney height fuel safe storage and emissions.

Reply: Attached as per annex. 3

Observation: 5: The AAQ and fall out diagrams are to be based on emission expected from Vehicles rather than only D.G emissions. These are to be redone and presented. The isopleths presented need to be relooked at since the concentration of air pollutants are increasing uniformly over distance up to 5 Km presented.

Reply: Attached as per annex. 2



(Signature)

78

Z ESTATES PRIVATE LIMITED

Observation: 6: There shall be 3 STPs based on Activated Sludge technology .Details of flow patterns, especially a very long residential time in the reactor tank could not be explained. The capacity needs to be re estimated based on this residence time. Inlet and outlet water quality may be relooked at.

Reply: Attached as per annex. 4

Observation: 7: All other condition like water supplies, Rain water Harvest, storm water management, placement of different utilities etc to be imposed.

Reply: Attached as per annex. 5

Thanking You
Sincerely yours

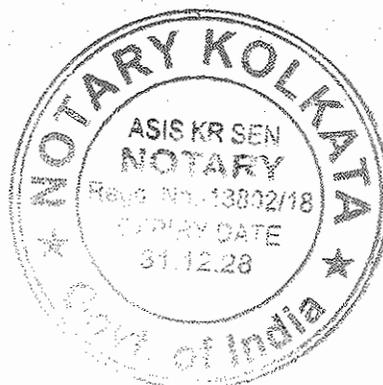
For Z-Estates Pvt. Ltd.

Z ESTATES PVT. LTD.

Tapan Kumar Ray →
DIRECTOR

Authorized Signatory

*Received by
G. Mukherjee
02.05.11*



79

Date : 14th May 2011

To
Prof. (Dr.) Gagan Bihari Nityananda Chainy,
Chairman (SEAC),
Ex-Prof. & Head of Deptt. Zoology & Bio-Technology,
401, Shanti Niwas, Rasulgah
Bhubaneswar-751010

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level
Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for
final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy
of the compliance report of your queries along with the meeting agenda for your kind
information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for
obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

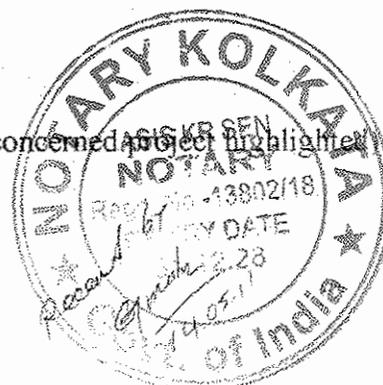
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted)



80

Date : 14th May 2011

To
Prof. (Dr.) Gagan Bihari Nityananda Chaiy,
Chairman (SEAC),
Ex-Prof. & Head of Deptt. Zoology & Bio-Technology,
401, Shanti Niwas, Rasulgarh
Bhubaneswar-751010

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy of the compliance report of your queries along with the meeting agenda for your kind information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

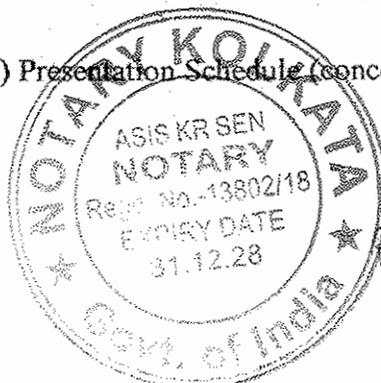
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



Received by
G. Moha
14.05.11

81

Date : 14th May 2011

To
Prof. (Dr.) Swoyam Prakash Rout,
Member SEAC,
Plot No. A/261, Sahid Nagar,
Bhubaneswar-751007

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy of the compliance report of your queries along with the meeting agenda for your kind information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

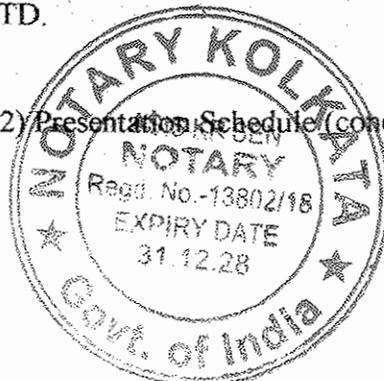
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



Gmoh
14.05.11

82

Date: 14th May 2011

To
Dr. Harekrishna Nayak,
Member SEAC,
Plot No. N-1/244, IRC Village,
Bhubaneswar-751015

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level
Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for
final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy
of the compliance report of your queries along with the meeting agenda for your kind
information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for
obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

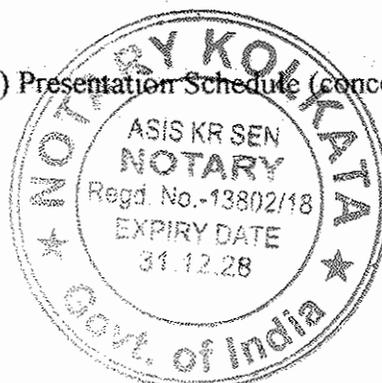
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



G. Mohan
14.05.11

83

Date : 14th May 2011

To
Dr. Maheswar Patra,
Member SEAC,
Plot No. N-3/110, IRC Village,
Nayapalli, Bhubaneswar-751015

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy of the compliance report of your queries along with the meeting agenda for your kind information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

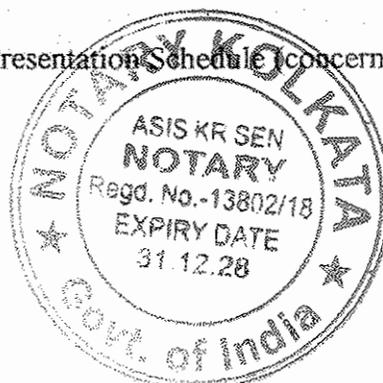
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



G. Mohanty
14.05.11

84

Date : 14th May 2011

To
Sri Sasanka Sekhar Patnaik,
Retd. IFS, Member SEAC,
Aranyaka, Phase-VII,
HIG-99, Sailashri Vihar,
Bhubaneswar-751021

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level
Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for
final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy
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information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for
obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully

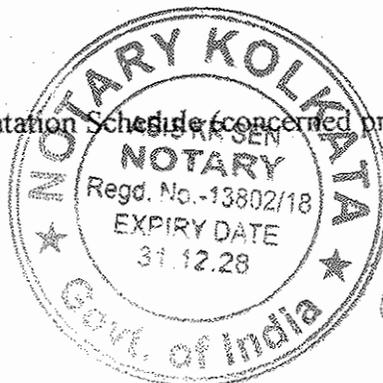
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



85

Date : 14th May 2011

To
Prof. Kumar Das,
Member SEAC,
Prof. of Economics,
A-7, Utkal University Campus,
Bhubaneswar-751004

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level
Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for
final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy
of the compliance report of your queries along with the meeting agenda for your kind
information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for
obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

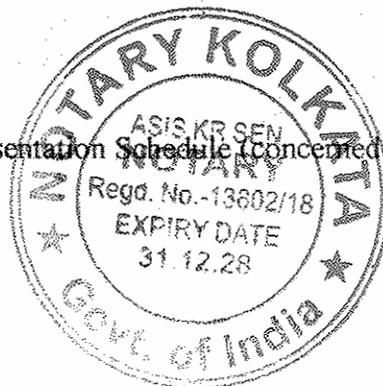
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (Concerned project highlighted).



G. Mahanta
14.05.11

86

Date: 14th May 2011

To
Dr. Surendra Nath Das,
Member SEAC,
Emeritus Scientist,
Institute of Minerals and Materials Technology (CSIR),
Bhubaneswar-751013

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy of the compliance report of your queries along with the meeting agenda for your kind information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

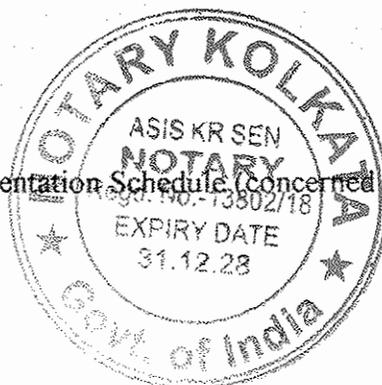
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



G. H. Sen
14.05.11

87

Date : 14th May 2011

To
Prof. (Dr.) R.C. Mohanty,
Member SEAC,
Emeritus Scientist, CSIR
Prof. of Botany, Utkal University,
Vani Vihar, Bhubaneswar-751004

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy of the compliance report of your queries along with the meeting agenda for your kind information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

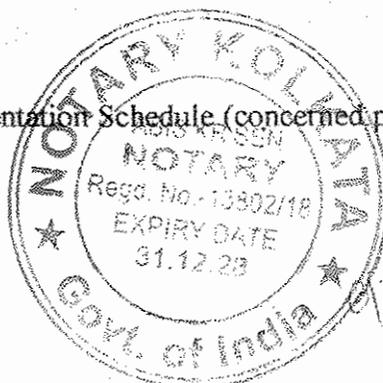
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).



88

Date : 14th May 2011

To
Sri Siddhanta Das, IFS,
Secretary, SEAC & Member Secretary,
State Pollution Control Board, Orissa,
Bhubaneswar

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of Z
ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall at
Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level
Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for
final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy
of the meeting agenda for your kind information and necessary reference.

Thanking you,

Yours faithfully,

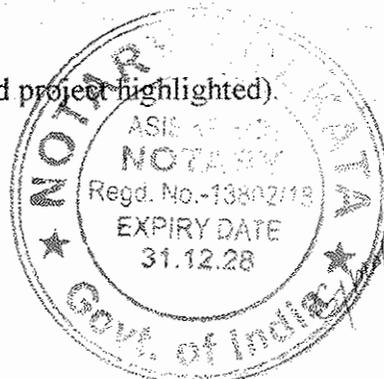
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

1. Presentation Schedule (concerned project highlighted).



89

Date : 14th May 2011

To
The Secretary,
State Level Expert Appraisal Committee &
Member Secretary,
State Pollution Control Board, Orissa,
Bhubaneswar

Sub: Final Appraisal for Environmental Clearance on 21.05.2011 at 2.00 PM (Item No- 05) of
Z ESTATE PVT. LTD. for its proposed construction of housing colony and shopping mall
at Kalarahanga, Bhubaneswar, Odisha.

Ref: Your Letter No 311/SEAC-(Misc)-02 dated 13.05.2011

Sir,

With reference to above, our technical team and consultant shall be attending the State Level Expert Appraisal Committee Meeting for the above mentioned project which is scheduled for final appraisal for Environmental Clearance. Therefore, please find enclosed herewith the copy of the compliance report of your queries along with the meeting agenda for your kind information and necessary reference.

We request you to kindly accept the documents towards final environmental appraisal for obtaining onward Environmental Clearance.

Thanking you,

Yours faithfully,

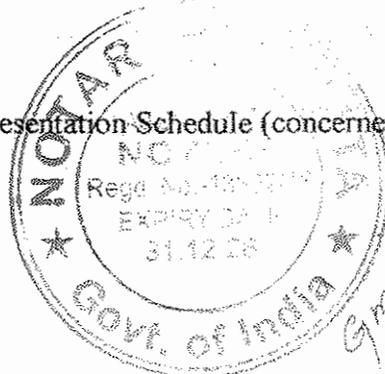
Z ESTATES PVT. LTD.

MANAGING DIRECTOR

For Z ESTATE PVT. LTD.

Encl:

(1) Compliance Report. (2) Presentation Schedule (concerned project highlighted).





Z ESTATES PRIVATE LIMITED

90

Date: 16.05.2011

To,
The Secretary,
State Level Expert Appraisal Committee &
Member Secretary,
State Pollution Control Board,
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar-751012, Orissa

Sub : **Correction of the Typographical Error** in the Subject of SEAC Letter towards "Final Appraisal for Environmental Clearance for construction of Housing Colony and Shopping Mall at Kalarahanga, Bhubaneswar of M/s Z Estates Pvt. Ltd."

Ref :

1. SEAC Letter No. 193/SEAC-229, dated 22.03.11
2. Our Earlier letter, dated 02.04.2011
3. SEAC Letter No. 311/SEAC-(Misc)-02, dated 13.05.11

Sir,

This has reference to the aforesaid letter received from SEAC (Ref-1&3), wherein the Subject of the letter says that the built up area of the project is 105962.1 sqm, which is a typographical error. Actually plot area of the project is 105962.1 sqm & built up area of the project is 244092.7 sqm. In our earlier reply as referred above (Ref-2) on 02.04.2011, we have requested for necessary correction of the error, but the same error is again reflected in the subject of the letter (Ref-3).

Therefore, it is our kind request for necessary correction of the typographical error i.e Built up area in the subject of your letter (Ref-3) to be read as Plot area.

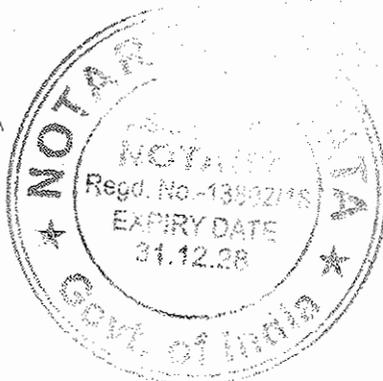
This is submitted for your kind information and necessary record.

Thanking you,

Yours faithfully,

For Z Estates Pvt. Ltd.

Received by
G. Moha
16.05.11





Z ESTATES PRIVATE LIMITED

91

To,

Date: 01st July 2011

The Secretary,
State Level Expert Appraisal Committee &
Member Secretary, SPC Board, Orissa
Parivesh Bhawan, A/118,
Nilakhanth Nagar, Unit VIII,
Bhubaneswar, 751012, Orissa

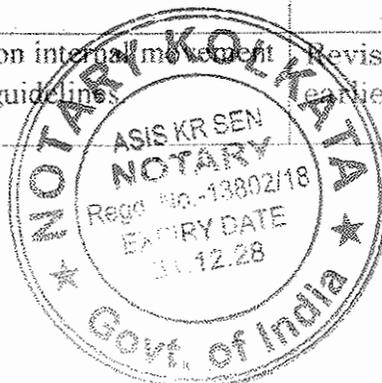
Sub: Compliance of Queries towards Final Appraisal of EC for Construction of Housing Colony and Shopping Mall at village- Kalarahanga, Bhubaneswar

Ref: SEAC Letter No.411/SEAC-229, dated 10.06.11

Sir,

With reference to above, please find the point wise compliance of the raised queries as mentioned in the following table and attachments.

Sl. No.	SEAC Queries	Compliance
1.	Copy of BDA approved drawings.	Annexure-1 (A, B, C & D)
2.	Copy of site plan to the scale.	Annexure-1B
3.	A consolidated to the scale map showing details of structure like buildings, set back area/open space free from all activities, drainage pattern, parking, plantation and landscaping, garbage collection, rain water harvesting structure, STP and other facilities if any.	Annexure-2
4.	Copy of NOC from Airport Authority of India.	Annexure-3
5.	Copy of permission letter from Fire Prevention Officer, Orissa.	Annexure-4
6.	Emission estimate based on internal movement of vehicles as per CPCB guidelines	Revised Modeling submitted earlier as suggested by Hon'ble



91A [TYPED COPY]

Z ESTATES PRIVATE LIMITED

To,
The Secretary,
State Level Expert Appraisal Committee &
Member Secretary, SPC Board, Orissa
Parivesh Bhawan, A /118,
Nilakhanth Nagar, Unit VIII,
Bhubaneswar, 751012, Orissa

Date: 01st July, 2011

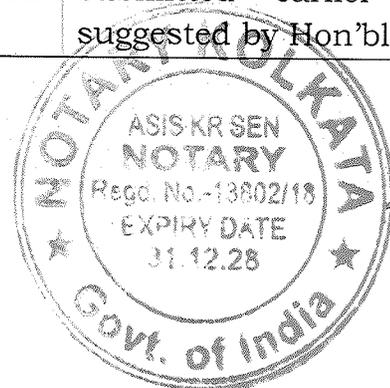
Sub: Compliance of Queries towards Final Appraisal of EC for Construction of Housing Colony and Shopping Mall at village- Kalarahanga, Bhubaneshwar

Ref: SEAC Letter No.411/SEAC-229, dated 10.06.11

Sir,

With reference to above, please find the point wise compliance of the raised queries as mentioned in the following table and attachments.

Sl. No.	SEAC Queries	Compliance
1.	Copy of BDA approved drawings.	Annexure-I (A,B,C & D).
2.	Copy of site plan to the scale.	Annexure-1A
3.	A consolidated to the scale map showing details of structure like buildings, set back area/open space free from all activities, drainage pattern, parking, plantation and landscaping, garbage collection, rain water harvesting structure, STP and other facilities if any.	Annexure-2
4.	Copy of NOC from Airport Authority of India.	Annexure-3
5.	Copy of permission letter from Fire Prevention Officer, Orissa.	Annexure-4
6.	Emission estimate based on internal movement of vehicles as per CPCB guidelines.	Revised modelling submitted earlier as suggested by Hon'ble





Z ESTATES PRIVATE LIMITED

92

		SEAC includes Emission estimates based on internal movement of vehicles as per CPCB guidelines. However, the same is also enclosed in Annexure-5 for your reference.
7.	Fall out diagram in different colours.	Covered in Annexure-6
8.	Copy of the map where DG sets are to be located with an undertaking from the DG set provider that the emission will be at 80m height stack by natural draft.	Map showing location of DG sets is enclosed as Annexure-7. Undertaking from the DG set supplier towards emission from 80m stack by natural draft is enclosed as Annexure-7.
9.	Details of storm water management with respect to drainage map with contour map of the area.	Annexure-8A & B
10.	Copy of Structural sufficiency certificate.	Annexure-9
11.	Details of STP sludge processing for manure production.	Annexure-10

We request your prompt action for onward environmental clearance for the project.

Thanking You,

Yours Faithfully,

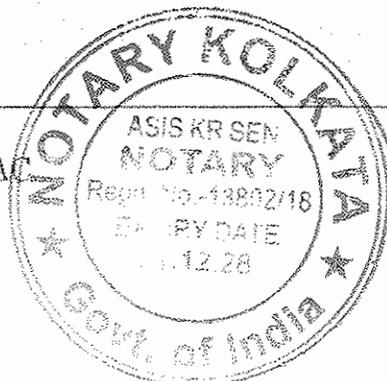
Z ESTATES PVT. LTD.

Jagan Kumar Mohapatra
MANAGING DIRECTOR

For Z Estates Pvt. Ltd.

Encl. As above.

Copy to : Hon'ble Members of SEAC



Received by
G. Mohapatra
1/11/11

92 A [TYPED COPY]

Z ESTATES PRIVATE LIMITED

		SEAC includes Emission estimates based on internal movement of vehicles as per CPCB guidelines. However, the same is also enclosed in Annexure-5 for your reference.
7.	Fall out diagram in different colours.	Covered in Annexure-5.
8.	Copy of the map where DG sets are to be located with an undertaking from the DG set provider that the emission will be at 80m height stack by natural draft.	Map showing location of DG sets is enclosed as Annexure-6. Undertaking from the DG set supplier towards emission from 80m stack by natural draft is enclosed as Annexure-7.
9.	Details of storm water management with respect to drainage map with contour map of the area.	Annexure-8A & 8B.
10.	Copy of Structural sufficiency certificate.	Annexure-9
11.	Details of STP sludge processing for manure production.	Annexure-10

We request your prompt action for onward environmental clearance for the project.

Thanking You,
Yours Faithfully,
Z Estates Pvt. Ltd.
Tapan Kumar Mohanty
Managing Director

For Z Estates Pvt. Ltd.
Encl. As above.

Copy to: Hon'ble Members of SEAC





**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY,
(SEIAA), ORISSA.**

(Constituted vide order No. S.O. 2674 (E) Date 17th Nov. 2008 of Ministry of Environment & Forest, Govt. of India, Under Environment Protection Act, 1986.) Qr. No. 5RF-2/1, Unit-IX, Bhubaneswar-751022
E-mail-seiaaorissa@gmail.com, Website - www.orissaseiaa.gov.in

Ref. No. 433/SEIAA
SEIAA - 261/10

Dt. 16.08.2011

From

Bhagirathi Behera, IFS
Director, Environment-cum-
Spl. Secretary to Government
& Member Secretary, SEIAA, Orissa

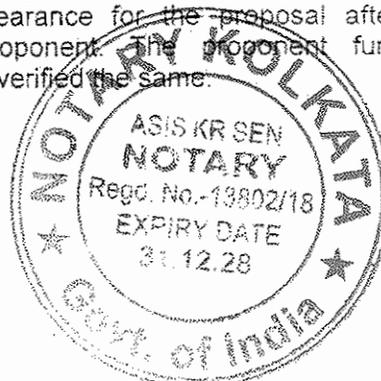
To

Sri Tapan Kumar Mohanty, (M.D)
M/s Z-Estates Pvt. Ltd.
M4/34, Acharya Vihar, Bhubaneswar-751013
Tel- 0674-2540806, Fax- 0674-2540698
E-mail- zestates@zestates.in

Sub: Environmental Clearance for construction of housing colony and shopping mall of M/s Z-Estates Pvt. Ltd. at Kalarahaga, Bhubaneswar.

Sir,

This has reference to your letter no. Nil dated 01.11.2010 and subsequent letters dated 28.12.2010, dated 07.01.2011, dated 03.03.2011, dated 02.04.2011, dated 02.05.2011, dated 14.05.2011, dated 16.05.2011, and dated 01.07.2011 on the above mentioned subject I am directed to say that the State Environment Impact Assessment Authority, Orissa have considered the application on the proposal for residential complex and shopping mall promoted by M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar, Orissa. There will be blocks of B+G+12, 6 nos. B+G+14: 17 nos. B+G+19: 2 nos. B+G+24: 1 no. Total Plot Area is 105962.07 sqm. Total built up area is 244092.73 sq.m. The total makeup water requirement is 773.52 KLD. Around 928.2 KLD of waste water will be generated which will be treated in a Sewage Treatment Plant (STP). Treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 2.55 TPD. The power requirement is 110 MW. The case was placed in the SEAC meeting held on 3rd & 4th March, 2011. It was decided to consider the proposal after receipt of compliance from the proponent and the proponent will be invited for presentation. The unit has furnished certain compliances including BDA approval letter. The proponent along with the consultant M/s S.S Environics (India) Pvt. Ltd, Bhubaneswar made a detailed presentation before the SEAC, Orissa on 20th & 21st May, 2011 complying to earlier observations of SEAC. The committee decided to consider environmental clearance for the proposal after receipt of certain information /documents from the proponent. The proponent furnished the desired information/ documents. The committee verified the same.



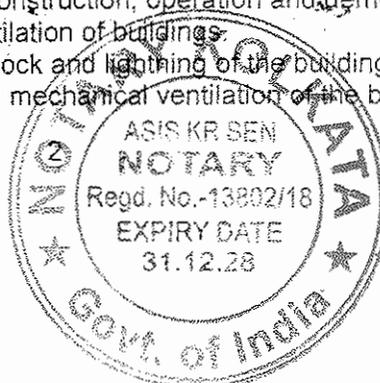
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Based on the information / documents and clarifications provided by the proponent and on recommendation of SEAC, Orissa the State Environment Impact Assessment Authority, Orissa hereby accords Environmental Clearance in favour of the project for a period of 5 (five) years under the provisions of Environment Impact Assessment Notification, 2006 and 2009 and subsequent amendments thereto under various MoEF, Govt. of India circulars thereunder subject to the following stipulated conditions.

Stipulated Conditions:-

I. GENERAL

- i) The applicant (Project proponents) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in Form-1, Form-1A and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take statutory clearance/approval / permissions from the concerned authorities in respect of the project as and when required.
- iii) The applicant will submit half-yearly compliance report on post-environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority, (SEIAA, Orissa) on 1st June and 1st December of each calendar year.
- iv) The project proponent shall obtain Periodic Occupancy Renewal Certificate from the competent authority at an interval of 3 to 5 years as per the provisions of National Building Code (NBC) 2005.
- v) The project proponent shall comply all the conditions stipulated by the Bhubaneswar Development Authority, (BDA) in its building plan approval letter issued vide letter No. BP 2B-3415/10/7398/BP/BDA, Bhubaneswar, dated 26.04.2011.
- vi) The project proponent shall provide 16 (sixteen) mtrs. wide open space all around the 02 (two) nos. of B+G+19, 16 mtrs wide open space for 1 (one) no. of B+G+24, 13 mtrs wide open space for 17 nos. of B+G+14, and 12 mtrs wide open space for 06 mtrs. of B+G+12 mtrs. of building blocks for movement of fire engine as per provisions of National Building Code (NBC)-2005 and as recommended by Fire Prevention Officer, Orissa.
- vii) The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Orissa.
- viii) The project proponent shall comply to all the conditions stipulated by the Air Port Authority of India in its NOC for height clearance issued vide letter No. AAI/ER/NOC/(274/10)/200-202 dated 07.02.2011.
- ix) The applicant will adopt the prescribed norms and standards provided in the National Building Code of India, 2005, specially relating to:
 - a) Fire protection and life safety of occupants of the buildings.
 - b) Safety of personnel during construction, operation and demolition of buildings.
 - c) Day lighting and natural ventilation of buildings.
 - d) Safety from electrical fire, shock and lightning of the buildings.
 - e) Air-conditioning, heating and mechanical ventilation of the buildings.



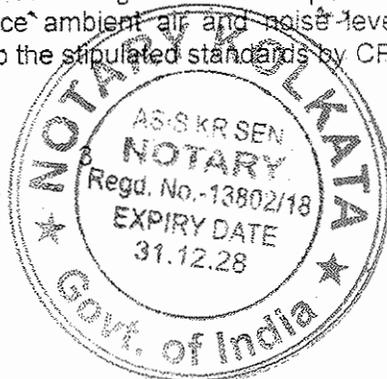
95

- f) Acoustics and noise control of the buildings.
- g) Maintenance and functioning with emissions from generators supplying power to common space/ residential area in case of power failure along with fuel handling /storage.
- h) Installation of lifts and escalators in the buildings.
- i) Water supply, drainage and sanitation including solid waste management.
- j) Landscaping of surrounding areas of the buildings.

II. SPECIAL CONDITIONS

A) CONSTRUCTION PHASE

- i) No ground water shall be extracted for the project work at any stage during construction phase.
- ii) Provision shall be made for the housing of construction labourers within the site with all necessary infrastructure and facilities such as furl for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iii) A First-Aid Room will be provided in the project site both during construction and operation of the project.
- iv) All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/ landscape development within the project site.
- v) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and will be disposed off taking the necessary precautions for general safety and health aspects of people only in approved sites with the approval of competent authority.
- vi) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- vii) Construction spoils, including bituminous material and other hazardous materials should not be allowed to contaminate watercourses, ground water and dump sites by following safe dumping/disposal practice as per statutory rules and norms with necessary approval of the Orissa Pollution Control Board.
- viii) The diesel generator sets to be used during construction phase shall be low sulfur diesel type and should conform to Environment (Protection) Rules 1986 prescribed for air emission and noise standards.
- ix) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from the Chief Controller of Explosives shall be taken.
- x) Vehicles used for bringing construction materials to the site should be in good condition and should have a pollution check certificate, covered and conform to statutory air and noise emission standards and should be operated only during non-peak hours of the day.
- xi) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ OPCB.

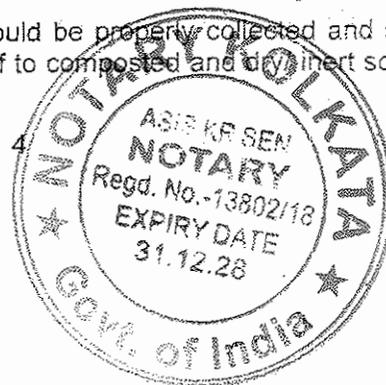


96

- xii) Fly ash bricks should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and as amended thereafter.
- xiii) Ready mixed concrete would be used in building construction.
- xiv) Storm water control and its re-use should be as per CGWB and BIS standards for these applications.
- xv) Water demand during construction should be optimized by adopting best practices without compromising quality.
- xvi) Separation of grey and black water supplies and collection should be done by the use of dual plumbing line. Grey and black water should be treated separately before recycling/reuse.
- xvii) Fixtures for showers, toilet flushing and drinking water should be of low flow type and restricted to requirements by use of aerators, avoiding wastage pressure reducing devices or sensor based controls.
- xviii) Use of glass may be maximum upto 40% of total outer wall area to reduce the energy consumption and load on air-conditioning, if necessary, high quality double glass with special reflective coating may be used in the windows.
- xix) Roof should meet the prescribed requirement as per Energy Conservation Building Code by using appropriate thermal insulation material.
- xx) Opaque wall should meet prescriptive requirements as per Energy Conservation Building Code.
- xxi) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning etc.
- xxii) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase to avoid disturbances and pollution to the surroundings.

B. OPERATION PHASE.

- i) The installation of the Sewage Treatment Plant (STP) should be certified by a competent agency and a report in this regard should be submitted to the SEIAA, Orissa before the project is commissioned for operation. Treated effluent from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Orissa State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.
- ii) The STP sludge should not be dried nor incinerated within the project site and should be disposed off as per the norms of SPCB, Orissa.
- iii) The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning /under performance of sewerage disposal system of the project. To achieve this, a stand-by STP with similar capacity should be installed to be put into service during the maintenance /over hauling of the original STP.
- iv) The solid waste generated should be properly collected and segregated. Wet garbage should be disposed off to composted and dry inert solid waste should



97

be disposed off to a certified agency for safe disposal. Necessary approval /permission may be obtained from the concerned authorities.

- v) Diesel power generating sets proposed as source of back-up power for lifts elevators and common area illumination during operation phase should be of enclosed type and conform to Environment Protection (EP) Rules 1986. The height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets put together and should be more than the highest building height. Low sulfur diesel should be used. The location of the DG sets may be decided in consultation with Orissa State Pollution Control Board. Care may be taken to avoid disposal of smoke /pollutants from DG sets in the residential area.
- vi) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the sites shall be restricted to the permissible levels to comply with the prevalent regulations.
- vii) Green-belt & avenue Plantation of trees over at least 20% of the site area shall be done using native tree species/ plants improving greenery & keeping in view aesthetics considerations in the whole campus. Professional landscape architects should be engaged to design the green layout to provide for multi tier plantation and green fencing all around, mitigating various environmental parameters like dust, noise, emissions etc. and pathway for joggers.
- viii) Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the run off, pretreatment must be done to remove suspended matter, oil, grease and other soluble components as per norms. Rainwater recharge should be through specified recharge pits of required numbers. The surface runoff water should be stored suitably treated and reused for landscaping. The bore-well for rainwater recharging should be kept at least 5 mtrs, above the highest ground water table. The technology may preferably be adopted from a commercial firm with performance guarantee.
- ix) Weep holes in the compound walls shall be provided to ensure natural drainage of excessive rain water in the project area during the monsoon period after the harvesting operations. Care must be taken so that there is no water logging in the territory and drainage is 100%.
- x) The ground water level and its quality should be monitored regularly in consultation with Central /State Ground Water Authority.
- xi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Traffic congestion shall be avoided inside the project site. The area ear marked for parking shall not be used for any other purpose. Alternate entry and exit must be provided to handle excess traffic and emergency situations.
- xii) A Report on the energy conservation measures confirming to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submitted to the SEIAA, Orissa in three months time before operation /habitation.
- xiii) Provisions of solar hot water storage/supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.



- xiv) Energy conservation measures like installation of CFLs/ TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines /rules of the regulatory authority to avoid toxic contamination. Use of solar panels may be adopted to the maximum extent possible, especially for street lights.
- xv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- xvi) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes like Annual allocation and maintenance /monitoring etc. and expenditure for this fund should be reported to the SEIAA, Orissa.
- xvii) The need of the local people should be appropriately addressed in the CSR activities to be undertaken in the area. An action plan in this regard should be prepared and submitted.

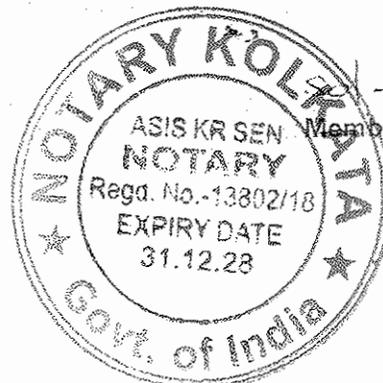
The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.


Member Secretary

Memo No _____ /Dt. _____

Copy to

1. Ministry of Environment & Forests, Govt. of India, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi for kind information.
2. Principal Secretary, Forests & Environment Dept., Government of Orissa for kind information.
3. Chairman, State Pollution Control Board, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for kind information.
4. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A-31, Chandrasekharpur, Bhubaneswar for kind information.
5. Chairman, Central Pollution Control Board, CBD-cum-office Complex, East Arjun Nagar, New Delhi-110032 for kind information.
6. Vice Chairman, Bhubaneswar Development Authority, Akash Sobna Building, Secretariat Marg, Bhubaneswar-751001 for kind information.
7. Chief Engineer, PH (Urban), Orissa, 1st Floor, Heads of Dept. Building, Bhubaneswar-751001 for kind information.
8. Chief Engineer-cum-Member Secretary, Orissa Water Supply & Sewerage Board, Satya Nagar, Bhubaneswar-751007 for kind information.
9. Collector & District Magistrate, Khurda for kind information and necessary action.
10. Chairman/Member/Member Secretary, SEIAA for kind information.
11. Chairman, SEAC/Secretary, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
12. Guard file for record.



Member Secretary



Z ESTATES PRIVATE LIMITED

99 ANNEXURE - P-2

Ref No.: ZEPL/14-15/006

Date: 16.02.2014

To

The Member Secretary,
State Environment Impact Assessment Authority,
Qtr. No. 5RF-2/1, Unit-IX,
Bhubaneswar, Odisha - 751022

Sub: Submission of Form-I & Pre-Feasibility Report along with Scrutiny Fees for the proposed modernization for construction of Housing Colony and Shopping Mall (Phase - II) of M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar.

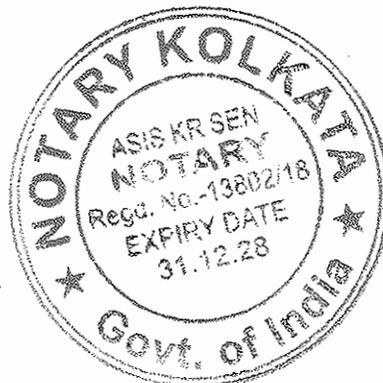
Sir,

We have already obtained Environmental Clearance for construction of Housing Colony and Shopping Mall at Kalarahanga, Bhubaneswar vide letter no. SEIAA-261/10 dated 16.08.2011 granted by SEIAA, Odisha and also obtained Consent to Establish from SPCB, Odisha vide letter no. 2478/IND-II-NOC 5439 dated 16.02.2012.

During this period, the project has been planned to be executed in a phase wise manner. Construction of Phase - I project is likely to be completed very shortly according to the earlier approved building plan and as per the environmental clearance obtained for the entire project.

Presently, we intend for modification for phase II of the project. In order to obtain prior Environmental Clearance for Phase - II project, we are enclosing herewith one set of duly filled in Form-I, Pre-Feasibility Report (Conceptual Plan) of the project and proposed Terms of Reference (TOR) as per the EIA notification 2006. Since the total built up area for the project is more than 1,50,000 sq. m., we hereby apply for the scoping and appraisal process as per MoEF Notification published in Gazette of India, dated 26.02.2014.

We are also enclosing herewith the Demand Draft no. 1-7574, dated 05.02.14 for Rs. 5 Lakhs (Rupees Five Lakhs Only) towards the Scrutiny Fees in favour of "The Chairman, State Environment Impact Assessment Authority, payable at Bhubaneswar" for processing Environmental Clearance of the project.





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Z ESTATES PRIVATE LIMITED

Development of the project in phase – III and subsequent phases as may require, the project will be appraised again in future as and when required.

We request your good self to take necessary action for approval of TOR for preparing the EIA/EMP report for obtaining onward Environmental Clearance.

Thanking you,
Yours faithfully,

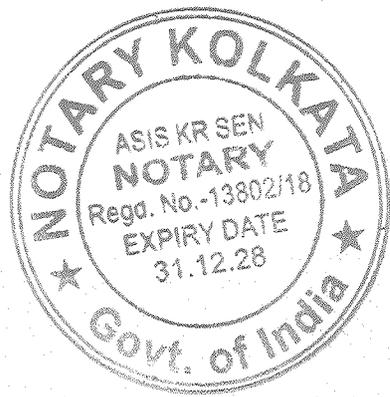
For M/s Z-Estates Pvt. Ltd.

Z ESTATES PVT. LTD.

~~Dr. Anil Kumar Mehrotra~~ *Anil Kumar Mehrotra*
MANAGING DIRECTOR

- Encl: 1. DD No. 147574 Dated 05.09.14 for Rupees Five Lakhs Only
2. Filled in Form-1
3. Pre-Feasibility Report, Conceptual Plan and proposed TOR.

Received
K. S. S. S.
10.9.14



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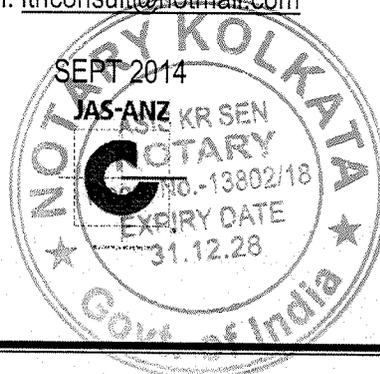
**FORM 1, FEASIBILITY REPORT AND TOR
FOR
GRANT OF TOR CLEARANCE AS A PART OF
ENVIRONMENTAL CLEARANCE
OF
MODIFICATION OF GROUP HOUSING PROJECT "Z-One" BY M/S
ZESTATES PVT. LTD.
AT KALARAHANGA, BHUBANESWAR
ODISHA**

**Project Proponent:
M/S ZESTATES PVT LTD.**

EIA Consultant:



Ind Tech House Consult
(An ISO 9001:2008 Certified Organization)
G-8/6, Ground Floor, Sector 11, Rohini
Delhi – 110 085
Tel: +91 11 2757 1410, 6460 7252
Fax: +91 11 2757 2241
Email: ithconsult@hotmail.com



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**MODIFICATION OF GROUP HOUSING PROJECT "Z-One"
AT
KALARAHANGA, BHUBANESWAR
ODISHA**

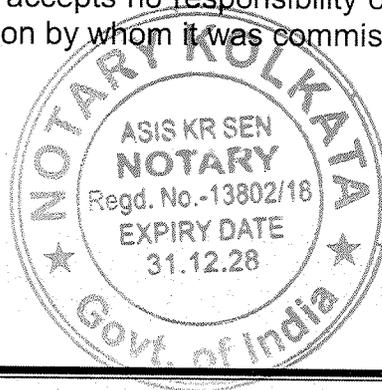
**Project Proponent:
M/S ZESTATES PVT.LTD**

For and on behalf of:	Ind Tech House Consult
Approved by:	Mr. Suman Banerjee
Signed:	
Position:	EIA Coordinator
Date:	SEPT, 2014

This report has been prepared by Ind Tech House Consult with all reasonable skill, care and diligence within the terms of the contract with the client, incorporating our general terms and conditions of business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

The document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Ind Tech House Consult being obtained. Ind Tech House Consult accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purpose for which it was commissioned. Any person using or relying on the document for such other purpose agrees, and will by such use or reliance be taken to confirm his agreement to indemnify Ind Tech House Consult for all loss or damage resulting there from. Ind Tech House Consult accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

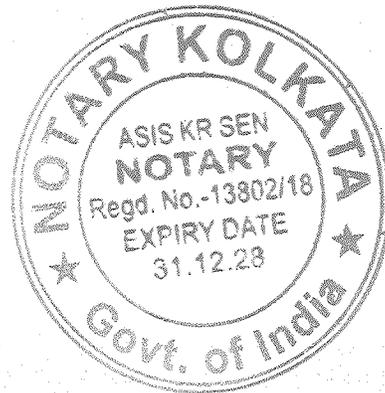


104 103

Team of Experts associated for the Project

Sl. No.	Name of Expert	Area
EIA Coordinator		
1.	Mr. Suman Banerjee	EIA Coordinator
Functional Area Experts		
1.	Mr. Suman Banerjee	Air Pollution Prevention, Monitoring & Control
2.	Mrs. Supriti Guha	Water Pollution Prevention, Control & Prediction of Impacts
3.	Mrs. Supriti Guha	Solid Waste and Hazardous Waste
4.	Dr. Manoj Kumar Mishra	Meteorology, Air Quality Modeling & Prediction
5.	Dr. Manoj Kumar Mishra	Noise and Vibration
Additional Staff Involvement		
1.	Dr. Bideh Shukla	
2.	Mr. Soumya Dwivedi	

Signature
For Ind Tech House Consult

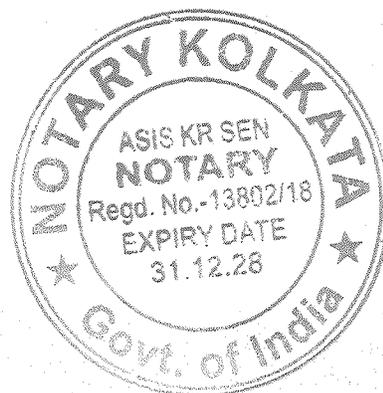


105

104

TABLE OF CONTENTS

S. No.	Contents	Page No.
<u>GENERAL</u>		
I	Form 1	05-20
II	Conceptual Plan	21-32
III	Proposed TOR	33-34
IV	Annexure	
a	Location Map	35
b	Land Use as per BDA Master plan	36
c	10 km radius from the project site	37
d	Contour Plan	38
e	Perspective View of the project	39
f	Phase wise project Plan	40
g	Layout Plan	41
h	Landscape Plan	42
i	Parking and Circulation Plan	43
j	Services Plan	44
k	Construction Photograph	45
l	Rain water pond for harvesting	46
m	Company incorporation certificate	47
n	Resolution of the Board of Directors	48
o	Previous Environmental Clearance of the project	49-54
p	NOC for extraction of Ground Water	55-57
q	Power Supply Connection	58
r	EIA Consultants Certification	5-62



M/S ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
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Application for Prior Environmental Clearance (EC)

FORM 1

(See Paragraph – 6 Notification dated 14th September 2006)
as amended to EIA Notification, 2006 issued vide S.O. 3067(E) on
dt.01.12.2009.

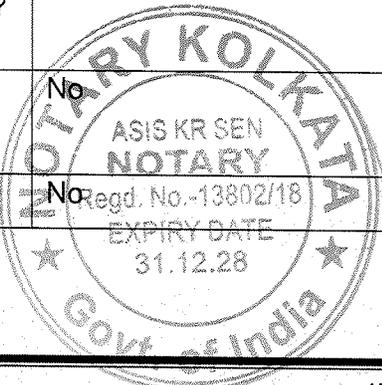
Basic Information

SN	Item	Details
1.	Name of the project/s	Group Housing Project "Z-One" by Ms/ ZEstates Pvt. Ltd.
2.	S. No. in the schedule	8(b): Area Development Project
3.	Proposed capacity/area/length /tonnage to be handled/ command area/lease area/ number of wells to be drilled	Plot area : 123717 sq m (30.57 Acres) Pocket Area:68442 sq. m (16.91 Acres) Total Built up area of Pocket: 275042 sq m No. of Towers:15 No of Dwelling Units:1032 Additional facilities include: Club House and Dormitory
4.	New/Expansion/Modernization	Modernization (Modification)
5.	Existing capacity/area etc.	Plot Area: 123717 sq m (30.57 Acres) Pocket Area: 68442 sq. m (16.91 Acres) No. Of DU's under Pocket I: 444 Built Up Area under Pocket I - 94067 sq m
6.	Category of the project i.e. 'A' or 'B'	B
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location	Kalarahanga
	Plot/Survey/Khasra No.	84(P), 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 99, 100, 101(P), 104, 105, 106(P), 107, 108(P), 110, 111(P), 112(P), 115, 116, 120, 128(P), 131(P), 132(P), 133, 138, 139, 141, 142(P), 143(P), 144, 145, 146, 147, 148(P), 149, 150, 151(P), 152, 153, 154, 155, 156(P), 157, 158, 159, 160(P), 161, 162, 163, 164(P), 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 199(P), 200, 201, 202, 203, 204, 205, 208(P), 209(P), 210, 211, 212, 217, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 244, 245, 2540, 2585(P), 2586, 2587, 2603, 2608(P), 2609
	Village	Kalarahanga
	Tehsil	Kalarahanga
	District	Khurda
	State	Odisha

107 106

M/s ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
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SN	Item	Details
10.	Nearest railway station/airport along with distance in kms.	Railway Station: Barang station 5 km, Bhubaneswar Station, 11 km Airport: Biju Patnaik Airport, Bhubaneswar, 12 km
11.	Nearest town, city, district Headquarters along with distance in Km	Town/ city/ district head quarter: Bhubaneswar, District Khurda
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal address with telephone nos. to be given)	Village: Kalarahanga Local Body: Bhubaneswar Development Authority
13.	Name of the applicant	Z ESTATES PVT. LTD.
14.	Registered Address	M4/34, ACHARYA VIHAR, BHUBANESWAR, ODISHA - 751013
15.	Address for correspondence:	M4/34, ACHARYA VIHAR, BHUBANESWAR, ODISHA - 751013
	Name	SRI TAPAN KUMAR MOHANTY
	Designation (Owner/Partner/CEO)	MANAGING DIRECTOR
	Address	M4/34, ACHARYA VIHAR, BHUBANESWAR, ODISHA
	Pin Code	751013
	E-mail	zestates@zestates.in
	Telephone No.	0674-2540806
	Fax No.	0674-2540698
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Not Applicable
17.	Interlinked Projects	Not Applicable
18.	Whether separate application of interlinked project has been submitted?	Not Applicable
19.	If yes, date of submission	Not Applicable
20.	If no, reason.	Not Applicable
21.	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. (a)The forest (Conservation) Act, 1980? (b)The wildlife (Protection) Act, 1972? (c)The C.R.Z. Notification, 1991?	No, Project proposal does not involve approval/clearance under subhead a, b & c
22.	Whether there is any Government order/policy relevant/ relating to the site?	No
23.	Forest land involved (hectares)	No



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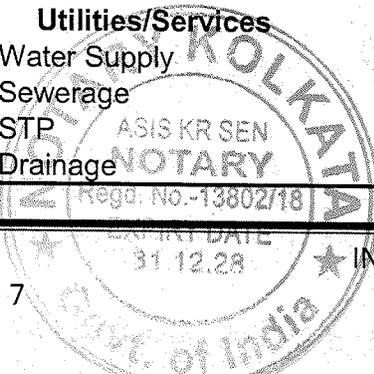
M/S ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
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SN	Item	Details
24.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	No

(I) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	This is a modification of existing project. Construction of phase I is almost over. The project is undergoing development in a phase wise manner. Phase I and Phase II is being developed in Pocket I, where, the phase II design has been modified The project area conforms to the master plan of BDA
1.2	Clearance of existing land, vegetation and buildings?	No	Initially the land was filled with grasses and native shrubs. This will require clearing of the site. Apart from this, a patch of land consists of 18 banana trees, bamboo, tulsi and china rose. Site clearance has already been done.
1.3	Creation of new land uses?	No.	There will be no creation of new land use as Land use is residential as per master plan of BDA.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Geotechnical Soil investigation had been carried out prior to start of the construction of the project. The site is effective to sustain multistoried building structures.
1.5	Construction works?	Yes	The major construction work is: (1) Buildings <ul style="list-style-type: none"> Residential, Social Infrastructure –Dormitory and Club House. Parking in basement, stilt, podium and surface (2) Site Development (A) Road Development <ul style="list-style-type: none"> Internal roads (B) Utilities/Services <ul style="list-style-type: none"> Water Supply Sewerage STP Drainage



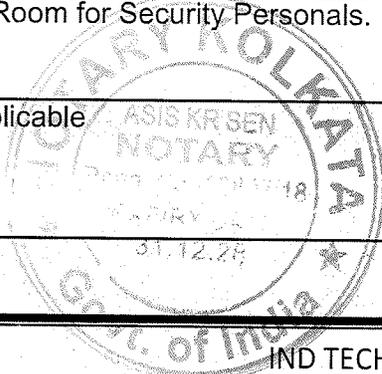
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SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
			<ul style="list-style-type: none"> Rain Water Harvesting Structures and Pits Power supply and back up facility,
1.6	Demolition works?	No	Demolition activity is not involved in this project.
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	Labor camp is proposed for the construction worker, during the construction phase only. All the construction activities including storage of raw materials will be confined to the project site only.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	<p>Above ground building structures includes construction of residential towers, club house and dormitory.</p> <p>The earthwork is involves excavation for foundation and basement.</p> <p>Excavated soil will be used for site leveling, back filling/filling in raft and road construction. Top layer of soil has been stored and for landscaping/horticulture development work.</p>
1.9	Underground works including mining or tunneling?	Yes	Underground works includes excavation of earth and construction of foundation & basement.
1.10	Reclamation works?	No	Not involved.
1.11	Dredging?	No	Not involved.
1.12	Offshore structures?	No	Not involved.
1.13	Production and manufacturing processes?	No	This is a group housing project. Hence no production or manufacturing activities will be involved.
1.14	Facilities for storage of goods or materials?	Yes	<p>Temporary facilities will be developed during construction phase for storage of construction materials.</p> <p>During operation phase facility for storage of HSD will be constructed at a specified place within the premises.</p>
1.15	Facilities for treatment or disposal of solid or liquid effluents?	Yes	<p>Solid Waste</p> <p>Construction Stage :</p> <p>The construction stage solid waste will comprise mainly of construction waste (@ 40 to 60 kg/sqm).The construction debris generated will be reused within the site for various construction works.</p> <p>In addition to that there will be generation of small quantity of municipal waste from approximately 300 laborers working at site. It will be ensured that the generated waste will be sent to nearest designated waste storage bins.</p> <p>Operation Stage:</p> <p>Solid waste generation from the facility will be approximately 2.44 TPD including 1.46 TPD bio-degradable wastes.</p> <p>Solid waste generated from different apartments and other areas will be collected daily on door to door basis by the dedicated and trained housekeeping staff. Twin bin systems</p>

110 109

M/S ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
------------------------	--	--------

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
			<p>will also be provided for collection of waste segregated at sources. Recyclable wastes will be sold to authorized vendors and non- recyclable wastes will be disposed through authorized agency to municipal waste disposal site. As Biodegradable (including horticulture) shall be treated in OWC installed at site.</p> <p>Sewage sludge 256 Kg/day of sewage sludge will be generated which will be use as manure for plants and surplus manure will be sold to the farmers.</p> <p>Hazardous waste: 550 liters/annum of waste oil from DG sets will be generated this will be sold to authorized recyclers.</p> <p>E Waste : Apprx 20 kg/day e-waste will be generated from the project this will be stored at a designated place within site and will be handed over to authorized recyclers.</p> <p>Liquid Effluent Construction Stage: During the construction stage 35 KLD domestic liquid effluent generation would be limited within the project site. This will be treated in septic tank and soak pit. Wastewater generated from construction site contains suspended materials, and washings from various areas. Construction wastewater shall be stored in a separate basin and shall be reused after filtration for sprinkling. Septic toilets and potable water facilities have been provided at site during construction phase for labour and staff.</p> <p>Operation Stage: Approximately 710.84 KLD of domestic waste water will be generated from the proposed facility. This effluent will be treated in Sewage Treatment Plant of 850 KLD capacity within the site. The treated water from STP will be reused for flushing, horticulture and maintenance activities. Surplus treated water of 135 KLD will be discharged in municipal drain with permission.</p>
1.16	Facilities for long term housing of operational workers?	Yes	Guard Room for Security Personals.
1.17	New road, rail or sea traffic during construction or operation?	No	Not applicable



SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Not applicable
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not applicable
1.20	New or diverted transmission lines or pipelines?	No	Not applicable
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not applicable.
1.22	Stream crossings?	No	Not applicable
1.23	Abstraction or transfers of water from ground or surface waters?	No	As there is no water supply line by the Public Health Department in the area, ground water will be abstracted to meet the demand till the availability of municipal water supply system is commissioned. Once the water supply from Public Health Department is operational, ground water will be stopped. For construction: Water will be sourced through Tanker supplies/ Taken from the nearest STP. After treatment water quality will be checked for fitness for the construction purpose before use.
1.24	Changes in water bodies or the land surface affecting drainage or run-off.	Yes	By considering run off prior to development & run off after development there is some increment in storm water runoff. However runoff generated from the project site during monsoon season will be recharged to groundwater aquifer. Network of drainage system developed in the site will be used to collect roof as well as surface runoff.
1.25	Transport of personnel or materials for construction, operation or decommissioning.	Yes	During construction phase transport of personnel as well as construction materials would be required. The personnel have been engaged from nearby areas. Precaution will be taken to reduce the impact of vehicular movement by trying to avoid the vehicular trips during peak hours. During the operation phase sufficient parking spaces will be provided in basements.
1.26	Long-term dismantling or decommissioning or restoration works?	No	Not applicable

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data																																																
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not applicable																																																
1.28	Influx of people to an area in either temporarily or permanently?	Yes	<p>Construction phase – Temporary influx of construction labor about 988 during construction period.</p> <p>Operation phase – Residential Population 4446 Persons; Floating Population 740 Persons</p> <table border="1"> <thead> <tr> <th>RESIDENTIAL</th> <th>DU'S/Area</th> <th>POP/DU</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>SALEABLE DU'S</td> <td>1032</td> <td>@5.0</td> <td>5160</td> </tr> <tr> <td>SERVICE PERSONS</td> <td>372</td> <td>2</td> <td>744</td> </tr> <tr> <td>DORMITORY</td> <td>662.2 SQM</td> <td>LUMPSUM</td> <td>30</td> </tr> <tr> <td>TOTAL</td> <td></td> <td></td> <td>5934</td> </tr> <tr> <td>NON RESIDENTIAL</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CLUB HOUSE</td> <td>1792</td> <td></td> <td>18</td> </tr> <tr> <td>FACILITY MANAGEMENT STAFF</td> <td>LS</td> <td></td> <td>63</td> </tr> <tr> <td>TOTAL</td> <td></td> <td></td> <td>81</td> </tr> <tr> <td>GRAND TOTAL (RES & NON RES)</td> <td></td> <td></td> <td>6015</td> </tr> <tr> <td>VISITORS</td> <td></td> <td></td> <td>940</td> </tr> <tr> <td>TOTAL POPULATION</td> <td></td> <td></td> <td>6955</td> </tr> </tbody> </table>	RESIDENTIAL	DU'S/Area	POP/DU	TOTAL	SALEABLE DU'S	1032	@5.0	5160	SERVICE PERSONS	372	2	744	DORMITORY	662.2 SQM	LUMPSUM	30	TOTAL			5934	NON RESIDENTIAL				CLUB HOUSE	1792		18	FACILITY MANAGEMENT STAFF	LS		63	TOTAL			81	GRAND TOTAL (RES & NON RES)			6015	VISITORS			940	TOTAL POPULATION			6955
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	Introduction of alien species?	No	Not applicable																																																
1.30	Loss of native species or genetic diversity?	No	Not applicable																																																
1.31	Any other actions?	No	None																																																

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

SN	Information/checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	The proposed project site and its surrounding areas have been designated for residential development as per BDA master plan.
2.2	Water (expected source & competing users) unit	Yes	Water requirement during construction phase will be met by tanker supply by authorized supplier. During operation phase fresh water demand will be initially met from ground water. Once the Public Health Department water supply system is being commissioned, the same will be used as a source of water supply. Treated water demand for flushing

M/s ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
------------------------	--	--------

SN	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
			and gardening shall be met from treated water from STP installed at Site. 433 KLD treated water will be reused within site premises.
2.3	Minerals (MT)	No	Not applicable
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Construction materials such as Cement, Steel, Bricks, Stone aggregates, and Sand would be required for the project. These will be procured from reputed licensed local vendors.
2.5	Forests and timber (source – MT)	No	Limited use of timber will be done and it will be restricted to selected locations.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Power for the proposed project will be supplied by state electricity board. Maximum power Demand for the proposed project is 2793 KVA. DG sets of 2660 KVA (3 nos. x 380 KVA+ 4 no. x 380 KVA) will be used as power backup during grid failure. HSD (low sulphur variety as per availability) fuel will be used for DG sets.
2.7	Any other natural resources (use appropriate standard units)	No	--

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

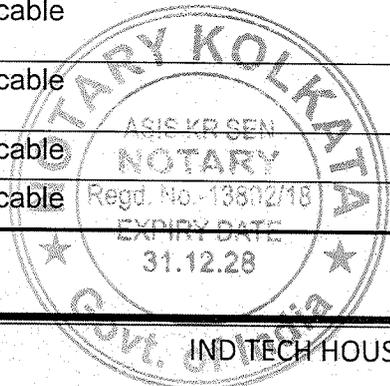
SN	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	This is a Group Housing Project and no storage of hazardous chemicals (as per MSIHC rules) will be made, apart from limited quantity of HSD storage (for DG sets).
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Suitable drainage and waste management measures will be adopted to restrict stagnation of water & accumulation of waste. This will effectively restrict the reproduction and growth of disease vectors.
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Not Applicable.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not applicable.
3.5	Any other causes	No	Not applicable.

