BEFORE THE NATIONAL GREEN TRIBUNAL EASTERN ZONE BENCH
KOLKATA

O.A. No. 92/2023/EZ
Dr. Ganesh Das & others

...APPLICANTS

-VS-

M/s Arya Erectors India Private Limited and Others

...RESPONDENTS

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Filed By

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NOTARY
G. SARMAH
Regd. No.-
KAM-13517
GOVERNMENT OF INDIA

BEFORE THE NATIONAL GREEN TRIBUNAL EASTERN ZONE BENCH
KOLKATA

O.A. No. 92/2023/EZ

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...APPLICANTS

-VS-

M/s Arya Erectors India Private Limited and Others

...RESPONDENTS

COUNTER AFFIDAVIT FOR AND ON BEHALF OF THE RESPONDENT NO. 1

I Shri Anil Kumar Sarma, S/o –Late Pabindra Nath Sarma, R/o – House no. 20, Happy Villa, Barowari, P. O. – Silpukhuri, Guwahati – 03, aged about 64 years do hereby solemnly affirm and say as follows:

1. That I am the Managing Director of the respondent no. 1 in the instant case and as such, fully conversant with the facts and circumstances of the case. I am competent to swear this affidavit.

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2. That, the answering respondent has received a copy of the original application as served upon the answering respondent.

3. That before proceeding to deal with the contentions raised in the present O.A. on merits, the answering respondent would like to raise a preliminary objection with regard to the maintainability of the present O.A. The applicant nos. 1 to 4 had earlier approached this Hon'ble Tribunal alongwith another person by filing O.A. No. 32 of 2023/EZ. The prayer made in O.A. No. 32 of 2023/EZ is exactly the same as the prayer made in the present O.A., with the addition of prayer no. ix for levy of compensation. The earlier O.A. having been disposed off by this Hon'ble Tribunal with a direction to the State

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Environment Impact Assessment Authority, Assam (SEIAA) – the respondent no. 2 to dispose off representations dated 06.07.2022 and 20.10.2022 and in compliance thereto, the SEIAA having passed order dated 09.05.2023, the same prayer cannot be raised again in the present O.A., without there being any liberty granted by this Hon'ble Tribunal. Further, the order dated 09.05.2023 not having been put to challenge, the present O.A. is not maintainable in law and is liable to be dismissed at the very threshold.

4. That, the answering respondent states that the instant O.A. is barred by the principles of *res judicata* inasmuch as, the applicant nos. 1 to 4 having accepted the order 24.03.2023 passed by this Hon'ble Tribunal, which disposed off O.A. No. 32 of 2023/EZ, cannot now make the same prayers in a fresh application by adding a new applicant in the array of parties. This is nothing but a gross abuse of the process of the court and is liable to be dismissed with exemplary cost.

5. That the applicants herein cannot be termed as "persons aggrieved", so as to invoke the jurisdiction of this Hon'ble Tribunal. Nowhere in the O.A. have the applicants pleaded that any pollution or environmental damage has been caused by the answering respondent or that they are victims of any pollution or environmental damage. There is nothing on record to even remotely suggest that any pollution has been caused by the answering respondent or that any property has been damaged. The violations alleged to have been committed by the answering respondent all pertain to alleged non-submission of certain reports related to few clauses of the E.C. and even assuming but not admitting that such violation has occurred, it is nowhere stated as to how the applicants are aggrieved by the same. It is however categorically stated that no such violation has been done by the answering respondent. The only issue pertaining to the environment is the functioning of the Sewage Treatment Plant (STP) and it is nowhere alleged that the STP installed is not working properly. On the contrary, the SEIAA has categorically

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stated that the design and supply of the STP was done by experts in the field and was functional and the same having been handed over to the Society, it was the duty of the Society to maintain the same.

6. That the prayer made in the present O.A. is barred by the law of limitation inasmuch as, the grievances raised in the present application is beyond the period of 6 months as prescribed under Section 14(3), National Green Tribunal Act, 2010 (hereinafter referred to as "NGT Act")and no application has been filed under the proviso to the said section, showing sufficient cause for not filing the application within the said period and as such, the present application is liable to be dismissed.

7. That without prejudice to the aforesaid rights and contentions of the answering respondent, the answering respondent would like to traverse the statements made in the original application paragraph wise on merits. Be it stated herein that, save and except the statements made in the original application, which are specifically admitted in this written statement, the rest are hereby denied and disputed by the respondent.

8. That, the answering respondent states that before traversing to the contentions made in the original application, the answering respondent wishes to bring on record the actual state of affairs that had occurred after obtaining the building permissions and environmental clearances for the said project.

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9. That, the answering respondent started the construction of the present project in the year 2013 and at that point in time, there was no PWD drain. However, the PWD, sometime in the year 2017 – 2018, started construction of the main road alongwith the adjacent drain and it is only after the construction of the drain that the entire area of Abhaypur is facing the problem of water logging. The society of the villa owners had conducted a

study through IIT, Guwahati, and the said report clearly states that there is a fault in the gradient of the drain, which leads to the water logging. The answering respondent states that pursuant to the order dated 24.03.2023 passed by this Hon'ble Tribunal in O.A.No. 32/2023/EZ, the SEIAA had conducted a hearing and written submissions were made by the answering respondent on each and every allegation made by the applicants. The written submissions including photographs, maps etc. submitted by the answering respondent are made part of this present counter affidavit.

The written submissions, maps etc. are enclosed herewith as Annexure – R-1.

10. That, the answering respondent states that water logging is a common problem not only in Assam but all over the country and the area where the present project has been executed is no exception. It is being seen that there is regular water logging in the entire Abhaypur area and in that connection a meeting was held on 06.09.2021 amongst various authorities of the Government of Assam, the North Guwahati Municipal Board and members of the Arya Smart Living Group Housing Co-operative Society. The minutes of meeting dated 06.09.2021, which is self-explanatory shows that the water logging happens in the entire area, for which steps are being taken by the authorities under the Government of Assam at different levels. The allegations made against the respondent are therefore absolutely incorrect and are categorically denied. The respondent craves leave to produce any other document in this regard.

Copy of the minutes of the meeting dated 06.09.2021 is annexed hereto and marked as Annexure – R-2.

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11. That, the answering respondent states that, the respondent is not at fault and as a builder the respondent could not have anticipated the construction of a new drain or the level/height of the drain sought to be constructed by the Government in the future after the completion of

construction of the villas as per the sanctioned plans. If the level of the new drain constructed by the PWD is raised or there is any error on the part of the public authorities in fixing the gradient of the said drain, the respondent cannot be held responsible for the same. It was demonstrated to the SEIAA during their site inspection as well as through photographs, annexed hereinabove that all the residents of that area have increased the level of their main entrance gates to prevent the water from the road and drain from entering their premises. It was also clearly demonstrated how the natural waterways had been encroached by the neighbouring residents, which the SEIAA has taken into consideration while passing the order dated 09.05.2023.

12. That, the answering respondent further states that the respondent has nothing to gain by keeping the ground level below the drain. The project has well-connected internal roads with proper drainage systems. Only on rare occasions due to flood and heavy shower there occurs water logging for one or two days, on the internal roads for which pumps have been installed for pumping for emergency purpose to drain out the water. Therefore, the allegation made in the original application is vague and baseless. It is categorically denied that there was no adequate earth-filling and that the complainants are suffering from serious water-logging problems, as has been alleged. Proper earth filling had been done at the time of construction and at that time the ground level of the land was higher than the level of the PWD road. The very same issue has also been raised by the present applicants before the RERA, Assam.

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13. That, the answering respondent states that recently the Society comprising of the villa owners in its capacity had installed several additional pumps in and around the entire complex along with an extensive drainage system to pump out any water which had accumulated due to heavy rains into the nearby PWD drains and in the monsoon that had just passed this year,

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there has been no issues of any prolonged water logging. The accumulated water was pumped our very efficiently from the ARYA Smart Living campus. The Society have put in tireless efforts in this regard, but the present applicants, for their own vested interest and with an intention of extracting monetary compensation have deliberately not brought the said facts on record.

14. That with regard to the statements made in paragraphs 1 and 2 of the original application, the answering respondent states that the O.A. No. 32 of 2023/EZ was disposed off on the first day itself without issuing any notice to the answering respondent and as such, no counter affidavit could be filed in the said proceeding. The prayer made in the said O.A. No. 32 of 2023/EZ was barred by time inasmuch as, the said O.A. was filed on 13.03.2023 and the grievance raised therein was beyond the period of 6 months as prescribed in section 14(3) NGT Act. The representations, which were directed to be disposed off were filed on 06.07.2022, which was beyond the period of 6 months from the date of filing of the said O.A.No. 32/2023/EZ which was on 13.03.2023.

15. That the statements made in paragraphs 3 and 4 being matters of records of the case, the answering respondent does not admit any statements made therein which are contrary to and/or inconsistent with what appears from the said records. It is however stated that the said order of the SEIAA dated 09.05.2023 has not been put to challenge in the present proceeding.

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16. That with regard to the statements made in paragraph 5(i) of the O.A., the answering respondent states that it is not understood as to how the applicants are aggrieved by the non-submission of the six monthly compliance report by the answering respondent. The same is an issue between the respondent authorities and the answering respondent and the applicants have no role to play in that same. It is pertinent to note that the six monthly

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compliance reports have already been submitted by the answering respondent and the same have been received and accepted by the honourable SEIAA.

17. That, the statements made in paragraph 5(a) of the original application are wholly incorrect and the answering respondent denies the same. The answering respondent denies that it had not conducted proper verification of the surrounding areas while construction of the drainage system of the project. The finding recorded by the SEIAA in the order dated 09.05.2023 is self-explanatory that the answering respondent had submitted the contour survey. The applicants have not put the said finding to challenge in the present application. The statement that the "flood problem" would not have happened had the answering respondent complied with the Environmental condition and had conducted proper contour survey of internal and external areas is totally misconceived and the personal perception of the applicants. Sufficient evidence has been provided by the answering respondent to the SEIAA during their site inspection done on 11.04.2023 where it was clearly demonstrated (1) as to how the natural waterways have been encroached upon by neighbouring residents of the area and (2) How the excess water gets accumulated due to erroneous design of the PWD drain and the flow of the water therein. There is nothing on record to show that proper contour survey had not been done by the answering respondent. Moreover, this is not a "*flood problem*" but is a water logging problem which occurs only during heavy showers.

18. That the statement pertaining to "non-feasibility of creating a pond" is again not backed up by any scientific data but is the personal perception of the applicants. The SEIAA being a body comprising of experts in the field having recommended the digging of the pond, the applicants are not technically qualified to comment on the same.

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19. The answering respondent categorically states that after construction of the project, the Guwahati Metropolitan Development Authority (GMDA) had properly scrutinized the entire site and had found no objections in the construction. Further, a perusal of the minutes of the meeting dated 06.09.2021 (Annexure - 2) to this written statement would clearly show that the water logging problem is not only confined to the ARYA Smart Living Project, as is being portrayed by the Applicants herein but is a condition of the entire Abhayapur area for which even the Deputy Commissioner, Kamrup had been present in the meeting to sort out a solution for the water logging issue. Therefore, portraying that the water logging issue inside ARYA Smart Living is due to the non-execution of various measures by the answering respondent is totally misconceived and a total mis-representation of the actual facts.

20. That, the answering respondent states that during the 2nd Annual General Meeting (AGM) of the Society of the villa owners of ARYA Smart Living held on 26.09.2021, one of the points of discussion was to approach the government authorities for solving the issue of water logging in the entire area and not just inside ARYA Smart Living. Under 'Agenda No. 6' of the said meeting, which clearly stated that the water logging issue was due to the backflow of water and as per the minutes, *"Joint meeting was arranged from the o/o the DC, Kamrup, Officers of North Guwahati Municipal Board, Water Resources Department, Government of Assam and Public Works Department, Government of Assam had decided to carry out a final survey and as per its recommendation, permanent solution can be undertaken by the respective Govt. departments. The above meeting was convened at the clubhouse of Arya Smart Living and few members of the Society as well as Board Members were present in the said meeting held on 03/09/2021".*

From a careful reading of the resolution taken in the AGM of the Society of the villa owners with a conjoint reading of the minutes of the meeting convened amongst the various departments, it is amply clear that the

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issue of water logging is not only confined to ARYA Smart Living rather is a matter of the entire Abhayapur area inasmuch as, various departments of the Government of Assam had to get involved to find out a solution for the same. Interestingly, all the applicants in the present original application had attended the 2nd AGM held on 21.09.2021 and had even signed the attendance sheet of the said AGM. The applicants herein have mis-represented the problem faced by an entire locality as a problem faced only by ARYA Smart Living residents even after they themselves being present in meetings wherein measures were sought to be taken. The applicant no. 1 has signed as member no. 12, the applicant no. 2 has signed as member no. 17, the applicant no. 3 has signed as member no. 16, the applicant no. 4 has signed as member no. 13 and the applicant no. 5 has signed as member no. 11 in the said 2nd AGM meeting of the Society.

Copy of the minutes of the 2nd AGM dated 21.09.2021 alongwith the attendance sheet of members present is annexed hereto as Annexure – R- 3.

21. That, the statements made in paragraph 5(b) of the original application are wholly incorrect and the answering respondent denies the same. It is absolutely incorrect that the project has not been handed over to the Society namely ARYA Smart Living Group Co-operative Society Ltd. The answering respondent vide agreement dated 08.04.2019 had handed over the project to the society comprising of the villa owners including the present Applicants. It maybe mentioned herein that, the said Society is running the club-house etc. and is also earning profit by putting the same on rent and the said fact has been mentioned by the Assistant Registrar of Co-operative Societies in its order dated 24.02.2021, which was passed in a proceeding initiated by the present applicants.

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Copy of the order dated 24.02.2021 passed by Assistant Registrar of Co-operative Societies, Assam is annexed hereto as Annexure – R-4.

22. That the answering respondent states that the reliefs sought by the applicant no. 1 herein in W.P.(C) No. 3654/2020 has no bearing on the present case. Further, the aforesaid writ petition came up for hearing before the Hon'ble Gauhati High Court on 11.09.2023 and the applicant no. 1 herein who was the writ petitioner in the aforesaid writ petition had to withdraw the said writ petition. The statements made in the paragraph under reply itself shows that the applicants are litigating against the answering respondent in an attempt to extract monetary compensation, which is evident from the prayer made in the present application. Under such circumstances when there has been no adjudication of any facts or issues raised by any parties to a *lis,* it cannot be said that the issues raised in such a *lis* can be considered or relied upon in a different proceeding.

Copy of the order dated 11.09.2023 passed in W.P.(C) No. 3654/2020 is annexed hereto as Annexure – R-5.

23. That, the statements made in paragraph 5(c) have got absolutely no connection and/or bearing in the present case and as such, the answering respondent refrains from making any comments thereon.

24. That the statements made in paragraph 5(d) of the original application are absolutely incorrect and the answering respondent categorically denies the same. It is categorically denied that the work of the project has not been completed and that construction is continuing, as has been alleged. As stated earlier, the applicants, more particularly the applicant no. 1 have filed multiple litigations against the answering respondent and had in fact prevented the grant of occupancy certificate by the GMDA.

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The answering respondent states herein that on 18.07.2023, the GMDA had conducted a verification of the phase – 1 of the ARYA Smart Living for consideration of occupancy certificate of the same. During such site verification, additional constructions were found in as many as 54 numbers of villas for which objections were raised by the GMDA. Barring the said 54 villas, the GMDA vide its letter dated 21.08.2023 had given part occupancy certificate for the Phase – 1 of the project. It maybe pertinent to mention herein that out of the 54 villas found with objections in the form of additional constructions, 53 of them were already sold to their respective owners who had undertaken the said constructions after execution of their respective sale deeds and amongst those 53 villa owners, applicant nos. 2 to 5 are amongst them. However, the applicant no. 1 herein who had earlier refused to execute the sale deed for his villa after taking possession of the same on the pretext that without occupancy certificate he will not execute the sale deed, has made the highest amount of additional constructions to the tune of even, as per the objections of the GMDA dated 12.12.2022 addressed to the applicant no. 1 as well as, to the answering respondent. Under such circumstances, it belies in the mouth of the applicants herein to state in this Original Application filed on 29.07.2023 that occupancy certificate was not granted to the answering respondent, the reason for which are the applicants themselves. In addition to the above, the applicant no. 1 after having taken over possession of his villa on 28.11.2019 and having carried out extensive additional constructions in his villa for which occupancy certificate has been refused in respect of the villa has contended before the RERA and REAT that the possession is illegal and hence he is entitled to compensation. In fact, the RERA had awarded interest to the tune of almost 1.5 crores, which was set aside by REAT, Assam.

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Copies of the site verification report dated 12.12.2022 conducted by the GMDA and the copies of objections raised by the GMDA in respect of the individual applicants are collectively annexed hereto as Annexure – R-6.

25. That the statements made in paragraph 5(iii) are incorrect and hence denied. Without prejudice to the contention that the SEIAA order dated 09.05.2023 is not under challenge, it is stated that it is duly recorded in the said order that "the design and supply of STP was done by firms, experts in the field of works and stated to be functional at the time of handing over the same to the Society and as such, the Society is to keep it functional".

26. That the statements made in paragraph 5(iv) are incorrect, contrary to the materials on record and are denied. It is denied that the answering respondent has not maintained the 3 meters green belt around the plot and has constructed drains, pathways etc. and is trying to mislead by claiming that the green belt is 9000 sq. m. The order dated 09.05.2023 clearly states that the green belt is 9000 sq. m. which has around 900 trees and hedges and the green belt is maintained all around the campus with the exception of two corners. It is reiterated that the order dated 09.05.2023 has not been put to challenge and further the statement that the said order is silent on the issue of green belt is also incorrect, in view of the clear finding of the SEIAA as stated hereinabove.

27. That the statements made in paragraph 5(v) incorrect and hence denied. It is denied that the order dated 09.05.2023 does not mention the submission of any report inasmuch as, the order clearly states that "energy conservation measures have been taken in the villas and all common areas." Further, the EC is dated 21.01.2014 and clause A.II.(x) provides for submission of such details within three months i.e., 20.04.2014 and grievance with regard to the said issue of alleged non-submission of the same cannot be raised in the year 2023.

28. That the statements made in paragraph 5(vi) are incorrect and hence denied. It is denied that the project is yet to be completed and that the answering respondent is required to extend the validity of the EC after

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21.01.2021. The statement that the project is yet to be completed is an absolutely vague statement and based on a misrepresentation of the facts as well as the law. The project was completed way back in 2018 but due to various factors as stated hereinabove, the occupancy certificate was not granted and one of the reasons for the delay in grant of occupancy certificate is the obstructions created by the Applicant no. 1 and applicant no. 5 of O.A. No. 32/2023/EZ. The applicants want to draw a parity between an "ongoing project" under the RERA Act and the continuation of construction. It is most respectfully stated that merely because a project has to be registered as an ongoing project under the RERA Act or that for some reason the occupancy certificate has not been granted, does not mean that construction is going on/ continuing. The very fact that the order dated 09.05.2023 does not speak of extension of the EC itself goes to show that such extension is not required. Be that as it may, extension of the EC is a matter between the answering respondent and the SEIAA and the applicants have nothing to do with the same.

29. That the answering respondent states that in the order dated 09.05.2023, the SEIAA has duly recorded all the submissions made by the answering respondent on each and every specific point of the representations dated 06.07.2022 and 20.10.2022 filed by 4 of the applicants. The SEIAA had noticed that no violation has been done by the answering respondent with regard to the points/issues raised by the applicants and as such, has given its solutions to the only relevant issue viz. the water logging problem. The SEIAA has exercised the jurisdiction vested on it by law and without prejudice to the contention that the order dated 09.05.2023 not having been challenged, the same cannot be gone into, even otherwise no interference is called for in the present case.

30. That with regard to the statements made in paragraph 6, the answering respondent states that the SEIAA in its order dated 09.05.2023 has

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mentioned "*The matter of non submission of six monthly compliance reports to SEIAA has been viewed seriously and a stricture in this regard shall be issued separately*". However, the answering respondent states that the 6 monthly reports had been submitted to the SEIAA much before the applicants have registered their complaint and the same had been duly received by the SEIAA on 14.07.2022, without any objection. In this regard, no further communication has been received by the respondents from honourable SEIAA till date.

31. That with regard to the statements made in paragraph 7, the answering respondent states that whenever reliance is placed upon any judgement or order passed by any court of law, the entire judgement or order has to be read as a whole and reliance ought not to be placed on 1 or 2 sentences only. The answering respondent shall rely on a true and correct interpretation of the judgements referred to in the said paragraph and does not accept the interpretation put forward by the applicants.

32. That with regard to the statements made in paragraph 8 and 9, the answering respondent states that the present application is misconceived and not maintainable in law and the answering respondent reiterates the statements made in the present counter affidavit pertaining to maintainability. The applicant no. 5 or for that matter any other person cannot be permitted to approach this Hon'ble Tribunal raising the same grievance again and again. The earlier O.A. No. 32/2023/EZ having been disposed off by this Hon'ble Tribunal by directing consideration of the two representations, the reliefs prayed in the said O.A. cannot be raised in the present application.

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33. That the grounds mentioned in the application are nothing but repetitions of what has been stated earlier in the O.A. and which have been adequately dealt with in the preceding paragraphs of this counter affidavit and the same are not being repeated for the sake of brevity.

34. That the statement pertaining to the present application being within the period of limitation, is incorrect and is denied. The order dated 09.05.2023 is not under challenge and the prayers made in the present application is *in verbatim* with the prayer made in O.A.No. 32/2023/EZ and as such it cannot be said that the present application has been filed within the period of limitation.

35. That the interim prayer made in the present application is absolutely untenable and not liable to be considered. In O.A.No. 32/2023/EZ, this Hon'ble Tribunal had directed the SEIAA to dispose off the representations filed by some of the applicants and in compliance thereto, the SEIAA has passed the order dated 09.05.2023 after considering all relevant matters including a site-visit by a team of experts. The same having been done, it is not open for the applicants to again come up before this Hon'ble Tribunal for the constitution of another committee, without any cogent reasons as to why the order of the SEIAA is not to be relied upon. The interim prayer itself is casting aspersions on the SEIAA inasmuch as, the applicants are seeking the constitution of a committee when the SEIAA comprising of experts in the field have already given their finding after conducting detailed survey.

36. That the prayers made are absolutely untenable in law and cannot be granted. As stated earlier in this counter affidavit, the prayers made are *in verbatim* the same as those made in O.A.No. 32/2023/EZ and therefore, the present application deserves to be dismissed with cost.

37. That coming to the prayer for payment of compensation, the same is absolutely misconceived. The applicants have prayed for levy of compensation on the principle of "restitution" as cost of restoration involved. However, there is absolutely nothing on record to show that any loss or damage has been suffered by the applicants. There is absolutely no materials on record to show that any pollution and/or environmental damage has been

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caused by the answering respondent and/or that the applicants have suffered anything. Under such circumstances, there is no question of any restitution of environment or property damaged.

38. That the applicants have also failed to demonstrate any damage to public health, property and environment. The applicants have also failed to demonstrate what legal right of the applicants relating to environment has been violated. It is evident from the pleadings as well as the prayers that the only objective of filing the present application is to extract some monetary compensation from the answering respondent.

39. That the statements made in this affidavit and in paragraphs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10(partly), 11, 12, 13, 14, 15, 16, 17, 18, 19, 20(partly), 21(partly), 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37 and 38 of the written statement are true to my knowledge and those made in paragraphs 10(partly), 20(partly) and 21(partly) being matters of record, which I believe to be true and those made in the rest of the application are humble submissions.

Sl. No. 2269
Date 8/12/23

For & behalf of Arya Erectors India Private Limited
Anil Kumar Sarma
Managing Director

DEPONENT

Identified by me
Neelanjan Deka
75 of 2001
(Advocate)

I signed, affirmed before me this day & certify that I read over and explained the contents to the declarant and that the declarant seemed perfectly to understand.

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GITANJALEE SARMAH
NOTARY
Guwahati, Kamrup (M)
Regd. No.- KAM-13517
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VERIFICATION

I the deponent above named do hereby verify and declare that the statements made in the aforesaid paragraphs are true to my knowledge and information and I believe that nothing has been concealed there from.

And I sign this affidavit on this 8th day of December, 2023 at Guwahati.

For & behalf of Arya Erectors India Private Limited

Anil Kumar Sarma

Managing Director

DEPONENT

Prepared by me

Neelanjan Deka

75 of 2001

(Advocate)

Sworn affirmed before me this day. I certify that I read over and explained the contents to the declarant and that the declarant seemed perfectly to understand.

NOTARY
G. SARMAH
Kamrup (M)
Regd. No.
KAM-10517
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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH – KOLKATA

ORIGINAL APPLICATION NO: 92/2023/EZ

In The Matter of-

Dr. Ganesh Das & others

..... APPLICANT

-VERSUS-

M/s Arya Erectors India Private Limited and Others.

....RESPONDENTS

AFFIDAVIT

SIBOJYOTI CHAKRABARTI
ADVOCATE
HIGH COURT CALCUTA,
109, SARAT CHANDRA ROAD, BARAT, LAKE TOWN, KOLKATA- 700089
M- 9007035534
EMAIL- subho.advocate@gmail.com

Annexure- R-1' 19

arya smart living

Site Presentation

For

Honourable Members of Inspection Team of SEIAA, Assam

By

Anil Kumar Sarma

Managing Director

Arya Erectors India Pvt. Ltd.

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Project Details

- Promoters : Arya Erectors India Pvt. Ltd
- Principal Architects : M/s Satellier Design, Chicago (USA), New Delhi
- Local Architect : Akar Foundation, Guwahati
- Structural & Proj. Consits. : Semac Consultant Pvt. Ltd. Mumbai
- Financial Consultants : Anupam Baruah & Associates

Important dates

- NOC : 25-Jun-2013
- EC Clearance : 21-Jan-2014
- Project Completion : 02-July-2018
- OC Application : 03-July-2018
- RERA Registration Applied : 30-Oct-2017
- RERA Registration Received : 17-July-2021

Project Highlights

- First-in-Class Premium category Villa complex to be built in Assam. Built with a futuristic vision keeping the development of North Guwahati as an extended part of Guwahati in mind.
- Spacious well planned complex with wide roads, sufficient open spaces, gym, swimming pool, play area, gardens.
- One of the first residential projects with own Sewage Treatment Plant
- Located conveniently close to major hospitals, Schools, IIT/AEC, Railway Station, Airport and the Brahmaputra. New bridge on the Brahmaputra to be commissioned in 2024.
- **Zero trees cut from start till date**

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Planned Vs Actual

Planned
Initial Plan included 16 storey commercial with 156 residential units, departmental store

Total Built-up area of 62,133 sqm

Actual
16 storey commercial + residential complex (red circled) not constructed, replaced with 33 nos. duplex villas

Total Built up area 29,335 sqm

Reduction in total built-up area of over 32,000 sqm

Villa Types

A-Type

B-Type

C-Type

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MOEF Approval and Actual work done

Sl No	Description	MOEF Approved	Constructed	Remarks
1	Total Built up area in the project	**62133.036 Sqm**	29335.60 Sqm	i) **G+16 storied High Rise is not constructed leading to 32797.44 sqm reduction in total built-up area** ii) Some Triplex G+2 (C type) made to Duplex G+1 (70 Nos) villas ii) One A type Villa is not Constructed
2	Paved Area (Road)	**12989.4 Sqm**	9834.00 Sqm	Reduction in paved area arising out of non construction of commercial building, one A-type villa and G+16 high-rise building and increase in Green area
3	Building Foot Print	**12709.60 Sqm**	13991.75 Sqm	33 G+1 villas constructed in place of G+16 storied high rise commercial cum residential building
4	Base ment Area	**5791.636 Sqm**	0.000	No Basement areas constructed
5	Podium Area	**2886 Sqm**	0.000	G+16 High Rise apartment not constructed, hence no podium area
6	Green Belt + area	**7485.96**	9000 Sqm	**Increase in Green Areas that what was proposed. Also more number of trees planted than proposed**

Sl No	Description	Applied at MOEF	Constructed	Remarks
1	STP	**230 KLD**	70 KLD	Reduced capacity of the STP due to huge reduction in built-up area
2	Total Water Requirement in the Project (Estimate)	**286.63 KLD**	56.580 KLD	due to G-16 storied building with both commercial space and residential apartments not being built.

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Complaint Analysis
Annexure N & O read together with para 9 of NGT Complaint
As per NGT Order dated 24-03-2023

Annexure N	: Complaint to Chairman SEIAA by Dr. Ganesh Chandra Das & Sh. Padum Deori dated 06.07.2022
Annexure O	: Complaint to Chairman SEIAA by 1. Mrinmoy Borkakoti, 2. Sanjay Baruah, 3. Brojen Dutta, 4. Dolly Gogoi dated 20.10.2022
NGT Complaint	: Complaint to NGT by Ganesh Das & Others filed on 30-Jan-2023

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Complaint No.1

1. Specific Conditions Part A(I)(i) of environmental clearance states that
The storm water drainage shall be worked out after analyzing the contour levels of the site and the surrounding area and the capacity of storm water drainage '

"Whenever there is slight rainfall, the entire open areas get submerged under water resulting in flood like situation and water remain stagnant for many days. The main reason for water logging situation is due to absence of any Storm Water Drainage, as mandated to be constructed after analysing the contour levels of the site and the surrounding area and the capacity of Storm Water Drainage is not in compliance of E.C provisions."

Our Response to Complaint no. 1

a) Contour study done by Precision Surveying Co., Rajgarh and approved by GMDA. External storm drain is clearly mentioned in mentioned in Service plan submitted to and subsequently approved by GMDA.

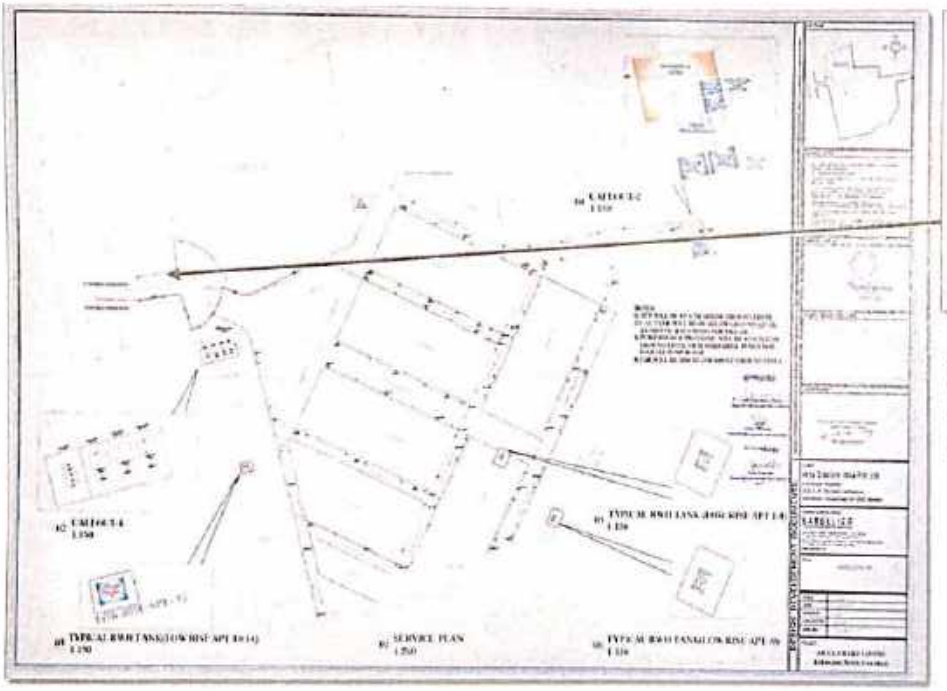
b) Water logging problem in that area has started only after the construction of the PWD road and drains . PWD road work started on 18.08.2017 and completed on 27.07.2020, much later than the ASL project completion date. Proof from Google Earth Photos and Old Site Photographs. (Evidence : PWD Project Completion Report)

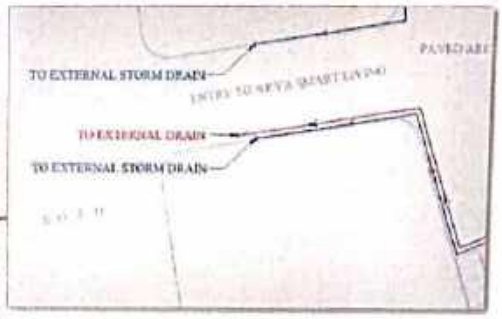
c) Main issue of waterlogging is the bed level of the PWD and Drains wrongly and unscientifically constructed higher than the bed level of ASL drain. Moreover the gradient of the PWD drain is inverse on both sides creating a valley in from of ASL Gate. Also the main PWD drain is also blocked on several places due to which the flow of water is stagnant.

d) Multiple representations made by AEIPL to PWD & Water resources Depts. seeking help and solutions for the same. Multiple inspections done by these depts at the site.

26

Approved Service Plan





Attached Service Plan submitted to GMDA and subsequently approved on 27.06.2013 clearly shows the Storm Water Drain

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Old Site Photos

Old Site photographs clearly show the road level at the time of project initiation was much lower than the level of ASL campus. Moreover there was no drain, neither was there any waterlogging before the construction of the PWD road and drain

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Google Earth Images

Date of photograph : 3.10.2003
Project Status : Not initiated
No drains on either side of the road

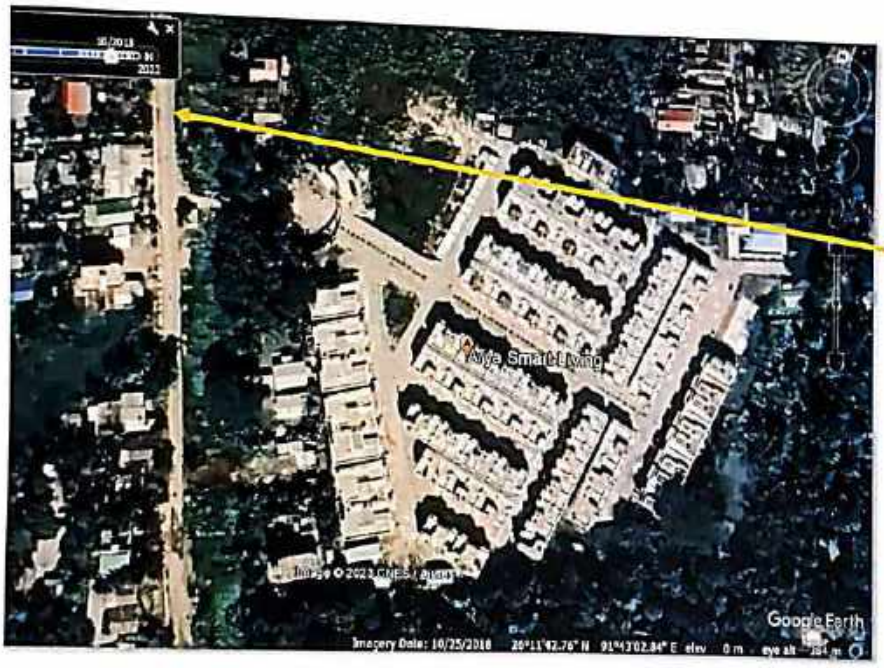
29

Google Earth Images

Date of Photograph : 1.1.2018
Project Status : Almost complete
No PWD drain exists on either side of the road.

30

Google Earth Images



Date of Photograph : 25.10.2018
Project Status : Completed
PWD Road widening and Drain work started on one (opposite) side of the road only. Work on side near ASL campus yet to start.

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Google Earth Images

Date of Photograph : 10.03.2019
Project Status : Completed

PWD drain Work-In-Progress on the opposite of the road only.

Date of Photograph : 20.08.2019
Project Status : Completed

PWD drain Work-In-Progress on the both side of the road, incomplete status.

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Efforts to solve Water Logging issues

a) In order to solve the problem of water-logging, the residents society had requested IIT-Guwahati team to undertake a survey to suggest solutions for resolving the issue on 01.03.2022. IIT-G replied their acceptance on 4.03.2022. The T&C of the survey proposal was agreed upon by society on 24th March'22. In the final report from IIT, Section 4 (Findings, Possible Solutions and recommendations), sub sections 4.2.1, and sub-sub-sections 4.2.1.1 & 4.2.1.2 clearly indicate that the capacity of the right and left drains are sufficient. The complainants were part of the internal committee appointed for co-ordination with the IIT team, but none actually participated during the actual work was in progress.

b) Multiple representations made by AEIPL to PWD & Water resources Depts. Seeking help and solutions for the same. Multiple inspections done by these depts at the site. All these have been done vide the initiatives of a few board members only.

c) Periodic cleaning of the storm water drains done.

Inspection by Circle Officer

Cleaning of Storm Water Drain

Inspection with Resident

Discussion with Nearby Community

Society members with IIT Survey team

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Complaint No.2

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

It is observed from the present construction that grey water is directly connected to the open drains which in turn creation of an unhygienic environment inside the premises. Moreover, the grey matter mixed with rain water and spread over the entire open areas whenever there is rain.

Our Response to Complaint no. 2

a) Dual Plumbing system implemented in public toilets.

b) Treated water from STP is reused for Gardening (Approx. 9000 Sqm). Multiple outlet points in different area installed to cover entire landscaping. This is utilized for horticultural requirements.

c) Treated Water from STP is also used in Public toilets Flushing and cascading waterfall at the main entrance gate.

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Complaint No. 3

"The installation of Sewage Treatment Plant(STP) should be certified by an independent expert and report in this regard should be submitted to the SEIAA before the project is commissioned for operating. Treated effluent emanating from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Zero discharge criteria should be met as agreed."

It is observed from the SEIAA communication vide letter reference No. SEIAA.7/2013/11 dated 28/12/2020 and letter reference No. SEIAA.7/2013/1579 dated 13/05/2022 that M/S Arya Erectors India Private Ltd had not submitted the report and compliance before SEIAA. However, the project is commissioned by the proponent without submitting the required reports although GMDA have not allowed the proponent to occupy the project.

Our Response to Complaint no. 3

The statements made in the complaint are misleading and malicious, intended towards creating a negative image in the mind of the honourable authority.

1. The design and supply of materials for STP is done by **Fresh Air Waste Management Services Pvt. Ltd.**, A.T. Road, Bharalumukh, Guwahati and the installation and certification has been done by **Forcetech Engineering**, AT Road, Bharalumukh, Guwahati. Both are independent agencies expert this field of work. Evidence of the same will be submitted.

2. The Project Completion report for Arya Smart Living has been submitted to GMDA on July-2018 with all documents. The complaint is misleading and untrue. **The GMDA has, on the other hand, issued notice to all complainants, along with few other residents, to demolish unauthorised constructions made in their respective villas.**

3. 6 monthly compliance reports have been submitted till Jun 2019. Project has been completed in July 2018 and handed over to the society vide a notarised agreement on 08.04.2019.

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Complaint no. 4

"The peripheral green belt of 3 mtrs. Width shall be developed all around the plot area and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise."

It is seen from the present construction status that 3 mtrs peripheral green belt is not maintained all around the plot area and even there is no visible provision for maintain the peripheral green belt as some structures like STP sheds etc. are already constructed

Our Response to Complaint no. 4

The statements made in the complaint are again not true.

1. Green belt area maintained all around the campus with the only exception of two corners that too only at the at the vertex points.
2. Total Green area in the project is approximately 9000 sqm, much more that the area proposed (i.e. 7486 qm). No. of trees of indigenous variety planted within the campus exceeds 500, and including of hedges and shrubs, the same would be exceeding 900. (Attached file)

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Complaint no. 5

Rain water harvesting for roof run-off and surface run-off should be implemented. Before recharging the surface run-off, pre-treatment must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging should be kept at least 5 mts above the highest of ground water level.

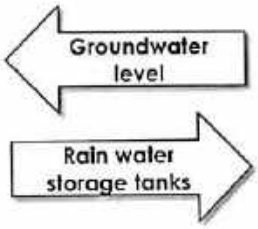
It is observed from the present construction that the rain water harvesting for roof run-off and surface run-off are not implemented properly as mandated by SEIAA. Authority shall investigate in details and initiate the actions as per the prevailing Act and Rules.

Our Response to Complaint no. 5

1. Ground water level at the campus is very high as evident from the soil testing report done by Reliant Foundations Pvt. Ltd. of Panjabari Road, Sixmile, Guwahati and completed on 30.04.2012. (Snapshot attached). A huge low-lying area adjacent and outside the project on the northern side also exists, which also serves as a huge natural reservoir of rain water, and ground water recharge.

2. For collection of roof run-off and surface run-off rain water, multiple tanks of 5000 lt. capacity have been installed around the campus. The collected water is used for gardening, car washing and other utility purposes.

Sl. No.	Borehole Location	Depth of borehole (Meters)	Depth of water table (Meters)
1	BH1	30.00	2.50 below the EGL
2	BH2	30.00	1.00 below the EGL
3	BH3	30.00	1.50 below the EGL
4	BH4	30.00	0.50 below the EGL
5	BH5	30.00	0.50 below the EGL



37

Complaint no. 6

Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parkin g should be fully internalized and no public space should be utilized. Width of the internal road should be 7 mtr and 9 intr in the project area.

It is seen from the sanctioned plan and present construction, there are some internal roads with a width of 6 mtr. Moreover, it is noticed from the joint measurement carried out for one of the C type unit that the covered parking area constructed by the proponent is less than the area shown in the sanctioned plan. Now it is very dilficult for the house owner to park the vehicle in the designated parking space which resulting the owner to park the vehicles on the road. So, there is traffic congestions expected in internal roads as the roads are not constructed as mandated by SEIAA and on top of it the vehicles are also being parked on the •road.