114 103 113

M/S ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
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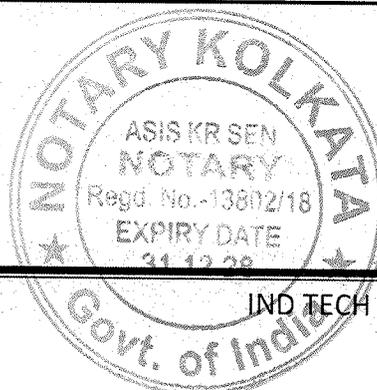
4. Production of solid wastes during construction or operation or decommissioning (MT/month)

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	Excavation top soil is properly stacked it will be reused as top layer for horticulture development. Remaining soil will be used for site leveling, back filling/filling in raft and road construction.
4.2	Municipal wastes (domestic and or commercial wastes)	Yes	Construction Phase: Municipal solid waste – 90 kg/day Operation Phase: Municipal solid wastes –2.44 TPD The solid waste includes paper, card board, plastic cans etc. and kitchen wastes from houses. Recyclable wastes like card boards and plastic cans will be sold to authorized vendors. Biodegradable waste will be treated in onsite OWC. Inert waste will be sent to landfill site through the vendor.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Waste oil 550 Lts on annual basis from DG sets will be the only hazardous waste generated from the project. This waste oil will be carefully stored in HDPE drums in isolated covered space and sold to recycler authorized by CPCB/SPCB. Suitable care will be taken to prevent spills/ leaks of used oil from storage.
4.4	Other industrial process wastes	No	Not applicable
4.5	Surplus product	No	Not applicable
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Dried sludge from the STP will be used as manure for horticulture development. Surplus manure will be sold to farmers.
4.7	Construction or demolition wastes	Yes	Demolition work is not involved. Construction Waste: Excavated soil will be used for back filling. Other construction waste like bricks, concrete etc. will be used in sundry/roadwork/manholes etc. Gunny bags, cardboards will be sent to authorize recycler. The unused waste will be sent to land fill site through authorized vender.
4.8	Redundant machinery or equipment	No	Not applicable
4.9	Contaminated soils or other materials	No	Not applicable
4.10	Agricultural wastes	No	Not applicable
4.11	Other solid wastes	No	Not applicable



5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

SN	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	During construction as well operation phase emission will be from Stationary source- (1) DG sets:- (A) Construction Phase: DG Set 3 nos. 125 KVA (B) Operation Phase: DG sets 2660 KVA (3nos.x380 KVA + 4 no. x 380 KVA) CPCB approved DG sets (2) Mobile Sources:- Vehicular emissions- Regular check of PUC
5.2	Emissions from production processes	No	Not applicable
5.3	Emissions from materials handling including storage or transport	No	Fugitive dust emission due to transportation & handling -loading - unloading activities is envisaged during construction. Frequent water sprinkling will be done to minimize the fugitive emissions.
5.4	Emissions from construction activities including plant and equipment	Yes Marginal	During the construction phase, major emission will be in the form of fugitive dust, use of DG sets and transportation of construction material.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	The project may cause rise in dust levels during construction phase. Precautions would be taken to reduce dust generation during construction phase: • Use of RMC to reduce material handling & dust generation. •Tarpaulins will be used to cover the debris on the trucks carrying debris. Water sprinkling will be practiced at regular intervals to reduce dust emissions. Dust generated during operation stage shall be minimal due to vegetated & hard surface. Sewage generated from proposed project will be treated in onsite STP.
5.6	Emissions from incineration of waste	No	Not applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Burning of any substances including biomass, slash materials and/ or construction debris will be prohibited
5.8	Emissions from any other sources	No	Nil



6. Generation of Noise and Vibration, and Emissions of Light and Heat:

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Noise is expected to be generated during construction phase mainly from operation of heavy machinery, DG sets, and traffic. The indicated noise levels from certain construction plants/equipment are indicated below: <ul style="list-style-type: none"> ▪ Concrete Mixer - 85 dBA ▪ Generator - 75 dBA ▪ Pumps -90 - 95 dBA ▪ Trucks - 85 – 90 dBA For control of noise following measures shall be adopted: <ul style="list-style-type: none"> • Properly maintained equipment with mufflers will be used. • High noise generating construction activities would be carried out only during day time. Workers working near high noise construction machinery would be supplied with ear muffs/ear plugs. <p>During operation noise from operation of DG sets is envisaged. However, the generator sets installed will operate at noise level less than 75 dB (A) as the generators will be placed either in acoustic chambers or a canopy as per CPCB norms.</p>
6.2	From industrial or similar processes	No	Not applicable
6.3	From construction or demolition	Yes	Noise Pollution Control: Noise pollution will be due to operation of machinery DG set & transportation vehicles during construction stage & operation of DG set & vehicular movements during operation phase. <p>As there is negligible habitation in nearby area impact will be insignificant. However following precautions shall be taken to control noise pollution :</p> <ul style="list-style-type: none"> • High noise generating construction activities would be carried out only during day time. • Installation, use and maintenance of mufflers on equipment. • Workers working near high noise construction Machinery would be supplied with ear muffs/ear plugs.
6.4	From blasting or piling	No	Not involved in the project.
6.5	From construction or operational traffic	Yes	Construction Phase: <p>Precautions will be taken to reduce the impact of the vehicular movement such as vehicular trips will not be at peak traffic hours.</p> Operation Phase: <p>The vehicular parking will be restricted only in the</p>

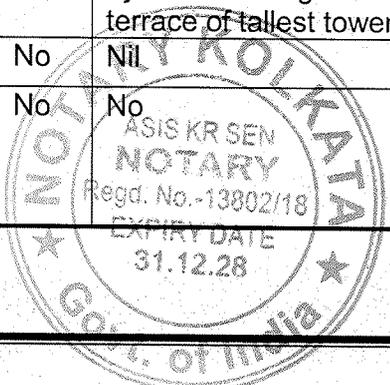
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M/S ZESTATES PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "Z-ONE" AT KALARAHANGA, BHUBANESWAR, ODISHA	FORM 1
------------------------	--	--------

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
			planned parking area, which would help in reducing noise pollution generally created due to traffic congestion. Adequate peripheral tree plantation & soft vegetation will also help in surface reduction of the noise level and improve air quality.
6.6	From lighting or cooling systems	Yes	Residents may use unit AC's which eject heat.
6.7	From any other sources	No	Nil

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

SN	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	The waste oil generated during operation phase from the DG sets will be collected and separately stored in HDPE drums over concrete floor within the premises before final disposal. All precautionary steps will be taken to avoid spillage. It will be directly transferred to authorized recyclers.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Generated Sewage from the campus will be treated in the STP proposed onsite, and recycled within the proposed project facility for gardening. Surplus treated water will be discharged in public sewer with permission of competent authority or the same will be used for nearby construction projects.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Dust generation during construction phase from earthworks and movement of vehicles is a temporary phenomenon and will have short term impact during construction phase. Appropriate fugitive dust control measures, including water sprinkling of exposed areas and dust covers for trucks, will be provided to minimize any impacts. DG exhaust will be discharged at height stipulated by CPCB. Height of stack will be 6 m above the terrace of tallest tower.
7.4	From any other sources	No	Nil
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	No



8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

SN	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	During construction phase, no such risk is anticipated. However, the contractors shall comply with the safety procedures, norms and guidelines as applicable) mentioned in the National Building Code of India and Bureau of Indian Standards. During Operation Phase, all precautionary and safety measures will be taken to minimize any accident hazard.
8.2	From any other causes	No	Nil
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. Floods, earthquakes, landslides, cloudburst etc)?	Yes	The site lies in Seismic Zone III. The construction will be carried out as per the guidelines prescribed for Seismic Zone IV in NBC 2005. All the civil structures will be seismically resistant and designed as per following IS codes: IS 4326: 1993 IS 1893 (Part I),2002 However, the region experience cyclone in October 2013 "Phailin" having strong wind speed of 150 km/hr.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

SN	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. facilities, ancillary development or development stimulated by the project, which could have impact on the environment e.g.:	Yes	The Group housing project will be equipped with dedicated internal road, parking, internal water distribution system, fire-fighting system, internal sewage collection & treatment facility, lighting facilities, solar lighting, and power backup facility& solid waste collection & treatment facility.
	• Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)	Yes	This is a planned development hence social as well as other support infrastructure like roads, power, waste has already been considered by planning department BDA-Waste and waste water will be treated onsite will have negligible discharge and impacts on environment.
	• extractive industries	No	No
	• supply industries	Yes	Construction materials
	• other	No	No

SN	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.2	Lead to after-use of the site, which could have an impact on the environment	No	No
9.3	Set a precedent for later developments	Yes	This is residential project there will be generation of employment during construction & operation phase.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	Impacts on water availability, availability of electricity, traffic congestion etc.

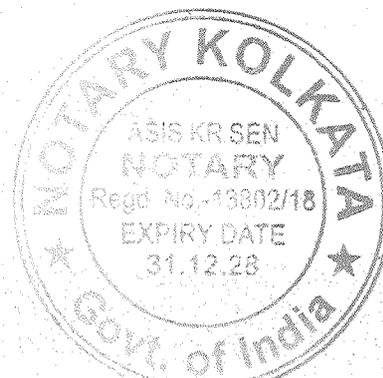
(II) Environmental Sensitivity

SN	Areas	Name/Identity	Aerial distance (within 15 km) of proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Yes	Nandan Kanan (3.5 km north), Chandka-Dhampada (7 km NW)
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	Jagannathprasad R.F. (4 km SW), Churang R.F. (5 km NW), Patia P.F. (1.5 km SW) Water bodies : Puri main canal (5 km NE), Daya west canal (0.35 km)
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Yes	Nandan Kanan area is important for habitat of white tigers and Chandka-Dhampada for elephant sanctuary
4	Inland, coastal, marine or underground waters	No	Not located within 15 kms of the proposed project location. Underground water is present. The aquifer is about 20 m below ground level at the project site.
5	State, National boundaries	Yes	Not within 15 km of the project site
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	The site does not fall under any route to any pilgrim, tourist or recreational area.
7	Defense installations	No	No such installation is located at the vicinity of the project site
8	Densely populated or built-up area	No	The surrounding of the project site is vacant. There are houses/ colonies being constructed in the area.

SN	Areas	Name/ Identity	Aerial distance (within 15 km) of proposed project location boundary
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	Yes	Hospital: KIMS (2.5 km South) Lingaraj Temple 14.44 km
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	No	The area does not contain important, high quality or scarce resources. But the areas like Nandan Kanan-3.5 km, Udaigiri - Khandagiri 12.4 km and Lingaraj Temple 14.44 km are within 15 km of the project site
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	No	Nothing specific
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)	Yes	The area under study falls in Zone-III, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, have to be adopted while designing the structures. There are no possibilities of the proposed project site getting flooded as per records available. There are no possibilities of the proposed project site getting flooded as per available records. Landslides are not applicable as the project site & surrounding land is flat.

(IV) Proposed Terms of Reference for EIA studies

Applicable, As per details given page 33 below the section



121

120

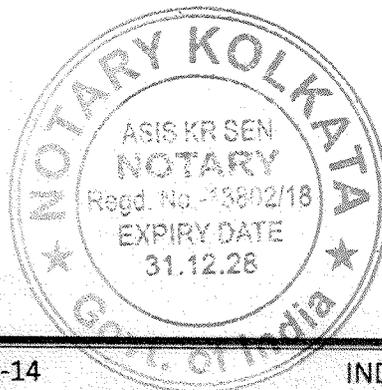
M/s ZESTATES PVT. LTD.	TOR OF ENVIRONMENTAL CLEARANCE FOR MODIFICATION OF GROUP HOUSING "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA.	FORM I
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"I hereby give undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

Date: 10.09.2014
Place: Bhubaneswar

Z ESTATES PVT. L.
Tapan Kumar Mohanty
MANAGING DIRECTOR
Name: (Tapan Kumar Mohanty)
Managing Director

Address: Kalarahanga, Bhubaneswar, Odisha.



1.0 INTRODUCTION

The proposed Residential Project is located at Kalarahanga, Bhubaneswar, Odisha. The developer of the project is M/s Zestate Pvt. Ltd. The Land use of project site is in conformity with the master plan of Bhubaneswar Development Authority (BDA).

The entire project was initially appraised for Environmental Clearance which was granted Environmental Clearance by the SEIAA vide letter no. SEIAA-261/10 dated 16.08.2011 granted by SEIAA, Odisha. However, now the project has been planned to be developed in a phase wise manner, and there are modifications in the design of the project.

Therefore, as a part of the project, Pocket I is being developed under Phase I and Phase II, for which the project is proposed to be applied for revised Environmental Clearance.

The objective of the study is to carry out Environmental Impact Assessment (EIA) for the proposed project to meet the environmental compliance laid down by the Ministry of Environment and Forest (MoEF), Govt. of India. The scope of the study would be as per the EIA guidelines outlined by the MoEF for new construction project.

The project falls in the Residential Zone as per the BDA Master Plan

2.0 PROJECT DETAILS

The proposed project is planned on Kalarahanga, Bhubaneswar, Odisha on a total Plot area of 123717 sq m. The Pocket Area under Phase I and Phase II is 68442 sqm. The total built-up area under Pocket I is 275042 sq m. The project will comprise of Apartments in 15 residential towers. Apart from this Phase of the Group Housing project will provide Club House and a Dormitory. The facilities for its residents include:

- 24 X 7 hrs. Security.
- Street lights.
- Parks equipped with swings and slopes with jogging & walking tracks.
- Adequate cross ventilation and ideal natural light in every apartment.
- Provision for lifts and comfortable staircase.
- Adequate Parking facility,
- Dormitory for resting of drivers and other service staffs
- DG set Power back up.

The Design approach shall be sensitive to environmental issues. The main thrust shall be laid on Energy conservation, safety and ease of maintenance and current technological development. The Design Philosophy is to ensure fulfillment of all functional requirements in accordance with Design Guidelines, Relevant Standards and Codes as well as local Bye laws.

The salient features of the project are given in table: 1 below

Table1. Salient features of Proposed Group Housing Project

SN	Description	Details	Unit
1	Plot Area	123717	SQM
2	Proposed Built Up Area	275042	SQM
3	Number of Building Blocks	15	NOS
4	Total no of DU's	1032	NOS
5	Height of Tallest tower	76.35	M
6	No of Floors	B+G+24	NOS
7	Cost of Project	300	CR
8	Permissible Ground Coverage Area (40%)	48917	SQM
9	Proposed Ground Coverage Area (10.47%)	12956.3	SQM
10	Permissible FAR Area (275)	340221	SQM
11	Proposed FAR Area (183.58)	227121.14	SQM
13	Total Basement Area	47921	SQM
15	Expected Population	6955	PERSONS
16	Total Water Requirement	984.51	KLD
17	Fresh water requirement	551.20	KLD
18	Waste water Generation	710.84	KLD
19	STP Capacity	850.00	KLD
20	Treated Water Available for Reuse/Used	568.67	KLD
21	Surplus treated water	135.36	KLD
22	Proposed Quantity of Rain Water to be Harvested	59821.17	CUM
23	No of RWH of Pits Proposed	15	NOS
24	Parking Required as/MOEF Norms	0.00	ECS
25	Parking Required as/Byelaws	67375	ECS
26	Parking proposed	68390.3	ECS
27	Surface Parking	20469	ECS
28	Stilt+Podium Parking	0.00	ECS
29	Basement Parking	47921.00	ECS
30	Green Area Required (50% of Open Area)	13688.40	SQM
31	Green Area soft (45%)	24003.30	SQM
32	Municipal Solid Waste Generation	2.44	TPD
33	Quantity of E-Waste Generation- Kg/Day	20.32	KG/DAY
34	Quantity of Hazardous waste Generation	550.00	LTS/ANNUM
35	Quantity of Sludge Generated from STP	255.9	KG/DAY
36	Total Power Requirement	2793.00	KVA
37	DG set backup	2660.00	KVA
38	Total Earth Excavation.	129386.70	CUM
39	Internal Road Width (Min)	6 M	METER
40	Ground Water Table - Pre Mansoon	18.00	Mbl
41	Ground Water Table - Post Mansoon	16.50	mbl

3.0 CONNECTIVITY

The Project site is well connected to the Bhubaneswar Nanadan Kanan Road which is adjoining the project site. Google image showing location and connectivity of project site is as given below (Ref, fig.2).

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Fig 2: Project site Location on Google Image

4.0 PROJECT SURROUNDINGS

Project site is located at Kalarahanga, Bhubaneswar, Odisha. The project site is well connected Bhubaneswar – Nandan Kanan Road which is adjoining the project site. Nearest Railway station is Barang station 5 km, Bhubaneswar Station is 11 km. Nearest Air Port is Biju Patnaik Airport, Bhubaneswa which is 12 km from the project site. The details of site surroundings are given below in Table- 2.

Table-2: Site and Surrounding of the project Site

S.N.	Particulars	Details
1.	Nearest National Highway	Bhubaneswar Nandan Kanan Road adjoining the project site
2.	Nearest Railway Station	Barang station 5 km, Bhubaneswar Station is 11 km
3.	Nearest Airport	is Biju Patnaik Airport, Bhubaneswa which is 12 km from the project site
4.	Nearest Town/ City	Within Bhubaneswar
5.	Site Topography	Plain
6.	Archaeologically Important Site	Lingaraj Temple 14.44 km, Udaigiri - Khandagiri 12.4 km
7.	National Parks/ Wildlife Sanctuaries	Nandan Kanan (3.5 km north), Chandka-Dhampada (7 km NW)
8.	Inter State Boundary	None
9.	Reserved/ Protected Forests	Jagannathprasad R.F. (4 km SW), Churang R.F. (5 km NW), Patia P.F. (1.5 km SW), Chandka-Dhampada (7 km NW)
10	Seismicity	The study area falls under Seismic Zone-III



5.0 OCCUPANCY DETAILS

The total population of the project will be approx. 15189 persons including 11880 residents, 848 Non-residential & 2461 visitors/guests. Details of population are given below in Table -3.

Table -3 Population Detail

RESIDENTIAL	DU'S/Area	POP/DU	TOTAL
SALEABLE DU'S	1032	@5.0	5160
SERVICE PERSONS	372	2	744
DORMITORY	662.2 SQM	LUMPSUM	30
TOTAL			5934
NON RESIDENTIAL			
CLUB HOUSE	1792		18
FACILITY MANAGEMENT STAFF	LS		63
TOTAL			81
GRAND TOTAL (RES & NON RES)			6015
VISITORS			940
TOTAL POPULATION			6955

6.0 WATER DEMAND**6.1 Water supply & source**

The water supply for the residential project during operation phase will be sourced from ground water till Public Health Department water supply system is not commissioned. The total water demand works out to approximately 985 KLD. After recycling and reuse of 569 KLD treated water, the net fresh water requirement will be 551 KLD. Details of daily water requirement, waste water generation & reuse of treated water are given below in Table 4 & 4.1 below.

Table 4: Calculations for Daily Water Demand for the Project

WATER REQUIREMENT			
	POPULATION	RATE IN LTS	TOTAL QTY IN KL
RESIDENTIAL			
DOMESTIC	5934	90	534.06
FLUSHING	5934	45	267.03
NON RESIDENTIAL			
DOMESTIC	81	30	2.4
FLUSHING	81	15	1.2
VISITORS			
DOMESTIC	940	9	8.46
FLUSHING	940	6	5.64
TOTAL POPULATION	6955		

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126 125

 MODIFICATION OF GROUP HOUSING PROJECT
 "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA
CONCEPTUAL
PLAN

GARDENING (HORTICULTURE)	24003.30	3.4	81.6
WATER COOLED DG COOLING (FOR 6 HRS)	2750	0.9	14.85
CHANGING RMS	50	25	1.25
SWIMMING POOL MAKE UP WATER	1	LS	5
STREET WASH	31482	2	63
TOTAL WATER REQUIREMENT			984.5
TOTAL TREATED WATER REQUIREMENT			433.3
TOTAL FRESH WATER			551.2
CAPACITY OF STP			
WATER FLOW TO STP (DOMESTIC) 80%			436.96
WATER FLOW TO STP (FLUSHING) 100%			273.88
TOTAL WASTE WATER GENERATION			710.84
REQUIRED CAPACITY - 120%			853.0
SAY			850
AVAILABLE TREATED WATER (80%)			569
SAY			569
REUSE OF TREATED WATER			433.3
SURPLUS WATER TO BE USED FOR NEAR BY CONSTRUCTION ACTIVITIES			135

Table: 4.1

TOTAL WATER REQUIREMENT	985.76
	TREATED
FRESH WATER REQUIREMENT	
TREATED WATER REQUIREMENT	434.56
WATER FOR FLUSHING	273.88
GARDENING	81.61
DG COOLING	14.85
HVAC MAKE WATER	1.25
CAR STREET WASHING	62.96
WASTE WATER GENERATION	710.84
CAPACITY OF STP	850.00
TREATED WASTE WATER GENERATION	569
SURPLUS TREATED WATER	135.36

127

126

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	CONCEPTUAL PLAN
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7.0 SEWAGE GENERATION

Construction phase:

Quantity of sewage generated during the construction phase will 35 kld and proper management has been done by providing toilets/ Septic tank / soak pit on site for treatment.

Operational Phase:

Sewage generated during operation phase would be 710 KLD. Capacity of onsite STP is 850 KLD, which is 20% more than the generation of sewage.

8.0 WASTE GENERATION, COLLECTION, TRANSPORT AND DISPOSAL

Solid waste would be generated both during the construction as well as during the operation phase. The solid waste expected to be generated during the construction phase will comprise of excavated materials, used bags, bricks, concrete, MS roads, tiles, wood etc. The following steps are to be followed for the management solid waste:

- Construction yards are used for storage of construction materials.
- The excavated material such as topsoil and stones will be stacked for reuse during later stages of construction.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the Project.
- Remaining soil will be utilized for back filling / road work /raising of site level at locations/ selling to outside agency for construction of roads etc.

Waste generation during Operation Phase

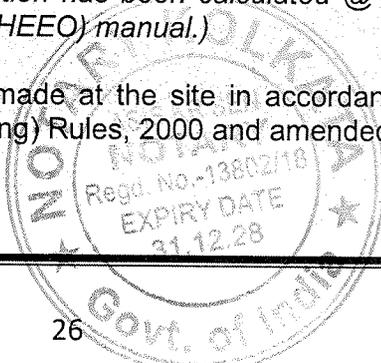
During operation phase municipal solid waste would be generated from the project. The quantification of different type of waste likely to be generated are given below in table: 5 below.

Table 5: Quantity of Waste Generation during operation phase

WASTE GENERATION		
	Total	
Total Waste Generation	2.44	TPD
Organic Waste Generation	1.16	TPD
E- Waste Generation	20	KG/Day
Sludge Generation	256	KG/Day
Hazardous Waste Generation (DG Waste Oil)	550	Lts/ Annum

(Source: The solid waste generation has been calculated @ 0.5 kg per capita per day basis ad per guideline of (CPHEEO) manual.)

Following arrangements will be made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2008.



128

127

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MODIFICATION OF GROUP HOUSING PROJECT
"ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHACONCEPTUAL
PLAN❖ **Collection and Segregation of waste**

1. A door to door collection system will be adopted for collection of domestic waste in colored bins from household units.
2. Biodegradable & non biodegradable waste shall be separately collected to ensure segregation at source.
3. For community hall & commercial occupancy, adequate number of colored bins separate for Bio-degradable and Non Bio-degradable will be placed at planned location.
4. Litter bin will also be provided in open areas like parks etc.

Treatment of Bio-Degradable wastes

Biodegradable /Organic Waste would be treated in Organic Waste Converter installed at site. The composted waste would be used as manure for horticulture development.

Non Biodegradable waste

Recyclables, such as plastic, rubber, wood pieces, glass etc will be segregated from non biodegradable waste & sold to authorize vendors for recycling & remaining inert waste shall be sent to land fill site through authorized vendor as per the guidelines of Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2008. STP sludge will also be used for horticultural purposes as manure.

Horticultural Waste would be composted along with organic waste in the OWC and used as manure for gardening purposes.

9.0 POWER REQUIREMENT DETAILS

The power supply shall be supplied by State Electricity Board and the estimated electrical demand load & proposed power back to be used during power failure shall be as per details given in Table:6 below.

Table: 6 Power & DG detail

POWER DEMAND	Detail
Maximum Demand Load	2793 KVA
POWER BACK UP	2660 KVA
DG Set Selected	(3 nos. x 380 KVA+ 4 no. x 380 KVA)
DG STACK HEIGHT	82.35 mt (6M above tallest tower)

9.1 BACKUP POWER DETAILS

There is provision of 7 no. of DG sets of 380 KVA (3 nos. x 380 KVA+ 4 no. x 380 KVA) each for power back up in the Project. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

Energy Conservation Measures:

The energy conservation measures shall be adopted to minimize the demand on non-renewable resources and maximize the utilization efficiency of these resources.

The benefits of Energy Conservation measures are as follows:

- Reduced Energy Consumption without sacrificing comfort levels.
- Reduced destruction of natural resources.
- Reduced air pollution.
- Reduced Pollution Loads.
- Increased user productivity.

10.0 STORM WATER DRAINAGE & RAIN WATER HARVESTING SYSTEM

A network of covered/underground storm water drain will be developed to collect rain water runoff from roof tops, hard & soft areas – roads, paths, parking & open areas, vegetated surfaces planned on the ground. Storm water would be channelized to rain water harvesting structure designed to charge the rain water to ground water aquifer.

The storm water will pass through the desilting chamber/oil & grease separator before finally discharging to percolation tank. Design details of Rain Water Harvesting structure are given in the table 7 & Figure 8 below

For basement parking, the rainwater from ramps will be collected in the basement storm water storage tank. This water will be pumped out to the nearest external storm water drain

Table 7: Calculations for storm water Harvesting Potential

RAIN WATER HARVESTING			
PARTICULARS	ROAD/PAVED AREA	OPEN/GREEN AREA	ROOF TOP AREA
Area (Sq.m.)	31482.4	24003.3	12956.3
Runoff coefficient	0.75	0.2	0.9
Rainfall (m)	1.5	1.5	1.5
Harvesting potential (cu.m.)	35248	7167	17407
Net water availability and potential for recharge (cu.m.) per year	59821		

Table 7: Calculations for storm water Harvesting Potential

Rain Water Harvesting Pit Design	
Particulars	Values
Peak hourly rate taken @ 60 mm/hr for 15 min duration	601
Volume of recharge pit	40 m ³
No. of recharge pit required	15.03
SAY	15

130 129

Total of 15 Rain Water Harvesting pits are to be used for artificial rain water recharge within the project premises.

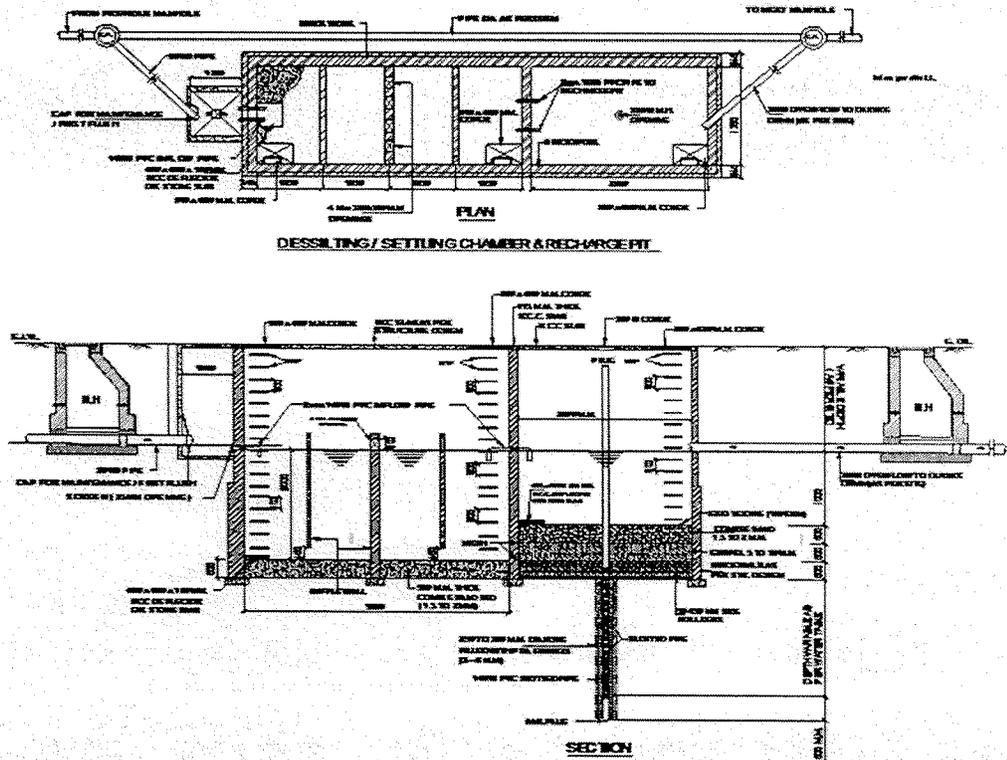


Figure-8: A typical recharge pit

11.0 LANDSCAPE & SHELTERBELT DEVELOPMENT :

Total green area measures **24003.3 m²**, which includes open area as peripheral tree plantation, road side plantation & remaining area would be used for plantation of shrubs, lawn, and ground cover. There are several trees which will be planted along the sides of the Project boundary. For tree plantation preference will be given to local tree with large leaves & dense foliage for shading & reduction of air & noise pollution.

12.0 PARKING FACILITIES

For smooth circulation & reduction of pollution separate entry & exits with gates of adequate sizes are planned for the vehicles & also for the movement of fire engine. Provision for car/vehicle parking is planned in the basements. Apart from peripheral roads for vehicular movement, internal roads/pavements are planned for traffic free movement of pedestrians. Details of parking provision are given in table: 8

Table: 8- Parking Details

1	Parking required as per byelaws	67375	sq.m
2	Parking Area Proposed	68390	sq.m
3	Surface Parking area	20469	sq.m
4	Basement Parking area	47921	sq.m

131 130

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13.0 RISK AND HAZARDS

13.1 SEISMICITY

Based on the tectonic features and records of earthquake, a Seismic Zoning map has been developed for the country by Bureau of Indian Standard (BIS). The area under study falls in Seismic Zone-III. Suitable seismic coefficients in horizontal and vertical directions respectively, will be adopted while designing the structures. The structural design shall be vetted by the agency nominated by local body. Earthquake resistant construction techniques will also be used.

13.2 EMERGENCY LIGHTING

The emergency lights operated on battery power would be provided at appropriate locations – such as corridors, common area, staircase, exit and entrance doors, parking, etc.

13.3 FIRE SAFETY

- Fire Fighting Designed: As per National Building Code 2005
- Provision fire detection, alarm & rescue system.
- Provision of infrastructure required for suppression of fire as per norms.
- Provision of fire escape staircase
- Provision of Fire Extinguishers, Fire Hose Cabinet, Internal & External hydrant, Fire sprinkler system in basements & residential towers are planned as per applicable codes & norms of local fire department..

14.0 ENVIRONMENTAL POLLUTION MITIGATION MEASURES

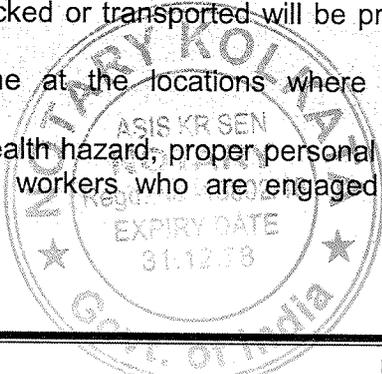
14.1 AIR POLLUTION

Increased traffic generation due to project (no. of parking space proposed for the project is 1068 is not going to cause significant increase in atmospheric concentration of gases and will not result in heat island formation as adequate landscaping has been provided.

Mitigation Measures for Air Pollution during Construction Stage

Air quality around the project site will be impacted during construction stage. Various construction activities especially related to handling of loose material are likely to generate fugitive dust that will affect the air quality of the surrounding area of the project site. To minimize such impacts following measures has been proposed:

- All the loose material either stacked or transported will be provided with suitable covering such as tarpaulin, etc.
- Water sprinkling shall be done at the locations where dust generation is anticipated.
- To minimize the occupational health hazard, proper personal protective gears i.e. mask shall be provided to the workers who are engaged in dust generation activity.



132

131

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	CONCEPTUAL PLAN
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Mitigation Measures for Air Pollution during Operational Stage

Operation of DG Sets is the only source of air pollution during operational phase. Sufficient stack height 6 m above tallest tower will be provided for proper dispersion of pollutants. Also, it is proposed to minimize air pollution by providing plantation as buffer on the periphery of the project site and on the open spaces. An area of **24003.3 m²** has been kept for green development & plantation purposes.

14.2 WATER POLLUTION

The source of water pollution during construction and operation phase is due to waste water generated from toilets and washing.

14.3 NOISE ENVIRONMENT

It is envisaged that within the Group Housing complex there shall be maximum movement of light motor vehicles like cars and 2-wheelers which will lead to some increase in noise levels. It is proposed to minimize the noise levels by providing plantation as buffer on the sides of internal roads, on the open spaces inside and around the periphery of whole complex. Proper maintenance of the internal roads will also be carried out and Informatory signboards shall be provided to encourage vehicle owners to maintain their vehicle, not to blow horns and follow the emission standards fixed by Government Authorities.

DG sets will be kept in the acoustic chamber and ambient noise will be within the CPCB standard limits.

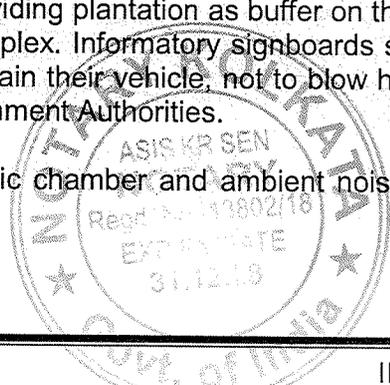
Mitigation Measures for Noise Pollution during Construction Stage

During the construction stage, expected noise levels shall be in the range of 80-85 dB (A) which will decrease with increase in distance as per the Inverse Square Law. Administrative as well as engineering control of noise will be implemented. Isolation of noise generation sources and temporal differentiation of noise generating activities will ensure minimum noise at receiver's end. To prevent any occupational hazard, ear muff / ear plug shall be given to the workers working around or operating plant and machinery emitting high noise levels. Use of such plant or machinery shall not be allowed during night hour. Careful planning of machinery operation and scheduling of operations shall be done to minimize such impact.

Mitigation Measures for Noise Pollution during Operation Stage

It is envisaged that there shall be maximum movement of light motor vehicles like cars and 2-wheelers which will lead to some increase in noise levels. It is proposed to minimize the noise levels by providing plantation as buffer on the open spaces and around the periphery of whole complex. Informatory signboards shall be provided to encourage vehicle owners to maintain their vehicle, not to blow horns and follow the emission standards fixed by Government Authorities.

DG sets will be kept in the acoustic chamber and ambient noise will be within the CPCB standard limits.



133

132

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	CONCEPTUAL PLAN
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15.0 CONSTRUCTION MATERIALS

The following construction materials are required for residential construction;

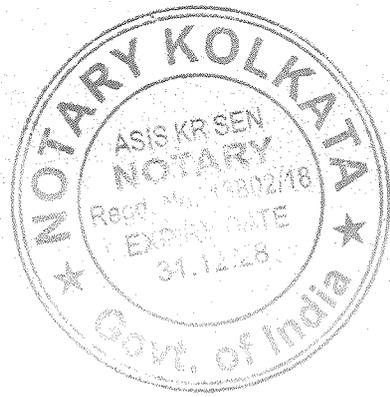
1. Coarse sand	11. P.V.C. conduit
2. Fine sand	12. MCBs/DBs
3. Stone aggregate	13. Overhead water tanks
4. Cement	14. Pavors
5. Fly Ash	15. Conc, CI, GI, CPVC, UPVC pipes
6. Reinforcement steel	16. Sanitary fittings & fixtures
7. Plywood & steel shuttering	17. Stainless steel sink
8. Pipe scaffolding (cup lock system)	18. Glass
9. Bricks	19. Joinery hardware
10. Marble/vitrified/ceramic floor & wall tiles	20. Aluminium Frames
	21. Electrical equipments, fittings & fixtures.

16.0 LIST OF MACHINERY USED DURING CONSTRUCTION

- (i) Dumper
- (ii) Concrete mixer with hopper
- (iii) Excavator
- (iv) Concrete Batching Plant
- (v) Cranes
- (vi) Road roller
- (vii) Bulldozer
- (viii) Tower Cranes
- (ix) Hoist
- (x) Labor Lifts
- (xi) Concrete pressure pumps
- (xii) Mobile transit mixer

17.0 PROJECTCOST:

The total construction cost of the Group Housing project is approximately **Rs. 597 Crore.**



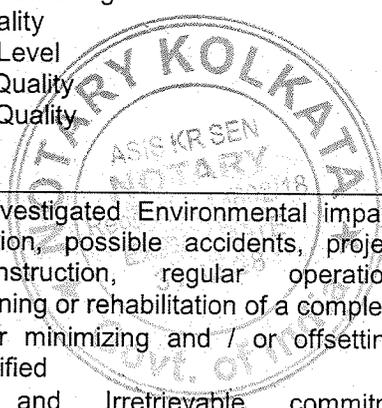
136 133

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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TERMS OF REFERENCE

The generic structure of the EIA report shall be as per the guideline as prescribed in Appendix III of the Gazette Notification of the Ministry of Environment and Forests, Govt. of India dated 14th September 2006.

S. No.	EIA Structure	Contents
1	Introduction	<ul style="list-style-type: none"> • Purpose of the report • Identification of project & project proponent • Brief description of nature, size, location of the project and its importance to the country, region • Scope of the study – details of regulatory scoping carried out
2	Project Description	<p>Condensed description of those aspects of the project (based on project feasibility study), likely to cause environmental effects. Details will be provided to give clear picture of the following:</p> <ul style="list-style-type: none"> • Type of project • Need for the project • Location (maps showing general location, specific location, project boundary & project site layout) • Size or magnitude of operation (incl. Associated activities required by or for the project) • Proposed schedule for approval and implementation • Technology and process description • Project description. Including drawings showing project layout, components of project etc. Schematic representations of the feasibility drawings which give information important for EIA purpose • Description of mitigation measures incorporated into the project to meet environmental standards, environmental operating conditions, or other EIA requirements (as required by the scope) • Assessment of New & untested technology for the risk of technological failure
3	Description of the Environment	<p>Study area to be within 10 km of the project site, period – non monsoon</p> <p>Parameters of Monitoring:</p> <ul style="list-style-type: none"> Ambient Air Quality Ambient Noise Level Ground Water Quality Surface Water Quality Soil Quality
4	Anticipated Environmental Impacts & Mitigation Measures	<ul style="list-style-type: none"> • Details of Investigated Environmental impacts due to project location, possible accidents, project design, project construction, regular operations, final decommissioning or rehabilitation of a completed project • Measures for minimizing and / or offsetting adverse impacts identified • Irreversible and Irretrievable commitments of environmental components • Assessment of significance of impacts (Criteria for determining significance, Assigning significance)

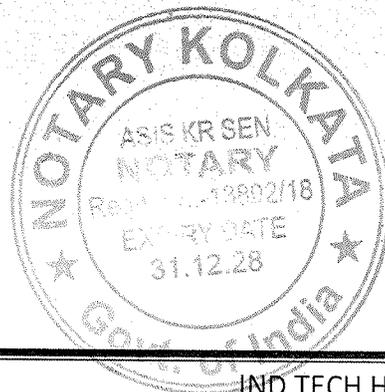


135

134

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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S. No.	EIA Structure	Contents
		<ul style="list-style-type: none"> Mitigation measures
5	Environmental Monitoring Program	Technical aspects of monitoring the effectiveness of mitigation measures (incl. Measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures, detailed budget & procurement schedules)
6	Additional Studies	Risk assessment
7	Project Benefits	<ul style="list-style-type: none"> Improvements in the physical infrastructure Improvements in the social infrastructure Employment potential –skilled; semi-skilled and unskilled Other tangible benefits
8	EMP	Description of the administrative aspects of ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of the EIA
9	Summary & Conclusion	<ul style="list-style-type: none"> Overall justification for implementation of the project Explanation of how, adverse effects have been Mitigated
10	Disclosure of Consultants engaged	The names of the Consultants engaged with their brief resume and nature of Consultancy rendered





136

ANNEXURE -II
BDA MASTER PLAN

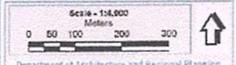
Proposed Land use Plan for
Kalarahanga Mouza
(Zone No. 13, Chandraseekharpur)

Comprehensive Development Plan for
Bhubaneswar Development Plan Area
2030

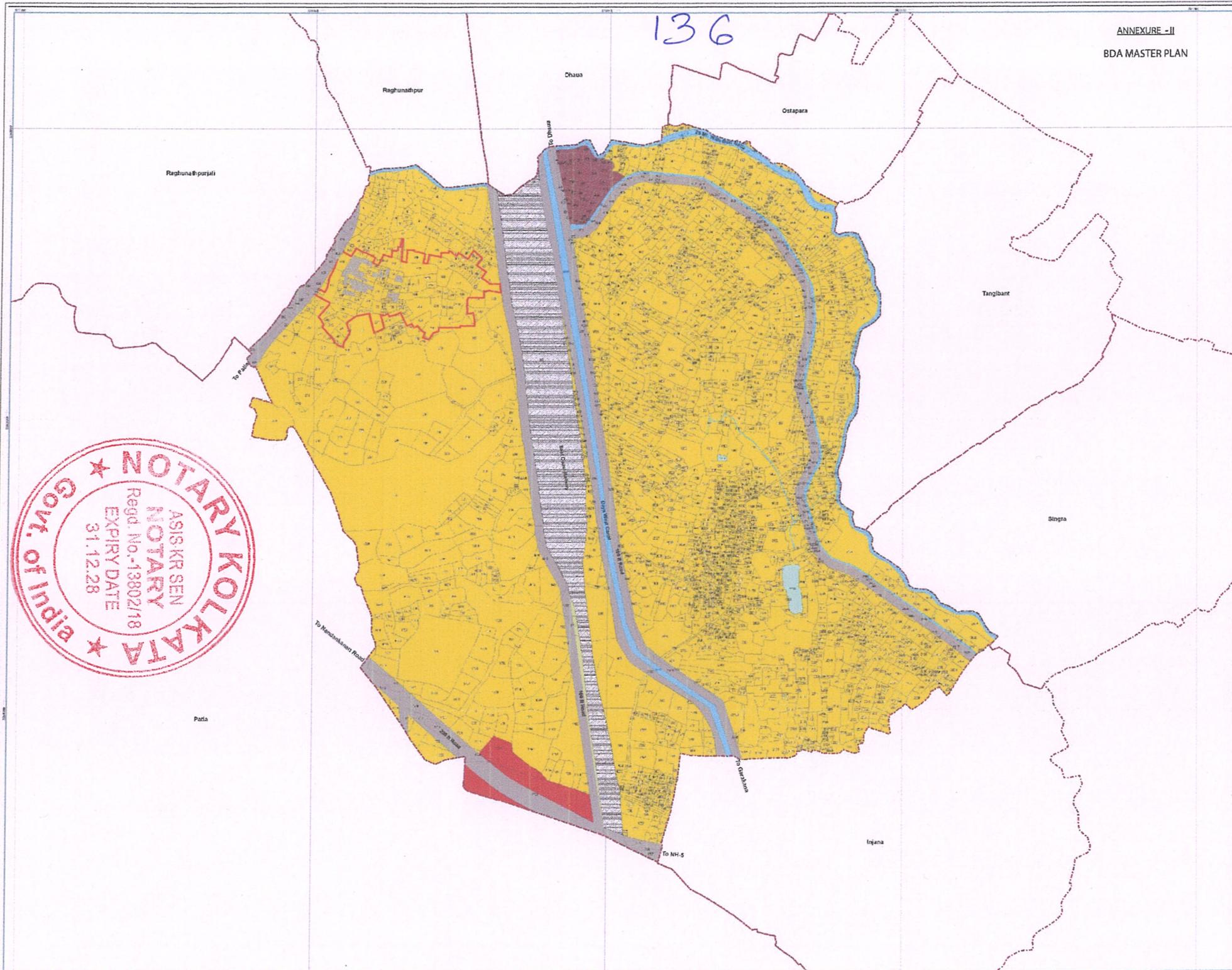
Legend

- Mouza Boundary
- Plot Boundary
- Landuse
 - R Residential Use Zone
 - C-1 Retail Commercial & Business Use Zone
 - C-2 Wholesale Commercial Use Zone
 - I Industrial Use Zone
 - PS Public & Semi-public Use Zone
 - US Utility & Services Use Zone
 - OS Open Space Use Zone
- Transportation Use Zone
 - T-1 Road
 - Railways
 - T-3 Airport
 - Bus Depots/Truck Terminals
- Agricultural & Forest Use Zone
 - A-1 Agriulturel
 - A-2 Forest
- Water Bodies Use Zone
 - W-1 Rivers, Canals & Streams
 - W-2 Ponds, Lakes & Lagoons
- Special Heritage Zone
 - SH Protected Monuments & Precincts
 - SH-R Residential within Special Heritage Zone
 - SH-C Commercial within Special Heritage Zone
 - SH-PS Public & Semi-public within Special Heritage Zone
 - ES Environmentally Sensitive Zone

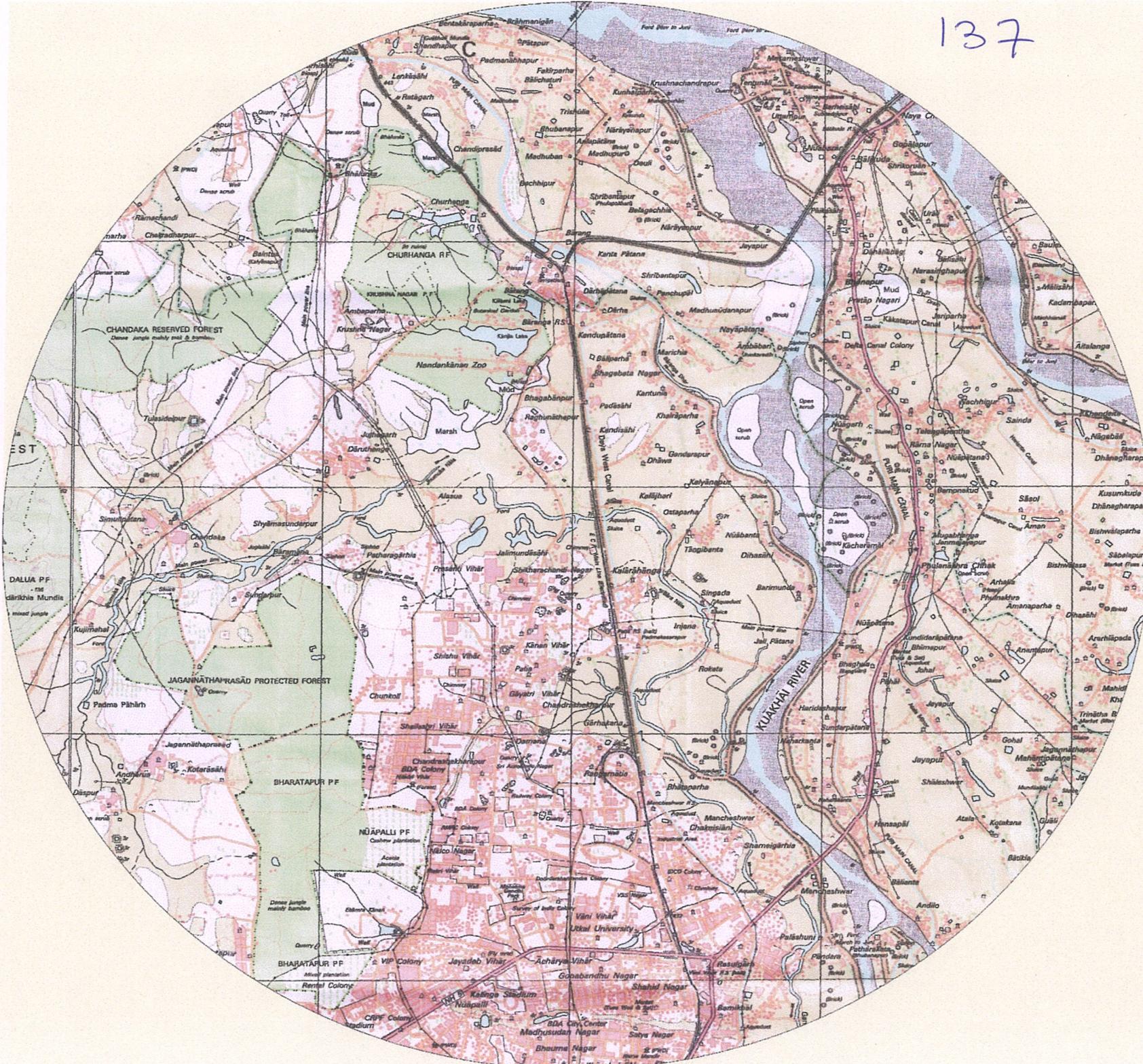
Taloua	Police Stations	Mouza No.
Bhubaneswar	Saheednagar	16



Department of Architecture and Regional Planning
Indian Institute of Technology Kharagpur - 751022
Consultant-in-Charge: Professor B.P. Sengupta



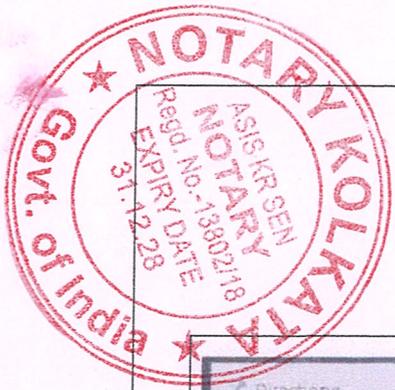
137



M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-V: Perspective View of the project