Our Response to Complaint no. 6

- There is no congestion of traffic near the entry and exit points from the roads adjoining the project.
- The main entry road to the project is almost 11 m wide, opening up to a much wider open space before the main gate. Beyond the main gate there are two roads – the road coming inside from the main road is 14 m wide and the road moving towards the left is 12 m wide. The internal roads are all as per GMDA approved sanction plans.
- One parking area has been designed in every C/D type Villa, for a standard sized car, and the same is approved by GMDA.

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Complaint no. 7

A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R&U factors, etc. and submit to the SEIAA in three months time.

Our Response to Complaint no. 7 & 8

- 6 monthly compliance reports have been submitted till Jun 2019.
- All street lights in the campus are solar-powered.
- Project has been completed in July 2018 and handed over to the society vide a notarised agreement on 08.04.2019.

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Few points to note :

1. Contents of both the letters dated 06.07.2022 and letter dt. 20.10.2022 are exactly the same. The letter dt. 20.10.2022, mentioned as Annexure O and signed by 4 complainants, contain the signature of Dr. Ganesh Das who is a complainant of letter dt. 06.07.2022, Annexure N, and not of the letter mentioned as Annexure O.

2. Neither of the two complainants of the letter dated 06.07.2022 ,mentioned as annexure N, namely Dr. Ganesh Chandra Das and Mr. Padum Deori are valid customers as neither have signed the sale deed for their villas. Dr. Ganesh Das is illegally possessing the house without executing a sale deed and has done unauthorised constructions in his villa. for which GMDA has issue directions to him to demolish all such unauthorised constructions, vide letter GMDA/UC/17/2023/78 DT. 10.02.2023. There is also a Civil Suit (No.71/2021) filed against Dr. Ganesh Chandra Das against such illegal possession.
   On the other hand, Mr. Padum Deori is a defaulter and is yet to complete his payments for the villa. He is trying to trying to gain illegal possession of the villa vide complaints at various places like RERA, GMDA, etc. but the court has put a stay in all such attempts.

3. Project has been completed in July 2018 and handed over to the society vide a notarised agreement on 08.04.2019.

4. As per Section 14 (3) of The National Green Tribunal Act, 2010, *"No application for adjudication of dispute under this section shall be entertained by the tribunal unless it is made within a period of six months from the date on which the cause of action for such dispute first arose"*. As such, going by the aforesaid section, this complaint cannot be entertained.

5. One of the complainants, namely Dr. Mrinmoy Borkakoti, himself was the president of the society of residents for a period of around 8 months. During his tenure, there was no similar complaints raised. After he lost the presidentship of the society, there have been several attempts made by him and the other complainants to destroy the democratic setup of the society vide several litigations. One such recent case to disqualify the Board of Directors of the society has been thwarted by the Registrar of Societies office recently.

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Thank You.

We welcome your feedback and questions, if any.

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ARYA ERECTORS
INDIA PRIVATE LIMITED

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Guwahati - 781008, Assam, India.
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E-mail: aryaerectorsindia@gmail.com
Web:www.aryaerectorsindia.com

Letter no. ASL/SEIAA/1006/20230418/62 Dated: 18.4.2023

To

The Chairman
SEIAA, ASSAM

Sub: Submission of documents with respect to NGT order dated 24.03.2023with respect to Original Application no. 32/2023/EZ and corresponding inspection visit on 11.04.2023

Dear Sir,

As per the requirements mentioned during your inspection visit with reference to the aforesaid NGT order, we are submitting the below mentioned documents.

1. GMDA Certified Contour plan
2. Storm Water Drain Diagram
3. Photographs of main road before start of project Arya Smart Living
4. Photograph of natural waterway in front of project campus
5. Photographs of land filling by local residents
6. Photographs of water logging inside ASL campus
7. Photographs of water logging outside ASL campus
8. Photographs of houses of neighbouring residents raising their gates as protection against water logging
9. Google Earth photos at different dates showing old images of the area before and during construction of PWD road and drains
10. PWD Project completion report showing date of completion of construction work
11. IIT Guwahati's Final Report on survey conducted at ASL campus for solving water logging issues
12. Soil Testing report showing ground water level
13. Photographs of STP

Kindly acknowledge the receipt of the same.

Regards,

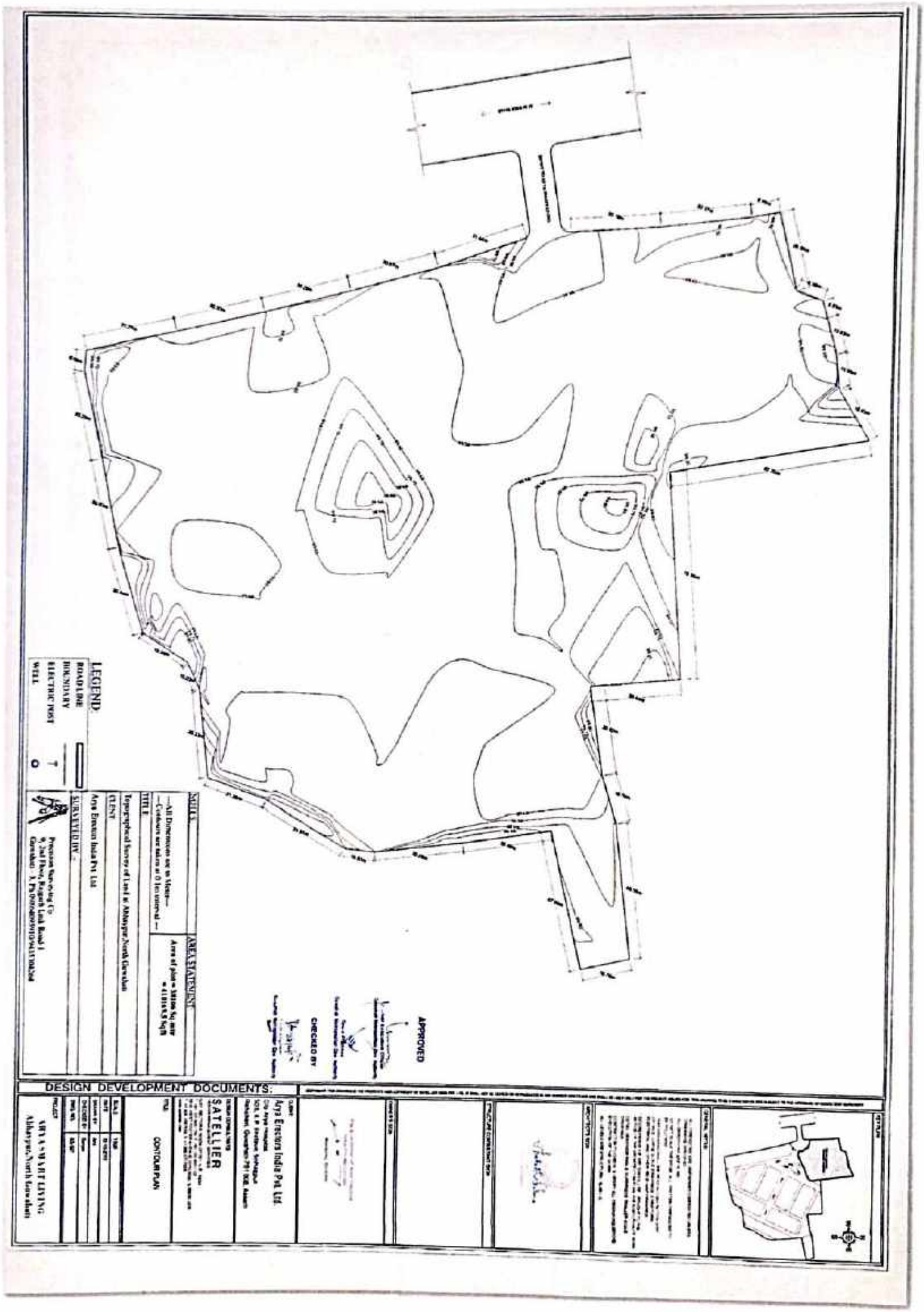
18/4/2023

Anil Kumar Sarma

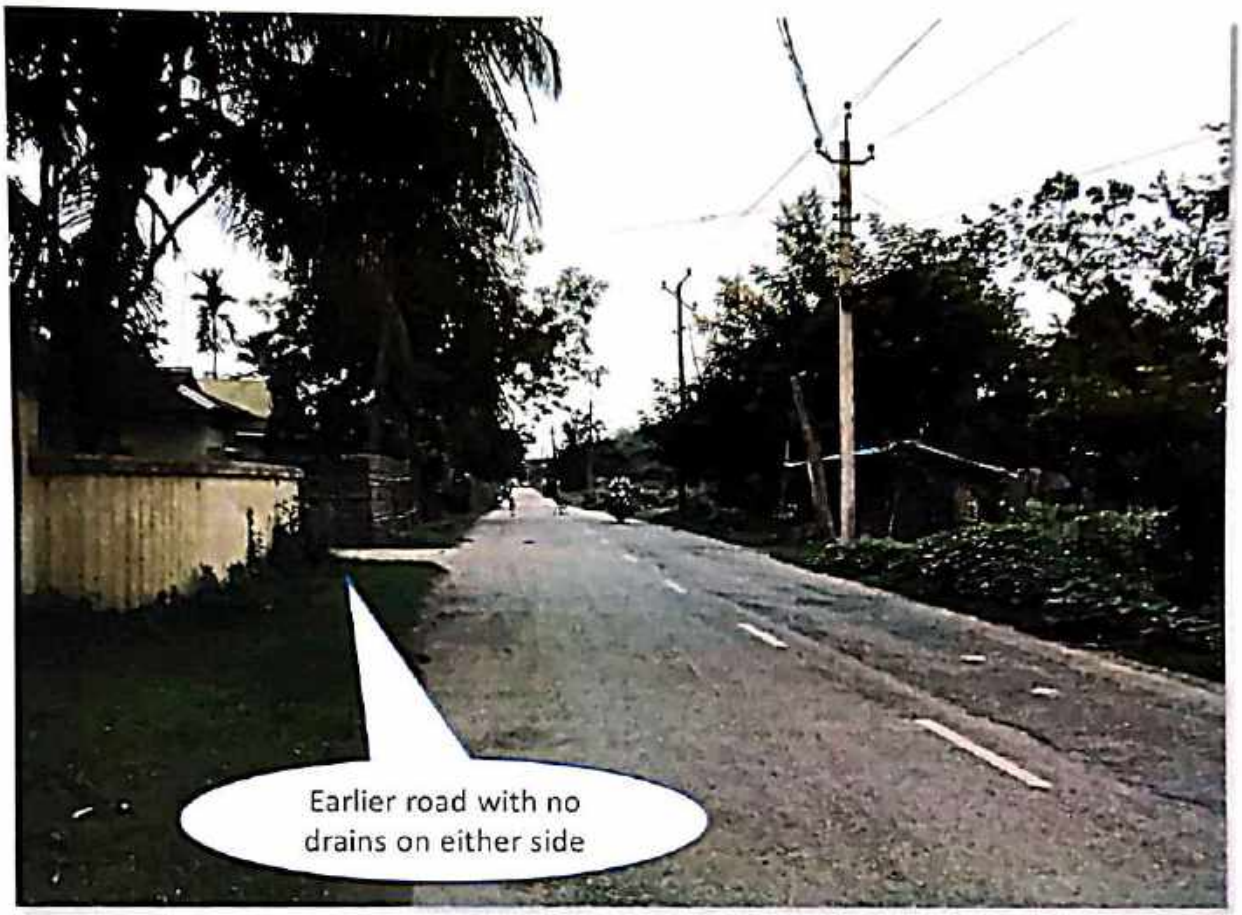
Managing Director
Arya Erectors India Pvt.Ltd

18/4/23

Contour Plan approved by GMDA on 27-6-2013



Photos of the Road before start of the Project Arya Smart Living



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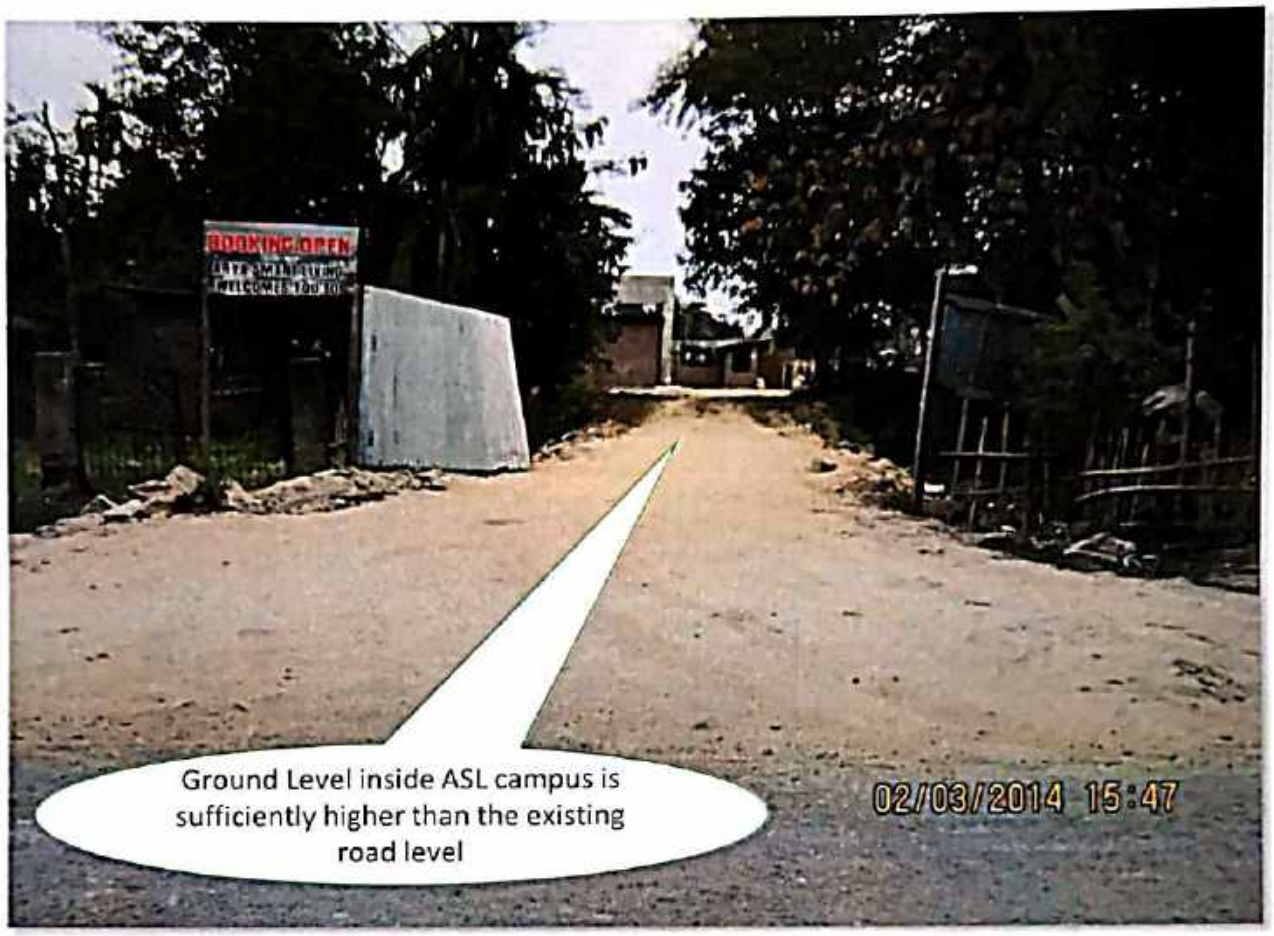
Photos of the natural waterway before start of PWD road cum drains

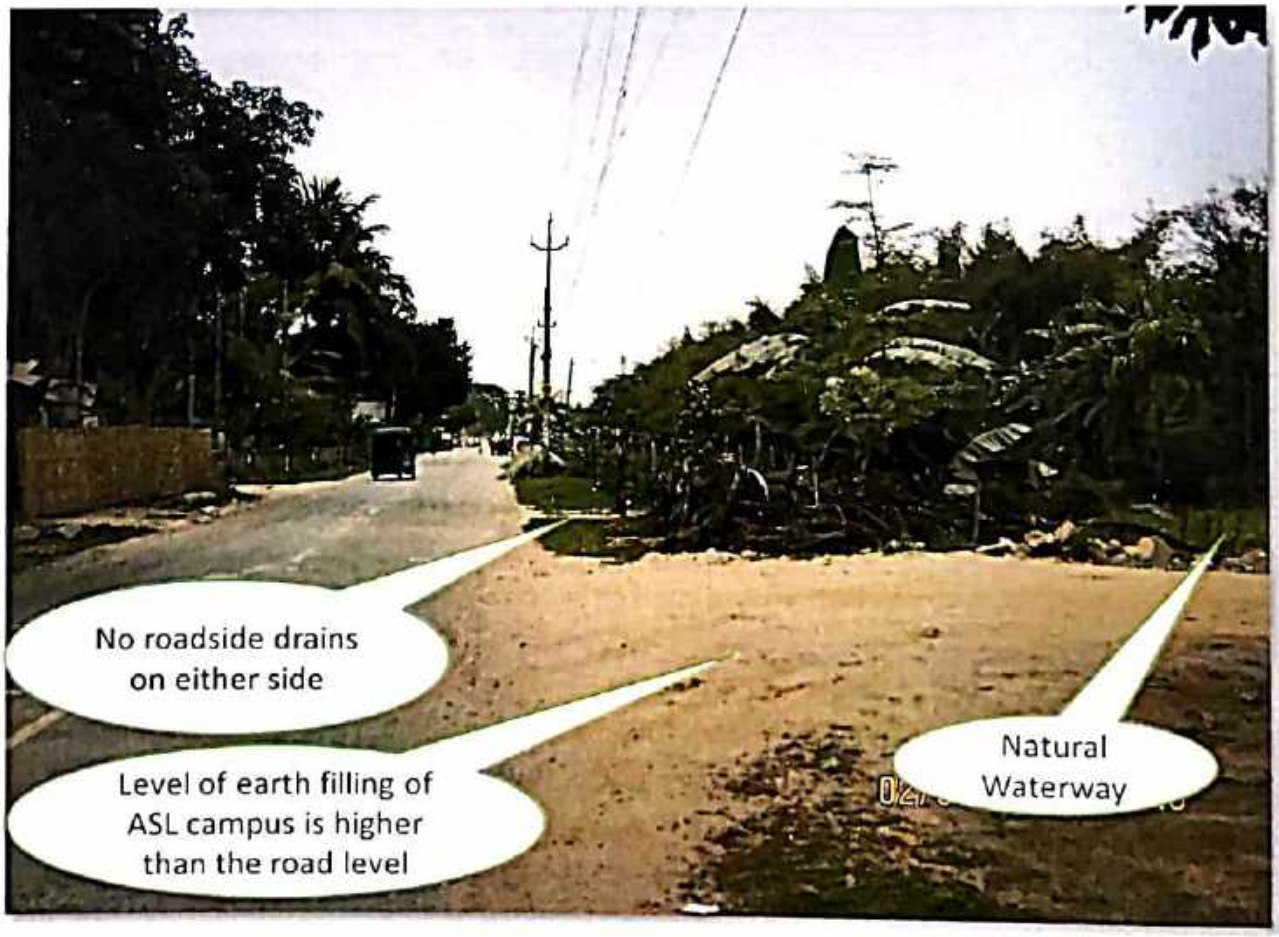
Photo of Novermber 2015 clearly shows the existence of a natural waterway along the main road in front of Arya Smart Living (ASL) campus.

This got blocked after rampant earth filling by local residents.

Photos of the entrance road to the Project Arya Smart Living after initial lad filling

Earth filling and ground level of ASL campus vs nearby areas





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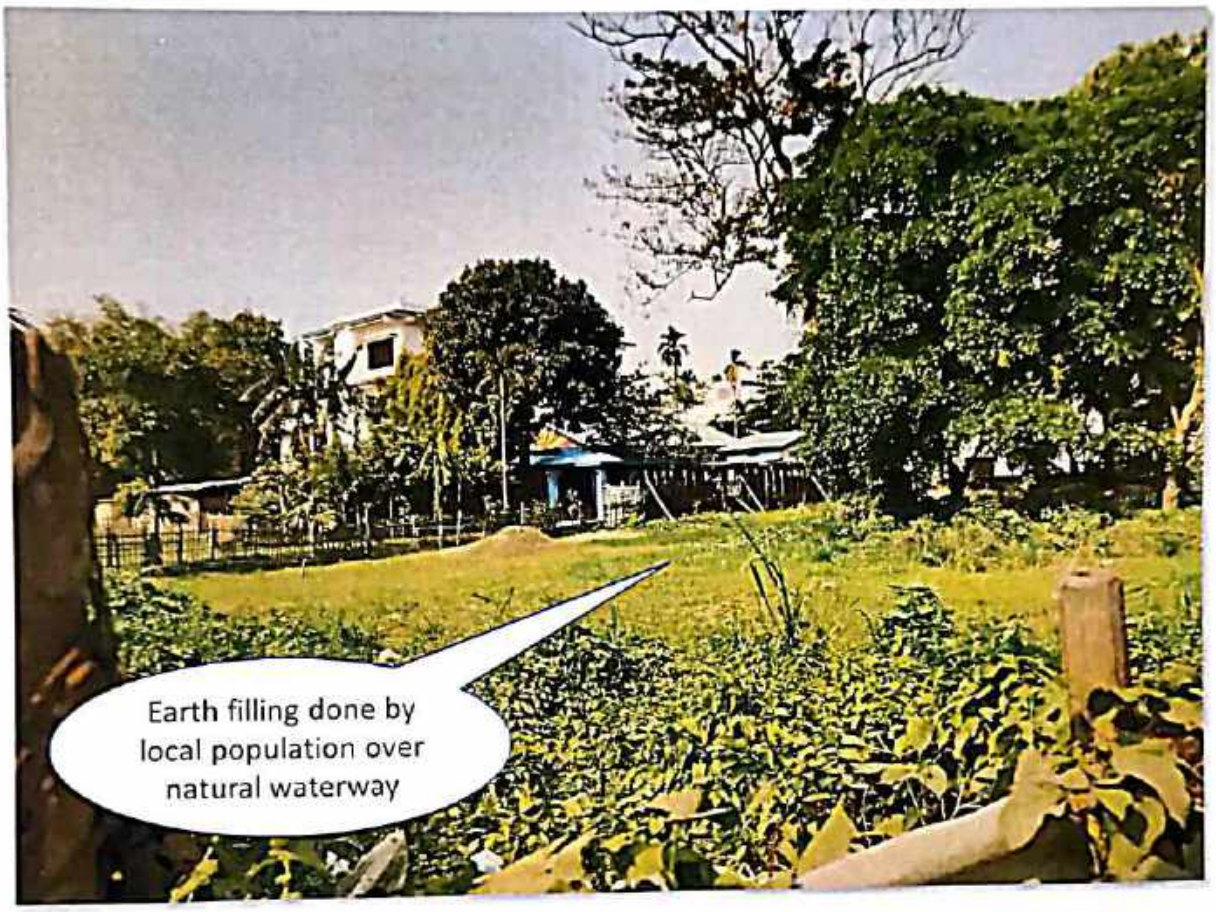
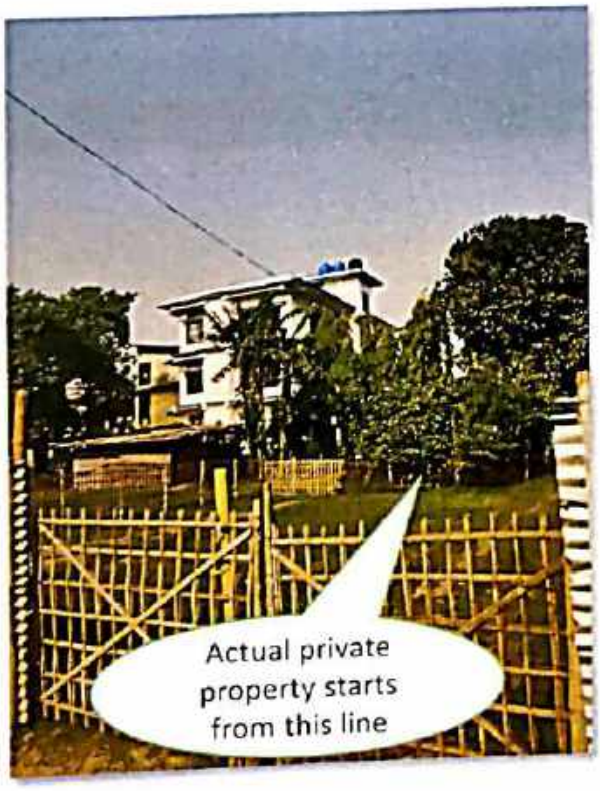
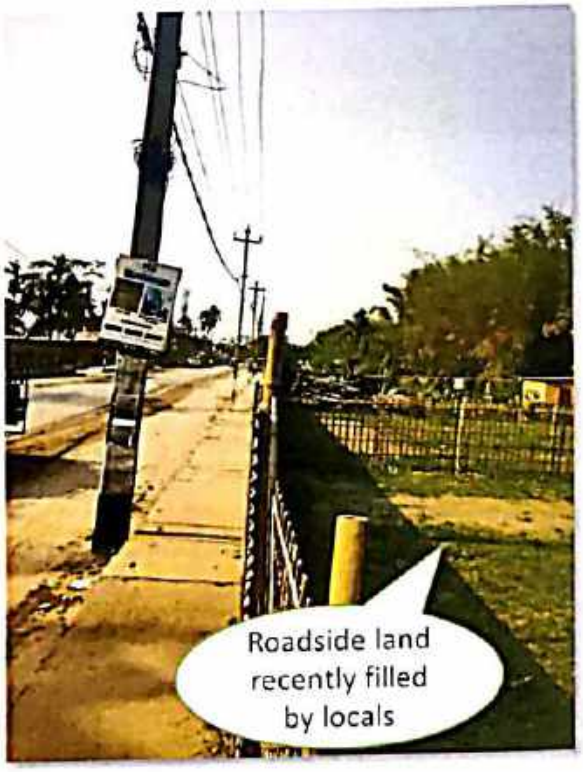
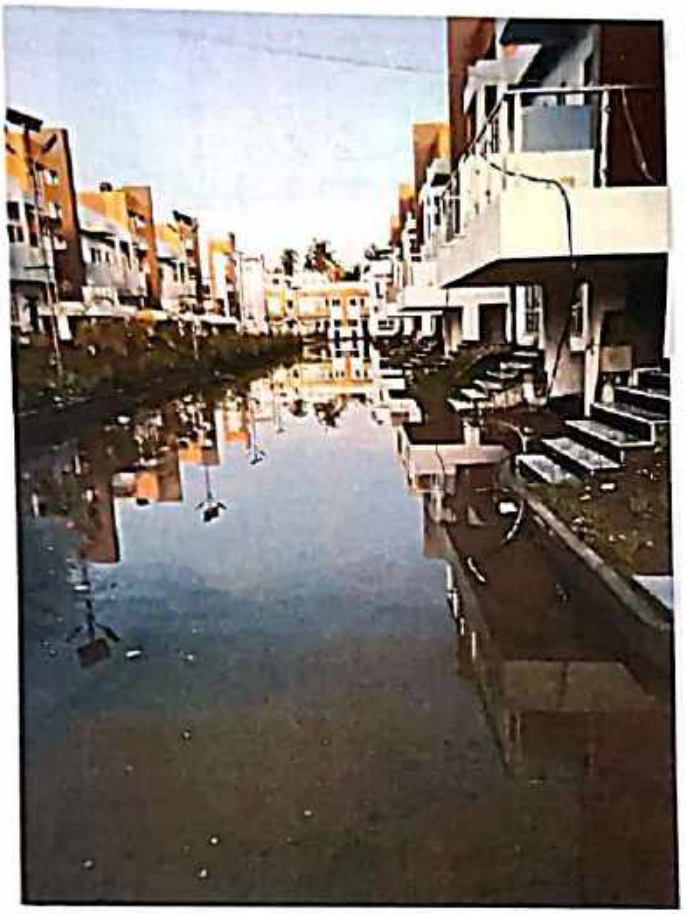
Encroachment by locals and blocking of natural waterways



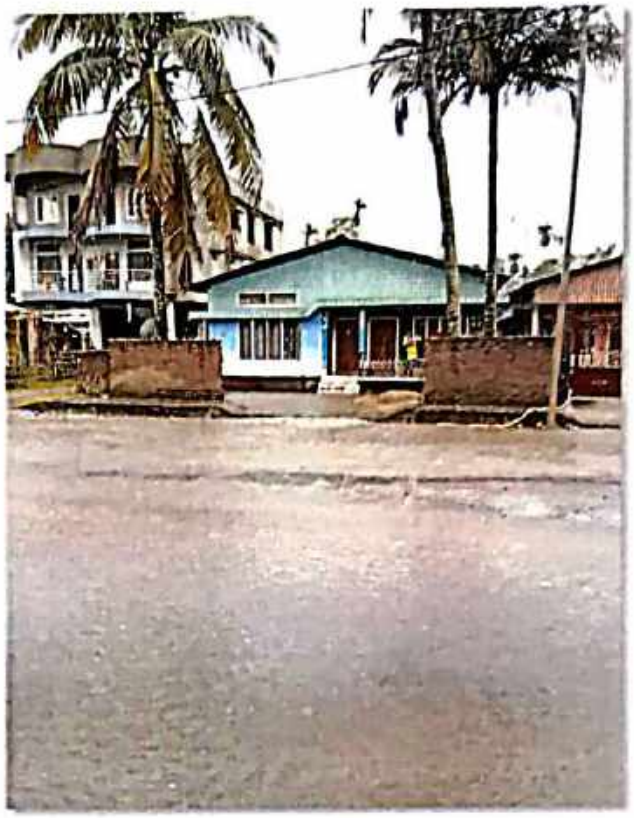




Water Level inside ASL Campus



Water Level outside ASL Campus



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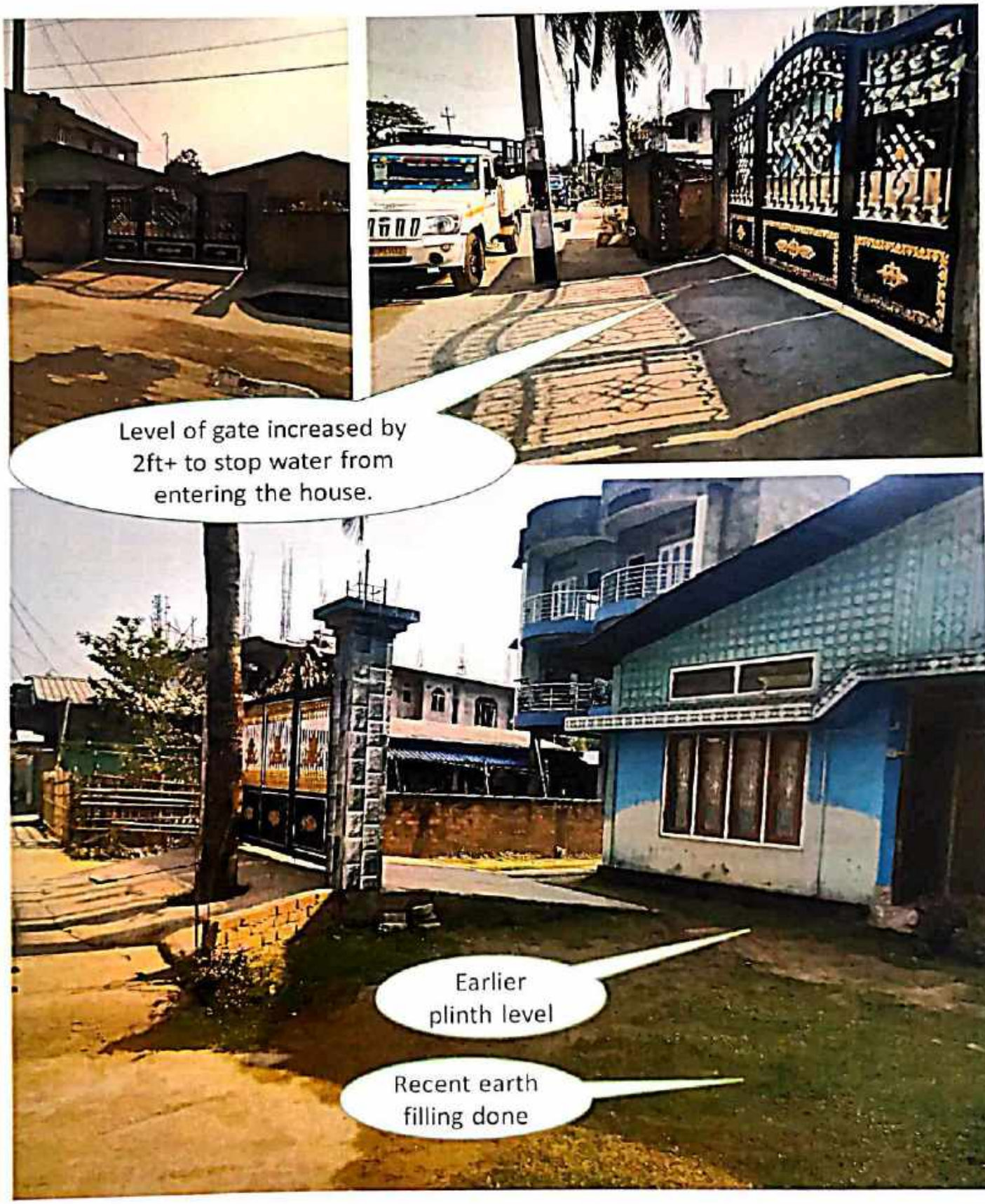
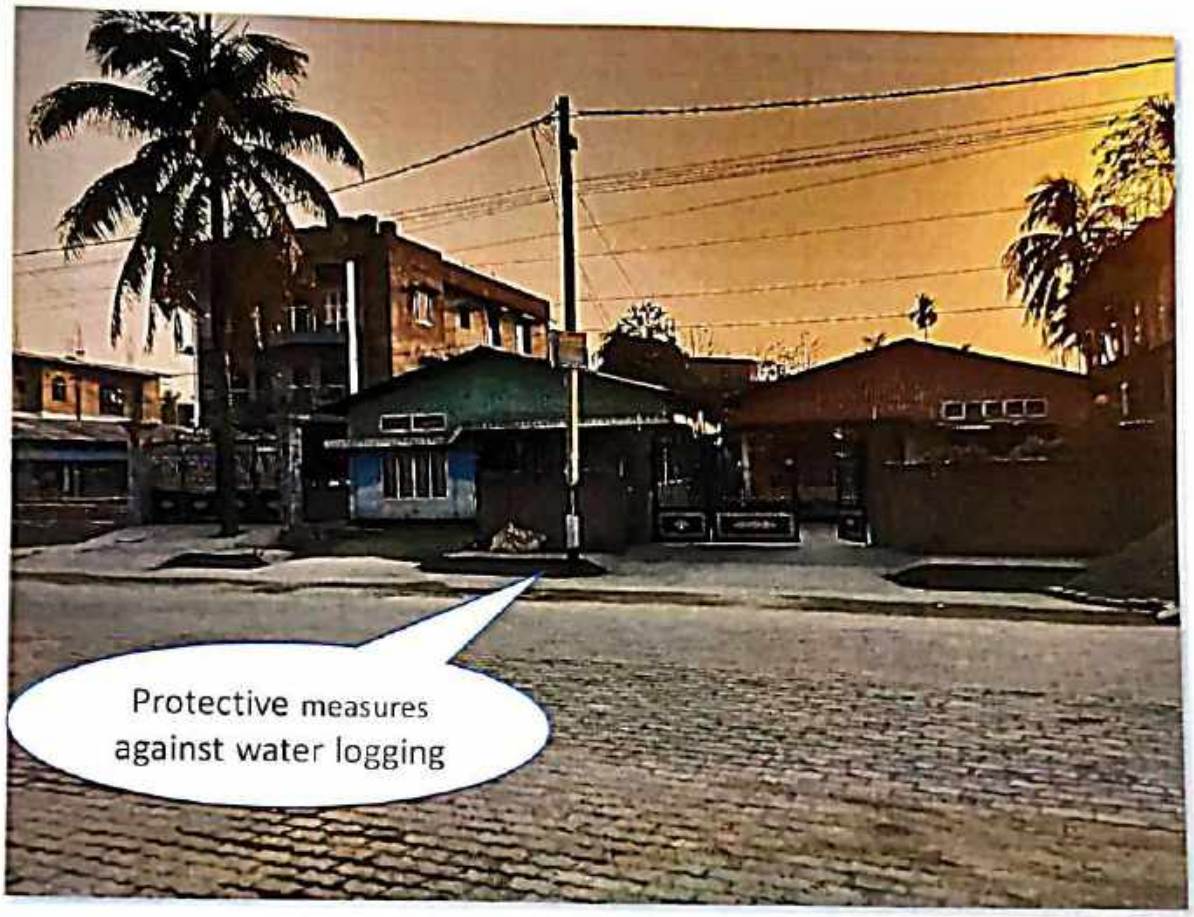
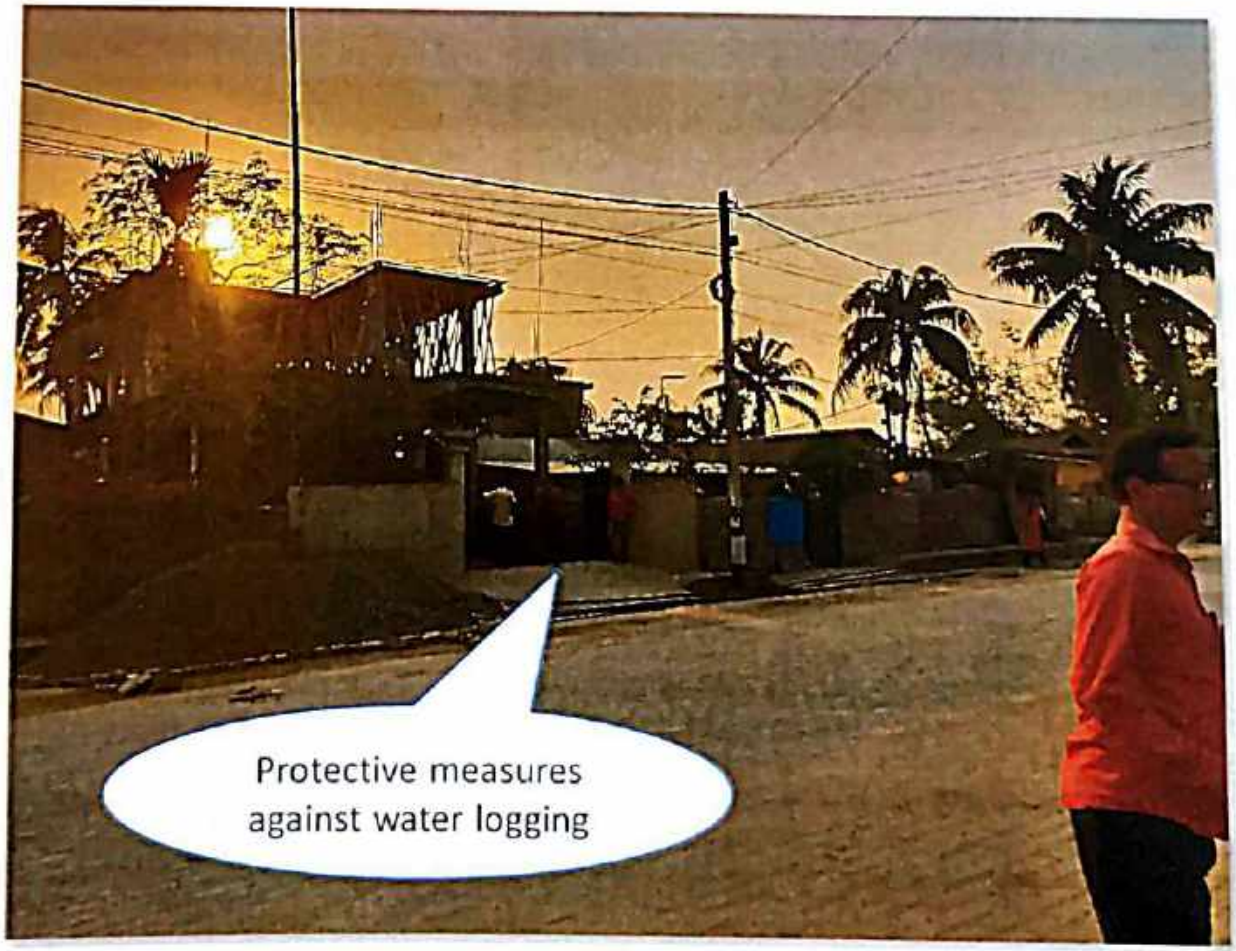
Local Residents taking precautions against water logging

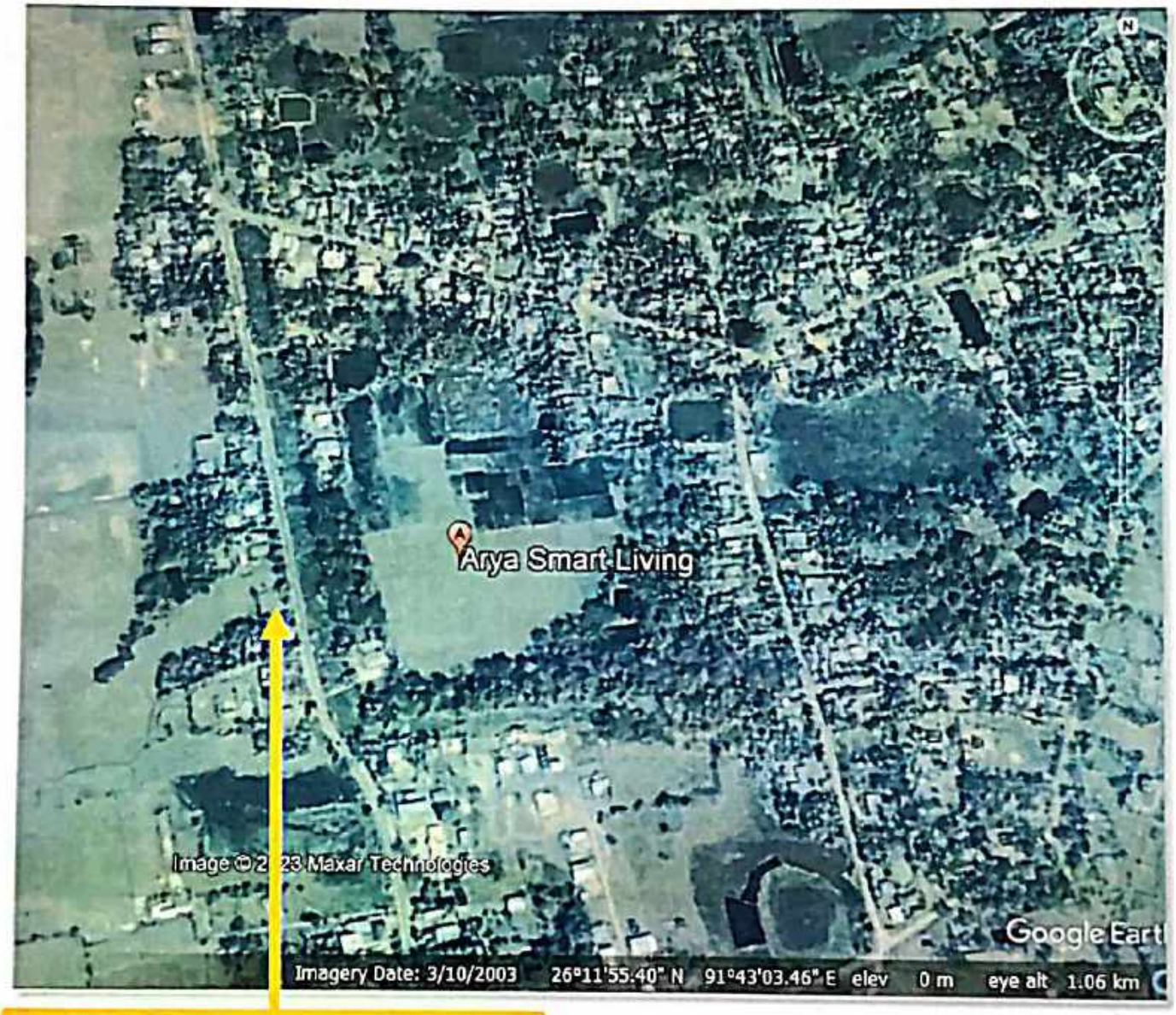


Local Residents taking precautions against water logging





Google Earth Images



Date of photograph : 3.10.2003

Project Status : Not initiated

No drains on either side of the road

Google Earth Images

Date of Photograph : 1.1.2018
Project Status : Almost complete

No PWD drain exists on either side of the road.