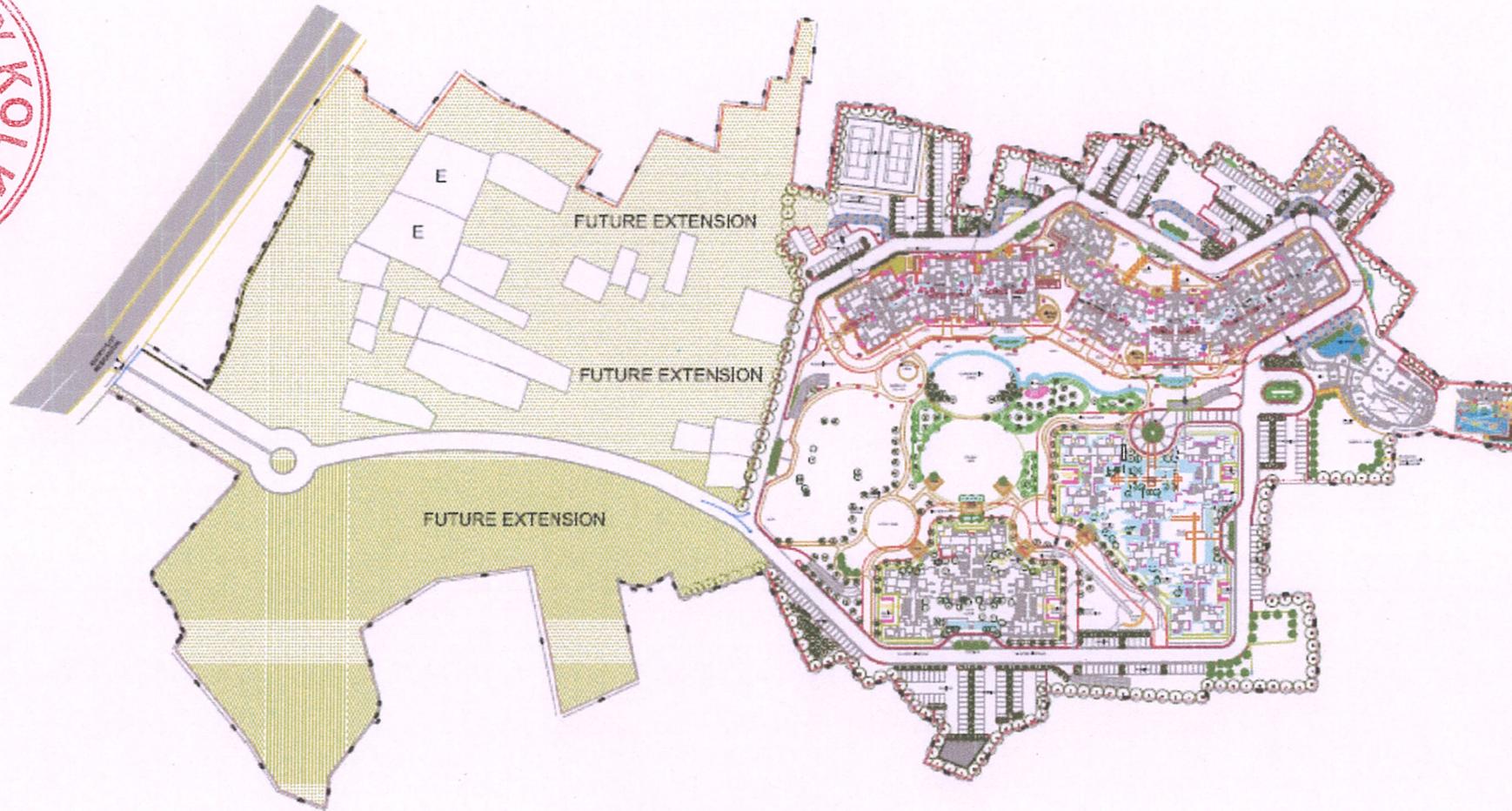


- EXISTING AREA
- PROPOSED AREA



141

Annexure-VII: Layout Plan



SITE LAY-OUT PLAN

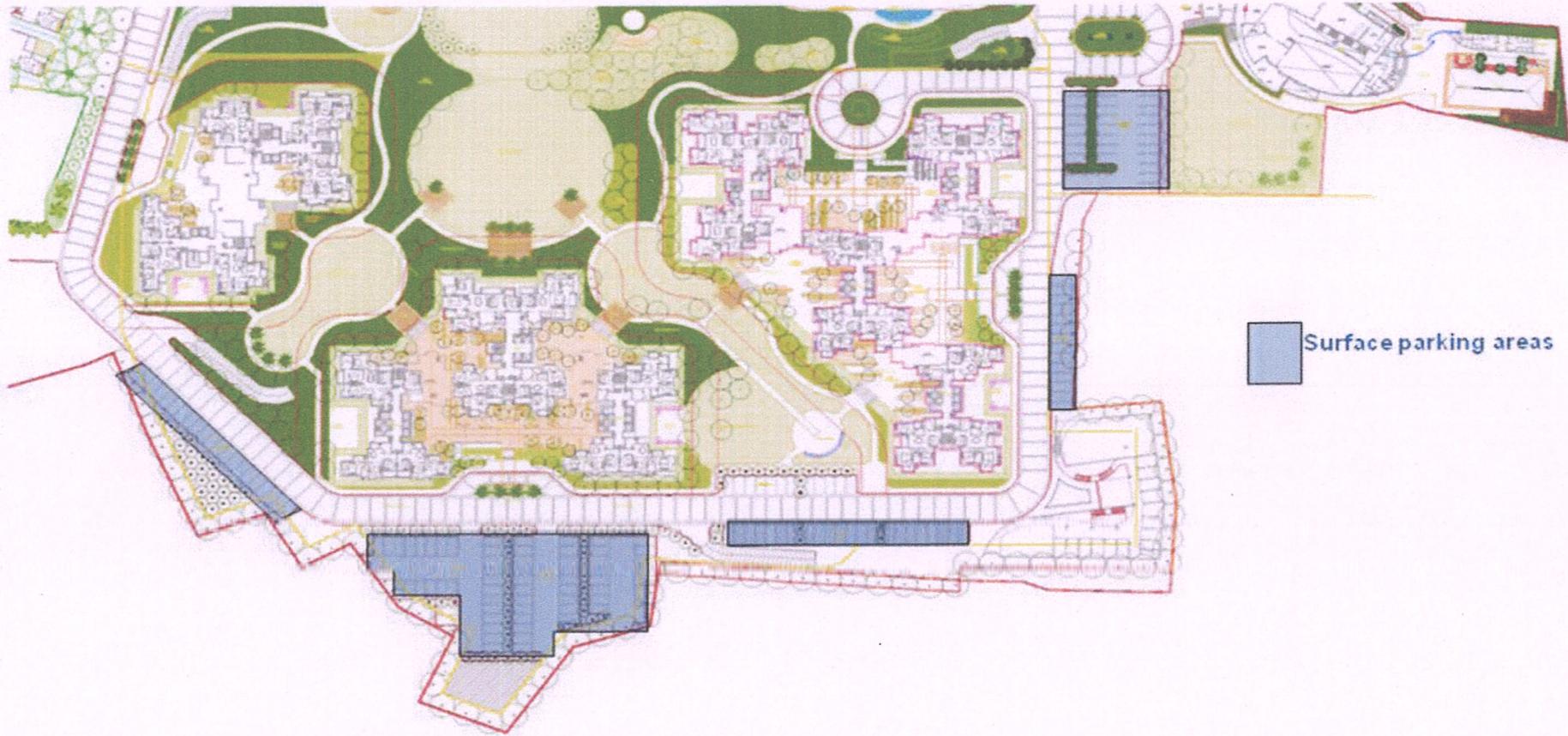
Annexure-VIII: Landscape Plan



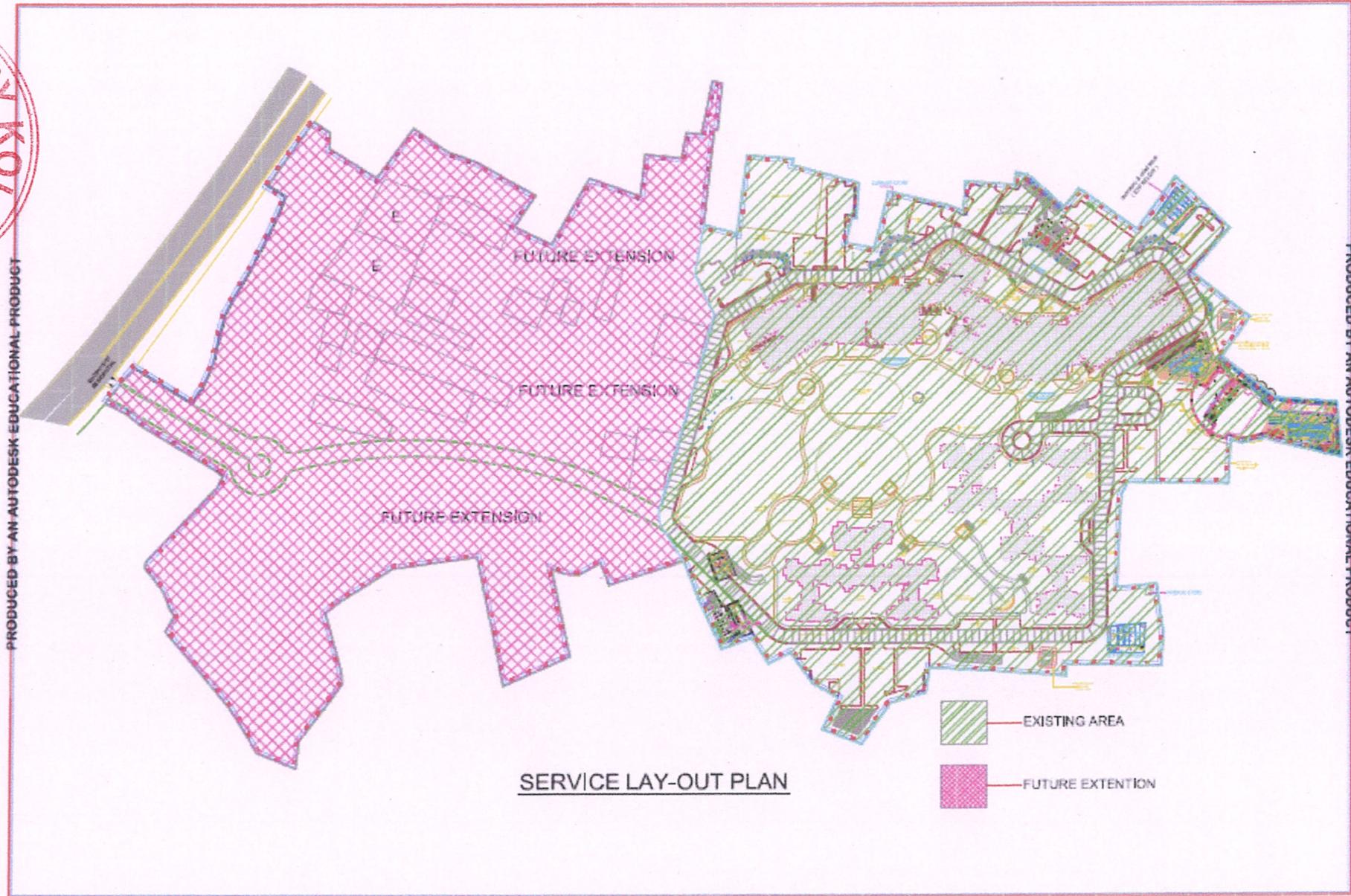
LANDSCAPE LAY-OUT PLAN

Annexure-IX: Parking and Circulation Plan

Surface Parking strategy



Annexure-X: Services Plan



145

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-XI: Construction Photograph

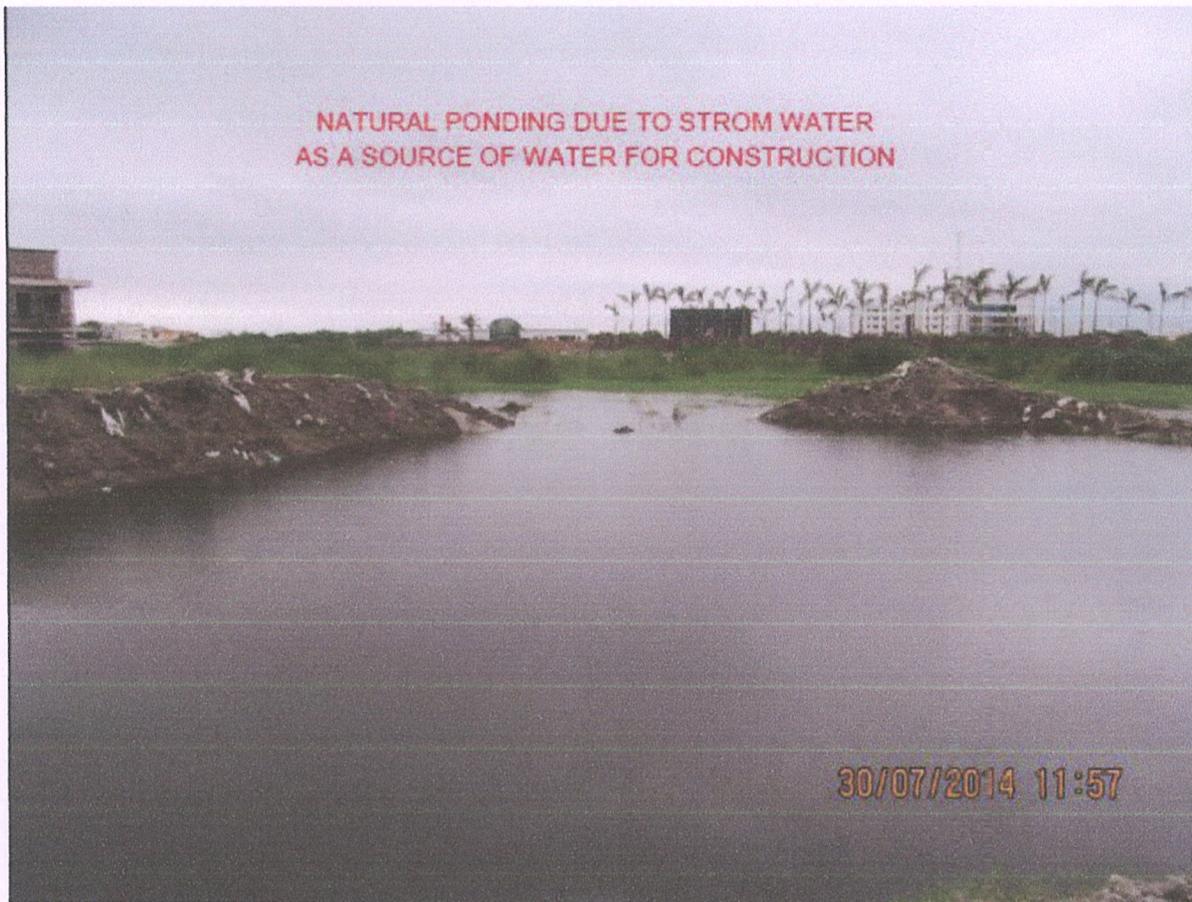


M/S ZESTATE
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MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT
KALARAHANGA, BHUBANESWAR, ODISHA

TERMS OF
REFERENCE

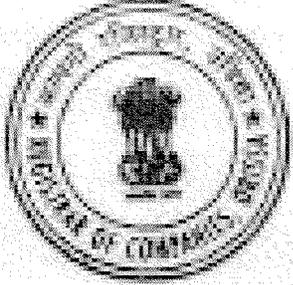
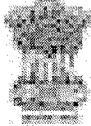
Annexure-XII: Rain water pond for harvesting



118 147

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-XIII: Company incorporation certificate

प्रारूप 1
पंजीकरण प्रमाण-पत्र

कोर्पोरेट इन्फार्मेशन एक्ट, 2013 (2013) अन्तर्गत
 2007-2013
 ZESTATE PRIVATE LIMITED
 2007-2013

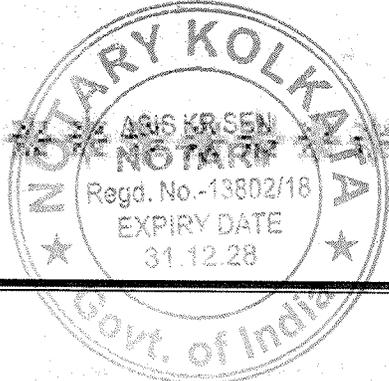
Form 1
Certificate of Incorporation

Corporate Identity Number: LM52010R2017PTC003573 2007-2013
 I hereby certify that ZESTATE PRIVATE LIMITED is this day incorporated under the Companies Act, 1956 (No. 1 of 1956) and that the company is private member.

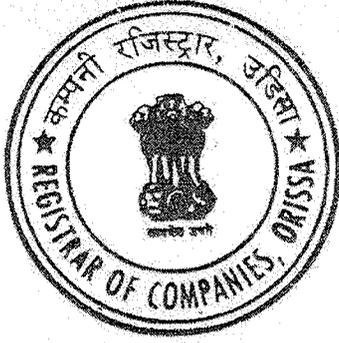
Given under my hand at Cuttack this Twelfth day of October Two Thousand: 2018


 Registrar of Companies

M/s. ZESTATE PRIVATE LIMITED
 Plot No. 10, KALARAHANGA VILLAGE,
 KALARAHANGA - 751011,
 Distt. Bhubaneswar



147 A [TYPED COPY]



प्रारूप 1
पंजीकरण प्रमाण-पत्र

कॉर्पोरेट पहचान संख्या : U45201OR2007PTC009579

2007 - 2008

मैं एतद्वारा सत्यापित करता हूँ कि मैसर्स

Z ESTATES PRIVATE LIMITED

का पंजीकरण, कम्पनी अधिनियम 1956 (1956 का 1) के अंतर्गत आज किया जाता है और यह कम्पनी प्राइवेट लिमिटेड है।

यह निगमन-पत्र आज दिनांक बारह अक्टूबर दो हजार सात को मेरे हस्ताक्षर से कटक में जारी किया जाता है।

Form 1

Certificate of Incorporation

Corporate Identity Number : U45201OR2007PTC009579

2007 - 2008

I hereby certify that Z ESTATES PRIVATE LIMITED is this day incorporated under the Companies Act, 1956 (No. 1 of 1956) and that the company is private limited.

Given under my hand at Cuttack this Twelfth day of October Two Thousand Seven.

Mohant
(Mohanty Bibekananda)

कम्पनी रजिस्ट्रार / Registrar of Companies

उड़ीसा
Orissa

कम्पनी रजिस्ट्रार के कार्यालय अभिलेख में उपलब्ध पत्राचार का पता :

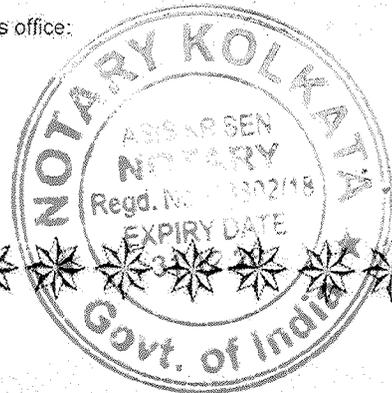
Mailing Address as per record available in Registrar of Companies office:

Z ESTATES PRIVATE LIMITED

M/4 - 34, ACHARYA VIHAR,

BHUBANESWAR - 751013,

Orissa, INDIA



149 148

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-XIV: Resolution of the Board of Directors

MINUTE BOOK

MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF Z ESTATE PRIVATE LIMITED HELD AT M/4-34, ACHARYA VIHAR, BHUBANESWAR-751013, THE REGISTERED OFFICE OF THE COMPANY, ON JANUARY 4th, 2013 AT 11.30 AM.

- ✓ Present: Sri Tapan Kumar Mohanty A) - Managing Director
- Sri Chetan Kumar Tekriwal - Director
- Sri Tapan Kumar Mohanty B) - Director
- Sri Jagdeep Patra - Director
- Sri Ravindra Singh Verma - Director
- Sri Rohit Dave - Director

Sri Tapan Kumar Mohanty (A), Managing Director of the Company preside the meeting and took the Chair.

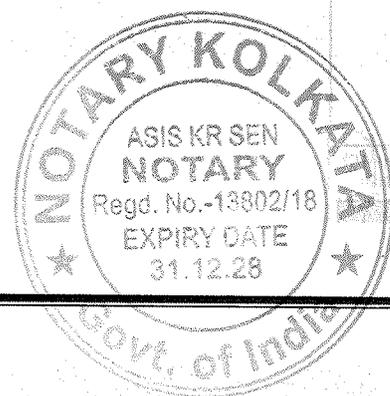
1. Confirmation of the Minutes of the Board Meeting held on 10th January, 2012

The Minutes of the Meeting of the Board of Directors of the Company held on 10.01.2012 were read and confirmed and the Chairman of the meeting signed the same.

2. Authorization for signing and execution of Customers' Agreement

Resolved that Mr. Rishi Prasad Das or Mr. Satyajit Mohanty or Mr. Harjit Mohanty, the authorized representatives of the Company be and are here by authorized severally and not jointly to sign customers' agreement and customers' agreement related any documents in relation to booking of flats for Z-1 Project and as may be required and includes Allotment Letters, Sale Agreements and any such documents.

Further resolved that Sri Tapan Kumar Mohanty, Managing Director of the Company be and is here by authorized to certify and submit the aforesaid resolution with different authorities as and when required.



ANNEXURE-XIV: Resolution of the Board of Directors

MINUTE BOOK

MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF Z ESTATES PRIVATE LIMITED HELD AT M/4-34, ACHARYA VIHAR, BHUBANESHWAR-751013, THE REGISTERED OFFICE OF THE COMPANY, ON JANUARY 4TH, 2013 AT 11:30 AM.

Present Sri Tapan Kumar Mohanty A) - Managing director
Sri Chetan Kumer Tekriwal - Director
Sri Tapan Kumar Mohanty B) - Director
Sri Jagdeep Pahwa - Director
Sri Ravindra Singh Verma - Director
Sri Rohit Dave - Director

Sri Tapan Kumar Mohanty (A), Managing Director of the Company preside the meeting and took the Chair.

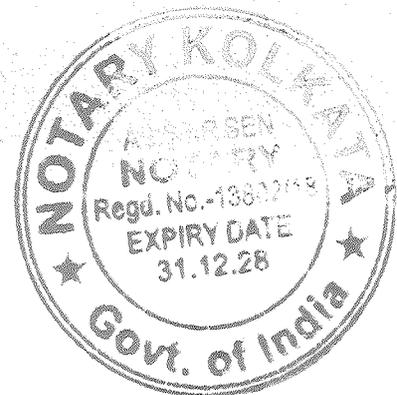
1. Confirmation of the Minutes of the Board Meeting held on 10% January, 2012

The Minutes of the Meeting of the Board of Directors of the Company held on 10.01.2012 were read and confirmed and the Chairman of the meeting signed the same.

2. Authorization for signing and execution of Customers' Agreement

Resolved that Mr. Radha Prasad Das or Mr. Satyajyoti Mohanty or Mr Ranjit Mohanty, the authorized representatives of the Company be and are here by authorized severally and not jointly to sign customers' agreement and customers' agreement related any documents in relation to booking of flats for Z-1 Project and as may be required and includes Allotment Letters, Sale Agreements and any such documents.

Further resolved that Sri Tapan Kumar Mohanty, Managing Director of the Company be and is here by authorized to certify and submit the aforesaid resolution with different authorities as and when required.



M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-XV: Previous Environmental Clearance of the project



STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA), ORISSA

{Constituted vide order No. S.D. 2674 (E) Date 17th Nov. 2008 of
 Ministry of Environment & Forest, Govt. of India, Under Environment Protection Act, 1986.
 Or. No. 58F-2/1, Unit-IX, Bhubaneswar-751022
 E-mail: seiaaorissa@gmail.com

Ref. No. _____

Dt. _____

SEIAA – 261/10

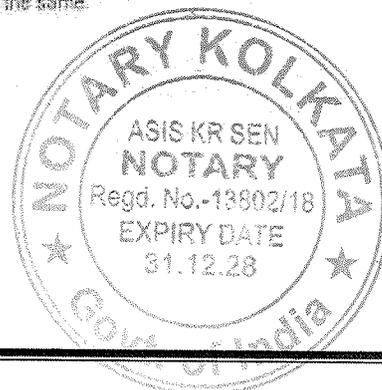
From
 Bhagirathi Behara, IFS
 Director, Environment-cum-
 Spl. Secretary to Government
 & Member Secretary, SEIAA, Orissa

To
 Sri Tapan Kumar Mohanty, (M.D.)
 M/s Z-Estates Pvt. Ltd.
 M4/34, Acharya Vihar, Bhubaneswar-751013
 Tel- 0674-2540806, Fax- 0674-2540898
 E-mail- zestates@zestates.in

Subj: Environmental Clearance for construction of housing colony and shopping mall of M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar.

Sir,

This has reference to your letter no. N9 dated 01.11.2010 and subsequent letters dated 28.12.2010, dated 07.01.2011, dated 03.03.2011, dated 02.04.2011, dated 02.05.2011, dated 14.06.2011, dated 16.05.2011, and dated 01.07.2011 on the above mentioned subject. I am directed to say that the State Environment Impact Assessment Authority, Orissa have considered the application on the proposal for residential complex and shopping mall promoted by M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar, Orissa. There will be blocks of B+G+12: 6 nos. B+G+14: 17 nos. B+G+18: 2 nos. B+G+24: 1 no. Total Plot Area is 105982.07 sqm. Total built up area is 244092.73 sq.m. The total makeup water requirement is 773.52 KLD. Around 928.2 KLD of waste water will be generated which will be treated in a Sewage Treatment Plant (STP). Treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 2.55 TPD. The power requirement is 110 MW. The case was placed in the SEAC meeting held on 3rd & 4th March, 2011. It was decided to consider the proposal after receipt of compliance from the proponent and the proponent will be invited for presentation. The proponent has furnished certain compliances including BDA approval letter. The proponent along with the consultant M/s S.S. Enironics (India) Pvt. Ltd, Bhubaneswar made a detailed presentation before the SEAC, Orissa on 20th & 21st May, 2011 complying to earlier observations of SEAC. The committee decided to consider environmental clearance for the proposal after receipt of certain information /documents from the proponent. The proponent furnished the desired information/documents. The committee verified the same.



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M/S ZESTATE
PVT. LTD

MODIFICATION OF GROUP HOUSING PROJECT "Z ESTATE"
AT KALARAHANGA, BHUBHANESHWAR, ODISHA

TERMS OF
REFERENCE

Annexure-XV: Previous Environmental Clearance of the project

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA), ORISSA
(Constituted vide order No. S.D. 2674 (E) Date 17* Nov. 2008 of
Ministry of Environment & Forest, Govt. of India, Under Environment Protection Act, 1986.)
Or. No. 5RF-2/1, Unit-IX, Bhubaneswar-751022
E-mail seiaaorissa@gmail.com

Ref. No. _____

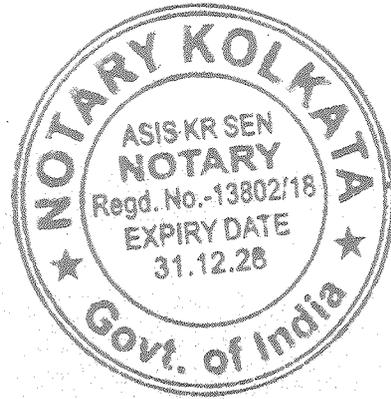
SEIAA-261/10

From

Bhagirathi Behera, IFS
Director, Environment-cum-
Spl. Secretary to Government
& Member Secretary, SEIAA, Orissa

To

Sri Tapan Kumar Mohanty. (M.D)
M/s Z-Estates Pvt. Ltd.
M4/34, Acharya Vihar, Bhubaneswar-751013
Tel- 0674-2540806, Fax-0674-2540098
E-mail-zestates@zestates.in

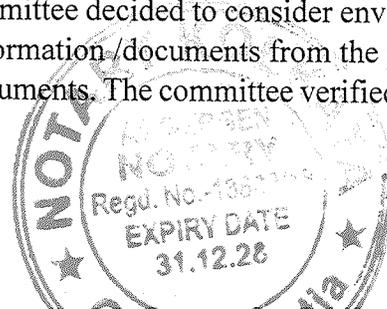


Sub: Environmental Clearance for construction of housing colony and shopping mall of M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar.

Sir,

This has reference to your letter no Nil dated 01.11.2010 and subsequent letters dated 28.12.2010, dated 07.01.2011, dated 03.03.2011, dated 02.04.2011, dated 02.05.2011, dated 14.05.2011, dated 16.05.2011, and dated 01.07.2011 on the above-mentioned subject I am directed to say that the State Environment Impact Assessment Authority, Orissa have considered the application on the proposal for residential complex and shopping mall promoted by M/s Z-Estates Pvt. Ltd at Kalarahanga, Bhubaneswar, Orissa. There will be blocks of B+G+12, 6 nos. B+G+14: 17 nos. B+G+19: 2 nos B+G+24: 1 no. Total Plot Area is 105962.07 sqm. Total built up area is 244092.73 sqm. The total makeup water requirement is 773.52 KLD. Around 928.2 KLD of waste water will be generated which will be treated in a Sewage Treatment Plant (STP). Treated water will be re-used for dual flushing, green belt and landscaping. Total solid waste generation will be 2.55 TPD. The power requirement is 110 MW. The case was placed in the SEAC meeting held on 3 & 4 March, 2011. It was decided to consider the proposal after receipt. of compliance from the proponent and the proponent will be invited for presentation. The unibhas furnished certain compliances including BDA approval letter. The proponent along with the consultant M/s S.S Envirionics (India) Pvt. Ltd, Bhubaneswar made a detailed presentation before the SEAC Orissa on 20th & 21 May, 2011 complying to earlier observations of SEAC. The committee decided to consider environmental clearance for the proposal after receipt of certain information/ documents from the proponent. The proponent furnished the desired information/ documents. The committee verified the same.

ITC/PRJ(EIA)-026/2014-2015/AUG 14
IND TECH HOUSE CONSULT



157 150

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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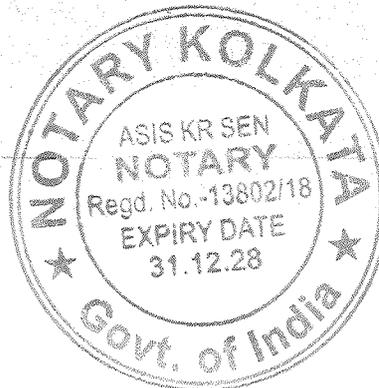
Based on the information / documents and clarifications provided by the proponent and on recommendation of SEAC, Orissa the State Environment Impact Assessment Authority, Orissa hereby grants Environmental Clearance in favour of the project for a period of 5 (five) years under the provisions of Environment Impact Assessment Notification, 2006 and 2009 and subsequent amendments thereto under various MoEF, Govt. of India circulars thereunder subject to the following stipulated conditions.

Stipulated Conditions:-

I. GENERAL

- ii) The applicant (Project proponents) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in Form-1, Form-1A and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- iii) The applicant will take statutory clearance/approval / permissions from the concerned authorities in respect of the project as and when required.
- iii) The applicant will submit half-yearly compliance report on post-environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority, (SEIAA, Orissa) on 1st June and 1st December of each calendar year.
- iv) The project proponent shall obtain Periodic Occupancy Renewal Certificate from the competent authority at an interval of 3 to 5 years as per the provisions of National Building Code (NBC) 2005.
- v) The project proponent shall comply all the conditions stipulated by the Bhubaneswar Development Authority (BDA) in its building plan approval letter issued vide letter No. BP 2B-3415/10/7368/BP/BDA, Bhubaneswar, dated 26.04.2011.
- vi) The project proponent shall provide 16 (sixteen) mtrs. wide open space all around the 02 (two) nos. of B+G+19, 16 mtrs wide open space for 1 (one) no. of B+G+24, 13 mtrs wide open space for 17 nos. of B+G+14, and 12 mtrs wide open space for 06 mtrs. of B+G+12 mtrs. of building blocks for movement of fire engine as per provisions of National Building Code (NBC)-2005 and as recommended by Fire Prevention Officer, Orissa.
- vii) The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer Orissa.
- viii) The project proponent shall comply to all the conditions stipulated by the Air Port Authority of India in its NOC for height clearance issued vide letter No. AAHER/NOCC/274/10/200-202 dated 07.02.2011.
- ix) The applicant will adopt the prescribed norms and standards provided in the National Building Code of India, 2005, specially relating to:
 - a) Fire protection and life safety of occupants of the buildings.
 - b) Safety of personnel during construction, operation and demolition of buildings.
 - c) Day lighting and natural ventilation of buildings.
 - d) Safety from electrical fire, shock and lightning of the buildings.
 - e) Air-conditioning, heating and mechanical ventilation of the buildings.

2

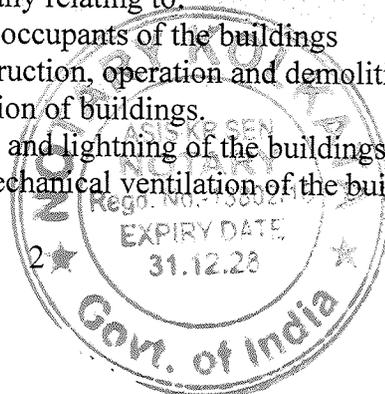


Based on the information/documents and clarifications provided by the proponent and on recommendation of SEAC, Orissa the State Environment Impact Assessment Authority. Orissa hereby accords Environmental Clearance in favour of the project for a period of 5 (five) years under the provisions of Environment Impact Assessment Notification, 2005 and 2009 and subsequent amendments thereto under various MoEF, Govt of India circulars thereunder subject to the following stipulated conditions.

Stipulated Conditions: -

1. GENERAL

- i) The applicant (Project proponents) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in Form-1 Form-1A and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.
- ii) The applicant will take statutory clearance/approval permissions from the concerned authorities in respect of the project as and when required.
- iii) The applicant will submit half-yearly compliance report on post-environmental monitoring in respect of the stipulated terms and conditions in the Environmental Clearance to the State Environmental Impact Assessment Authority, (SEIAA Orissa) on 1st June and 1st December of each calendar year.
- iv) The project proponent shall obtain Periodic Occupancy Renewal Certificate from the competent authority at an interval of 3 to 5 years as per the provisions of National Building Code (NBC) 2005.
- v) The project proponent shall comply all the conditions stipulated by the Bhubaneswar Development Authority, (BDA) in its building plan approval letter issued vide letter No. BP 2B-3415/10/7398/BP/BDA, Bhubaneswar dated 26.04.2011
- vi) The project proponent shall provide 16 (sixteen) mtrs. wide open space all around the 02 (two) nos. of B+G+19, 16 mtrs. wide open space for 1 (one) no. of B-G+24 13 mtrs wide open space for 17 nos. of B+G+14, and 12 mtrs wide open space for 06 mtrs. of B+G+12 mtrs. of building blocks for movement of fire engine as per provisions of National Building Code (NBC)-2005 and as recommended by Fire Prevention Officer, Orissa
- vii) The project proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Orissa.
- viii) The project proponent shall comply to all the conditions stipulated by the Air Port Authority of India in its NOC for height clearance issued vide letter No. AAJ/ER/NOC/ (274/10)/200-202 dated 07.02.2011
- ix) The applicant will adopt the prescribed norms and standards provided in the National Building Code of India, 2005, specially relating to:
 - a) Fire protection and life safety of occupants of the buildings
 - b) Safety of personnel during construction, operation and demolition of buildings
 - c) Day lighting and natural ventilation of buildings.
 - d) Safety from electrical fire, shock and lightning of the buildings.
 - e) Air-conditioning, heating and mechanical ventilation of the buildings.



152 151

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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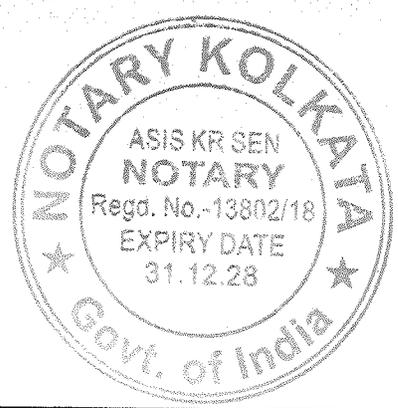
- f) Acoustics and noise control of the buildings.
- g) Maintenance and functioning with emissions from generators supplying power to common space/ residential area in case of power failure along with fuel handling /storage.
- h) Installation of lifts and escalators in the buildings.
- i) Water supply, drainage and sanitation including solid waste management
- j) Landscaping of surrounding areas of the buildings.

II. SPECIAL CONDITIONS

A) CONSTRUCTION PHASE

- i) No ground water shall be extracted for the project work at any stage during construction phase.
- ii) Provision shall be made for the housing of construction labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iii) A First-Aid Room will be provided in the project site both during construction and operation of the project.
- iv) All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/ landscape development within the project site.
- v) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and will be disposed off taking the necessary precautions for general safety and health aspects of people only in approved sites with the approval of competent authority.
- vi) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- vii) Construction spoils, including bituminous material and other hazardous materials should not be allowed to contaminate watercourses, ground water and dump sites by following safe dumping/disposal practice as per statutory rules and norms with necessary approval of the Orissa Pollution Control Board.
- viii) The diesel generator sets to be used during construction phase shall be low sulfur diesel type and should conform to Environment (Protection) Rules 1986 prescribed for air emission and noise standards.
- ix) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from the Chief Controller of Explosives shall be taken.
- x) Vehicles used for bringing construction materials to the site should be in good condition and should have a pollution check certificate, covered and conform to statutory air and noise emission standards and should be operated only during non-peak hours of the day.
- xi) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ OPCB.

3



151 A [TYPED COPY]

M/S ZESTATE
PVT. LTD

MODIFICATION OF GROUP HOUSING PROJECT "Z ESTATE"
AT KALARAHANGA, BHUBHANESHWAR, ODISHA

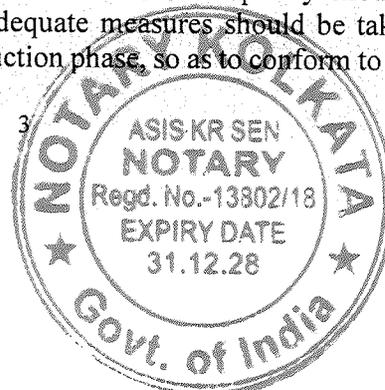
TERMS OF
REFERENCE

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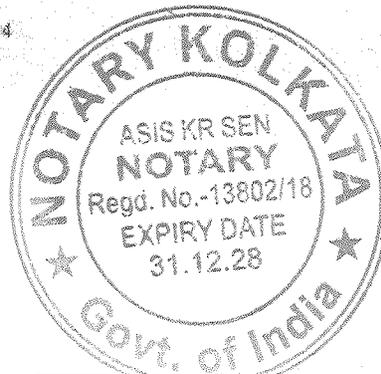
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M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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- xii) Fly ash bricks should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and as amended thereafter.
- xiii) Ready mixed concrete would be used in building construction.
- xiv) Storm water control and its re-use should be as per CGWB and BIS standards for these applications.
- xv) Water demand during construction should be optimized by adopting best practices without compromising quality.
- xvi) Separation of grey and black water supplies and collection should be done by the use of dual plumbing line. Grey and black water should be treated separately before recycling/reuse.
- xvii) Fixtures for showers, toilet flushing and drinking water should be of low flow type and restricted to requirements by use of aerators, avoiding wastage pressure reducing devices or sensor based controls.
- xviii) Use of glass may be maximum upto 40% of total outer wall area to reduce the energy consumption and load on air-conditioning. If necessary, high quality double glass with special reflective coating may be used in the windows.
- xix) Roof should meet the prescribed requirement as per Energy Conservation Building Code by using appropriate thermal insulation material.
- xx) Opaque wall should meet prescriptive requirements as per Energy Conservation Building Code.
- xxi) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments etc. as per National Building Code of India, 2005 including protection measures from lightning etc.
- xxii) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase to avoid disturbances and pollution to the surroundings.

B. OPERATION PHASE.

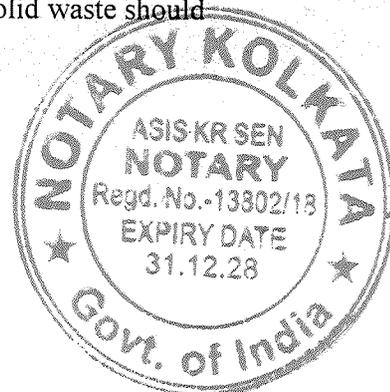
- i) The installation of the Sewage Treatment Plant (STP) should be certified by a competent agency and a report in this regard should be submitted to the SEIAA, Orissa before the project is commissioned for operation. Treated effluent from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Orissa State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.
- ii) The STP sludge should not be dried nor incinerated within the project site and should be disposed off as per the norms of SPCB, Orissa.
- iii) The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning /under performance of sewerage disposal system of the project. To achieve this, a stand-by STP with similar capacity should be installed to be put into service during the maintenance /over hauling of the original STP.
- iv) The solid waste generated should be properly collected and segregated. Wet garbage should be disposed off to composted and dry/ inert solid waste should



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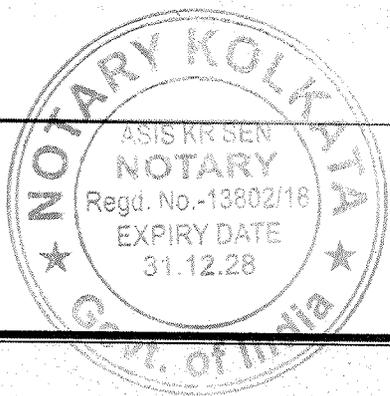
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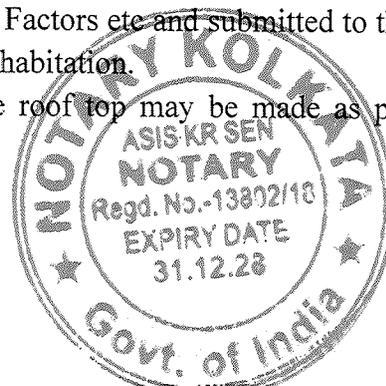
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M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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- be disposed off to a certified agency for safe disposal. Necessary approval/permission may be obtained from the concerned authorities.
- v) Diesel power generating sets proposed as source of back-up power for lifts elevators and common area illumination during operation phase should be of enclosed type and conform to Environment Protection (EP) Rules 1986. The height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets put together and should be more than the highest building height. Low sulfur diesel should be used. The location of the DG sets may be decided in consultation with Orissa State Pollution Control Board. Care may be taken to avoid disposal of smoke (pollutants from DG sets in the residential area.
 - vi) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the sites shall be restricted to the permissible levels to comply with the prevalent regulations.
 - vii) Green-belt & avenue Plantation of trees over at least 20% of the site area shall be done using native tree species/ plants improving greenery & keeping in view aesthetics considerations in the whole campus. Professional landscape architects should be engaged to design the green layout to provide for multi tier plantation and green fencing all around, mitigating various environmental parameters like dust, noise, emissions etc. and pathway for joggers.
 - viii) Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the run off, pretreatment must be done to remove suspended matter, oil, grease and other soluble components as per norms. Rainwater recharge should be through specified recharge pits of required numbers. The surface runoff water should be stored suitably treated and reused for landscaping. The bore-well for rainwater recharging should be kept at least 5 mtrs. above the highest ground water table. The technology may preferably be adopted from a commercial firm with performance guarantee.
 - ix) Weep holes in the compound walls shall be provided to ensure natural drainage of excessive rain water in the project area during the monsoon period after the harvesting operations. Care must be taken so that there is no water logging in the territory and drainage is 100%.
 - x) The ground water level and its quality should be monitored regularly in consultation with Central /State Ground Water Authority.
 - xi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Traffic congestion shall be avoided inside the project site. The area ear marked for parking shall not be used for any other purpose. Alternate entry and exit must be provided to handle excess traffic and emergency situations.
 - xii) A Report on the energy conservation measures conforming to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submitted to the SEIAA, Orissa in three months time before operation/habitation.
 - xiii) Provisions of solar hot water storage/supplies at the roof top may be made as per statutory norms of CPCB/MoEF/SPCB, Orissa.



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M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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- xiv) Energy conservation measures like installation of CFLs/ TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/ sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid toxic contamination. Use of solar panels may be adopted to the maximum extent possible, especially for street lights.
- xv) The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- xvi) The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes like Annual allocation and maintenance /monitoring etc. and expenditure for this fund should be reported to the SEIAA, Orissa.
- xvii) The need of the local people should be appropriately addressed in the CSR activities to be undertaken in the area. An action plan in this regard should be prepared and submitted.

The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

[Signature]
Member Secretary

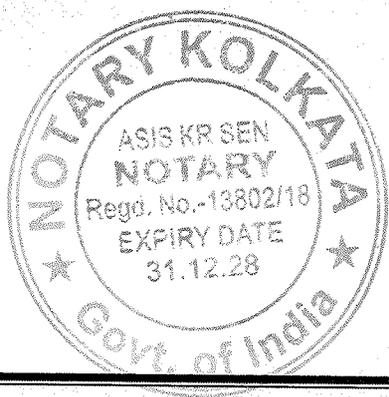
Memo No _____ /Dt _____

Copy to

1. Ministry of Environment & Forests, Govt. of India, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi for kind information.
2. Principal Secretary, Forests & Environment Dept., Government of Orissa for kind information.
3. Chairman, State Pollution Control Board, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for kind information.
4. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A-31, Chandrasekharipur, Bhubaneswar for kind information.
5. Chairman, Central Pollution Control Board, CBO-cum-office Complex, East Anjan Nagar, New Delhi-110032 for kind information.
6. Vice Chairman, Bhubaneswar Development Authority, Akash Sobha Building, Secretariat Marg, Bhubaneswar-751001 for kind information.
7. Chief Engineer, PH (Urban), Orissa, 1st Floor, Heads of Dept. Building, Bhubaneswar-751001 for kind information.
8. Chief Engineer-cum-Member Secretary, Orissa Water Supply & Sewerage Board, Satya Nagar, Bhubaneswar-751007 for kind information.
9. Collector & District Magistrate, Khurda for kind information and necessary action.
10. Chairman/Member/Member Secretary, SEIAA for kind information.
11. Chairman, SEAC/Secretary, SEAC, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
12. Guard file for record.

[Signature]
Member Secretary

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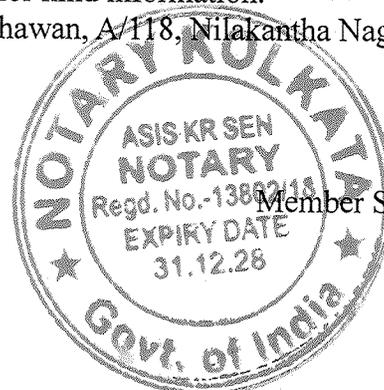
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12. Guard file for record...



Sd-

Member Secretary.

156 155

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-XVI: NOC for Extraction of Ground Water

Received on 05/10/10

CENTRAL GROUND WATER BOARD



No. 22/SER/CGWA/2010-1524
 Government of India
 Ministry of Water Resources
 South Eastern Region
 Bhudhawan
 Kharagpur
 Bhubaneswar 751030
 Orissa
 Date :- 27.09.2010

To
 M/s Z ESTATE PRIVATE LIMITED,
 M4/34, Acharya Vihar
 Bhubaneswar - 751 003.

Sub: NOC for withdrawal of Ground Water for industrial use.

Ref: your application letter No. dt:- 16.09.2010

With reference to your letter cited above, you are required to submit the application form in prescribed format (to be downloaded from CGWA Website- www.cgwb.gov.in) alongwith the following reports/documents for withdrawal of ground water for industrial / infrastructural use.

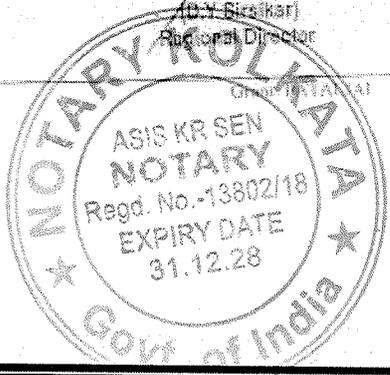
1. The detailed hydrogeological investigation report, depicting the present ground water condition in and around the area along with the chemical quality, has to be submitted to CGWA. You need to have a detailed site specific hydrogeological investigation keeping in view of your present water requirement / utilization for the plant from ground water sources and further demand for future expansion thereof. Hydrogeological report should clearly depict the ground water resources availability within a radius of 10km of your site taking into consideration details of ground water withdrawal made by different major and medium/small scale ancillary industries etc. The relevant hydrogeological data, thematic maps on hydrogeology, depth to water table, water table contour and aquifer parameters based on pumping test data and chemical analysis data should also be incorporated in the detailed hydrogeological report.
2. You are also to submit a copy of referral letter from MoEF or any other statutory organization as the same is mandatory for scrutiny of your proposal.

Hence, you are advised to comply with the above and submit the above documents/reports in duplicate for further consideration of the proposal by CGWA.

Yours faithfully,

(D. V. Sirsikar)
Regional Director

Telephone No: (0674) - 2350332, 2350342
Fax No: (0674) - 2350332



153A Type copy

M/S ZESTATE
PVT. LTD

MODIFICATION OF GROUP HOUSING PROJECT "Z ESTATE"
AT KALARAHANGA, BHUBHANESHWAR, ODISHA

TERMS OF
REFERENCE

ANNEXURE-XVI: NOC for Extraction of Ground Water

CENTRAL GROUND WATER BOARD

No.-5-22/SER/CGWA/2010-1525

Government of India
Ministry of Water Resources
South Eastern Region
Bhujal Bhawan
Khandagiri
Bhubaneswar 751030
Orissa
Date:- 27/28.09.2010

To,
M/s Z ESTATE PRIVATE LIMITED,
M4/34, Acharya Vihar,
Bhubaneswar – 751 003

Sub: NOC for withdrawal of Ground Water for Industrial use.
Ref: your application letter- Nil dt:- 16.09.2010

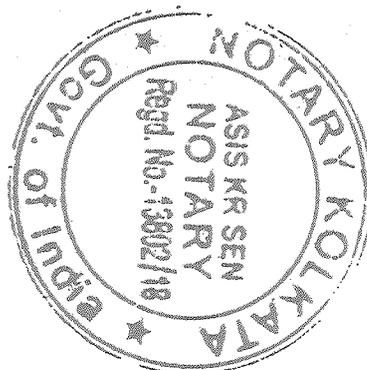
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Hence, you are advised to comply with the above and submit the above documents/reports in duplicate for further consideration of the proposal by CGWA.



Yours faithfully
(D.Y Sirsikar)
Regional Director

M/s ZESTATE
PVT. LTD.

MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT
KALARAHANGA, BHUBANESWAR, ODISHA

TERMS OF
REFERENCE



संरक्षित जल - सुन्दर सुशहज कल
CONSERVE WATER - SAVE LIFE

Regional Director

No. 21-4(287)/SER/CGWA/2011-140

To

M/s Z Estates Pvt Ltd
M 4/34, Acharya Vihar,
Bhubaneswar 751013
Orissa

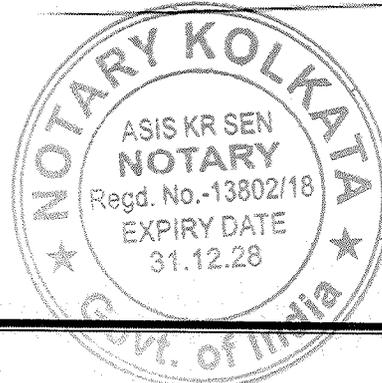
Sub: - NOC for ground water withdrawal in respect of M/s Z Estates Pvt Ltd., for their proposed Residential cum Commercial complex at Village Kalarahanga, Block Bhubaneswar, District Khurda, Orissa -reg.

Sir,

Kindly refer to your application dated 08.12.2010 on the above-cited subject. Based on recommendations of Regional Director, CGWB, South Eastern Region, Bhubaneswar vide their office letter No. 5-22/SER/CGWA/2010 - 1874 dated 21-12-2010 and further deliberations on the subject, the NOC of Central Ground Water Authority for ground water withdrawal is hereby accorded to M/s Z Estates Pvt Ltd., for their proposed Residential cum Commercial complex at Village Kalarahanga, Block Bhubaneswar, District Khurda, Orissa. The NOC is, however subject to the following conditions:-

1. The firm may abstract 1100 m³/day (and not exceeding 4,01,500 m³/year) of ground water through proposed eight (8) borewells only. No new/additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA. Treated water is also to be utilized.
2. The wells to be fitted with water meter by the industry at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, at least once in a month. The ground water quality to be monitored twice in a year during pre-monsoon and post-monsoon periods.
3. M/s Z Estates Pvt Ltd., shall in consultation with the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar implement ground water recharge measures to the tune of 86,000 m³/year as proposed for augmenting the ground water resources of the area. The completion of the artificial recharge structures may be done within six months period from the date of issuance of this letter.

Jamnagar House, Man Singh Road, New Delhi 110 011.
Tel: (011) 23380285, 23384973, 2307 2698 Fax: (011) 23265743, Web: cgwb.gov.in, e mail: isrc@cgwbodnic.in



158 157

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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4. The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board, South Eastern Region, Bhubaneswar for verification and under intimation to this office.
5. The firm at its own cost shall install piezometers at suitable locations and execute ground water regime monitoring programme in and around the project area on regular basis to keep a close watch on water level trends for taking suitable measures to keep water level under controlled conditions, in consultation with the Central Ground Water Board, South Eastern Region, Bhubaneswar.
6. The ground water monitoring data in respect of S. No. 2 & 5 to be submitted to Central Ground Water Board, South Eastern Region, Bhubaneswar on regular basis at least once in a year.
7. The firm shall ensure proper recycling and reuse of wastewater after adequate treatment.
8. Action taken report in respect of S. No. 1 to 7 may be submitted to CGWA within one year period.
9. The permission is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 8.

Yours faithfully

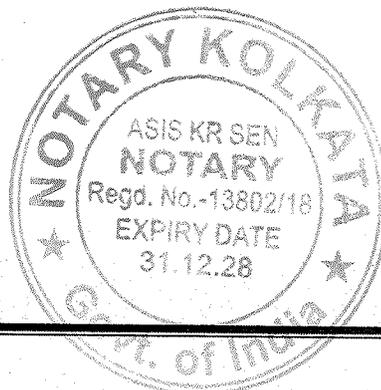
[Signature]
25/12/11

Regional Director

Copy for information to:

1. The Asst. Town Planner, Bhubaneswar Development Authority, Bhubaneswar, Orissa. This has reference to your letter No. 17245/BP/BDA, Bhubaneswar dated 8.10.2010.
2. The Regional Director, CGWB, South Eastern Region, Bhubaneswar. This has reference to your letter No. 5-22/SER/CGWA/2010 - 1974 dated 21-12-2010.
3. The TS to Chairman, CGWB, NH-IV, Faridabad.

Regional Director



159 158

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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Annexure-XVII: Power Supply Connection



CENTRAL ELECTRICITY SUPPLY UTILITY OF ORISSA
Head Office: IDCO House, 2nd Floor, Bapatla, Bhubaneswar - 751 022
Telephone: 244 031, 2543721, Fax: 2543133

To, M/s. CESUTECHZ Estate 421/ 9316

DT- 31/3/14

The Director (Comm.), GRIDCO, Bhubaneswar.

Subject: Release of power for power supply to 13.5MVA load in phased manner at 33KV to the housing project over BDA permitted Plot No-245, 242, 239, 241, 234, 237, 132, 136, 134 etc at Kalarahanga, BBSR of M/s Z Estate Pvt. Ltd for residential and commercial purpose under electrical section Kanam Vihar (Existing consumer No-1323 S.I)

Ref: Letter No-67, dt-13.11.14 of SE EC-1, BBSR.

With reference to the above, please find enclosed herewith the application Form-2 duly signed by the applicant for availing power supply to 13.5MVA load in following phased manner at 33KV to the housing project over BDA permitted Plot No-245, 242, 239, 241, 234, 237, 132, 136, 134 etc at Kalarahanga, BBSR of M/s Z Estate Pvt. Ltd for residential and commercial purpose under electrical section Kanam Vihar (Existing consumer No-1323 S.I).