54

Google Earth Images

Date of Photograph : 25.10.2018
Project Status : Completed

PWD Road widening and Drain work started on one (opposite) side of the road only. Work on side near ASL campus yet to start.

Google Earth Photos

Date of Photograph :
10.03.2019
Project Status : Completed

PWD drain Work-In-Progress on the opposite of the road only.

Date of Photograph :
20.08.2019
Project Status : Completed

PWD drain Work-In-Progress on the both side of the road, incomplete status. Part of the drain at the ASL campus ~~e~~entry gate still not constructed.

SL-10

COMPLETION REPORT.

1. Name of work : Double Laning of Lokopriya Bordoloi Road (Amingaon to Rangmahal High School) (Ch. 0.00m to Ch. 11500.00m) Under North Guwahati State Road Division under under RIDF-XXII of NABARD under PWD for the year 2016-17, Package No. Kamrup/RIDF-XXII/10AA No.
2. A.A. No. & Date : RBPC.97/2016/Pt-III/62 Dtd. 11-04-2017.
3. Administrative approval Amount : Rs. 5176.91 L
4. Technical sanction no. & date : CE/DEV/RIDF-XXII/18/2017-18/19 Dtd. 01/06/2017.
5. (a) Tender No. : CE/DEV/RIDF-XXII/17-18/93
   (b) Tender Value : Rs. 501301903.85 (civil works)
   : Rs. 16235585.00 (Electrical works)
   (c) Work order No. : CE/DEV/RIDF/226/2016-17/15 Dtd. 18/08/2017.
6. Name of Contractor : M/S Hi-Tech Construction.
7. Date of commencement : 18/08/2017
8. Date of completion : 27/7/2020.
9. Item of works with quantity : Bill enclosed

10. Name & signature of measuring officer: Nripen Saikia, JE (With designation)
Junior Engineer, PWD (R)
Jalukbari & Hajo Territorial Road Division
Amingaon, Guwahati-31

11. MB No. & Page No. : 835 : 0 to 44
12. (a) Up to date Bill Value : Rs. 500291543.00 (Civil Works).
: Rs. 16235585.00 (Electrical Works).
(b) Bills already submitted : Rs. 478475122.00 (Civil Works)
: Rs. 16235585.00 (Electrical Works).
(c) Present Bill Value : Rs. 21816421.00 (Civil Works)
(d) Payment already made
(e) Balance payment to be made now (Civil works only)

Certified that the work has been physically verified by me & found completed by the aforesaid contractor in all respect as per specification, drawings and tender agreements.

Asstt. Executive Engineer, PWD
Jalukbari Territorial Sub Division-I
Amingaon, Guwahati-31

Executive Engineer, PWD
Jalukbari & Hajo Territorial Road Division
Amingaon, Guwahati-31.

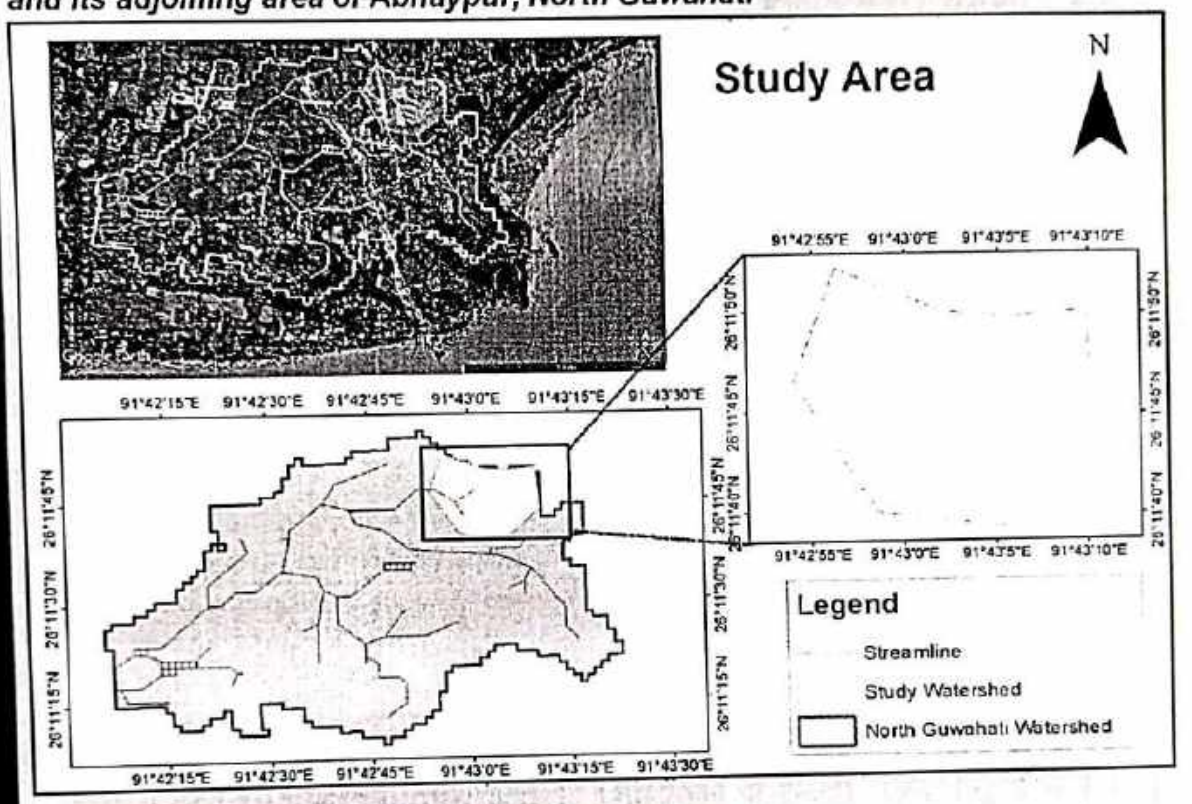
57 SL-11

done for

Arya Smart Living Society

FINAL REPORT

Technical study to find out solutions of water logging problems in ASL campus and its adjoining area of Abhaypur, North Guwahati



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

North Guwahati, Guwahati – 781 039

ASSAM, INDIA

May 2022

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Arya Smart Living Society

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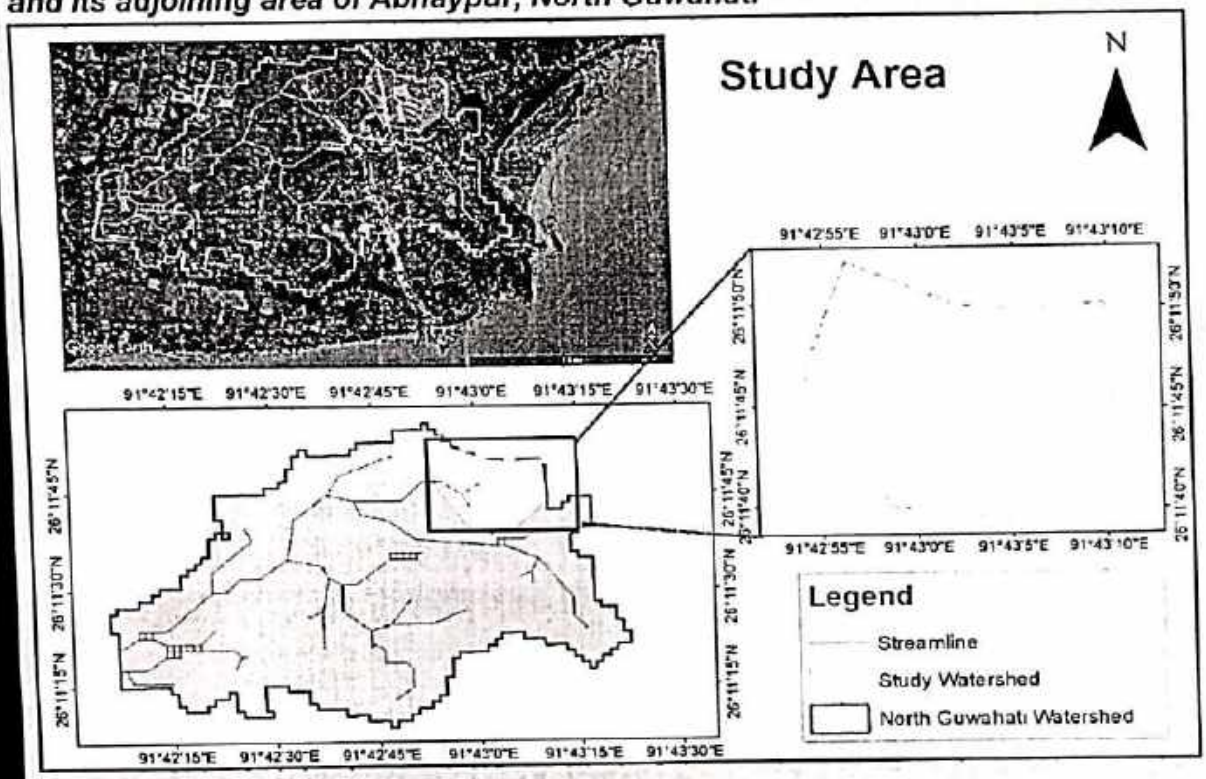

INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

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Final Report

Technical study to find out solutions of water logging problems in ASL campus and its adjoining area of Abhaypur, North Guwahati

Prof. Arup Kumar Sarma
Principal Investigator

Civil Engineering Department

Indian Institute of Technology Guwahati

Guwahati -781039

TABLE OF CONTENT

Team Members

Principal Investigator Prof. Dr. Arup Kumar Sarma, Professor, IITG

Co-Investigator Dr. Arun Borsaikia, Senior Technical Officer, IITG

Student Members Bhaswatee Baishya, Research Scholar, Civil Engg. Dept

Student Member Satheesh Barre, Research Scholar, Civil Engg. Dept

BACKGROUND

The Arya Smart Living (ASL) residential Campus located in the North Guwahati, Assam is facing severe flood problem primarily due to water logging during heavy shower. The plot was filled up with borrowed river soil and was partially paved on utility surfaces. Initially the campus was planned for a smaller area and later, based on the demand, the campus was expanded towards northern side. As reported by the client, the campus was not facing such water logging problem earlier and the problem of flooding during rainy days has started since last 2 to 3 years. Flood problem due to poor drainage and hence water logging is quite new in the North Guwahati area and therefore posing a threat to the entire area. ASL society has therefore approached Prof. Arup Kumar Sarma of IIT Guwahati to look into the problem, so that the root cause can be identified and a permanent solution can be planned along with the resident of that locality. Letter received from ASL is given in Annexure-V. Accordingly, IIT Guwahati gave a proposal including possible studies and based on this the work has been offered to IIT Guwahati in 24th March 2022 and the project has been registered at IIT Guwahati with Prof. Arup Kumar Sarma as Principal Consultant and Dr. Arun Borsaikia as Co-consultant with the ToR given in Annexure-VI.

1 INTRODUCTION

1.1 INTRODUCTION

Northeastern part of India being located in a region of high rainfall, it experiences frequent flooding in many residential as well as agricultural areas, particularly during monsoon season. North Guwahati area has recently witnessed urbanization with development of several modern residential complex and with improvement of road network with paved road, lined drain etc. However, such developmental activities need to be planned with due consideration to the water sensitive design. Unscientific haphazard development may enhance the urban flood problem in North Guwahati in the similar way the Guwahati city is facing now.

Arya Smart Living (ASL) with Latitude 26°11'43.41" N and Longitude 91°43'03.26" E is located in North Guwahati and is surrounded by raised land in the form of small hillock in all sides except for the eastern side. Although the normal water level of Brahmaputra is at much lower level, water from this area does not drain to Brahmaputra River naturally because of having higher elevation in between. Its nearby areas are also developing at a faster rate in the recent years and with improvement in communication with coming up of the new bridge, it might grow even at a higher rate than now. The flood problem faced by the ASL can be considered as an alarming indication of worst situation, if developmental activities are not taken up with due emphasis on the drainage issue. Therefore, drainage and land filling of this area needs to be done scientifically and by foreseeing the future development, so that North Guwahati remain a flood free area as it used to be in the past.

1.2 PURPOSE OF THE STUDY

IIT Guwahati has taken up this hydrological study to identify the root causes of the flood problem faced by the community and hence to suggest possible alternative solutions, so that the best combination considering all constraints can be implemented within the ASL campus and also, other concerned authorities can be approached for a comprehensive solution so that possible flood problem in other nearby areas can be avoided.

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1.3 METOD OF INVESTIGATION

The study has been carried out in the following phases:

1. To assess the internal drainage system of the ALS campus, a TS survey was carried out by Precision Survey and the survey data were made available. The levels provided are from temporary bench mark and not with respect to mean see level.
2. Based on the survey data, internal drainage system of the campus is first analyzed to understand limitations of the internal drain. Cross section of the drain at typical locations, as provided by the client and verified at some locations in the site are used for checking carrying capacity of the drain based on the present available gradient derived from the survey data mentioned in point 1. Photograph of field visit are given in Annexure-VIII
3. Hydrological study is carried out to delineate the watershed in GIS platform so that scope of draining out rainwater can be explored and the design peak rate of flow can be estimated.
4. Flow situation in a larger area within the watershed is investigated and root causes of the problem are identified.
5. Based on the analysis, some possible solution approaches are suggested, so that the ASL authority can decide the best combination considering various constraints.

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2 STATUS OF INTERNAL DRAIN

2.1 INTRODUCTION

To investigate the problem, it is necessary to know if the problem is basically due to problem in the internal drainage system or activities outside the campus are also influencing the problem. Effective solution strategy depends on the root cause. Therefore, the client was suggested to carry out a Total Station survey of the campus with a focus on the relative elevation of the drainage network, so that present gradient can be evaluated. A reconnaissance of the campus was also carried out before project registration to have firsthand information. Accordingly, the survey was carried out by Precision Survey.

2.2 DRAINAGE STATUS

The drainage network consists of two primary drains running along the campus boundary, one on the left side and the other on the right side of the campus and both these drains meet near the entry gate of the campus and ultimately join the road side drain of the PWD road as a single outlet from the campus. Five transverse drains and five longitudinal drains carries the campus water either to the left drain or to the right drain. In fact, four transverse drains, which can be regarded as secondary drains, directly joins the primary drains running along the campus boundary. Other campus drains, which can be called as feeder drains, carry water to these secondary drains. Existing drainage plan is presented in Annexure-I. The plans and the longitudinal profiles of Left Primary Drain, Right Primary Drain and PWD Drain are given in Annexure-II, III and IV respectively.

Elevation of the end points of each of these drains and hence the slope of each sector of the drains are tabulated in table-1.

From the tabulated data it is clear that all drains have positive slope though some of them are very mild. Effective bed slope of the main left drain is 1:388 (0.00258) and that of the right drain (up to confluence of left drain) is 0.0011 (1: 880). It is important to note that the bed level of the internal drain at confluence of right drain and left drain is 15.9cm (99.269-99.110) lower than the PWD drain, which is outfall of the entire internal drainage system. Therefore, effective slope of main right drain is even lower (1:1800) as that shown in the 3rd row of the table-1. The lowest point with elevation of 98.807 is located on the right drain at a distance of 75.00m from PWD point. Further, the longitudinal profile of the left drain and right drain has shown that there are depressions in between and thus about 10cm to 50cm depth of stagnant water will remain in those portions till it evaporates, as the bed of the drains is impermeable.

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2.3 STATUS OF ROAD SIDE DRAIN OF MAIN ROAD

Based on the survey and field observation it is seen that, at present, the bed level of the PWD drain, to which these internal drains releases water, is at an elevation of 15.9cm above the confluence of Internal Right Drain and Internal Left Drain. Therefore, this single channel segment linking internal drain to PWD drain cannot carry water by gravity though an attempt of making the slope positive for last 7.00m distance is seen from the survey data. The effective slope of the right drain thus becomes quite low and therefore, drain size required to have adequate drainage capacity commensurate with the maximum intensity is much larger. It is also seen that the gradient of the PWD drain is rising on both sides. Toward right (looking towards the campus from the road) the highest point is 1.096m m above the point near gate. Similarly, the Left side of the PWD drain is also rising and the highest point of the drain on left side drain is 0.141m above the point near the gate. This has also been seen in terrain analysis, presented in the next chapter. Although there is a culvert near the valley line to cross the road, as observed during field visit, because of not having a free-flowing culvert, during rain water in road side drain flows from both the sides towards the gate and thus elevation of water level near the gate becomes higher to create the effective slope of the main internal drain further low or negative for some duration. More detail analysis of this is presented in the next chapter.

Table-1 Drainage Details

Drain Type (ID)	Bed elevation (starting Point)	Bed elevation (Ending Point)	Length (m)	Effective Slope
Left Drain (PD1)	100.495	99.269	474.753	0.00258 (1:388)
Right Drain (PD2)	99.471	99.110(Conf R&L)	317.649	0.0011(1:880)
Right Drain (PD2A)	99.471	99.27(Up to PWD)	365.00	0.0005(1:1800)
Secondary Drain (SD1)	99.860	99.510	77.240	0.00453(1:221)
Secondary Drain (SD2)	99.710	99.233	91.715	0.00520(1:192)
Secondary Drain (SD3)	99.960	99.250	72.728	0.00976(1:102)
Secondary Drain (SD4)	99.570	99.450	86.543	0.00139(1:721)
Secondary Drain (SD5)	99.520	98.790	134.886	0.00541(1:185)
Feeder Drain (FD1)	99.790	99.580	66.432	0.00316(1:316)
Feeder Drain (FD2)	99.920	99.710	65.822	0.00319(1:313)
Feeder Drain (FD3)	99.950	99.860	65.822	0.00137(1:731)
Feeder Drain (FD4)	99.830	99.570	65.822	0.00395(1:253)
Feeder Drain (FD5)	99.940	99.620	57.934	0.00552(1:181)
Feeder Drain (FD6)	99.710	99.520	67.429	0.00282(1:355)
Feeder Drain (FD7)	99.880	99.710	36.526	0.00465(1:215)

3 WATERSHED DELINEATION AND HYDROLOGICAL STUDY

3.1 INTRODUCTION

Hydrological study presented in this section includes terrain analysis in Arc GIS using SRTM DEM of 30m resolution. To understand the land-use land cover changes in the concerned area with time, entire watershed along with its sub-watershed is first delineated and shown in figure-1(a). Detail visual inspection in the sub-watershed covering the ASL and Abhaypur area has been carried out using toposheets and google earth images and shown in figure 1(b). Delineated watersheds are shown Flow directions map and stream networks are generated for the entire watershed first to understand natural flow direction. Based on the study, sub-watershed relevant to the drainage issue of ASL and its neighboring area, has been identified and spatiotemporal change detection study has been carried out. Drainage network of the ASL and Abhaypur has been further generated using finer threshold value. Possible peak flow at outlet of the ASL watershed area is computed using rational method to help checking adequacy of drainage system. Relevant fundamental theories are also presented, so that interested can go through these theories and basis of calculation remains transparent.

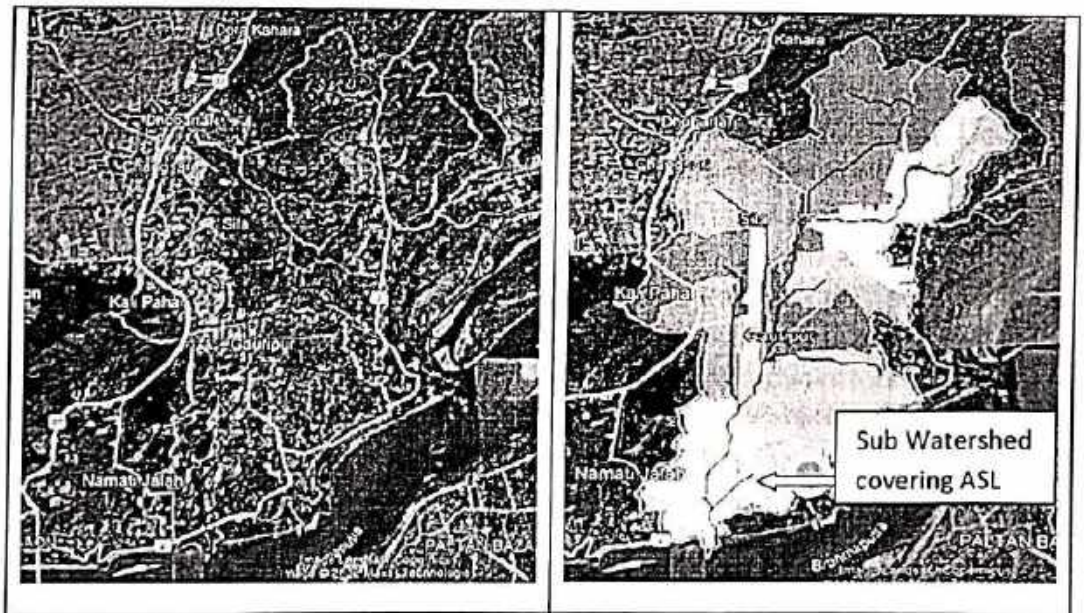

Fig 1(a): Watershed and sub watersheds of the Ghorajan Stream

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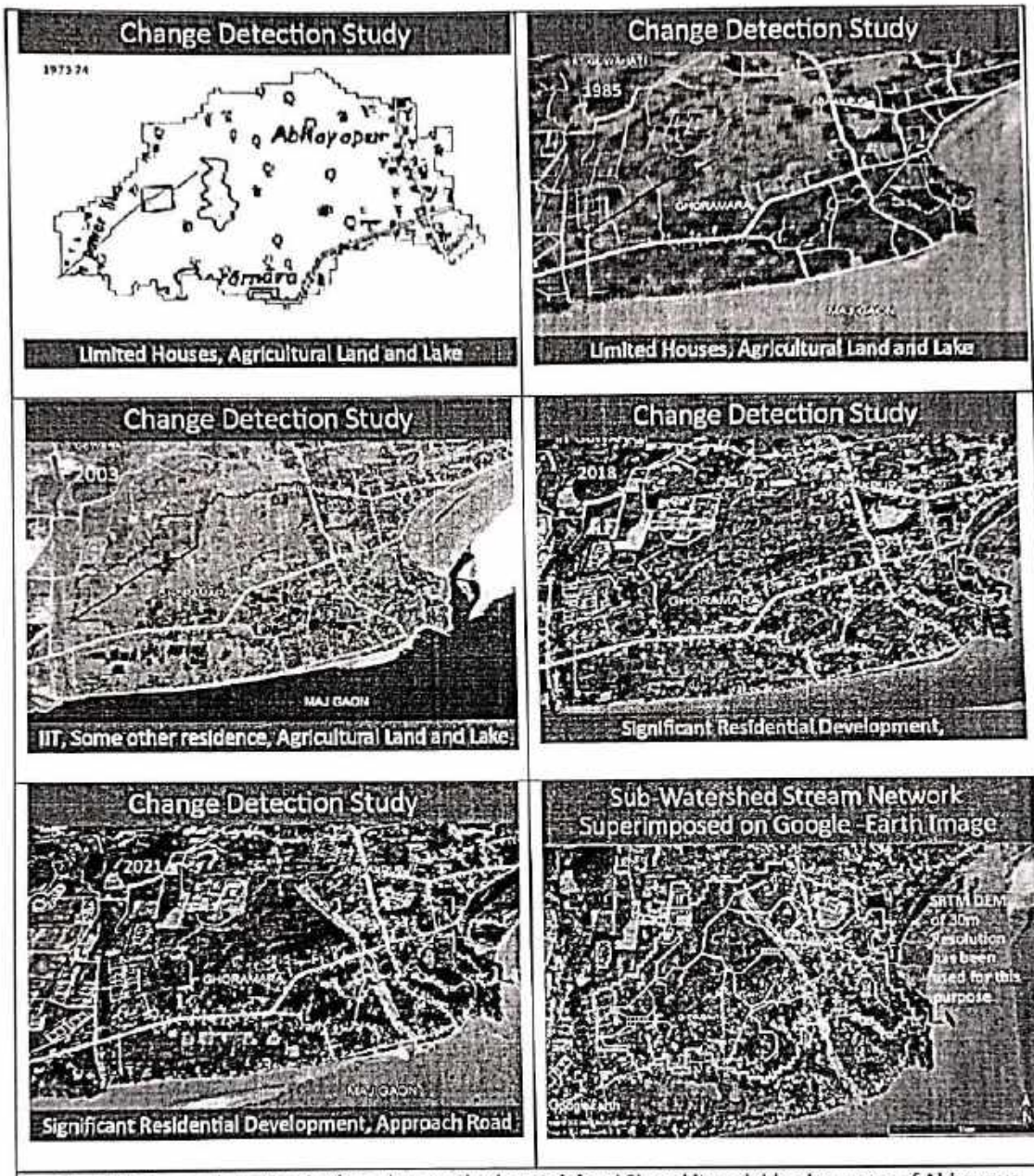

Fig 1(b) Change detection in the subwatershed containing ASL and its neighboring areas of Abhaypur

3.2 FUNDAMENTALS OF RATIONAL METHOD

3.2.1 Introduction

The rational method is the simplest method to determine peak discharge from drainage basin runoff. Application of the rational method is based on a simple formula that relates runoff produced in the watershed, the intensity of rainfall for a particular time of concentration, and the watershed drainage area. The formula is

$$Q = C_u C I A,$$

Where:

Q = design discharge (L^3 / T),

Cu = units conversion coefficient,

C = runoff coefficient (dimensionless),

I = design rainfall intensity (L/T), and

A = watershed drainage area (L^2).

The unit conversion coefficient is necessary because the product of Intensity (I) and Area (A) does not give a standard unit in the traditional unit system.

3.2.2 Runoff Coefficient (C):

The runoff coefficient (C) is the dimensionless coefficient relating to the runoff produced to the amount of precipitation received. It is a function of drainage basin slope and the soil type. In general, a larger area having flat slope with permeable soil and dense vegetation should have lowest "C" value whereas small area with dense soil, steep slope, and scattered vegetation has a larger value of "C". The value of "C" is given in a simplified table:

Type of Landuse/Landcover	FLAT	ROLLING	HILLY
Pavement & Roofs	0.9	0.9	0.9
Earth Shoulders	0.5	0.5	0.5
Drives & Walks	0.75	0.8	0.85
Gravel Pavement	0.85	0.85	0.85
City Business Areas	0.8	0.85	0.85
Apartment Dwelling Areas	0.5	0.6	0.7
Light Residential: 1 to 3 units/acre	0.35	0.4	0.45
Normal Residential: 3 to 6 units/acre	0.5	0.55	0.6

Dense Residential: 6 to 15 units/acre	0.7	0.75	0.8
Lawns	0.17	0.22	0.35
Grass Shoulders	0.25	0.25	0.25
Side Slopes, Earth	0.6	0.6	0.6
Side Slopes, Turf	0.3	0.3	0.3
Median Areas, Turf	0.25	0.3	0.3
Cultivated Land, Clay & Loam	0.5	0.55	0.6
Cultivated Land, Sand & Gravel	0.25	0.3	0.35
Industrial Areas, Light	0.5	0.7	0.8
Industrial Areas, Heavy	0.6	0.8	0.9
Parks & Cemeteries	0.1	0.15	0.25
Playgrounds	0.2	0.25	0.3
Woodland & Forests	0.1	0.15	0.2
Meadows & Pasture Land	0.25	0.3	0.35
Unimproved Areas	0.1	0.2	0.3

*Source: Appendix F-Rational Method (https://www.oregon.gov/ODOT/GeoEnvironmental/Docs_Hydraulics_Manual/Hydraulics-07-F.pdf)

3.2.3 Intensity of Rainfall (I):

The rainfall intensity is found from the intensity-duration curve. For peak discharge calculation the duration should be considered equal to the time of concentration of the drainage area. After the Intensity duration curve is formed, we measure the intensity corresponding to the duration equal to time of concentration of the area.

The time of concentration (t_c) is the time by which water from the most distant parts of the catchment reaches the outlet. There are a number of empirical equations available for the estimation of the time of concentration. North Guwahati watershed is a relatively flat residential area; therefore, we have used Kirpich Method to find the " t_c" of the area.

$$T_c = 3.978 L_c^{0.77} S_c^{-0.385}$$

Where:

L_c = Length of overland flow (Km), S_c = Average catchment slope (m/m),
t_c = time of concentration (min.)

3.2.4 Area of catchment:

The area of the watershed can be calculated by delineating the watershed in GIS platform. For small drains its relevant contributing area can be taken to calculate peak discharge. However, for such small drain though time of concentration (TC) will be very small, intensity need not be increased for such small TC, as high intensity rain of very small duration, say 5 minutes, or so is not practically feasible.

3.3 WATERSHED DELINEATION

The delineation of the watershed is done in the ArcGIS platform. Fig. 2 shows the delineated watershed, study area and the stream lines indicating flow network. Length of overland flow has been computed to be 0.52km (524.6m) and the average catchment slope is found to be 0.00736. Time of concentration computed using Kirpich formula is 0.24 hrs. These parameters have been used for computing peak discharge using the Rational method and is presented in the subsequent articles.

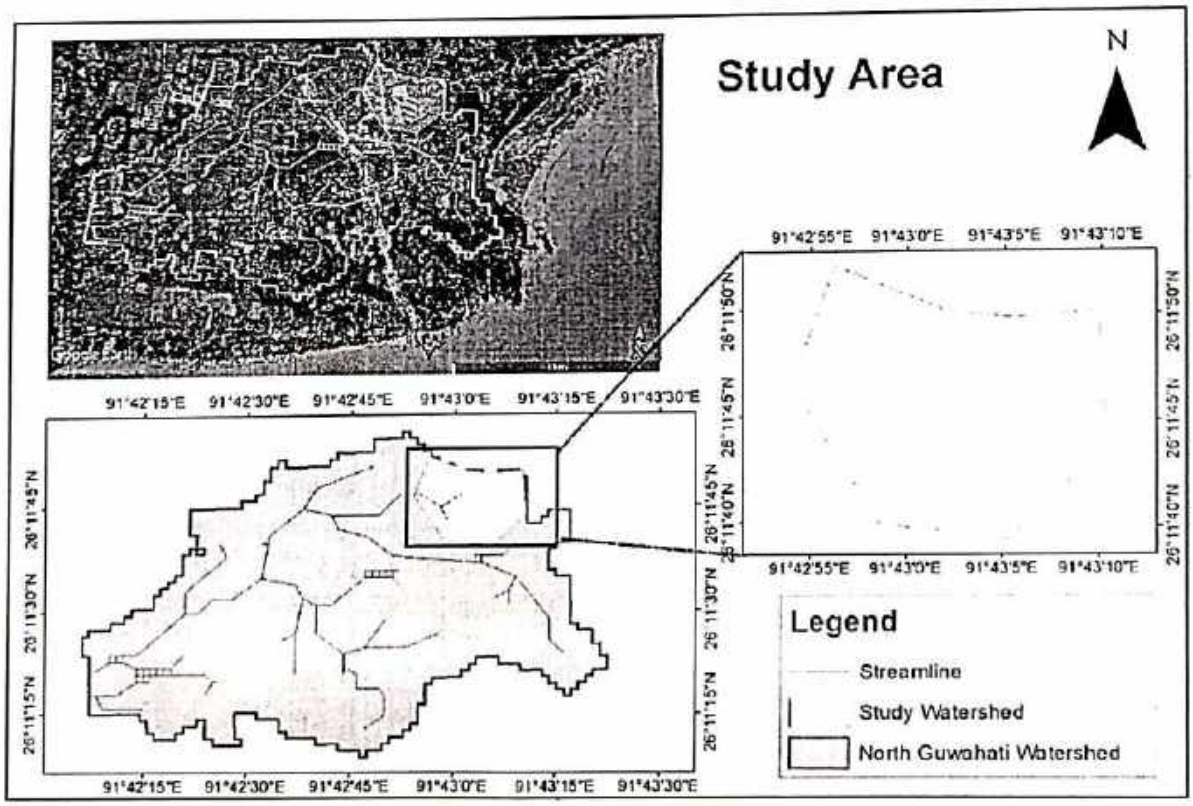

Figure 2: Study area.

3.4 CALCULATION AND RESULTS OF HYDROLOGICAL STUDY

3.4.1 Results of Rational Method

Deciding the design intensity is crucial for computing peak discharge using Rational method for such small watershed, as a long record of short duration precipitation (equal to time of concentration) data are generally not available in most of the areas in India. Such long precipitation record is also not available for the area under consideration. Also, under the impact of climate change future precipitation is associated with some uncertainty. Most of the climate change studies carried out by us have shown that there will be more event of high intensity precipitation of short duration in near future. Therefore, for such important area, it is advisable to go for Maximum Possible Intensity Duration Curve. Unlike IDF (Intensity Duration Frequency) curve, in Maximum Possible Intensity Duration curve, x-axis represents duration and y-axis represents maximum possible intensity derived from observed maximum precipitation. For the study area precipitation data of IMD station located at Barjhar has been used. For calculating the peak discharge of the North Guwahati watershed, already collected daily precipitation data from Barjhar station are used. From the collected daily precipitation data maximum annual rainfall of each year has been used to compute the average of maximum annual rainfall from the year 1994 till 2012.

The annual maximum rainfall depth observed from the given data of daily rainfall are tabulated below (Table-2)

Table 2: Annual maximum daily rainfall from 1994 to 2011

Year	Annual max daily rainfall (mm)
1994	113
1995	109.8
1996	88.5
1997	91.7
1998	118.8
1999	77
2000	91.9
2001	91.9
2002	77
2003	91.9
2004	91.9
2005	77
2006	96.9
2007	66
2008	71.8
2009	113.5
2010	130.3
2011	102.8
2012	113.8

From the above table the Average of annual maximum daily rainfall is 95.55 mm. Considering the average annual maximum, we calculate the rainfall depth for different duration using the IMD reduction formula:

$$P_t = P_{24} * (t/24)^{(1/3)}$$

After calculating the rainfall depth, intensity is calculated for different duration using the assumption of uniform distribution within that duration, i.e.,

Intensity = Rainfall depth/duration (mm/hr)

Table 3: Intensity at Different Duration

Duration (hr)	24	18	12	6	5	4	3	2	1	0.94	0.24
Average of annual max rainfall (mm)	95.55	86.82	75.84	60.19	56.65	52.58	47.77	41.74	33.13	32.45	20.49
Intensity (mm/hr)	3.98	4.82	6.32	10.03	11.33	13.15	15.93	20.87	33.13	34.52	86.55

Table-3 shows the intensity for different durations. As calculated by the Kirpich Method, the time of concentration is 0.236796 hrs, as shown below

$$T_c = 3.978 L_c^{0.77} S_c^{-0.385}$$

Where:

L = Length of overland flow (Km) = 0.51 km
A = Catchment area (Km^2) = 0.125 km^2
S = Average catchment slope (m/m) = 0.00736
t_c = time of concentration (hrs.)

$$t_c = 3.978 * 0.51^{0.77} * 0.00736^{-0.385} = 0.236796 \text{ hrs.}$$

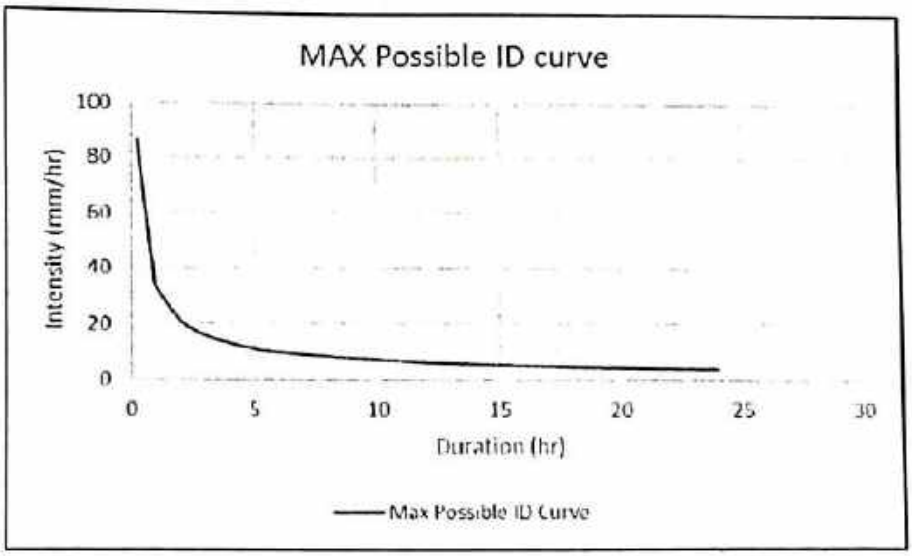

Figure 3: Maximum Possible Intensity duration curve

The maximum possible Intensity Duration curve is plotted in figure 2. The intensity corresponding to the time of concentration is 86.55 mm/hr. This value is quite conservative and thus on safer side. According to the values of C tabulated in Table 1, the runoff coefficient (C) for the watershed of ASL campus is 0.5 corresponding to the Apartments & dwellings in flat area, and the catchment area is 0.125 km^2. However, catchment area up to the road is around 0.1 Km^2. Again, the campus area is only 0.043 Km^2. To check drainage capacity requirement of these drains, peak discharge is calculated for all these conditions starting from maximum Intensity and for some smaller intensity as well. From the rational method the peak discharge can be computed using the following relation.

Kirpich Method Tc=3.978Lc0.77Sc−0.385				Peak Discharge Q (m^3/sec) = CIA/3.6			
For Campus area watershed							
Lc (Km)	Sc	Tc (min)	Tc (hr)	C	I (mm/hr)	A (km2)	Q (m3/sec)
0.3	0.0033	14.204	0.237	0.5	86.550	0.043	0.518
0.3	0.0033	14.204	0.237	0.5	34.500	0.043	0.207
0.3	0.0033	14.204	0.237	0.5	33.120	0.043	0.198
0.3	0.0033	14.204	0.237	0.5	20.870	0.043	0.125

For the Natural Watershed up to Outlet

Lc (Km)	Sc	Tc (min)	Tc (hr)	C	I (mm/hr)	A (km2)	Q (m3/sec)
0.5	0.0095	14.010	0.234	0.5	86.550	0.100	1.202
0.5	0.0095	14.010	0.234	0.5	34.500	0.100	0.479
0.5	0.0095	14.010	0.234	0.5	33.120	0.100	0.460
0.5	0.0095	14.010	0.234	0.5	20.870	0.100	0.290

The computed drainage capacity for some typical drains similar to that of the campus drains is tabulated below with 1:400 and 1:1800 slope for reference:

Drainage capacity calculation for typical drains with 1:400 slope

Width B	Manning's n	Depth y	Area A	Perimeter P	H.R R	Slope S	Discharge Q
0.1	0.025	1.00	0.10	2.10	0.05	0.0025	0.026275
0.2	0.025	1.00	0.20	2.20	0.09	0.0025	0.080872
0.3	0.025	1.00	0.30	2.30	0.13	0.0025	0.154317
0.6	0.025	1.00	0.60	2.60	0.23	0.0025	0.451474
1	0.025	1.00	1.00	3.00	0.33	0.0025	0.9615
1.2	0.025	1.00	1.20	3.20	0.38	0.0025	1.24805
2	0.025	1.00	2.00	4.00	0.50	0.0025	2.519842
3	0.025	1.00	3.00	5.00	0.60	0.0025	4.268272
4	0.025	1.00	4.00	6.00	0.67	0.0025	6.105143
5	0.025	1.00	5.00	7.00	0.71	0.0025	7.990635
6	0.025	1.00	6.00	8.00	0.75	0.0025	9.905782

Drainage capacity calculation for typical drains with 1:1800 slope

Width (B)	Maning's n	Depth y	Area a	Perimeter P	H.R R	Slope S	Discharge Q
0.1	0.025	1.00	0.10	2.10	0.05	0.000555556	0.012386
0.2	0.025	1.00	0.20	2.20	0.09	0.000555556	0.038123
0.3	0.025	1.00	0.30	2.30	0.13	0.000555556	0.072746
0.6	0.025	1.00	0.60	2.60	0.23	0.000555556	0.212827
1	0.025	1.00	1.00	3.00	0.33	0.000555556	0.453255
1.2	0.025	1.00	1.20	3.20	0.38	0.000555556	0.588337
2	0.025	1.00	2.00	4.00	0.50	0.000555556	1.187865
3	0.025	1.00	3.00	5.00	0.60	0.000555556	2.012083
4	0.025	1.00	4.00	6.00	0.67	0.000555556	2.877992
5	0.025	1.00	5.00	7.00	0.71	0.000555556	3.766822
6	0.025	1.00	6.00	8.00	0.75	0.000555556	4.66963

While the above table can be used as reference for checking capacity of an individual drain, in the network of drains, the capacity will also depend on the actual slope of the drain and also on the water level of the drain to where the water is being released. Considering actual size and effective slope and without considering blockage of water at downstream, drainage capacity of some typical drainage reach of the campus is shown in the table below.

Some drain section of ASL	Width	n	y	Area	P	R	S	Q
Left Drain	**1.2**	**0.025**	**1.30**	**1.56**	**3.80**	**0.41**	**0.002577**	**1.749831**
Back side of club house	0.5	0.025	0.55	0.28	1.60	0.17	0.002577	0.172631
Near Park	0.8	0.025	0.75	0.60	2.30	0.26	0.002577	0.497444
Near Site office	0.8	0.025	0.88	0.70	2.55	0.27	0.002577	0.600409
Near Gate	0.8	0.025	1.24	0.99	3.28	0.30	0.002577	0.907642
Back side of B Type (Right Drain)	0.3	0.025	0.20	0.06	0.70	0.09	0.001136	0.015728
C-36 back side (Right Drain)	0.8	0.025	0.70	0.56	2.20	0.25	0.001136	0.303285
Back side of A type (Near Right Drain outlet)	1	0.025	1.05	1.05	3.10	0.34	0.001136	0.687954
Right Drain up to PWD Drain outlet	**1**	**0.025**	**1.05**	**1.05**	**3.10**	**0.34**	**0.000553**	**0.478611**

3.4.2 Stream Network Analysis and Its Verification in the Field

For analyzing stream network entire watershed is considered. Streams generated basically represents the valley line that receives water at least from a predefined number of cells based on a threshold limit. After several trial most appropriate threshold number was chosen to have a visible systematic streamline shape in the RASTER form, which are converted to vector format to facilitate selection of outlet. The stream network thus generated is shown in figure-2. This network along with the entire watershed was superimposed in the google earth image to have a view that can be appreciated by the client and general observer.

These streamlines have clearly shown that entire water from the upper catchment had a natural gradient to flow towards the western side crossing the PWD road and then crossing the newly developed approach road of the new bridge on Brahmaputra. The channel continues to flow to the low-lying marshy land (beel area), from where it eventually drains to Brahmaputra through several small connecting channels like that of Ghorajan. Because of gradual filling up of land, this natural drainage is getting disturbed and drainage problem has started. Therefore, it is important to consider the natural drainage of the entire area with due emphasis at the planning stage itself, so that proper drainage can be

maintain for the entire watershed. The network analysis has shown that one stream crosses the PWD drain just near the entry point of the ASL campus and another major drain crosses the PWD road on the southern side of this entry gate, i.e., towards police thana side. This was verified during field visit on 12th of May 2022. Field visit has revealed that the channel on police station side exists at a distance of about 180.00m from the gate, where though a culvert exists, become ineffective as free flow to the downstream is not there, as it passes through a private land. On Northern side i.e., towards Dowl Govinda side, a channel exists at about 25.00m, but only from the downstream side of the PWD road. Therefore, at present the flow in the PWD drain first move to the police station side with a mild gradient until it reaches the culvert and then after crossing the road through the culvert it moves to the Dowl Govinda side and should have move to the eastern side by a drain made by Gaon Panchayat (as reported by the client) to follow its natural course. Existence of any other outlet drain from the PWD drain is seen within the watershed. Physical verification of the same may be carried out by the concerned department. However, in the field visit it was found that flow from the PWD drain is not moving freely as the outlet to this Gaon Panchayat drain is blocked. Due to high level difference some water is getting released and flowing in a small drain constructed to carry the flow downstream. However, this drain is also incomplete and blocked at its downstream and water is getting released to a low-lying open area with a small opening. So, blockage of the natural drain is adversely affecting the drainage of the watershed under consideration.

4 FINDINGS, POSSIBLE SOLUTION STRATEGIES, AND RECOMMENDATIONS

4.1 INTRODUCTION

In this section limitation of the entire systems is presented systematically and possible solutions are listed.

4.2 INFERENCE DRAWN FROM THE STUDY

4.2.1 To study adequacy of the internal drainage system with a conservative approach, maximum possible intensity is considered as 86.00mm/hr. As observed short duration precipitation data is not available, this value of rainfall intensity was arrived by discretizing daily precipitation using IMD reduction formula, which generally provide an estimation for conservative design. it is seen that, independently, the internal left drain and right drain (up to its confluence of the left drain) has the capacity to carry the maximum designed peak discharge. However, the system fails as the bed of the PWD drain is at higher level and it reduces the effective slope of the right drain. A higher land filling in the campus, though could have reduce the problem in the campus, the problem would have occurred in other areas or road, as drainage line itself is not clear now to the ultimate outlet to Brahmaputra through channel like Ghorajan. Farther, because of obstruction in the drainage system for not having a comprehensive drainage planning leading to constructional activities, water level in the road side drain rises quickly in a short-duration-high-intensity rain, which adversely affects the drainage of the campus to make it worst. Details are elaborated below.

4.2.1.1 The left-side main drains have effective slope of around 1:388 up to the PWD drain with a flow carrying capacity of 1.75 m^3/s. Maximum peak discharge computed at the outlet is 1.20 m^3/s. Therefore, capacity of the left drains is independently sufficient.

4.2.1.2 The right-side main drains up to its confluence with left drain has low slope of around 1:880. The drainage capacity of this drain is 0.68 m^3/s. Considering that half of the campus area will have to be drained by this drain, the maximum possible peak discharge for this drain just before meeting the left drain is approximately 0.6 m^3/s (50% of the maximum peak). Therefore, this right drain up to confluence of left drain also appears to meet the required capacity when considered independently.

4.2.1.3 However, the main drains after confluence of Right and Left drain will have negligible effective slope as the bed level of the PWD drain (99.27m) is higher than this location, so effective friction slope (S_f) will be much low. Also, the width of the opening near the road side drain is 0.8m. While the effective slope of the left drain will remain same, as it was considered up the PWD drain at the beginning itself, the effective slope of the right drain, up to confluence of PWD drain, will have slope as low as 1:1800, as the bed of PWD drain is about 0.16m higher than the confluence of right and left drain. So, its maximum capacity will reduce to below 0.478 m^3/s, which is less than 0.6 m^3/s and thus drainage stagnation happens. To have required capacity, drain width required is 2.00m for a 1.00m deep drain as shown in the table for 1:1800 slope.

4.2.1.4 More importantly, the point of road side drain of PWD road at which the outlet of the campus drain meet is at the valley point having higher elevation on both sides and therefore, water accumulation will be there until the water level reaches the highest point either of this side or get a culvert and therefore effective slope of the campus drain will become almost zero or negative for certain period having backflow into the campus.

4.2.1.5 Another fact about the internal drain is that there are depressions in some portions of both the left and right main drain. This was probably kept so to allow flow from the secondary drain to the main drain. This will cause a water depth of 10 to 20 cm to stand in these depressed portions until it evaporates/ infiltrates even after draining out of all water. As there are no separate system for conveying waste water and storm water, these areas will have stagnant waste water even in the non-rainy period.

4.2.1.6 Stream network analysis has shown that natural drainage path is getting blocked at the PWD road because of non-functioning of the existing culvert located at about 180.00m south (towards police thana) of the entry gate and therefore the campus is bound to face water logging problem. The average road levels in the campus are in the order of 99.90 (based on TBM), and the elevation of the PWD drain bed at the point at which the culvert exist on the southern side is about 99.10 and therefore, is just 0.8m higher than the point of the bed on the left side of the PWD drain. The bed level of the highest point of the internal right drain (99.47) is 0.37m above this culvert point and the lowest level of the right drain (98.807) is 0.30m below the bed level of the PWD drain at culvert location. The bed level of the ridge point on the PWD drain on left side is 99.41, therefore, water also cannot move to the left side in the PWD drain and

therefore, drainage stagnation in the right drain is obvious. Watershed analysis as summarized below also shows that the terrain on both sides is higher than the valley point, where the outlet of the campus exists.

4.2.1.7 From the watershed delineation it is seen that the campus gate and hence the outlet of the campus drain is located just at the valley line of the watershed and therefore, PWD road side drain, to which the campus water is ultimately draining, also has a falling gradient towards this point. This has also been established from the survey data. Gradient from Police thana side to the culvert point is very high and therefore water from that side will reach quickly to raise the water level of this point to worsen the situation if free flow does not exist through the existing culvert. Also, as the PWD drainage has blockage at present, as elaborated before, the accumulated water takes too long time to get drained out.

4.3 SOLUTION STRATEGIES

4.3.1 Introduction: It is seen that internal drainage system has some drawback, as there are some reaches having higher elevation on both upstream and downstream leading to water stagnation. Also, the right drain has inadequate slope and size to carry the estimated maximum flow rate. In normal high intensity precipitation (say 50mm/hr), the internal drain is independently adequate to drain the water accumulated in the campus. However, as the inside point at the confluence of Right Drain and Left Drain is about 16cm lower than the confluence of PWD drain and Internal drain, this has created adverse condition. More importantly, the natural drainage network is also obstructed probably because of not having a proper drainage plan for the entire area. Based on the study carried out above, following solution strategies are recommended.

4.3.2 Holistic Solution Involving External Agency and Community

4.3.2.1 Free flow in the PWD drain needs to be ensured by releasing blockage in the existing culvert located at 180.00m on the direction of police thana and its continuation towards the natural flow path located at about 25.00m on Dowl Govinda side on other side of the road. If there is any other blockage in the system, that needs to be checked and cleared.

4.3.2.2 A new culvert can also be constructed on the PWD drain at or near the outlet of the campus drain, as per convenience considering existence of water pipe line. This will help free flow of water.

4.3.2.3 The small roadside drain (probably constructed by Gaon Panchayat), which at present is supposed to carry water from the left side of the PWD drain along the natural drainage line, is quite small. This can be increase to have adequate size by constructing a road cum box drain to meet the drain of new approach road for the bridge.

4.3.2.4 This natural drain needs to be moved further downstream to meet the new approach road made for the new bridge on Brahmaputra. Continuation of flow of this channel needs to be ensured, either by providing opening in the approach road of the bridge or by making a drain up to the Brahmaputra with adequate gradient.

4.3.2.5 Another approach can be to construct a drain to Brahmaputra from the present location of the culvert, where a natural channel exists. This natural channel at present flows from a low-lying area to the eastern side, i.e., from Brahmaputra side to the PWD road side. Flow can be diverted to Brahmaputra by reversing the slope by deep cutting at the ridge point at upstream or by underground drain. This needs further study to explore availability of right of way (RoW). After ascertaining those, this channel can be constructed with a sluice gate near the Brahmaputra, so that backflow from Brahmaputra can be stopped when Brahmaputra is in high spate.

4.3.2.6 PWD and other relevant organizations may be contacted for the above approaches.

4.3.3 Solution with Internal Measures

4.3.3.1 There is a low-lying area in the campus on the left side of the entry point. The low-lying area on left side can be developed properly to create a pond with garden, foot path etc. and with raised bank having fencing for safety. This pond can be connected with the drainage system through sub-surface drain to carry campus water to the pond. It is advisable to release water to the pond through a proper filter, as separate system for waste water and storm water does not exist now. From environmental concerns it is better to have a separate system. Pond must be created to have infiltration provision from the bed, and based on the soil report provided by the client infiltration well can also be constructed up to 13m to 18m depending on the location to reach the sand layer. This will improve drainage of the campus and will also add to groundwater recharge. Water fountain can be maintained in the pond to have aeriation. Other activities in this area can also be planned in a raised floor over the pond with esthetically rich stairs.

4.3.3.2 The pond suggested above will also help systematic pumping of water from the campus either beyond the ridge line on its back side to a drain/Parikshit pond (with their consent), from where the flow can move to Brahmaputra directly by gravity. Alternatively, water can be pumped to the downstream of the PWD drain on other side of the road or to a free-flowing culvert if created. If the sump is made in some other location, then this pond needs to be connected with the sump with an underground drain of adequate capacity. During pumping sluice gate must be operated to stop backflow from PWD drain, depending on the situation. Any effort of pumping water within the ridge line at upstream of the campus will not help, as the water will just get recirculated.

4.3.3.3 Another approach of raising of the campus was looked into for immediate relief. As informed by the client at present the water accumulation on the road goes up to 20 to 30 cm. It means the stagnant water volume (Total width (width of road + drain) x depth) is quite high. Therefore, raising of road level though will make the road free from flooding will not help quick drainage of the campus and will lead to water congestion in other areas of the campus. Therefore, bed of the drain also needs to be raised above 99.27m(bed level of PWD drain) with a preferred slope of 1:400, as with this slope the present drain sizes are otherwise adequate. Slope can be reduced if drain width can be increased or additional drain can be provided. Amount of bed level to be raised at different points can be calculated accordingly. Road level of the roads located in the affected area will have to be raised by an amount to maintain the depth of drain equal to that of the present size. The road can be raised by sand filling and using perforated paver block on the top so that there may be some sub-surface storage capacity even on the road. This solution has some other associated concerns, as elaborated below, which need to be considered during preparation of execution Detail Project Report (DPR), if the society or the concerned authority decides to go for this option.

4.3.3.4 To have adequate slope (say 1:400) for increasing drainage capacity of the inside drainage system without having a culvert in the PWD drain, bed level of the campus drain at its end will have to be raised preferably by about 1.00m above the level of PWD drain bed, i.e., 99.27m. It means the endpoint of the right drain needs to be raised by about 0.8m. To have adequate capacity, road and ground level will have to be raised beyond this level to have drain of size at least equal to the one the campus has now. If the road level is only raised without raising the drain bed the water depth in the drain will be quite high during flooding and to

avoid danger, the drain must be covered. Covered stagnant water will lead to some environment issue like bad odor and creation of mosquito breeding ground. Also, parallelly, the campus area and garage floor etc. all will have to be raised otherwise there will be stagnant water in the other areas of the campus. All these will have to be done with the constraints of existing plinth height, as raising of building by cutting the column and rejoining it cannot be suggested for earthquake prone region like that of the Northeast. Also, the constraint of maximum height of ground from the finished road level will have to be maintained. These aspects will have to be looked in to in more detail before execution of this approach. Raising and smoothening of the drains and ground level to have a slope of 1:400 will allow stormwater flow from inside the campus to move at a faster rate.

4.3.3.5 If the outside drains are not cleared by creating necessary passage using culvert, underground box drain/pipe drain and by clearing blockage of natural drainage path, if any because of land filling etc. up to its ultimate outlet at Brahmaputra, the PWD road and some other areas within the watershed may have water accumulation. Again, to get rid of this problem, if PWD drain and flooded areas at downstream are further raised, ASL campus will again revert back to its present status. Therefore, corrections (internal and external) should be done with equal emphasis and considering the problem holistically. Clearing of the natural drainage path throughout its natural course or to have a properly designed reversed drain to Brahmaputra, as elaborated in article 4.3.2 should always be given due importance.

4.3.3.6 The problem of stagnation water is becoming more prominent, as the internal drains are not permeable. Some infiltration well can be planned in the drain itself to have quick release of the water through infiltration with proper filling material in the infiltration pit to avoid growth of vegetation and to ensure that polluted water is not put into groundwater.

4.3.3.7 Combination of different approaches suggested above can also be adopted considering convenience of implementation, support received from relevant agencies and resource availability.

4.3.4 Some Relevant Concerns

4.3.4.1 The water from the catchment located on backside of the campus get obstructed by the campus wall. This may damage the wall. Otherwise also, as the accumulated water level outside the wall will be higher, seepage water is expected to enter the campus. If this water can

be diverted by a catch drain constructed on upstream of the campus to join the PWD drain directly, it will be safer and part of the water load in the campus will decrease. This needs to be done in consultation with the local community.

5 CONCLUSION

This draft report contains details of analysis and some possible solution strategies. Financial aspect of these solution is not within the scope of this study and therefore cost effectiveness of each of these solutions have not been examined explicitly.

Based on this report, a discussion with the client can be carried out to understand if there are any other concerns beyond the point discussed in this report.

Ideally, we suggest that client should put their effort to have the holistic long-term solution, even though it may take time, as it requires involvement of PWD and neighboring community. As this approach will be beneficial for the entire neighboring community in the future, obtaining community support may not be difficult.

During the period of making effort to have this permanent solution, client can develop the pond, and the drainage line to this developed pond. This pond can be used for systematic pumping of excess surface water either beyond the watershed boundary or to the natural drainage line beyond the PWD road with due permission from relevant agency/owner. If a lined sump is constructed in a place away from the pond, then the sump will have to be connected to this pond or to other low-lying areas, to drain out the campus.

Construction of recharge pit in the depressed portion can be tried in one location first on trial basis to release stagnant water. These will also help groundwater recharge.

In case, this comprehensive solution cannot be adopted for any reason, then raising of road level by using sand and paver block can be attempted with more detail analysis to find judicious height to be raised at different locations without affecting the other areas. The worry is that if PWD road and the drain is raised further in future this solution will again become ineffective.

A holistic planning of the drainage system is therefore need of the hour.

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SL-12

REPORT ON

SUB SOIL INVESTIGATION WORK

: NAME OF WORK:

CONSTRUCTION OF ARYA SMART LIVING

REPORT SUBMITTED

TO

ARYA ERECTORS PVT. LTD.

REPORT PREPARED BY

RELIANT FOUNDATIONS PVT. LTD.
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SUMMARY SHEET

1. **Name of project:** Construction of proposed RCC Building at Abhay pur (North Guwahati)
2. **Number of Borehole:** 5(Five)
3. **Depth of Borehole:** As shown in the following table.
4. **Depth of water table:** As shown in the following table.

Sl. No.	Borehole Location	Depth of borehole (Meters)	Depth of water table (Meters)
1	BH1	30.00	2.50 below the EGL
2	BH2	30.00	1.00 below the EGL
3	BH3	30.00	1.50 below the EGL
4	BH4	30.00	0.50 below the EGL
5	BH5	30.00	0.50 below the EGL

5. **Concluding remarks:**

Subsoil investigation is carried out at field by making borehole and collecting disturbed and undisturbed samples accompanied by Standard Penetration Test. Laboratory test results of samples are systematically presented in different tables and graphs.

Regarding subsoil information the following can be mentioned

BH1: The soil is found to be predominantly clay mixed with silt and sand etc. up to depth of about12.50 M and the layers are found to exist from medium to stiff states at different depths. Beyond that pure sand from medium to very dense states are found to exist at different depths of the borehole.

BH2: The soil is found to be predominantly clay mixed with silt and sand etc. up to depth of about12.50 M and the layers are found to exist from medium to stiff states at different depths. Beyond that pure sand from medium to very dense states are found to exist at different depths of the borehole

BH3: The soil is found to be predominantly clay mixed with silt and sand etc. up to depth of about16.50 M and the layers are found to exist from medium to stiff states at different depths. Beyond that pure sand from medium to very dense states are found to exist at different depths of the borehole

BH4: The soil is found to be predominantly clay mixed with silt and sand etc. up to depth of about17.00 M and the layers are found to exist from medium to stiff states at

different depths. Beyond that pure sand from medium to very dense states are found to exist at different depths of the borehole

BH5: The soil is found to be predominantly clay mixed with silt and sand etc. up to depth of about12.50 M and the layers are found to exist from medium to stiff states at different depths. Beyond that pure sand from medium to very dense states are found to exist at different depths of the borehole

6. **Foundation recommended: Isolated Footing Foundation / RCC Pile Foundation**

Isolated Footing Foundation:

After obtaining the laboratory test results of the samples collected from the field and analyzing the subsoil parameters in a very careful manner, the net safe bearing capacities of isolated footing foundation at different depths are calculated and shown in table 1.

Raft Foundation:

After obtaining the laboratory test results of the samples collected from the field and analyzing the subsoil parameters in a very careful manner, the net safe bearing capacities of Raft foundation at 3.30M depths are calculated and shown in table 2.

RCC Pile Foundation :

For higher loading condition RCC pile foundation is recommended.

The load carrying capacities of bored cast in situ uniform diameter pile of 12.00 M length with pile diameters 40 cm, 50 cm and 60cm. respectively are calculated and shown in Table 3.

However, the calculated safe bearing capacity / load carrying capacity at certain depth is to be verified by performing a plate / pile load test.

The Structural Engineer will decide the suitable type of foundation among the different types of foundation as per demand of the design.

Table 1: Safe Bearing Capacities of Footing Foundations

BH NO.	Depth of footing from EGL (M)	Footing size (M^2)	Net Safe Bearing Capacities (MetricTon /Sqm.)
BH1, BH2 ,BH4 and BH5	2.00	2.0x2.0	4.60
	2.50	2.0x2.0	9.70
	3.00	2.0x2.0	10.9
	3.30	2.0x2.0	12.7
BH3	2.00	2.0x2.0	3.50
	2.50	2.0x2.0	3.90
	3.00	2.0x2.0	4.10
	3.30	2.0x2.0	4.20

Raft Foundation:

Table 2: Safe Bearing Capacities of Raft Foundations

BH NO.	Depth of footing from EGL (M)	Footing size (M^2)	Net Safe Bearing Capacities (MetricTon /Sqm.)
BH1,BH2 , BH4 and BH5	3.30	6.0x6.0	10.8
BH3	3.30	6.0x6.0	3.70

BH NO.	Pile Stem Dia. (cm)	Length of ile from E.G.L. (m)	Pile Cutoff Length (m)	Recommended Safe Load Carrying Capacity (tone)		
				Compression	Uplift	
BH3	40	8.00	1	12.7	6.70	0.89
	50		1	17.25	8.40	1.21
	60		1	22.41	10.10	1.57
	40	10.00	1	15.2	8.7	1.06
	50		1	20.49	10.8	1.43
	60		1	26.38	13.0	1.85
	40	12.00	1	23.4	14.9	1.64
	50		1	30.91	18.6	2.16
	60		1	39.15	22.4	2.74
	40	14.00	1	27.5	19.4	1.93
	50		1	35.65	24.3	2.50
	60		1	44.33	29.1	3.10
	40	16.00	1	30.8	22.0	2.16
	50		1	39.92	27.6	2.79
	60		1	49.55	33.1	3.47
	40	17.00	1	34.95	22.0	2.45
	50		1	49.68	27.5	3.46
	60		1	68.42	33.0	4.79
	40	18.00	1	40.55	26.7	2.84
	50		1	56.69	33.4	3.97
	60		1	76.82	40.0	5.38
	40	20.00	1	46.38	34.0	3.25
	50		1	61.89	42.5	4.33
	60		1	80.0	51.0	5.60
	40	22.00	1	59.83	45.2	4.19
	50		1	78.70	56.5	5.51
	60		1	100.19	67.8	7.01
	40	24.00	1	61.44	46.6	4.30
	50		1	80.72	58.2	5.65
	60		1	102.6	69.8	7.18
	40	25.00	1	65.73	50.1	4.60
	50		1	86.08	62.7	6.03
	60		1	109.0	75.2	7.63

Pile Foundation:

Table3.Safe Load carrying capacity of bored cast in situ **uniform diameter** pile

BH NO.	Pile Stem Dia. (cm)	Length of Pile from E.G.L. (m)	Pile Cutoff Length (m)	Recommended Safe Load Carrying Capacity (tone)		
				Compression	Uplift	Lateral
BH1, BH2 BH4 and BH5	40	10.00	1	12.9	7.60	0.90
	50		1	17.3	9.50	1.21
	60		1	22.16	11.40	1.55
	40	12.00	1	16.1	9.8	1.13
	50		1	21.55	12.1	1.51
	60		1	27.5	14.7	1.93
	40	14.00	1	23.5	15.1	1.65
	50		1	30.98	18.9	2.17
	60		1	39.16	22.7	2.74
	40	16.00	1	28.79	18.1	2.02
	50		1	40.94	22.6	2.87
	60		1	56.40	27.2	3.95
	40	18.00	1	39.20	25.2	2.74
	50		1	55.0	31.9	3.85
	60		1	74.79	38.3	5.24
	40	20.00	1	55.57	41.7	3.89
	50		1	73.38	52.1	5.14
	60		1	93.80	62.5	6.57
	40	22.00	1	66.6	50.9	4.66
	50		1	81.17	63.6	5.68
	60		1	110.35	76.3	7.72
	40	24.00	1	66.15	50.5	4.63
	50		1	86.60	63.1	6.06
	60		1	109.67	75.7	7.68
	40	25.00	1	73.44	56.6	5.14
	50		1	95.71	70.7	6.70
	60		1	120.60	84.8	8.44

Subsoil investigation work for construction of RCC building at Abhay pur (North Guwahati)

INTRODUCTION: Five numbers of bore holes were made at the site up to the maximum depth of 30.00 meters from the existing ground surface level.

The prime object of this investigation work is to find out subsoil profile, important engineering properties, recommendation of type of foundation, bearing capacities of subsoil etc. The report includes physical properties of the subsoil deposit such as grain size distribution, bulk density, specific gravity, moisture content, angle of internal friction, Cohesion "C".

All works beginning from field investigation, collection of samples, laboratory testing, and interpretation of results were done as per pertinent code of practices.

The results are presented in a tabular or graphical form according to convenience.

FIELD WORKS:

The fieldwork involved boring, recording soil profile by visual observation, collection of disturbed and undisturbed samples for laboratory test, undertaking standard penetration test etc.

The undisturbed samples were collected in metallic tubes as per IS: 1932-1963 specifications. The samples so collected were waxed at either end, labeled and then forwarded to laboratory for conducting necessary tests.

The disturbed samples were collected from auger heads or from returning wash water and split spoon sampler. It is then packed in polythene bags after marking in the packets the depth, borehole No. etc.

STANDARD PENETRATION TEST:

The standard penetration test is done on undisturbed soil at site by hammering with a hammer of 65 Kg weight falling freely through a height of 75cm. The number of blows required to push the standard split spoon sampler through 45cm length is counted. The reading of first 15 cm distance is not counted towards standard penetration values and this value is called seating. The Number blows required to penetrate the last 30.0cm of the sampler. N-values are shown in the borehole logs.

Bore hole log:

The bore hole log is numbered for identification of location and also shows the following:

(1) Date of boring.
(2) Depth of different strata from ground level.
(3) Graphical representation of N-Value.

LABORATORY TEST:

The following laboratory tests were performed as soil samples-

(1) Grain size analysis for classification of soil.
(2) Specific gravity.
(3) Atterberg limit.
(4) Natural moisture content.
(5) Determination of unit weight
    (a) Bulk (b) Dry
(6) Triaxial shear test.
(7) Unconfined compression test.
(8) Consolidation test.

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Conclusion: After analyzing the soil samples of different boreholes it can be concluded that soil up to a depth of 3.5M is in medium state (different states are like soft, medium, stiff, hard etc). Beyond this soil is in stiff to hard state. As an average beyond 16.0m soil is found to be purely sandy. The bearing capacity at 3.3M (11') is in the range of 11-12.5 ton/sqm . However at BH 3 location soil up to a depth of 3.5M is in very soft state resulting very low bearing capacity. But even at this location too beyond 3.5M soil condition is good. Soil bearing capacities at different depths for open and pile foundations are tabulated in Table 1, 2 and 3. Pile load capacities at different depths are shown in Table 3.Lateral load capacities are taken as 7% of compression load.

(A) **Calculation of Net Safe Bearing Capacity based on shear Criteria**

IS: 6403-1981 recommends the following equation to calculate the net Safe Bearing Capacity ' q_s' based on Hansen's Bearing Capacity analysis:

$$q_s = 1/F \{CNc\, S_c\, d_c\, I_c + q\,(N_q - 1)\, S_q\, d_q\, i_q + 0.5\,\gamma\, B\, N_\gamma\, S_\gamma\, d_\gamma\, i_\gamma \times R_w\}$$

Where, C = Cohesion of soil.
γ = Saturated Density of soil
B = Width of footing = 2.0 m (assumed)
R_w = Water table correction factor depending upon position of water table with respect to founding level
Q = Effective surcharge at footing level = γ D (D = depth of footing)
N_c, Nq , N_γ = Bearing capacity factor
S_c, S_q , S_γ = Shape factor
d_c, d_q, d_γ = depth factor
i_c, i_q , i_γ = inclination factors
F = Factor of safety =3.0

B) **Calculation of safe bearing pressure based on tolerable settlement.**

The safe bearing pressure is to be found out from the elastic settlement consideration and is found from the following equation given I.S. 8009 (part-1) 1976

$$S_f = S_{ocd} = (H_i / 1+e_o)\, C_c \log_{10} (po + \Delta p)/ p_o$$

S_f = Final settlement in mm
S_{ocd} = Settlement computed from one dimensional test
H_i = Thickness of soil layer in m
e_o = Initial void ratio at mid height of of layer
C_c = Compression Index
p_o = Initial effective pressure at mid height of layer
Δp = pressure increment

For the computation of settlement of foundation founded at certain depth, a correction should be applied to the calculated S_f in the form of a depth factor to be read from Fig:12 of I.S. 8009 (part-1) 1976.
Corrected settlement S_{fd} = S_f x depth factor

Depth factor is dependent on the following
i. D= Depth of footing ii. L= Length of footing iii. B= Width of footing

9 4

2) Design of Pile foundation (Uniform dia Pile)

Ultimate bearing capacity in compression in sand, Q_U from IS:2911(Part-1)-1981

$Q_u = Q_p + Q_f$

= End bearing resistance + Frictional resistance of pile in sand and clay.

$Q_u = Ap\,(1/2\ D\,\gamma\,N\gamma + P_D\,Nq) + (\alpha\,Ca\,As + \Sigma\,K\,P_{Di}\,\tan\delta\,A_{Si})$

$Q_f = Ap\,(1/2\ D\,\gamma\,N\gamma + P_D\,Nq)$

$Q_{fs} = \Sigma\,K\,P_{Di}\,\tan\delta\,A_{Si}$

$Q_{fc} = \alpha\,Ca\,As$

$Q_{safe} = Q_U/FOS = Q_U/2.5$

where

Ap = Cross sectional area of pile toe in cm^2.

As (cm^2) = surface area of the stem

Nγ, Nq = bearing capacity factors depending upon the angle of internal friction

K = earth pressure coefficient (usually taken as 1.5 for sandy soils)

δ = Angle of wall friction between pile and soil.

As = Circumferential area of pile stem = $\Pi x\ l\ x\ d$

l = Length of embedment .

d = Diameter of the pile.

Pile load capacity in uplift

Ultimate uplift capacity Q_{uf} = Skin friction in sand + Skin friction in clay.

$= Q_{fs} + Q_{fc}$

B

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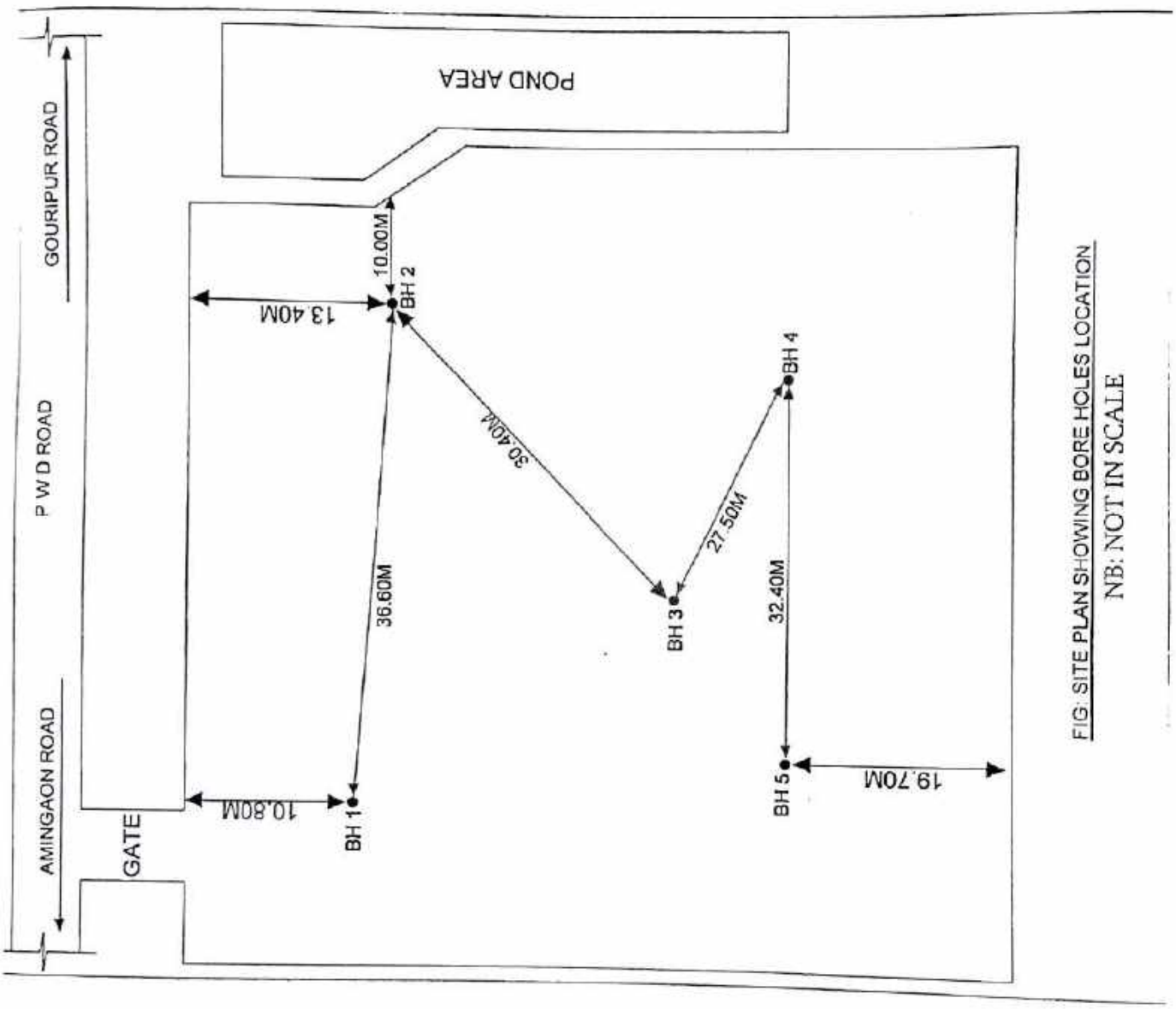

FIG: SITE PLAN SHOWING BORE HOLES LOCATION

NB: NOT IN SCALE

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RELIANT FOUNDATIONS PVT. LTD.

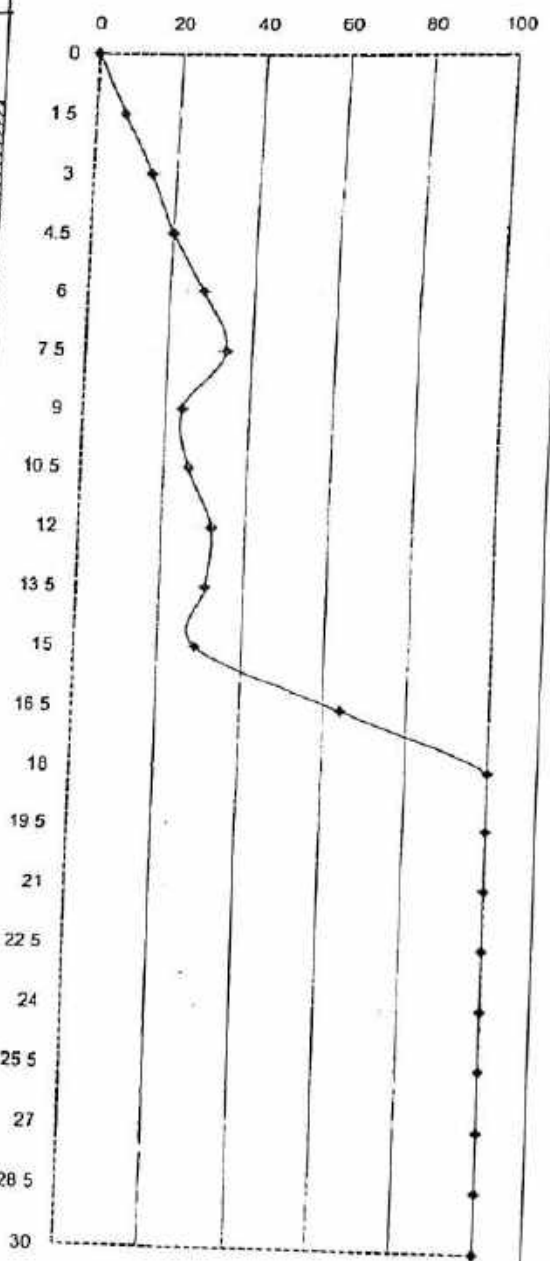
Name of Project: Construction of proposed RCC Building at Abhay pur(North Ghy).

BORE LOG CHART

BORE HOLE NO:1	DATE OF STARTING:23-04-2012	GROUND WATER LEVEL	AUGER & WASH BORING
	DATE OF COMPLETION:24-04-2012	2.50M from EGL	

DEPTH (M)	TYPE OF SAMPLE	SPT 15 CM	SPT 15 CM	SPT 15 CM	N-Value	VISUAL DESCRIPTION OF SOIL	LOG
1.50	P	3	3	4	7	Brownish gray CLAY some silt.	
2.00	U						
3.00	P	4	6	8	14		
3.50	U					3.50M	
4.50	P	6	8	12	20	Brownish gray silty CLAY some sand.	
5.00	U						
6.00	P	8	12	16	28		
6.50	U					6.50M	
7.50	P	10	14	20	34	Brownish gray clayey SILT. 8.00M	
8.00	U						
9.00	P	9	11	13	24	Brownish gray CLAY some silt.	
9.50	U						
10.50	P	10	12	14	26		
11.00	U						
12.00	P	11	14	18	32		
12.50	U					12.50M	
13.50	P	11	14	17	31	Brownish gray clayey fine SAND some silt.	
14.00	U						
15.00	P	11	13	16	29	Brownish gray fine to medium SAND.	
15.50	D						
16.50	P	18	26	38	64		
17.00	D						
18.00	P	40	50	50	R		
18.50	D						
19.50	P	36	50	50	R		
20.00	D						
21.00	P	43	50	50	R		
21.50	D						
22.50	P	47	50	50	R		
23.00	D						
24.00	P	50	50	50	R		
24.50	D						
25.50	P	50	50	50	R		
26.00	D						
27.00	P	50	50	50	R		
27.50	D						
28.50	P	50	50	50	R		
29.00	D						
30.00	P	50	50	50	R		
30.50	D					30.50M	

GRAPHICAL REPRESENTATION OF N-Value



U:UDISTURBED SAMPLE | D: DISTURBED SAMPLE | P: STANDARD PENETRATION TEST

EGL: EXISTING GROUND LEVEL | R:REFUSAL;N>100

RELIANT FOUNDATIONS PVT. LTD.