- > 1st phase = 3.0 MVA in December - 2014.
- > 2nd phase = 6 MVA in December - 2016.
- > 3rd phase = 5.5MVA (Total) in December - 2019.
- > 4th phase = 13.5 MVA in December-2022.

As regards to source of supply, it is proposed to provide power at 33KV from 220/132/33KV Chandika Grid S/S on proposed 33KV Feeder through U.G.Cable with provision of 33KV Bay at their own cost and arrangement.

It is requested to release power of 13.5MVA load in favour of M/s Z Estate Pvt. Ltd in phased manner if feasible, for further action at this end.

Yours faithfully,

Encl: As above (Form No-2)

Sr. General Manager (Tech)
CESU, BBSR

Memo No- 9317 (3)

Dated- 31/3/14

Copy to the GM, EC-1, BBSR / Manager (Exec), BODD-IL, BBSR/ CGM (Comm), CESU BBSR for information and necessary action.

Sr. General Manager (Tech)
CESU, BBSR

Memo No- 9318 (3)

Dated- 31/3/14

Copy to the Sr. GM (TP&C), OPIC, BBSR / CGM (O&M) OPIC, BBSR / Sr. GM (TP), OPIC, BBSR for information and necessary action.
Encl: as above

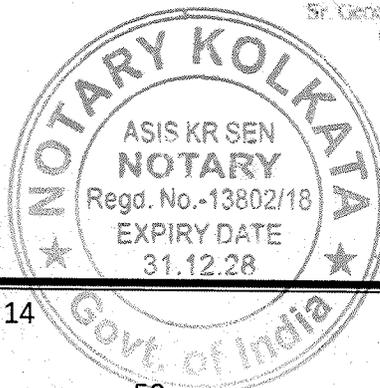
Sr. General Manager (Tech)
CESU, BBSR

Memo No- 9319

Dated- 31/3/14

Copy to the M/s Z Estate Pvt. Ltd, M/4/54, Acharya Vihar, BBSR-13 for information & necessary action.

Sr. General Manager (Tech)
CESU, BBSR



158 A [TYPED COPY

M/S ZESTATE
PVT. LTD

MODIFICATION OF GROUP HOUSING PROJECT "Z ESTATE"
AT KALARAHANGA, BHUBHANESHWAR, ODISHA

TERMS OF
REFERENCE

Annexure-XVII: Power Supply Connection
CENTRAL ELECTRICITY SUPPLY UTILITY OF ORISSA
Head Office IDCO Tower, Janpath, Bhubaneswar-751022
Telephone – 43721 Fax: 2543121

No. CEBUNTECH/Z Estate/431/9316

Dt- 31/03/14

To,

The Director
GRIDOO, Bhubaneswar.

Sub: Release of power for power supply so 13.5MVA load in phased manner at 33KV to the housing project over BDA permitted Plot No-245, 242, 239, 241, 234, 237, 132, 236, 134 etc at Kalarahanga, BBSR Of M/s Z Estate Pvt. Ltd. for residential and commercial purpose under electrical section Kanae Vihar (Existing consumer No-1323 S.1)

Ref: Letter No-67, -13.1.14 of SE EC-LHBSK

Sir,

With reference to the above, please find enclosed herewith the application Form-2 duly signed by the applicant for availing power supply to 13.3VIVA load in following phased manner at 33KV to the housing project over BDA permitted Plot No-245, 242, 239, 241, 234, 237, 132, 236, 134 etc at Kalarahanga, BBSR of M/s Z Estate Pvt. Ltd. for residential and commercial purpose under electrical section Kanae Vihar (Existing consumer No-1323 S.1)

- 1st phase = 3.0 MVA in December-2014
- 2nd phase = 6 MVA in Deamber-2016
- 3rd phase = 9.5MVA(Total) in December-2019
- 4th phase = 13.5 MVA in December-2022

As regards to source of supply, it is proposed to provide power at 33KV from 220/132/33KV Chandaka Grid S/S on proposed 33KV feeder through U.G. Cable with provision of 33KV Bay at their own oust and arrangement.

It is requested to release power of 13.5MVA load in favour of MS Z Estates Pvt. Ltd in phased manner, if feasible, for further action at this end.

Yours faithfully

Encl: As above (Fom No-2)

Sr. General Manager (Tech)
CESU, BBSR
Dated – 31/3/14

Memo- 9317 (3)

Copy to the GM, EC-1, BBSR /Manager (Elcct) BCDD-II, BBSR/CGM (Comm),
CESU BBSR for Information sad necessary action.

Sr. General Manager (Tech)
CESU, BBSR
Dated – 31/3/14

Memo- 9318 (3)

Copy to the St. GM (TP&C), OPTCL, BBSR / CGM (O&M) OPTCL, BBSR / Sr.
GM OPTCL, BBSR for information and necessary action.

Encl: as above

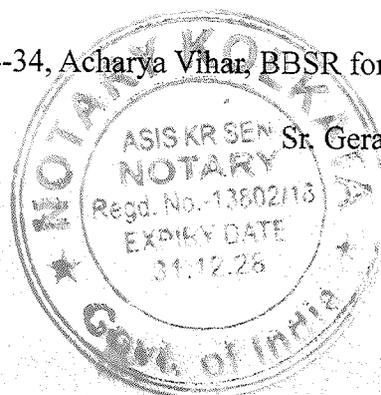
Sr. General Manager (Tech)
CESU, BBSR

Memo No. 9319

Copy to the M/s Z Estates Pvt. Ltd. M/4-34, Acharya Vihar, BBSR for formation &
necessary action.

Dated – 31/3/14

Sr. Geraal hanger (Tech)
CESU, BENR



Annexure-XVIII: EIA Consultants Certification



National Accreditation Board
for Education and Training

NABET/EIA/03/12/013
The Managing Partner
Ind Tech House Consult
G-8/6, Ground Floor, Sector - 11,
Rohini, New Delhi - 110089
[Kind Attention: Mr. Suman Banerjee]

March 30, 2012

Dear Sir,

QCI - NABET Scheme for Accreditation of EIA Consultant Organization

This is with reference to your application for QCI - NABET Accreditation as EIA Consultant Organization.

We are pleased to inform you that based on Document & Office Assessments, the Accreditation Committee has recommended conditional accreditation of Ind Tech House Consult as per the scope given in Annexure I (A & B). Also find attached herewith the following:

- a. Detailed terms & conditions of accreditation (Annexure II).
- b. Results of various aspects of assessment of your organization (Annexure III).
- c. The format which is to be followed for mentioning the names of the experts involved in the EIA reports prepared by you (Annexure IV).

Please confirm the correctness of spellings of the names of the experts mentioned in Annexure I B. Please check the QCI website for the Minutes of the Accreditation Committee Meeting held on February 14, 2012 for observations related to your application for compliance. You are also advised to visit QCI website to check (clarifications on the Scheme issued from time to time for necessary actions at your end.

The accreditation of your organization will be for a period of three years starting January 31, 2012. The annual renewal of the accreditation will be confirmed after surveillance assessment every year. Surveillance assessments will be conducted to ensure compliance with NABET Scheme including the details mentioned in your Quality Manual and the terms & conditions mentioned in Annexure II.

May we request you for an early payment of the annual fees and your confirmation of acceptance of the terms and conditions attached. This will enable us to issue you the requisite accreditation certificate.

We thank you for your esteemed support in making this scheme successful and for your participation in this national cause.

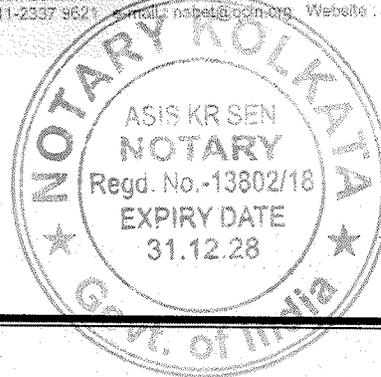
Thanks and best regards,

Yours sincerely,

(Vipin Sahni)
Director

Page 1 of 11

Institution of Engineers Building, 2nd Floor, Bahadur Shah Zafar Marg, New Delhi-110 002, India
Tel : +91-11-2337 9321, 2337 9057 Fax : +91-11-2337 9621 Email : nabet@qcin.org Website : www.qcin.org



Annexure-XVIII: EIA Consultants Certification

National Accreditation Board
for Education and Training

NABET

NABET/EIA/03/12/013
The Managing Partner
Ind Tech House Consult
G-8/6, Ground Floor, Sector-1,
Rohini, New Delhi-110089
[Kind Attention: Mr. Suman Banerjee]

March 30, 2012

Dear Sir,

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This is with reference to your application for QCI-NABET Accreditation as EIA Consultant Organization.

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- Detailed terms & conditions of accreditation (**Annexure II**).
- Results of various aspects of assessment of your organization (**Annexure III**).
- The format which is to be followed for mentioning the names of the experts involved in the EIA reports prepared by you (**Annexure IV**).

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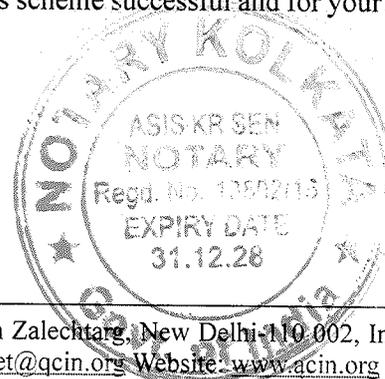
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May we request you for an early payment of the annual fees and your confirmation of acceptance of the terms and conditions attached. This will enable us to issue you the requisite accreditation certificate.

We thank you for your esteemed support in making this scheme successful and for your participation in this national cause.

Thanks, and best regards,

Yours sincerely,
(Vipin Sahni)
Director



Page 1 of 11

167 160

M/s ZESTATE
PVT. LTD.

MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT
KALARAHANGA, BHUBANESWAR, ODISHA

TERMS OF
REFERENCE

OCI - NABET Scheme for Accreditation of EIA Consultant Organizations

Annexure I-A

Name of the Consultant: **Ind Tech House Consult**

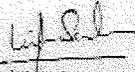
G-8/6, Ground Floor, Sector - 11,
Rohini, New Delhi - 110089

Sectors Approved - 02 Nos.

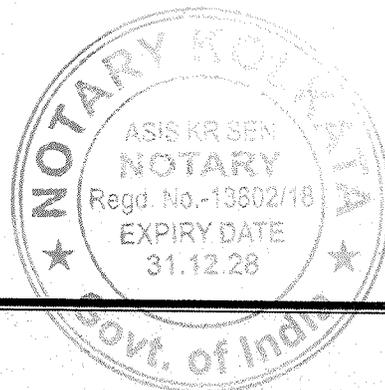
Sl. No.	Sector No.	Name of Sector	Category A/B
1	37	Common Municipal Solid Waste Management Facility (CMSWMF)	D
2	38	Building and large construction projects including shopping malls, multiplexes, commercial complexes, housing estates, hospitals, institutions	B

Total = 02 Sectors*

*Sectors allocated to individual EIA Coordinators are mentioned in Annexure I-B.
Since Ind Tech House Consult has scored less than 60 % marks in Office Assessment,
the organization has qualified for Accreditation as Cat. B Consultant only.


(Vipin Sahn)
Director

Page 2 of 11



160 A [TYPED COPY]

M/S ZESTATE
PVT. LTD

MODIFICATION OF GROUP HOUSING PROJECT "Z ESTATE"
AT KALARAHANGA, BHUBHANESHWAR, ODISHA

TERMS OF
REFERENCE

QCI-NABET Scheme for Accreditation of EIA Consultant Organizations

Annexure I-A

Name of the Consultant: Ind Tech House Consult

G-8/6, Ground Floor, Sector-1 11,
Rohini, New Delhi-110089

Sectors Approved - 02 Nos.

Sl. No.	Sector No.	Name of Sector	Category A/B
1	37	Common Municipal Solid Waste Management Facility (CMSWMF)	B
2	38	Building and large construction projects including shopping malls, multiplexes, commercial complexes, housing estates, hospitals, institutions	B

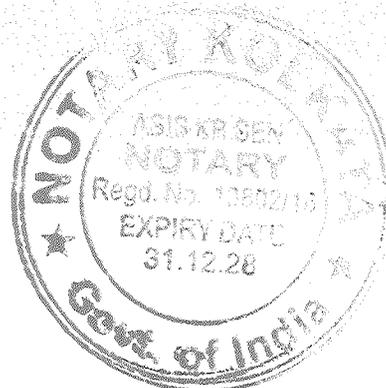
Total: 02 Sectors

**Sectors allocated to individual EIA Coordinators are mentioned in Annexure I-B*

Since Ind Tech House Consult has scored less than 60% marks in Office Assessment, the organization has qualified for Accreditation as Cat. B Consultant only.

(Vipin Sahni)

Director



162 161

M/S ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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VEXIL BUSINESS PROCESS SERVICES



Certificate

This Certificate is issued to

Ind Tech House Consult
G 8/5, Ground Floor
Sector 11, Rohini
Delhi 110 085
INDIA

who have implemented a Quality Management System, which meets the requirements laid down in ISO 9001:2008, with the following scope:

- Services related to
- i) Environmental Impact Assessment;
 - ii) Water / Waste Water Management;
 - iii) Municipal Waste Management; and
 - iv) Environmental Audits

Certificate No : Q9119334(A)
Original Issue : 14 May 2013
Latest Issue : 14 May 2013
Valid Till : 13 May 2016

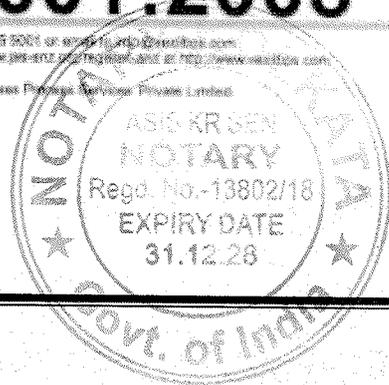
Signature

for Vexil Business Process Services Private Limited



ISO 9001:2008

To check the validity of the certificate, please call +91 11 2670 2001 or email info@vexilias.com
The validity of the certificate can also be verified at <http://www.ias-anz.com/Registration> and at <http://www.vexilias.com>.
Coloured reproduction of this certificate is not permitted.
Upon request, the Certificate shall be returned to Vexil Business Process Services Private Limited.



163 182

M/s ZESTATE PVT. LTD.	MODIFICATION OF GROUP HOUSING PROJECT "ZESTATE" AT KALARAHANGA, BHUBANESWAR, ODISHA	TERMS OF REFERENCE
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VEXIL BUSINESS PROCESS SERVICES



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G 8/6, Ground Floor
Sector 11, Rohini
Delhi 110 085
INDIA

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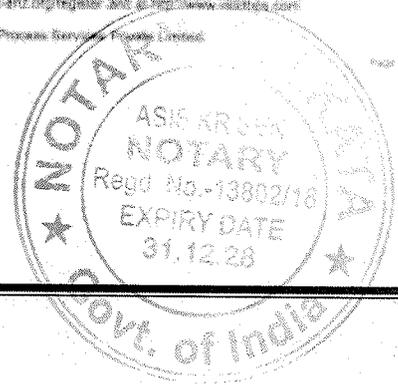
Signature

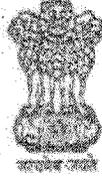
For Vexil Business Process Services Private Limited



ISO 9001:2008

To check the validity of the certificate, please call +91 11 2876 3001 or email to info@vexilbss.com
 The validity of the certificate can also be verified at <http://www.ias-anz.org/register.asp> and <http://www.vexilbss.com>
 Coloured reproduction of this certificate is not permitted.
 Upon request, the Certificate shall be returned to Vexil Business Process Services Private Limited.





166 163

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA), ODISHA.

(Constituted vide Order No. S.O. 3387 (E) Date 15.12.2015 of Ministry of Environment Forest & CC, Govt. of India,
Under Environment Protection Act, 1986.)

Qr. No. 5RF-2/1, Unit - IX, Bhubaneswar - 751022

E-mail : seiaaorissa@gmail.com

Ref. No. SEIAA/

827

Date 23.02.2016

From

Shri S. B. Samant, IFS
Member Secretary,
State Environment Impact Assessment Authority, (SEIAA)
Odisha, Bhubaneswar

To

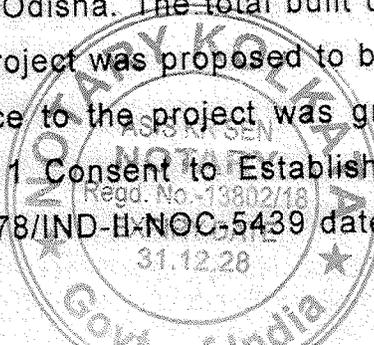
Sri Tapan Kumar Mohanty,
Managing Director,
Z-Estates Pvt. Ltd, M4/34,
Acharya Vihar, Bhubaneswar

Sub: Amendment of Environmental Clearance for modernization for construction of housing colony and shopping mall (Phase-II) of M/s Z-Estae Pvt. Ltd. at Kalarahanga, Bhubaneswar, Odisha with total built up area 2,75,042 M2..

Sir,

This has reference to your letter no ZEPL/14-15/006 DATED 10.09.2014, and subsequent clarification letter no. ZEPL/14-15/025 dated 12.01.2015, letter no. 109-46/EPE dated 17.03.2015, dated 13.07.2015 & dated 20.10.2015 from MoEF & CC, Regional Office, Chandrasekharpur, Bhubaneswar on the above mentioned subject I am directed to say that the State Environment Impact Assessment Authority (SEIAA), Odisha have considered the Environmental Clearance amendment application of M/s Z-Estates Pvt. Ltd. in its meeting held on dated 22.01.16 & 25.01.16.

M/s Z-Estates Pvt. Ltd. has proposed modernization cum expansion for construction of housing colony and shopping mall (Phase-I & Phse-II) located at Kalarahanga, Bhubaneswar, Odisha. The total built up area of the project is 2,75,042 sqm. Initially, the project was proposed to be developed in single phase. Environmental Clearance to the project was granted vide letter no. SEIAA-261/10 dated 16.08.2011 Consent to Establish (NOC) was granted from OSPCB vide letter no. 2478/IND-II-NOC-5439 dated 16.02.2012. Out of



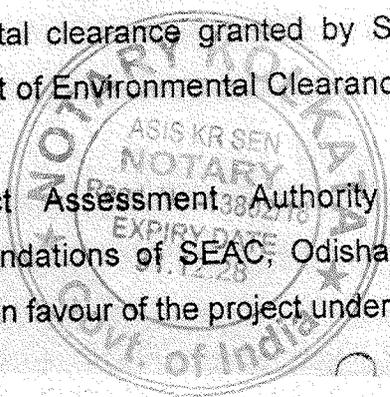
165 164

total area, 97346.90 m² area, comprising of 444 dwelling Units, Basement, Club House with swimming pool and Dormitory block have been constructed. Due to sluggish market demand and financial constraints the project proponent has decided to develop the project in phases. The present application is for Phae I consisting existing building (as a part of the earlier EC) and modified phase II of the project proposed to be developed. Future expansion will be done at later stage (Project proponent will apply separately for revised EC for expansion of this project). The details of phase-I, Phase II have been work out by the proponent as follows.

	As per EC letter for Entire project	As per revised proposal (Phase-I + Phase-II)
Plot Area	105962.07 sqm	123717 sqm
Total built up area	244092.73 sqm	Phase-I (completed)-73958.9 sqm Phase-II (proposed)-111945.98 sqm. Total=185904.880 sqm
Total no. of blocks	26 nos	15 nos
Total water requirement	773.52 KLD	984.51 KLD
Total waste water	928.2 KLD	710.84 KLD
Total Solid waste Generation	2.55 TPD	2.44 TPD
Power Requirement	11 MW	5.2 MW

Considering the information/documents furnished and additional clarifications provided during discussion made with the project proponent and along with consultant M/s Ind Tech House Conssult, Delhi, compliance verification certification from Regional Office, MoEF&CC, Govt. of India of earlier Environmental Clearance conditions, the State Expert Appraisal Committee (SEAC) after due considerations of the relevant documents submitted by the project proponent and compliance verification certification from Regional Office, MoEF&CC, Govt. of India observed that modification of Environmental Clearance proposal is well within the permissible built up area as per earlier environmental clearance granted by SEIAA and have recommended the project for Amendment of Environmental Clearance.

The State Environment Impact Assessment Authority (SEIAA) after considering the proposal and recommendations of SEAC, Odisha hereby accords Amendment of Environmental Clearance in favour of the project under the provisions of



166 165

EIA Notification 2006 and 2009 and subsequent amendments thereto under various MoEF&CC, Govt. of India circulars subject to strict compliance of the terms and conditions stipulated remaining unaltered as given vide E.C letter no. SEIAA-261/10 dated 16.08.2011.

Yours faithfully,

[Handwritten Signature]

23.2.16
Member Secretary

Memo No 828/SEIAA /Dt. 23.02.2016
Copy to

1. Ministry of Environment, Forests and Climate Change Govt. of India, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110003 for kind information.
1. Principal Secretary, Forests & Environment Dept., Government of Odisha for kind information.
2. Chairman, State Pollution Control Board, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for kind information.
3. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A-31, Chandrasekharapur, Bhubaneswar for kind information.
4. Chairman, Central Pollution Control Board, CBD-cum-office Complex, East Arjun Nagar, New Delhi-110032 for kind information.
5. Vice Chairman, Bhubaneswar Development Authority, Akash Sobha Building, Secretariat Marg, Bhubaneswar-751001 for kind information.
6. Chief Engineer, PH (Urban), Orissa, 1st Floor, Heads of Dept. Building, Bhubaneswar-751001 for kind information.
7. Chief Engineer-cum-Member Secretary, Orissa Water Supply & Sewerage Board, Satya Nagar, Bhubaneswar-751007 for kind information.
8. Collector & District Magistrate, Khurda for kind information and necessary action.
9. Chairman/Member/Member Secretary, SEIAA for kind information.
10. Chairman, SEAC/Secretary, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
11. Guard file for record.

[Handwritten Signature]

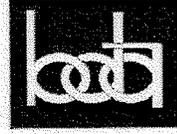
23.2.16

Member Secretary



167 ANNEXURE - 'P-3'

166



FORM X

OCCUPANCY CERTIFICATE

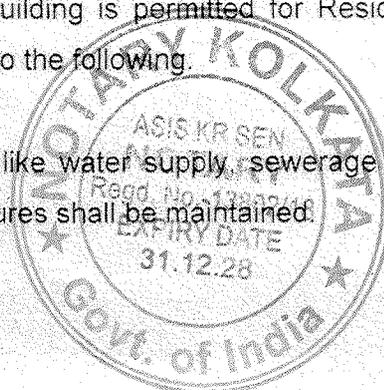
No. 24944/BDA, Bhubaneswar, dated 27 th August, 2016
File No. MBP1B-463/14

Occupancy Certificate(Part) under Regulation-16 of BDA (Planning & Building Standards) Regulations-2008 is issued in favour of 'Z' Estates Pvt Ltd, MD-Tapan Kumar Mohanty & 'Z' Harshapriya Partner-Tapan Kumar Mohanty, Purna Ch Nayak, Dharanidhar Das, represented through GPA holder 'Z' Estate Pvt Ltd.

in respect of existing one block (consisting of 8 nos Wings) of B+G+12 & B+G+14 multi-storey apartment residential building, one dormitory of G+2, one Club of B+G+1 and Changing room (GF) over plot No.86,87,88,89,90,91/4029,91/3465,92,93,94/4021,95,95/4539,100,101/2608,104, 105/4016,105/2727,105/2855,106,106/2609,106/2586,106/2587,106/2585,107,187,84,85,96,132&133KhataNo.725/932,340,725/1303,725/1837,725/931,290,730,725/1297,725/927,725/1390,739,746,728,725/960,747,428, 286 & 88 in Mz-Kalarahanga, Bhubaneswar.

The work of erection, re-erection or for material alternation undertaken in respect of above plots under Mz-Kalarahanga, Bhubaneswar is completed under the supervision of Ar. Bibhuti Bhusan Mohapatra (Empanelment No.CA/2001/27464 & Er. Nagendra Kumar Parida, Structural Engineer (Empanelment No.SER/015/BDA) as per the Completion certificate submitted. On inspection, it is observed the erection, re-erection or alternation undertaken with respect to above plot(s) conform the approved plan and the conditions imposed vide letter No.7398/BDA dt. 26.04.2011 and regularization made vide letter No. 17230/BDA dt. 26.6.16 on deposit of compounding fee of Rs 8,90,733/- (Rupees Eight lakhs Ninety thousand Seven hundred thirty three) only. The Building is permitted for Residential apartment and other ancillary occupancy subject to the following.

1. All physical infrastructures like water supply, sewerage and drainage system and water harvesting structures shall be maintained.



168

167

2. At least 20% of the land shall be developed for plantation and landscaping and maintained.
3. Periodic inspection shall be made by the Fire Authority to ensure the fire safety of the building and compliance with the provisions of fire and life safety requirement (Fire and Lift Safety Part-4 of NBC).
4. Periodic Occupancy renewal certificate shall be issued by the Authority on the recommendation of the Fire Prevention Officer which shall also include safe keep of the fighting installations and equipments for such building.
5. The building shall not be put to any other use other than the purpose for which the permission is accorded.
6. All the stipulated conditions of the NOC given by Deputy Fire Prevention Officer vide certificate No 18/FPW dt. 25.02.2016 shall be strictly adhered to.

By approval of Vice-Chairman

[Signature]
Authorised Officer/ Planning Member
Bhubaneswar Development Authority

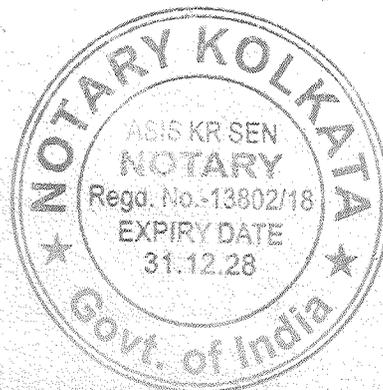
Memo No. 24945 BDA DT.

[Signature]
27.08.2016

Copy submitted to the Asst. Fire Prevention Officer, BBSR/City Engineer, BMC, Bhubaneswar/Manager (Elect), BCDD No.2, Nayapalli, BBSR for information and necessary action.

[Signature]
Authorised Officer/Planning Member
Bhubaneswar Development Authority

?





168

ANNEXURE - (P-4)

Submitted to SEIAA 25/07/18

radha prasad <radhaprasad@zestates.in>

Acknowledgement Slip for TOR application

monitoring-ec@nic.in <monitoring-ec@nic.in>
 To: radhaprasad@zestates.in
 Cc: monitoring-ec@nic.in

Thu, Jul 19, 2018 at 8:39 PM

Acknowledgement Slip for TOR

This is to acknowledge that the proposal has been successfully uploaded on the portal. The proposal shall be examined by MS of SEIAA to ensure that required information has been submitted. An email will be sent for seeking additional information, if any, within 5 working days. Once verified, an acceptance letter shall be issued to the project proponent.

Following should be mentioned in further correspondence

1. Proposal No. : SIA/OR/NCP/28277/2018
2. Category of the Proposal : New Construction Projects and Industrial Estates
3. Project/Activity applied for : 8(b) Townships and Area Development projects.
Construction of Housing Colony and Convenient Shopping (Phase-III) of M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar, Odisha
4. Name of the proposal : Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar, Odisha
5. Date of submission for TOR : 19 Jul 2018
6. Name of the Project proponent along with contact details
 - a) Name of the proponent : Z ESTATE PRIVATE LIMITED
 - b) Mobile No. : 9437558809
 - c) State : Orissa
 - d) District : Khordha
 - e) Pincode : 751013



168 A



Z ESTATES PRIVATE LIMITED

Letter No:

Date: 26.03.2018

To,

The Member Secretary
State Environment Impact Assessment Authority, Odisha
Bhubaneswar.

Sub: Submission of application for Environment Clearance for Proposed Expansion for Construction of Housing Colony and Convenient Shopping (Phase-III) of M/s Z-Estate Pvt. Ltd. at Kalarahanga, Bhubaneswar, Odisha.

Dear Sir,

We are planning for Construction of Housing Colony and Convenient Shopping (Phase-III) of M/s Z-Estates Pvt. Ltd. We have also applied for the clearance of Bhubaneswar Development Authority regarding the same and it is mandatory to obtain the Environmental Clearance in order to proceed further.

Enclosed please find our application copy (Form-1, Form-1A, EMP & Questionnaire) along with necessary annexures. We hope you will find the same in line with the requirements of clearance procedure.

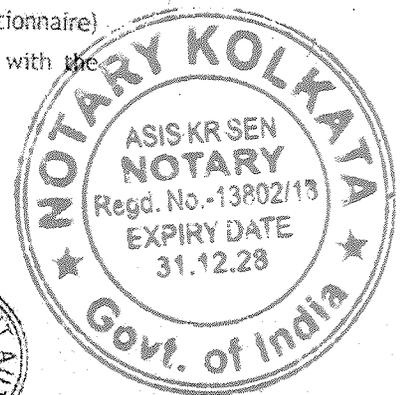
We request you to kindly process our application at your earliest.

Thanking you,

Yours truly

Radha Prasad Das
RADHA PRASAD DAS
Authorised Signatory
For Z-Estates Pvt. Ltd.

M/s. Z-Estates Pvt. Ltd.



Ref: Bankers Cheque of Rs. 5,00,000/- vide cheque No. 169599,
drawn on AXIS BANK Ltd. Bhubaneswar.

169

~~ANNEXURE - P-4~~

168B

EXECUTIVE SUMMARY**BACK GROUND OF PROMOTER:**

Z-1, one of the grandest residential projects of Odisha is spread across more than 40 Acres. It is the epitome of class and accomplishment, a celebration of good things in life. The Global creators of Z-1 bring to you an exclusive lifestyle, built on the foundation of impeccable architecture and plush amenities. With large open landscape, a clubhouse that boasts of international luxury, a plethora of outdoor and indoor games, a convenience shopping centre, round the clock facility management and more services that fulfill your dream of maintaining a premium lifestyle.

After successfully handing over Advait (Phase 1) to its 444 proud owners, Z-1 now brings to you a grandiose venture Vyom, a home for extraordinary.

ABOUT THE PROJECT

The proposed site is located at Kalarahanga, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 22' 0.72" N & Longitude - 85° 50' 06.28" E. The project site is well connected with Nandan Kanan road which take towards National Highway-6 (Kolkata-Chennai Road). Nandan Kanan road is 0.1 Km from proposed site. The nearest railway station is Mancheswar Railway station at a distance of approx 5.1 Km in South direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 13.5 Km in South West direction from project site. The site is easily accessible from Nandan Kanan Road.

METEOROLOGY:

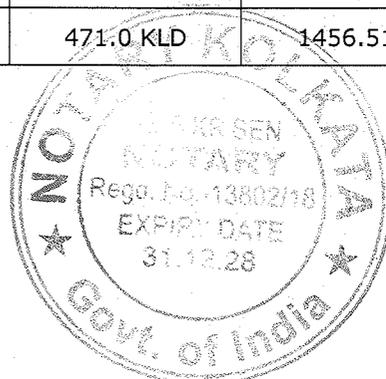
The maximum temperature is about 36.0° C and the minimum temperature is 16.0° C felt in the area. The average annual rainfall in the area is 1326.16 mm.

THE BUILDING DETAILS OF THE PROJECT:

The proposed project is the Third phase of the building covering a built up area of 2,09,960.21 sqm (including parking). The first phase building had a built up area 73,958.9 sqm (Occupancy Obtained) & the second phase building had a built up area 1,11,945.98 sqm (which is Under Construction) and the plot area is 1,23,717 sqm. So total Built up area for Phase-I & Phase-II is 1,85,904.880 sqm for which EC was granted vide **Ref no. SEIAA/827, dated 23.02.2016.**

Hence total built up area of the proposed project will be 3,95,865.09 sqm & the revised plot area is 1,41,590.23 sqm.

Sl. No.	Particular	Existing	Expansion	Total
1	Plot Area	1,23,717.0 sqm	17,873.23 sqm	1,41,590.23 sqm
2	Built up Area	1,85,904.88 sqm	2,09,960.21 sqm	3,95,865.09 sqm
3	Green Belt Area			51,852.09 sqm
4	Road Area			22,000.00 sqm
5	Basement Parking Area	43,319.27 sqm	46,001.54 sqm	89,320.81 sqm
6	Water Requirement	985.51 KLD	471.0 KLD	1456.51 KLD



176 169

7	Waste Water Requirement	710.84 KLD	602.0 KLD	1312.84 KLD
8	Power Requirement	5200 KW	3045 KW	8245 KW
9	Dwelling Unit	589 Unit	586 Unit 635 Units EWS	1175 Unit 635 Units EWS

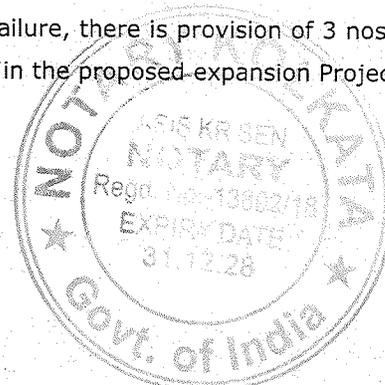
BUILTUP AREA DETAIL PHASE WISE:

SL No	DETAIL OF BLDG	TOWER	AREA IN SQM	TOTAL BUILT UP AREA
STATEMENT OF AREA FOR PH-I (Completed)				
1	B+G+14	1	10695.75	73958.9 sqm
2	B+G+14	2	8551.83	
3	B+G+12	3	6883.42	
4	B+G+14	4	8761.89	
5	B+G+14	5	9498.15	
6	B+G+12	6	7057.98	
7	B+G+14	7	8559.3	
8	B+G+14	8	10670.25	
9	COMMUNITY HALL		2618.13	
10	DORMITORY		662.20	
Total Built up Area (Phase-I)			73958.9	
STATEMENT OF AREA FOR PH-II(UNDER CONSTRUCTION)& PH-III (Proposed)				
1	PH-II RESIDENTIAL	111945.98	321906.19 sqm	
2	PH-III RESIDENTIAL	139970.59		
4	EWS (G+22)			
5	Convenient Shopping Building	G+2		
6	Toilet & Dormitory	G+1		
7	Toilet/Driver Rest Room	G		
8	Club House-II	G+2		
9	Parking & Services			
Total Built up Area (Phase-III)				321906.19
Total Built up Area			395865.09 sqm	
Total Built up Area (Phase-I + Phase-II + Phase-III = 73958.9 + 321906.19 = 395865.09 sqm)				

REQUIREMENT FOR THE PROJECT:

Power requirement:

The daily power requirement for the proposed expansion Project is preliminarily assessed as **3045 KW** source from CESU of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 3 nos. of DG set having 500 KVA capacities for power back up in the proposed expansion Project.



171 170

For energy conservation, there will be 120 nos. of Solar Lighting poles (@72 Watt) has been proposed for Street & common area solar lighting, so

Energy conservation by using Solar Street Lighting = $120 \times 72 = 8640$ watt = 8.6 KW

Energy conservation by using Solar lighting for common area = 200 KW

Total Energy Conservation = $(200 + 8.6)$ KW = 208.6 KW

Total Energy saving = $208.6/3045 = 0.0685 \times 100 = 6.8 \%$

Water requirement:

Fresh make up of 471.0 m³/day will be required for the project which will be sourced from Ground Water Supply. Waste water of 602 KLD will be treated in a STP of 650 KLD capacity, which includes primary, secondary and tertiary treatment. After treatment the treated water will be discharge to the Buri Nalla.

Rain Water will be harvested through 41 no. of recharging pits.

Fire fighting Installations:

Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).

Green Belt Development:

Green belt will be developed over an area of 51,852.09 sqm which is 35.40 % of the plot area; by using the local species like Radhachuda, Nageswar, AkashNeem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.

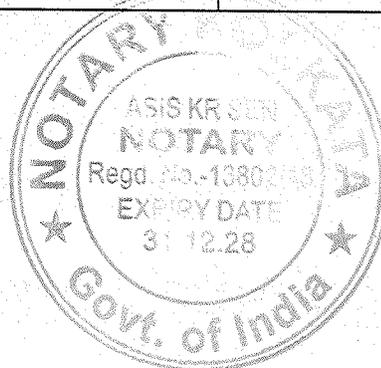
Solid Waste Management:

From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/capita/day, which will be about $5225 \times 0.45 = 2351.25$ kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate coloured beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste.

Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about $166 \times 0.15 = 24.9$ kg/day. Solid waste from sweeping and Dry Garbage containing non biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved agency for final disposal. The biodegradable waste will be converted to manure by an organic waste convertor, which will be used for landscaping.

Sl. No.	Category	Counts (heads)	Waste generated
1.	Residents	5225 @ 0.45 kg/day	2351.25
2.	Floating	166 @ 0.15 kg/day	24.9
3.	STP sludge		35
TOTAL SOLID WASTE GENERATED			2411.15 kg/day

Estimated Project cost:



172

171

Total Capital Cost = Rs 300 Crores

Environment Management Cost = Rs 2.25 Crores



SEIAP Applied and uploaded online +73 172

Handcopy submitted with SEIAP on 25th July 2018

APPENDIX I
(See paragraph - 6)

FORM- 1

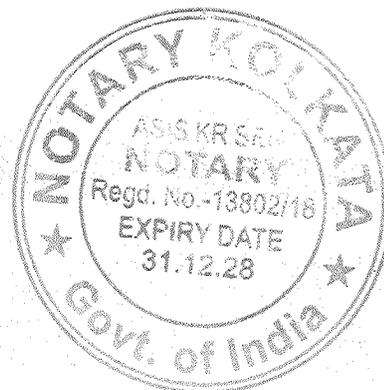
(I) Basic Information

Sl. No.	Item	Details
1.	Name of the project/s	Proposed Expansion for Construction of Housing Colony and Convenient Shopping (Phase-III) of M/s Z-Estates Pvt. Ltd. at Kalarahanga, Bhubaneswar, Odisha.
2.	S. No. in the schedule	8 (a): Building & Construction Project
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	Plot Area = 1,41,590.23 sqm Built Up Area = 3,95,865.09 sqm
4.	New/Expansion/Modernization	Expansion
5.	Existing Capacity/Area etc.	Existing Built up Area - 1,85,904.88 sqm
6.	Category of project i.e. 'A' or 'B'	Category B
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location	Mouza- Kalarahanga
10.	Plot/Survey/Khasra No.	
	Village	Kalarahanga
	Tehsil	Bhubaneswar
	District	Khurda
	State	Odisha
11.	Nearest railway station/airport along with distance in kms.	Nearest Railway station: The nearest railway station is Mancheswar Railway station at a distance of approx 5.1 Km in South direction Nearest Airport: Biju Patnaik Airport at a distance of approx. 13.5 Km in South West direction from project site. (Source of information:- Google Image)
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Bhubaneswar Municipal Corporation Vivekananda Marg, Bhubaneswar - 751014
13.	Name of the applicant	M/s Z-Estate Pvt. Ltd.
14.	Registered Address	M4/34, Acharya Vihar, Bhubaneswar-751013
	Address for correspondence:	M4/34, Acharya Vihar, Bhubaneswar-

174

173

15.		751013
	Name	Sri Tapan Kumar Mohanty
	Designation(Owner/Partner/CEO)	Managing Director
	Address	M4/34, Acharya Vihar, Bhubaneswar-751013
	Pin Code	751013
	E-mail	zestates@zestates.in
	Telephone No.	0674-2540806/ 9437558809
	Fax No.	0674-2540698
16.	Details of alternative sites examined, if any. Location of these sites should be shown on a topo sheet.	Nil
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	Not applicable
19.	If yes, date of submission	NA
20.	If no, reason	This is a new project and there is no interlinking.
21.	Whether the proposal involves approval/clearance under: The forest (Conservation) Act, 1980? The Wildlife (Protection) Act, 1972? The C.R.Z Notification, 1991? If yes, details of the same and their status to be given.	No
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No
23.	Forest land involved(hectares)	No
24.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? Name of the Court Case No. Orders/directions of the Court, if any and its relevance with the proposed project.	No
25.	Project cost	300 Crores



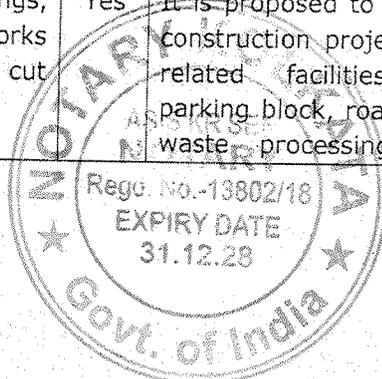
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(II) ACTIVITY**1. Construction, Operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (Topography, land use, changes in water bodies, etc.)**

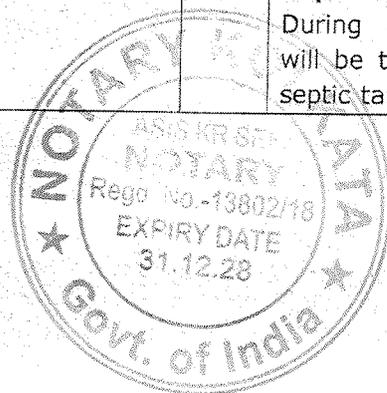
Sl. No	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	Change in land use from vacant barren land to residential Building project. Total land required for this proposed project is 3,95,865.09 sq meters.
1.2	Clearance of existing Land, vegetation and building?	No	The construction area of the project does not require any clearance of existing Land, Vegetation & Building as it is a barren land.
1.3	Creation of new land uses?	Yes	Change in land use from vacant barren land to residential Building project.
1.4	Pre-construction investigation e.g. borehole, soil testing?	Yes	Borehole has been made and soil testing has been carried out to assess the strength of soil for laying down foundation structures.
1.5	Construction works	Yes	Construction of Residential building, EWS Building, Convenient Shopping Centre, Utilities Block, STP, Solid Waste collection and processing facilities, parking, Internal roads for movement inside the site will be constructed.
1.6	Demolition work	No	There is no building or any other structure present on the proposed project site. So demolition work is not needed.
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	Temporary sheds will be constructed for material storage, security guard post, Office purpose and same will be demolished after the site development.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	It is proposed to construct residential construction project within the site & related facilities which involves parking block, road construction, solid waste processing area, STP etc.



176

175

			Excavation for pile foundation of structure will be carried out.
1.9	Underground works including mining or tunneling?	No	No underground works including mining/tunneling required.
1.10	Reclamation works?	No	There is no reclamation work in the project site.
1.11	Dredging?	No	No dredging work is required in the project development.
1.12	Offshore structures?	No	No offshore structure is required in the project development.
1.13	Production and manufacturing processes?	No	Not Applicable as the proposal pertains to construction of Residential complex.
1.14	Facilities for storage of goods or materials?	Yes	Separate store for raw material like cement and other construction materials will be made within the project premises. Bricks*and steel will be laid in open. This shall be restricted to Construction Phase only.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>Solid Waste: The solid waste generated from the project will be in the form of:</p> <p>Construction Waste: Left over cement and mortars, cement concrete blocks, aggregate, sand and other inorganic material will be recycled and reused.</p> <p>The non-biodegradable waste and other packaging material will be sold to the authorised recyclers.</p> <p>Operational Phase: Solid waste generation will be about 2411.15 kg/day and which will be collected separately as Bio-degradable and Non-biodegradable waste as per the Solid Waste Management Rules, 2016. The non-biodegradable and recyclable waste would be handed over to authorised recyclers. The biodegradable waste along with sludge from STP would be reprocessed to compost.</p> <p>Liquid effluents: During construction phase, sewage will be treated and disposed through septic tanks with soak pits. The waste</p>



			water in operation phase will be treated in a STP of ~650 KLD capacities and the treated sewage will be reused for toilet flushing, cleaning, and horticulture at Residential colony & toilet flushing at adjacent school, rail Corridor green belt and other operational requirements.
1.16	Facilities for long term housing of operational workers?	No	The proposed project is a residential construction project and operational day to day workers will be hired locally and therefore no accommodation facility proposed for operational workers.
1.17	New road, rail or sea traffic during construction or operation?	Yes	With full set up of this residential colony, there shall marginal increase in road traffic, due to daily communication of residents.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Existing road infrastructure shall be used.
1.19	New or diverted transmission lines or pipelines?	No	No new or diverted external transmission lines or pipelines will be developed only internal sewage, water lines, storm water network, electricity wire lines will be developed.
1.20	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface water courses is proposed.
1.21	Stream crossing?	No	There are no streams crossing within the project site.
1.22	Abstraction or transfers of water from ground or surface waters?	Yes	During construction phase, 94.1 KLD amount of water will be required which will be sourced through Private Tanker. During operation phase, water supply will be sourced through Ground Water Supply. About 471 KLD fresh water will be required during operation phase of the project. Relevant permission from the respective authorities shall be obtained.
1.23	Changes in water bodies or the land surface affecting drainage or	No	The proposed project will be carried out with well planned construction

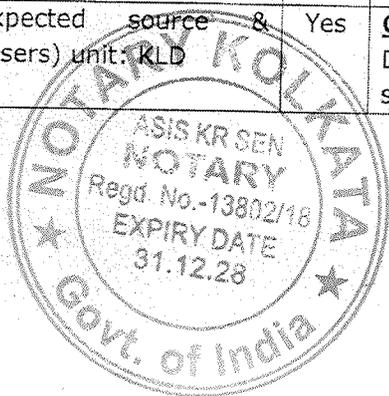
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177

	run-off?		activities, to ensure no or negligible interruption of the natural drainage pattern.
1.24	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Transportation of personnel/material during the construction and operation phase is envisaged. In the construction phase, approx. 12 trucks/day is envisaged for transportation of materials. Vehicles to be used will have valid PUC.
1.25	Long-term dismantling or decommissioning or restoration works?	No	Not applicable since there is no dismantling involved in this project.
1.26	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not applicable
1.27	Influx of people to an area in either temporarily or permanently?	Yes	During Construction phase, about 295 labourers (skilled/unskilled) will be there at site. Most of unskilled labourers will be sourced locally. However once Residential & EWS unit is developed, 5225 nos. of population will be staying there as a permanent resident.
1.28	Introduction of alien species?	No	Mostly local species will be planted in green belt development.
1.29	Loss of native species or genetic diversity?	No	There will be no impact on the native species or genetic diversity.
1.30	Any other actions?	No	Not applicable

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr. No.	Information/checklist confirmation	Yes /No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	Around 1,41,590.23 sq meter of land has been earmarked for the development of residential colony. Land is barren land.
2.2	Water (expected source & competing users) unit: KLD	Yes	Construction Phase:- During construction phase, water supply will be sourced through private



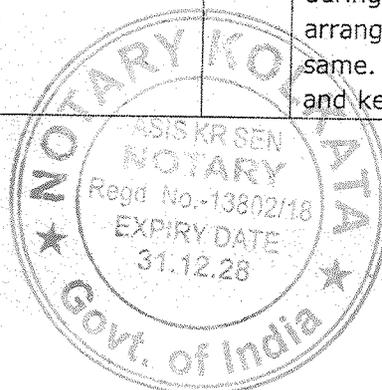
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			tanker. About 94.1 KLD of water will be required during construction phase of the project. Operational Phase:- During operation phase, water supply will be sourced through Ground Water Supply. About 471 KLD of fresh water will be required during operation phase of the project. Relevant permission from respective authorities shall be obtained.																								
2.3	Minerals (MT)	No	Not applicable																								
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	<table border="1"> <thead> <tr> <th>Sl. No</th> <th>Materials</th> <th>Unit</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Fly ash Bricks</td> <td>No</td> <td>6194381</td> </tr> <tr> <td>2</td> <td>Cement</td> <td>Bags</td> <td>215319</td> </tr> <tr> <td>3</td> <td>Sand</td> <td>Cu Mtr</td> <td>25871</td> </tr> <tr> <td>4</td> <td>Chips</td> <td>Cu Mtr</td> <td>7625</td> </tr> <tr> <td>5</td> <td>Steel</td> <td>Ton</td> <td>1456</td> </tr> </tbody> </table>	Sl. No	Materials	Unit	Quantity	1	Fly ash Bricks	No	6194381	2	Cement	Bags	215319	3	Sand	Cu Mtr	25871	4	Chips	Cu Mtr	7625	5	Steel	Ton	1456
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4	Chips	Cu Mtr	7625																								
5	Steel	Ton	1456																								
2.5	Forests and timber (source – MT)	Yes	Use of timber shall be as minimal as possible.																								
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	The daily power requirement for the proposed Residential complex is approximately 3045.0 KW (maximum).																								
2.7	Any other natural resources (use appropriate standard units)	No	Not applicable																								

3. Use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

Sr. No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	This is a residential construction project and no storage of hazardous chemicals (as per MSIHC Rules) will be done, apart from diesel storage for D.G. Sets which will be operated only during emergency and suitable arrangement will be adopted for the same. It will be stored in HDPE drums and kept in covered rooms under lock



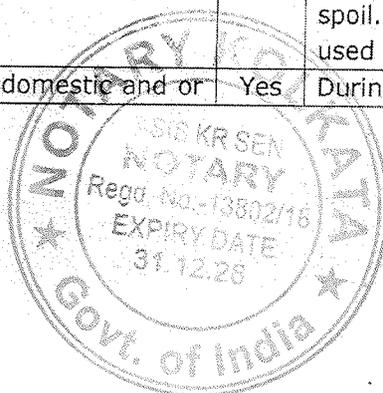
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			and key.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Appropriate mitigation / management measures will be adopted in both the construction and operation phases which will restrict stagnation of water or accumulation of water within the site & the surroundings. This will effectively restrict the reproduction and growth of disease vectors. Further, proper waste management and appropriate sanitation facility will be provided at site during construction phase & operation phase. Good housekeeping and hygienic measures will be followed during construction and operation phase to avoid any cause which can lead to occurrence of disease.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	The proposed project is a residential construction project and thereby the residential facilities will improve and there will be various ancillary activities like restaurant, hotels, hospital, retail shops, convention centre, multiplex, institutions, shops, private transport facilities etc. attached to the project which will benefit to the local people and change their living conditions.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	Not applicable.
3.5	Any other causes	No	Not applicable.

4. Production of solid wastes during construction or operation or decommissioning (MT/Month)

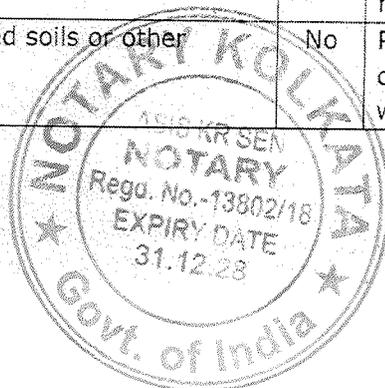
Sr. No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	Only construction debris and excavated soil will be generated as spoil. The construction debris will be used for back filling purposes.
4.2	Municipal waste (domestic and or	Yes	During construction phase solid waste



181

180

	commercial wastes)		generated in the form of construction debris's and excavated earth and in operation phase domestic waste generation in the form of biodegradable and non biodegradable waste. The total amount of solid waste generated will be approximately 2411.15 kg/day. This contains the domestic solid waste generated from the individual household buildings.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Used oil will be stored in HDPE drums in isolated covered facility This used oil from the D.G. Sets will be sold to the SPCB approved recyclers, as per Hazardous waste Rules 2016. Also there will be discarded fuel filters and oil filters, discarded generator batteries and which will constitutes hazardous waste, which shall be managed as per Hazardous waste Rules 2016.
4.4	Other industrial process wastes	No	Not applicable.
4.5	Surplus product	No	Not applicable.
4.6	Sewage sludge or other sludge from effluent treatment	Yes	The sewage sludge generated from operation phase will be used as manure in the green belt. Around STP sludge of 35 kg/day will be generated.
4.7	Construction or demolition wastes	Yes	Construction waste will be used for roads and as fill material for leveling and road, and low lying area within the project site. <ul style="list-style-type: none"> • The recyclable wastes (metal, wood, etc.) will be sold to the vendors. • The inert waste (brick, masonry, concrete, etc.) will be used for road making and land filling within the site itself. • Construction waste shall be dealt in accordance to Construction and demolition waste 2016.
4.8	Redundant machinery or equipment	No	There will not be any redundant machinery or equipment used at site.
4.9	Contaminated soils or other materials	No	Proper care will be taken to avoid contaminated soil and if oil spilled soil will be found; the same will be



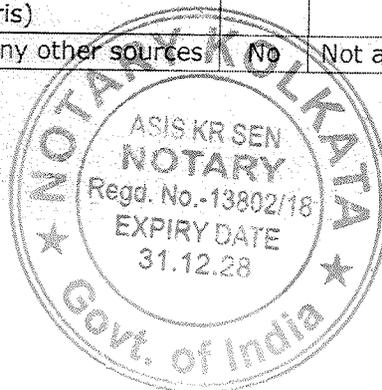
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181

			scrapped off and stored at earmarked places and sent to disposal sites.
4.10	Agricultural wastes	No	There will be no agriculture waste.
4.11	Other Solid Waste	No	Not applicable

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

Sr. No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Total capacity shall be limited to 3x500 KVA. Vehicles shall be used with PUC.
5.2	Emissions from production processes	No	Not applicable.
5.3	Emissions from materials handling including storage or transport.	Yes	The fugitive emission expected from construction phase will be dust arising from material handling and vehicular emission from transport vehicles. These include the emissions due to idling of the vehicles during loading and unloading activities. The haul road will be made moist to avoid the air borne dust & PUC certified vehicles will be used.
5.4	Emissions from construction activities including plant and equipment	Yes	Emission is generally expected from machineries to be used during construction phase. Proper maintenance will be done to ensure minimum emission.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Dust will be generated during excavation, backfilling and transportation of construction related material activities. Water sprinkling will be done to reduce the dust emission. Loose material during construction shall be transported with covered trucks.
5.6	Emissions from incineration of waste	No	Not applicable.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No burning of waste in open air will be carried out.
5.8	Emissions from any other sources	No	Not applicable.



483

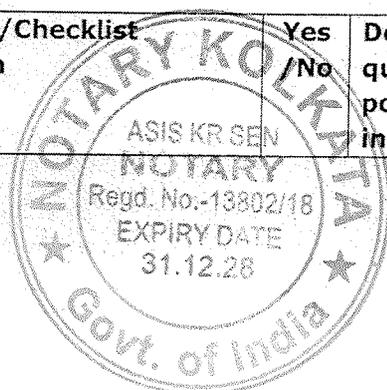
182

6. Generation of noise and vibration and emissions of light and heat:

Sr. No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Construction phase: The significant source of noise pollution will be due to the machinery used for construction and vehicular movement. Operation phase: During operation phase the main source of noise will be vehicular traffic and DG sets. However CPCB approved silent type DG set will be used.
6.2	From industrial or similar processes	No	Not applicable
6.3	From construction or demolition	Yes	Due to construction machinery/vehicle movement noise will be generated.
6.4	From blasting or piling	Yes	During Piling operation, latest pile installation techniques would be adopted to have negligible impact due to noise and vibration.
6.5	From construction or operational traffic	Yes	Minor disturbance due to traffic noise during construction as all these operations will be carried out in non peak hours. However during operation phase, there shall be marginal rise in Noise level, Proper traffic management shall be implemented, to avoid noise pollution at places.
6.6	From lighting or cooling systems	No	Not applicable.
6.7	From any other sources	No	Not applicable.

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

Sr. No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data



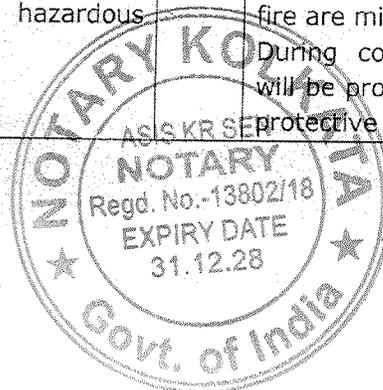
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183

7.1	From handling, storage, use or spillage of hazardous materials	Yes	Hazardous waste like used paints and colors containers and waste oil from DG Set will be disposed of as per Hazardous waste management and handling 2016. Special care shall be taken to prevent spillages and health hazard during handling of this item.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Sewage water will be treated through proposed Sewage Treatment Plant to be developed within the premises during operation phase. There is no chance of spillage or discharge of sewage and all the sewage will be channelized properly through closed pipes to the STP. The sewage water after treatment will be utilized for toilet flushing, cleaning, and horticulture at Residential colony.
7.3	By deposition of pollutants emitted to air into the land or into water	No	There is no emission except of D.G. sets. By use of low sulphur diesel, the emission from the D.G. sets will be within norms. However to mitigate this measures like water sprinkling, provision of covered sheds for construction materials, plantation etc. will be taken.
7.4	From any other sources	No	There will not be any other sources, which will contaminate land & water resources.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	There will not be any build-up of pollutants in the environment from this project.

8. Risk of accidents during construction or operation of the project, which could affect human health or the environment:

Sr. No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible with source of information data)
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	This is residential building project and the chances of explosions, spillages, fire are minimal. During construction, all the labours will be provided with suitable personal protective equipment (PPE) as



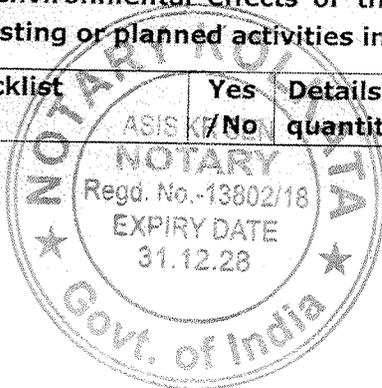
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186

			<p>required under the health & safety norms. Training and awareness about the safety norms will be provided to all supervisors and labours involved in construction activity.</p> <p>No major hazardous waste is being stored within the project site. No Industrial or process activity is involved in this project hence chances of chemical hazards and accidents are minimal.</p> <p>Firefighting equipment's, required as per standards, shall be provided.</p>
8.2	From any other causes	No	<p>The major risks involved in the project would be during construction phase, working at different construction heights and mishaps due to human errors, bad construction practices and associated electric hazards.</p> <p>All Safe construction practices & precautionary measures will be adopted and use of PPE will be mandatory. However, to meet out the minor incidences and accidents first aid measures at site will be provided. All safety measures will be in place prior to commencement of operations so as to avoid any risk of human life.</p>
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	<p>Floods:</p> <ul style="list-style-type: none"> For effective functioning, pre-monsoon and post-monsoon checks of the drainage structures will be undertaken. The project has planned storm water layout in regards to the peak intensity of the rainfall so far received as recorded by IMD. <p>Earthquakes:</p> <p>The project site comes under seismic zone-III.</p>

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality:

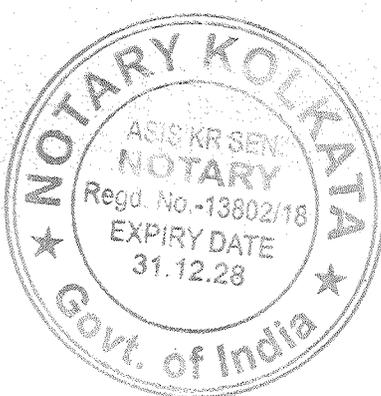
Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever
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186

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			possible) with source of information data
9.1	Lead to development of supporting. facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none">• Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)• Housing development• Extractive industries• Supply industries• Other	Yes	Appropriate infrastructure like roads, power supply, waste management and waste water treatment will be developed within the site. During construction skilled, unskilled and professional work force will be hired locally. While during the project operation stage for the purpose of day-to-day maintenance, workers will be employed. Moreover, more indirect employment will be created as a result of positive induced development in the immediate vicinity of project site.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not applicable.
9.3	Set a precedent for later developments	No	Not applicable.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not applicable.

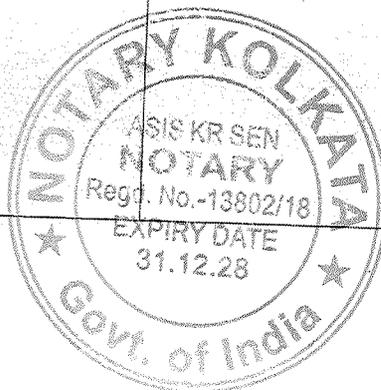


187

186

(III) ENVIRONMENTAL SENSITIVITY

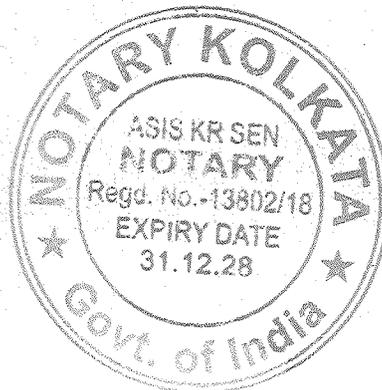
Sl. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not applicable, There is no such areas existing within 15 km buffer zone.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Nandan Kanan Botanical Garden* Jagannathprasad PF Chandaka Forest & Elephant Reserve	Approx. 4.5 km from the project site. Approx. 6.3 km from the project site. Approx. 11.5 km from the project site.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Nandan Kanan Botanical Garden Jagannathprasad PF Chandaka Forest & Elephant Reserve	Approx. 4.5 km from the project site. Approx. 6.3 km from the project site. Approx. 11.5 km from the project site.
4	Inland, coastal, marine or underground waters	No	Not applicable
5	State /National boundaries	No	Not present
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nandankanan Road	Approx. 100 m from the project site
7	Defence installations	No	Not applicable
8	Densely populated or built-up area	Bhubaneswar	Approx. 12.0 km from the project site
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Institute: 1. Dadhibaban High School - 0.6 Km - E. 2. Little Steps Pre-School - 2.2 Km - SE 3. Saraswati Sishu Mandir - 2.6 Km - SW 4. Kalinga Institute of Industrial Technology - 3.7 Km - SW Hospital: 1. KIMS Hospital - 3.7 Km - SW 2. Dental Hospital - 4.3 Km - SW 3. Aditya Care Hospital -



488

187

			5.6 Km - S
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Not applicable.
11	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	No	Not Applicable.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	Area is not susceptible to any natural hazard or adverse climatic condition.





189

188

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY,
ODISHA, BHUBANESWAR

Ref. No. 7991/SEIAA

Dt. 17.03.20

SEIAA File No. 30018/02-NCP/04-2019

To

Sri Tapan Kumar Mohanty, MD,
M/s Z-Estates Pvt. Ltd.
M4/34, Acharya Vihar,
Bhubaneswar-751013

Sub: Proposal for proposed expansion for construction of housing colony and convenient shopping (Phase-III) of M/s Z-Estates Pvt. Ltd. At Kalarahanga, Bhubaneswar with built up area 3,95,865.09 M²-Environmental Clearance Regarding.

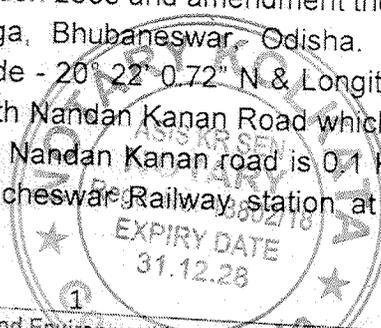
Ref: Your online application dated 18.04.2019 for issue of EC vide File No. SIA/OR/NCP/30018/2018.

Sir,

This has reference to your online application seeking environmental clearance of the project proposal mentioned above. The proposal falls in the sub category 8(b) of the schedule of EIA Notification, 2006 as amended from time to time. The proposal has been duly appraised by SEAC, Odisha on the basis of the documents enclosed with the application, such as Form-1, Form-IA, Conceptual Plan (EMP), Final EIA/EMP Report and clarifications furnished to SEAC/ SEIAA in response to their observations.

Background:

1. This is a proposal for Environmental Clearance for proposed expansion for Construction of Housing Colony and Convenient Shopping (Phase-III) at Mouza- Kalarahanga, Bhubaneswar, Odisha.
2. The proposal falls under category 'B', Section 8 (b) "Townships and Area Development projects" of Schedule of EIA Notification 2006 and amendment thereafter.
3. The site is located at Kalarahanga, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 22' 0.72" N & Longitude - 85° 50' 06.28" E. The project site is well connected with Nandan Kanan Road which take towards National Highway-6 (Kolkata-Chennai Road). Nandan Kanan road is 0.1 Km from proposed site. The nearest railway station is Mancheswar Railway station at a distance of approx.



190

189

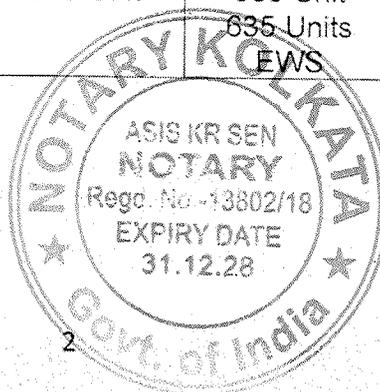
5.1 Km in South direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 13.5 Km in the South West direction from the project site. The site is easily accessible from Nandan Kanan Road.

4. The Building Details of the Project:

The proposed project is the Third phase of the building covering a built up area of 2,09,960.21 m² (including parking). The first phase building had a built up area 73,958.9 m² (Occupancy Obtained) & the second phase building had a built up area 1,11,945.98 m² (which is Under Construction) and the plot area is 1,23,717 m². So total Built up area for Phase-I & Phase-II is 1,85,904.880 m² for which Environmental Clearance was obtained from SEIAA, Odisha vide letter no. for Phase - I :SEIAA – 261 / 10, dated 16.08.2011 and for Phase-II: vide letter no. SEIAA/827, dated 23.02.2016. Hence, the total built up area of the proposed project will be 3,95,865.09 m² & the revised plot area is 1,41,590.23 m².

A comparative statement of the existing and proposed project with respect to built up area as well as other requirements are given below:

Sl. No.	Particular	Phase-I	Phase-II	Phase-III	Total
1.	Plot Area	1,23,717.0 m ²		17,873.23 m ²	1,41,590.23 m ²
2.	Built up Area	73,958.9 m ²	1,11,945.98 m ²	2,09,960.21 m ²	3,95,865.09 m ²
3.	Green Belt Area	30,929.22 m ²		20,922.87 m ²	51,852.09 m ²
4.	Road Area	20,000 m ²		2,000.00 m ²	22,000.00 m ²
5.	Basement Parking Area	24,610.0 m ²	25,371.0 m ²	46,001.54 m ²	95,982.54 m ²
6.	Total Water Requirement	423.51 KLD	561 KLD	708 KLD	1692.51 KLD
7.	Fresh Water Requirement	234.17 KLD	310.79 KLD	471.0 KLD	1015.96 KLD
8.	Waste Water Requirement	262.3 KLD	448.7 KLD	602.0 KLD	1313 KLD
9.	STP Capacity	270 KLD	580 KLD	650 KLD	1500 KLD
10.	Power Requirement	2.3 MW	2.9 MW	3.1 MW	8.3 MW
11.	Solid Waste Generation	1.15 TPD	1.29 TPD	2.41 TPD	4.85 TPD
12.	Dwelling Unit	444 Unit	588 Unit	586 Unit 635 Units EWS	1618 Unit 635 Units EWS



191

190

Built up Area Detail Phase Wise:

Sl. No.	Detail of building	Tower	Area in m ²	Total built up area	
Statement of area for Ph-I (completed)					
1	B+G+14	1	10695.75	73,958.9 m ²	
2	B+G+14	2	8551.83		
3	B+G+12	3	6883.42		
4	B+G+14	4	8761.89		
5	B+G+14	5	9498.15		
6	B+G+12	6	7057.98		
7	B+G+14	7	8559.3		
8	B+G+14	8	10670.25		
9	Community Hall		2618.13		
10	Dormitory		662.20		
Total Built up Area (Phase-I)			73,958.9		
Statement of area for Ph-II (under construction) & Ph-III (proposed)					
1	Ph-II Residential	111945.9	139970.59	3,21,906.19 m ²	
2	Ph-III Residential	139970.5			
4	EWS (G+22)		20159.50		
5	Convenient Shopping Building	G+2	757.03		
6	Toilet & Dormitory	G+1	180.20		
7	Toilet/Driver Rest Room	G	55.86		
8	Club House-II	G+2	2740.49		
9	Parking & Services		45736.54		
Total Built up Area (Phase-III)			3,21,906.19		
Total Built up Area					3,95,865.09 m ²
Total Builtup Area (Phase-I + Phase-II + Phase-III) = 73,958.9 + 3,21,906.19 = 3,95,865.09 m ²					

5. Requirement for the proposed expansion project:

(i) Power requirement:

The daily power requirement for the proposed expansion Project is preliminarily assessed as 3045 KW source from CESU of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 3 nos. of DG set having 500 KVA capacities for power back up in the proposed expansion Project.

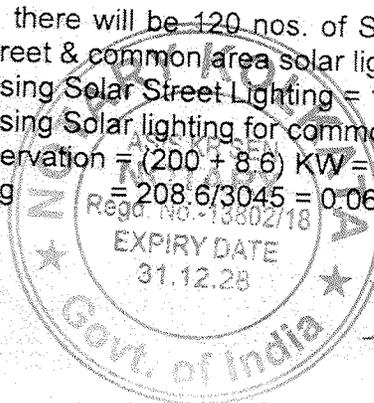
For energy conservation, there will be 120 nos. of Solar Lighting poles (@72 Watt) has been proposed for Street & common area solar lighting, so

Energy conservation by using Solar Street Lighting = 120 x 72 = 8640 watt = 8.6 KW

Energy conservation by using Solar lighting for common area = 200 KW

Total Energy Conservation = (200 + 8.6) KW = 208.6 KW

Total Energy saving = $\frac{208.6}{3045} \times 100 = 6.8\%$



192

191

(ii) Water requirement:

Fresh make up of 471.0 m³/day will be required for the project which will be sourced from ground water supply. Waste water of 602 KLD will be treated in a STP of 650 KLD capacity, which includes primary, secondary and tertiary treatment. After treatment, the treated water will be discharge to the Buri Nalla. Rain Water will be harvested through 41 no. of recharging pits.

(iii) Firefighting Installations:

Firefighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).

(iv) Green Belt Development:

Green belt will be developed over an area of 51,852.09 sqm which is 35.40 % of the plot area; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.

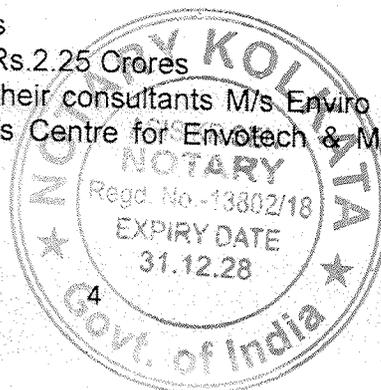
(v) Solid Waste Management:

From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/capita/day, which will be about 5225 x 0.45 = 2351.25 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate coloured beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste.

Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about 166 x 0.15 = 24.9 kg/day. Solid waste from sweeping and Dry Garbage containing non bio-degradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved agency for final disposal. The biodegradable waste will be converted to manure by an organic waste convertor, which will be used for landscaping.

Sl. No.	Category	Counts (heads)	Waste generated
1.	Residents	5225 @ 0.45 kg/day	2351.25
2.	Floating	166 @ 0.15 kg/day	24.9
3.	STP sludge		35
Total solid waste generated			2411.15 kg/day

6. The ToR for Phase- III expansion had been granted by SEAC, Odisha vide letter no. 845 / SIA / OR / NCP / 28277 / 2018 / SEAC / 156, dated 12.10.2018.
7. Baseline study was conducted during summer season i.e. from March 2018 to May 2018.
8. ToR compliance regarding detailing of Project proponent, project consultants land description was compiled.
9. The proponent has obtained Certified Compliance Report for previous Environmental Clearance from Regional Office, MoEF&CC, Bhubaneswar on 11.12.2018.
10. Estimated Project cost:
Total Capital Cost = Rs.300 Crores
Environment Management Cost = Rs.2.25 Crores
11. The project proponent along with their consultants M/s Enviro Infra Solutions Pvt. Ltd., Ghaziabad, Uttar Pradesh and M/s Centre for Envotech & Management Consultancy



193

192

Pvt. Ltd., IRC Village, Bhubaneswar, Odisha made a detailed presentation on the proposal before the SEAC on 12.06.2019.

12. The project proponent furnished additional information / documents on the project to SEAC for necessary compliance to clarification raised by SEAC on 14.10.2019 & 27.11.2019.
13. The Sub-Committee of SEAC conducted site visit on 25.10.2019 and observed the following:

a) Green Belt:

While the proponent stated to develop necessary green belt in the green belt areas and plant species in due course for Phase-II (under Construction) & Phase -III proposed, Green Belt for Phase - I is virtually absent except decorative plants such as *Krushna chuda*, *Ficus panda* etc. in the periphery of the boundary of Phase - I and land scaping.

- (i) The width of the area along boundary may be less than a meter even, therefore, the area covered to have claimed under green belt even with decorative plants may be much less than the prescribed guidelines. Hence, a compliance in matter is necessary which may be asked from the proponent.
- (ii) Green belt needs to be strengthened with local shade bearing species like Akashmani, Neem, Ashoka, Kadamba, Pollanga, Bela, Karanj etc. in consultation with local DFO for the prescribed area.
- (iii) Similar strict adherence for Phase II & Phase III (Proposed) is necessary for Greenbelt. Compliance report in context shall be submitted to SEIAA / SEAC.

b) Fresh water (Ground Water):

The Proponent stated to have three deep borewells for fresh drinking water and two of them were seen by the Sub-Committee and also visited the Piezometer installed by the proponent.

The proponent was advised to submit the following:

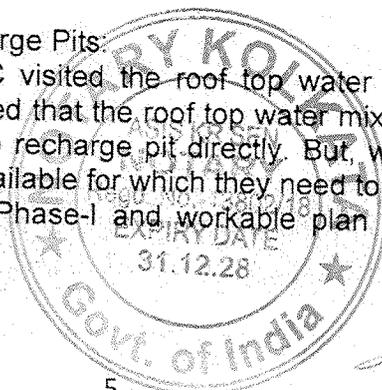
- (i) Valid 'NOC' from CGWA & permission for Water Resources Deptt, Govt of Odisha for Phase I for which borewell are in use since beginning, shall be submitted for Phase I & II. The project proponent shall also submit the dimensions of borewells & the water consumption details of last three months.

c) Waste Water:

The Sub-Committee visited STP installed in their premises. They claimed to have consumed almost complete waste water after treatment in vehicle (Car) washing & watering of plants excepting small quantity might be discharged to their own low lying areas following vacant for future expansion. They could not satisfactorily reply as to consumption of complete treated waste water during monsoon. Therefore, they must be discharging the excess treated waste water to open low lying areas available in their premises, even though the treated waste water is polluted & contaminated. So, the proponent needs to submit a detailed workable plan / scheme either for zero discharge / or discharge to main road side drain through ETP and oil water separation unit, particularly for monsoon period so that it will not affect the human health / environment.

d) Rain Water Harvesting / Recharge Pits:

The Sub-Committee of SEAC visited the roof top water harvesting system & the recharging pits. It was observed that the roof top water mixed with open drain water, which should be connected to recharge pit directly. But, water harvesting for storm water & run off water is not available for which they need to submit a workable plan & time frame to execute it for Phase-I and workable plan for Phase II & proposed Phase-III expansion.



194

193

e) Solid waste Management:

The proponent claimed to have outsourced for daily disposal of Solid waste being generated, but no mechanism either at source or at delivery point to outsourcing agency for separation into Bio-degradable & Non-biodegradable category could be seen.

Therefore, the proponent need to submit details of collection, segregation and disposal of solid waste for last three months to the outsourcing agency and submit the plan / mechanism for separation of solid wastes into Bio-degradable & Non-biodegradable wastes before disposing to outsourcing agency.

f) Use of Renewable / Solar Energy :

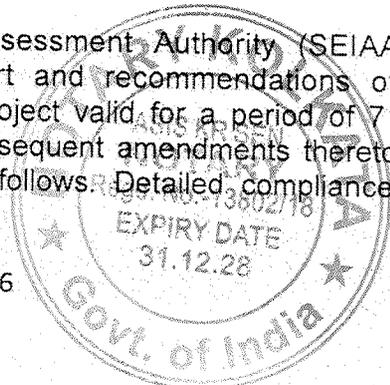
It is found to be absent for Phase – I completely. The proponent must submit a system along with the time frame for use of renewal / solar power at least as per the guidelines & preferably minimum 5% of their total power consumption for Phase I & similarly for Phase-II & III (Proposed) within a fortnight to SEIAA/ SEAC.

g) DG Set:

Location of DG sets (3 Nos.) installed for Phase – I was visited. The stack heights were found to be inadequate & negligible. The proponent must submit a design as applicable for such housing projects as per MoEF&CC / CPCB guidelines and DG rules for all three phases immediately within a fortnight time. Accordingly, they must replace / correct the stack heights as necessary for the existing area and accordingly plan for Phase II & Phase III.

14. The SEAC in its meeting held on 19-11-2019 decided that the site visit mentioned points as observed by the Sub-Committee of SEAC shall be complied by the proponent in addition to non-compliance points as pointed out for taking necessary decision in matter by the SEAC.
15. The project proponent furnished necessary compliance as desired by SEAC to the relevant points pointed out by the Sub-Committee of SEAC committee on 27.11.2019 & 23.12.2019.
16. Considering the information furnished by the proponent and presentation made by the consultant on behalf of proponent, the State Expert Appraisal Committee (SEAC) after due considerations of the relevant documents submitted by the project proponent and clarification/documents furnished to it have appraised the proposal on 24.12.2019 and recommended for grant of Environmental Clearance for the project valid for a period of 7 years, stipulating various conditions.
17. The proposal for grant of EC was considered by the State Environment Impact Assessment Authority in the 17th meeting held on dated 14.02.2020 wherein the Authority after detailed deliberation of the matter has decided as follows: "The PP has appeared before us to clarify on the reported non-compliance of EC conditions of Phase-I and Phase-2 of this project. We may address a letter to PP pointing out the EC conditions not complied with so far, and ask him to furnish a definite time line by which each of these pending compliances will be made. On receipt of the desired undertaking / commitment, EC may be considered."
18. The SEIAA considered the EC of the expansion proposal on 06.03.2020 after the project proponent furnished necessary compliance and undertaking / commitment as desired by SEIAA vide letter dt. 25.02.2020.

The State Environment Impact Assessment Authority (SEIAA), Odisha after considering the proposal; appraisal report and recommendations of SEAC, hereby accords Environmental Clearance to the project valid for a period of 7 years under the provisions of EIA Notification 2006 and subsequent amendments thereto subject to strict compliance of all conditions stipulated as follows. Detailed compliance report of these



195

196

conditions is mandatorily to be submitted by the project proponent to SEIAA at half yearly intervals by 1st June and 1st December each year.

Stipulated Conditions:

Part A - Specific Conditions:

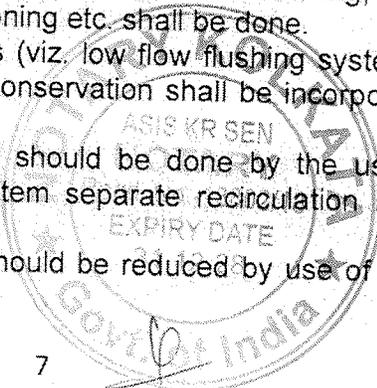
1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained 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.

Topography and Natural Drainage

5. 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.

Water Requirement, Conservation, Rain Water Harvesting, and Ground Water Recharge

6. No ground water shall be extracted for the project work at any stage during the construction phase. If ground water will be used during construction phase, they shall obtain permission from the Water Resource Department, Govt. of Odisha/ CGWB.
7. As proposed, fresh water requirement from ground water shall not exceed 471 m³ per day.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. Water demand during construction should be reduced by use of pre-mixed concrete,



196

195

curing agents and other best practices referred.

14. 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 41 nos. shall be provided.
15. 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 drawal of water.
16. A complete plan for rainwater harvesting at the proposed site shall be drawn up and implemented to minimise ground water withdrawal thereby recharging ground water in the area. The complete rainwater harvesting plan after implementation shall be submitted to SEIAA.

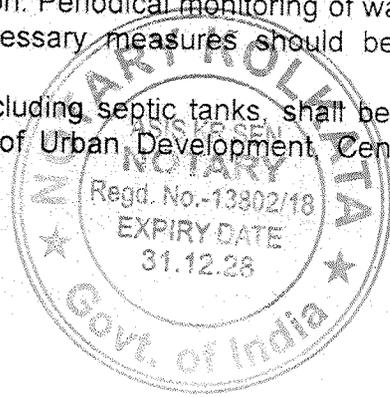
Solid Waste Management

17. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
18. 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.
19. 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.
20. 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.
21. 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

22. Sewage shall be treated in STP of capacity 650 KLD and shall be installed before start of the operation phase of the building. The treated effluent from STP shall be recycled/re-used for flushing, gardening and DG Cooling. The sewage treatment plant shall be ensured before the completion of Building Complex.
23. 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.
24. No sewage or untreated effluent water would be discharged through storm water drains.
25. 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.
26. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public





197

196

Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

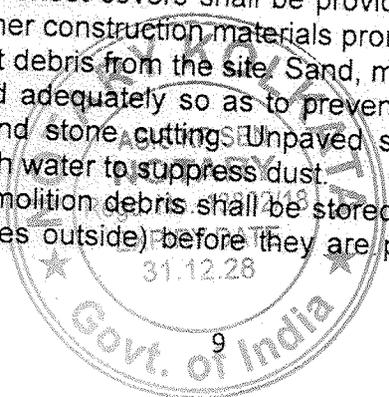
27. The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning / under performance of sewerage disposal system of the project.

Energy

28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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

34. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
35. 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



198

197

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.

36. 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.
37. 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.
38. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
39. 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

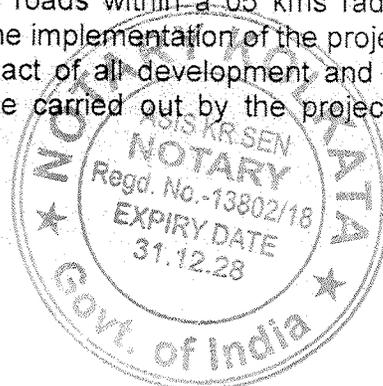
40. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species 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 35.40 % of plot area shall be provided for green area development.
41. Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Roof top rain water harvesting shall be adopted for the proposed Buildings. Rainwater harvesting at the proposed site shall be implemented. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter and oil and grease.

Top Soil Preservation and Reuse

42. 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

43. 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
44. 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.
45. 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



199

198

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.

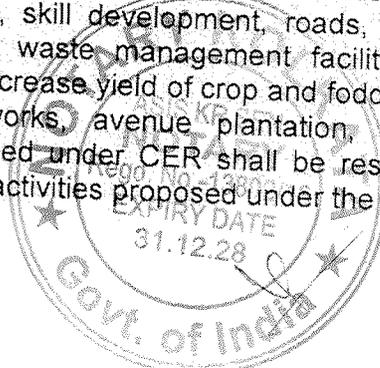
46. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

Environment Management Plan

47. 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.
48. The Project proponent has earmarked Rs.2.25 Crores towards environmental protection measures for the proposed expansion project. The year wise funds earmarked for environmental protection measures shall be kept in separate account and should be spend accordingly and not to be diverted for any other purpose. Year wise progress of implementation of action plan for EMP shall be reported to the SEIAA, Odisha, Regional Office, MoEF&CC, Govt. of India, Bhubaneswar, SPCB along with the Six Monthly Compliance Report.
49. It shall be mandatory for the project management to submit six (06) monthly compliance reports on post environmental monitoring in respect of the stipulated terms and conditions in this Environmental Clearance to the State Environment Impact Assessment Authority (SEIAA), Odisha, SPCB, Odisha & Regional Office of the Ministry of Environment & Forest, Odisha in hard and soft copies on 1st June and 1st December of each Calendar Year and shall also upload the compliance report in the website of the Ministry.

Others

50. 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.
51. A First Aid Room shall be provided in the project both during construction and operations of the project.
52. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
53. 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



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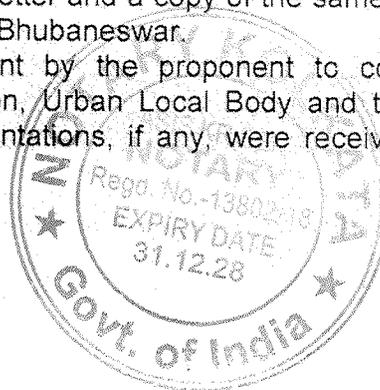
treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

54. The proponent shall implement the observations of the sub-Committee of SEAC after field visit on 25.10.2019 as per the time schedule given in the action plan enclosed with the legal affidavit which was submitted on 23.12.2019. The Sub-Committee of SEAC shall visit the site again to verify the status of implementation. In case of non-implementation, the Environmental Clearance will be revoked on recommendation of SEAC.
55. The proponent shall implement the full scale compliance of all EC conditions of phase-I and phase-II with definite time line as submitted to SEIAA on 25.02.2020. In case of non-implementation, the Environmental Clearance will be revoked by SEIAA or on recommendation of SEAC.

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. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZillaParisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while

[Handwritten signature]

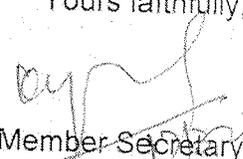


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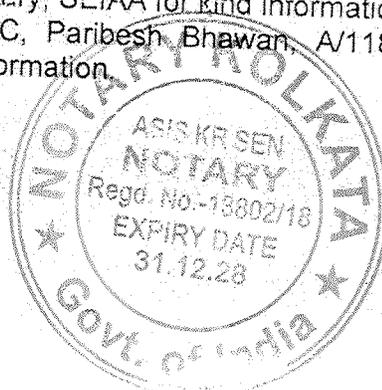
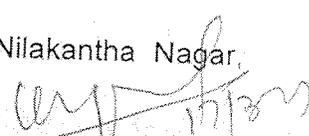
- processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
10. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website 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.
 11. 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.
 12. 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.

Yours faithfully,


 Member Secretary
Memo No 7992/SEIAA / Dt. 17.03.20

Copy to

1. Joint Secretary (Environment), Ministry of Environment, Forests and Climate Change Govt. of India, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110003 for information.
2. Additional Chief Secretary, Forests & Environment Dept., Government of Odisha for information.
3. Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for information.
4. Additional Principal Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A-31, Chandrasekharapur, Bhubaneswar for information.
5. Chairman, Central Pollution Control Board, CBD-cum-office Complex, East Arjun Nagar, New Delhi-110032 for information.
6. Member Secretary, CGWA, 18/11, Jamnagar House, ManSingh Road, New Delhi-110011 for information.
7. Collector, District Magistrate, Khordha, for kind information and necessary action.
8. Chairman/Member/Member Secretary, SEIAA for kind information.
9. Chairman, SEAC/Secretary, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
10. Guard file for record.



 Member Secretary

202 ANNEXURE-P-5



201

OCCUPANCY CERTIFICATE

No. 5467 /BDA, Bhubaneswar.
File No. BPBA-RV-584/2017

dated 10th February, 2022

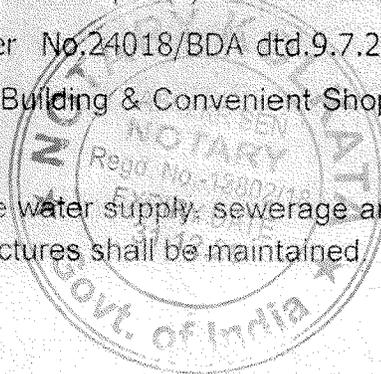
Occupancy Certificate (Pt) under Rule-18 of ODA (Planning & Building Standards) Rules-2020 is issued in favour of "Z" Estates Pvt. Ltd., MD, Tapan Kumar Mohanty & "Z" Harshapriya, Partner Tapan Kumar Mohanty, Purna Chandra Nayak, Dharanidhar Das, Kishore Kumar Jena, Loknath Nayak, Kishore Kumar Sahu, Puspa Manjari Mohanty, Panda Infrastructure Pvt. Ltd., Susanta Kumar Garabadu, Nanda Nayak, Sasmita Satpathy, Subash Chandra Mishra, Prasanna Kumar Mishra, Nirmal Kumar Rout, Tanuj Kumar Samal, Susant Kumar Ray, Bichitra Bhusan Nanda, Bhagyadhar Mohanty, Anima Mishra, Rosina Jena, Sujata Nayak, Dillip Kumar Digal, Mamata Satpathy, Kishore Chandra Barik, Maheswar Sethi, Manas Kumar Das, K. Neelamohan Subudhi, Kabita Sahu, Nirmala Swain & Kamakshya Behera represented through GPA Holder "Z" Estates Pvt. Ltd. in respect of existing Phase-II A consisting of following blocks:-

- i) **Block-2**
 - a) Wing A –(B+G+24)
 - b) Wing B,C,D – (B+G+20)
- ii) **Block-3**
 - a) Wing E, G – (B+G+20)
 - b) Wing F – (B+G+24)
- iii) **Convenient Shopping (G+2)**

over plot No.186,187,200 & others, Khata No.57,276, 599 & others (Ref: File No.BPBA-RV-584/17 Letter No.24018/BDA dtd.9.7.21).

The work of erection, re-erection or for material alteration undertaken in respect of above plots is completed under the supervision of Ar. Bibhuti Bhusan Mohapatra (Empanelment No.CA/2001/27464 & Er. Nagendra Parida, Structural Engineer (Empanelment REGD No.SER-015/BDA) as per the Completion certificate submitted. On inspection, it is observed that the erection, re-erection or alteration undertaken with respect to above plot(s) conform to the regularized plan and the condition imposed vide letter No.24018/BDA dtd.9.7.21. The Building are permitted for Residential Apartment Building & Convenient Shopping subject to the following:

1. All physical infrastructures like water supply, sewerage and drainage system and rain water harvesting structures shall be maintained



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2. At least 1 tree per 80 sqm of the land area shall be developed for plantation and landscaping; and shall be maintained.
3. Periodic inspection shall be made by the Fire Authority to ensure the fire safety of the building and compliance with the provisions of fire and life safety requirement (Fire and Lift Safety Part-4 of NBC).
4. The building shall not be put to any other use other than the purpose for which the permission is accorded.
5. All the stipulated conditions of the CGWA vide No.21-4(287)/SER/CGWA/2021-683 dt. 16.07.2019, CESU Letter No.BCDD-II/TECH. No.463 dt. 11.01.2017, FPW letter No.7463/FPW dtd.22.09.21, Env. Letter No.SEIAA/827 dtd.23.02.12 & EIDP letter No.36/EM/BDA, BBSR dtd.20.01.2016 shall be strictly adhered to.
6. The applicant shall construct the EWS Housing of 14129.06 S.qmt. Carpet area over Govt. land, if allotted as per the provision of revised policy for Housing for All in Urban Areas, Odisha-2015 (Revised 2020) notified vide No.1810/HUD dtd.29.12.2020; and in case the applicant fails to construct the EWS Housing on Govt. land, the same shall be constructed on the location shown in the OC drawing (site plan) as per undertaking dtd. 01.02.2022.
7. A copy of the permission letter, occupancy certificate and approved drawing shall be displayed in a conspicuous place on the property after occupancy certificate is issued.

One set of completion plans duly certified is returned herewith.

By Approval of Vice-Chairman

Planning Member

Bhubaneswar Development Authority

dtd. 10-02-2022

Memo No. 5468 /BDA

Copy submitted to Sri Tapan Kumar Mohanty, MD, "Z" Estates Pvt. Ltd., M-4/34, Acharya Vihar, Bhubaneswar for information and necessary action.

Planning Member

Bhubaneswar Development Authority

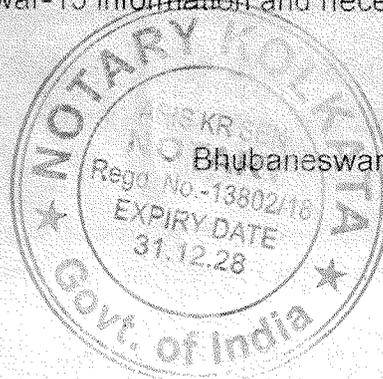
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Memo No. _____ /BDA

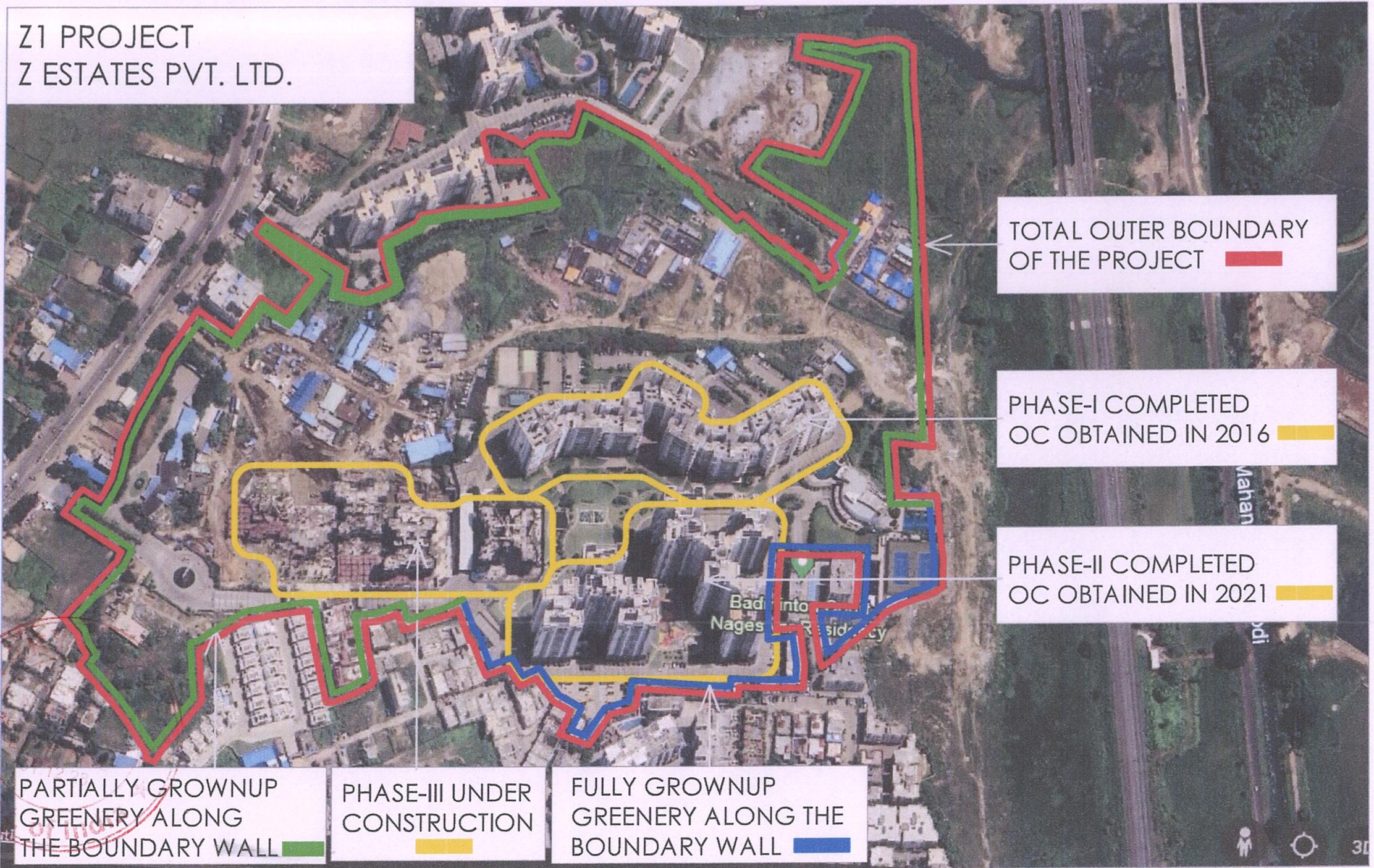
Copy submitted to SIEAA-Or.No.5RF-2/1, Unit-9, Bhubaneswar-22/ Regional Director,CGWB, South Eastern Region, Bhubaneswar/ Chief Fire Officer (SAG) FPW, Cuttack /Office of the Regional Manager (Elect.), BCDD-II, Plot No.N-1/228, IRC Village, Nayapalli, Bhubaneswar-15 information and necessary action.

Planning Member

Bhubaneswar Development Authority



Z1 PROJECT
Z ESTATES PVT. LTD.



★ NOT
Govt

205 ANNEXURE-P-7
206

Item No.06

Court No.1

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
(THROUGH PHYSICAL HEARING WITH HYBRID MODE)**

Original Application No.11/2022/EZ

IN THE MATTER OF:

Z1 RESIDENTS' WELFARE ASSOCIATION,

Through its General Secretary, Bidhubhusan Nayak,
Tower 1, Flat No. 1304, Z1 Estate,
Nadankanan Road, Kalarhanga, Patia,
Bhubaneswar, Odisha-751024

.....Applicant(s)

Versus

1. Z ESTATES PRIVATE LIMITED,

Registered office at M/4-34 Acharya Vihar,
Bhubaneswar, Odisha-751013;

2. SHRI TAPAN KUMAR MOHANTY,

Managing Director,
Z Estates Private Limited,
At M/4-34, Acharya Vihar, Bhubaneswar,
Odisha-751013;

3. MEMBER SECRETARY,

Odisha State Environment Impact Assessment Authority, (SEIAA),
Qr. No.5RF-2/1, Unit-IX,
Bhubaneswar-751022,

4. MEMBER SECRETARY,

Odisha State Pollution Control Board,
A-118, Nilakantha Nagar,
Unit-VIII, Bhubaneswar-751012,

5. MEMBER SECRETARY,

Central Ground Water Authority,
18/11, Jamnagar House, Mansingh Road,
New Delhi-110011,

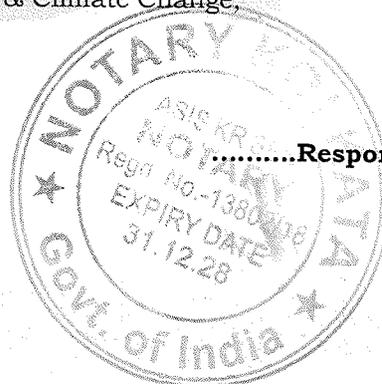
6. REGIONAL DIRECTOR,

Central Ground Water Board,
South Eastern Region, Bhubaneswar Bhujal Bhawan,
Khandagiri, Bhubaneswar,

7. DEPUTY DIRECTOR GENERAL OF FORESTS (C),

Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A/3, Chandrasekharpur,
Bhubaneswar-751023,

.....Respondent(s)



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Date of hearing: 01.05.2023

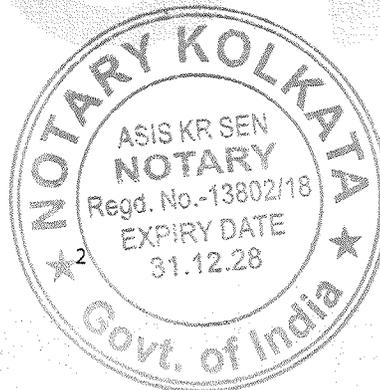
**CORAM: HON'BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
HON'BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER**

For Applicant(s) : Mr. Sankar Prasad Pani, Adv. (in Virtual Mode)

For Respondent(s): Mr. Kallol Basu, Advocate a/w Mr. Nilanjan Pal, Adv.
and Ms. Radhika Mishra, Adv. for R-1&2, (in Virtual Mode),
Mr. Apurba Ghosh, Advocate for R-3,
Ms. Papiya Banerjee Bihani, Adv. for R-4 (in Virtual Mode),
Mr. Ashok Prasad, Adv. for R-5 & 6 (in Virtual Mode)

ORDER

1. Mr. Sankar Prasad Pani, learned Counsel is present (in Virtual Mode) for the Applicant. Counsel for the Respondents are present in Virtual Mode.
2. The broad allegations made in the present Original Application are that the Respondent Nos. 1 and 2 have been carrying out constructions in Phase-I & II over a built-up area of 3,95,865.09 m² for which they were accorded Environmental Clearance on 17.03.2020 (Annexure 9 to the Original Application). It is also alleged by the Applicant's Association that in violation of the conditions of the Environmental Clearance, Green-Belt and Avenue Plantation required over an area of 20% of the site using native trees species/plants, was supposed to have been planted by the Project Proponent, Respondent Nos.1 and 2, covering an area of 30,929.22 m² but this has not been done.
3. It is further alleged that the compliance of condition of No Objection Certificate (NOC) from the Central Ground Water Board and permission of Water Resource Department, Govt. of Odisha, has not been undertaken.



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4. The Applicant in his Original Application alleges that following Environmental Clearance conditions have not been complied with which read as under:-

"1. Green-Belt and Avenue Plantation over at least 20% of the site using native trees species/plants area not there. SEAC Committee observes that Green belt for Phase I is virtually absent except decorative plants such as Krushna Chuda, Ficus panda etc. in the periphery of the boundary of Phase I and landscaping.

2. Compliance of Conditions of "NOC" from CGWA and permission of water Resource Department, Govt. of Odisha is not available.

3. Detail workable plan/scheme either for zero discharge/or discharge to main road side drain through STP and oil water separation unit, particularly for monsoon period so that it will not affect the human health/environment is not available.

4. STP does not have the facility for complete treatment (Primary, Secondary and tertiary) of waste water.

5. The water treatment plant does not have any iron remover although one of the water source has high iron content.

6. The zero liquid discharge is not maintained, there is no oil water separation unit and thereby discharge of untreated water to Budhi Nalla which is mentioned as Buri Nall in EC letter.

7. Absence of facility for use of Renewable/Solar Energy in Phase I against a stipulation of at least 5% of the total power consumption for Phase I for street and common area solar lighting.

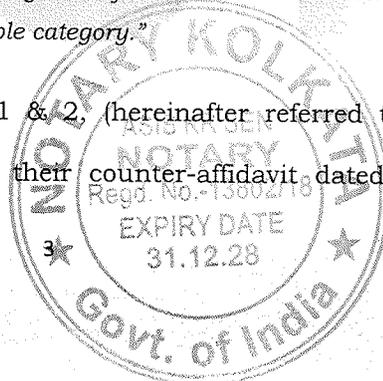
8. Diesel Generator sets in Phase I of project have inadequate Stack heights and same is violation of CPCB Norms.

9. Dust control measures not adopted to control dust and noise pollution during the construction of Phase II for which the senior citizens were the worst sufferers.

10. Rain Water harvesting/Recharge Pits reveals that water harvesting for storm water and runoff water is not available.

11. No facility for segregation of solid wastes into Biodegradable and non-biodegradable category."

5. The Respondent Nos. 1 & 2, (hereinafter referred to as 'Project Proponent'), have filed their counter-affidavit dated 05.03.2022,



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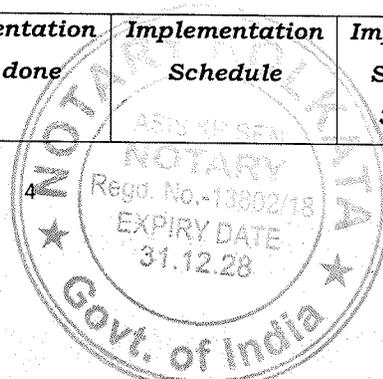
denying the allegations in the Original Application and further submitting that the claims made by the Applicant with regard to the Respondent Nos.1&2, are misconceived, vexatious and frivolous, apart from not being maintainable and Applicants have no cause of action.

6. In the affidavit, it is stated that the Applicant submitted a letter on 05.10.2021 to the Respondent No.3, SEIAA, Odisha, alleging non-compliances of the stipulated conditions by the Respondent Nos. 1 & 2, in the Phase-I of the Project. It is stated that a four Member Committee was formed by the SEIAA, Odisha, to investigate the purported non-compliance of the stipulated conditions by the Project Proponent and the said Committee visited the site and conducted an investigation in the presence of one representative of the Applicant at the project site on 20.01.2022. It is stated that representatives of the Applicant and Respondents Nos. 3, 4 and 7 were also present as well as the representatives of the Project Proponent. It is stated that investigation was conducted by the Committee without any obstruction by the parties pursuant to which the Project Proponent submitted a Status Report vide letter dated 03.02.2022 with regard to the Action Plan for implementation of the points mentioned by SEIAA, Odisha, in its letter dated 20.02.2020. Copy of the Status of Action Plan has been filed as Annexure-A (colly) (page no. 223) which is extracted herein below:-

**"STATUS OF ACTION PLAN FOR IMPLEMENTATION OF
POINTS MENTIONED VIDE SEIAA, LETTER NO-7887/SEIAA**

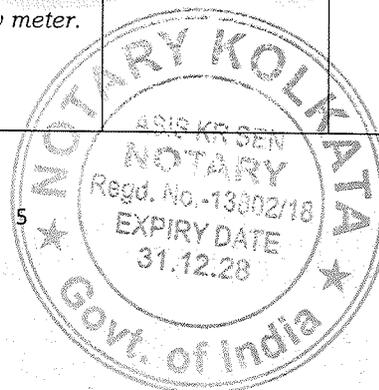
DATE-20-02-2020

Sl. No.	Condition of Environmenta l Clearance	Implementation to be done	Implementation Schedule	Implementation Status as on 31-01-2022



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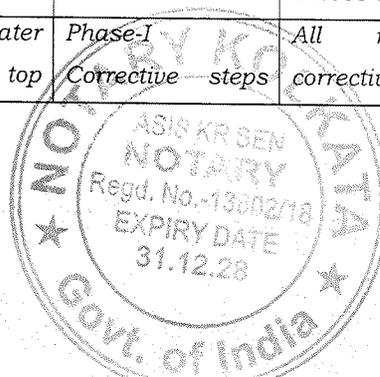
1)	Development of Green Belt For PH-I & PH-II	We will develop a Green belt of 3.0Mtr width (approx..) in multiple layers all along the permanent boundary wall. This will be carried out both for PH-I & PH-II Expansion. The plantation activity of Greenbelt for PH-II shall be started on the onset of monsoon and shall be completed by end of 2020 monsoon i.e. much before the completion of building project and handing over process.	Plantation work to be started by June 2020 (start of monsoon) and will be completed by September 2020 (End of Monsoon)	Since this is an integrated project plantation can only be done along the permanent boundary which will took place in phase manner as per the available of boundary. However Plantation around PH-I area and along 500 mtr. Of permanent boundary has been completed using Local species of plan (Kamini, Neem, Bakul, Kadamba, Champa, Mango, Coconut, Karanja etc.)
2)	'NOC' from CGWA & permission for Water Resources Dept. Govt. of Odisha for Phase-I and PH-II for quantum of ground water drawl. Measures for limiting water	NOC from CGWA. Measures for limiting water use has been done by restricting the use through optimization of water supply and measuring the daily supply using flow meter.	Complied	Complied



210

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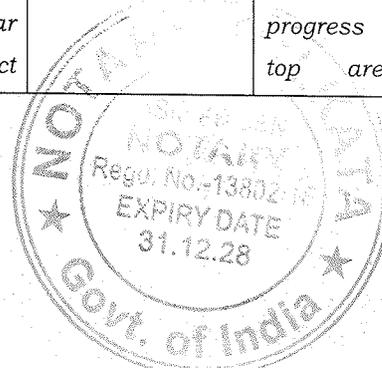
	use.			
3)	Installation of STP of appropriate capacity (Phase-I and Phase-II) and complete waste water treatment protocol adopted. Waste water drainage outside the premises, and permission of the competent Authority for the same.	STP of capacity 270 KLD based on MBBR technology is already in force for Phase-I and another STP of capacity 450 KLD has been planned for Phase-II. The surplus waste water of STP after using it for car washing. Toilet Flushing and gardening will be carried by the surface drain of the project leading to a appropriate capacity of ET P with oil and water separate chamber and shall be finally discharged to BMC open drain running along the frontage of the project after meeting the required parameters.	EPT for disposal of Excess treated Water during Monsoon shall be in operation by 30 th June 2020.	The construction installation and operation of STP for PH-II is in final operation stage and connection of pipeline for disposal of Excess treated waste water to municipal drain has been completed which will be taken into full operation during monsoon of 2022. All the treated water of PH-I has been utilized for gardening purpose and no excess water is available for discharge to municipal drain. However system for discharging excess treated water during monsoon period has been integrated with PH-II system of discharging excess water.
4)	Rain water harvesting/Rec	The rain water from the roof top	Phase-I Corrective steps	All necessary corrective steps



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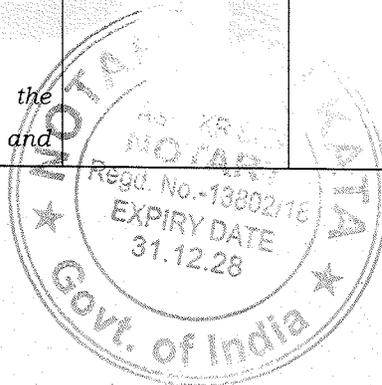
	<p>Phase-</p>	<p>waste and handing over to the OPSCB Empaneled (Under solid waste management rule of 2016 of Environmental protection act 1986) solid waste recycler for disposal.</p> <p>We are committed to install adequate capacity of Organic convertor/composting machine in the project area aiming at utilization of this compost for Lawn, ornamental Horticulture, Green belt.</p> <p>The above system catering both for PH-I and PH-II shall be in operation by October 2020.</p>		<p>will be made fully operational by 30th June 2022. However, the discussion with PH-I society will be made and a system will be explored to manage the solid waste generated from PH-I through this compost machine. Till handover to PH-I society the agency with whom we had a contract was collecting the garbage regularly.</p>
6)	<p>Energy conservation measures undertaken in Phase-I and Phase-II</p>	<p>As a progressive measure we are consulting and negotiating with IIT Bhubaneswar start-up project</p>	<p>30th June 2020.</p>	<p>The installation of Solar power generation system is in progress at roof top area of</p>



213

212

	<p>including installation of solar panel for lighting of common areas, hot water storage etc. Detail of action plan and implementation schedule.</p>	<p>group for procurement installation, operation and maintenance of solar power within the Project for I & II phases with a long term annual maintenance contact satisfying the norms of minimum 5% of the power consumption in the Project.</p>		<p>Phase-II Building and the entire system will be in complete operation by 30th June 2022. Similar System for PH-I will be in place with help of suitable agency to generate solar power by 31st August 2022. This delay is due to Pandemic and few system installed earlier did not work properly.</p>
7)	<p>Details of expenditure incurred on various activities carried out under CSR activities.</p>	<p>Detail expenditure for Financial year 18-19 and 19-20 enclosed for your reference.</p>	<p>Complied</p>	<p>Complied</p>
8)	<p>Installation of DG set as per CPCB norms.</p>	<p>Although the Power outage in the Project is Low, the utilization of DG set is also Low. However, we are committed to construct appropriate housing of the present and</p>	<p>20th June 2020</p>	<p>As per the Consent order issued by SPCB the height of vent has been made 6.05mt from Ground level.</p>



214

213

	future DG sets and provide Vent to adequate height for proper dispersion of air Pollutant and noise pollution.		
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NOTE: Z Estates Pvt. Ltd. is committed to provide best and qualitative Housing with all modern amenities and advance facilities retaining its continual customer satisfaction and public appreciation.