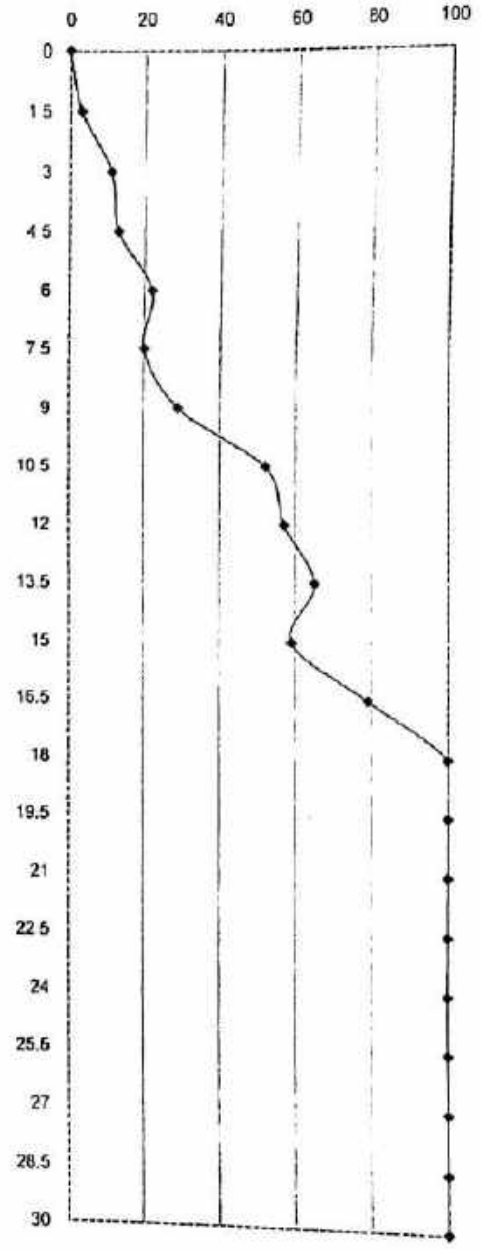
Name of Project: Construction of proposed RCC Building at Abhay pur(North Ghy).

BORE LOG CHART

BORE HOLE NO:2	DATE OF STARTING:24-04-2012	GROUND WATER LEVEL	AUGER & WASH BORING
	DATE OF COMPLETION:25-04-2012	1.00M from EGL	

DEPTH (M)	TYPE OF SAMPLE	SPT 15 CM	SPT 15 CM	SPT 15 CM	N-Value	VISUAL DESCRIPTION OF SOIL	LOG
1.50	P	1	1	2	3	Brownish gray CLAY some silt. 2.00M	
2.00	U						
3.00	P	3	5	6	11	Brownish gray CLAY some silt trace sand. 5.00M	
3.50	U						
4.50	P	5	6	7	13		
5.00	U						
6.00	P	7	10	12	22	Brownish gray silty CLAY trace sand.	
6.50	U						
7.50	P	7	9	11	20	Brownish gray CLAY some silt & sand.	
8.00	U						
9.00	P	9	13	16	29	Brownish gray CLAY some silt. 11.00M	
9.50	U						
10.50	P	15	22	30	52		
11.00	U						
12.00	P	18	25	32	57	Brownish gray silty CLAY some sand.	
12.50	U						
13.50	P	17	27	38	65	Brownish gray fine to medium SAND.	
14.00	D						
15.00	P	16	25	34	59		
15.50	D						
16.50	P	22	32	47	79		
17.00	D						
18.00	P	34	50	50	R		
18.50	D						
19.50	P	38	50	50	R		
20.00	D						
21.00	P	44	50	50	R		
21.50	D						
22.50	P	48	50	50	R		
23.00	D						
24.00	P	50	50	50	R		
24.50	D						
25.50	P	50	50	50	R		
26.00	D						
27.00	P	50	50	50	R		
27.50	D						
28.50	P	50	50	50	R		
29.00	D						
30.00	P	50	50	50	R		
30.50	D					30.50M	

GRAPHICAL REPRESENTATION OF N-Value



U:UDISTURBED SAMPLE | D: DISTURBED SAMPLE | P: STANDARD PENETRATION TEST

EGL: EXISTING GROUND LEVEL | R:REFUSAL;N>100

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RELIANT FOUNDATIONS PVT. LTD.

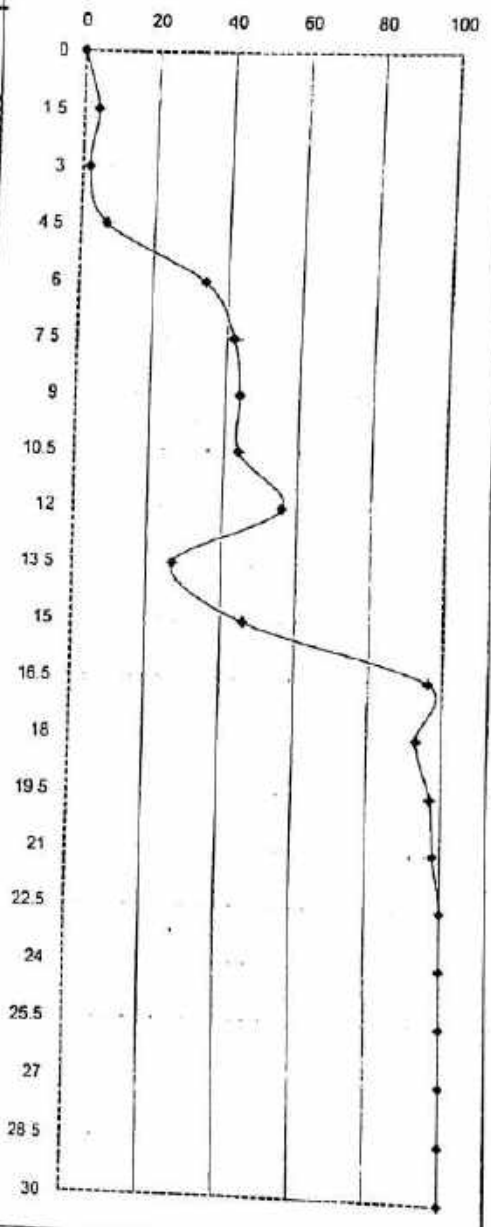
Name of Project: Construction of proposed RCC Building at Abhay pur(North Ghy).

BORE LOG CHART

BORE HOLE NO:3 | DATE OF STARTING:26-04-2012 | DATE OF COMPLETION:27-04-2012 | GROUND WATER LEVEL 1.50M from EGL | AUGER & WASH BORING

DEPTH (M)	TYPE OF SAMPLE	SPT 15 CM	SPT 15 CM	SPT 15 CM	N-Value	VISUAL DESCRIPTION OF SOIL	LOG
1.50	P	1	2	2	4	Brownish gray CLAY some silt.	
2.00	U						
3.00	P	3	1	1	2		
3.50	U					3.50M	
4.50	P	2	3	4	7	Brownish gray CLAY some silt trace sand.	
5.00	U						
6.00	P	9	15	19	34	Brownish gray silty CLAY. 6.50M	
6.50	U						
7.50	P	13	18	24	42	Brownish gray silty CLAY some sand.	
8.00	U						
9.00	P	13	18	26	44	Brownish gray CLAY some silt.	
9.50	U						
10.50	P	14	20	24	44		
11.00	U						
12.00	P	16	24	32	56		
12.50	U						
13.50	P	10	12	15	27		
14.00	U						
15.00	P	13	18	28	46		
15.50	U					15.50M	
16.50	P	35	46	50	96	Brownish gray fine to medium SAND.	
17.00	D						
18.00	P	32	43	50	93		
18.50	D						
19.50	P	35	47	50	97		
20.00	D						
21.00	P	38	48	50	98		
21.50	D						
22.50	P	48	50	50	R		
23.00	D						
24.00	P	50	50	50	R		
24.50	D						
25.50	P	50	50	50	R		
26.00	D						
27.00	P	50	50	50	R		
27.50	D						
28.50	P	50	50	50	R		
29.00	D						
30.00	P	50	50	50	R		
30.50	D					30.50M	

GRAPHICAL REPRESENTATION OF N-Value



U:UDISTURBED SAMPLE | D: DISTURBED SAMPLE | P: STANDARD PENETRATION TEST

EGL: EXISTING GROUND LEVEL | R:REFUSAL;N>100

RELIANT FOUNDATIONS PVT. LTD.

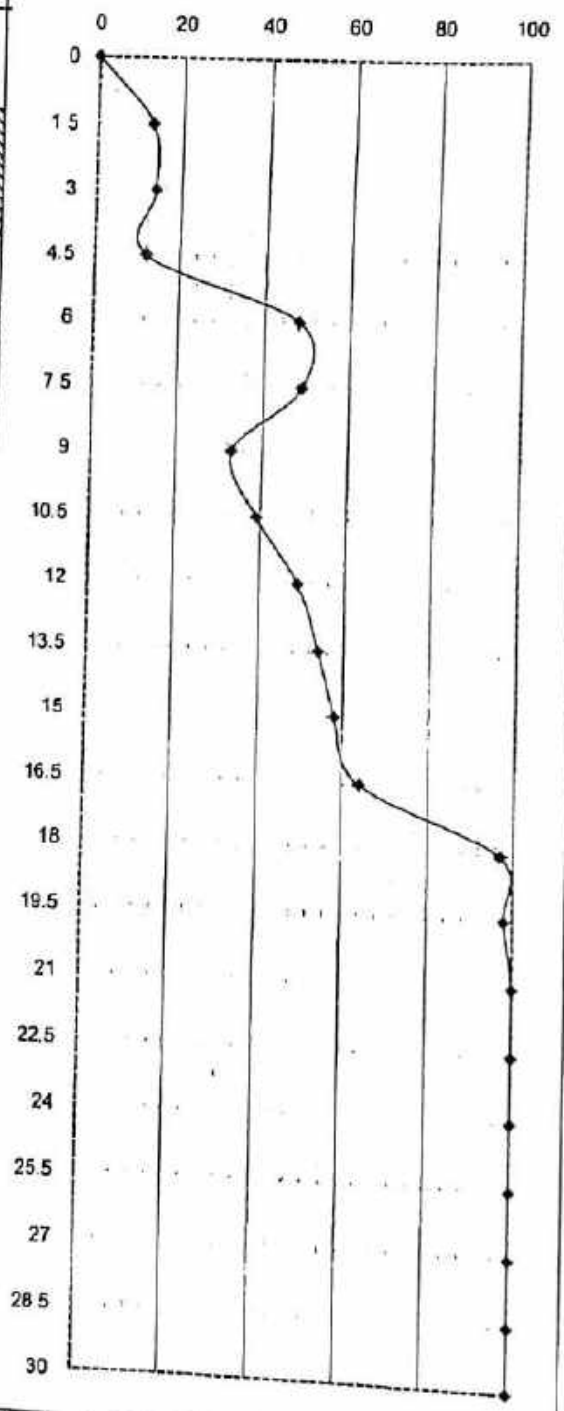
Name of Project: Construction of proposed RCC Building at Abhay pur(North Ghy).

BORE LOG CHART

BORE HOLE NO:4	DATE OF STARTING:27-04-2012	GROUND WATER LEVEL	AUGER & WASH BORING
	DATE OF COMPLETION:28-04-2012	0.50M from EGL	

DEPTH (M)	TYPE OF SAMPLE	SPT 15 CM	SPT 15 CM	SPT 15 CM	N-Value	VISUAL DESCRIPTION OF SOIL	LOG
1.50	P	4	5	8	13	Brownish gray CLAY some silt.	
2.00	U						
3.00	P	4	6	8	14		
3.50	U					3.50M	
4.50	P	3	5	7	12	Brownish gray sandy SILT some clay.	
5.00	U						
6.00	P	10	20	28	48	Brownish gray fine SAND some silt & clay.	
6.50	U						
7.50	P	13	22	27	49		
8.00	U					8.00M	
9.00	P	10	13	20	33	Brownish gray CLAY some silt.	
9.50	U						
10.50	P	11	16	23	39		
11.00	U						
12.00	P	15	19	30	49		
12.50	U						
13.50	P	16	21	33	54		
14.00	U						
15.00	P	18	23	35	58		
15.50	U					15.50M	
16.50	P	20	26	38	64	Brownish gray CLAY some silt & sand.	
17.00	U						
18.00	P	32	47	50	97	Brownish gray fine to medium SAND.	
18.50	D						
19.50	P	34	48	50	98		
20.00	D						
21.00	P	37	50	50	R		
21.50	D						
22.50	P	48	50	50	R		
23.00	D						
24.00	P	50	50	50	R		
24.50	D						
25.50	P	50	50	50	R		
26.00	D						
27.00	P	50	50	50	R		
27.50	D						
28.50	P	50	50	50	R		
29.00	D						
30.00	P	50	50	50	R		
30.50	D					30.50M	

GRAPHICAL REPRESENTATION OF N-Value



U:UDISTURBED SAMPLE | D: DISTURBED SAMPLE | P: STANDARD PENETRATION TEST

EGL: EXISTING GROUND LEVEL | R:REFUSAL;N>100

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RELIANT FOUNDATIONS PVT. LTD.

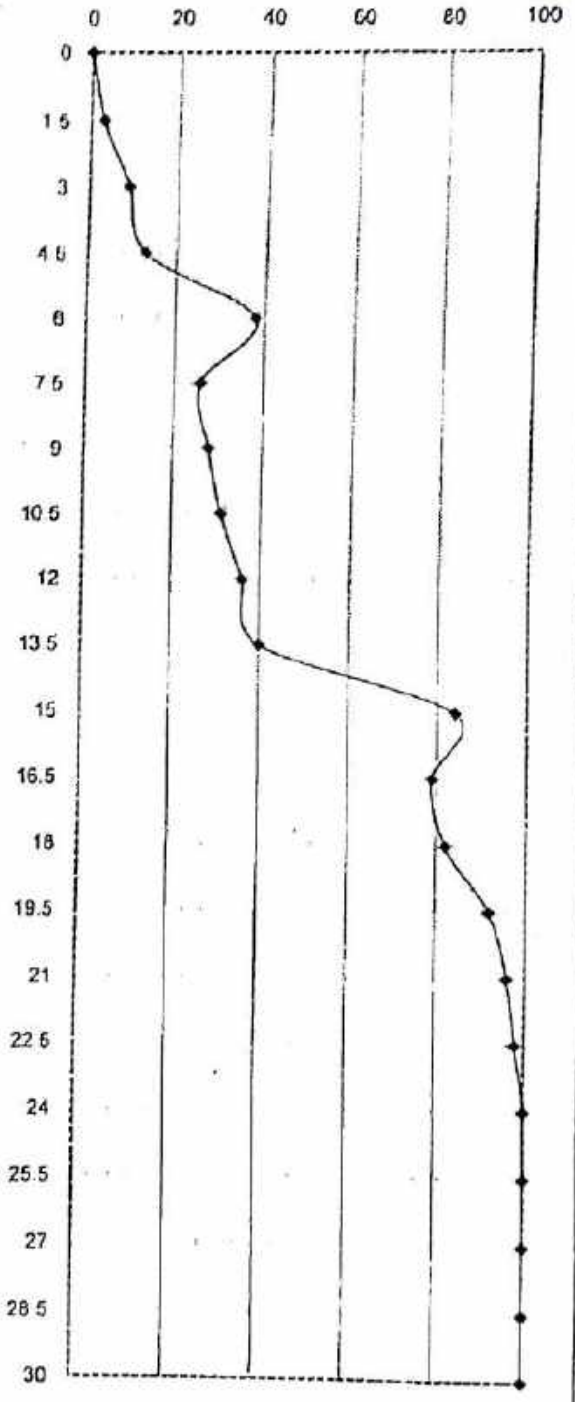
Name of Project: Construction of proposed RCC Building at Abhay pur(North Ghy).

BORE LOG CHART

BORE HOLE NO:5	DATE OF STARTING:29-04-2012 DATE OF COMPLETION:30-04-2012	GROUND WATER LEVEL 0.60M from EGL	AUGER & WASH BORING

DEPTH (M)	TYPE OF SAMPLE	SPT 15 CM	SPT 15 CM	SPT 15 CM	N-Value	VISUAL DESCRIPTION OF SOIL	LOG
1.50	P	1	1	2	3	Brownish gray CLAY	
2.00	U					some silt. 2.00M	
3.00	P	3	4	5	9	Brownish gray fine to	
3.50	D					medium SAND. 3.50M	
4.50	P	4	5	8	13	Brownish gray CLAY	
5.00	U					some silt trace sand.	
6.00	P	9	15	23	38	Brownish gray silty	
6.50	U					CLAY some sand.	
7.50	P	9	12	14	26	Brownish gray silty	
8.00	U					CLAY. 8.00M	
9.00	P	9	12	16	28	Brownish gray CLAY	
9.50	U					some silt.	
10.50	P	10	13	18	31		
11.00	U						
12.00	P	12	15	21	36		
12.50	U					12.50M	
13.50	P	13	17	23	40	Brownish gray fine	
14.00	U					SAND some silt & clay.	
15.00	P	22	36	48	84	Brownish gray fine to	
15.50	D					medium SAND.	
16.50	P	20	34	45	79		
17.00	D						
18.00	P	21	35	47	82		
18.50	D						
19.50	P	26	42	50	92		
20.00	D						
21.00	P	31	46	50	96		
21.50	D						
22.50	P	40	48	50	98		
23.00	D						
24.00	P	45	50	50	R		
24.50	D						
25.50	P	50	50	50	R		
26.00	D						
27.00	P	50	50	50	R		
27.50	D						
28.50	P	50	50	50	R		
29.00	D						
30.00	P	50	50	50	R		
30.50	D					30.50M	

GRAPHICAL REPRESENTATION OF N-Value



U:UDISTURBED SAMPLE | D: DISTURBED SAMPLE | P: STANDARD PENETRATION TEST

EGL: EXISTING GROUND LEVEL | R:REFUSAL;N>100

BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).
Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 23-04-12 Date completed: 24-04-12
BH: 1 DEPTH OF WATER TABLE= 2.50M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter: Cohesion 'c' Kg/cm²	Shear Parameter: Angle of shearing resistance (Φ')	Compression Index Cc	LL%	PL%	Passing 75 micron (%)
1.50-1.95	P	7	CI	Brownish gray CLAY some silt.			15	85	1.88	2.66	0.74	28.4		0.39	6	0.12	40.2	22.01	
2.00	U																		
3.00-3.45	P	14																	
3.50	U			3.50M			20	80											
4.50-4.95	P	20	CL	Brownish gray silty CLAY some sand.		20	35	45	1.96	2.66				0.66	16				
5.00	U																		
6.00-6.45	P	28																	
6.50	U			6.50M		20	35	45											
7.50-7.95	P	34	ML	Brownish gray clayey SILT.															
8.00	U			8.00M			60	40											
9.00-9.45	P	24	CH	B rownish gray CLAY some silt.															
9.50	U						20	80											
10.50-10.95	P	26																	
11.00	U						15	85	2.02	2.67				0.91	8				
12.00-12.45	P	32																	
12.50	U			12.50M			20	80											
13.50-13.95	P	31	SC	Brownish gray clayey fine SAND some silt.															
14.00	U					45	20	35	2.08	2.65					DS-34				
15.00-15.45	P	29	SP	Brownish gray fine to medium SAND.15.50M															
15.50	D					100													

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).

Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 23-04-12 Date completed: 24-04-12

BH: 1 DEPTH OF WATER TABLE= 2.50M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	LL%	PL%	Passing 75 micron (%)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Φ')				
16.50-16.95	P	64	SP	Brownish gray fine to medium SAND.															
17.00	D					100			2.12	2.65					DS-36				
18.00-18.45	P	R																	
18.50	D					100													
19.50-19.95	P	R																	
20.00	D					100			2.22	2.65					DS-38				
21.00-21.45	P	R																	
21.50	D					100													
22.50-22.95	P	R																	
23.00	D					100			2.28	2.65					DS-38				
24.00-24.45	P	R																	
24.50	D					100													
25.50-26.95	P	R																	
26.00	D					100			2.32	2.65					DS-39				
27.00-27.45	P	R																	
27.50	D					100													
28.50-28.95	P	R																	
29.00	D					100			2.33	2.66					DS-40				
30.00-30.45	P	R																	
30.50	D			30.50M		100													

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

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BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).

Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 24-04-12 Date completed: 25-04-12

BH: 2 DEPTH OF WATER TABLE= 1.50M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	LL%	PL%	Passing 75 micron (%)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Φ')				
1.50-1.95	P	3	CI	Brownish gray CLAY some silt.															
2.00	U			2.00M			15	85	1.72	2.66	0.76	29.98		0.19	5	0.13	39.2	24.2	
3.00-3.45	P	11	CI	Brownish gray CLAY some silt trace sand.															
3.50	U					10	20	70											
4.50-4.95	P	13																	
5.00	U			5.00M		5	15	80	1.96	2.66				0.56	6				
6.00-6.45	P	22	CL	Brownish gray silty CLAY trace sand.															
6.50	U					10	35	55											
7.50-7.95	P	20	CH	Brownish gray CLAY some silt & sand.															
8.00	U			8.00M		20	15	65	2.08	2.66				0.81	8				
9.00-9.45	P	29	CH	Brownish gray CLAY some silt.															
9.50	U						20	80											
10.50-10.95	P	52																	
11.00	U			11.00M			15	85	2.13	2.67				1.17	12				
12.00-12.45	P	57	CL	Brownish gray silty CLAY some sand.															
12.50	U					15	40	55											
13.50-13.95	P	65	SP	Brownish gray fine to medium SAND.															
14.00	D					100			2.15	2.67					36-DS				
15.00-15.45	P	59																	
15.50	D			15.50M		100													

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).

Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 24-04-12 Date completed: 25-04-12

BH: 2

DEPTH OF WATER TABLE= 1.00M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	LL%	PL%	Passing 75 micron (%)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Φ')				
16.50-16.95	P	79	SP	Brownish gray fine to medium SAND.															
17.00	D					100			2.16	2.65					DS-36				
18.00-18.45	P	R																	
18.50	D					100													
19.50-19.95	P	R																	
20.00	D					100			2.22	2.65					DS-38				
21.00-21.45	P	R																	
21.50	D					100													
22.50-22.95	P	R																	
23.00	D					100			2.28	2.65					DS-39				
24.00-24.45	P	R																	
24.50	D					100													
25.50-26.95	P	R																	
26.00	D					100			2.32	2.66					DS-40				
27.00-27.45	P	R																	
27.50	D					100													
28.50-28.95	P	R																	
29.00	D					100			2.33	2.66					DS-40				
30.00-30.45	P	R																	
30.50	D			30.50M		100													

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

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BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).
Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 26-04-12 Date completed: 27-04-12
BH: 3
DEPTH OF WATER TABLE=1.50M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	LL%	PL%	Passing 75 micron (%)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Φ')				
1.50-1.95	P	4	CI	Brownish gray CLAY some silt.															
2.00	U						15	85	1.76	2.65	0.76	28.4		0.16	5	0.12	38.12	23.1	
3.00-3.45	P	2																	
3.50	U			3.50M			25	75											
4.50-4.95	P	7	CI	Brownish gray CLAY some silt trace sand.															
5.00	U					5	20	75	1.88	2.66				0.41	6				
6.00-6.45	P	34	CL	Brownish gray silty CLAY .															
6.50	U						40	60											
7.50-7.95	P	42	CL	Brownish gray silty CLAY some sand.															
8.00	U			8.00M		20	35	45	1.98	2.67				0.81	17				
9.00-9.45	P	44	CH	Brownish gray CLAY some silt.															
9.50	U						20	80											
10.50-10.95	P	44																	
11.00	U						20	80	2.06	2.67				1.21	9				
12.00-12.45	P	56																	
12.50	U						20	80											
13.50-13.95	P	28																	
14.00	U						15	85	2.02	2.66				0.92	9				
15.00-15.45	P	46																	
15.50	U			15.50M			20	80											

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).
Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 26-04-12 Date completed: 27-04-12
BH: 3 DEPTH OF WATER TABLE=1.50M from EGL

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gm/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (UCD)	Shear Parameter: Cohesion 'c' Kg/cm²	Shear Parameter: Angle of shearing resistance (ϕ°)	Compression Index (Cc	LL%	PI%	Passing 75 micron (%)
16.50-16.95	P	96		Brownish gray fine to medium SAND.															
17.00	D					100			2.16	2.68									
18.00-18.45	P	93													28.58				
18.50	D					100													
19.50-19.95	P	97																	
20.00	D					100			2.22	2.68					29.17				
21.00-21.45	P	98																	
21.50	D					100													
22.50-22.95	P	R																	
23.00	D		SP			100			2.23	2.65					28.38				
24.00-24.45	P	R																	
24.50	D					100													
25.50-26.95	P	R																	
26.00	D					100			2.25	2.66					29.01				
27.00-27.45	P	R																	
27.50	D					100													
28.50-28.95	P	R																	
29.00	D					100			2.23	2.68					29.01				
30.00-30.45	P	R																	
30.50	D					100													

D: Disturbed Sample::: U: Undisturbed Sample::: P: Standard Penetration test::: DS: Direct shear::: EGL: Existing ground level::: R: Refusal ::::

Kolkata, West Bengal Dec 11, 2023, 19:51

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).

BORE LOG CUM LABORATORY TEST RESULT

Boring method: Shell& Auger & Wash   Boring dia: 150mm

BH: 4   Date Commenced: 27-04-12   Date completed: 28-04-12

DEPTH OF WATER TABLE= 0.50M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter: Cohesion 'c' Kg/cm²	Shear Parameter: Angle of shearing resistance (Φ°)	Compression Index Cc	LL%	PL%	Passing 75 micron (%)
1.50-1.95	P	13	CI	Brownish gray CLAY some silt.															
2.00	U						20	80	1.92	2.66	0.71	25.21		0.56	7	0.10	48.24	22.54	
3.00-3.45	P	14																	
3.50	U			3.50M			15	85											
4.50-4.95	P	12	ML	Brownish gray sandy SILT some clay.															
5.00	U					35	45	20											
6.00-6.45	P	48	SC/ SM	Brownish gray fine SAND some silt & clay															
6.50	U					65	15	20	2.08	2.65					DS-34				
7.50-7.95	P	49																	
8.00	U			8.00M		65	15	20											
9.00-9.45	P	33	CH	Brownish gray CLAY some silt.															
9.50	U						15	85	2.02	2.66				1.07	8				
10.50-10.95	P	39																	
11.00	U						20	80											
12.00-12.45	P	49																	
12.50	U						20	80						1.27	8				
13.50-13.95	P	54																	
14.00	U						20	80											
15.00-15.45	P	58																	
15.50	U			15.50M			15	85						1.40	9				

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).
Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 27-04-12
BH: 4 DEPTH OF WATER TABLE= 0.50M from EGL. Date completed: 28-04-12

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	LL%	PL%	Passing 75 micron (%)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Φ')				
16.50-16.95	P	64	CH	Brownish gray CLAY some silt & sand.															
17.00	U																		
18.00-18.45	P	97	SP	Brownish gray fine to medium SAND.		20	15	65											
18.50	D																		
19.50-19.95	P	98				100			2.20	2.65									
20.00	D														DS-36				
21.00-21.45	P	R				100													
21.50	D																		
22.50-22.95	P	R				100			2.22	2.65									
23.00	D														DS-38				
24.00-24.45	P	R				100													
24.50	D																		
25.50-26.95	P	R				100			2.28	2.65									
26.00	D														DS-39				
27.00-27.45	P	R				100													
27.50	D																		
28.50-28.95	P	R				100			2.32	2.65									
29.00	D														DS-.40				
30.00-30.45	P	R				100													
30.50	D			30.50M		100			2.33	2.66					DS-40				

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).
Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 29-04-12 Date completed: 30-04-12
BH: 5
DEPTH OF WATER TABLE= 0.50M from EGL.

Depth in meters below reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	L.L%	PI.%	Passing 75 micron (#a)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Ø')				
1.50-1.95	P	3	CI	Brownish gray CLAY some silt. 2.00M			30	70	1.72	2.66	0.76	29.12		0.18	5	0.13	39.1	24.2	
2.00	U																		
3.00-3.45	P	9	SP	Brownish gray fine to medium SAND.		100													
3.50	D																		
4.50-4.95	P	13	CI	Brownish gray CLAY some silt trace sand. 5.00M		10	15	75	1.96	2.66				0.56	6				
5.00	U																		
6.00-6.45	P	38	CL	Brownish gray silty CLAY some sand.		15	40	45											
6.50	U																		
7.50-7.95	P	26	CL	Brownish gray silty CLAY. 8.00M			40	60	1.98	2.67				0.91	S				
8.00	U																		
9.00-9.45	P	28	CH	Brownish gray CLAY some silt.			15	85											
9.50	U																		
10.50-10.95	P	31					15	85	2.02	2.67				0.07	S				
11.00	U																		
12.00-12.45	P	36					20	80											
12.50	U			12.50M															
13.50-13.95	P	40	SC	Brownish gray fine SAND some silt & clay. 14.00M		55	15	30	2.12	2.65					DS-34				
14.00	U																		
15.00-15.45	P	84	SP	Brownish gray fine to medium SAND. 15.50M		100													
15.50	D																		

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal N>100

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BORE LOG CUM LABORATORY TEST RESULT

Name of Project: Construction of proposed RCC Building at Abhay pur(North ghy).

Boring method: Shell& Auger & Wash Boring dia: 150mm Date Commenced: 29-04-12 Date completed: 30-04-12

BH: 5

DEPTH OF WATER TABLE= 0.50M from EGL.

Depth in m [illegible] reference	Types of Sample	Observed N-Value	Group Symbol	Visual description of soil	% Gravel > 4.75mm	% Sand 4.75-0.075 mm	Silt 0.075-0.002	% Clay < 0.002 mm	Field density, gms/cm³	Specific Gravity	Void Ratio	Natural moisture content	Unconfined compressive Strength Kg/cm² (U D)	Shear Parameter		Compression Index Cc	LL%	PL%	Passing 75 micron (%)
														Cohesion 'c' Kg/cm²	Angle of shearing resistance (Φ°)				
16.50-16.95	P	79	SP	Brownish gray fine to medium SAND.															
17.00	D					100			2.16	2.65					DS-36				
18.00-18.45	P	82																	
18.50	D					100													
19.50-19.95	P	92																	
20.00	D					100			2.22	2.65					DS-37				
21.00-21.45	P	96																	
21.50	D					100													
22.50-22.95	P	98																	
23.00	D					100			2.28	2.65					DS-39				
24.00-24.45	P	R																	
24.50	D					100													
25.50-26.95	P	R																	
26.00	D					100			2.32	2.66					DS-39				
27.00-27.45	P	R																	
27.50	D					100													
28.50-28.95	P	R																	
29.00	D					100			2.33	2.66					DS-40				
30.00-30.45	P	R																	
30.50	D			30.50M		100													

D: Disturbed Sample:: U: Undisturbed Sample:: P: Standard Penetration test:: DS: Direct shear :: EGL: Existing ground level.:: R: Refusal ,N>100

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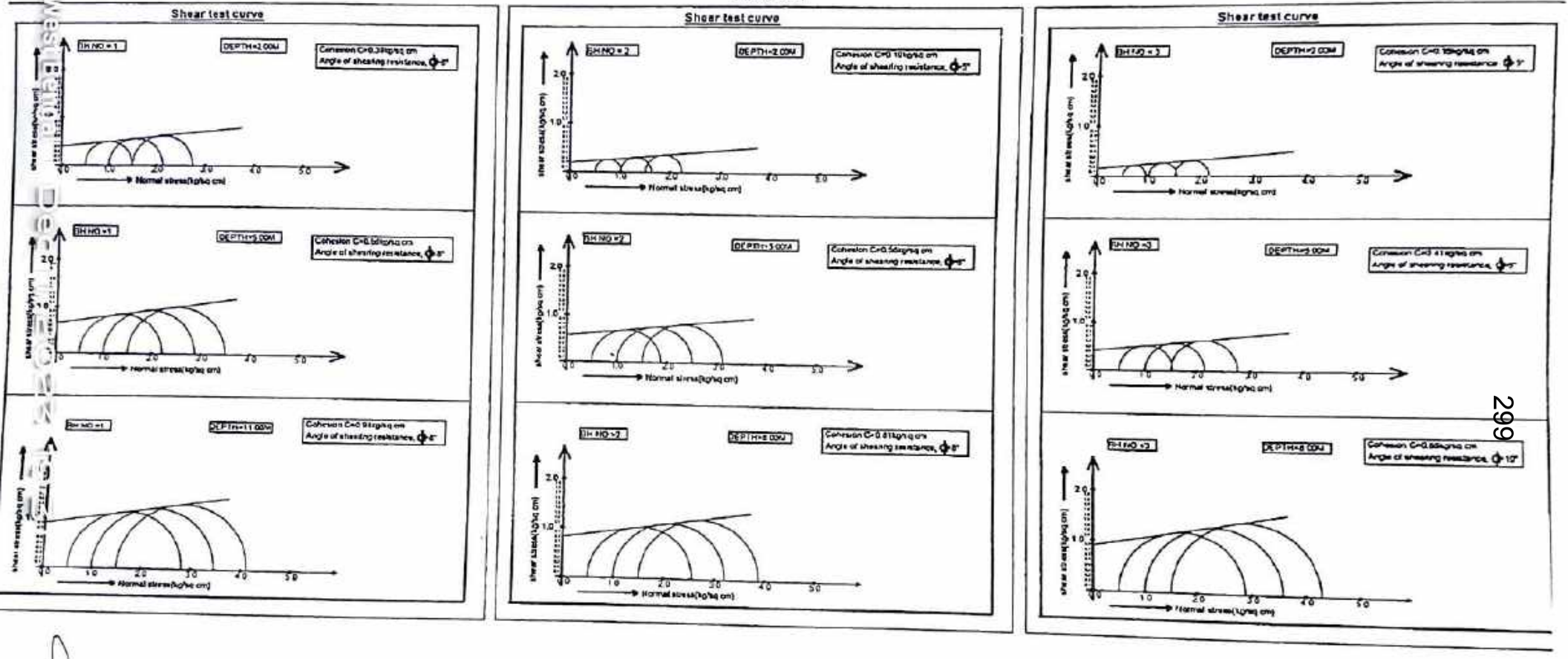
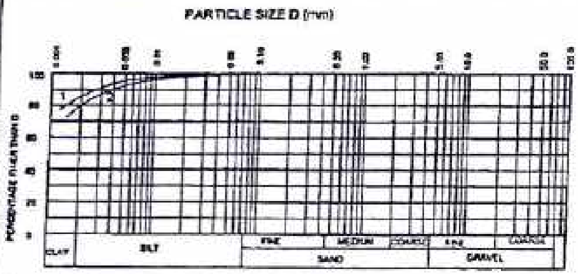
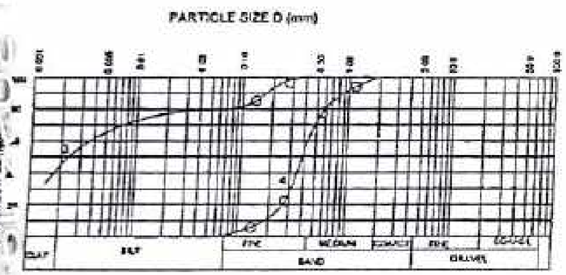
ANNEX I



ANNEX II

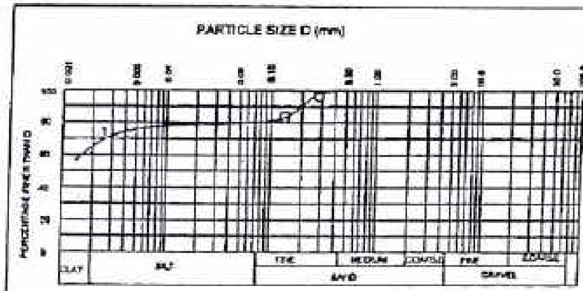


BORING	SAMPLE	CURVE	DESCRIPTION OF SOIL TYPE	DEPTH
BH1	U	1	CLAY some silt	2.00M
	U	2	CLAY some silt	3.50M

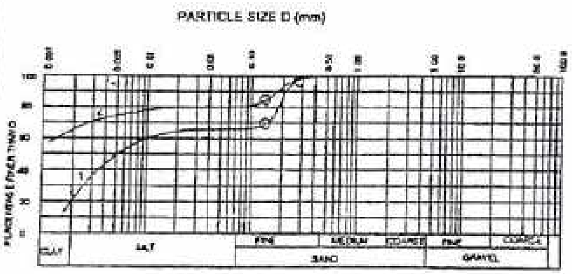


BORING	SAMPLE	CURVE	DESCRIPTION OF SOIL TYPE	DEPTH
BH1	U	3	silty CLAY some sand.	6.50M
	D	4	medium to fine SAND.	15.50M

PARTICLE SIZE DISTRIBUTION CURVES

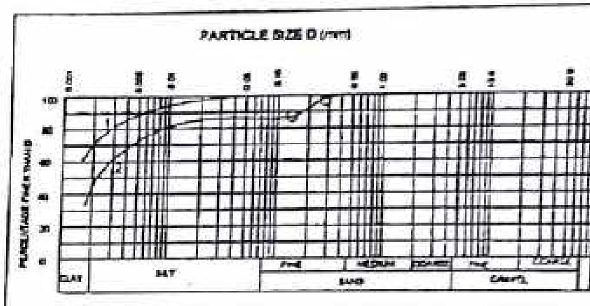


BORING	SAMPLE	CURVE	DESCRIPTION OF SOIL TYPE	DEPTH
BH2	U	1	CLAY some silt & sand.	8.00M

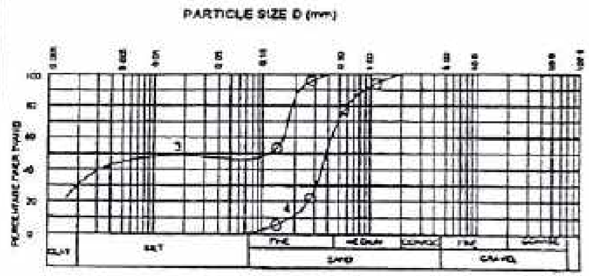


BORING	SAMPLE	CURVE	DESCRIPTION OF SOIL TYPE	DEPTH
BH4	U	1	sandy SILT some clay.	5.00M
	U	2	CLAY some silt & sand.	17.00M

PARTICLE SIZE DISTRIBUTION CURVES



BORING	SAMPLE	CURVE	DESCRIPTION OF SOIL TYPE	DEPTH
BH5	U	1	CLAY some silt	2.00M
	U	2	silty CLAY some sand	6.50M



BORING	SAMPLE	CURVE	DESCRIPTION OF SOIL TYPE	DEPTH
BH5	U	3	fine SAND some silt & clay	14.00M
	D	4	medium to fine SAND	15.50M

PARTICLE SIZE DISTRIBUTION CURVES

ANNEX III

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Depth of foundn(M)Df = 3.3

Soil paramoter

C=	0.49 kg/scm=	4.9 t/sqm	ysub (ton/m3) =	1.85
Ø=	6 , shear condition	Local		

Angle of shearing resistance for local failure = $\emptyset_m = \tan^{-1} 2/3 \tan\emptyset$

Ø	6	Bearing capacity factor		
Ø m	4	Nc	Nq	Nγ
		6.22	1.45	0.36

Width(B)M=	2	Length L =	2

Shape Factor

Sc= (square and circular)	1.3	Sq= (square and circular)	1.2	Sγ= (square)	0.8
				Sγ= (circular)	0.6
Sc = 1+ 0.2x B/L = (Rectangle)	1.2	Sq = 1+ 0.2x B/L = (Rectangle)	1.20	Sγ = 1- 0.4x B/L = (Rectangle)	0.6
Sc (to be adopted)=	1.3	Sq (to be adopted)=	1.2	Sγ (to be adopted)=	0.8

Depth Factor

dc=(1+0.2(Df/B)tan(45+Ø/2)
.= 1.35

dq=dγ=1+0.1(Df/B) tan(45+Ø/2) for Ø>10
1.18

dq=dγ=
1 for Ø<10

dq=dγ=(to be adopted)
1

Inclinination factor

ic=iq=iγ= (1 - α/90)
.= 1

Water table correction factor Rw = 0.5

F=Factor of safety =3

qd = {2/3x sc dc ic c Nc + sq dq iq γ D (Nq – 1) + 0.5sγ dγ iγ γ B Nγ Rw}
qs = 1/F {2/3x sc dc ic c Nc + sq dq iq γ D (Nq – 1) + sγ dγ iγ γ B Nγ Rw}

qd = 37.98

qsafe = 12.66 t/sqm say **12.7 t/sqm**

ANNEX IV

Depth = 3.0 m L=B= 2M

Here, H= 4 m
eo= 0.73
Gma= 1.85

Cc = 0.12
P_o = 9.805
Let us take allowable bearing capacity = 12.7 t/m 2
Δp = 7.62 t/m 2
S_f = 69

Depth correction factor = 0.66 For D=B

Therefore
Sfcorrected = SfxCorrection factor
46 <65 mm safe

Therefore Adopted allowable bearing capacity- 12.7 t/sqm

Depth of foundn(M)Df = 3.3

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oil parameter				
C=	0.49 kg/scm=	4.9 t/sqm	γsub (ton/m3) =	1.85
Ø=	6 , shear condition	Local		

Angle of shearing resistance for local failure = $Ø_m = \tan^{-1} 2/3 \tan Ø$

		Bearing capacity factor		
Ø	6	Nc	Nq	Nγ
Ø m	4	6.22	1.45	0.36

Width(B)M=	6	Length L =	6

Shape Factor

Sc=	1.3	Sq=	1.2	Sγ= (square)	0.8
(square and circular)		(square and circular)		Sγ= (circular)	0.6
Sc = 1+ 0.2x B/L = (Rectangle)	1.2	Sq = 1+ 0.2x B/L = (Rectangle)	1.20	Sγ = 1- 0.4x B/L = (Rectangle)	0.6
Sc (to be adopted)=	1.3	Sq (to be adopted)=	1.2	Sγ (to be adopted)=	0.8