But due to the PANDEMIC COVID-19 situation Since March 2020 we are unable to keep our commitment as per our letter Dt.25-02-2020.

Further it may please note that as this is an integrated project and certain things can only be executed along with the completion of the work in phase manner.

However, we assured the Esteemed Committee visited our site on 20.01.2022 that we will strictly adhere to the guide lines and conditions of E.C. and other Statutory authority in phase manner."

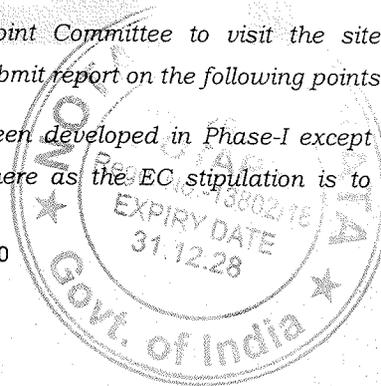
7. The SEIAA, Odisha, Respondent No.5, has filed affidavit also dated 05.03.2022, and in para 2 thereof it has brought on record the Inspection Report of inspection carried out on 20.01.2022.
8. The State Pollution Control Board, Odisha, Respondent No.4, has filed affidavit dated 13.04.2022, bringing on record an Inspection Report of inspection carried out on 20.01.2022, relevant extract of which is extracted herein below:-

"Inspection report of the Joint Committee visited on 20.01.2022, in the matter on violation of conditions stipulated in the C by the Builders Z-Estates Pvt. Ltd. on Construction of Housing Colony and shopping mall (Phase-I) at Kalarahanga, Patia, Bhubaneswar.

.....XXX.....XXX.....XXX.....XXX.....

As per direction, the Joint Committee to visit the site and examine the facts and submit report on the following points:

- i. No green belt has been developed in Phase-I except some decorative plants where as the EC stipulation is to plant



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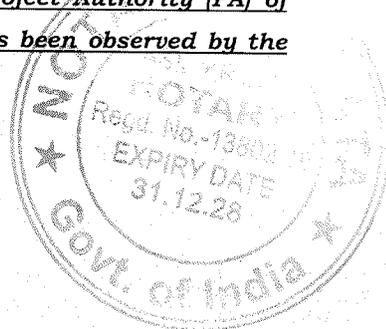
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- local shade bearing species like Akashmani, Neem, Ashoka, Kadamba, Bela, Karanja etc. in the form of green belt. There is a provision of 30,923.22 sqm green belt in Phase-I project.
- ii. The Project Proponent may be asked to submit valid NOC from CGWA and permission from Water Resources Dept. Govt. of Odisha, for Phase-I for which bore wells are in use since the beginning.
 - iii. The ZEPL has handed over a STP which does not have the facility to complete treatment (Primary, Secondary and Tertiary) and there is no provision for either zero waste water discharge or discharge to main road side drain through ETP & oil water separation unit.
 - iv. There is no system for water harvesting for storm water and runoff water.
 - v. There is blatant violation of Solid Waste Management Rules, 2016 as there is no mechanism either at source or at delivery point to outsourcing agency for separation into Biodegradable and non-biodegradable category.
 - vi. There is no use of Renewable/Solar Energy in Phase-I against a stipulation of at least 5% of the solar power consumption for Phase-I for street and common area solar lighting.
 - vii. The installation of three D.G. sets in Phase-I have inadequate stack heights, a violation of Pollution norms.

Accordingly, the Joint Committee comprising of the aobe following official had visited the site on 20.01.2022. Shri Ashok Kumar Tripathy, complainant as not present and on behalf of him the Z1 Residents' Welfare Association of Phase-I Z-Estate has nominated Sri S.K. Dash, the representative of the society to join inspection team. As intimated, Shri Ashok Kumar Tripathy, the member of the Z1 Residents' Welfare Association that he will not attend the inspection committee showing the reasons that he was not taken Vaccine of COVID-19.

"Overall Observation:

Based on the site inspection and documents submitted by the Sri Tapan Kumar Mohanty project Authority (PA) of Z1-Estates, the following point has been observed by the committee are as follows:



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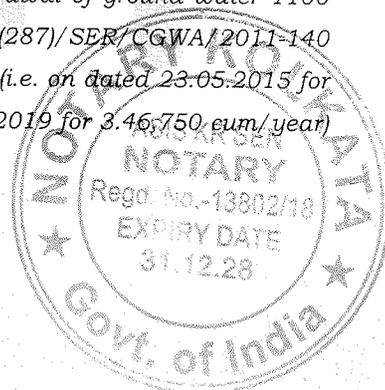
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1. Initially, the PA had applied a proposal to SEIAA, Odisha to develop in single phase construction of building Z1-estate Pvt. Ltd. for which Environmental Clearance (EC) was granted by SEIAA, Odisha vide letter no. SEIAA-261/10 dated **16.08.2011** over total built up area-**2,44,092.73 sqm**. And provision for green belt & avenue plantation of trees-20% of the site area. Later the PA had applied another application on 10.09.2014 for modernization for construction of housing colony and shopping mall (Phase-II) with built up area **2,75,042 sqm.**, existing premises of Phase-I construction project. Due to sluggish market demand and financial constraints the PA had decided to developed the project in phases for which the PA had applied application on 10.09.2014 for Phase-I consisting existing building (as a part of the earlier EC) and modified Phase-II project to developed with total built up area 2,75,042 sqm (Phase-I & Phase-II). EC obtained for modernization of phase-II vide letter no. 827 dt. **23.03.2016**. the PA had obtained EC vide letter no.7991/SEIAA dt. **17.03.2020** for expansion for construction of housing colony and convenient shopping (Phase-III) with built up area **3,95,865.09 sqm** and green belt provision was **30.929.22 sqm**.

2. During site inspection the Committee has observed that the Phase-I project had already completed and people are staying there and Phase-II project almost completed and going to operate very soon and the Phase-III project is under construction. So, Phase-I, II & III projects are integrated project in a same campus.

3. Green belt and Avenue Plantations are available and shown by the Proponent. However, at some places the plants were not available and very less/uprooted, which needs to be replanted.

4. PA was asked to submit the NOC /letter from CGWA for use of ground water. A copy of the same was shown by the proponent. The PA had obtained NOC from Central Ground Water Authority (CGWA) for withdrawal of ground water 1100 cum/day vide letter no.21-4(287)/SER/CGWA/2011-140 Dt.23.02.2011 and also thereafter (i.e. on dated 23.05.2015 for 950cum/day and on dated 16.07.2019 for 3.46.750 cum/year) copy attached.



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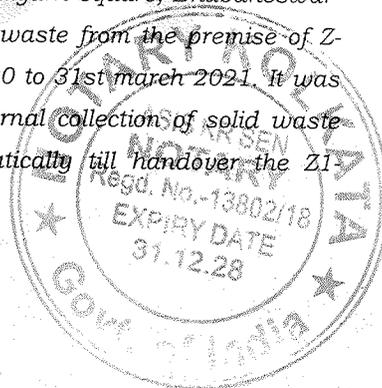
5. The PA has informed that the phase-8i building of Z1-Estates Pvt. Ltd. was handover to Z1 Residents Welfare Association on dated 18.01.2021 and the documents handover details to the Association was acknowledge by Sri Manoranjan Mishra and Sri KalpataruPattanaikthe two members of the association.

6. The Committee visited the STP and was found that the STP was running with Primary and Secondary units. STP is installed and in place and the PA has explained that it is functioning through Moving Bed Biofilm Reactor (MBBR) technology. The proper function of the same depends upon its regular operation required chemical dosing and maintenance. It was decided that Regional officer of SPCB, Bhubaneswar may collect a sample in presence of PA ad Z1-Residents' Welfare Association, sealed it and tested to ascertain functioning of STP at later stage.

7. The treated water generated from STP is used for gardening etc. as explained by PA and there is no excess treated water found or accumulated at any area nearby. However, PA was advised that there has to be a connection of treated water to outside Municipal drain to take care of excess treated water of any and also in rainy season. Pa explained that some of the works are incomplete due to the integrated periphery development work like-internal drains, roads etc and will be done very soon.

8. **Rain water harvesting & Recharge Pits:** the PA showed the recharging Pits across the site. One such pit was opened and found water in it. ThePA has explained that channel drains are available to collect the excess water and surface water during rainy season. Pa was advised that, as so many recharge pits are already in place, they should implement the harvesting system fully not only for roof top but also for paved area surface water by connecting channels to pits.

9. **Solid Waste Management:** PA a copy of agreement letter on dated 08.06.2020 with authorised party of M/s. Clean mart Facility Services, Plot No. 78, Rasulgarh Square, Bhubaneswar-10, Odisha for collection of solid waste from the premise of Z-Estate for the period 1st may 2020 to 31st march 2021. It was informed by PA that initially internal collection of solid waste was managed by them systematically till handover the Z1



218

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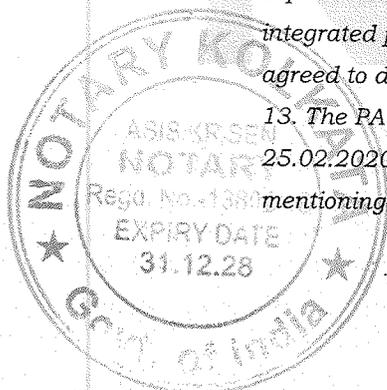
building to the Association and then it was managed by them. Now they are not aware of renewal of any such contract by the association. The PA has not installed any composting machinery for decomposition and reuse of bio-degradable waste at building premises of Phase-I. The committee has not seen any community dustbin has been placed outside of the building for separation and collection of domestic waste for phase-I. However, there is a newly purchased bio-degradable waste composting machines having capacity 1000kg/day waste decomposition for the Phase-II building is already there to operate. The Pa has informed that, the Phase-2 compost system having adequate capacity shall be made available to Phase-1 building for treatment of bio-degradable solid waste for composting through composting machines if association desire.

10. **Solar system or energy conservation;** there is no use of Renewable/Solar energy in Phase-I building as it verified by the committee. The PA has explained that efforts were made by them initially (like individual lighting system), but the system did not work due to breakdowns. They are now planning to do the system along with Phase-II and will be done by them. Pa was informed that they must put in place 5% of total power by solar PV system at rooftop as agreed by them for Phase-I

11. **Dg set Stack:** the DG set stack of phase-I about 6 mtr as per compliance report and also found physically with roof coverage. Although it is not adequate, the distance from nearest building is over 50 meters. The PA was advised to adhere the commitments given to SEAC/SIEAA with regard to stack height even though it is away from the building also the RO, SPCB needs to check the same whether as per norm.

12. The PA was asked to submit required documents with status of compliance report which they have submitted. From this, it is found that while some of the work already has done and some work are yet to be executed. Reason of delay expressed by Pa that due to pandemic Covid-19 and being an integrated project some activities gets delayed. However, PA has agreed to do the pending work with new timeline(attached).

13. The PA has submitted a undertaking vide letter no. nil dated 25.02.2020 at SEIAA. Odisha on dated 26.02.2020 with mentioning that he will complete the action plan for



219

218

implementation EC conditions mentioned in letter no. 7887/SEIAA dt. 20.02.2020 within the period i.e. ends of the year 2020. But some of the works i.e. install of organic convertor/composting machine in the project area of phase-I, procurement installation operation and maintenance of solar power within the project area of Phase-I and Phase-II though minimum 5 % of the power consumption in the project and appropriate height for D.G. sets are not complied by Pa within the time period.

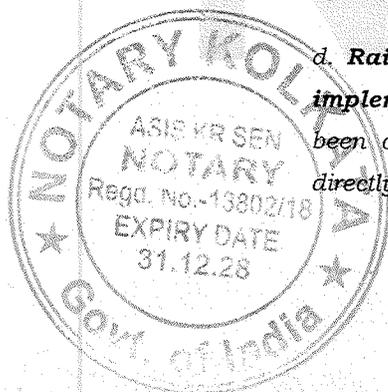
14. Again the Pa has submitted their reply (copy attached) on compliance of the conditions issued by SEIAA vide letter no.7887/SEIAA dt. 20.02.2020 and the following points are as follows:

a. **Green Belt:** since this is an integrated project plantation can only be done along the permanent boundary which will take place in phase manner as per the valuable of boundary. However, plantation around Phase-I area and along 500mtr of permanent boundary has been completed using local species of plant (kamini, neem, Bakul, Kadamba, champa, mango, Coconut, karanja etc.).

b. **NOC from Central Ground Water Authority:** complied

c. **Installation of STP of appropriate capacity:** the construction, installation and operation of STP for Phase-II is in final stage to operate and connection of pipe line for disposal of excess treated waste water to municipal drain has been completed which will be taken into full operation during monsoon of 2022. All the treated water of phase-I has been utilized for gardening purpose and no excess water is available for discharge to municipal drain. However system for discharging excess treated water during monsoon period has been integrate with phase-II system of discharging excess water.

d. **Rain Water Harvesting /Recharging pits implementation plan:** all necessary corrective steps has been completed and roof top rainwater discharge line directly connected to rain water recharge pits.



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e. Solid waste management plan and its implementation for Phase-I and Phase-II adequate capacity of compost machine has been installed. Which will be made fully operational by 30th June 2022. However, the discussion with Phase-I Residents' Welfare Association will be made and a system will be explored to manage the solid waste generated from phase-I through this compost machine. Till the phase-I building handover to the Welfare Association with whom we had a contact was collecting the garbage regularly.

f. Energy Conservation measures for Phase-I & Phase-II: the installation of solar power generation system is in progress at roof top area of Phase-II building and the entire system will be complete operation by 30th June 2022. Similar system for Phase-I will be in place with help of suitable agency to generate solar power by 31st August 2022. This delay is due to Pandemic and few system installed earlier did not work properly.

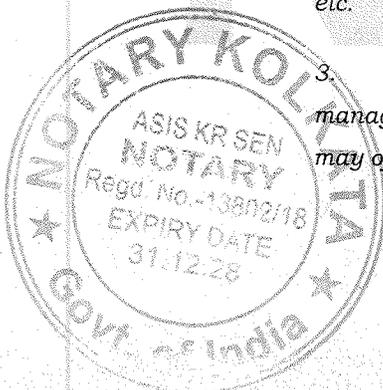
g. Details of expenditure incurred on various activities carried out under CSR activities: Complied

h. Installation of DG set as per CPCB norms: As per the Consent order issued by SPCB the height of vent has been made 6.06mt from ground level.

Other Points:

1. The Z-Welfare Association authority did not agree to participate in the joint discussion.
2. The Association was asked about list of deviations they have mentioned while taking over from the PA. they said that there is no such deviation lists neither have they showed any other documents like: Contact without side agency for disposal of solid wastes etc.

3. Now that the Phase-I building of Z1-estate is managed by the Z1-Residents' Welfare Association, we may officially ask them to produce the following:



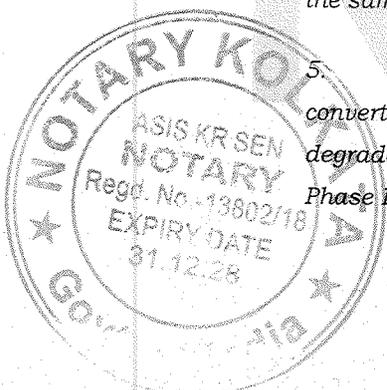
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- a) Valid Contract agreement for solid waste disposal with outsourcing agency (Authorized).
 - b) Test report of STP water done periodically
 - c) Maintenance plans for the existing green belt and plantation
4. PA to adhere all unfinished work committed by them timeline with reason for delay to be explained by them.

Recommendation of the Committee

1. The PA is yet to complete some of the unfinished work referring to what was identified by SEAC and SEIAA and agreed by them vide letter dated 25.02.2020. Being an integrated project few of the activities are interrelated, as explained by PA to which Committee inferred that the compliance has to be done fast within stipulated time as mentioned by PA. Now compliance of the said conditions. The EC will be revoke.
2. The PA has to plant more indigenous fruit bearing and broad leave tree species rather decorative and increasing lawn area within the period August, 2022 positively.
3. The PA shall submit the details report on water cycle like quantum (in KILD) of rainwater water to be collected from roof top area of building, paved area, open surface, and storm water and their connecting route from source to rainwater recharging/recycling pit with photographs to be submitted at SEIAA, Odisha.
4. The PA needs to recharge the rainwater harvesting pits and harvest the water from reutilization by the users. They should use the services of a qualified consultant of execution of the same.
5. The PA has to install a separate organic convertor/composting machine for phase-I or to collect the biodegradable solid waste from phase-I building and compost it in Phase II composting machine which is already placed in Phase-II



222

221

building premises after mutual understanding between PA of Z-estates and Z1-Residents' Welfare Association.

6. The PA has to install adequate no. of solar panel for light of street and common area of Phase-I building within 30th June, 2022.

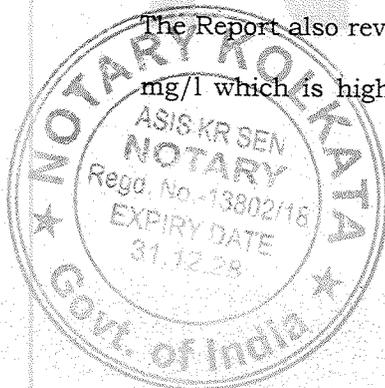
7. Further, since the Phase-I building is now under the control of Z1-Residents' Welfare Association, it is mandatory on the part of the Association to maintain all systems like-STP operation, contract with authorized agency for solid waste disposal, maintenance of rainwater harvesting/recharging pits. Maintain plants life, pay required water cess for ground water to the authority (if any). Working of lifts etc. by trained manpower for safety and environment. This needs to be ascertained by RO. SPCB periodically.

8. The Regional Officer, SPCB Bhubaneswar may collect as sample in presence of PA and Z1 - Residents' Welfare Association, sealed it and tested to ascertain functioning of STP and quality of treated water used of gardening and other purposes.

9. The committee suggests to communicate the finding and recommendations to the Dept. of FE &Cc, Govt. of Odisha and the member Secretary SPCB for further needful and necessary action as per Got. Procedure."

9. Additional affidavit dated 29.04.2022 has been filed by the State Pollution Control Board, Odisha, Respondent No.4, wherein it is stated that the Board, in pursuance of the Inspection Report of the Joint Committee, has collected samples and sent the same to the Central Laboratory, Bhubaneswar, for analysis. The Analysis Report received from the Central Laboratory reveals that BOD and Feacal Coliform (FC) results do not meet the prescribed standard.

The Report also reveals that Oil & Grease result is showing as 11.4 mg/l which is higher than STP discharge standard of 10.0 mg/l.



223

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Copy of the Analysis Report has been filed as Annexure-R4/2 (colly) to the affidavit, which is extracted herein below:-

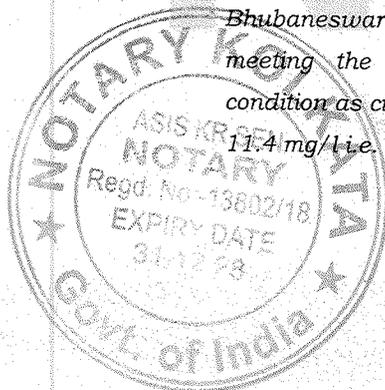
“Additional information w.r.t. O.A. No. 11 of 2022/EZ in the Matter of Z1 Residential Welfare Association on Applicant - Vrs - Z-Estates Pvt. Ltd. & Others - Respondent.

.....XXX.....XXX.....XXX.....XXX.....

As per the recommendation of joint committee w.r.t. visit to the project site on dtd. 20.01.2022 to verify the violation made to the stipulated Environmental Clearance condition on Z-Estate Pvt. Ltd., (Phase-I) FOR CONSTRUCTION OF Housing Colony and Shopping Mall vide Point No.08 the outlet of STP treated water before discharge to garden has been collected on 13.04.2022 in sealed condition in presence of representative of Project Proponent and Estate Manager of Residential Welfare Association and analyzed in the Central Lab, Patia, of SPCB, BBSR. For evaluation of 270 KLD Capacity STP working condition, the stipulated parameters like PH, BOD, TSS, Fecal coliform of Board have been analyzed as has been cited in the Consent to Establish Order w.r.t. expansion of construction of housing colony which was issued vide Order No.20841, dtd.27.12.2021.

As per the Consent to Establish condition the treated domestic waste water shall meet the standard as pH (6.5-9.0, BOD: (<20 mg/l), TSS (<100 mg/l) & Fecal Coliform (<1000 MPN/100 ml.) as notified by the MoEF& CC, Govt. of India vide G.S.R 1265 €, dtd. 13.10.2017. The treated waste water shall be reused for plantation, gardening etc. to the maximum possible extent. Also the treated waste water from STP may be discharged to Municipal Sewer after meeting the prescribed standard as proposed by Board.

Whereas, the Analysis Report which was received from Central Lab., of State Pollution Control Board, Odisha, Bhubaneswar revealed that BOD and Fecal coliform result is not meeting the prescribed standard w.r.t. special stipulated condition as cited above. Also the Oil & Grease result is showing 11.4 mg/l i.e. higher than STP discharge standard 10 mg/l).



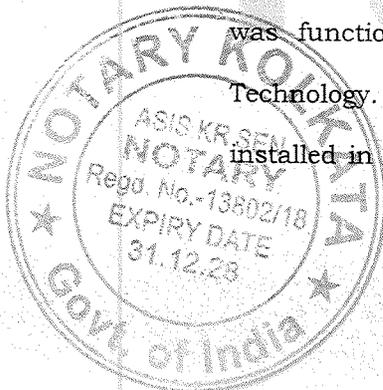
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Here this can be summarized that the total wastewater of the Phase-I housing complex is not being treated fully (100%) for which the result of treated water is showing high BOD, FC & Oil & Grease value w.r.t. to prescribed standard of Board.

Remark:

- a) In that context the said Effluent Treatment Plant should be upgraded to such an extent so as to achieve the standard criteria parameter before land discharge.
 - b) After necessary up-gradation if required at an regular interval 03 more evaluation report may be conducted within coming 3-4 months so as to get a clear cut conclusion about working status of STP of phase-I.
 - c) The In-charge of the said Sewage Treatment Plant (STP) should taken up the adequate treatment and necessary chemical dosing practices so as to meet the prescribed standard of the Board before discharge to land/drainage system/used in the garden.
 - d) The Project Proponent may be directed to provide clear idea that during monsoon how the treated water is being utilized or directly discharging the same to nearby barren land and finally connecting to the natural drainage system which is flowing backside i.e. some distance away from Phase-I project site."
10. The Test Reports which have been filed with the affidavit show the presence of Oil & Grease at 11.4 mg/l which is higher than the STP discharge standard of 10 mg/l; Faecal Coliform is 1,60,000 MPN/100 ml which should be >1000 MPN/100 ml, and Biochemical Oxygen Demand (BOD) is 22.0 mg/l as against the prescribed standard of 20 mg/l.
11. The Respondent Nos.1&2, Project Proponent, have filed their reply dated 26.05.2022, wherein it is stated that the Committee had visited the STP and found that the same had been installed and was functioning through Moving Bed Biofilm Reactor (MBBR) Technology. It is stated that one STP of capacity 270 KLD was installed in Phase-I of the project area which was maintained and



225

224

controlled by the Project Proponent and one FMC Company, namely, United Resorts Services LLP, was appointed by the Project Proponent for maintaining the said STP and the said Company had maintained the STP w.e.f. 01.09.2016 to 31.03.2021. Thereafter, the said STP was handed over to the residents of the building in Phase-I w.e.f. 01.04.2021 and on and from 01.04.2021, the said STP has been maintained and controlled by the Applicant's of Phase-I building.

12. It is further stated that the Respondent No.4, State Pollution Control Board, Odisha, had inspected the STP on 30.11.2019 when it was still being maintained by the Respondent No.1, Project Proponent, and submitted an Inspection Report which did not speak of any deviation in the operation of the STP. Copy of Inspection Report of inspection carried out on 30.11.2019 has been filed as Annexure-A to the affidavit which reads as under:-

***"Inspection Report of M/s. Z-Estates Pvt. Ltd.,
At- Kalarahanga, PO-KIIT, Dist.-Khordha, Odisha***

.....XXX.....XXX.....XXX.....XXX.....

During the day of inspection the unit has following observations were made:

- 1. The unit has installed three nos. of D.G. sets having capacity 380 KVA each with in-built acoustic enclosure alongwith stack of required height each.*
- 2. It was found that the unit has complete the constructed work of 2 Blocks of (B+G+12), 6 Blocks of (B+G+14), one Dormitory (G+2) and one Club (B+G+1) started operation as observed.*
- 3. The unit installed one no. of STP having capacity 270 KLD for waste water treatment purpose each consisting of oil & grease trap, bar screen, equalization tank, MBBR-1, BBR-2, Tube Settler, Chlorine Dosing Tank, Sludge Holding Tank, Activated Carbon Filter and Multigraded filter etc.*

226

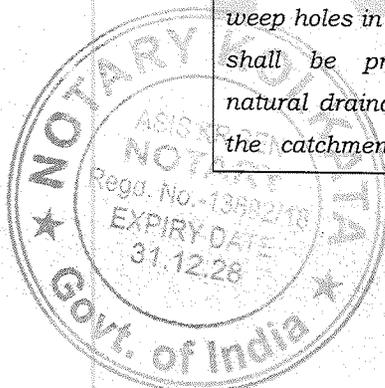
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4. The treated water after meeting prescribed standard of the Board is being used for landscaping, vehicle washing, toilet flushing and gardening purpose and no treated effluent shall be discharge to outside of the premises found during visit.
5. The house keeping of that unit is found to be satisfactory.

The compliance to Consent to Operate order is given as follows.

Compliance to Consent to Operate Conditions:

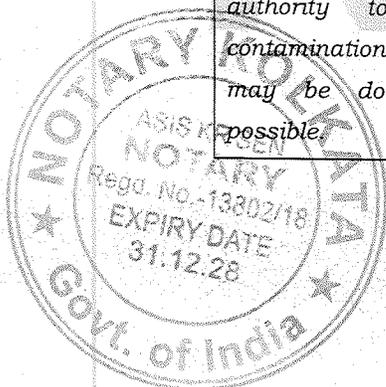
F. SPECIAL CONDITIONS (AIR POLLUTION CONTROL):	
Diesel power generating sets shall have acoustic enclosure.	3 nos (DG) sets (with Acoustic Enclosure) 380 KVA Each are in operation for the existing project.
The Height of the stack connected to DG set shall conform to the following $H = h + 0.2 \sqrt{KVA}$	Three nos. of D.G. sets having capacity 380 KVA each with in-built acoustic enclosure along with stack of required height each.
The ambient air quality in the premises of the unit shall confirm to the norm stipulated.	Assured to comply.
G. SPECIAL CONDITIONS (WATER POLLUTION CONTROL):	
The entire domestic water shall be treated in the existing Sewage Treatment Plant (STP). The treated waste water shall be partly reused for toilet flushing, landscaping, vehicle washing and green belt. The balance treated effluent shall be discharged to Municipal sewer and shall meet prescribed standard mentioned in section-B of this order. STP shall be operated without any stoppage and maintained properly.	At present the treated water is being used for gardening, toilet flushing and car washing and no waste water is being discharged to outside of the unit premises.
Separate storm water drain and weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the	Separate storm water drain and provision of weep holes on the compound wall to ensure natural drainage of rain water in the catchment area during the



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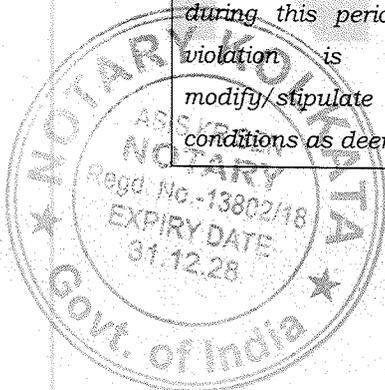
monsoon period.	monsoon period.
The solid waste generated should be properly collected segregated and shall be handed over to BMC for ultimate disposal.	The solid waste generated from household is being collected and handed over to BMC for ultimate disposal.
Rain water harvesting structure shall be developed inside the premises and maximum efforts shall be made to reuse harvested rain water with a definite plan and programme to reduce drawl of fresh water.	17 nos. of rain water recharge Pit are being executed and in operation at site.
There shall not any Leakage of oil from DG set area.	There is no leakage of oil from DG sets observed at site during inspection.
H. SPECIAL CONDITIONS (OTHERS)	
The proponent shall comply he conditions as stipulated in environmental clearance issued by SEIAA Odisha vide letter No. 433 dt 16.03.2011.	Complied
The waste water treatment system and other environmental measures shall be operated and maintained all the time either by project proponent (Builder of the Project) or by the Owner's welfare Association as the case may be.	The Project proponent has engaged Expert professionals to maintain and operate one 270 KLD STP.
Energy conservation measure like installation of CFLS/TFLs for the lighting the areas outside the building should be in place. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.	LED bulbs have been used for all common area lighting and all street lighting, points. The used bulbs are given to authorized agency.



228

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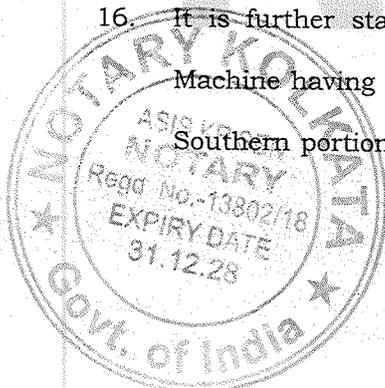
<p>Opaque wall should meet prescriptive requirement as per Energy conservation. Building code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.</p>	<p>Opaque wall and thermal insulation has been used in the project.</p>
<p>Lube oil from Diesel generator shall be disposed to authorized waste recycler.</p>	<p>The Lube oil generated from DG sets during maintenance is being handed over to authorized used oil/waste recycler.</p>
<p>The board may impose further condition or modify the conditions are stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and/or information is found to have been suppressed/wrongly furnished in the application form.</p>	<p>The proponent has agreed to comply.</p>
<p>In case the consent fee is revised upwards during this period of consent the unit shall pay the differential amount to the Board (for the remaining years) to keep the consent order in force if the industry fails to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.</p>	<p>The proponent has agreed to comply.</p>
<p>The Board reserves the right to revoke/refuse consent at any time during this period in case any violation is observed and modify/stipulate additional conditions as deemed appropriate.</p>	



229

228

13. Submission of Mr. Kallol Basu, learned Counsel appearing for Project Proponent, Respondent Nos. 1&2 is that no illegality or irregularity in the maintenance of STP was observed by the State Pollution Control Board, Odisha, as long as the said STP was being controlled and maintained by the Respondent Nos.1&2 and the Inspection Report filed by the Joint Committee, of inspection carried out on 20.01.2022, is after the STP was handed over to the Applicant's Association on 01.04.2021.
14. The Project Proponent have filed another reply affidavit dated 26.05.2022 to the same effect as their previous affidavit also dated 26.05.2022. In addition, it is stated that a detailed report has been submitted by the Project Proponent on water cycle like - quantum (in KLD) of rainwater to be collected from the rooftop area of the building, the paved area, the open surface area for storm water collection. It is stated that all recharge pits have been constructed and are provided with slatted pipes which extend upto 30 meters depth in order to facilitate the replenishment and retention of rainwater all around the year and the same is in full operation.
15. With regard to the Solid Waste Management, it is stated that one M/s Clean Mart Facility Services, Bhubaneswar, has been appointed by the Project Proponent for collection of solid waste from the premises for the period from 01.05.2020 to 31.03.2021 but after the building of Phase-I was handed over to the Applicant on 18.01.2021, the solid waste of the buildings of Phase-I is being managed by the Applicant.
16. It is further stated that one Bio-degradable Waste Compositing Machine having capacity of 1000 kg/day has been installed in the Southern portion of Phase-I i.e., in Phase-II, and the said machine



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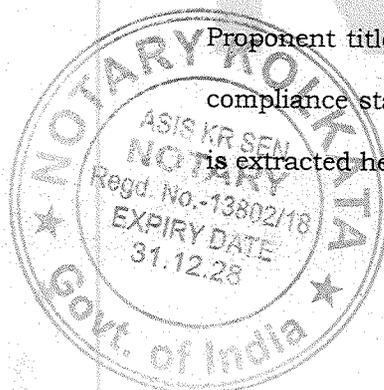
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is fully operational. It is also stated that the Project Proponent had vide letter dated 11.05.2022 informed the Applicants of Phase-I to segregate the waste generated in Phase-I and to send the biodegradable waste for composting to this Composting Machine.

The case of the Respondent Nos. 1&2, Project Proponent, is that there was no condition in the Environmental Clearance granted on 16.08.2011 and on 23.02.2016 for installing of Organic Waste Converter in Phase-I and, therefore, no Bio-degradable Waste Compositing Machine was installed in Phase-I.

17. With regard to Solar System or Energy Conservation, it is stated that installation of Solar Water Heater has been completed on the rooftop area of Phase-II and the entire system will be completed by 30.06.2022. It is also stated that the installation of Solar Power Generation System for Phase-I will be in place with the help of suitable agency to install Solar Water Heater by 31.08.2022. The delay in installation of the same has been explained by stating that there was COVID pandemic during this period.
18. As regards the Diesel Generator DG set Stack, it is stated by the Project Proponent that as per the recommendation of the Joint Committee the height of the DG Set Stack has been verified and re-checked by the SEIAA, Odisha, and the State Pollution Control Board, Odisha, and as per Consent to Operate issued by the State Board, the height of vent has been made 6.06 meter from ground level.
19. Further affidavit dated 15.11.2022 has been filed by the Project Proponent titled as 'compliance affidavit' and in para 2 thereof the compliance status of the directions of SEIAA has been given which

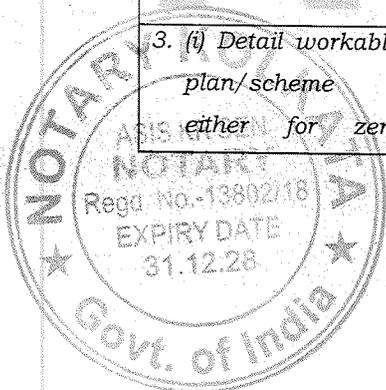
is extracted herein below:-



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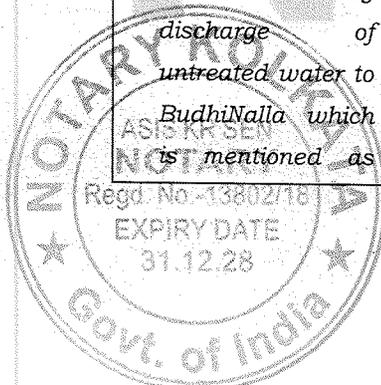
Rejoinder	SEIAA	Respondent No. 1 and 2 - Compliance
1. Green Belt and Avenue plantation over at least 20% of the site using native trees species/plants area not there.	Green Belt and Avenue Plantations are available. The committee had instructed the respondent nos. 1 and 2 to plant more indigenous fruits bearing and broad leave tree species rather to develop decorative and increasing lawn area within the period August, 2022.	The project is an integrated project. The plantation can only be made along the permanent boundary. Plantation around Phase I and Phase II area along with 600 meter of permanent boundary has been completed using local species of plant like Swarnachampa, Nagachampa, Panasha, Kamini, Neem, Bakul, Kadamba, Champa, Mango, Coconut, Karanja etc.
2. Compliance of Conditions of "NOC" from CGWA and permission of Water Resource Department, Govt. of Odisha is not available.	23.02.2011: First NOC was granted by CGWA for use of ground water 1100 cum/day. 23.05.2015: Second NOC was granted by CGWA for use of water 950 cum/day. 16.07.2019: Third NOC was granted by CGWA for use of water 3,46,750 cum/day.	Complied
3. (i) Detail workable plan/scheme either for zero	The STP was running with primary units. The	One STP with a capacity of 270 KLD was installed in Phase 1 of the Project



232

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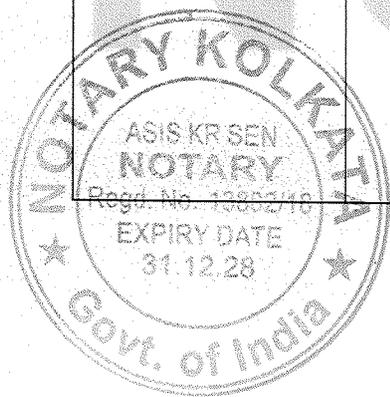
<p>discharge and/or discharge to main road side drain through STP and oil water separation unit, particularly for monsoon period so that it will not affect the human health / environment is not available.</p> <p>(ii) STP does not have the facility for complete treatment (Primary, Secondary and tertiary) of waste water.</p> <p>(iii) The water treatment plant does not have any iron remover although one of the water sources has high iron content.</p> <p>(iv) The zero liquid discharge is not maintained, there is no oil water separation unit and thereby discharge of untreated water to BudhiNalla which is mentioned as</p>	<p>treated water of Phase I has been utilised for gardening purpose and no excess water is available for discharge to municipal drain. There is no excess treated water found or accumulated at any area nearby. The committee advised that there has to be a connection of treated water of outside Municipal Drain to take care of excess treated water if any and also in rainy season. The respondent nos. 1 and 2 had also installed water treatment plant for treatment of underground water.</p>	<p>Area. After installation, the STP was maintained and controlled by the Project Proponent. Thereafter, one FMC Company namely United Resorts Services LLP was appointed by the Project Proponent for maintaining the said STP. The said company had been maintaining the said STP on and from 01.09.2016 to 31.03.2021.</p> <p>Thereafter, the said STP was handed over to the residents of the building in Phase I on 01.04.2021. On and from 01.04.2021, the said STP has been maintaining and controlling by the residents of the Phase I Building.</p>
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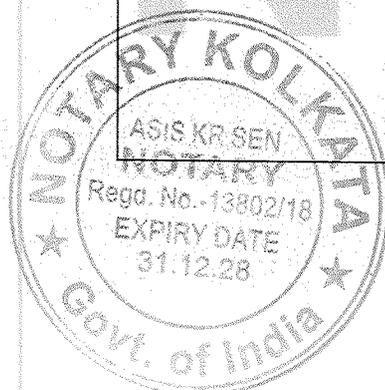
BuriNalla in EC Letter.		
4. Absence of facility for use of Renewable / Solar Energy in Phase I against a stipulation of at least 5% of the total power consumption for Phase I for street and common area solar lighting.	There was no use of renewable/solar energy in Phase I building. The respondent nos. 1 and 2 undertook that the said solar energy will be installed in Phase I building by 31.08.2022.	<p>The installation of solar water heater has been completed at roof top area of Phase II and the entire system will be completed by 30.06.2022.</p> <p>The installation of solar power generation system for Phase I will be in place with help of suitable agency to install solar water heater by 31.08.2022.</p> <p>Work order has been issued to M/S Solar Sack on 19.08.2022 and the installation works are under process.</p> <p>It is submitted that the aforesaid installation work will be completed by 31.01.2023. But such completion of installation work will be subject to cooperation and permission rendered and granted by the applicants, i.e. Z1 Residents' Welfare Association.</p> <p>At present, the building of the Phase I is under the control of the applicants. The said building along with maintenance of rainwater harvesting and/or recharging pits etc.</p>



234

233

		have to be maintained by the applicants.
5. Diesel Generator sets in Phase I of project have inadequate stack heights and same is violation of CPCB norms.	The DG Set stack of Phase I was about 6 meter with roof coverage. It was not adequate. The distance from nearest building was over 50 meters.	As per recommendation of the Committee, the height of the DG Set Stack has been verified and/or checked by the SEIAA and the Regional Officer, SPCB. As per the Certificate of the "Consent to Operate" issued by the SPCB, the height of vent has been made 6.06 meter from ground level.
6. Dust Control measures not adopted to control dust and noise pollution during the construction of Phase II for which senior citizens were worst suffers.	It was advised by the committee to take appropriate measures for controlling the dust and noise pollution. It was also advised to stop the construction work during mid day time, i.e. 1 pm to 3 pm and after 9 pm till the next morning.	Complied
7. Rain water harvesting / Recharge Pits reveal that water harvesting for storm water and runoff water is not available.	The committee had advised that as so many recharge pits were available in place, they should implement the harvesting system fully not only for roof top but also for paved area surface water connecting channels to pits. It was also advised	As per recommendation, the Project Proponent has already submitted the detailed report on water cycle like quantum (in KLD) of rainwater, which to be collected from the roof top area of the building, the paved area, the open surface and for storm water collection. All recharge pits are constructed and in full



235

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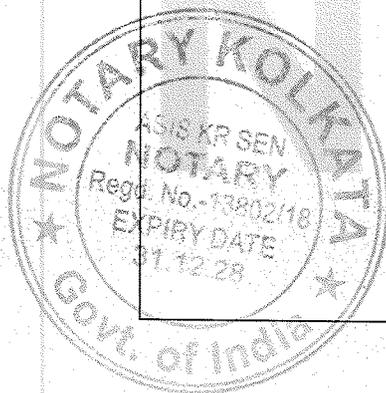
	<p>for rain harvesting and reuse for plantation and other purposes.</p>	<p>operation. All recharge pits are provided with slotted pipes, which are extended up to 30 meter depth, in order to facilitate the replenish and/or retention of rainwater all around year.</p> <p>Techno-Commercial Offer for Surface Runoff Water Treatment Plant has been prepared by Swachh Green Info Tech Private Limited.</p> <p>As per the aforesaid Report, the work is under process.</p> <p>At present, the building of the Phase I is under the control of the applicants. The said building along with maintenance of rainwater harvesting and/or recharging pits etc. have to be maintained by the applicants.</p>
<p>8. No facility for segregation of solid wastes into Biodegradable and non-biodegradable category.</p>	<p>The committee had not seen any community dustbin had been placed outside of the building for separation and collection of domestic waste for Phase I. There was a newly purchased bio-degradable</p>	<p>One authorized party namely M/S Clean Mart Facility Services was appointed by the Project Proponent for collection of solid waste from the premises of Z-Estates for the period from 01.05.2020 to 31.03.2021. The building of Phase I was handed over to the applicant on 18.01.2021.</p>



236

235

	<p>waste composting machines having capacity 1000 kg/day waste decomposition for the Phase II building was already there to operate. The compost machine for Phase II has been installed and the same will be operated by 30.06.2022.</p>	<p>Thereafter, the solid waste of the Buildings of Phase I has been managed by the applicants.</p> <p>One Bio-degradable Waste Compositing Machine having capacity of 1000 kg/day has already been installed in the Southern portion of Phase I, i.e. in Phase II and the said machine is fully functioning. The Project Proponent, by a letter, has already informed the applicants of Phase I and asked them to segregate the waste generated in Phase I and to send the bio-degradable waste for composting to this Composting Machine. It is further submitted that there was no condition in the Environment Clearances dated 16.08.2011 and 23.02.2016 respectively for putting of Organic Waste Converter in Phase I. Therefore, no Bio-degradable Waste Compositing Machine was installed in Phase I. The building of Phase I was handed over to the applicants on 18.01.2021 and inspection was conducted by the Committee on 20.01.2022.</p>
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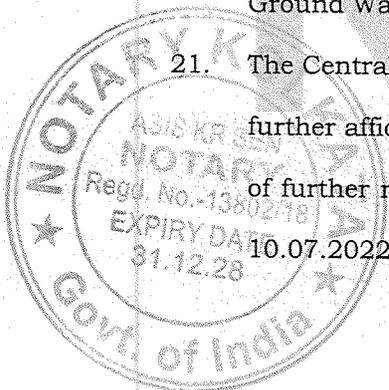
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		<p><i>After handing over the building to the applicants, the solid waste was managed by the applicant. The Project Proponent is not responsible for placing any community dustbin outside of the building for separation and collection of domestic waste for Phase I.</i></p> <p><i>At present, the building of the Phase I is under the control of the applicants. The said building along with contract with authorized agency for solid waste disposal has to be maintained by the applicants."</i></p>
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20. The Central Ground Water Board, Respondent Nos. 5 & 6, has filed its affidavit dated 26.10.2022, stating therein that previously No Objection Certificate (NOC) was issued to the Respondent Nos. 1&2, Project Proponent on 16.07.2019 for use of ground water and the same has expired on 09.07.2022. It is also stated that an online application was submitted by the Project Proponent on 09.04.2022 for renewing of NOC issued to them earlier for use of ground water and the same is still pending consideration before the Central Ground Water Board, Bhubaneswar.

21. The Central Ground Water Board, Respondent Nos. 5&6, has filed a further affidavit dated 16.12.2022, stating that before consideration of further renewal of the NOC for extraction of ground water w.e.f. 10.07.2022, a site inspection of the premises in question was

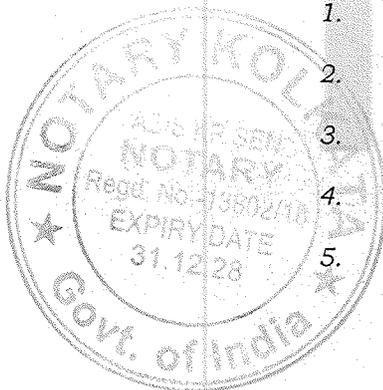


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carried out by the officers of the Central Ground Water Board and during inspection it was found that the Project Proponent had failed to adhere to the condition laid down in the NOC issued. Based upon the site inspection for verification of compliance of NOC conditions, report dated 17.08.2022 has been prepared and a show cause notice has been issued to the Project Proponent on 23.08.2022 in exercise of powers under Section 5 of the Environment (Protection) Act, 1986, to show cause as to why a complaint against the Project Proponent be not registered under Section 15 of the Act, 1986. It is further stated that a notice period of 60 days was given to the Project Proponent. The Company, Project Proponent, accordingly submitted its Compliance Report on 27.10.2022 and it was found that the Project Proponent had not fulfilled the criteria i.e., conditions mentioned in the NOC as well as in the show cause notice and only three, out of five points of the non-compliance conditions, had been fulfilled. Hence, it is stated that a second show cause notice was issued to the Project Proponent on 28.11.2022 to show cause as to why a complaint be not registered against it under Section 15 of the Environment (Protection) Act, 1986, giving 15 days time to rectify the default. Copy of the show cause notice dated 23.08.2022 has been filed as Annexure-D/5 to the affidavit, which shows the following non-compliances of the Project Proponent:-

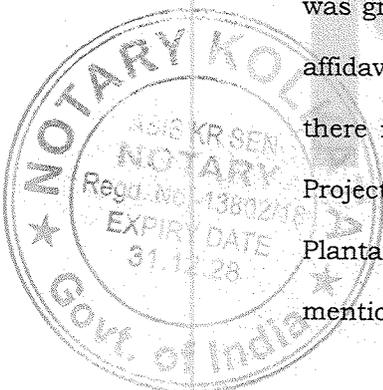
1. *Bore wells are not fitted with digital flow meter,*
2. *Log Book is not maintained,*
3. *Peizometer is not fitted with telemetry system,*
4. *Recharge structures are not maintained,*
5. *Self Inspection is not submitted,*



239

238

22. The second show cause dated 28.11.2022, copy of which has been filed as Annexure-D/6 to the affidavit, shows the following non-compliance of the Project Proponent:-
1. *Bore wells are not fitted with digital flow meter,*
 2. *Self Inspection is not submitted,*
23. Copy of the reply dated 27.10.2022 submitted to the Regional Director, Central Ground Water Board, Bhubaneswar, by the Project Proponent, has also been filed at page no.362 of the paper book, answering the queries of the show cause notice by attaching (a) photographs of borewells fitted with digital flow meter, (b) Log Book, (c) details of Telemetry System submitted to the CGWA on 13.09.2022, (d) maintenance of recharge structures are going on which will take another couple of months to complete, and (e) Self-Inspection Report.
24. The Project Proponent have filed further affidavit dated 17.02.2023, showing the compliance of the directions of the Central Ground Water Board which have already been extracted hereinabove.
25. The Applicant has filed rejoinder affidavit dated 24.08.2022, stating that Environmental Clearances were granted to the Project Proponent on 17.03.2020 and 16.08.2021 for their Housing Projects in an area of 1,41,950.23 square meters and built-up area of 3,95,865.09 square meters and the Environmental Clearance was granted on an undertaking given by the Project Proponent on affidavit to comply with the required norms by 31.10.2020 but there is no compliance of the same. It is further alleged that the Project Proponent has not achieved 20% of Green Belt and Avenue Plantation using native trees species/plants which, he states, finds mention in the Report of the SEIAA that only decorative plants such



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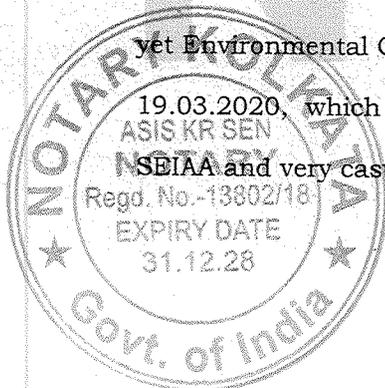
as – Krushna Chuda, Ficus Panda etc. have been planted in the periphery of Phase-I and landscaping.

26. In the affidavit, it is further alleged that the STP does not have facility for complete treatment (primary, secondary and tertiary) of waste water and the water analysis report shows presence of oil which means that there is no oil water separation unit in the STP. It is alleged that Water Treatment Plant does not have (a) any iron remover, (b) Zero Liquid Discharge is not being maintained, (c) and untreated water is being drained into the Budhi Nalla (Buri Nalla).

It is also alleged that (a) there is absence of renewable/solar energy in Phase-I against a stipulation of at least 5% of the total power consumption for Phase-I; (b) Diesel Generator Sets in Phase-I of the Project do not have adequate stack heights; (c) dust control measures to control dust; (d) and noise pollution during construction of Phase-II has not been observed; (e) the report of the SEIAA Committee has not been complied with regard to the submission of detailed report on water cycle like – quantum (in KLD) of rainwater to be collected from rooftop area of the building, paved area, open surface area and storm water collection and their connecting route from source to rainwater recharging/recycling pit.

27. The Applicant has further alleged that inspite of the fact that the conditions mentioned in the Environmental Clearance dated 16.08.2011 for Phase-I had not been complied with and still remain incomplete, Environmental Clearance was granted on 23.02.2016 for Phase-II and the conditions therein also remain incomplete and yet Environmental Clearance for Phase-III has also been granted on

19.03.2020, which shows total non-application of mind by the SEIAA and very casual approach of SEIAA to the enforcement of the

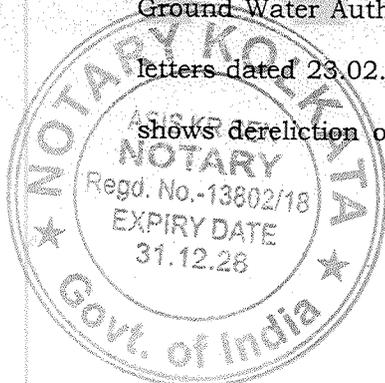


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Environmental Clearance conditions prior to grant of further Environmental Clearances.

28. We have heard the learned Counsel for the parties and perused the documents on record.
29. The Special Conditions for construction phase in the Environmental Clearance dated 16.08.2011 with regard to Ground Water, specifically mentions that no ground water shall be extracted for the project work at any stage during construction phase.
30. The Inspection Report of the Joint Committee of inspection carried out on 20.01.2022 is silent on this aspect of the matter and all that has been stated is that Phase-I Project has already been completed and people are staying there; the Phase-II Project is also almost complete and is going to be operated very soon; and Phase-III Project is under-construction. In the report, it is further stated that the Project Proponent was required to submit NOC letter from the Central Ground Water Authority for use of ground water which shows that it was permitted withdrawal of ground water of 1100 cum/day vide letter dated 23.02.2011 and thereafter w.e.f. 23.05.2015 at 950 cum/day and w.e.f. 16.07.2019 at 3,46,750 cum/year.
31. We fail to understand that when the Environmental Clearance Special Conditions of 16.08.2011 clearly stipulated that no ground water shall be extracted for the project work at any stage during the construction phase, how was the NOC granted by the Central Ground Water Authority for withdrawal of ground water vide their letters dated 23.02.2011, 23.05.2015 and 16.07.2019. This clearly shows dereliction of duty and irresponsibility on the part of the



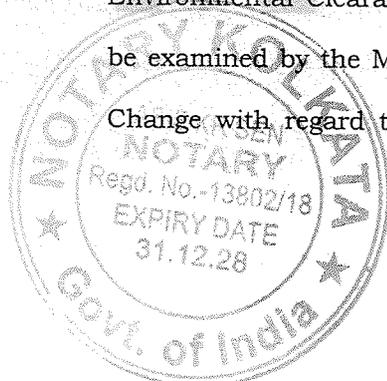
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241

officers concerned of the Central Ground Water Authority in acting in a mechanical manner on the basis of the application for grant of NOC without demanding and examining the conditions laid down in the Environmental Clearance.

Question is not that the Project Proponent submitted online application for grant of NOC. Question is whether the NOC for extraction of ground water for the project work at any stage during construction phase could have been granted at all?

32. The affidavit of the Central Ground Water Board dated 26.10.2022 shows that NOC was granted initially to the Project Proponent on 16.07.2019 on his application which expired on 09.07.2022 and now another online application has been submitted by the Project Proponent on 09.04.2022 for renewal of NOC. The Central Ground Water Authority before granting of NOC ought to have called for the Environmental Clearance of the Project Proponent's project and gone through the conditions laid down therein and in view of the specific prohibition against extraction of ground water for project work during construction work, *prima facie*, no NOC could have been granted. Without first verifying as to what the NOC was being required for and for what purpose the ground water was sought to be extract, NOC has been granted by the Central Ground Water Board. The affidavit of the Central Ground Water Board is silent on these aspects of the matter and, therefore, we may infer that the NOC was granted by the Central Ground Water Board to the Project Proponent in violation of the Special Conditions laid down in the Environmental Clearance dated 16.08.2011. This matter needs to be examined by the Ministry of Environment, Forests and Climate Change with regard to the conduct of the officers of the Central



243

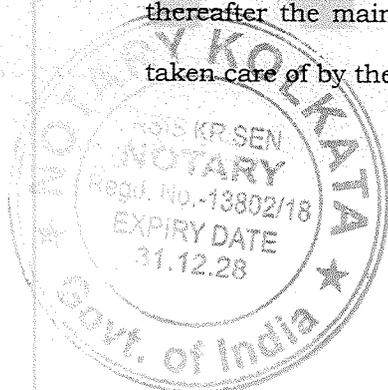
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Ground Water Board, calling for their explanation and if dereliction and negligence of duty on their part in this regard is found, appropriate disciplinary action needs to be taken against the then concerned officers of the Central Ground Water Board.

However, having said that, we do not intend to penalize the Project Proponent, Respondent Nos.1&2, for extraction of ground water when the NOC itself was approved by the Central Ground Water Board.

33. So far as the findings of the Joint Committee's Report with regard to the STP is concerned, the Joint Committee noted that during inspection the STP was found to be operational with primary and secondary units through Moving Bed Biofilm Reactor (MBBR) Technology and the treated water generated from the STP was being used for gardening and no excess treated water was found accumulated in any nearby area. The Project Proponent was advised to ensure connection of treated water to outside municipal drain to take care of excess treated water, if any, and also in the rainy season. Some works were found incomplete such as – internal drains, roads etc. which it was stated by the Project Proponent would be completed at the earliest.

34. The Project Proponent in his compliance affidavit dated 15.11.2022 has stated that one STP of capacity 270 KLD has been installed in Phase-I of the project area and the same was maintained by the Project Proponent till 31.03.2021 whereafter the same was handed over to the residents of the building in Phase-I on 01.04.2021 and thereafter the maintenance and control of the said STP has to be taken care of by the residents of the Phase-I building.



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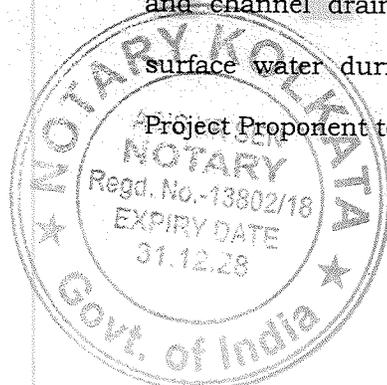
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35. The Environmental Clearance dated 16.08.2011 is silent with regard to the capacity of the STP. From the documents on record, it is not clear as to whether the STP of 270 KLD would be adequate for Phase-I, Phase-II and Phase-III of the Project in question. The Water Analysis Report certainly shows non-compliance of the prescribed standard of BOD being 22.0 mg/l as against the prescribed standard of 20 mg/l and Faecal Coliform being 160000 MPN/100 ml as against the prescribed standard of less than >1000 MPN/100 ml, but as already noted hereinabove, the maintenance of the STP is now under the management and control of the residents of the Phase-I building i.e., the Applicant's Association, and, therefore, the liability for violation of the STP norms as indicated in the Report would fall upon the Applicant's Association.

We, therefore, direct the State Pollution Control Board, Odisha, to take appropriate action for determination of Environmental Compensation for violation of STP norms against the Applicant's Association.

36. The allegation of the Applicant that the Water Treatment Plant does not have Iron Removal or Zero Liquid Discharge, the same needs to be examined by the State Pollution Control Board, Odisha, for purposes of determination of Environmental Compensation in the light of the observations made hereinabove based on the Water Analysis Report.

37. As regards the Rain Water Harvesting and Recharge Pits, the Joint Committee noted that the recharge pits were found filled with water and channel drains were available to collect excess water and surface water during rainy season. The Committee advised the Project Proponent to implement the harvesting system fully not only



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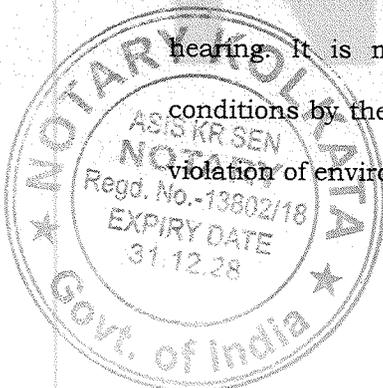
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for rooftop but also for paved area surface water by connecting channels to the pits.

The Environmental Clearance dated 16.08.2011 requires the Project Proponent to install borewells for rain water recharging to be at least 5 meters above the highest ground water table.

38. The affidavit of the Central Ground Water Board, however, clearly shows that two notices were issued by the Board on the ground that (a) recharge structures were not being maintained by the Project Proponent; (b) borewells were not fitted with digital flow meter; (c) Log Book was not maintained; (d) piezometer is not fitted with telemetry system, and (e) self inspection is not submitted. Thus, the Project Proponent is in clear violation of the directions given by the Central Ground Water Board and is also not compliant of the Environmental Clearance conditions with regard to rain water harvesting and recharge of rain water through borewell.

The show cause notice issued by the Central Ground Water Board on 23.08.2022 shows that NOC with mandatory conditions/restrictions and safeguard was issued to the Project Proponent on 16.07.2019 and even on 29.08.2022, the Project Proponent has been found to be non-compliant with regard to recharge borewells and their maintenance. The Central Ground Water Board shall, therefore, determine the penalty for violations with regard to recharge of borewells and their maintenance committed by the Project Proponent and thereafter recover the same from the Project Proponent after giving him opportunity of hearing. It is made clear that subsequent compliance of the conditions by the Project Proponent will not absolve him from past violation of environmental norms.



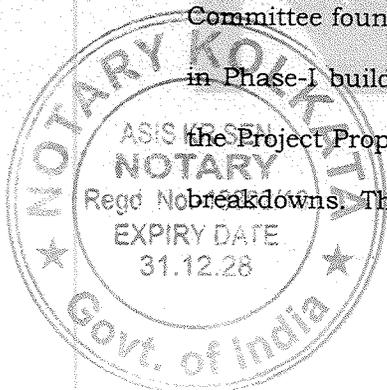
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39. As regards the Solid Waste Management, the Committee went through the papers relating to agreement of the Project Proponent with M/s Clean Mart Facility Service, Bhubaneswar, for collection of solid waste from the premises in question for the period from 01.05.2020 to 31.03.2021. The Committee did not notice any community dustbin outside the building for separation and collection of domestic waste for Phase-I but found that there was a newly purchased Biodegradable Waste Composting Machine having capacity of 1000 kg/day waste decomposition for Phase-II building. The Project Proponent has informed that Phase-II compost system had adequate capacity and would be made available to Phase-I building for treatment of biodegradable solid waste for composting through composting machines.

40. So far as Solid Waste Management regime is concerned, we may advert to the previous Inspection Report dated 30.11.2019 wherein it is found that solid waste generated from households was being collected and handed over to Bhubaneswar Municipal Corporation (BMC) for ultimate disposal. If any default has been found in the subsequent Inspection Report and according to the Project Proponent Phase-I site was handed over to the residents on 18.01.2021, therefore, any findings of non-compliance of the solid waste management regime would be the liability of the Applicant's Association.

41. As regards the Solar System or Energy Conservation, the Committee found that there was no use of Renewable/Solar Energy in Phase-I building. It is stated that efforts were made initially by the Project Proponent but the system did not work due to frequent breakdowns. The Project Proponent has been informed that they



247

246

must adhere to 5% of total power by Solar PV System at rooftop for Phase-I. The Project Proponent in his compliance report has stated that installation of Solar Power Generation System for Phase-I will be completed with the help of suitable agency by 31.08.2022. This clearly shows that from 2011 when the first Environmental Clearance was granted, the Project Proponent has not yet completed installation of Solar Power Generation System and has not install 5% of the total power generation or put in place solar water heater storage/supply at the rooftop and is, therefore, in violation of energy conservation measures. Even in the present affidavit of 16.11.2022, it has not been disclosed by the Project Proponent that Solar Water Heater at rooftop of Phase-I has been installed by 31.08.2022 or not.

42. We, therefore, direct the Project Proponent to complete the project of installation of Solar System for energy conservation to the extent of 5% of the total power positively within two months. However, for past non-compliances, the Project Proponent will be liable for Environmental Compensation as may be determined by the SEIAA, Odisha, which granted the Environmental Clearance.

43. As regards the Diesel Generator set Stacks, the Committee has noted that the DG set Stack of Phase-I is about 6 meters. The Committee also noted that the nearest building is about 50 meters and, therefore, the stack height is not adequate. The Environmental Clearance condition for Diesel Power Generating sets mentions that the height of the stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets put together and should be more than the highest building height. The Committee Report clearly indicates violation of the Environmental



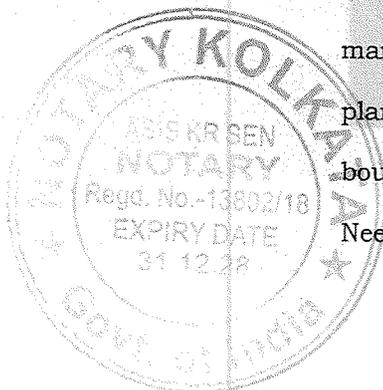
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Clearance condition by the Project Proponent. The Compliance Report of the Project Proponent mentions that as per the Consent to Operate, the height of the vent has been made 6.06 meters from ground level.

The State Pollution Control Board, Odisha, is, therefore, required to examine as to whether the stack height of DG set of 6.06 meters of the Project Proponent's project from ground level is adequate in the given circumstances or not.

44. Mr. Sankar Prasad Pani, learned Counsel for the Applicant's Association submitted that the Project Proponent has not achieved the required Green Belt condition of the Environmental Clearance and, therefore, subsequent Environmental Clearances could not have been granted by the SEIAA, Odisha, mechanically and without application of mind till the conditions laid down in the previous Environmental Clearance had been complied with by the Project Proponent.
45. Learned Counsel has referred to the affidavit filed by the Project Proponent before the State Level Expert Appraisal Committee (SEAC) dated 23.12.2019 (Annexure-8 to the Original Application), wherein the Project Proponent had itself undertaken that the Green Belt would be completed by September, 2020. The Committee has, however, noted that the project is an integrated project and, therefore, tree plantation for Green Belt can only be achieved along the permanent boundary which would take place in a phase manner as per availability of boundary. It is, however, stated that plantation around Phase-I area and along 500 meters of permanent boundary has been completed using local species of plant – Kamini, Neem, Kadamba, Champa, Mango, Coconut, Karanja etc.



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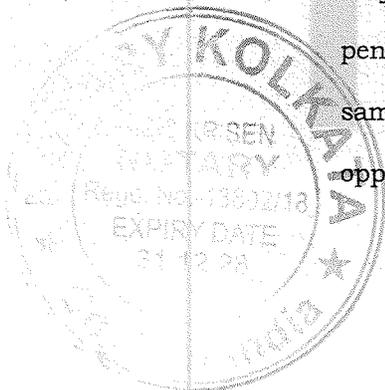
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46. The Environmental Clearance of 16.08.2011 requires the Project Proponent to achieve plantation of trees over at least 20% of the project site area by using native trees species/plants. The Inspection Report of 30.11.2019 is silent with regard to tree plantation in the premises in question. The Committee Report of 20.01.2022 also is peculiarly silent with regard to achieving of 20% target by the Project Proponent as per the Environmental Clearance of 16.08.2011.

47. The Project Proponent, Respondent Nos.1&2, in his compliance affidavit dated 15.11.2022 with regard to Green Belt and Avenue Plantation over at least 20% of the site area has stated that the project is an integrated project and plantation can only be achieved along the permanent boundary but plantation around Phase-I and Phase-II area along with 600 meters of permanent boundary has been completed using local species of plants like – Swarnachampa, Nagachampa, Panasha, Kamini, Neem, Bakul, Kadamba, Champa, Mango, Coconut, Karanja etc.

48. We may, therefore, summarise the directions given by us hereinabove as under:-

(A) The SEIAA, Odisha, shall inspect the site in question within one month and verify whether installation of Solar Power Generation System for Phase-I and installation of Solar Water Heater which was required to be completed by 31.08.2022 as stated by the Project Proponent, has been completed and if not, appropriate penalty shall be imposed against the Project Proponent and the same shall be recovered within two months after giving him an opportunity of being heard.



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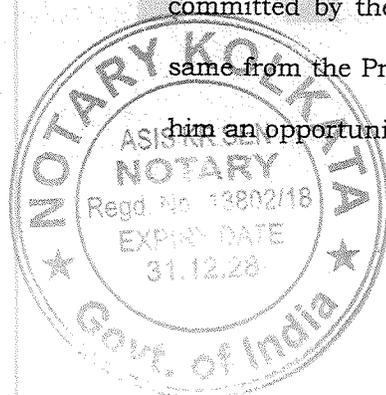
(B) The SEIAA, Odisha, is further directed to determine Environmental Compensation against the Project Proponent for failure to install the Solar System for energy conservation to the extent of 5% of total power as required by the Environmental Clearance conditions dated 16.08.2011 and action in this regard shall be taken within two months after giving the Project Proponent an opportunity of being heard.

(C) The State Pollution Control Board, Odisha, shall verify as to whether the vent height of the D.G. set stack which is at present 6.06 meters for the ground level is adequate, considering that the Environmental Clearance requires the same to be more than the highest building height.

(D) The State Pollution Control Board, Odisha, is also directed to compute Environmental Compensation against the Applicant's Association for violation of STP norms w.e.f. 01.04.2021 when the Phase-I was handed over to the Association by the Project Proponent within two months after giving them an opportunity of being heard.

(E) The State Pollution Control Board, Odisha, shall also take action against the Applicant's Association for non-compliance of the Solid Waste Management regime, if any, w.e.f. 18.01.2021 when the Phase-I of the site in question was handed over to the Applicant's Association.

(F) The Central Ground Water Board shall determine the penalty for violations with regard to recharge of borewells and their pits as committed by the Project Proponent and thereafter recover the same from the Project Proponent within two months after giving him an opportunity of being heard.



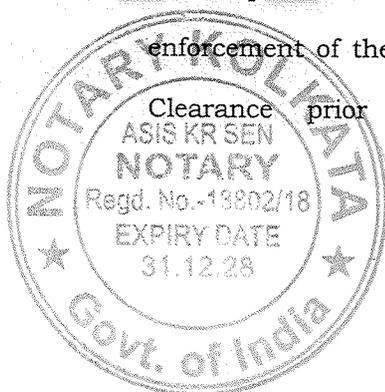
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(G) With regard to completion of Green Belt and Avenue Plantation over at least 20% of the site area as required by the Environmental Clearance conditions dated 16.08.2011, the Committee constituted by the Tribunal is directed to re-visit the premises of the Project Proponent and verify whether at least 20% of the Green Belt has been achieved by the Project Proponent and if not, appropriate Environmental Compensation shall be determined against the Project Proponent and the same shall be recovered within two months after giving him an opportunity of being heard.

(H) The Ministry of Environment, Forests and Climate Change, shall verify as to how the Central Ground Water Board granted the NOC to the Project Proponent for extraction of ground water in violation of the Special Conditions laid down in the Environmental Clearance dated 16.08.2011 that no ground water shall be extracted for the project work at any stage during the construction phase and if the concerned officers of the Central Ground Water Board are found to have acted in violation of the Environmental Clearance conditions in granting the NOC to the Project Proponent for extraction of ground water, appropriate disciplinary action shall be taken against the concerned officers of the Central Ground Water Board by the Appointing Authority.

(I) The Ministry of Environment, Forests and Climate Change, shall also verify the conduct of the officers of SEIAA, Odisha, who were in position at the relevant point of time with regard to strict enforcement of the conditions laid down in the Environmental Clearance prior to granting subsequent Environmental



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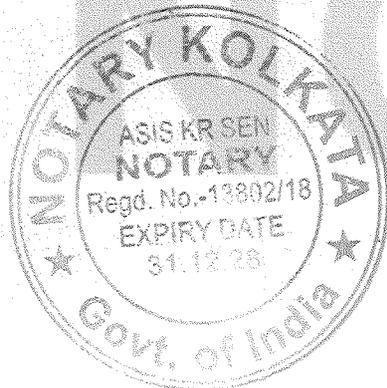
Clearances and if dereliction in discharge of their duties is found, appropriate adverse entries shall be given to the concerned officers of SEIAA, Odisha, in their ACRs by the Appointing Authority.

49. With the observations and directions made hereinabove, the Original Application No. 11/2022/EZ is accordingly disposed of.
50. I.A.s, if any, stand disposed of accordingly.
51. There shall be no order as to costs.

.....
B. Amit Sthalekar, JM

.....
Dr. Arun Kumar Verma, EM

May 1st, 2023,
Original Application No.11/2022/EZ
AK



253 ANNEXURE - P-8
252

Inspection report of the Joint Committee visited on 13.07.2023, in the matter on violation of conditions stipulated in the EC by the Builders Z-Estates Pvt. Ltd on Construction of Housing colony and shopping mall (Phase-I) at Kalarahanga, Patia, Bhubaneswar.

As per the direction of the Hon'ble NGT, Eastern Zone, Kolkata order dated 01.05.2023 in O.A. No. 11/2022/EZ- Z1-Residents' Welfare Association Vrs Z- Estates Private Limited and Ors, a joint committee has been constituted comprising of the following members and the committee visited the project site on 13.07.2023:

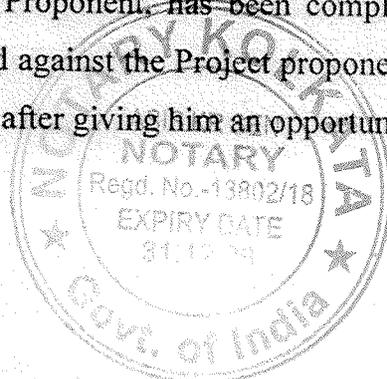
1. Prof. (Dr.) B.K. Satapathy (Member, SEAC)
2. Dr. Rebatu Kanta Mishra, Environmental Scientist, SPCB, Odisha
3. Dr. Chittaranjan Panda (Member, SEAC)
4. Dr. Pradeept Kumar Nayak, Environmental Scientist, SEIAA, Odisha

In addition to the above committee members, the following representatives and villagers were also present during the site visit: -

1. Sri Ashok Kumar Tripathy, IAS (Rtd.) Member/Representative, Z1-Welfare Apartment Society
2. Sri Malay Panigrahi, Member/Representative, Z1-Welfare Apartment Society
3. B. N. Panda Member/Representative, Z1-Welfare Apartment Society
4. Sri Partha Sarathi Panda, Representative Z- Estates Private Limited
5. Sri Radhaprasad Das Representative Z- Estates Private Limited

As per direction, the Joint Committee to visit the site and examine the facts and submit report on the following points:

- i. The SEIAA, Odisha, shall inspect the site in question within one month and verify whether installation of Solar Power Generation System for Phase-I and installation of Solar Heater which was required to be completed by 31.08.2022 as stated by the Project Proponent, has been completed and if not, appropriate penalty shall be imposed against the Project proponent and the same shall be recovered within two months after giving him an opportunity of being heard.



254

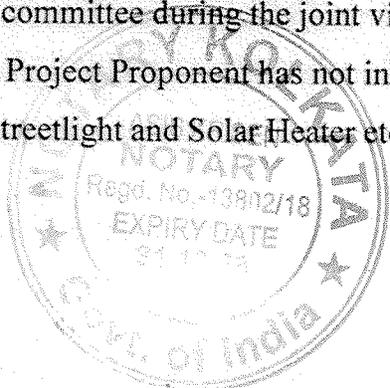
253

- ii. The SELAA, Odisha, is further directed to determine Environmental Compensation against the Project Proponent for failure to install the Solar System for energy conservation to the extent of 5% of total power as required by the Environmental Clearance (EC) conditions dated 16.08.2011 and action in this regard shall be taken within two months after giving the Project Proponent an opportunity of being heard.
- iii. With regard to completion of Green Belt and Avenue Plantation over at least 20% of the site area as required by the Environmental Clearance dated 16.08.2011, the Committee constituted by the Tribunal is directed to re-visit the premises of the Project Proponent and verify whether at least 20% of the Green Belt has been achieved by the Project Proponent and if not, appropriate Environmental Compensation shall be determined against the Project Proponent and the same shall be recovered within two months after giving him an opportunity of being heard.

Accordingly, the Joint Committee comprising of the above-mentioned official had visited the site on 13.07.2023 and observed the following after details assessment:

Overall Observation:

1. During site inspection the Committee has observed that the Phase-I project had already been completed and people are staying there, and Phase-II project also completed and people are staying there but the Phase-III project is under construction. The Phase-I, II & III projects are integrated project in the same campus with single boundary.
2. There is no use of Solar Power Generation System for Phase-I building only installation of Solar Heater which were under process (i.e. some equipment's for connection of Solar Heaters are installed in the roof top but not completed and not operational during the time of visit) which was required to be completed by 31.08.2022 as committed by the Project Proponent, and not completed as verified by the committee during the joint visit.
3. As the Project Proponent has not installed any Solar Power Generation System i.e Solar streetlight and Solar Heater etc and nothing operational, the Solar System for

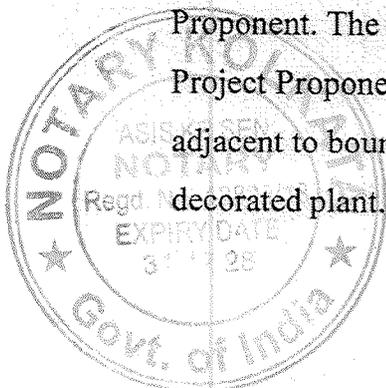


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energy conservation to the extent of 5% of total power as required by the Environmental Clearance (EC) conditions dated 16.08.2011 is not complied by the Project Proponent as observed by the Joint Committee.

4. Initially, EC was issued by SEIAA, Odisha vide letter no. 433/SEIAA dt. 16.08.2011 where it was mentioned that the plot area is **1,05,962.07 sqm**, total built-up area **2,44,092.73 sqm** and condition given in EC letter for plantation that-green belt & avenue plantation of trees should be at least 20% and shall be done using native tree species/plants improving greenery. EC obtained for entire project and nowhere, it is mentioned that EC granted for Phase-I or Phase-II etc.
5. The EC amended by SEIAA; Odisha vide letter no. 827/SEIAA dt. 23.02.2016 where the plot area was revised 1,05,962.07 sqm to **1,23,717 sqm** (i.e. Phase-I + Phase-II) and built-up area revised to **2,44,092.73 sqm** to **1,85,904.880sqm**. (i.e., for phase-I + Phase-II).
6. Finally, EC obtained from SEIAA, Odisha vide letter no. 7991/SEIAA dt. 17.03.2020 where it was mentioned that the plot area for Phase-I & Phase -II is 1,23,717 sqm and total built-up area is 73,968.9 sqm (Phase-I) and 1,11,945.98 sqm (Phase-II), provision for green belt-30,929.22 sqm (i.e. for Phase-I & Phase-II). Similarly, total plot area for Phase-III is 17,873.23 sqm and Built-up area 2,09,960.21 sqm, green belt area provision is 20,922.87 sqm.
7. As per the site visit and Google earth map KML file it reveals that there is no separate boundary for phase-I, Phase-II and Phase-III. The green-belt of Phase-I is approximately 9000 sqm. area Phase-II it is approximately 11000 sqm. area and in together it is 20,000 sqm. (Phase-I & Phase-II). But in EC letter issued vide letter no. 7991/SEIAA dt. 17.03.2020 was mentioned that the green belt- area shall be 30,929.22 sqm (i.e. for Phase-I & Phase-II) which is not complied by the Project Proponent. The Green belt and Avenue Plantations are available and shown by the Project Proponent during joint visit revealed that the tree species are planted only adjacent to boundary wall of project area and rest of the area with lawns and some decorated plant. Tree species are very less with comparison to lawns area including



256

255

ornamental and decorated plant. During joint visit Z1-Residents' Welfare Association members informed that they want to remove some tree species planted in the lawn area as there is an underground basement parking and green belt i.e. lawn was developed over the underground basement parking thus, there may be chances of cracking the basement, so they want to remove the planted tree.

Environmental Compensation

Overall, the committee observed that this is a case of violation of EC conditions and the project proponent has failed in their commitments to comply EC conditions on 31.08.2023 i.e. Green belt/Plantation and Solar System for energy conservation to the extent of 5% of total power through solar water heater and Solar Power Generation System for its use etc. Hence, the environmental compensation has been calculated as below:

Environment Compensation to be levied for various violation by Industrial Units: -

In absence of any formula for calculation of Environment Compensation due to violation of EC conditions for building and construction project. The committee adopted the CPCB formula applicable for environmental compensation for the industries is calculated, following below formula:

$$EC=PI \times N \times R \times S \times LF$$

$$EC=80 \times 377 \times 250 \times 1.5 \times 1.25 = \text{Rs. 1,41,37,500/-}$$

Where,

EC is Environmental Compensation in ₹

PI = Pollution Index of industrial sector (taken 80 red category industries)

N = Number of days of violation took place (377 days i.e. 31.08.2022 to 13.07.2023)

R = A factor in Rupees (₹) for EC (Taken Rs.250/- as per CPCB recommendation)

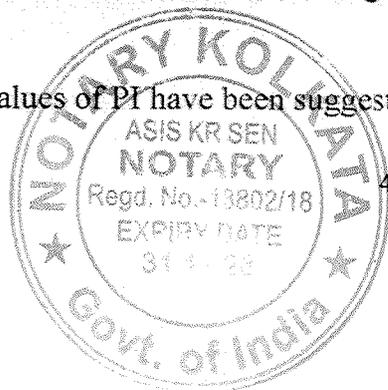
S=Factor for scale of operation (Taken 1.5 a= for large category)

LF = Location factor (Taken 1.25)

Pollution Index (PI)

The range of Pollution Index for Red, Orange and Green is 60 to 100, 41 to 59 and 21 to 40, respectively.

The following values of PI have been suggested in the CPCB report: —



257

256

Category	Red	Orange	Green
PI	80	50	30

Wastewater generation is 602 KLD and it will be treated in 650 KLD STP Capacity, so it is considered as Red category project as per CPCB guidelines.

Number of days (N)

N, number of days for which violation took place is the period between the day of violation observed/due date of direction's compliance and the day of compliance verified by Regional Office.

Factor in Rupees (R)

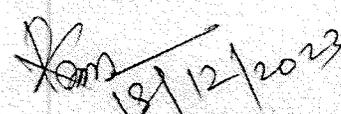
The minimum of 100 and maximum of 500 of factor in Rupees (R) mentioned in report of CPCB.

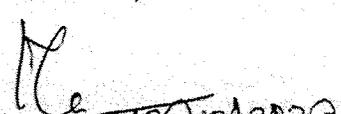
Recommendation of the Committee

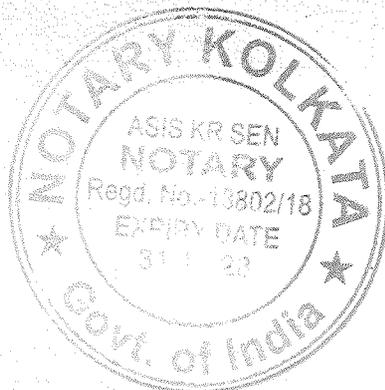
The Project proponent shall deposit the above-mentioned amounting of Rs. 1,41,37,500/- to Forest, Environment & CC Dept., Govt. Odisha and that amount to be used for remedial measure for Plantation and installation of Solar light & Solar Heater of Z-1 Building.


Prof (Dr.) B.K. Satpathy
(Member, SEAC)


Dr. Chittaranjan Panda
(Member, SEAC)


Dr. Pradeepta Kumar. Nayak,
Environmental Scientist, SEIAA, Odisha


Dr. Rebati Kanta Mishra,
Environmental Scientist, SPCB, Odisha



258

257



Z1 Apartments, Wing E, Kalarangha, Patia, Bhubaneswar, Odisha
751024, India

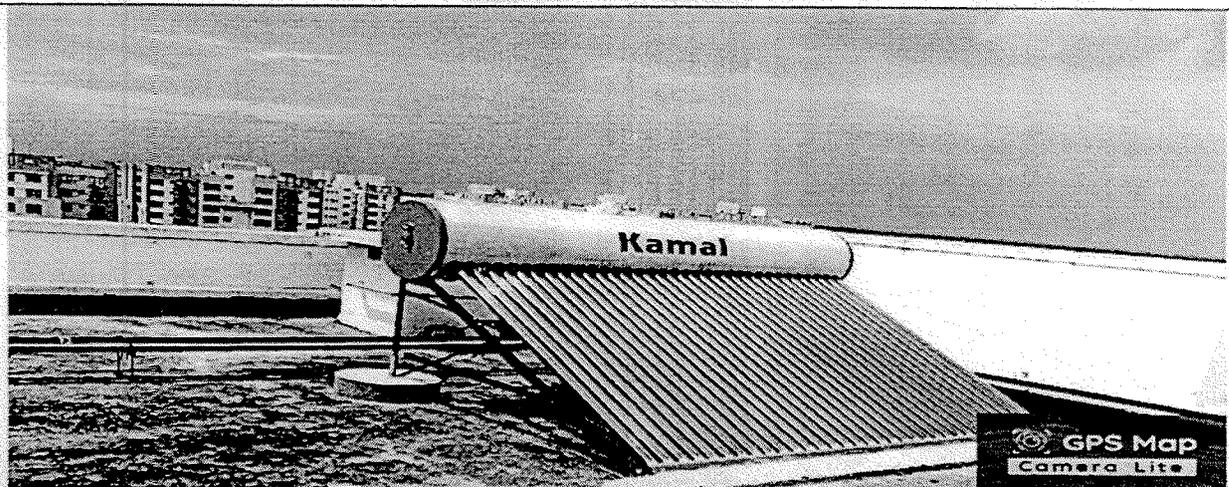
Latitude
20° 22' 0.81" N

Longitude
85° 50' 3.69" E

Local 01:44:14 PM
GMT 08:14:14 AM

Altitude 21 meters
Thursday, 13.07.2023

Note ; Captured by GPS Map Camera Lite



Z1 Apartments, Wing E, Kalarangha, Patia, Bhubaneswar, Odisha
751024, India

Latitude
20° 22' 0.3" N

Longitude
85° 50' 3.612" E

Local 01:47:00 PM
GMT 08:17:00 AM

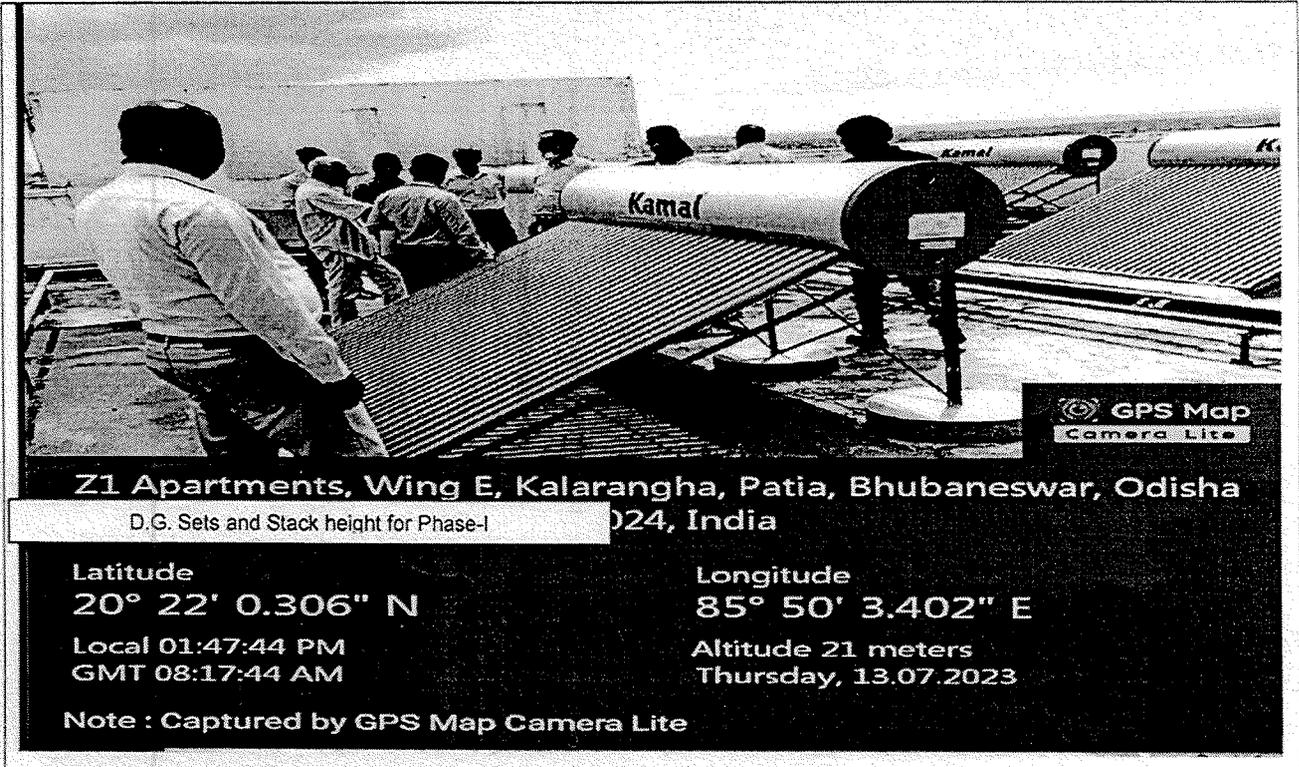
Altitude 21 meters
Thursday, 13.07.2023

Note : Captured by GPS Map Camera Lite



259

258



GPS Map
Camera Lite

Z1 Apartments, Wing E, Kalarangha, Patia, Bhubaneswar, Odisha

D.G. Sets and Stack height for Phase-I 024, India

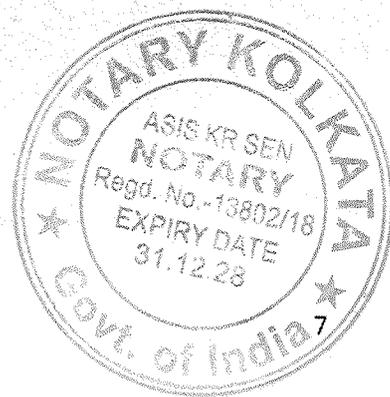
Latitude
20° 22' 0.306" N

Longitude
85° 50' 3.402" E

Local 01:47:44 PM
GMT 08:17:44 AM

Altitude 21 meters
Thursday, 13.07.2023

Note : Captured by GPS Map Camera Lite



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GPS Map
Camtaro LTD

9R8P+7FM, Patia, Bhubaneswar, Odisha 751024, India

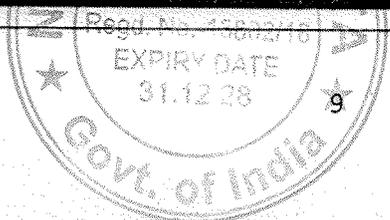
Latitude 20° 21' 56.778" N	Longitude 85° 50' 9.126" E
Local 12:43:10 PM	Altitude -4.8 meters
GMT 07:13:10 AM	Thursday, 20-01-2022



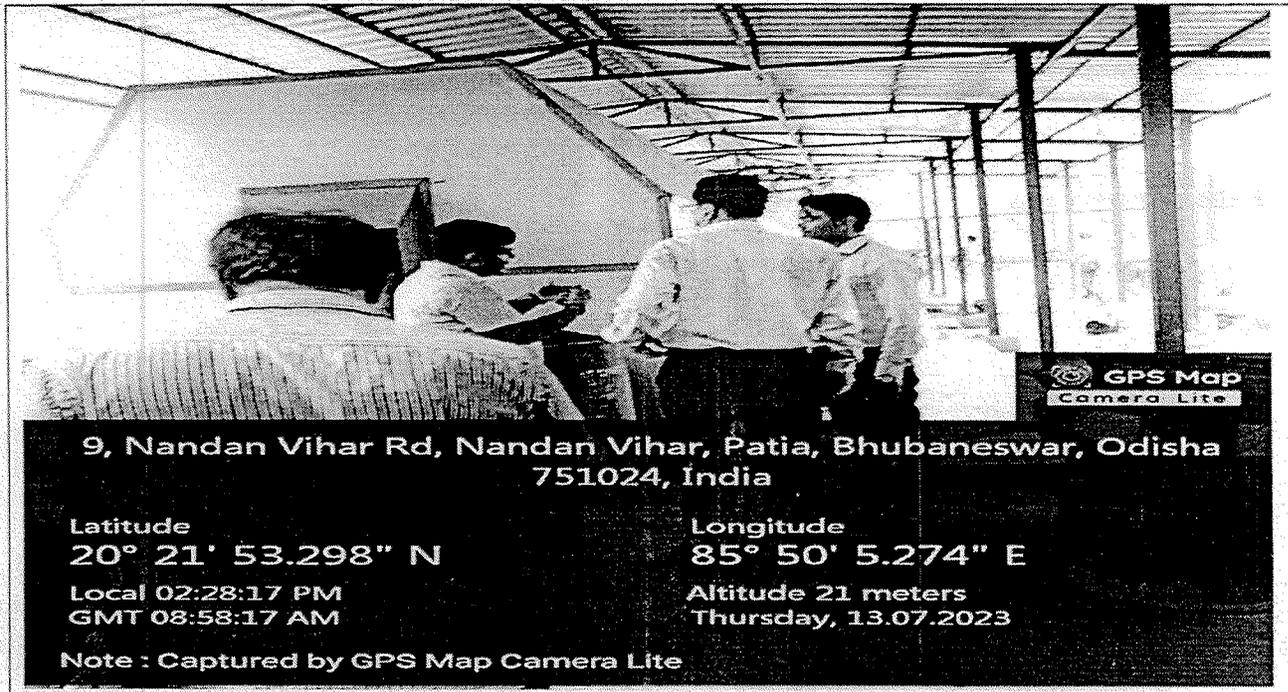
GPS Map
Camtaro LTD

Nageswar Residency, Patia, Bhubaneswar, Odisha 751024, India

Latitude 20° 21' 57.29148" N	Longitude 85° 50' 9.82644" E
Local 12:43:06 PM	Altitude -35.2 meters
GMT 07:13:06 AM	Thursday, 20-01-2022



262 261



9, Nandan Vihar Rd, Nandan Vihar, Patia, Bhubaneswar, Odisha
751024, India

Latitude
20° 21' 53.298" N

Longitude
85° 50' 5.274" E

Local 02:28:17 PM
GMT 08:58:17 AM

Altitude 21 meters
Thursday, 13.07.2023

Note : Captured by GPS Map Camera Lite



Flat 231, Northern Heights, Kalarangha, Patia, Bhubaneswar,
Odisha 751024, India

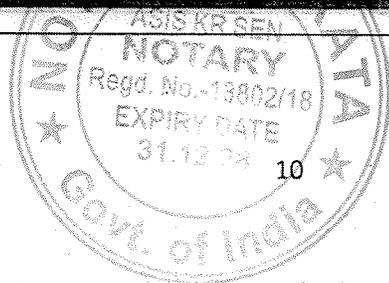
Latitude
20° 21' 53.862" N

Longitude
85° 50' 5.718" E

Local 02:29:14 PM
GMT 08:59:14 AM

Altitude 21 meters
Thursday, 13.07.2023

Note : Captured by GPS Map Camera Lite



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Item No.06

Court No.1

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
(THROUGH PHYSICAL HEARING WITH HYBRID MODE)**

Original Application No.11/2022/EZ

IN THE MATTER OF:

Z1 RESIDENTS' WELFARE ASSOCIATION,

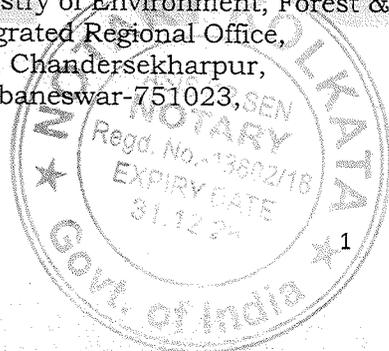
Through its General Secretary, Bidhubhusan Nayak,
Tower 1, Flat No. 1304, Z1 Estate,
Nadankanan Road, Kalarhanga, Patia,
Bhubaneswar, Odisha-751024

.....Applicant(s)

Versus

- 1. Z ESTATES PRIVATE LIMITED,**
Registered office at M/4-34 Acharya Vihar,
Bhubaneswar, Odisha-751013;
- 2. SHRI TAPAN KUMAR MOHANTY,**
Managing Director,
Z Estates Private Limited,
At M/4-34, Acharya Vihar, Bhubaneswar,
Odisha-751013;
- 3. MEMBER SECRETARY,**
Odisha State Environment Impact Assessment Authority, (SEIAA),
Qr. No.5RF-2/1, Unit-IX,
Bhubaneswar-751022,
- 4. MEMBER SECRETARY,**
Odisha State Pollution Control Board,
A-118, Nilakantha Nagar,
Unit-VIII, Bhubaneswar-751012,
- 5. MEMBER SECRETARY,**
Central Ground Water Authority,
18/11, Jamnagar House, Mansingh Road,
New Delhi-110011,
- 6. REGIONAL DIRECTOR,**
Central Ground Water Board,
South Eastern Region, Bhubaneswar Bhujal Bhawan,
Khandagiri, Bhubaneswar,
- 7. DEPUTY DIRECTOR GENERAL OF FORESTS (C),**
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A/3, Chandersekharpur,
Bhubaneswar-751023,

.....Respondent(s)



264 266 263

Date of hearing: 01.05.2023

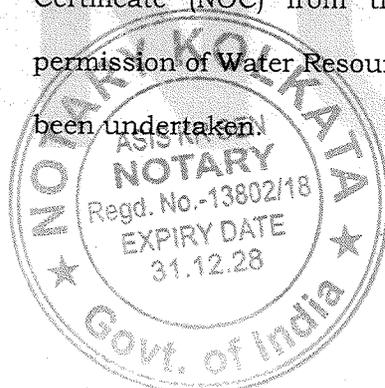
**CORAM: HON'BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
HON'BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER**

For Applicant(s) : Mr. Sankar Prasad Pani, Adv. (in Virtual Mode)

For Respondent(s): Mr. Kallol Basu, Advocate a/w Mr. Nilanjan Pal, Adv.
and Ms. Radhika Mishra, Adv. for R-1&2,(in Virtual Mode),
Mr. Apurba Ghosh, Advocate for R-3,
Ms. Papiya Banerjee Bihani, Adv. for R-4 (in Virtual Mode),
Mr. Ashok Prasad, Adv. for R-5 & 6 (in Virtual Mode)

ORDER

1. Mr. Sankar Prasad Pani, learned Counsel is present (in Virtual Mode) for the Applicant. Counsel for the Respondents are present in Virtual Mode.
2. The broad allegations made in the present Original Application are that the Respondent Nos. 1 and 2 have been carrying out constructions in Phase-I & II over a built-up area of 3,95,865.09 m² for which they were accorded Environmental Clearance on 17.03.2020 (Annexure 9 to the Original Application). It is also alleged by the Applicant's Association that in violation of the conditions of the Environmental Clearance, Green-Belt and Avenue Plantation required over an area of 20% of the site using native trees species/plants, was supposed to have been planted by the Project Proponent, Respondent Nos.1 and 2, covering an area of 30,929.22 m² but this has not been done.
3. It is further alleged that the compliance of condition of No Objection Certificate (NOC) from the Central Ground Water Board and permission of Water Resource Department, Govt. of Odisha, has not been undertaken.



265

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4. The Applicant in his Original Application alleges that following Environmental Clearance conditions have not been complied with which read as under:-

"1. Green-Belt and Avenue Plantation over at least 20% of the site using native trees species/plants area not there. SEAC Committee observes that Green belt for Phase I is virtually absent except decorative plants such as Krushna Chuda, Ficus panda etc. in the periphery of the boundary of Phase I and landscaping.

2. Compliance of Conditions of "NOC" from CGWA and permission of water Resource Department, Govt. of Odisha is not available.

3. Detail workable plan/scheme either for zero discharge/or discharge to main road side drain through STP and oil water separation unit, particularly for monsoon period so that it will not affect the human health/ environment is not available.

4. STP does not have the facility for complete treatment (Primary, Secondary and tertiary) of waste water.

5. The water treatment plant does not have any iron remover although one of the water source has high iron content.

6. The zero liquid discharge is not maintained, there is no oil water separation unit and thereby discharge of untreated water to Budhi Nalla which is mentioned as Buri Nall in EC letter.

7. Absence of facility for use of Renewable/Solar Energy in Phase I against a stipulation of at least 5% of the total power consumption for Phase I for street and common area solar lighting.

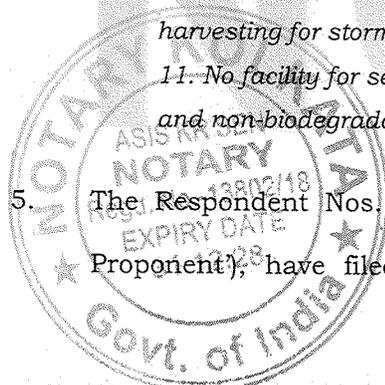
8. Diesel Generator sets in Phase I of project have inadequate Stack heights and same is violation of CPCB Norms.

9. Dust control measures not adopted to control dust and noise pollution during the construction of Phase II for which the senior citizens were the worst sufferers.

10. Rain Water harvesting/Recharge Pits reveals that water harvesting for storm water and runoff water is not available.

11. No facility for segregation of solid wastes into Biodegradable and non-biodegradable category."

5. The Respondent Nos. 1 & 2, (hereinafter referred to as 'Project Proponent'), have filed their counter-affidavit dated 05.03.2022,



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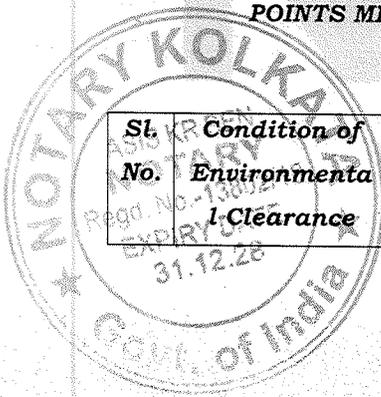
denying the allegations in the Original Application and further submitting that the claims made by the Applicant with regard to the Respondent Nos.1&2, are misconceived, vexatious and frivolous, apart from not being maintainable and Applicants have no cause of action.

6. In the affidavit, it is stated that the Applicant submitted a letter on 05.10.2021 to the Respondent No.3, SEIAA, Odisha, alleging non-compliances of the stipulated conditions by the Respondent Nos. 1 & 2, in the Phase-I of the Project. It is stated that a four Member Committee was formed by the SEIAA, Odisha, to investigate the purported non-compliance of the stipulated conditions by the Project Proponent and the said Committee visited the site and conducted an investigation in the presence of one representative of the Applicant at the project site on 20.01.2022. It is stated that representatives of the Applicant and Respondents Nos. 3, 4 and 7 were also present as well as the representatives of the Project Proponent. It is stated that investigation was conducted by the Committee without any obstruction by the parties pursuant to which the Project Proponent submitted a Status Report vide letter dated 03.02.2022 with regard to the Action Plan for implementation of the points mentioned by SEIAA, Odisha, in its letter dated 20.02.2020. Copy of the Status of Action Plan has been filed as Annexure-A (colly) (page no. 223) which is extracted herein below:-

**"STATUS OF ACTION PLAN FOR IMPLEMENTATION OF
POINTS MENTIONED VIDE SEIAA, LETTER NO-7887/SEIAA**

DATE-20-02-2020

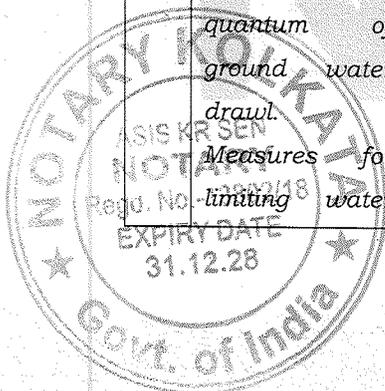
Sl. No.	Condition of Environmental Clearance	Implementation to be done	Implementation Schedule	Implementation Status as on 31-01-2022
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207

266

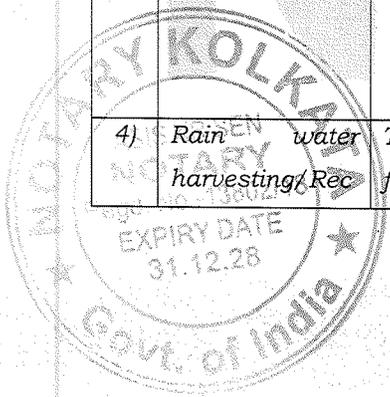
1)	Development of Green Belt For PH-1 & PH-II	We will develop a Green belt of 3.0Mtr width (approx..) in multiple layers all along the permanent boundary wall. This will be carried out both for PH-I & PH-II Expansion. The plantation activity of Greenbelt for PH-II shall be started on the onset of monsoon and shall be completed by end of 2020 monsoon i.e. much before the completion of building project and handing over process.	Plantation work to be started by June 2020 (start of monsoon) and will be completed by September 2020 (End of Monsoon)	Since this is an integrated project plantation can only be done along the permanent boundary which will took place in phase manner as per the available of boundary. However Plantation around PH-I area and along 500 mtr. Of permanent boundary has been completed using Local species of plan (Kamini, Neem, Bakul, Kadamba, Champa, Mango, Coconut, Karanja etc.)
2)	'NOC' from CGWA & permission for Water Resources Dept. Govt. of Odisha for Phase-I and PH-II for quantum of ground water drawl. Measures for limiting water	NOC from CGWA. Measures for limiting water use has been done by restricting the use through optimization of water supply and measuring the daily supply using flow meter.	Complied	Complied



268

267

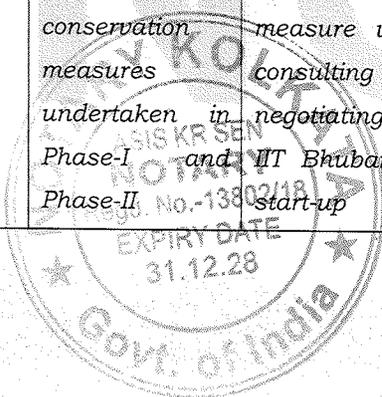
	use.			
3)	Installation of STP of appropriate capacity (Phase-I and Phase-II) and complete waste water treatment protocol adopted. Waste water drainage outside the premises, and permission of the competent Authority for the same.	STP of capacity 270 KLD based on MBBR technology is already in force for Phase-I and another STP of capacity 450 KLD has been planned for Phase-II. The surplus waste water of STP after using it for car washing. Toilet Flushing and gardening will be carried by the surface drain of the project leading to a appropriate capacity of ET P with oil and water separate chamber and shall be finally discharged to BMC open drain running along the frontage of the project after meeting the required parameters.	EPT for disposal of Excess treated Water during Monsoon shall be in operation by 30 th June 2020.	The construction installation and operation of STP for PH-II is in final operation stage and connection of pipeline for disposal of Excess treated waste water to municipal drain has been completed which will be taken into full operation during monsoon of 2022. All the treated water of PH-I has been utilized for gardening purpose and no excess water is available for discharge to municipal drain. However system for discharging excess treated water during monsoon period has been integrated with PH-II system of discharging excess water.
4)	Rain water harvesting/Rec	The rain water from the roof top	Phase-I Corrective steps	All necessary corrective steps



270

269

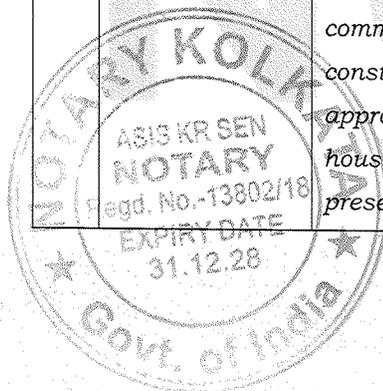
	Phase-	waste and handing over to the OPSCB Empaneled (Under solid waste management rule of 2016 of Environmental protection act 1986) solid waste recycler for disposal. We are committed to install adequate capacity of Organic convertor/composting machine in the project area aiming at utilization of this compost for Lawn, ornamental Horticulture, Green belt. The above system catering both for PH-I and PH-II shall be in operation by October 2020.		will be made fully operational by 30 th June 2022. However, the discussion with PH-I society will be made and a system will be explored to manage the solid waste generated from PH-I through this compost machine. Till handover to PH-I society the agency with whom we had a contract was collecting the garbage regularly.
6)	Energy conservation measures undertaken in Phase-I and Phase-II	As a progressive measure we are consulting and negotiating with IIT Bhubaneswar start-up project	30 th June 2020.	The installation of Solar power generation system is in progress at roof top area of



277

270

	including installation of solar panel for lighting of common areas, hot water storage etc. Detail of action plan and implementation schedule.	group for procurement installation, operation and maintenance of solar power within the Project for I & II phases with a long term annual maintenance contact satisfying the norms of minimum 5% of the power consumption in the Project.		Phase-II Building and the entire system will be in complete operation by 30 th June 2022. Similar System for PH-I will be in place with help of suitable agency to generate solar power by 31 st August 2022. This delay is due to Pandemic and few system installed earlier did not work properly.
7)	Details of expenditure incurred on various activities carried out under CSR activities.	Detail expenditure for Financial year 18-19 and 19-20 enclosed for your reference.	Complied	Complied
8)	Installation of DG set as per CPCB norms.	Although the Power outage in the Project is Low, the utilization of DG set is also Low. However, we are committed to construct appropriate housing of the present and	20 th June 2020	As per the Consent order issued by SPCB the height of vent has been made 6.05mt from Ground level.