Depth Factor

dc=(1+0.2(Df/B)tan(45+Ø/2)
.= 1.12

dq=dγ=1+0.1(Df/B) tan(45+Ø/2) for Ø>10
1.06

dq=dγ= 1 for Ø<10

dq=dγ=(to be adopted) 1

Inclinination factor

ic=iq=iγ= (1 - α/90)
.= 1

Water table correction factor Rw = 0.5

F=Factor of safety =3

qd = {2/3x sc dc ic c Nc + sq dq iq γ D (Nq – 1) + 0.5sγ dγ iγ γ B Nγ Rw}
qs = 1/F {2/3x sc dc ic c Nc + sq dq iq γ D (Nq – 1) + sγ dγ iγ γ B Nγ Rw}

qd = 32.26

qsafe = 10.75 t/sqm say 10.8 t/sqm

ANNEX VI

Let us consider bored cast in situ uniform dia. RCC pile resting on clay

df = length of pile from existing ground level = 16
L = pile cut-off level = 1.0 metre
D = stem diameter = 40cm/ 50cm /60cm

Soil data
Average cohesion Ca,
(1.0m to 9 m),Ca= 0.70 Kgf/ cm 2

Diameter of Pile 40 cm Length 16 m from EGL

Ap (cm2)	1256		
Nc	9		
Cp (Kgf/ cm 2)		0.97	
Aa (cm 2) = Ö/ 4 (D2u- D2)			0 cm2
C'a:(Kgf/ cm 2)		0	
α	0.5		
Ca (Kgf/ cm 2)		0.70	
As (cm 2) = surface area of the stem			188400 cm2

Qp = Ap Nc Cp + Aa Nc C'a
10.96 TON

Q_f = α Ca As 66.13

Qu= 77.09 ton
Safe load in compression Qsc= 30.8 ton
Safe load in Uplift Qsu= 22.0 ton

Diameter of Pile = 50 cm Length= 16 m from EGL

Ap	1962.5 cm2	
Nc	9	
Cp (Kgf/ cm 2)	0.97	
Aa (cm 2) = Ö/ 4 (D2u- D2)		0 CM2
C'a:(Kgf/ cm 2)	0	
α	0.5	
Ca (Kgf/ cm 2)	0.70	
As(cm 2) =surface area of the stem =		235500 cm2

Qp = Ap Nc Cp + Aa Nc C'a
= 17.13 Ton

α Ca As 82.66

Qu Qp+Qf = 99.79
Safe load in compression , Qs = 39.92 ton
Safe load in uplift Qus = 27.6 ton

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Diameter of Pile = 60 cm Length= 16 m from EGL

Ap		2826 cm2
Nc		9
Cp (Kgf/ cm 2)		0.97
Aa (cm 2)	= 3.14/ 4 (D2u- D2)	
C'a:(Kgf/ cm 2)		0 CM2
α		0
Ca (Kgf/ cm 2)		0.5
As(cm 2) =surface area of the stem =		0.70
		282600 cm2

Qp = Ap Nc Cp + Aa Nc C'a
= 24.67 Ton
α Ca As
99.19

Qu Qp+Qf =
Safe load in compression , Qs = 123.86
Safe load in uplift Qus = 49.55 ton
33.1 ton

118

ANNEX VII

Pile is designed as Pile resting in Sand

Here , cp(t/sqm)= 0 ca(t/sqm)= γ (ton/m^3) = 1.85

Nc= 33.33 Nq= 27.6 6.8 Ø^0 = 31

Diameter of pile D (cm)= 40 Ng= 27.52

Length of Pile below EGL(M) =14

Area of pile tip(sqm) = 0.1256

Circumferential area of pile stem in sand(sqm) = 1.884

Circumferential area of pile stem in Clay(sqm) = 11.304

Qp Ton)= 17.63 ton

Qf (Sand) = 15.91 ton

Qf (Clay) = 38.4336 ton

Qf=Qf (Sand)+Qf (Clay) = 54.35 ton

Qu=Qp+Qf = 71.97

Safe load in compression(Ton) Qcs = 28.79 ton
(FOS=2.5)

Safe load in uplift (ton) Qsu = 18.1 ton
(FOS=3.0)

Diameter of pile D (cm)= 50

Length of Pile below EGL(M) =14

Here , cp(t/sqm)= 0 ca(t/sqm)= γ(ton/m^3) = 1.85

Nc= 33.33 Nq= 27.6 6.8 Ø^0 = 31

Ng= 27.52

Area of pile tip(sqm) = 0.19625

Circumferential area of pile stem in sand(sqm) = 2.355

Circumferential area of pile stem in Clay(sqm) = 14.13

Qp Ton)= 34.43

Qf (Sand) = 19.89

Qf (Clay) = 48.04

Qf=Qf (Sand)+Qf (Clay) = 67.93

Qu=Qp+Qf = 102.36

Safe load in compression(Ton) Qs = 40.94

Safe load in uplift (ton) Qsu = 22.6
(FOS=3.0)

Diameter of pile D (cm)= 60

Length of Pile below EGL(M) =14

Here, cp(t/sqm)= 0 ca(t/sqm)= γ(ton/m^3) = 1.85

Nc= 33.33 Nq= 27.6 6.8 Ø^0 = 31

Ng= 27.52

Area of pile tip(sqm) = 0.2826

Circumferential area of pile stem in sand(sqm) = 2.826

Circumferential area of pile stem in Clay(sqm) = 16.956

Qp Ton)= 59.49

Qf (Sand) = 23.87

Qf (Clay) = 57.6504

Qf=Qf (Sand)+Qf (Clay) = 81.52

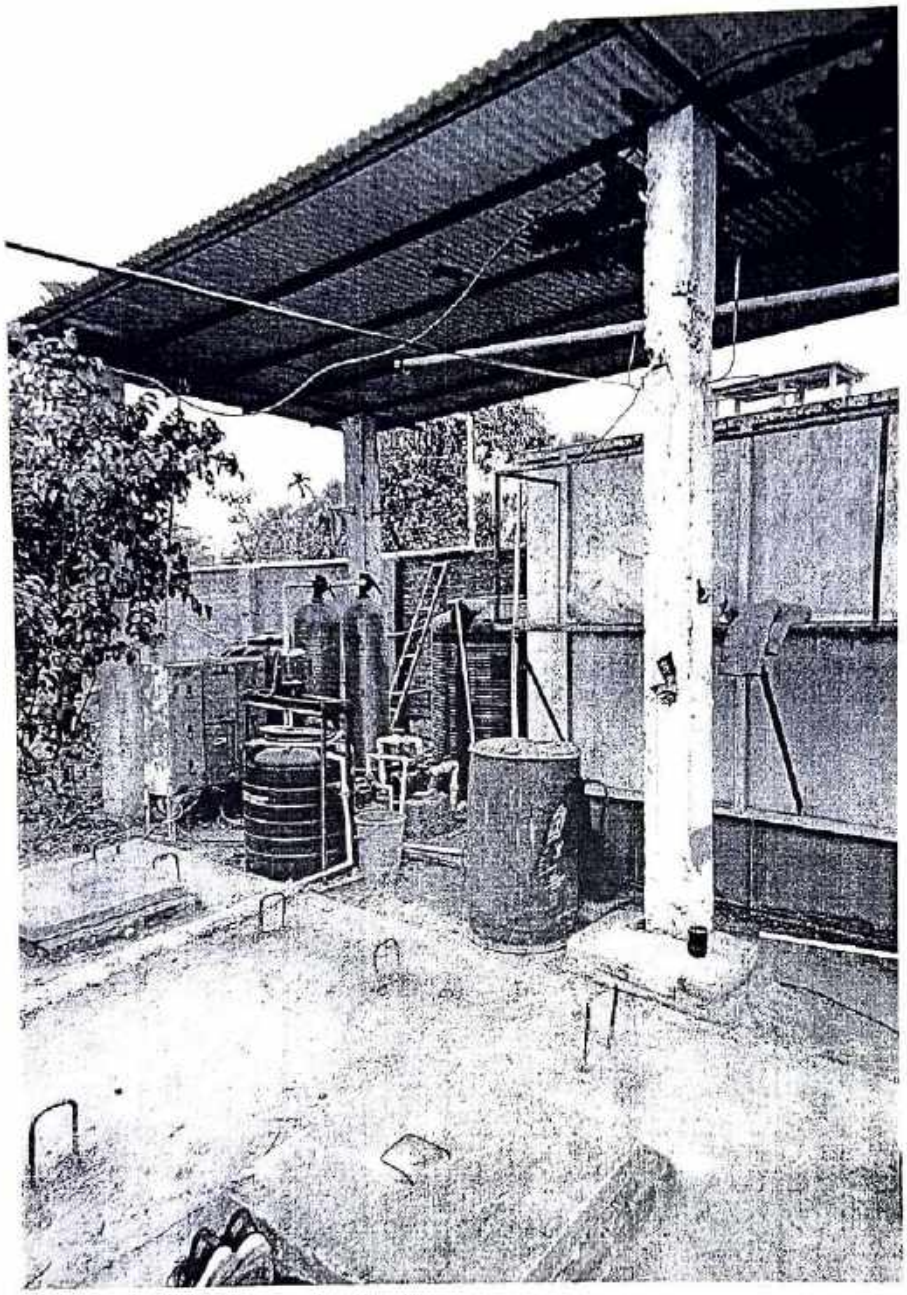
Qu=Qp+Qf = 141.01

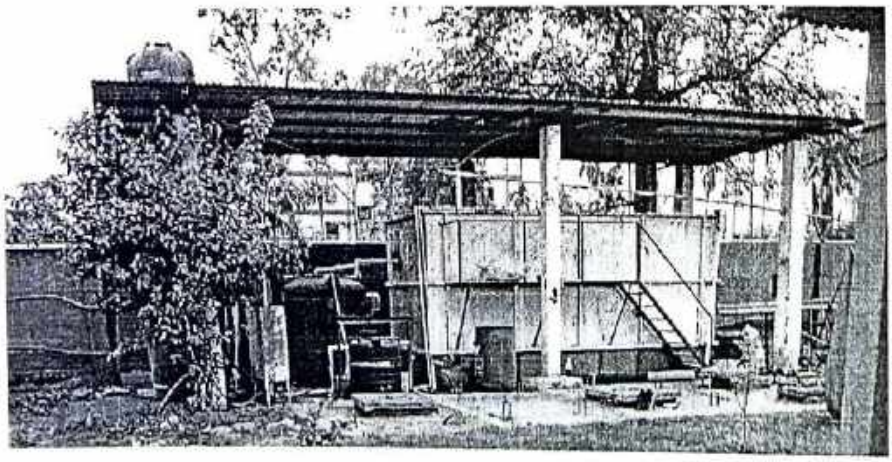
Safe load in compression(Ton) Qs = **56.40**

Safe load in uplift (ton) (FOS=3.0) Qsu = **27.2**

120

Photo of STP





122

Photo of STP

ANNEXURE - V

123 OFFICE OF THE CHAIRMAN 311

NORTH GUWAHATI MUNICIPAL BOARD

GUWAHATI - 30

Ref: NGMB/MISC./2021-22/2199

Date 06-09-2021

Minutes of the meeting held at club house at Arya Smart Living on 3rd September 2021
Regarding water logging problem.

A meeting in connection with the water logging problem at Abhaypur area was held at the Club House of Arya Smart Living, Abhaypur on 3rd September 2021. The meeting was convened by North Guwahati Municipal Board. The following persons were present in the meeting:

1. Sri Pranab Dutta Goswami, ACS, Additional Deputy Commissioner, Kamrup
2. Sri Debajit Sarma, Executive Engineer, North Guwahati Municipal Board
3. Sri Bharat Bhusan Sarma, Asstt. Executive Engineer, Water Resources Department
4. Sri Hirak Chanda, Asstt. Engineer, Water Resources Department
5. Sri Kailash Baishya, J.E. Jalukbari & Hajo Territorial Road Division
6. Sri Dipak Kumar Bezbaruah, Jalukbari & Hajo Territorial Road Division
7. Sri Mantu Ram Das, Water Resources Department
8. Sri Girin Changkakoti, North Guwahati Municipal Board
9. Sri Binod Boro, Lat Mandal, North Guwahati Revenue Circle
10. Sri Ram Krishna Pradhan, President, Arya Smart Living Group Housing Cooperative Society Ltd.
11. Sri Binode Chetia, Vice President, Arya Smart Living Group Housing Cooperative Society Ltd.
12. Sri Tapanjyoti Dutta, Secretary, Arya Smart Living Group Housing Cooperative Society Ltd.
13. Sri Krishna Kanta Ojah, Treasurer, Arya Smart Living Group Housing Cooperative Society Ltd.
14. Dr. Mantu Kumar Das, Arya Smart Living Group Housing Cooperative Society Ltd.
15. Dr. Imdadul Hussain, Arya Smart Living Group Housing Cooperative Society Ltd.

The meeting was presided over by Sri Pranab Dutta Goswami, ACS, Additional Deputy Commissioner, Kamrup.

At the very outset of the meeting, Mr. Ram Krishna Pradhan, President of Arya Smart Living Group Housing Cooperative Society Ltd. pointed out the overall problems at Arya Smart Living and surrounding areas due to water logging.

Mr. Debajit Sarma, Executive Engineer, NGMB and Mr. Girin Changkakati, UDA, NGMB represented the meeting as the counter part of convenor. Mr. Sarma was requested to explain about the situation and present scenario of this area. Accordingly he explained the vital points of the problem adhering the entire ULB area after newly demarcated area of 10 wards during the delimitation process. He revealed again and again to prepare a master plan for entire North Guwahati. He explained technically about the

(2)

topography of North Guwahati, major out lets to the river Brahmaputra along with sluice gate, preservation of the water body and inter connectivity of storm drainage with the major out lets. The points above, have been accepted by all the members present in the meeting.

After threadbare discussion the following points were noted for taking action/activities:

a) To check out the requirement of sluice gate at different exit points of the River Brahmaputra
b) Joint survey for gradient of various drains exist in Municipal Board area, During the alignment of PWD drain APDCL have to be involved under the legal advice of revenue dept.
c) A petition to be submitted to the Hon'ble MLA of jalukbari constituency by Arya Smart Living Group Housing Cooperative Society Ltd. on behalf of residents of Abhaypur and Silsako.
d) All the corrective measures have to be checked for involving a Govt. Scheme for the greater interest of public.
e) Digging of an exit channel from the swamp (around 4 bighas) to the nearest PWD drain.
f) Convergence of multiple departments like NGMB, PWD, WRD, Revenue etc. is very essential for joint survey.
g) For all tasks to be executed, NGMB will play a pivotal role or as a nodal agency within their jurisdiction.
h) A proposal to be initiated by NGMB and to submit it to the Deputy Commissioner, Kamrup who would then delegate tasks to other concerned departments.

The meeting ended with a vote of thanks from the chair.

Yours Faithfully

Executive Officer
North Guwahati Municipal Board
Guwahati-30

Memo No:- NGMB/MISC./2021-22/2199 (A) Dated:- 06-09-2021

Copy To:-

1. The Addl. Deputy Commissioner, (U.D.D), Kamrup, for favour of information and necessary action.
2. The Executive Engineer, PWD, Hajo and Jalukbari – Territorial Road Division, for favour of information and necessary action.
3. The Executive Engineer, Water Resource, Guwahati East Division, for favour of information and necessary action.
4. The President/ Secretary, Arya Smart Living, for information and necessary action.

Executive Officer
North Guwahati Municipal Board
Guwahati-30

EXECUTIVE OFFICER
NORTH GUWAHATI MUNICIPAL BOARD

ARYA ERECTORS
INDIA PRIVATE LIMITED

503, K.P. Enclave, Sahagpur, Rehabari,
Guwahati - 781008, Assam, India.
Tel: +919854076646, Fax: 0361-2608262
E-mail: aryaerectorsindia@gmail.com
Web:www.aryaerectorsindia.com

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Letter no. AEIPL/SEIAA/CH/1006/20230426/66 Dated: 26.04.2023

To,
The Chairman
State Environment Impact Assessment Authority (SEIAA)
Bamunimaidan, Guwahati 781021

Subject : Written statement in response to NGT original application no. 32/2023/EZ

Ref : Your letter dated 3431/2023/8 dated 24.04.2023

Dear Sir,

From the order dated 24.03.2023 passed by the National Green Tribunal (NGT), Kolkata Bench, we came to learn that Original Application no. 32/2023/EZ was filed on 24.03.2023 before the Honourable NGT by Dr. Ganesh Chandra Das, Dr. Mrimnoy Borkakoti, Sh. Brojen Dutta, Sh. Sanjay Baruah and Sh. Padum Deori against M/S Arya Erectors India Pvt. Ltd, SEIAA, MOEF, GMDA, NGMB, RGP and PCB. The Hon'ble NGT, without issuing any notice was pleased to dispose of the said OA by making certain directions. We are issuing this letter without prejudice to our contention that OA is barred by time and the NGT lacked the inherent jurisdiction to issue the said directions and we reserve our right to avail our legal remedies against the same. However, we are submitting the present written statement to bring out the facts of the case and out of our respect and goodwill for your Honour. Our statements and submission are as follows: -

1. That, as per the NGT order dated 24.03.2023, the honourable SEIAA needs to consider and decide the two representations of the applicants dated 06.07.2022 and 20.10.2022 marked as Annexures N & O in the Original Application and also the grievances raised in paragraph-9 and its sub paragraphs of the Original Application.

2. In this context we would like to humbly state that the contents of all the three documents are exactly the same, barring one additional point of rain water harvesting in Annexure N of the Original Application. And hence, in this written

24/4/23

statement, we will be dealing with all the issues individually rather dealing with them separately, document wise.

3. That, Annexure N dated 06.07.2022 is signed by Dr. Ganesh Chandra Das and Sh. Padum Deori. It needs to be noted here that neither of the two complainants have signed the registered sale deeds of their villas till date.

4. That, Annexure O dated 20.10.2022, signed by Dr. Mrinmoy Borkakoti and 3 others contains the same complaints mentioned in the Annexure N submitted earlier. The interesting point to note here is that Annexure O also contains the signature of Dr. Ganesh Das, although he is not a signatory of the same. This clearly shows that Dr. Ganesh Das has influenced the rest of the complainants to file this complaint, and the same is just an extension of his complaint filed earlier.

5. That, with respect to complaint no. 1 of Annexure N regarding absence of proper storm water drainage, we would like to state that,

a. Contour study for the site has been done by Precision Surveying Co., Rajgarh, Guwahati and has been approved by GMDA on 27.06.2013. External storm drain is clearly mentioned in the Service plan submitted to and subsequently approved by GMDA on 27.06.2013. The Contour plan has already been submitted to your kind office earlier.

b. Water logging problem is present in the entire area of Abhaypur, North Guwahati, where the project Arya Smart Living is located. The said problem started only after the construction of the PWD road and drains. PWD road work started on 18.08.2017 and completed on 27.07.2020, much later than the ASL project completion date. Evidence of the same through Google Earth Photos dated before Project initiation and after project completion & old Site Photographs along with the PWD Project Completion Report has already been submitted to your kind office earlier.

c. Main issue of waterlogging is that the bed level of the PWD Drains were wrongly and unscientifically constructed higher than the bed level of main outlet-drain of the project Arya Smart Living. Also, the gradient of the PWD drain is inverse on both sides creating a valley in front of ASL Gate. In order to solve the problem of water-logging, the resident's society

had requested IIT-Guwahati team to undertake a survey to suggest solutions for resolving the issue on 01.03.2022. IIT-G replied their acceptance on 4.03.2022. The T&C of the survey proposal was agreed upon by society on 24th March'22. In the final report from IIT, Section 4 (Findings, Possible Solutions and recommendations), sub sections 4.2.1, and sub-sub-sections 4.2.1.1 & 4.2.1.2 clearly indicate that the capacity of the right and left drains are sufficient. The complainants were part of the internal committee appointed for co-ordination with the IIT team, but none actually participated during the actual work was in progress. The IIT report has already been submitted to your good office earlier.

d. There was a natural waterway before the PWD road and drains were constructed. The culverts through which the drain water used to flow earlier has been totally blocked by earth filling done by local residents, and hence with no way out, the water keeps circulating between two culverts located some distance apart on either side of the project. Photographs of the culverts in their present condition is being attached as **Annexure 1.**

e. Multiple representations made by AEIPL to PWD & Water resources Depts. seeking help and solutions for the same. Multiple inspections done by these departments at the site and some effort from the administration is also underway for resolving this issue. Copies of the letters sent is being attached as **Annexure no. 2.**

f. A meeting in connection with the water logging problem at Abhaypur area, convened by North Guwahati Municipal Board, was held at Clubhouse of Arya Smart Living, on 06.09.2021 which included apart from the Society members,

i. the Additional Deputy Commissioner, Kamrup, Executive Engineer
ii. Executive Engineer, North Guwahati Municipal Board
iii. Executive Engineer, Water Resources Department
iv. Asst. Engineer, Water Resources Department
v. J.E. Jalukbari & Hajo Territorial Road Division
vi. Representatives of North Guwahati Municipal Board
vii. Representatives of North Guwahati Revenue Board

The recorded minutes of meeting is circulated by the Executive Officer North Guwahat Municipal Board is attached as **Annexure 3**. The minutes clearly indicate the acknowledgement of the issue of water logging and the necessity of immediate measures that need to be taken by different Government agencies in this regard.

6. That in response to complaint no. 2 of Annexure N, pertaining to the separation of grey and black water, we would like to state that,

a. Dual Plumbing system has been implemented in the public toilets.

b. Treated water from STP is being reused for Gardening (Approx. 9000 Sqm). Multiple outlet points in different area installed to cover entire landscaping. This is utilized for horticultural requirements.

c. Treated Water from STP is also used in public toilets flushing and the cascading waterfall at the main entrance gate.

7. That in response to complaint no. 3 of Annexure N pertaining to the installation of Sewage Treatment Plant (STP) being certified by an independent expert and report in this regard should be submitted to the SEIAA before the project is commissioned for operating etc., we would like to state that the statements made in the complaint are misleading and malicious, intended towards creating a negative image in the mind of the honourable authority.

a. The design and supply of materials for STP is done by Fresh Air Waste Management Services Pvt. Ltd., A.T. Road, Bharalumukh, Guwahati and the installation and certification has been done by Forcetech Engineering, AT Road, Bharalumukh, Guwahati. Both are independent agencies expert in this field of work. Copies of the same are enclosed as **Annexure 4.**

b. The Project Completion report for Arya Smart Living has been submitted to GMDA on July-2018 with all documents. The complaint is misleading and untrue. **The GMDA has, on the other hand, issued notice to all complainants, along with few other residents, to demolish unauthorised constructions made in their respective villas.** Copies of the orders are enclosed as **Annexure 5.**

c. 6 monthly compliance reports have been submitted till Jun 2019. We admit that there has been a delay in our submission of the same due to ignorance on our part, which has been rectified in 2022. We have now submitted all the periodic compliances till the Project completion date. The Project has been completed in July 2018 and thereafter no construction has been carried out except for what was required by the GMDA for rectification of certain deviations. The common areas have been handed over to the society vide a notarised agreement on 08.04.2019.

8. That, in response to complaint no. 4 pertaining to the peripheral green belt of 3 mts width all around the campus, we would like to state that the statements made in the complaint are again not true.

a. Green belt area maintained all around the campus with the only exception of two corners that too only at the at the vertex points.

b. Total Green area in the project is approximately 9000 sqm, much more that the area proposed (i.e., 7486 qm). No. of trees of indigenous variety planted within the campus exceeds 500, and including of hedges and shrubs, the same would be exceeding 900. (Attached file)

9. That, in response to point no. 5 of Annexure N pertaining to rain water harvesting, we would like to state that

a. Ground water level at the campus is very high as evident from the soil testing report done by Reliant Foundations Pvt. Ltd. of Panjabari Road, Sixmile, Guwahati and completed on 30.04.2012. A copy of the same has been submitted to you earlier.

b. A huge low-lying area adjacent and outside the project on the northern side also exists, which also serves as a huge natural reservoir of rain water, and ground water recharge.

c. For collection of roof run-off and surface run-off rain water, multiple tanks of 5000 ltrs. capacity have been installed around the campus. The collected water is used for gardening, car washing and other utility purposes.

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10. That, in response to complaint no. 6 of Annexure N pertaining to traffic congestion and width of the roads, we would like to state that in our humble understanding the question of alleged traffic congestion is beyond the purview of the NGT or this Hon'ble Authority inasmuch as, the same is not an issue pertaining to environment or pollution. Without prejudice to the above, we would like to state that:

a. There is no congestion of traffic near the entry and exit points from the roads adjoining the project.

b. The main entry road to the project is almost 11 m wide, opening up to a much wider open space before the main gate. Beyond the main gate there are two roads – the road coming inside from the main road is 14 m wide and the road moving towards the left is 12 m wide. The internal roads are all as per GMDA approved sanctioned plans.

c. One parking area has been designed in every Villa, for a standard sized car, and the same is approved by GMDA.

11. That, with respect to complaint no. 7 of Annexure N pertaining to the energy conservation measures, we would like to state that

a. 6 monthly compliance reports have been submitted till Jun 2019. All street lights in the campus are solar-powered.

b. Sufficient use of glass is done in all the villas.

c. All window panes which were installed by us are of aluminium. However, one of the complainants' viz. Dr. Ganesh Das has replaced / installed wooden window panes and has done significant interior wood-work in his villa, which this Hon'ble Authority may be pleased to look into.

d. Project has been completed in July 2018 and handed over to the society vide a notarised agreement on 08.04.2019.

12. That, neither of the two complainants of the letter dated 06.07.2022, mentioned as annexure N, namely Dr. Ganesh Chandra Das and Mr. Padum Deori have executed their respective sale deeds for their villas. Dr. Ganesh Das is possessing the house without executing a sale deed and on that ground has claimed compensation

against Arya Erectors. He has also done unauthorised constructions in his villa, for which GMDA has issued directions to him to demolish all such unauthorised constructions, vide letter GMDA/UC/17/2023/78 dated 10.02.2023.

13. That, on the other hand, Mr. Padum Deori has also filed cases against us and his case is pending before the Hon'ble Gauhati High Court and there is a stay order operating in our favour. The other complainants are also having pending case against us before the RERA. All these persons are trying to make illegal gain by claiming compensation and payment of such compensation having being stayed, they are trying by all means possible to make illegal gain and the complaint before the NGT is one such attempt.

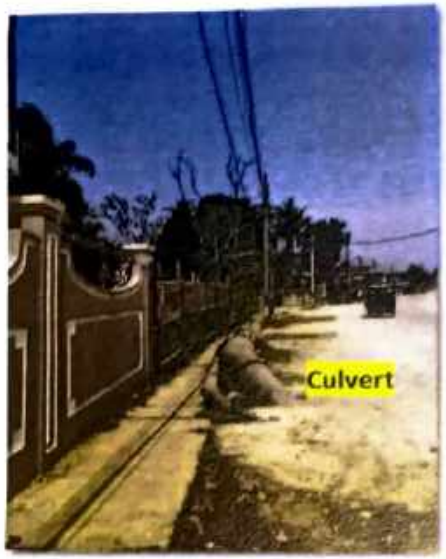
14. As per Section 14 (3) of The National Green Tribunal Act, 2010, *"No application for adjudication of dispute under this section shall be entertained by the tribunal unless it is made within a period of six months from the date on which the cause of action for such dispute first arose"*. As such, going by the aforesaid section, this complaint cannot be entertained as it has crossed the limitation of time.

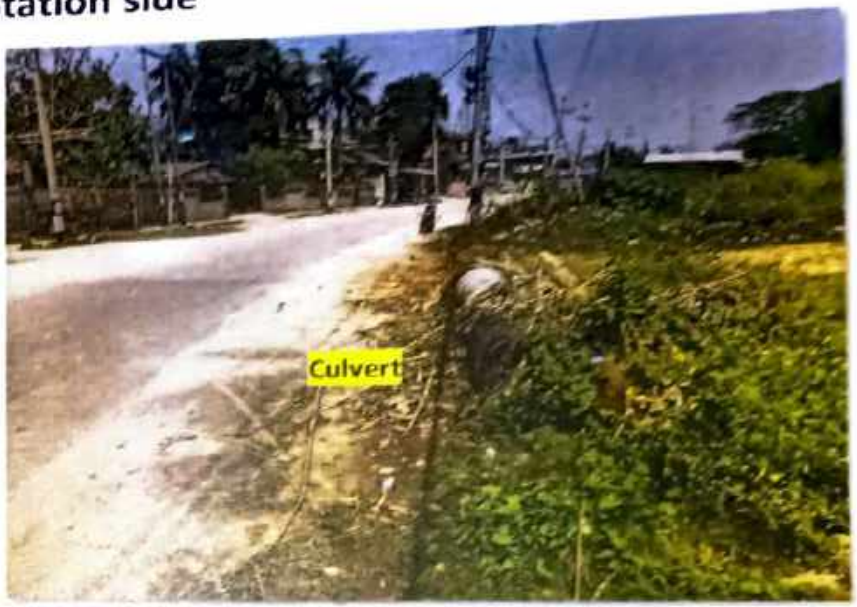
15. That, the project Arya Smart Living is the first project of the company and all attempts have been made to ensure compliance on all fronts, and any point/ parameter missed or delayed is out of ignorance and not deliberate.

Thanking You,

(Shri Anil Kumar Sarma)
Managing Director
M/s. Arya Erectors (India) Pvt. Ltd.

Culvert towards Police Station side





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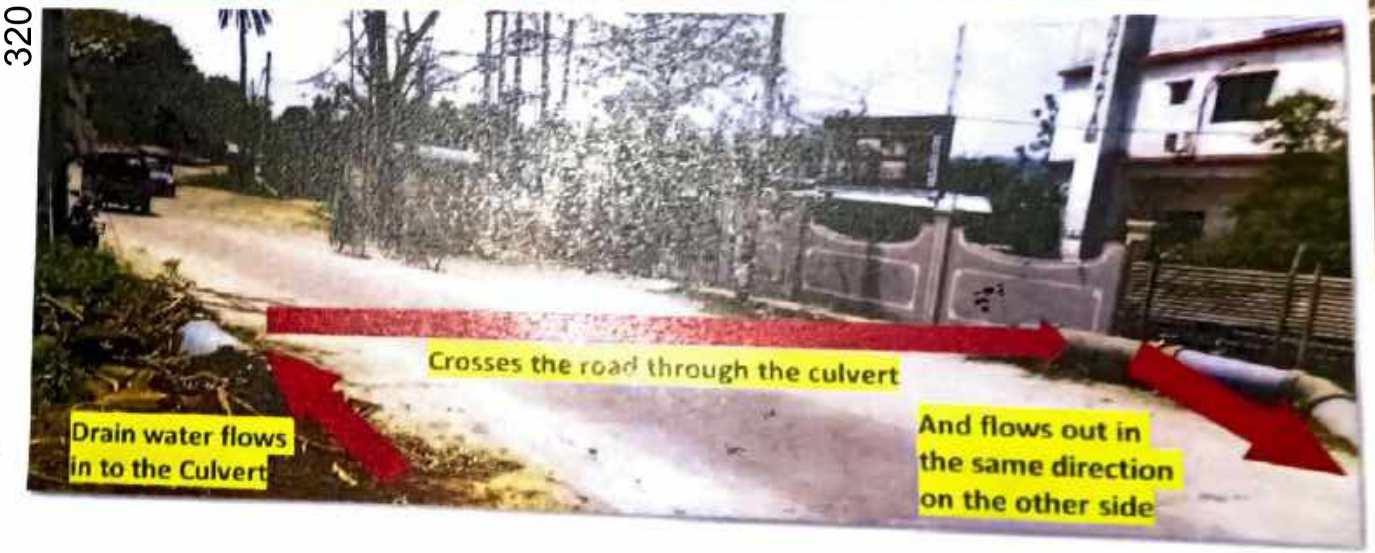
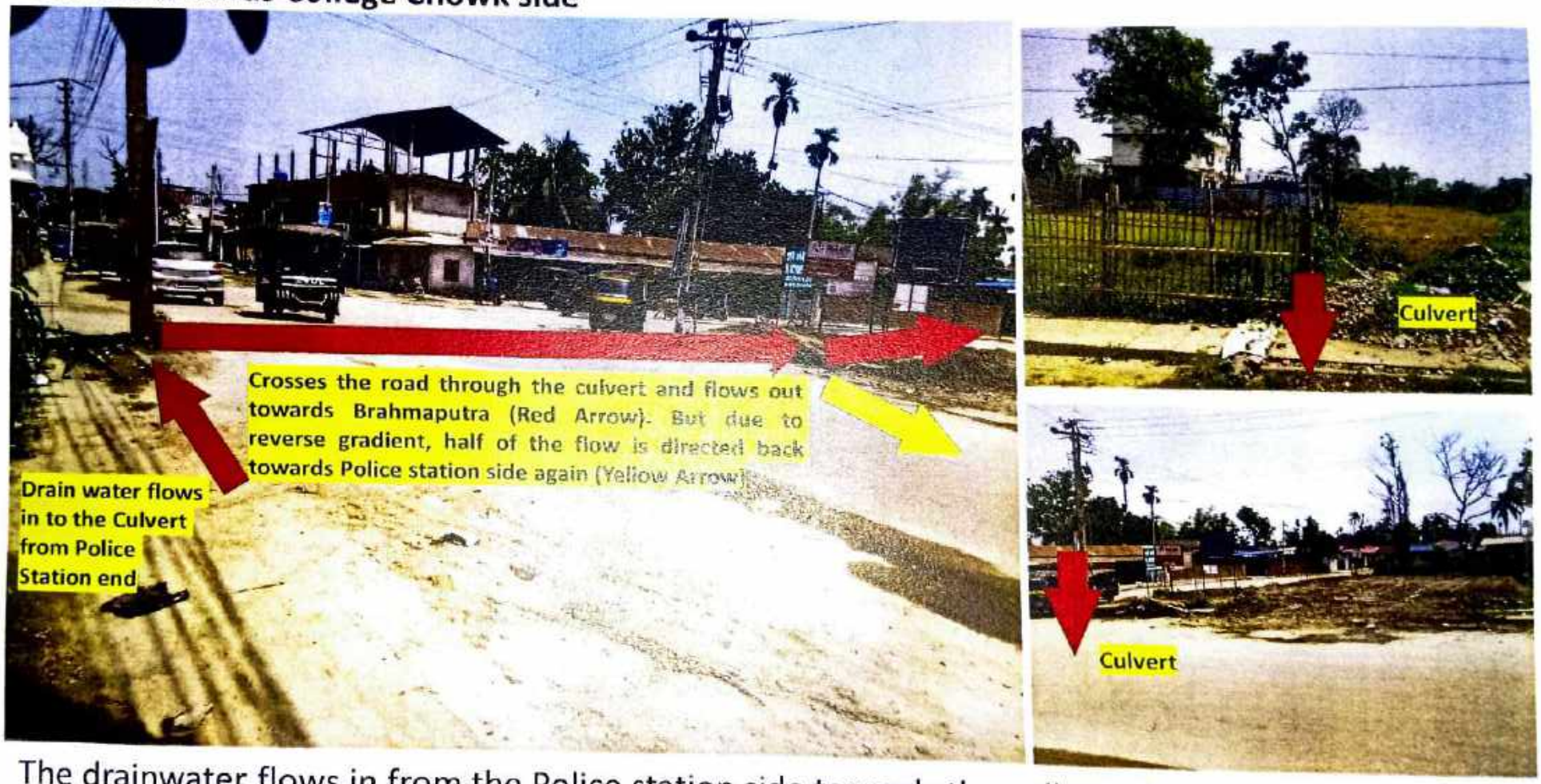


The natural waterway that flowed towards both sides of the culvert is now completely blocked.

Culvert towards College Chowk side



321

The drainwater flows in from the Police station side towards the college chowk, reaches the culvert, crosses the road and

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ARYA ERECTORS
INDIA PRIVATE LIMITED
CIN : U70101AS2010PTC010190

Arya Erectors India Pvt. Ltd.
House No.123, 'Arya Smart Living'
Abhoypur, North Guwahati Pin: 781031
Tel : +91 98596 66501
E-mail : aryaerectorsindia@gmail.com
Web : www.aryaerectorsindia.com

Letter No. AEIPL/PWD/EE/01/20221101/145/19

Dated: 03-Nov-2022

To

The Executive Engineer,
Water Resources Department
Ulubari , Guwahati

Subject: Issue of rain water logging problem at Arya Smart Living Complex, Abhoypur, North Guwahati, Assam

Sir,

This letter is to highlight you the severe problems faced due to rain water logging by the residents of 'Arya Smart Living' housing project at Abhoypur, near the North Guwahati Police Station, North Guwahati, Kamrup, Assam.

We would like to bring to your immediate notice that our project 'Arya Smart Living' was started in the year 2014 and was completed in the year 2018, post which the residents had started to occupy their villas. At that time there was no issue of water logging within the campus as all the rain water used to drain out from the campus via one big drain that was connected to the natural waterway at the front of the campus and by the side of the Amingaon-Doul Gobinda Road.

However, sometime in 2017-18 the construction of the PWD road, Amingaon-Doul Gobinda Road vide work order no. CE/DEV/RIDF/226/2016-17/15 dt. 18.08.2017 was started along with drain in both side of the road. The level of the drain was constructed approximately 6-8 inches higher than the level of the campus drain, leading to retention of water in the internal campus drain. Moreover, the gradient of the PWD drain in front of the Arya Smart Living complex is faulty, undulated and also gradient was not maintained properly during construction. Because of which it leads to rain water logging problem in the entire area between College Road and North Guwahati Police Station, and more specifically in the main entrance of the 'Arya Smart Living Housing Complex'. A recent study made and published by the Civil Engg. Dept of Indian Institute of Technology Guwahati on request from "Arya Smart Living Group Housing Co-operative Society Ltd." has revealed these faults of the

roads cum drain construction works by the APWD and is specifically mentioned in the report.

I am attaching the Final Report published by the Civil Engineering Department of IITG for reference and perusal, wherein it is clearly mentioned in the findings of the study (Section 4 – Pages 20 to 22) the drain level, the inverse gradient and the blockages of the PWD drain ***(enclosed as Annexure 1).*** Also attached are some photographs of the water logged areas both inside and outside the campus so that you can get an accurate picture of the same. ***(enclosed as Annexure 2)***

We request your help & technical advice in finding out a solution to this issue, which is affecting not only residents of Arya Smart Living, but also all the residents in entire Abhoypur area. We earnestly look forward to your expert guidance and help in finding a solution.

Regards,

(Anil Kumar Sarma)
Managing Director
Arya Erectors India Pvt. Ltd.

Enclosures:

(1)Annexure 1: Final Report of the Technical Study conducted by IITG with respect to the water logging at Arya Smart Living campus, submitted in May'2022

(2)Annexure 2: Photographs of water logged areas both inside and outside the Arya Smart Living Campus, Abhoypur, North Guwahati

Copy to:

1. The Chief Engineer, Water Resources Department, Assam Water Centre, Basistha, Guwahati-781029; for favour of kind perusal and necessary action.
2. The Secretary, Arya Smart Living Group Housing Co-operative Society Ltd, Arya Smart Living, Abhoypur, North Guwahati, Guwahati 781031

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ARYA ERECTORS
INDIA PRIVATE LIMITED
CIN : U70101AS2010PTC010190

Arya Erectors India Pvt. Ltd.
House No.123, 'Arya Smart Living'
Abhoypur, North Guwahati Pin: 78103
Tel : +91 98596 66501
E-mail : aryaerectorsindia@gmail.com
Web : www.aryaerectorsindia.com

To
The Executive Engineer,
Water Resources Department, Ulubari, Guwahati

Dated: 08.12.2022

Letter No. AEIPL/PWD/EE/145/20221208/30

Subject: Follow up letter for issue of water logging problem at Arya Smart Living Complex, Abhoypur, North Guwahati, Assam

Ref : Our letter no. AEIPL/PWD/EE/01/20221101/145/19 addressed to you dt. 03.11.2022

Sir,

With reference to our letter to you dated 02.11.2022, I would like to request you again for your kind assistance in finding out a solution to the severe issue of waterlogging, which is affecting not only residents of Arya Smart Living, Abhoypur, North Guwahati, Assam but also all the residents in entire Abhoypur area.

As the severity of the issue is very hight during the rainy season, it will be for the benefit of all concerned that the solution is implemented during the dry seasons before the rains start. We earnestly look forward to your expert guidance and help in finding a solution.

Regards,

Mr. Anil Kumar Sarma
Managing Director
Arya Erectors India Pvt. Ltd.

Copy to:

1. The Chief Engineer, Water Resources Department, Basistha, Guwahati-781029
2. The Secretary, Arya Smart Living Group Housing Co-operative Society Ltd,

Annexure 1: Our letter to you dated 03.11.2022

ANNEXURE - 2

OFFICE OF THE CHAIRMAN
NORTH GUWAHATI MUNICIPAL BOARD
GUWAHATI - 30

Ref: ....NGMB/MISC./2021-22/2199 Date 06-09-2021

Minutes of the meeting held at club house at Arya Smart Living on 3rd September 2021 Regarding water logging problem.