272 271

	future DG sets and provide Vent to adequate height for proper dispersion of air Pollutant and noise pollution.		
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NOTE: Z Estates Pvt. Ltd. is committed to provide best and qualitative Housing with all modern amenities and advance facilities retaining its continual customer satisfaction and public appreciation.

But due to the PANDEMIC COVID-19 situation Since March 2020 we are unable to keep our commitment as per our letter Dt.25-02-2020.

Further it may please note that as this is an integrated project and certain things can only be executed along with the completion of the work in phase manner.

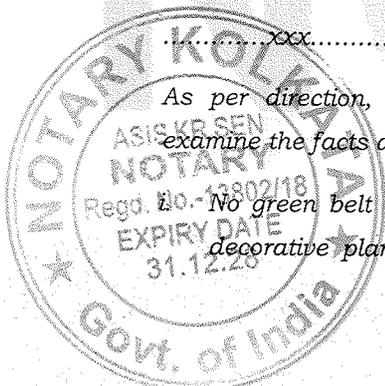
However, we assured the Esteemed Committee visited our site on 20.01.2022 that we will strictly adhere to the guide lines and conditions of E.C. and other Statutory authority in phase manner.”

7. The SEIAA, Odisha, Respondent No.5, has filed affidavit also dated 05.03.2022, and in para 2 thereof it has brought on record the Inspection Report of inspection carried out on 20.01.2022.
8. The State Pollution Control Board, Odisha, Respondent No.4, has filed affidavit dated 13.04.2022, bringing on record an Inspection Report of inspection carried out on 20.01.2022, relevant extract of which is extracted herein below:-

“Inspection report of the Joint Committee visited on 20.01.2022, in the matter on violation of conditions stipulated in the C by the Builders Z-Estates Pvt. Ltd. on Construction of Housing Colony and shopping mall (Phase-I) at Kalarahanga, Patia, Bhubaneswar.”

.....xxx.....xxx.....xxx.....xxx.....

As per direction, the Joint Committee to visit the site and examine the facts and submit report on the following points:



No green belt has been developed in Phase-I except some decorative plants where as the EC stipulation is to plant

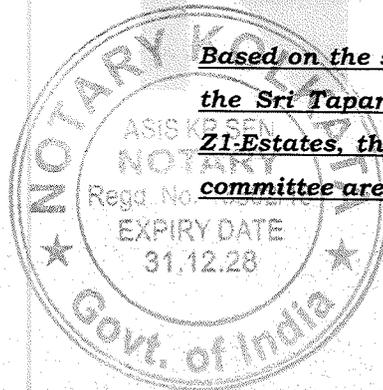
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- local shade bearing species like Akashmani, Neem, Ashoka, Kadamba, Bela, Karanja etc. in the form of green belt. There is a provision of 30,923.22 sqm green belt in Phase-I project.
- ii. The Project Proponent may be asked to submit valid NOC from CGWA and permission from Water Resources Dept. Govt. of Odisha, for Phase-I for which bore wells are in use since the beginning.
 - iii. The ZEPL has handed over a STP which does not have the facility to complete treatment (Primary, Secondary and Tertiary) and there is no provision for either zero waste water discharge or discharge to main road side drain through ETP & oil water separation unit.
 - iv. There is no system for water harvesting for storm water and runoff water.
 - v. There is blatant violation of Solid Waste Management Rules, 2016 as there is no mechanism either at source or at delivery point to outsourcing agency for separation into Biodegradable and non-biodegradable category.
 - vi. There is no use of Renewable/Solar Energy in Phase-I against a stipulation of at least 5% of the solar power consumption for Phase-I for street and common area solar lighting.
 - vii. The installation of three D.G. sets in Phase-I have inadequate stack heights, a violation of Pollution norms.

Accordingly, the Joint Committee comprising of the aobe following official had visited the site on 20.01.2022. Shri Ashok Kumar Tripathy, complainant as not present and on behalf of him the Z1 Residents' Welfare Association of Phase-I Z-Estate has nominated Sri S.K. Dash, the representative of the society to join inspection team. As intimated, Shri Ashok Kumar Tripathy, the member of the Z1 Residents' Welfare Association that he will not attend the inspection committee showing the reasons that he was not taken Vaccine of COVID-19.

"Overall Observation:

Based on the site inspection and documents submitted by the Sri Tapan Kumar Mohanty project Authority (PA) of Z1-Estates, the following point has been observed by the committee are as follows:



274

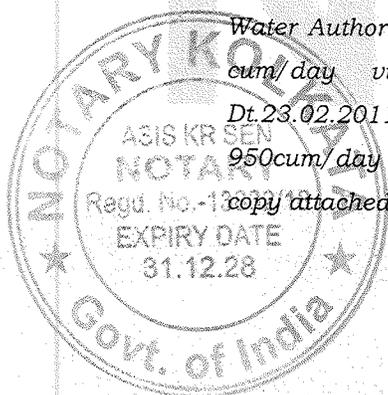
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1. Initially, the PA had applied a proposal to SEIAA, Odisha to develop in single phase construction of building Z1-estate Pvt. Ltd. for which Environmental Clearance (EC) was granted by SEIAA. Odisha vide letter no. SEIAA-261/10 dated **16.08.2011** over total built up area-**2,44,092.73 sqm.** And provision for green belt & avenue plantation of trees-20% of the site area. Later the PA had applied another application on 10.09.2014 for modernization for construction of housing colony and shopping mall (Phase-II) with built up area **2,75,042 sqm.**, existing premises of Phase-I construction project. Due to sluggish market demand and financial constraints the PA had decided to developed the project in phases for which the PA had applied application on 10.09.2014 for Phase-I consisting existing building (as a part of the earlier EC) and modified Phase-II project to developed with total built up area 2,75,042 sqm (Phase-I & Phase-II). EC obtained for modernization of phase-II vide letter no. 827 dt. **23.03.2016.** the PA had obtained EC vide letter no.7991/SEIAA dt. **17.03.2020** for expansion for construction of housing colony and convenient shopping (Phase-III) with built up area **3,95,865.09 sqm** and green belt provision was **30.929.22 sqm.**

2. During site inspection the Committee has observed that the Phase-I project had already completed and people are staying there and Phase-II project almost completed and going to operate very soon and the Phase-III project is under construction. So, Phase-I, II & III projects are integrated project in a same campus.

3. Green belt and Avenue Plantations are available and shown by the Proponent. However, at some places the plants were not available and very less/uprooted, which needs to be replanted.

4. PA was asked to submit the NOC /letter from CGWA for use of ground water. A copy of the same was shown by the proponent. The PA had obtained NOC from Central Ground Water Authority (CGWA) for withdrawal of ground water 1100 cum/day vide letter no.21-4(287)/SER/CGWA/2011-140 Dt.23.02.2011 and also thereafter (i.e. on dated 23.05.2015 for 950cum/day and on dated 16.07.2019 for 3.46,750 cum/year) copy attached.



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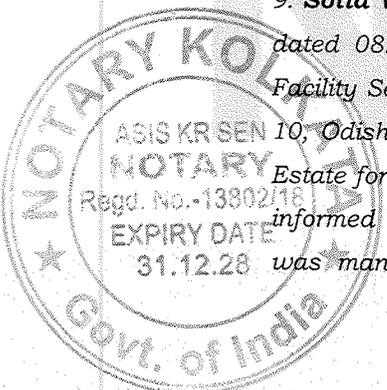
5. The PA has informed that the phase-8i building of Z1-Estates Pvt. Ltd. was handover to Z1 Residents Welfare Association on dated 18.01.2021 and the documents handover details to the Association was acknowledge by Sri Manoranjan Mishra and Sri KalpataruPattanaikthe two members of the association.

6. The Committee visited the STP and was found that the STP was running with Primary and Secondary units. STP is installed and in place and the PA has explained that it is functioning through Moving Bed Biofilm Reactor (MBBR) technology. The proper function of the same depends upon its regular operation required chemical dosing and maintenance. It was decided that Regional officer of SPCB, Bhubaneswar may collect a sample in presence of PA ad Z1-Residents' Welfare Association, sealed it and tested to ascertain functioning of STP at later stage.

7. The treated water generated from STP is used for gardening etc. as explained by PA and there is no excess treated water found or accumulated at any area nearby. However, PA was advised that there has to be a connection of treated water to outside Municipal drain to take care of excess treated water of any and also in rainy season. Pa explained that some of the works are incomplete due to the integrated periphery development work like-internal drains, roads etc and will be done very soon.

8. **Rain water harvesting & Recharge Pits:** the PA showed the recharging Pits across the site. One such pit was opened and found water in it. ThePA has explained that channel drains are available to collect the excess water and surface water during rainy season. Pa was advised that, as so many recharge pits are already in place, they should implement the harvesting system fully not only for roof top but also for paved area surface water by connecting channels to pits.

9. **Solid Waste Management:** PA a copy of agreement letter on dated 08.06.2020 with authorised party of M/s. Clean mart Facility Services, Plot No. 78, Rasulgarh Square, Bhubaneswar-10, Odisha for collection of solid waste from the premise of Z-Estate for the period 1st may 2020 to 31st march 2021. It was informed by PA that initially internal collection of solid waste was managed by them systematically till handover the Z1-



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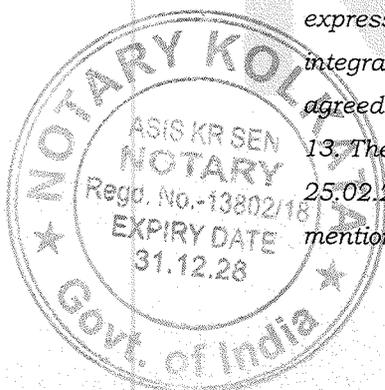
building to the Association and then it was managed by them. Now they are not aware of renewal of any such contract by the association. The PA has not installed any composting machinery for decomposition and reuse of bio-degradable waste at building premises of Phase-I. The committee has not seen any community dustbin has been placed outside of the building for separation and collection of domestic waste for phase-I. However, there is a newly purchased bio-degradable waste composting machines having capacity 1000kg/day waste decomposition for the Phase-II building is already there to operate. The Pa has informed that, the Phase-2 compost system having adequate capacity shall be made available to Phase-1 building for treatment of bio-degradable solid waste for composting through composting machines if association desire.

10. **Solar system or energy conservation;** there is no use of Renewable/Solar energy in Phase-I building as it verified by the committee. The PA has explained that efforts were made by them initially (like individual lighting system), but the system did not work due to breakdowns. They are now planning to do the system along with Phase-II and will be done by them. Pa was informed that they must put in place 5% of total power by solar PV system at rooftop as agreed by them for Phase-I

11. **Dg set Stack:** the DG set stack of phase-I about 6 mtr as per compliance report and also found physically with roof coverage. Although it is not adequate, the distance from nearest building is over 50 meters. The PA was advised to adhere the commitments given to SEAC/SIEAA with regard to stack height even though it is away from the building also the RO, SPCB needs to check the same whether as per norm.

12. The PA was asked to submit required documents with status of compliance report which they have submitted. From this, it is found that while some of the work already has done and some work are yet to be executed. Reason of delay expressed by Pa that due to pandemic Covid-19 and being an integrated project some activities gets delayed. However, PA has agreed to do the pending work with new timeline(attached).

13. The PA has submitted a undertaking vide letter no. nil dated 25.02.2020 at SEIAA. Odisha on dated 26.02.2020 with mentioning that he will complete the action plan for



277

276

implementation EC conditions mentioned in letter no. 7887/SEIAA dt. 20.02.2020 within the period i.e. ends of the year 2020. But some of the works i.e. install of organic convertor/composting machine in the project area of phase-I, procurement installation operation and maintenance of solar power within the project area of Phase-I and Phase-II though minimum 5 % of the power consumption in the project and appropriate height for D.G. sets are not complied by Pa within the time period.

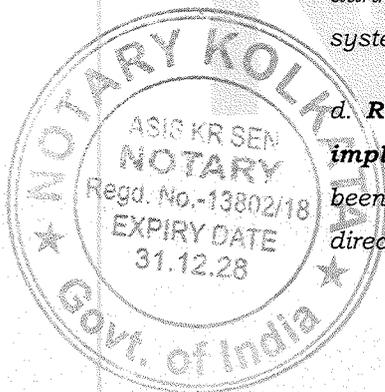
14. Again the Pa has submitted their reply (copy attached) on compliance of the conditions issued by SEIAA vide letter no.7887/SEIAA dt. 20.02.2020 and the following points are as follows:

a. **Green Belt:** since this is an integrated project plantation can only be done along the permanent boundary which will take place in phase manner as per the valuable of boundary. However, plantation around Phase-I area and along 500mtr of permanent boundary has been completed using local species of plant (kamini, neem, Bakul, Kadamba, champa, mango, Coconut, karanja etc.).

b. **NOC from Central Ground Water Authority:** complied

c. **Installation of STP of appropriate capacity:** the construction, installation and operation of STP for Phase-II is in final stage to operate and connection of pipe line for disposal of excess treated waste water to municipal drain has been completed which will be taken into full operation during monsoon of 2022. All the treated water of phase-I has been utilized for gardening purpose and no excess water is available for discharge to municipal drain. However system for discharging excess treated water during monsoon period has been integrate with phase-II system of discharging excess water.

d. **Rain Water Harvesting /Recharging pits implementation plan:** all necessary corrective steps has been completed and roof top rainwater discharge line directly connected to rain water recharge pits.



278

277

e. Solid waste management plan and its implementation for Phase-I and Phase-II adequate capacity of compost machine has been installed. Which will be made fully operational by 30th June 2022. However, the discussion with Phase-I Residents' Welfare Association will be made and a system will be explored to manage the solid waste generated from phase-I through this compost machine. Till the phase-I building handover to the Welfare Association with whom we had a contact was collecting the garbage regularly.

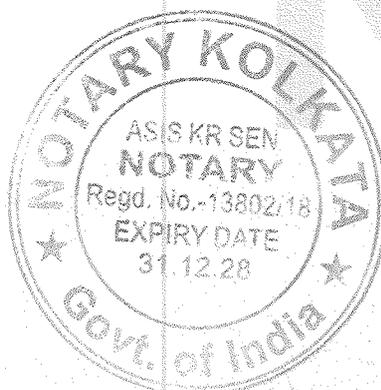
f. Energy Conservation measures for Phase-I & Phase-II: the installation of solar power generation system is in progress at roof top area of Phase-II building and the entire system will be complete operation by 30th June 2022. Similar system for Phase-I will be in place with help of suitable agency to generate solar power by 31st August 2022. This delay is due to Pandemic and few system installed earlier did not work properly.

g. Details of expenditure incurred on various activities carried out under CSR activities: Complied

h. Installation of DG set as per CPCB norms: As per the Consent order issued by SPCB the height of vent has been made 6.06mt from ground level.

Other Points:

1. The Z-Welfare Association authority did not agree to participate in the joint discussion.
2. The Association was asked about list of deviations they have mentioned while taking over from the PA. they said that there is no such deviation lists neither have they showed any other documents like: Contact without side agency for disposal of solid wastes etc.
3. Now that the Phase-I building of Z1-estate is managed by the Z1-Residents' Welfare Association, we may officially ask them to produce the following:



279

278

- a) Valid Contract agreement for solid waste disposal with outsourcing agency (Authorized).
 - b) Test report of STP water done periodically
 - c) Maintenance plans for the existing green belt and plantation
4. PA to adhere all unfinished work committed by them timeline with reason for delay to be explained by them.

Recommendation of the Committee

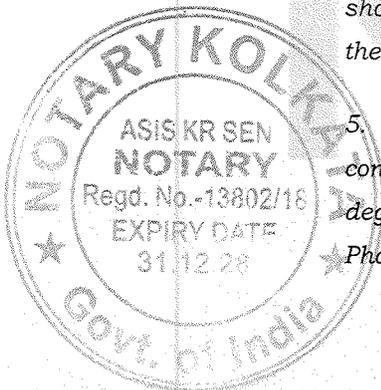
1. The PA is yet to complete some of the unfinished work referring to what was identified by SEAC and SIEAA and agreed by them vide letter dated 25.02.2020. Being an integrated project few of the activities are interrelated, as explained by PA to which Committee inferred that the compliance has to be done fast within stipulated time as mentioned by PA. Now compliance of the said conditions. The EC will be revoke.

2. The PA has to plant more indigenous fruit bearing and broad leave tree species rather decorative and increasing lawn area within the period August, 2022 positively.

3. The PA shall submit the details report on water cycle like quantum (in KILD) of rainwater water to be collected from roof top area of building, paved area, open surface, and storm water and their connecting route from source to rainwater recharging/recycling pit with photographs to be submitted at SEIAA, Odisha.

4. The PA needs to recharge the rainwater harvesting pits and harvest the water from reutilization by the users. They should use the services of a qualified consultant of execution of the same.

5. The PA has to install a separate organic convertor/composting machine for phase-I or to collect the bio-degradable solid waste from phase-I building and compost it in Phase II composting machine which is already placed in Phase-II



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building premises after mutual understanding between PA of Z-estates and Z1-Residents' Welfare Association.

6. The PA has to install adequate no. of solar panel for light of street and common area of Phase-I building within 30th June, 2022.

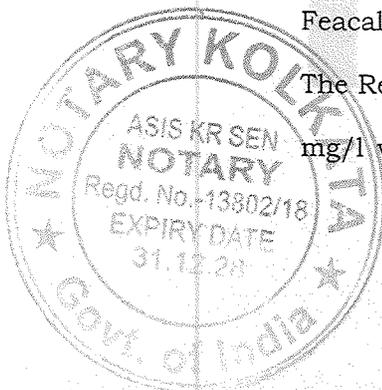
7. Further, since the Phase-I building is now under the control of Z1-Residents' Welfare Association, it is mandatory on the part of the Association to maintain all systems like-STP operation, contract with authorized agency for solid waste disposal, maintenance of rainwater harvesting/recharging pits. Maintain plants life, pay required water cess for ground water to the authority (if any). Working of lifts etc. by trained manpower for safety and environment. This needs to be ascertained by RO. SPCB periodically.

8. The Regional Officer, SPCB Bhubaneswar may collect as sample in presence of PA and Z1 - Residents' Welfare Association, sealed it and tested to ascertain functioning of STP and quality of treated water used of gardening and other purposes.

9. The committee suggests to communicate the finding and recommendations to the Dept. of FE &Cc, Govt. of Odisha and the member Secretary SPCB for further needful and necessary action as per Got. Procedure."

9. Additional affidavit dated 29.04.2022 has been filed by the State Pollution Control Board, Odisha, Respondent No.4, wherein it is stated that the Board, in pursuance of the Inspection Report of the Joint Committee, has collected samples and sent the same to the Central Laboratory, Bhubaneswar, for analysis. The Analysis Report received from the Central Laboratory reveals that BOD and Feecal Coliform (FC) results do not meet the prescribed standard.

The Report also reveals that Oil & Grease result is showing as 11.4 mg/l which is higher than STP discharge standard of 10.0 mg/l.



287

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Copy of the Analysis Report has been filed as Annexure-R4/2 (colly)

to the affidavit, which is extracted herein below:-

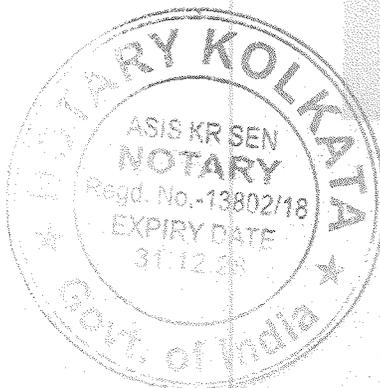
“Additional information w.r.t. O.A. No. 11 of 2022/EZ in the Matter of Z1 Residential Welfare Association on Applicant - Vrs - Z-Estates Pvt. Ltd. & Others - Respondent.

.....XXX.....XXX.....XXX.....XXX.....

As per the recommendation of joint committee w.r.t. visit to the project site on dtd. 20.01.2022 to verify the violation made to the stipulated Environmental Clearance condition on Z-Estate Pvt. Ltd., (Phase-I) FOR CONSTRUCTION OF Housing Colony and Shopping Mall vide Point No.08 the outlet of STP treated water before discharge to garden has been collected on 13.04.2022 in sealed condition in presence of representative of Project Proponent and Estate Manager of Residential Welfare Association and analyzed in the Central Lab, Patia, of SPCB, BBSR. For evaluation of 270 KLD Capacity STP working condition, the stipulated parameters like PH, BOD, TSS, Fecal coliform of Board have been analyzed as has been cited in the Consent to Establish Order w.r.t. expansion of construction of housing colony which was issued vide Order No.20841, dtd.27.12.2021.

As per the Consent to Establish condition the treated domestic waste water shall meet the standard as pH (6.5-9.0, BOD: (<20 mg/l), TSS (<100 mg/l) & Fecal Coliform (<1000 MPN/100 ml.) as notified by the MoEF& CC, Govt. of India vide G.S.R 1265 €, dtd. 13.10.2017. The treated waste water shall be reused for plantation, gardening etc. to the maximum possible extent. Also the treated waste water from STP may be discharged to Municipal Sewer after meeting the prescribed standard as proposed by Board.

Whereas, the Analysis Report which was received from Central Lab., of State Pollution Control Board, Odisha, Bhubaneswar revealed that BOD and Fecal coliform result is not meeting the prescribed standard w.r.t. special stipulated condition as cited above. Also the Oil & Grease result is showing 11.4 mg/l i.e. higher than STP discharge standard 10 mg/l).



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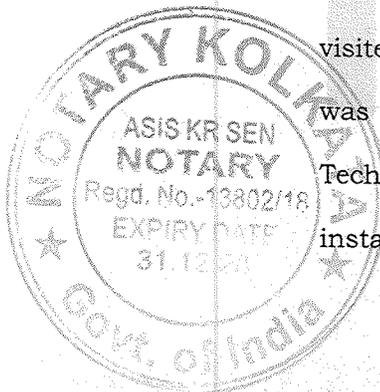
Here this can be summarized that the total wastewater of the Phase-I housing complex is not being treated fully (100%) for which the result of treated water is showing high BOD, FC & Oil & Grease value w.r.t. to prescribed standard of Board.

Remark:

- a) In that context the said Effluent Treatment Plant should be upgraded to such an extent so as to achieve the standard criteria parameter before land discharge.
- b) After necessary up-gradation if required at an regular interval 03 more evaluation report may be conducted within coming 3-4 months so as to get a clear cut conclusion about working status of STP of phase-I.
- c) The In-charge of the said Sewage Treatment Plant (STP) should taken up the adequate treatment and necessary chemical dosing practices so as to meet the prescribed standard of the Board before discharge to land/drainage system/used in the garden.
- d) The Project Proponent may be directed to provide clear idea that during monsoon how the treated water is being utilized or directly discharging the same to nearby barren land and finally connecting to the natural drainage system which is flowing backside i.e. some distance away from Phase-I project site.”

10. The Test Reports which have been filed with the affidavit show the presence of Oil & Grease at 11.4 mg/l which is higher than the STP discharge standard of 10 mg/l; Feacal Coliform is 1,60,000 MPN/100 ml which should be >1000 MPN/100 ml, and Biochemical Oxygen Demand (BOD) is 22.0 mg/l as against the prescribed standard of 20 mg/l.

11. The Respondent Nos.1&2, Project Proponent, have filed their reply dated 26.05.2022, wherein it is stated that the Committee had visited the STP and found that the same had been installed and was functioning through Moving Bed Biofilm Reactor (MBBR) Technology. It is stated that one STP of capacity 270 KLD was installed in Phase-I of the project area which was maintained and



283 282

controlled by the Project Proponent and one FMC Company, namely, United Resorts Services LLP, was appointed by the Project Proponent for maintaining the said STP and the said Company had maintained the STP w.e.f. 01.09.2016 to 31.03.2021. Thereafter, the said STP was handed over to the residents of the building in Phase-I w.e.f. 01.04.2021 and on and from 01.04.2021, the said STP has been maintained and controlled by the Applicant's of Phase-I building.

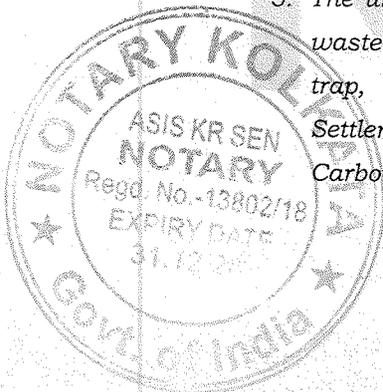
12. It is further stated that the Respondent No.4, State Pollution Control Board, Odisha, had inspected the STP on 30.11.2019 when it was still being maintained by the Respondent No.1, Project Proponent, and submitted an Inspection Report which did not speak of any deviation in the operation of the STP. Copy of Inspection Report of inspection carried out on 30.11.2019 has been filed as Annexure-A to the affidavit which reads as under:-

***"Inspection Report of M/s. Z-Estates Pvt. Ltd.,
At- Kalarahanga, PO-KIIT, Dist.-Khordha, Odisha***

.....xxx.....xxx.....xxx.....xxx.....

During the day of inspection the unit has following observations were made:

- 1. The unit has installed three nos. of D.G. sets having capacity 380 KVA each with in-built acoustic enclosure alongwith stack of required height each.*
- 2. It was found that the unit has complete the constructed work of 2 Blocks of (B+G+12), 6 Blocks of (B+G+14), one Dormitory (G+2) and one Club (B+G+1) started operation as observed.*
- 3. The unit installed one no. of STP having capacity 270 KLD for waste water treatment purpose each consisting of oil & grease trap, bar screen, equalization tank, MBBR-1, BBR-2, Tube Settler, Chlorine Dosing Tank, Sludge Holding Tank, Activated Carbon Filter and Multigraded filter etc.*



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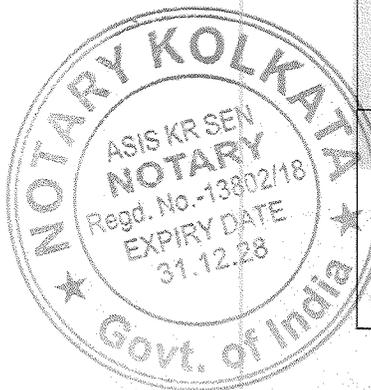
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4. The treated water after meeting prescribed standard of the Board is being used for landscaping, vehicle washing, toilet flushing and gardening purpose and no treated effluent shall be discharge to outside of the premises found during visit.
5. The house keeping of that unit is found to be satisfactory.

The compliance to Consent to Operate order is given as follows.

Compliance to Consent to Operate Conditions:

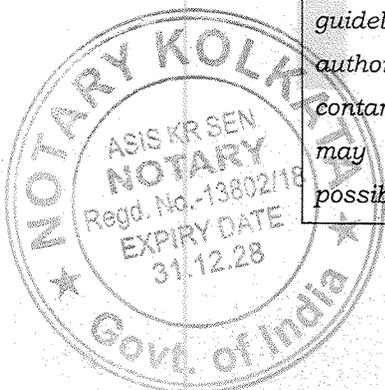
F. SPECIAL CONDITIONS (AIR POLLUTION CONTROL):	
Diesel power generating sets shall have acoustic enclosure.	3 nos (DG) sets (with Acoustic Enclosure) 380 KVA Each are in operation for the existing project.
The Height of the stack connected to DG set shall conform to the following $H = h + 0.2\sqrt{KVA}$	Three nos. of D.G. sets having capacity 380 KVA each with in-built acoustic enclosure along with stack of required height each.
The ambient air quality in the premises of the unit shall conform to the norm stipulated.	Assured to comply.
G. SPECIAL CONDITIONS (WATER POLLUTION CONTROL):	
The entire domestic water shall be treated in the existing Sewage Treatment Plant (STP). The treated waste water shall be partly reused for toilet flushing, landscaping, vehicle washing and green belt. The balance treated effluent shall be discharged to Municipal sewer and shall meet prescribed standard mentioned in section-B of this order. STP shall be operated without any stoppage and maintained properly.	At present the treated water is being used for gardening, toilet flushing and car washing and no waste water is being discharged to outside of the unit premises.
Separate storm water drain and weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the	Separate storm water drain and provision of weep holes on the compound wall to ensure natural drainage of rain water in the catchment area during the



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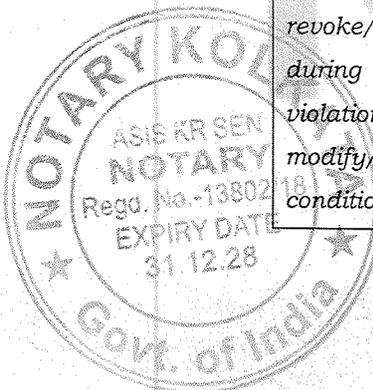
<i>monsoon period.</i>	<i>monsoon period.</i>
<i>The solid waste generated should be properly collected segregated and shall be handed over to BMC for ultimate disposal.</i>	<i>The solid waste generated from household is being collected and handed over to BMC for ultimate disposal.</i>
<i>Rain water harvesting structure shall be developed inside the premises and maximum efforts shall be made to reuse harvested rain water with a definite plan and programme to reduce drawl of fresh water.</i>	<i>17 nos. of rain water recharge Pit are being executed and in operation at site.</i>
<i>There shall not any Leakage of oil from DG set area.</i>	<i>There is no leakage of oil from DG sets observed at site during inspection.</i>
H. SPECIAL CONDITIONS (OTHERS)	
<i>The proponent shall comply he conditions as stipulated in environmental clearance issued by SEIAA Odisha vide letter No. 433 dt 16.03.2011.</i>	<i>Complied</i>
<i>The waste water treatment system and other environmental measures shall be operated and maintained all the time either by project proponent (Builder of the Project) or by the Owner's welfare Association as the case may be.</i>	<i>The Project proponent has engaged Expert professionals to maintain and operate one 270 KLD STP.</i>
<i>Energy conservation measure like installation of CFLS/TFLs for the lighting the areas outside the building should be in place. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.</i>	<i>LED bulbs have been used for all common area lighting and all street lighting, points. The used bulbs are given to authorized agency.</i>



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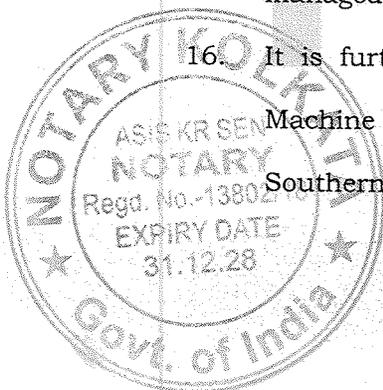
<p>Opaque wall should meet prescriptive requirement as per Energy conservation. Building code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.</p>	<p>Opaque wall and thermal insulation has been used in the project.</p>
<p>Lube oil from Diesel generator shall be disposed to authorized waste recycler.</p>	<p>The Lube oil generated from DG sets during maintenance is being handed over to authorized used oil/waste recycler.</p>
<p>The board may impose further condition or modify the conditions are stipulated in this order during installation and/or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and/or information is found to have been suppressed/wrongly furnished in the application form.</p>	<p>The proponent has agreed to comply.</p>
<p>In case the consent fee is revised upwards during this period of consent the unit shall pay the differential amount to the Board (for the remaining years) to keep the consent order in force if the industry fails to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.</p>	<p>The proponent has agreed to comply.</p>
<p>The Board reserves the right to revoke/refuse consent at any time during this period in case any violation is observed and modify/stipulate additional conditions as deemed appropriate.</p>	



287

286

13. Submission of Mr. Kallol Basu, learned Counsel appearing for Project Proponent, Respondent Nos. 1&2 is that no illegality or irregularity in the maintenance of STP was observed by the State Pollution Control Board, Odisha, as long as the said STP was being controlled and maintained by the Respondent Nos.1&2 and the Inspection Report filed by the Joint Committee, of inspection carried out on 20.01.2022, is after the STP was handed over to the Applicant's Association on 01.04.2021.
14. The Project Proponent have filed another reply affidavit dated 26.05.2022 to the same effect as their previous affidavit also dated 26.05.2022. In addition, it is stated that a detailed report has been submitted by the Project Proponent on water cycle like - quantum (in KLD) of rainwater to be collected from the rooftop area of the building, the paved area, the open surface area for storm water collection. It is stated that all recharge pits have been constructed and are provided with slotted pipes which extend upto 30 meters depth in order to facilitate the replenishment and retention of rainwater all around the year and the same is in full operation.
15. With regard to the Solid Waste Management, it is stated that one M/s Clean Mart Facility Services, Bhubaneswar, has been appointed by the Project Proponent for collection of solid waste from the premises for the period from 01.05.2020 to 31.03.2021 but after the building of Phase-I was handed over to the Applicant on 18.01.2021, the solid waste of the buildings of Phase-I is being managed by the Applicant.
16. It is further stated that one Bio-degradable Waste Compositing Machine having capacity of 1000 kg/day has been installed in the Southern portion of Phase-I i.e., in Phase-II, and the said machine



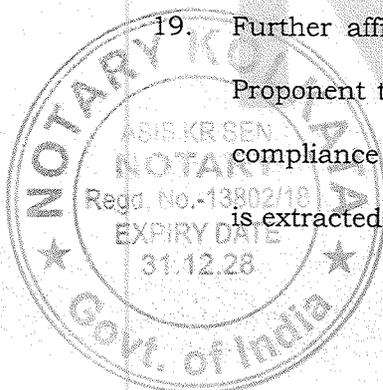
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is fully operational. It is also stated that the Project Proponent had vide letter dated 11.05.2022 informed the Applicants of Phase-I to segregate the waste generated in Phase-I and to send the biodegradable waste for composting to this Composting Machine.

The case of the Respondent Nos. 1&2, Project Proponent, is that there was no condition in the Environmental Clearance granted on 16.08.2011 and on 23.02.2016 for installing of Organic Waste Converter in Phase-I and, therefore, no Bio-degradable Waste Compositing Machine was installed in Phase-I.

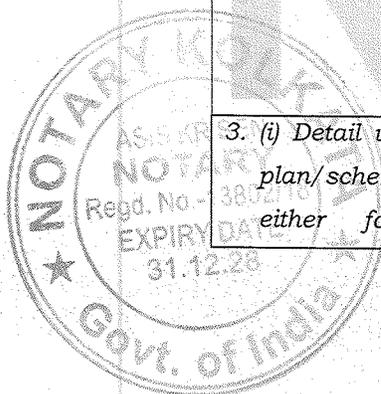
17. With regard to Solar System or Energy Conservation, it is stated that installation of Solar Water Heater has been completed on the rooftop area of Phase-II and the entire system will be completed by 30.06.2022. It is also stated that the installation of Solar Power Generation System for Phase-I will be in place with the help of suitable agency to install Solar Water Heater by 31.08.2022. The delay in installation of the same has been explained by stating that there was COVID pandemic during this period.
18. As regards the Diesel Generator DG set Stack, it is stated by the Project Proponent that as per the recommendation of the Joint Committee the height of the DG Set Stack has been verified and re-checked by the SEIAA, Odisha, and the State Pollution Control Board, Odisha, and as per Consent to Operate issued by the State Board, the height of vent has been made 6.06 meter from ground level.
19. Further affidavit dated 15.11.2022 has been filed by the Project Proponent titled as 'compliance affidavit' and in para 2 thereof the compliance status of the directions of SEIAA has been given which is extracted herein below:-



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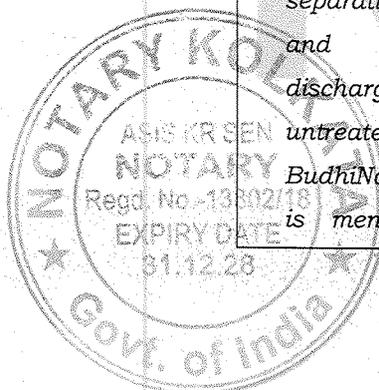
Rejoinder	SEIAA	Respondent No. 1 and 2 - Compliance
1. Green Belt and Avenue plantation over at least 20% of the site using native trees species/plants area not there.	Green Belt and Avenue Plantations are available. The committee had instructed the respondent nos. 1 and 2 to plant more indigenous fruits bearing and broad leave tree species rather to develop decorative and increasing lawn area within the period August, 2022.	The project is an integrated project. The plantation can only be made along the permanent boundary. Plantation around Phase I and Phase II area along with 600 meter of permanent boundary has been completed using local species of plant like Swarnachampa, Nagachampa, Panasha, Kamini, Neem, Bakul, Kadamba, Champa, Mango, Coconut, Karanja etc.
2. Compliance of Conditions of "NOC" from CGWA and permission of Water Resource Department, Govt. of Odisha is not available.	23.02.2011: First NOC was granted by CGWA for use of ground water 1100 cum/day. 23.05.2015: Second NOC was granted by CGWA for use of water 950 cum/day. 16.07.2019: Third NOC was granted by CGWA for use of water 3,46,750 cum/day.	Complied
3. (i) Detail workable plan/scheme either for zero	The STP was running with primary units. The	One STP with a capacity of 270 KLD was installed in Phase 1 of the Project



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<p>discharge and/or discharge to main road side drain through STP and oil water separation unit, particularly for monsoon period so that it will not affect the human health / environment is not available.</p> <p>(ii) STP does not have the facility for complete treatment (Primary, Secondary and tertiary) of waste water.</p> <p>(iii) The water treatment plant does not have any iron remover although one of the water sources has high iron content.</p> <p>(iv) The zero liquid discharge is not maintained, there is no oil water separation unit and thereby discharge of untreated water to BudhiNalla which is mentioned as</p>	<p>treated water of Phase I has been utilised for gardening purpose and no excess water is available for discharge to municipal drain. There is no excess treated water found or accumulated at any area nearby. The committee advised that there has to be a connection of treated water of outside Municipal Drain to take care of excess treated water if any and also in rainy season. The respondent nos. 1 and 2 had also installed water treatment plant for treatment of underground water.</p>	<p>Area. After installation, the STP was maintained and controlled by the Project Proponent. Thereafter, one FMC Company namely United Resorts Services LLP was appointed by the Project Proponent for maintaining the said STP. The said company had been maintaining the said STP on and from 01.09.2016 to 31.03.2021.</p> <p>Thereafter, the said STP was handed over to the residents of the building in Phase I on 01.04.2021. On and from 01.04.2021, the said STP has been maintaining and controlling by the residents of the Phase I Building.</p>
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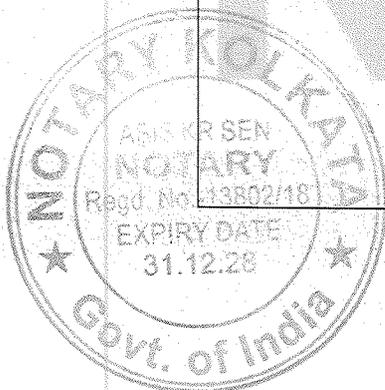
BuriNalla in EC Letter.		
<p>4. Absence of facility for use of Renewable / Solar Energy in Phase I against a stipulation of at least 5% of the total power consumption for Phase I for street and common area solar lighting.</p>	<p>There was no use of renewable/solar energy in Phase I building. The respondent nos. 1 and 2 undertook that the said solar energy will be installed in Phase I building by 31.08.2022.</p>	<p>The installation of solar water heater has been completed at roof top area of Phase II and the entire system will be completed by 30.06.2022.</p> <p>The installation of solar power generation system for Phase I will be in place with help of suitable agency to install solar water heater by 31.08.2022.</p> <p>Work order has been issued to M/S Solar Sack on 19.08.2022 and the installation works are under process.</p> <p>It is submitted that the aforesaid installation work will be completed by 31.01.2023. But such completion of installation work will be subject to cooperation and permission rendered and granted by the applicants, i.e. Z1 Residents' Welfare Association.</p> <p>At present, the building of the Phase I is under the control of the applicants. The said building along with maintenance of rainwater harvesting and/or recharging pits etc.</p>



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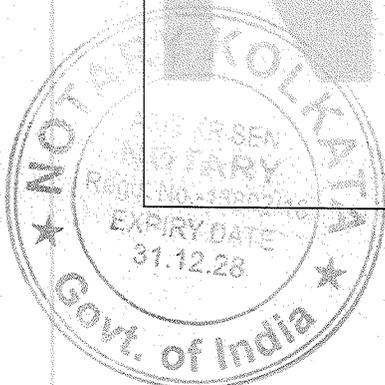
		have to be maintained by the applicants.
5. Diesel Generator sets in Phase I of project have inadequate stack heights and same is violation of CPCB norms.	The DG Set stack of Phase I was about 6 meter with roof coverage. It was not adequate. The distance from nearest building was over 50 meters.	As per recommendation of the Committee, the height of the DG Set Stack has been verified and/or checked by the SEIAA and the Regional Officer, SPCB. As per the Certificate of the "Consent to Operate" issued by the SPCB, the height of vent has been made 6.06 meter from ground level.
6. Dust Control measures not adopted to control dust and noise pollution during the construction of Phase II for which senior citizens were worst suffers.	It was advised by the committee to take appropriate measures for controlling the dust and noise pollution. It was also advised to stop the construction work during mid day time, i.e. 1 pm to 3 pm and after 9 pm till the next morning.	Complied
7. Rain water harvesting / Recharge Pits reveal that water harvesting for storm water and runoff water is not available.	The committee had advised that as so many recharge pits were available in place, they should implement the harvesting system fully not only for roof top but also for paved area surface water connecting channels to pits. It was also advised	As per recommendation, the Project Proponent has already submitted the detailed report on water cycle like quantum (in KLD) of rainwater, which to be collected from the roof top area of the building, the paved area, the open surface and for storm water collection. All recharge pits are constructed and in full



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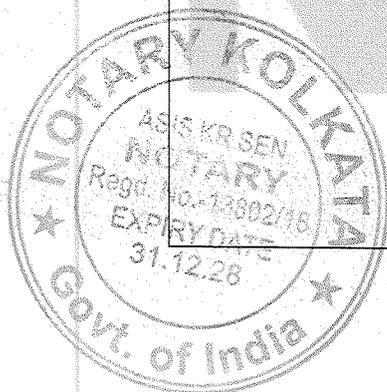
	<p>for rain harvesting and reuse for plantation and other purposes.</p>	<p>operation. All recharge pits are provided with slotted pipes, which are extended up to 30 meter depth, in order to facilitate the replenish and/or retention of rainwater all around year.</p> <p>Techno-Commercial Offer for Surface Runoff Water Treatment Plant has been prepared by Swachh Green Info Tech Private Limited.</p> <p>As per the aforesaid Report, the work is under process.</p> <p>At present, the building of the Phase I is under the control of the applicants. The said building along with maintenance of rainwater harvesting and/or recharging pits etc. have to be maintained by the applicants.</p>
<p>8. No facility for segregation of solid wastes into Biodegradable and non-biodegradable category.</p>	<p>The committee had not seen any community dustbin had been placed outside of the building for separation and collection of domestic waste for Phase I. There was a newly purchased bio-degradable</p>	<p>One authorized party namely M/S Clean Mart Facility Services was appointed by the Project Proponent for collection of solid waste from the premises of Z-Estates for the period from 01.05.2020 to 31.03.2021. The building of Phase I was handed over to the applicant on 18.01.2021.</p>



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	<p>waste composting machines having capacity 1000 kg/day waste decomposition for the Phase II building was already there to operate. The compost machine for Phase II has been installed and the same will be operated by 30.06.2022.</p>	<p>Thereafter, the solid waste of the Buildings of Phase I has been managed by the applicants.</p> <p>One Bio-degradable Waste Compositing Machine having capacity of 1000 kg/day has already been installed in the Southern portion of Phase I, i.e. in Phase II and the said machine is fully functioning. The Project Proponent, by a letter, has already informed the applicants of Phase I and asked them to segregate the waste generated in Phase I and to send the bio-degradable waste for composting to this Compositing Machine. It is further submitted that there was no condition in the Environment Clearances dated 16.08.2011 and 23.02.2016 respectively for putting of Organic Waste Converter in Phase I. Therefore, no Bio-degradable Waste Compositing Machine was installed in Phase I. The building of Phase I was handed over to the applicants on 18.01.2021 and inspection was conducted by the Committee on 20.01.2022.</p>
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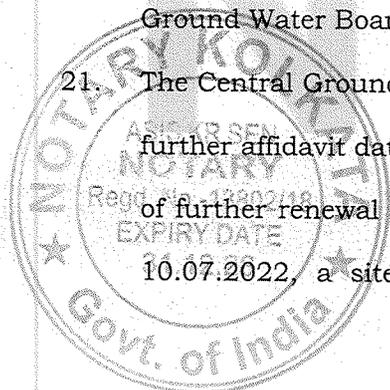
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		<p>After handing over the building to the applicants, the solid waste was managed by the applicant. The Project Proponent is not responsible for placing any community dustbin outside of the building for separation and collection of domestic waste for Phase I.</p> <p>At present, the building of the Phase I is under the control of the applicants. The said building along with contract with authorized agency for solid waste disposal has to be maintained by the applicants.”</p>
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20. The Central Ground Water Board, Respondent Nos. 5 & 6, has filed its affidavit dated 26.10.2022, stating therein that previously No Objection Certificate (NOC) was issued to the Respondent Nos. 1&2, Project Proponent on 16.07.2019 for use of ground water and the same has expired on 09.07.2022. It is also stated that an online application was submitted by the Project Proponent on 09.04.2022 for renewing of NOC issued to them earlier for use of ground water and the same is still pending consideration before the Central Ground Water Board, Bhubaneswar.

21. The Central Ground Water Board, Respondent Nos. 5&6, has filed a further affidavit dated 16.12.2022, stating that before consideration of further renewal of the NOC for extraction of ground water w.e.f. 10.07.2022, a site inspection of the premises in question was



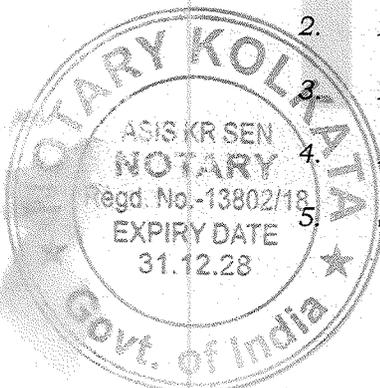
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carried out by the officers of the Central Ground Water Board and during inspection it was found that the Project Proponent had failed to adhere to the condition laid down in the NOC issued. Based upon the site inspection for verification of compliance of NOC conditions, report dated 17.08.2022 has been prepared and a show cause notice has been issued to the Project Proponent on 23.08.2022 in exercise of powers under Section 5 of the Environment (Protection) Act, 1986, to show cause as to why a complaint against the Project Proponent be not registered under Section 15 of the Act, 1986. It is further stated that a notice period of 60 days was given to the Project Proponent. The Company, Project Proponent, accordingly submitted its Compliance Report on 27.10.2022 and it was found that the Project Proponent had not fulfilled the criteria i.e., conditions mentioned in the NOC as well as in the show cause notice and only three, out of five points of the non-compliance conditions, had been fulfilled. Hence, it is stated that a second show cause notice was issued to the Project Proponent on 28.11.2022 to show cause as to why a complaint be not registered against it under Section 15 of the Environment (Protection) Act, 1986, giving 15 days time to rectify the default. Copy of the show cause notice dated 23.08.2022 has been filed as Annexure-D/5 to the affidavit, which shows the following non-compliances of the Project Proponent:-

1. *Bore wells are not fitted with digital flow meter,*
2. *Log Book is not maintained,*
3. *Peizometer is not fitted with telemetry system,*
4. *Recharge structures are not maintained,*
5. *Self Inspection is not submitted,*



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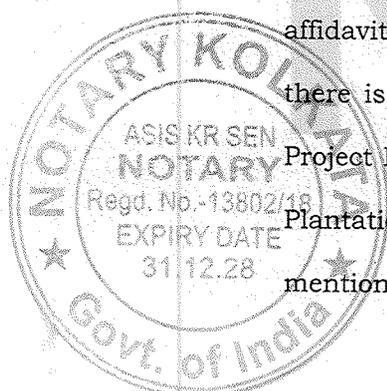
22. The second show cause dated 28.11.2022, copy of which has been filed as Annexure-D/6 to the affidavit, shows the following non-compliance of the Project Proponent:-

1. *Bore wells are not fitted with digital flow meter,*
2. *Self Inspection is not submitted,*

23. Copy of the reply dated 27.10.2022 submitted to the Regional Director, Central Ground Water Board, Bhubaneswar, by the Project Proponent, has also been filed at page no.362 of the paper book, answering the queries of the show cause notice by attaching (a) photographs of borewells fitted with digital flow meter, (b) Log Book, (c) details of Telemetry System submitted to the CGWA on 13.09.2022, (d) maintenance of recharge structures are going on which will take another couple of months to complete, and (e) Self-Inspection Report.

24. The Project Proponent have filed further affidavit dated 17.02.2023, showing the compliance of the directions of the Central Ground Water Board which have already been extracted hereinabove.

25. The Applicant has filed rejoinder affidavit dated 24.08.2022, stating that Environmental Clearances were granted to the Project Proponent on 17.03.2020 and 16.08.2021 for their Housing Projects in an area of 1,41,950.23 square meters and built-up area of 3,95,865.09 square meters and the Environmental Clearance was granted on an undertaking given by the Project Proponent on affidavit to comply with the required norms by 31.10.2020 but there is no compliance of the same. It is further alleged that the Project Proponent has not achieved 20% of Green Belt and Avenue Plantation using native trees species/plants which, he states, finds mention in the Report of the SEIAA that only decorative plants such

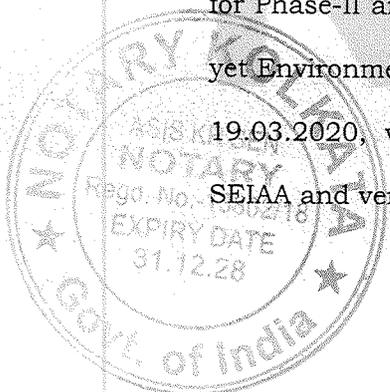


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as - Krushna Chuda, Ficus Panda etc. have been planted in the periphery of Phase-I and landscaping.

26. In the affidavit, it is further alleged that the STP does not have facility for complete treatment (primary, secondary and tertiary) of waste water and the water analysis report shows presence of oil which means that there is no oil water separation unit in the STP. It is alleged that Water Treatment Plant does not have (a) any iron remover, (b) Zero Liquid Discharge is not being maintained, (c) and untreated water is being drained into the Budhi Nalla (Buri Nalla). It is also alleged that (a) there is absence of renewable/solar energy in Phase-I against a stipulation of at least 5% of the total power consumption for Phase-I; (b) Diesel Generator Sets in Phase-I of the Project do not have adequate stack heights; (c) dust control measures to control dust; (d) and noise pollution during construction of Phase-II has not been observed; (e) the report of the SEIAA Committee has not been complied with regard to the submission of detailed report on water cycle like - quantum (in KLD) of rainwater to be collected from rooftop area of the building, paved area, open surface area and storm water collection and their connecting route from source to rainwater recharging/recycling pit.
27. The Applicant has further alleged that inspite of the fact that the conditions mentioned in the Environmental Clearance dated 16.08.2011 for Phase-I had not been complied with and still remain incomplete, Environmental Clearance was granted on 23.02.2016 for Phase-II and the conditions therein also remain incomplete and yet Environmental Clearance for Phase-III has also been granted on 19.03.2020, which shows total non-application of mind by the SEIAA and very casual approach of SEIAA to the enforcement of the



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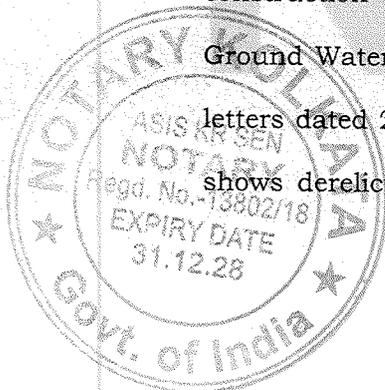
Environmental Clearance conditions prior to grant of further Environmental Clearances.

28. We have heard the learned Counsel for the parties and perused the documents on record.

29. The Special Conditions for construction phase in the Environmental Clearance dated 16.08.2011 with regard to Ground Water, specifically mentions that no ground water shall be extracted for the project work at any stage during construction phase.

30. The Inspection Report of the Joint Committee of inspection carried out on 20.01.2022 is silent on this aspect of the matter and all that has been stated is that Phase-I Project has already been completed and people are staying there; the Phase-II Project is also almost complete and is going to be operated very soon; and Phase-III Project is under-construction. In the report, it is further stated that the Project Proponent was required to submit NOC letter from the Central Ground Water Authority for use of ground water which shows that it was permitted withdrawal of ground water of 1100 cum/day vide letter dated 23.02.2011 and thereafter w.e.f. 23.05.2015 at 950 cum/day and w.e.f. 16.07.2019 at 3,46,750 cum/year.

31. We fail to understand that when the Environmental Clearance Special Conditions of 16.08.2011 clearly stipulated that no ground water shall be extracted for the project work at any stage during the construction phase, how was the NOC granted by the Central Ground Water Authority for withdrawal of ground water vide their letters dated 23.02.2011, 23.05.2015 and 16.07.2019. This clearly shows dereliction of duty and irresponsibility on the part of the



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officers concerned of the Central Ground Water Authority in acting in a mechanical manner on the basis of the application for grant of NOC without demanding and examining the conditions laid down in the Environmental Clearance.

Question is not that the Project Proponent submitted online application for grant of NOC. Question is whether the NOC for extraction of ground water for the project work at any stage during construction phase could have been granted at all?

32. The affidavit of the Central Ground Water Board dated 26.10.2022 shows that NOC was granted initially to the Project Proponent on 16.07.2019 on his application which expired on 09.07.2022 and now another online application has been submitted by the Project Proponent on 09.04.2022 for renewal of NOC. The Central Ground Water Authority before granting of NOC ought to have called for the Environmental Clearance of the Project Proponent's project and gone through the conditions laid down therein and in view of the specific prohibition against extraction of ground water for project work during construction work, *prima facie*, no NOC could have been granted. Without first verifying as to what the NOC was being required for and for what purpose the ground water was sought to be extract, NOC has been granted by the Central Ground Water Board. The affidavit of the Central Ground Water Board is silent on these aspects of the matter and, therefore, we may infer that the NOC was granted by the Central Ground Water Board to the Project Proponent in violation of the Special Conditions laid down in the Environmental Clearance dated 16.08.2011. This matter needs to be examined by the Ministry of Environment, Forests and Climate Change with regard to the conduct of the officers of the Central