A meeting in connection with the water logging problem at Abhaypur area was held at the Club House of Arya Smart Living, Abhaypur on 3rd September 2021. The meeting was convened by North Guwahati Municipal Board. The following persons were present in the meeting:

1. Sri Pranab Dutta Goswami, ACS, Additional Deputy Commissioner, Kamrup
2. Sri Debajit Sarma, Executive Engineer, North Guwahati Municipal Board
3. Sri Bharat Bhusan Sarma, Asstt. Executive Engineer, Water Resources Department
4. Sri Hirak Chanda, Asstt. Engineer, Water Resources Department
5. Sri Kailash Baishya, J.E. Jalukbari & Hajo Territorial Road Division
6. Sri Dipak Kumar Bezbaruah, Jalukbari & Hajo Territorial Road Division
7. Sri Mantu Ram Das, Water Resources Department
8. Sri Girin Changkakoti, North Guwahati Municipal Board
9. Sri Binod Boro, Lat Mandal, North Guwahati Revenue Circle
10. Sri Ram Krishna Pradhan, President, Arya Smart Living Group Housing Cooperative Society Ltd.
11. Sri Binode Chetia, Vice President, Arya Smart Living Group Housing Cooperative Society Ltd.
12. Sri Tapanjyoti Dutta, Secretary, Arya Smart Living Group Housing Cooperative Society Ltd.
13. Sri Krishna Kanta Ojah, Treasurer, Arya Smart Living Group Housing Cooperative Society Ltd.
14. Dr. Mantu Kumar Das, Arya Smart Living Group Housing Cooperative Society Ltd.
15. Dr. Imdadul Hussain, Arya Smart Living Group Housing Cooperative Society Ltd.

The meeting was presided over by Sri Pranab Dutta Goswami, ACS, Additional Deputy Commissioner, Kamrup.

At the very outset of the meeting, Mr. Ram Krishna Pradhan, President of Arya Smart Living Group Housing Cooperative Society Ltd. pointed out the overall problems at Arya Smart Living and surrounding areas due to water logging.

Mr. Debajit Sarma, Executive Engineer, NGMB and Mr. Girin Changkakati, UDA, NGMB represented the meeting as the counter part of convenor. Mr. Sarma was requested to explain about the situation and present scenario of this area. Accordingly he explained the vital points of the problem adhering the entire ULB area after newly demarcated area of 10 wards during the delimitation process. He revealed again and again to prepare a master plan for entire North Guwahati. He explained technically about the

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(2)

topography of North Guwahati, major out lets to the river Brahmaputra along with sluice gate, preservation of the water body and inter connectivity of storm drainage with the major out lets. The points above, have been accepted by all the members present in the meeting.

After threadbare discussion the following points were noted for taking action/activities:

a) To check out the requirement of sluice gate at different exit points of the River Brahmaputra
b) Joint survey for gradient of various drains exist in Municipal Board area, During the alignment of PWD drain APDCL have to be involved under the legal advice of revenue dept.
c) A petition to be submitted to the Hon'ble MLA of Jalukbari constituency by Arya Smart Living Group Housing Cooperative Society Ltd. on behalf of residents of Abhaypur and Silsako.
d) All the corrective measures have to be checked for involving a Govt. Scheme for the greater interest of public.
e) Digging of an exit channel from the swamp (around 4 bighas) to the nearest PWD drain.
f) Convergence of multiple departments like NGMB, PWD, WRD, Revenue etc. is very essential for joint survey.
g) For all tasks to be executed, NGMB will play a pivotal role or as a nodal agency within their jurisdiction.
h) A proposal to be initiated by NGMB and to submit it to the Deputy Commissioner, Kamrup who would then delegate tasks to other concerned departments.

The meeting ended with a vote of thanks from the chair.

Yours Faithfully

Executive Officer
North Guwahati Municipal Board
Guwahati-30

Memo No:- NGMB/MISC./2021-22/2199 (A) Dated:- 06-09-2021

Copy To:-

1. The Addl. Deputy Commissioner, (U.D.D), Kamrup, for favour of information and necessary action.
2. The Executive Engineer, PWD, Hajo and Jalukbari – Territorial Road Division, for favour of information and necessary action.
3. The Executive Engineer, Water Resource, Guwahati East Division, for favour of information and necessary action.
4. The President/ Secretary, Arya Smart Living, for information and necessary action.

Executive Officer
North Guwahati Municipal Board
Guwahati-30

EXECUTIVE OFFICER
NORTH GUWAHATI MUNICIPAL BOARD

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FORCE

3rd Party Inspection Report :

Type of Equipment : STP (Sewage Treatment Plant)

Inspected at : ARYA SMART LIVING
Abhaypur, North Guwahati 781030

Date of Inspection : 15.11.2018

Physical Verification :

Sl No	Item	Remark
1	Flow Diagram	Found OK
2	Pumps & Motors	OK
3	Tanks & Pipes	OK
4	Electrical Equipment	OK

Chemical Verification :

Sl No.	Item	Remark
1	Bacteriological Consumables	Applied Name : EM Solution
2	Disinfectant	Sodium Hypochlorite
3	Treated sample test at PCBA Authorized Laboratory	Report Found OK

Operational Verification :

The STP was run continuously for 8 hours and found to functioning properly.

Inspection done by

FORCETECH ENGINEERING GUWAHATI

Dhrubajyoti Deka

Authorised Signatory

Kolkata, West Bengal Dec 11, 2023, 19:31

OFFICE OF THE GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY
STATFED BUILDING, BHANGAGARH, GUWAHATI-781005

Website: www.gmda.assam.gov.in
E-mail: ceogmdaghy@gmail.com
Tel: 0361-2529650
0361-2529824
Fax: 0361-2529991

NO. GMDA/UC/17/2023/78 Dated 10-02.2023

From : Kausar J. Hilaly, ACS
Chief Executive Officer
Guwahati Metropolitan Development Authority
Bhangagarh – 5

To : Sri Anil Kr Sarma, Managing Director
M/S Arya Erectors India (P) Ltd.
503, KP Enclave, Suhagpur, Rehabari,
Guwahati – 781008

2. Dr Ganesh Ch Das & Mrs Sumana Das
Villa No-A-6, Arya Smart Living, Abhaypur, North Guwahati,
Guwahati-781030.

Sub: Show Cause Notice issued under Section 87 & 88 of Guwahati Metropolitan Development Authority Act, 1985.

Whereas you have purchased/ occupied or carried out development of building villa No A- 6 and land within the Guwahati Metropolitan Area covered by the Master Plan and Zoning Regulation, in the manner and at the place as specified in schedule below, in deviation of the sanctioned plan issued vide NOC No. GMDA/BP/2214/26112012/156 dated Guwahati 25.06.2013 of GMDA and thereby contravened the provision of Section 24 & 25 of the GMDA Act, 1985.

Whereas it appeared from field visit and detailed report submitted by the builder, the existing construction is carried out in deviation from earlier approved plan as mentioned below.

Now, therefore, you are hereby directed as per Section 87 of the GMDA to stop forthwith the unapproved construction and show cause to the undersigned within 10 (Ten) days of receiving this notice, why the approved building should not be demolished under Section 88 (1) or seal the premises of unauthorized erection or work in which such work is being carried out or completed under Section 88(4).

Your reply must reach this office within 10 (Ten) days of service of this notice failing which GMDA will free to go ahead with demolition of unapproved building construction or seal the premises.

Manner of Development/Construction:

1. A water tank constructed over the headroom.
2. Front balcony roof RCC slab extended
3. M.S. & wooden structure constructed on terrace and balcony over the garage.

Place of development / Construction:
Villa No-A-6, Arya Smart Living, Abhaypur, North Guwahati, Dist: Kamrup, Guwahati-781030.

Yours faithfully,

(Kausar J. Hilaly, ACS)
Chief Executive Officer
Guwahati Metropolitan Dev. Authority
Bhangagarh, Guwahati -5

Chief Executive Officer
Guwahati Metropolitan Dev. Authority
Dated: 10/2/2023

Memo No. GMDA/UC/17/2023/78 -A
Copy to:
1. The Secretary, RERA, for information and necessary action.
2. The President, Arya Smart Living Group Housing Co-operative Society. Arya Smart living, Abhaypur, North Guwahati, Mouza Silasinduri Ghopa, Dist: Kamrup Assam, for information and necessary action
3. Office file.

Chief Executive Officer
Guwahati Metroloitan Dev. Authority
Bhangagarh: Guwahati-5

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OFFICE OF THE GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY
STATFED BUILDING, BHANGAGARH, GUWAHATI-781005
Tel: 0361-2529650, 0361-2529824
Fax: 0361-2529991
Website: www.gmda.assam.gov.in
E-mail: ceogmdaghy@gmail.com

NO. GMDA/UC/17/2023/90 Dated :20.02.2023

From : Kausar J. Hilaly, ACS
Chief Executive Officer
Guwahati Metropolitan Development Authority
Bhangagarh – 5

To : 1. Sri Anil Kr Sarma, Managing Director
M/S Arya Erectors India (P) Ltd.
503, KP Enclave, Suhagpur, Rehabari,
Guwahati – 781008

2. Mr Brojen Dutta & Mrs Rashmi Dutta
Villa No- D 22, Arya Smart Living, Abhaypur, North Guwahati,
Guwahati-781030.

Sub: Show Cause Notice issued under Section 87 & 88 of Guwahati Metropolitan Development Authority Act, 1985.

Whereas you have purchased/ occupied or carried out development of building villa No D 22 and land within the Guwahati Metropolitan Area covered by the Master Plan and Zoning Regulation, in the manner and at the place as specified in schedule below, in deviation of the sanctioned plan issued vide NOC No. GMDA/BP/2214/26112012/156 dated Guwahati 25.06.2013 of GMDA and thereby contravened the provision of Section 24 & 25 of the GMDA Act, 1985.

Whereas it appeared from field visit and detailed report submitted by the builder, the existing construction is carried out in deviation from earlier approved plan as mentioned below.

Now, therefore, you are hereby directed as per Section 87 of the GMDA to stop forthwith the unapproved construction and show cause to the undersigned within 10 (Ten) days of receiving this notice, why the approved building should not be demolished under Section 88 (1) or seal the premises of unauthorized erection or work in which such work is being carried out or completed under Section 88(4).

Your reply must reach this office within 10 (Ten) days of service of this notice failing which GMDA will free to go ahead with demolition of unapproved building construction or seal the premises.

Manner of Development/Construction:

1. Construction of second floor with MS structure.
2. Mezzanine area covered with MS structure.
3. Parking area blocked by making steps.
4. Back side wash area ie gap between two buildings covered with MS Structure.

Place of development / Construction:
Villa No- D 22, Arya Smart Living, Abhaypur, North Guwahati, Dist: Kamrup, Guwahati-781030.

Yours faithfully,

(Kausar J. Hilaly, ACS)
Chief Executive Officer
Guwahati Metropolitan Dev. Authority
Bhangagarh, Guwahati -5
Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Memo No. GMDA/UC/17/2023/90 -A Dated:20.02.2023
Copy to:
1. The Secretary, RERA, for information and necessary action.
2. The President, Arya Smart Living Group Housing Co-operative Society, Arya Smart living, Abhaypur, North Guwahati, Mouza Silasinduri Ghopa, Dist: Kamrup Assam, for information and necessary action.
3. Office file.

Chief Executive Officer
Guwahati Metropolitan Dev. Authority

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OFFICE OF THE GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY
STATFED BUILDING, BHANGAGARH, GUWAHATI-781005

Website: www.gmda.assam.gov.in
E-mail: ceogmdaghy@gmail.com
Tel: 0361- 2529860,
0361- 2529824
Fax: 0361-2529991

NO. GMDA/UC/17/2023/102 Dated : 20.02.2023

From : Kausar J. Hilaly, ACS
Chief Executive Officer
Guwahati Metropolitan Development Authority
Bhangagarh – 5

To : 1. Sri Anil Kr Sarma, Managing Director
M/S Arya Erectors India (P) Ltd.
503, KP Enclave, Suhagpur, Rehabari,
Guwahati – 781008

2. Mr Sanjay Baruah
Villa No- D 41, Arya Smart Living, Abhaypur, North Guwahati,
Guwahati-781030.

Sub: Show Cause Notice issued under Section 87 & 88 of Guwahati Metropolitan Development Authority Act, 1985.

Whereas you have purchased/ occupied or carried out development of building villa No D 41 and land within the Guwahati Metropolitan Area covered by the Master Plan and Zoning Regulation, in the manner and at the place as specified in schedule below, in deviation of the sanctioned plan issued vide NOC No. GMDA/BP/2214/26112012/156 dated Guwahati 25.06.2013 of GMDA and thereby contravened the provision of Section 24 & 25 of the GMDA Act, 1985.

Whereas it appeared from field visit and detailed report submitted by the builder, the existing construction is carried out in deviation from earlier approved plan as mentioned below.

Now, therefore, you are hereby directed as per Section 87 of the GMDA to stop forthwith the unapproved construction and show cause to the undersigned within 10 (Ten) days of receiving this notice, why the approved building should not be demolished under Section 88 (1) or seal the premises of unauthorized erection or work in which such work is being carried out or completed under Section 88(4).

Your reply must reach this office within 10 (Ten) days of service of this notice failing which GMDA will free to go ahead with demolition of unapproved building construction or seal the premises.

Manner of Development/Construction:

1. Back side wash area ie gap between two buildings covered with MS Structure.
2. Second floor constructed with wall and MS structure.

Place of development / Construction:
Villa No- D 41, Arya Smart Living, Abhaypur, North Guwahati, Dist: Kamrup, Guwahati-781030.

Yours faithfully,

(Kausar J. Hilaly, ACS)
Chief Executive Officer
Guwahati Metropolitan Dev. Authority
Bhangagarh, Guwahati -5
Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Memo No. GMDA/UC/17/2023/102-A Dated: 20.02.2023

Copy to:

1. The Secretary, RERA, for information and necessary action.
2. The President, Arya Smart Living Group Housing Co-operative Society. Arya Smart living, Abhaypur, North Guwahati, Mouza Silasinduri Ghopa, Dist: Kamrup Assam, for information and necessary action.
3. Office file.

Chief Executive Officer
Guwahati Metropolitan Dev. Authority

OFFICE OF THE GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY
STATFED BUILDING, BHANGAGARH, GUWAHATI-781005
Website: www.gmda.assam.gov.in
E-mail: ceogmdaghy@gmail.com
Tel: 0361-2529660,
0361-2529824
Fax: 0361-2529991

NO. GMDA/UC/17/2023/107 Dated :20.02.2023

From :

Kausar J. Hilaly, ACS
Chief Executive Officer
Guwahati Metropolitan Development Authority
Bhangagarh – 5

To :

1. Sri Anil Kr Sarma, Managing Director
M/S Arya Erectors India (P) Ltd.
503, KP Enclave, Suhagpur, Rehabari,
Guwahati – 781008

2. Mr Mrinmoy Borkatoky
Villa No- D 49, Arya Smart Living, Abhaypur, North Guwahati,
Guwahati-781030.

Sub: Show Cause Notice issued under Section 87 & 88 of Guwahati Metropolitan Development Authority Act, 1985.

Whereas you have purchased/ occupied or carried out development of building villa No D 49 and land within the Guwahati Metropolitan Area covered by the Master Plan and Zoning Regulation, in the manner and at the place as specified in schedule below, in deviation of the sanctioned plan issued vide NOC No. GMDA/BP/2214/26112012/156 dated Guwahati 25.06.2013 of GMDA and thereby contravened the provision of Section 24 & 25 of the GMDA Act, 1985.

Whereas it appeared from field visit and detailed report submitted by the builder, the existing construction is carried out in deviation from earlier approved plan as mentioned below.

Now, therefore, you are hereby directed as per Section 87 of the GMDA to stop forthwith the unapproved construction and show cause to the undersigned within 10 (Ten) days of receiving this notice, why the approved building should not be demolished under Section 88 (1) or seal the premises of unauthorized erection or work in which such work is being carried out or completed under Section 88(4).

Your reply must reach this office within 10 (Ten) days of service of this notice failing which GMDA will free to go ahead with demolition of unapproved building construction or seal the premises.

Manner of Development/Construction:

1. Second floor constructed with wall and MS structure.
2. First floor balcony all 4 sides covered by UPVC windows.
3. Additional extension of mezzanine balcony by a SS Structure by covering public road.
4. Back side wash area ie gap between two buildings covered with MS Structure.

Place of development / Construction:
Villa No- D 49, Arya Smart Living, Abhaypur, North Guwahati, Dist: Kamrup, Guwahati-781030.

Yours faithfully,

(Kausar J. Hilaly, ACS)
Chief Executive Officer
Guwahati Metropolitan Dev. Authority
Bhangagarh, Guwahati -5

Chief Executive Officer
Guwahati Metropolitan Dev. Authority
Date: 20.02.2023

Memo No. GMDA/UC/17/2023/107-A
Copy to:

1. The Secretary, RERA, for information and necessary action.
2. The President, Arya Smart Living Group Housing Co-operative Society, Arya Smart living, Abhaypur, North Guwahati, Mouza Silasinduri Ghopa, Dist: Kamrup Assam, for information and necessary action.
3. Office file.

Chief Executive Officer
Guwahati Metroloitan Dev. Authority

ARYA ERECTORS
INDIA PRIVATE LIMITED
CIN : U70101AS2010PTC010190

Arya Erectors India Pvt. Ltd.
House No. 123, 'Arya Smart Living'
Abhoypur, North Guwahati, Pin-781031, Assa
Tel : +91 98596 66501
E-mail: aryaerectorsindia@gmail.com
Web: www.aryaerectorsindia.com

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Letter no. AEIPL/SEIAA/CH/1006/20230526/75 Date: 26.05.2023

To

The Chairman
State Environment Impact Assessment Authority
Bamunimaidam, Assam

Subject: Compliance of SEIAA order SEIAA.3431/2023/14 dated 09.05.2023

Ref: Your letter dated no. SEIAA.3431/2023/23 dated 22.05.2023

Dear Sir,

This is in response to your aforesaid letter dated 22.05.2023 received by us via email on 23.05.2023, and we would like to state the following.

That, in compliance with your order dated 09.05.2023, with respect to the action point prescribed under the heading *"Regarding allegation at SL(1) of representation 'N' & 'O'"* regarding the creation of a pond inside the campus of the Arya Smart Living project, we would like to state that as per section 14(2) of RERA Act 2016, we as a promoter cannot make *"any other alterations or additions in the sanctioned plans, layout plans and specifications of the buildings or the common areas within the project without the previous written consent of at least two-thirds of the allottees, other than the promoter, who have agreed to take apartments in such building."*

As the RERA Act is very much binding on us, in compliance with the aforesaid section, we have already sent a communication to the President of Arya Smart Living Group Housing Co-operative Society Ltd. (Copy enclosed), regarding the direction of SEIAA vide the order dated 09.05.2023, asking for the written consent of at least two-thirds of the allottees in favour of creation of the pond.

That, once such approval is obtained, we will further approach the regulatory bodies under whose jurisdiction the project lies, namely Guwahati Metropolitan

O/o the SEIAA, Assam
Received on 26/5/23

Development Authority (GMDA), North Guwahati Municipal Board(NGMB), Office of the Deputy Commissioner-Kamrup and Rudreswar Gaon Panchayat, as all these departments were also made a party in the original complaint, for their respective approvals. Otherwise, such change in the original project plan may be considered a deviation and we apprehend that we may be penalised for the same.

That, we assure you that we will provide you with the compliance report once all such approvals are received and we complete the activity as directed.

This is for your information and needful guidance.

Thanking you,

Yours sincerely,

Rahul Sarma

Rahul Sarma
Director
Arya Erectors India Pvt. Ltd.

Enclosure 1. Copy of letter issued to Arya Smart Living Group Housing Cooperative Society Ltd. on 24.05.2023

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ARYA ERECTORS
INDIA PRIVATE LIMITED
CIN : U70101AS2010PTC010190

Arya Erectors India Pvt. Ltd.
House No. 123, 'Arya Smart Living'
Abhoypur, North Guwahati, Pin-781031, A
Tel : +91 98596 66501
E-mail: aryaerectorsindia@gmail.com
Web: www.aryaerectorsindia.com

Letter No. AEIPL/SEIAA/ASLDHCSL/1006/20230524/74 Date: 24.05.2023

To

The President,
Arya Smart Living Group Housing Cooperative Society Ltd.,
Arya Smart Living,
Abhoypur, North Guwahati, Assam
Pin 781031

Subject: Order no. SEIAA.3431/2023/14 dated 09.05.2023 passed by the SEIAA pursuant to order dated 24.03.2023 passed by the NGT in the Complaint (Original Application no. 32/2023/EZ) dated 30.01.2023 filed by Dr. Ganesh Chandra Das and 4 others

Dear Sir,

I have the honour to state that few of the residents of the Arya Smart Living project, located at Abhoypur, North Guwahati, namely Dr. Ganesh Chandra Das and 4 others had filed an application before the National Green Tribunal (NGT) alleging violation of certain conditions of the Environmental Clearance dated 21.01.2014 issued by SEIAA to us. It was also alleged that certain representations submitted by the said persons had not been considered by the SEIAA. The said application was disposed of by the NGT vide order dated 24.03.2023 whereby the SEIAA was directed to consider and dispose of the representations filed by the aforesaid persons.

Accordingly, a 5 member leam of representatives of SEIAA, led by Mr. Pradyut Kr. Choudhury, Chairman SEIA had visited the premises of the Arya Smart Living project on 11.04.2023, and after a thorough site inspection, the SEIAA, vide order no. 3431/2023/8 dated 09.05.2023, (Copy Enclosed) have mentioned one action point for us.

With respect to Complaint no. 1 of Annexures N and O of the original complaint, related to the water logging issue in the Arya Smart Living project, SEIAA has [illegible] that "Arya Erectors India Pvt. Ltd. shall create a pond in

Kolkata, West Bengal Dec 11, 2023 10:51

lying area inside the campus with adequate capacity & with raised bank, railing all around for safety. The excess water to be pumped outto the drain along the road with approval from competent authority. This pond shall be so constructed so as to be filled by only the Storm water."

Sir, as you are aware, the pond is not a part of the sanctioned plan approved by the concerned regulatory authorities, and creating the same now would imply a significant change to the said sanctioned plans as well as the existing landscape of the project. Moreover, we have already handed over the common area to the Society and therefore making any construction/digging shall also need the approval of the Society.

In addition to the above, as per the RERA Act, any change to the sanctioned plans require the approval of at least 2/3rd of the allottees. Since all the allottees are now members of the society, we request you to kindly provide us with the required written approval of 2/3rd of the allottees for creation of the pond as directed by the SEIAA. After such approval is given, we shall approach the concerned authorities for their sanction and requisite approvals.

The Society would also have to identify the location where the pond should be created and communicate the same to us in writing, duly signed and approved by at least 2/3rd of the allottees so that there is no conflict at any later date.

Kindly let us inform us once the written approvals are received, so that we can initiate the activity.

With warm regards,

Yours sincerely,

Rahul Sarma

Rahul Sarma
Director
Arya Erectors India Pvt. Ltd.

Enclosure 1 : NGT Order dated 24.03.2023
Enclosure 2: SEIAA order dated 09.05.2023

Item No.01 Court No.1

BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
(THROUGH PHYSICAL HEARING WITH HYBRID MODE)

Original Application No.32/2023/EZ

In the matter of: -

1. **Dr. Ganesh Das,**
   Son of Sri. Dijendra Ch. Das,
   Resident of Tribeni Apratment,
   Flat No.5A, 5th Floor, Madhabdevpur,
   Rehabari, Guwahati-781001,
   Assam

2. **Dr. Mrinmoy Borkataki,**
   Son of Dr. Munindra Borkataki,
   Resident of D-49, Arya Smart Living
   Abhaypur, North Guwahati-781031,
   Assam

3. **Sri. Brojen Dutta,**
   Son of Late Jiban Ch. Dutta,
   Resident of D-22, Arya Smart Living
   Abhaypur, North Guwahati-781031,
   Assam

4. **Sri. Sanjay Baruah,**
   Son of Late Prutul Kumar Baruah
   Resident of D-41, Arya Smart Living
   Abhaypur, North Guwahati-781031,
   Assam

5. **Sri. Padum Deori,**
   Son of Sri. British Deori,
   Resident of Nijarapar,
   P.O. Jagiroad,
   District-Morigaon,
   Assam

.....Applicant(s)

Versus

1. **M/S Arya Erectors India Pvt. Ltd.,**
   Represented by its Managing Director,
   503, K.P. Enclave, Sohagpur,
   Rehabari, Guwahati-781008,
   District-Kamrup (M)

2. **State Environmental Impact Assessment Authority (SEIAA);**
   Represented by its Member Secretary,
   Bamunimaidam, Guwahati-781021,
   District-Kamrup (Metro), Assam

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3. **Ministry of Environment, Forests and Climate Change,**
Government of India,
Represented by its Secretary,
Indira Paryavaran Bhawan,
Jorbagh, New Delhi-110003

4. **Guwahati Metropolitan Development Authority,**
Represented by its Chief Executive Officer (CEO),
Statefed Building, Bhangagarh,
Guwahati-781005, Assam

5. **North Guwahati Municipal Board,**
Represented by its Chairman,
North Guwahati, Guwahati-781030,
Assam

6. **Rudreswar Gaon Panchayat,**
Represented by its President,
Rudreswar, North Guwahati-781030
District-Kamrup, Assam

7. **Pollution Control Board, Assam**
Represented by its Member Secretary,
Bamunimaidam, Guwahati-781021, Assam

.....Respondent(s)

Date of hearing: 24.03.2023

CORAM: HON'BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER

For Applicant(s) : Mr. Vikram Rajkhowa, Advocate (in Virtual Mode)

ORDER

1. Heard Mr. Vikram Rajkhowa, learned Counsel for the Applicants.

2. This Original Application has been filed by the Applicants alleging that the Applicants have purchased flats in the Arya Smart Living Housing Colony constructed by Respondent No.1, M/s Arya Erectors India Pvt. Ltd. It is stated that Environmental Clearance to the Project was granted by State Environment Impact Assessment Authority (SEIAA), Assam on 04.01.2014. NOC was granted by Guwahati Metropolitan Development Authority on 25.06.2013. The allegations of the Applicants *inter alia* as given in paragraph-9 of the Original Application is as under: -

> *"9. That the Applicants beg to state that the problems in the Arya Smart Living project started to crop up for the*

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Buyers/Residents as Respondent No.1 violated and/or did not comply with various conditions stipulated in the E.C dated 21/01/2014 as given below among others:

(i) Specific Conditions at Part – A (I) (i) of E.C, i.e.,

"The storm water drainage shall be worked out after analyzing the contour levels of the site and the surrounding area and the capacity of storm water drainage."

That Respondent No. 1 has constructed low-rise houses/apartment numbering around 123 units under Phase – 1 and around 30 units under Phase – 2 at Arya Smart Living project at North Guwahati. But whenever there is slight rain fall, the entire open area get submerged under water resulting in flood like situation and water remain stagnant for many days.

The primary reasons for water logging at Arya Smart Living project is due to –

(a) absence of any Storm Water Drainage as mandated to be constructed after analyzing the contour levels of the site and the surrounding area;

(b) the capacity of Storm Water Drainage is not in compliance of E.C provisions;

(c) bed level of road inside the project/campus is lower than the bed level of outside PWD road.

(ii) Specific Conditions at Part – A (I) (xviii) of E.C, i.e.,

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

That at present the grey water is directly connected to the open drains which in turn is causing unhygienic environment inside the premises. Moreover, the grey water mixed with rainwater spreads over the entire open areas whenever there is rain and waterlogging.

(iii) Operation Phase Conditions at Part – A (II) (i) of E.C, i.e.,

"The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the SEIAA before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Zero discharge criteria should be met as agreed."

That the Applicants submitted RTI application with Respondent No. 2 SEIAA dated 11/12/2020, including others, wherein various information was sought pertaining to the project, like:

(a) validity of EC dated 21/01/2014

(b) report regarding installation of Sewage Treatment Plant (STP) certified by an independent expert;

(c) report regarding Rain water Harvesting;

(d) report confirming internal road width of 7 m and 9 m inside the project area;

(e) six monthly compliance report of EC conditions, among others

Thereafter the Applicants received RTI reply dated 28/12/2020 and 13/05/2022 from Respondent No. 2 SEIAA informing the Applicants that the Respondent No. 1 has not applied for extension of the E.C dated 21/01/2014 which was valid up to 21/01/2019 and in regard, to other information sought the same is not available in the office records.

(iv) Operation Phase Conditions at Part – A (II) (v) of E.C, i.e.,

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"The peripheral green belt of 3 mtrs. width shall be developed all around the plot area and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise."

The Applicants beg to state that 3 mtrs. peripheral green belt is not maintained all around the plot area and even there is no visible provision for maintaining the peripheral green belt as structures like, drains, sheds, pathways, etc., are being constructed instead of the green belt. Be it stated that the total green belt area is to be around 7,485.96 sq.m according to the E.C but Respondent No. 1 has completely violated the said requirement.

(v) *Operation Phase Conditions at Part – A (II) (ix) of E.C, i.e.,*

"Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized. Width of the internal road should be 7 mtrs. and 9 mtrs. in the project area."

It is observed from the sanctioned plan and present construction, there are some internal roads with width of 6 mtrs. only, which is causing traffic congestions and water logging as the roads are not constructed as mandated by Respondent No. 2 SEIAA.

(vi) *Operation Phase Conditions at Part – A (II) (x) of E.C, i.e.,*

"A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials and technology, R&U factors, etc., and submit to SEIAA in three months."

That according to the RTI response received from Respondent No.2 SEIAA the report pertaining to aforesaid energy conservation measures etc. which was to be submitted in three months is not available."

3. It is stated that the Respondent No.1 has violated the Environmental Clearance (hereinafter referred to as 'EC') conditions. It is also stated that the EC was initially granted for five years which expired on 21.01.2019 but in the meantime it was extended for seven years upto 21.01.2021 but after 21.01.2021 the EC has not been extended nor has any application been filed by the Respondent No.1 before SEIAA, Assam.

4. In respect of the grievances, the Applicants are stated to have preferred two representations dated 06.07.2022, Annexure-N and 20.10.2022, Annexure-O, to the Original Application.

5. In our opinion, no useful purpose will be served by keeping the matter pending since the representations of the Applicants is stated to have remained undisposed by SEIAA, Assam.

6. In this view of the matter, we dispose of this Original Application with the following directions:-

(i) The Respondent No.2, SEIAA, Assam, shall consider and decide the two representations of the Applicants dated 06.07.2022 and 20.10.2022, Annexures-N & O, to the Original Application as also the grievances raised in paragraph-9 and its sub-paragraphs of the Original Application.

(ii) The SEIAA, Assam shall decide the aforesaid representations by a reasoned and speaking order within a period of one month. Needless to say, before taking any decision the SEIAA, Assam shall also given opportunity of hearing and

submission of written submissions, if any, to the Respondent No.1.

7. With the aforesaid directions, the Original Application No.32/2023/EZ is disposed of.

8. Interlocutory Applications, if any, stand disposed of accordingly.

9. There shall be no order as to costs.

.....
B. Amit Sthalekar, JM

.....
Prof. A. Senthil Vel, EM

March 24, 2023
Original Application No.32/2023/EZ
MN

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STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, ASSAM
Ministry of Environment, Forest and Climate Change, Government of India
BAMUNIMAIDAM, GUWAHATI 781021

SEIAA.3431/2023/14

Date: 09/05/2023

Speaking order as per NGT (EZ Branch, Kolkata) order in Original application No.32/2023/EZ

SYNOPSIS

The original application was filed by the purchasers of villas/ flats in the Arya Smart Living Housing Colony constructed by Arya Erectors India Pvt. Ltd. The Purchasers are-

1. Dr Ganesh Das.
2. Dr. Mrinmoy Borkataki.
3. Sri. Brojen Dutta.
4. Sri Sanjay Baruah.
5. Sri Padum Deori.

The applicants alleged that the Respondent No.1 did not comply with some of the conditions stipulated in the Environmental Clearance issued by State Environment Impact Assessment Authority (SEIAA), Assam vide No.SEIAA.07/2013/10 dtd.21/01/2014

Hon'ble National Green Tribunal, Eastern Zone Branch, Kolkata in original application No.32/2023/EZ disposed off the original application with the following directions-

6 *(i)*. The Respondent No.2, SEIAA, Assam shall consider and decide the two representations of the Applicants dated 06.07.2022 and 20.10.2022, Annexure-N & O, to the Original Application as also the grievances raised in paragraph-9 and its sub-paragraphs of the Original Application.

(ii). The SEIAA, Assam shall decide the aforesaid representations by a reasoned and speaking order within a period of one month. Needless to say, before taking any decision the SEIAA, Assam shall also given opportunity of hearing and submission of written submissions, if any, to the Respondent No.1

Accordingly, Hearing on the matter taken from the representatives of Arya Erector India Pvt.ltd.and both verbal and written submissions taken on 26/03/2023 on the allegation made by the applicants.

On Specific condition at part A(I) (i) of the EC

- The respondents submitted that the contour survey was done prior to starting of the project. Submitted GMDA approved contour survey map.

- The project was handed over to the Arya Smart Living Society in 2019, being completed in all respect including the drainage system as per requirement.
- The water logging problem started after the improvement of road and construction of drain taken up by PWD during 2017 to 2020. A technical study of the Water logging problem in Arya Smart Living campus and its adjoining areas of Abhaypur, North Guwahati was taken up by IIT Guwahati on request from the ASL society. It revealed that the bed of the newly constructed drain along the road is at 15 cm higher than the internal drain. Supporting photographs were submitted.

On Specific Condition A (I) (xviii) of EC

- Dual Plumbing system was partially complied with e.g. at places i.e. Water fall at front, car washing etc.

Operational phase Condition A(II) (i) of EC

- The design and supply of STP was done by firms, expert in the relevant field of work.

Operational phase Condition A(II) (v) of EC

- The Green belt area is 9000 sq.m No of trees planted including hedges etc. shall be around 900. Green Belt also maintained all around the campus with exception of two corners.

Operational phase Condition A(II) (vii) of EC

- The ground water level being high and also as existing low lying area which acts as a natural water reservoir, only roof and surface rain water runoff is collected in the installed water tanks of 5000 lts capacity around the campus.

Operational phase Condition A (II) (ix) of EC

- There is no traffic congestion both inside and outside the campus. One parking area in each villa has been given as approved by GMDA.

Operational phase Condition A (II) (x) of EC

- Energy conservation measures have been taken in the villas and all common areas.

Heard and seen both verbal and written submissions of the representative of Arya Realtors India Pvt. Ltd.

Also perused the Final report of the Technical Study carried out by Indian Institute of Technology, Guwahati on request by Arya Smart Living Society.

The site visit was also done by team of experts which included-

Name-

1. Shri Praydut Kr. Choudhury, Chairman SEIA
2. Shri Swapan Kr Seal Sarma, Chairman SEAC
3. Prof. Bhagawat Pran Duarah, Member SEAC
4. Prof.Sarat Phukan, Member SEAC
5. Dr. Santanu Kr Dutta, Secretary SEAC

As Both the representation 'N' & 'O' are identical except an additional clause at representation 'N'-(5) Therefore both are being disposed simultaneously.

Regarding allegation at SL (1) of representation 'N' & 'O'

- The flood problem in the ASL campus is a genuine one The Arya Erectors, India Pvt. Ltd. contended that the project was completed in 2018 and handed over in 2019 and that in the meantime development of road & drain was taken up. The submitted photographs by the respondent no.1 also reveals that the natural drainage at front has also been encroached by neighbors. The nearby areas being developed only a common approach involving the development departments and neighboring community can bring in a fruitful one time solution to the problem. In the meantime, the Arya Erectors India Pvt. Ltd. Shall create a pond in appropriate low lying area inside the campus with adequate capacity & with raised bank, railing all around for safety. The excess water to be pumped out to the drain along the road with approval from competent authority. This pond shall be so constructed so as to be filled by only the Storm water. Other activities can also be planned with the coordinated effort of all concerned.

Allegation at Sl (3) of representation 'N' & 'O'

- The design and supply of the STP was done by firms, experts in the field of works and stated to be functional at the time of handing over (supporting documents submitted). Therefore ASL society has to keep it functional.

Other matters.

- The matter of non submission of six monthly compliance reports to SEIAA has been viewed seriously and a stricture in this regard shall be issued separately.

9/5/2023

Chairman
SEIAA, Assam
Bamunimaidam, Guwahati-21

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ARYA ERECTORS
INDIA PRIVATE LIMITED
CIN : U70101AS2010PTC010190

Arya Erectors India Pvt. Ltd.
House No.123, 'Arya Smart Living'
Abhaypur, North Guwahati Pin: 781031, Assam
Tel : +91 98596 66501
E-mail : aryaerectorsindia@gmail.com
Web : www.aryaerectorsindia.com

Date: 14/07/2022

To,

The Chairman
State Environment Impact Assessment Authority (SEIAA)
Bamunimaidam, Guwahati-781021

Sub: **APOLOGY FOR NON COMPLYING TO THE INSTRUCTIONS AND FOR DELAYED SUBMISSION OF COMPLIANCE REPORTS.**

Ref. Environmental Clearance Letter **F. No. SEIAA.07/2013/10**, Dated 21st January, 2014.

Dear Sir,

We were issued the Environment Clearance in reference to the No. and date stated above for our project Arya Smart Living at Abhaypur, North Guwahati, Dist: Kamrup, Assam. As per instructions, we were supposed to submit the periodic compliance reports for the environmental clearance mentioned above. We have tried to maintain the conditions of the Environmental Clearance and also prepared the reports on timely basis. But, due to inadvertent mistake and considering the pandemic situation we were unable to submit the reports in time. **This letter is to express our sincere apology for not adhering to your instructions with regards to submission of periodic compliances of Arya Smart Living. We regret our behavior and realize that we should not have ignored the instructions given by your Authority**. This non-compliance has caused issues for the organization.

We assure you that this will not happen next time. Thank you for putting your faith in us, and we hope you will accept our apology.

Kindly accept the periodic compliance reports that were due from January 2014 to June 2019.

With our sincerest apology and best regards.

For Arya Erectors India Pvt. Ltd.

(Amarendra Mazumdar)
Manager (Admin) cum OSD

Encl: Compliance reports for the period from January 2014 to June 2019

Received 11 nos Compliance reports for 2014 to June 19
14/7/22

14/7/22

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Annexure - R-29

OFFICE OF THE CHAIRMAN
NORTH GUWAHATI MUNICIPAL BOARD
GUWAHATI - 30

Ref : NGMB/MISC./2021-22/2199

Date 06-09-2021

Minutes of the meeting held at club house at Arya Smart Living on 3rd September 2021
Regarding water logging problem.

A meeting in connection with the water logging problem at Abhaypur area was held at the Club House of Arya Smart Living, Abhaypur on 3rd September 2021. The meeting was convened by North Guwahati Municipal Board. The following persons were present in the meeting:

1. Sri Pranab Dutta Goswami, ACS, Additional Deputy Commissioner, Kamrup
2. Sri Debajit Sarma, Executive Engineer, North Guwahati Municipal Board
3. Sri Bharat Bhusan Sarma, Asstt. Executive Engineer, Water Resources Department
4. Sri Hirak Chanda, Asstt. Engineer, Water Resources Department
5. Sri Kailash Baishya, J.E. Jalukbari & Hajo Territorial Road Division
6. Sri Dipak Kumar Bezbaruah, Jalukbari & Hajo Territorial Road Division
7. Sri Mantu Ram Das, Water Resources Department
8. Sri Girin Changkakoti, North Guwahati Municipal Board
9. Sri Binod Boro, Lat Mandal, North Guwahati Revenue Circle
10. Sri Ram Krishna Pradhan, President, Arya Smart Living Group Housing Cooperative Society Ltd.
11. Sri Binode Chetia, Vice President, Arya Smart Living Group Housing Cooperative Society Ltd.
12. Sri Tapanjyoti Dutta, Secretary, Arya Smart Living Group Housing Cooperative Society Ltd.
13. Sri Krishna Kanta Ojah, Treasurer, Arya Smart Living Group Housing Cooperative Society Ltd.
14. Dr. Mantu Kumar Das, Arya Smart Living Group Housing Cooperative Society Ltd.
15. Dr. Imdadul Hussain, Arya Smart Living Group Housing Cooperative Society Ltd.

The meeting was presided over by Sri Pranab Dutta Goswami, ACS, Additional Deputy Commissioner, Kamrup.

At the very outset of the meeting, Mr. Ram Krishna Pradhan, President of Arya Smart Living Group Housing Cooperative Society Ltd. pointed out the overall problems at Arya Smart Living and surrounding areas due to water logging.

Mr. Debajit Sarma, Executive Engineer, NGMB and Mr. Girin Changkakati, UDA, NGMB represented the meeting as the counter part of convenor. Mr. Sarma was requested to explain about the situation and present scenario of this area. Accordingly he explained the vital points of the problem adhering the entire ULB area after newly demarcated area of 10 wards during the delimitation process. He revealed again and again to prepare a master plan for entire North Guwahati. He explained technically about the

topography of North Guwahati, major out lets to the river Brahmaputra along with sluice gate, preservation of the water body and inter connectivity of storm drainage with the major out lets. The points above, have been accepted by all the members present in the meeting.

After threadbare discussion the following points were noted for taking action/activities:

a) To check out the requirement of sluice gate at different exit points of the River Brahmaputra
b) Joint survey for gradient of various drains exist in Municipal Board area, During the alignment of PWD drain APDCL have to be involved under the legal advice of revenue dept.
c) A petition to be submitted to the Hon'ble MLA of jalukbari constituency by Arya Smart Living Group Housing Cooperative Society Ltd. on behalf of residents of Abhaypur and Silsako.
d) All the corrective measures have to be checked for involving a Govt. Scheme for the greater interest of public.
e) Digging of an exit channel from the swamp (around 4 bighas) to the nearest PWD drain.
f) Convergence of multiple departments like NGMB, PWD, WRD, Revenue etc. is very essential for joint survey.
g) For all tasks to be executed, NGMB will play a pivotal role or as a nodal agency within their jurisdiction.
h) A proposal to be initiated by NGMB and to submit it to the Deputy Commissioner, Kamrup who would then delegate tasks to other concerned departments.

The meeting ended with a vote of thanks from the chair.

Yours Faithfully

Executive Officer
North Guwahati Municipal Board
Guwahati-30

Memo No:- NGMB/MISC./2021-22/2199 (A) Dated:- 06-09-2021

Copy To:-

1. The Addl. Deputy Commissioner, (U.D.D), Kamrup, for favour of information and necessary action.
2. The Executive Engineer, PWD, Hajo and Jalukbari – Territorial Road Division, for favour of information and necessary action.
3. The Executive Engineer, Water Resource, Guwahati East Division, for favour of information and necessary action.
4. The President/ Secretary, Arya Smart Living, for information and necessary action.

Executive Officer
North Guwahati Municipal Board
Guwahati-30

ARYA SMART LIVING GROUP HOUSING CO-OPERATIVE SOCIETY LIMITED
Regd No: G-09/2019-20, Dated 10th June 2019

Arya Smart Living, Abhaypur, North Guwahati
Mouza : Sila-Sindurighopa
Dist: Kamrup, Assam, Pin-781031 (3)
aslsociety19@gmail.com

Ref. No.

07/10/2021

Date :

Date: 06/10/2021

To,
The Assistant Registrar of Cooperative Societies,
Bhangagarh, Guwahati-781005

Sub: **Prayer for approval of proceedings of 2nd Annual General Meeting** of Arya Smart Living Group Housing Cooperative Society Ltd.

Dear Sir,

With due respect, I submit herewith the Proceedings of 2nd Annual General Meeting of Arya Smart Living Group Housing Cooperative Society Ltd. held on 26th September 2021.

Several resolutions were taken during the course of the meeting. Kindly approve the resolutions taken during that meeting.

This is for favour of your early approval, please.

Regards

Secretary

Secretary
ASLG HSG Coop. Soc. Ltd.
6900523731

ARYA SMART LIVING GROUP HOUSING CO-OPERATIVE SOCIETY LIMITED
Regd No: G-09/2019-20, Dated 10th June 2019

Arya Smart Living, Abhaypur, North Guwahati
Mouza : Sila-Sindurighopa
Dist: Kamrup, Assam, Pin-781031
aslsociety19@gmail.com

Ref. No.

Date :

2ND ANNUAL GENERAL MEETING (AGM) OF ARYA SMART LIVING GROUP HOUSING COOPERATIVE SOCIETY LIMITED
DATED: 26TH SEPTEMBER 2021
VENUE CLUB HOUSE, ARYA SMART LIVING, ABHAYPUR, KAMRUP-RURAL, ASSAM
MINUTES OF THE MEETING

The 2nd Annual General Meeting (AGM) of Arya Smart Living Group Housing Cooperative Society Limited (ASLGHCSL) was held on 26th September 2021 at Club House of the society. The meeting was presided over by Sri Ram Krishna Pradhan, President, Arya Smart Living Group Housing Cooperative Society Ltd.

Agenda of the meeting are:

1. Welcome address by the President of the Society.
2. Confirmation of minutes of previous AGM.
3. Secretarial Report to be submitted by Secretary of the Society.
4. Placement of Annual Report of 2020-21 by BOD and open for discussion.
5. Projected Annual Budget for F.Y. 2021-22 to be placed.
6. Review of work done and to be done by the Society to be discussed.
7. Election/ Selection of Internal Auditor.
8. Adoption of Occupancy Certificate issued by office of the North Guwahati Municipal Board.
9. Others/ Miscellaneous topics.
10. Vote of thanks.

The total attendance of members in the meeting was 32.

The Observers from the Office of the Assistant Registrar of Cooperative Societies, Bhangagarh, Guwahati, Assam were:

(i) Mr. Mrinal Saikia
(ii) Mrs. Ritashree Barman

Secretary
Soc. Ltd.

Kolkata, West Bengal Dec 11, 2021 10:51

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As per the agenda, at the outset of the meeting, Mr. Ram Krishna Pradhan, the President of the Society took his chair and welcomed all the members, BODs, Observers from the Government of Assam and all present in the meeting. He explained the purpose of the meeting and read out the agenda. Followed by it, the Secretary of the Society, Mr. Tapanjyoti Dutta placed the Annual Report of 2020-21 and read out before the BODs and the members and the observers from Government of Assam.

As per agenda, all the items were discussed in the meeting and resolutions were taken accordingly. Agenda-wise items discussed and the resolutions taken are as follows:

Agenda No.3

① seen

Secretarial Report

Assistant Registrar of Co-operative Societies Guwahati

Resolution No. 1:- The Secretary read out the Secretarial Report and the house adopted the same. The Secretarial Report has been submitted to A.R.C.S. for kind approval.

Agenda No. 4

Placement of Annual Report of 2020-21 by BOD and open for discussion

The Annual report 2020-21 was placed in the meeting and was opened for discussion. The following resolution was taken:

② seen

Co-operative Societies Guwahati

Resolution No. 2:- The house resolved that the Annual Report for the year 2020-21 has been adopted.

Submitted for kind approval enclosed Annual Report of 2020-21.

Agenda No: 5

Projected Annual Budget for F.Y. 2021-22

It was discussed in the meeting that the timely collection of maintenance fee from the members is a challenge.

It was reported in the meeting that there were 14 Nos. of unsold villas for which the builder had paid 50% of the Society maintenance fee. It was discussed in the meeting that in case of shortfall of fund to run the society, what could the options for collection of fund. There must be a provision for receipt of maintenance charges from the defaulters.

Tapanjyoti Dutta

Secretary

West Bengal Coop. Soc. Ltd.

Approved

Resolution No: 3- The house resolved that provisional budget for the year 2021-2022 has been adopted.

Submitted for kind approval enclosed provisional budget.

Resolution No. 4: It was resolved that if a villa owner fails to make the maintenance fee for a period of 90 days, he/she must pay a penalty of Rs.1000/- and a subsequent Rs.500/- per month upto 180 days. From 180 days onward, the penalty shall be Rs.1000/- per month. Due date for maintenance fee shall be the tenth day of each month. Notices should be sent to the defaulters and the list of defaulters should be displayed in the Notice board. It was also resolved that the Club house can be utilized for limited commercial activities for generation of revenue.

Resolution 5:

It was resolved that a checkpoint will be there when a family (owner or his tenant) starts living in the campus or vacates the ownership of the villa (the Owner) by sale or other ways can only do so if society dues are made clear by the owner and as mentioned in the Bye-laws of the Society.

Agenda No: 6

Review of work done and to be done by the Society to be discussed.

The various activities done by the Society and to complete in future are discussed in a PowerPoint presentation by Dr. Imdadul Hussain, Director of Board.

Water logging issue:

The water logging situation in the campus was discussed in detail and the ongoing development for solution of the problem was briefed. It was also discussed that a water logging committee was formed aiming speedy mitigation of the problem. It was discussed that due to the backflow of water, the campus suffers tremendous water logging problem. Joint meeting arranged from the O/O the DC Kamrup, Officers from North Guwahati Municipal Board, Water Resources Department, Govt. of Assam, Public Works Department, Govt. of Assam had decided to carry out a final survey and as per its recommendation, permanent solution can be undertaken by the respective Govt. departments. The above meeting was convened at the club house of Arya Smart Living and few members of Society as well as Board members were present in the said meeting held on 03/09/2021.

Agenda No: 7

Election/ Selection of Internal Auditor

Resolution No: 6- Discussion was also held about identifying one internal Auditor and a resolution was adopted to empower the Board of Directors to appoint/ Identify one Internal Auditor for the period 2021-22.

Submitted for the approval of the ARCS.

Agenda No.8

Adoption of Occupancy Certificate issued by North Guwahati Municipal Board.

There was a discussion regarding the occupancy certificate issued from the Office of the North Guwahati Municipal Board. It was discussed in the meeting that the permission for construction of the club house and swimming pool was obtained from then, North Guwahati Town Committee (presently known as North Guwahati Municipal Board) over a land measuring 2 Bighas covered by Dag No. 764 of K. P. Patta No. 272 of revenue village North Guwahati Town. However, the actual construction was done over the land covered by Dag No. 764 of K. P. Patta No. 272 of revenue village North Guwahati Town as well as Dag No. 1340/884 (Old) of K. P. Patta No. 1113/198 (Old) of Village Abhaypur. The builder had obtained the occupancy certificate as per the provisions of building byelaws from North Guwahati Municipal Board.

It was also discussed in the meeting that due to some complaints submitted at Guwahati Metropolitan Development Authority by a member and a non-member, the issue of occupancy certificate is pending at GMDA. As conveyed, the members of the society must come to a resolution that the present constructed structures of the amenities shall be kept intact and must adopt the occupancy certificate of club house and swimming pool. All the members adopted the proposal and the following resolution was taken.

Resolution No. 7: Resolved that the Occupancy Certificate (Certificate No. NGMB/BP/2021-22/2129 dated 31/07/2021) issued from the North Guwahati Municipal Board for the club house and the swimming pool is adopted.

It was also resolved that the Society shall notify the individual to withdraw his RTI application who made an RTI for revocation of the Occupancy Certificate.

Further it was resolved that the present constructed structures of amenities and demarcation should be kept intact and there is no objection to same and a request will be sent to GMDA to issue the Occupancy Certificate of Arya Smart Living by Society's registered members.

Kolkata, West Bengal

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Agenda No. 9

Others/ Miscellaneous topics

Various other topics were discussed in the meeting like transfer of common areas and amenities in the name of the Society, enhancement of electrical load, transfer/handover of licenses, certificates to the Society etc.

Resolution No. 8: It was resolved in the meeting that a Code of Conduct is adopted for peaceful living in the campus within a framework of civilized living.

Resolution No. 9: It has been resolved that the entire common area will be transferred by way of Sale Deed in favour of the Society by the Builder within four months from the receipt of the Occupancy Certificate. The Stamp Duty and Registration Fee for the transfer of the land shall be borne by the Society which in turn the Society will collect from individual members. The Society will provide share certificates according to the villa owners/ members with exact calculation of proportionate share. The proposed proportionate share division of authorized capital will be only as per Assam Cooperative Societies Act and Bye-laws of Arya Smart Living Group Housing Cooperative Society Ltd. The land of the club house (2 Bighas) will also be transferred to the Society from the Builder.

Resolution No. 10: It is resolved that the Board of Directors is authorized to recruit any number of staff as deemed fit by the Board for smooth function of the Society.

Agenda No. 10:

Conclusion of meeting:

The President invoked the sage wisdom of our civilization and ancient heritage of peaceful living. He said that the development of the campus is directly proportional to the unity of members and requested knowledgeable members to come forward and devote their precious time to make ASL the best gated community in the region. He thanked all for the valuable participation in the AGM and concluded the meeting.

Secretary
ASLG HSG Coop. Soc. Ltd.

Arya Smart Living Group Housing Co-Operative Society Limited

ANNUAL REPORT

Financial year ending 31st March 2021

Respected Members,

Present Board of Directors

I on behalf of Board of Directors welcome all the members of the Society to the 2nd Annual General Meeting of the Society. Your Society which was registered on 10th June 2019 started functioning with the Promoter Board and on the 1st Annual General Meeting of the Society held on 31st January 2021 following members were elected as Board of Directors for a term of 5 years

1. Mrs Binita Jalan
2. Mrs Bijoya Goswami
3. Mr Shashanka Mohan Goswami
4. Mr Biren Gogoi
5. Mr Binode Chetia
6. Mr Dilip Sarkar
7. Mr Bishnu Pada Choudhury
8. Mr Ramesh Chandra Sarma
9. Mr Krishna Kanta Ojha
10. Mr Mantu Kumar Das
11. Mr Ram Krishna Pradhan
12. Mr Tapanjyoti Dutta
13. Mr Nilutpal Dutta
14. Mr Imdadul Hussain
15. Mr Shekhar Jajodia

Summary of Financial Statement for the financial year ending 31st March 2021

Your Society had collected total membership fees of Rs.22,11,505/- during the financial year ending 31st March 2021 which was kept in separate bank account in the name of your Society. The funds were collected for the purpose of carrying out maintenance activities as mandated by the bye law of the Society. The bank account is being operated with joint signatories of the Office Bearer of your Society.

Your Society had incurred an expenditure of Rs.22,04,577/- for various maintenance activities during the financial year ending 31st March 2021

Your Society accounts including bank account was audited by internal auditor for the financial year ending 31st March 2021and the audited reports is placed for your review and approval as per item No. 4 of Agenda of Annual General Meeting

Tapanjyoti Dutta

Secretary

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Arya Smart Living Group Housing Co-Operative Society Limited

ANNUAL REPORT

Financial year ending 31st March 2021

Promoter Board Term for the period 1st April 2020 to 16th October 2020

Promoter Board was constituted with the formation of the Society on 10th June 2019 and it had a term of one year. The Promoter Board was supposed to be replaced by elected Board of Directors on or before 10th June 2020. The election to elect new Board of Directors could not be carried by the scheduled timeline due to pandemic situation which was prevailing at that point of time and also due to lockdown measures imposed by State Government of Assam. With easing of lock down measures by the State Government of Assam, your Society initiated the steps by approaching officially before the Office of Assistant Registrar of Co-Operative Society to conduct the election to New Board of Directors by holding the Annual General Meeting. Your Society received the approval from the Office of Assistant Registrar of Co-Operative Society to hold Annual General Meeting on 17th October 2020 but unfortunately due to intervention by some of our members, the Assistant Registrar had revoked the approval to conduct Annual General Meeting along with order to dissolve the Promoter Board with effect from 16th October 2020 on the ground that the Promoter Board had failed to conduct the election to elect new Board of Directors before the stipulated date of 10th June 2019.

Office Bearer of your Society led by Ex-President Dr Mrinmoy Barkataki had ensured that the maintenance service to the members remained uninterrupted during the pandemic and lockdown period. They had carried out successful membership enrolment process in month of September 2020 and October 2020. During the term of Promoter Board, your Society had to face law suit due to filing of writ petition by our member Dr Ganesh Chandra Das before Gauhati High Court on 20th October 2020. The writ petition is presently pending before Gauhati High Court. Society has appointed a lawyer to respond to the writ petition and the cost of same is borne from the society fund.

One-Man Committee Term for the period 17th October 2020 to 31st January 2021

Upon dissolution of the Promoter Board with effect from 16th October 2020 by Assistant Registrar, your Society was placed under statutory control and supervision of One-Man Management Committee appointed by Zonal Registrar, Co-Operative Societies with effect from 2nd November 2020 for a period of 90 days. During the transition of the management of your Society to one man management committee from 16th October 2020 your Society had to face a complete chaotic situation with respect to maintenance activities as the issue of payment to contractor and utilities bill had arisen. Your

Kolkata, West Bengal Dec 17, 2021 Secretary

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Arya Smart Living Group Housing Co-Operative Society Limited

ANNUAL REPORT

Financial year ending 31st March 2021

Society's maintenance activities during this period was not allowed to be hampered at all due to the effort and support of the Contractor and the Office Bearer

Under the supervision of One-Man management committee, the first Annual General Meeting of your Society was conducted on 31st January 2021 where new Board of Directors were elected

New Board of Director's Term from 1st February 2021 to 31st March 2021

On the 1st Annual General Meeting of your Society held on 31st January 2021, election was conducted to elect the new Board of Directors and a resolution declaring the result of the election was passed by the members present in the meeting and the said resolution was approved by the Office of ARCS on 26th February 2021. After this approval, the newly elected Board of Directors in its first meeting held on 7th March 2021 has passed a resolution for appointment of new Office Bearer of your Society. The composition of Office Bearer elected by the Board of Directors were as follow:

Mr Ram Krishna Pradhan, President
Mr Binode Chetia, Vice President
Tapanjyoti Dutta, Secretary
Mr Krishna Kanta Ojha, Treasurer

The Board of Directors in a meeting held on 7th March 2021 took immediate cognisance of the status of maintenance activities of your Society which had remained unattended since 17th October 2020 due to events that had transpired as mentioned in preceding paragraph above. The Board took note of 23 numbers of immediate and urgent maintenance related task that were needed to be addressed on urgent basis. But unfortunately, the Board could not operate the bank account of your Society in order to utilise the funds for normal maintenance activities and also for identified critical task as there was a need to change the authorised signatories of the bank account to newly appointed Office Bearer. The change in authorised signatories to the bank account of your Society was delayed till May 2021 and as such the new Board of Directors and Office Bearer was handicapped till such time

The reason for the delay in effecting the change in authorised signatories of Society Bank Account was due to the fact that the resolution passed by Board of Directors for the appointment of Office Bearer was pending for approval before the Office of ARCS. The approval of resolution appointing the new Office Bearer was kept on hold on the ground that the two of our members had raised certain

Secretary

Arya Smart Living Group Housing Co-Operative Society Limited

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Financial year ending 31st March 2021

written objections on 7th April, 2021 before the Office of Assistant Registrar of Co-Operative Society to an order passed by it on 27th February 2021. The Office of Assistant Registrar of Co-Operative Society had refused to entertain this objection and this refusal was communicated by letter on 30th June 2021

The Order passed by the Office of Assistant Registrar of Co-Operative Society on 27th February 2021 had **quashed the petition** submitted by group of members in January 2021. The petition had challenged the nomination of three members to the election of Board of Directors on the grounds that such nomination attracted disqualification under Section 37(c) of Assam Co-Operative Society Act, 2007.

Status of Resolution against Agenda No 8 passed in last Annual General Meeting

The extract of Resolution No 6 with reference to Agenda No 8 passed in last Annual General Meeting held on 31st January 2021 is given below for reference

Agenda No.8 - Issues in the Society

Resolution No. 6: Resolved that the following issues have been identified as critical issues faced by the Society for which elected Board of Directors should address on priority basis with timeline and the current status report on the issues should be placed before the next Annual General Meeting:

1. Water logging due to drainage issues.
2. Electricity load allotted against the requirement with lesser capacity transformer being installed.
3. Handover of assets.
4. Transfer of common area.
5. Black topping in phase 1 against concrete topping for phase 2
6. Delivery as per brochure.
7. Transfer of license, permit clearance and approval from various authorities.
8. Transfer of documents and plan relating to board and maintenance assets etc.
9. Occupancy certificate.

The said resolution required the elected new Board of Directors to provide the status report in the next Annual General Meeting. Accordingly, item wise status report is given below

Secretary :- Parajita Dutta

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Arya Smart Living Group Housing Co-Operative Society Limited

ANNUAL REPORT

Financial year ending 31st March 2021

Item No	Item	Status report
1.	Water Logging due to drainage issues	Water logging Committee as constituted by Board of Directors has engaged a third party who will submit detailed project report by 22nd November 2021. Progress on the functioning of Water logging Committee is being provided to the members regularly by email. Board of Directors has been actively engaging various government authorities to resolve the cause of water logging arising from external areas of ASL campus including PWD drain. The response has been positive so far. Outcomes from this engagement will be aligned with detailed project report for implementation Board of Directors along with North Guwahati Municipal Board (NGMB) has been employing measures to prevent water logging as and when rain fall occurs in ASL campus Progress on water logging will be appraised to the members by email regularly
2.	Electricity load allotted against the requirement with lesser capacity transformer being installed	The electricity connection was applied and obtained by Builder on behalf of all members. As per information and explanation provided to the Society, electricity load enhancement can be taken forward with involvement of consultants and APDCL.
3.	Handover of assets	Society has complete physical possession of assets and infrastructure in respect Common amenities and facilities that is obligated to be provided by the Society to the members by virtue of sale deed of the members at Schedule C. Since June 2019 on formation of the Society, Society has been providing services to its members from such amenities and facilities. Society is in possession of warranty certificates and communication already established with equipment supplier for initiation of AMC No notice has been brought to the Society that any items of asset is pending for handover
4.	Transfer of Common Area	As per provision of applicable law, transfer of common area by the builder to Society needs to be completed within 3 months from the date of receipt of Occupancy Certificate by Builder. As informed.

Secretary

Arya Smart Living Group Housing Co-Operative Society Limited

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		Occupancy Certificate is yet to be issued by GMDA to Builder. please refer to item no 9 for status of Occupancy Certificate. Transfer of Common area will be initiated only after Occupancy Certificate is communicated to the Society by the Builder.
5.	Black Topping in Phase 1 against concrete topping for Phase 2	The scope of raising the height of common roads will form part of detailed project report initiated by Water Logging Committee. Builder stands committed on same.
6.	Delivery as per brochure	Brochure was part of arrangement between members and builder and Society is not a party to the commercial agreement between them. Therefore, Society will not be able to provide any information on this aspect
7.	Transfer of license, permit clearance, and approval from various authorities	Shall be taken up with Builder upon communication of Occupancy Certificate by Builder as per item no 9 below and after transfer of Common Area as per item no 4 above.
8.	Transfer of documents and plans relating to board and maintenance assets etc	Shall be taken up with Builder upon communication of Occupancy Certificate by Builder as per item no 9below
9.	Occupancy Certificate	Builder has communicated the Occupancy Certificate in respect of Building comprising of Swimming Pool and Club House issued by North Guwahati Municipal Board. The details in this respect are being communicated to members by way of Agenda to AGM on 9th September 2021 As informed by Builder, it had applied for Occupancy Certificate in 2018 before GMDA. Till date no Occupancy Certificate has been issued by GMDA. So far, no deviation in construction has been reported by GMDA as far member individual villa's are concerned. The application is pending before GMDA as some contentious issues has been raised by one of the members of the Society before GMDA by way of RTI complain. Society is not an applicant for obtaining Occupancy Certificate, therefore as and when Occupancy Certificate is obtained by Builder, the same shall be communicated to all members for their perusal and concern

Secretary

Jyotirmoyee Dutta

Arya Smart Living Group Housing Co-Operative Society Limited

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Financial year ending 31st March 2021

Key Activities undertaken by New Board of Directors post 31st March 2021

Against the critical task identified by Board of Directors in its first meeting held on 7th March 2021, the progress and status of such task is being presented before the members on the floor of the house by way of presentation by **Dr. Imdadul Hussain.**

Challenges before your Society

Timely collection of monthly maintenance charges from members by Society is a constant challenge before the society as it impacts the working capital capacity of your Society to meet its recurring commitment to contractors, vendors and procurement of items for maintenance activities. Members are requested to consider this hardship faced by Society

There is always going to be constant expectation of the members towards the higher quality of maintenance services which in turn is totally linked with the quantum of **only one source of revenue stream of the Society which is members' monthly contribution** and therefore a balance needs to be strike out. Therefore, going forward review of monthly contribution vis-à-vis the level of services expected and **exploring the additional source of revenue stream of Society needs to be reviewed critically.**

It has been observed that considering above constraints, services rendered to the members by Board **and Office Bearers are at times subjected to excessive negative criticism which goes to disrespect the time and effort of Board and Office Bearers. Member's attention is invited that the Office of Board and Office Bearers is not an office of profit but rather they are devoting and investing their valuable personal time towards the objective of the Society which results in advantage of comfortable stay of all members**

Acknowledgement

Your Society wishes its sincere gratitude to staff of the Contractors and the Contractor for their support and services

Secretary Tapajyoti Dutt

Arya Smart Living Group Housing Co-Operative Society Limited

ANNUAL REPORT

Financial year ending 31st March 2021

Your Society wishes its sincere gratitude to previous Promoter Board and previous Office Bearer for their contribution and support

Your Society wishes its sincere gratitude to all the officers of the Office of Assistant Registrar, Co-Operative Societies for their guidance and support to the Society for complying the Co-Operative Societies Law

Thanking you

For and behalf of Board of Directors

Tapanjyoti Dutta

Secretary
ASLG HSG Coop. Soc. Ltd.

Tapanjyoti Dutta. Secretary

363 (599)

Annual General Meeting of Arya Smart Living Group Housing Cooperative Society Limited

Date - 26/09/2021 Venue: Club House

Time - 11 AM

Agenda
1. Welcome Address by the President of the Society
2. Confirmation of minutes of previous AGM
3. Secretarial report to be submitted by Secretary of the Society
4. Placement of Annual Report of 2020 - 21 by BOD and open for discussion
5. Projected Annual Budget for F.Y 2021 - 22 to be placed
6. Review of work done and to be done by the Society to be discussed
7. Election/Selection of internal auditor
8. Adoption of occupancy certificate issued by office of the North Guwahati Municipal Board.
9. Others / Miscellaneous topics
10. Vote of Thanks

Signature of Members :-

ID	Name	Signature
1.	RAHUL SARMA	Rahul Sarma
2.	S.M. Goswami - C/19	[signature]
3.	RATTESH SARMA C/104	[signature]
4.	TAPANJYOTI DUTTA - E-32	Tapanjyoti Dutta
5	DR. IMDADUL HUSSAIN - 103D	[signature]
6	Purnima Upadhya - 83D	[signature]
7	Rama Krishna Newar - 95D	[signature]
8	Nikhil Dutta - D8	[signature]
9	Krishna Kumar B-2	[signature]
10	Dr Bijoy Goswami 107, 108, 106	[signature]
11	Dr. Rani Dey. D-39	[signature]
12	Dr Ganesh Das - A-6	[signature]
13	Mr Sanjay Baruah D-C1	[signature]
14	Dilip Sarkar D-94	[signature]
15	Biren Gogoi C-63	[signature]

[signature]
Secretary
ASLG HSG Coop. Soc. Ltd.

Singatar of ~~Absent~~ Members — Singatar

I.D. Name

16. Prodyut Dutta D-22
17. Dr. Mrinmoy Bordoloi D-49
18. Bina de Chetia D-47
19. Dr. Sujata Deori D-89
20. Shekhar Jajodia D-56
21. Ram Krishna Prasad C-97
22. Dr. Manju Kr Das D-43
23. Dr. Sidhartha Dey D-12 B
24. Ms Rekha Sena B-1
25. Mrs Kalpalata Mehta C-36.
26. Dr. Dolly Gogoi D.30
27. Subrata Chatterjee D-23
28. Jiten ch. Kalita D-86
29. P. K. Bora D-04
30. Rita P. Sharma. D-16
31. Arup J. Choudhury D-30
2 Post received 32. Dr B.P. Choudhury B-8
33.
34.
35.

Out of 83 share holders. 32 share holders attended the AGM.

Rajaman Internal Auditor of C.S. Guwahati

✓ Tapajyoti Dutta
Secretary
ASLG HSG Coop. Soc. Ltd.

West Bengal Dec 11, 2023 19:31

ASLG HSG COOP SOC. LTD.

(Regn No.G-09/2019-20 dated 10.06.2019)

Vill-Abhoypur, PO-College Nagar, Dist-Kamrup

Receipt & Payment Account for the year 2020-21

Receipts	Amount	Payments		Amount
1. To Application fees	4,500.00	1. By Bank deposits:		22,46,490.56
2. To Admission fees	22,500.00	2. Maintanance Exp:		21,69,505.00
3. To Share Money	4,500.00	(a) Civil Security,Electrician, Cleaners	16,33,488.00	
4. To Adjustable advance from members	21,99,990.56	(b) House Keeping, Garbage carrying Vehicle Fuel	65,609.00	
5. To Other Receipts	15,000.00	(c) STP Maintance Senirizerer	20,001.00	
6. To withdrawl from Bank A/C	21,90,477.00	(d) Electricity Charges	3,36,424.00	
		(e) Legal Expenses(Court Case)	30,000.00	
		(f) Consultancy fees to Garuda power Pvt Ltd.	64,683.00	
		(g) AGM Expenses	19,300.00	472.00
		3. Bank Charge:		20,500.00
		4. Grass cutting Machine		
Total	44,36,967.56	Total		44,36,967.56
Opening Balance	Nil	Closing Balance		Nil
Grand Total	44,36,967.56	Grand Total		44,36,967.56

Checked By:
Internal Auditor

President
ASLG HSG Coop. Soc. Ltd.
President
ASLG HSG COOP SOC. LTD.

Secretary
(ASLG HSG Coop. Soc. Ltd.
Secretery
ASLG HSG COOP SOC. LTD.

Kolkata, West Bengal Dec 11 2021, 19:31

ASLG HSG COOP SOC. LTD.

(Regn No.G-09/2019-20 dated 10.06.2019)

Vill-Abhoypur, PO-College Nagar, Dist-Kamrup

Income & expenditure Account for the year 2020-21

Expenses		Amount	Income	Amount
1. Reserve fund			1. Application fee	4,500.00
(a) Application Fees	4,500.00		2. Admission Fee	22,500.00
(b) Admn. Fee	22,500.00	27,000.00	3. Other Receipts	15,000.00
2. Bank charge		472.00	4. Maintanance Expenses to be shared	
3. Maintanance Exp.		21,69,505.00	by all villa owners	21,69,505.00
4. Depreciation		7,600.00		
	Total	22,04,577.00	Total	22,11,505.00
	Net Surplus	6,928.00	Net Loss	Nil
	Grand Total	22,11,505.00	Grand Total	22,11,505.00

Checked By:
Internal Auditor

President
ASLG HSG Coop. Soc Ltd.
President
ASLG HSG COOP SOC. LTD.

Secretery
ASLG HSG COOP SOC. LTD.

Secretary
ASLG HSG Coop. Soc. Ltd.

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ASLG HSG COOP SOC. LTD.

(Regn No.G-09/2019-20 dated 10.06.2019)

Vill-Abhoypur, PO-College Nagar, Dist-Kamrup

Balance Sheet as on 31.03.2021

Liabilities		Amount	Asset		Amount
1. Paid up share capital		8,200.00	1.Cash at bank		11,18,707.06
(a) Previous Year	3,700.00		2. Imprest A/C with V.P of Promoter Board 2019-20 B/S		10,000.00
(b) Current Year	4,500.00		3. Maintanance Expenses to be shared by all villa owners		28,56,530.00
2. Reserve Fund		49,200.00	(a) Previous Year	6,87,025.00	
(a) Previous Year	22,200.00		(b) Current Year	21,69,505.00	66,410.00
(b) Current Year	27,000.00		4. Furniture & Machine		
3. Adjustable advance from members		39,75,490.56	(a) Previous Year	53,510.00	
(a) Previous Year	17,75,500.00		(b) Current Year	20,500.00	
(b) Current Year	21,99,990.56			74,010.00	
4. Net Surplus		18,756.50	Less- Depreciation	7,600.00	
(a) Previous Year	11,828.50				
(b) Current Year	6,928.00				
	Total	40,51,647.06	Total		40,51,647.06

Checked By:
Internal Auditor

President
ASLG HSG COOP SOC. LTD.

Secretery
ASLG HSG COOP SOC. LTD.

ASLG HSG COOP SOC. LTD.

Vill-Abhoypur, PO-College Nagar, Dist-Kamrup

Budget for the F.Y.2021-22

Receipts			Amount	Payments		Amount
1. To Opening Bank Balance:			1,118,707.06	1. By Esstt. Cost		4,102,853.00
2. To Addmission fee receivable from members @100 X 14			1,400.00	(a) Salaries of staff @25000X12	300,000.00	
3. To Application fee receivable from members @500 X 14			7,000.00	(b) Civil security, Electrician,Cleaners	2,040,000.00	
4. To Share money receivable from members @100 X 14			1,400.00	(c) Conveyence	60,000.00	
5. To Maintanance Receivable from Members:			4,530,000.00	(d) Electricity Charges	360,000.00	
(a) Annual Maintanance charges from 14 members @3000 X 12 X14		504,000.00		(e) Fuel Expenses	180,000.00	
(b) Annual Maintanance charges receivable from members of:-				(f) Garbage disposal	84,000.00	
i) Type A- @6500X12X7 Nos.		546,000.00		(g) Annual Maintanance charges of electric, CCTV, Pump, S.T.P, Fire, Generator,Gardening etc.	800,000.00	
ii) Type B- @4500X12X8 Nos.		432,000.00		(h) Office Expenses	75,000.00	
iii) Type C- @3500X12X22 Nos.		924,000.00		(i) AGM & BOD meeting Expenses	50,000.00	
iv) Type C- @3000X12X59 Nos.		2,124,000.00		(j) Legal Expenses	50,000.00	
				(k) Holding Tax	53,853.00	
				(l) Misc	50,000.00	
6. From Arya Erectors India Pvt Ltd. as maintanance charges against 14 Nos.			309,100.00	2. By Purchase & installation of computer & printer		60,000.00
(a) Received upto Sept'21	157000			3. Surplus		1,804,754.06
(b) Receivable from Oct'21 to March 2022	152100					
7. Deficit			NIL			
		Total	5,967,607.06		Total	5,967,607.06
		O/B	Nil		C/B	Nil
		G.T	5,967,607.06		G.T	5,967,607.06

President
ASLG HSG Coop Soc. Ltd.

Secretary
ASLG HSG Coop. Soc. Ltd.

Annexure-'R-1'

GOVERNMENT OF ASSAM

OFFICE OF THE ASSISTANT REGISTRAR OF CO-OPERATIVE SOCIETIES

GUWAHATI, BHANGAGARH, GUWAHATI-05

No. CKGH. 44/2009/533 Dated Guwahati the 24th Feberuy'2021

From :- Sri Nilutpal Gohain.
Assistant Registrar of Co-operative Societies, Guwahati,
Bhangagarh, Guwahati-05

To,

Dr. Ravi Day and 6 others,
Arya Smart Living Groun Housing Coop: Societies Ltd.
Abhaypur, North Guwahati, Kamrup (Assam).

Sub :- Affairs of Arya Smart Living Group Housing Coop: Societies Ltd.

Ref:- Your complain, dated: 25/01/2021 Receipt on 28/01/2021.

Sir,

With reference to your complain cited above, an enquiry was conducted by this office regarding violation of Rules. 7 of Assam Co-operative Societies Election Rules 2019, during the nomination to the election of Board of Director of Arya Smart Living Group Housing Coop: Societies Ltd.

The main complain mentioned in the petition dated: 25th January'2021 is that Sri Ram Krishna Pradhan, Sri Tapan Jyoti Dutta and Dr. Bijoya Goswami are shareholders of Builder and as such suffer disqualification under section 37 of the Assam Coop: Societies Act, 2007 and Rule 7 of the Assam Coop: Societies election rules 2019. It is revealed from the enquiry that all the 73 numbers of members whose name appeared in the final voter list of the society have purchased villa from Arya Erectors India Pvt Ltd. and they have been given physical possession of villa by the company. As per agreement for purchase of villa, the title deeds of villa building and land on which building stands has been transferred to individual villa members and the common areas & various infrastructure has already been transferred to villa owners, with maintenance right to the society by respective sale deed executed between the villa members and the company as per sale deed point No. 11 in schedule 'C'.

Through the copy of the deed of agreement provided by you, states that "all the common areas and facilities and residuary right in the proposed villas including the land shall continue to remain, with the first party (Arya Erectors India Pvt. Ltd.) till such time the land is transferred to the society/association with equal proportions in the names of the villas owners and villas allotters," it revealed from the sale deed at point No. 11 that the common amenities described in schedule –C has been under the possession of Arya Smart Living Group Housing Coop: Societies Ltd. and are renting out fact subject to payment of necessary fees/charges by the villa owners/members of the society.

The society was registered on 10th June'2019 and as per the HDFC Bank Account No. 50200044249438) statement of the society, the earliest rental income earned by the society has been from 05/03/2020. The secretary of the society has stated in the bank statement that some of the Bank transactions are rental earned by Arya Smart Living Group Housing Coop: Societies Ltd. by renting out club house, Banquet hall and other rooms.

Moreover regarding occupancy certificate, it is found that the builder Arya Electors India Pvt. Ltd. has already submitted the completion report dated: 3/7/2018 in the O/o The GMDA, Bhangagarh, Guwahati. However, your claim regarding written confirmation issued by GMDA starting that no occupancy Certificate has been issued by them to the builder till date, could not be substantiated due to lack of documentary evidence. In view of the above mention facts it may be ascertained he that section 37 (C) dose not apply on Ram K. Pradhan, Tapan Jyoti Dutta and Dr. Bijoya Goswami as they purchased the villas on individual capacity and the common areas/amenities of Arya Smart Living Group Housing Coop: Societies Ltd. has already been handed over to the society and Arya Electors India (Builder) Pvt. Ltd. has no claim over the said property.

This is for favour of your information.

Yours faithfully

//

Assistant Registrar of Co-operative Societies,
Guwahati, Bhangagarh, Guwahati-5.

Copy to:-

1. The Registrar of Co-operative Societies, Assam, Khanapara, Guwahati-22 for favour of kind information.
2. The Zonal Joint Registrar of Co-operative Societies, Guwahati Zone, Guwahati-5 for favour of kind information.
3. The Deputy Registrar of Co-operative Societies, Kamrup, Guwahati-5 for favour of kind information.
4. The Chairman/Secretary, Arya Smart Living Group Housing Co-operative Society Ltd.
5. Office order file.

Assistant Registrar of Co-operative Societies,
Guwahati, Bhangagarh, Guwahati-5.

GAHC010127252020

THE GAUHATI HIGH COURT
(HIGH COURT OF ASSAM, NAGALAND, MIZORAM AND ARUNACHAL PRADESH)

Case No. : WP(C)/3654/2020

GANESH CH. DAS
S/O- LT. DIJENDRA CH. DAS, R/O- A 6, ARYA SMART LIVING, ELIGIBLE MEMBER OF ARYA SMART LIVING GROUP COOPERATIVE SOCIETY, VILL- ABHOYPUR, NORTH GUWAHATI, MOUZA- SILA SIHDERI GHUPA, DIST.- KAMRUP (R), PIN- 781031

VERSUS

THE STATE OF ASSAM AND 6 ORS.
REP. BY THE REGISTRAR OF CO-OPERATIVE SOCIETIES, ASSAM, KHANAPARA, DIST.- KAMRUP (M), PIN- 781023, ASSAM

2:THE ASSTT. REGISTRAR OF CO-OPERATIVE SOCIETIES
ASSAM
BHANGAGARH
DIST.- KAMRUP (M)
PIN- 781008
ASSAM

3:M/S ARYA ERECTOR INDIA PVT. LTD.
A COMPANY REGD. UNDER THE COMPANIES ACT
1956
H.O.
H.NO. 123
ARYA SMART LIVING
VILL- ABHOYPUR
NORTH GUWAHATI
MOUZA- SILA SINDURI GHOPA
DIST.- KAMRUP (R)
PIN- 781031
REP. BY ITS MANAGING DIRECTOR SHRI ANIL KUMAR SARMA
S/O- LT. RABINDRA NATH SARMA

R/O- H.NO. 20
HAPPY VILLA
BALARAM BORA ROAD
BARUWARI
P.O. SHILPOKHURI
GHY-03

4:MRINMOY BARKOTOKI
PRESIDENT (NEWLY ELECTED) OF ARYA SMART LIVING GROUP HOUSING COOPERATIVE SOCIETY LTD.
R/O- D 49 OF ARYA SMART LIVING
SITUATED AT ABHOYPUR
P/O- COLLAGE NAGAR
P.S. CHANSARI
DIST.- KAMRUP (R)
GHY- 781031

5:RAMA KRISHNA NEWAR
PAST PRESIDENT OF ARYA SMART LIVING
R/O- D 95 OF ARYA SMART LIVING GROUP CO-OPERATIVE SOCIETY LTD.
SITUATED AT ABHOYPUR
P/O- COLLAGE NAGAR
P.S. CHANSARI
DIST.- KAMRUP (R)
GHY- 781031

6:RITA PRADHAN
SECRETARY ARYA SMART LIVING GROUP COOPERATIVE SOCIETY LTD.
W/O- SHRI RAM KRISHNA PRADHAN
R/O- ARYA SMART LIVING
C-97 AT ABHOYPUR
P/O- COLLAGE NAGAR
P.S. CHANSARI
DIST.- KAMRUP (R)
GHY- 781031

7:SUBRATA CHATARJEE
THE THEN SECRETARY
ARYA SMART LIVING
D 23 OF AT ABHOYPUR
P/O- COLLAGE NAGAR
P.S. CHANSARI
DIST.- KAMRUP (R)
GHY- 78103

For the petitioner(s) : Mr. B.K. Sen, Advocate.

For the respondent(s) : Ms. M.D. Borah, SC, Cooperation Deptt.

Mr. N. Deka, Advocate for Respondent No.3.

BEFORE

HON'BLE MR. JUSTICE DEVASHIS BARUAH

O R D E R

11.09.2023

1. The learned counsel appearing on behalf of the Petitioner submits that taking into account that as the dispute in issue primarily lies within the jurisdiction of the competent Civil Court and/or appropriate forums but not the extraordinary jurisdiction under Article 226 of the Constitution, the Petitioner may be permitted to withdraw the instant writ petition with a liberty to approach the appropriate forum or the competent Civil Court.

2. Taking into account the above, the instant writ petition stands closed on withdrawal. It is made clear that the withdrawal of the instant writ petition shall not prejudice the petitioner to approach the appropriate form and/or the competent Civil Court if so permissible under the provision of law.

JUDGE

Comparing Assistant

(6)

1374 Annexure- R-6

OFFICE OF THE GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY
STATFED BUILDING, BHANGAGARH, GUWAHATI-781005

Website: www.gmda.assam.gov.in
E-mail: ceogmdaghy@gmail.com

Tel: 0361-2529650, 0361-2529824
Fax: 0361-2529991

No.GMDA/BP/2214/26112012/597 Dated: 12.12.2022

To: Sri Anil Kr Sarma, Managing Director
M/S Arya Erectors India (P) Ltd.
503, KP Enclave, Suhagpur, Rehabari,
Guwahati – 781008

Sub: Regarding issue of occupancy certificate.

Ref: I. Order of this Authority vide no GMDA/BP/2214/26112012/489, Dated 16.09.2022
II. Your reply received on dated 14.10.2022, 19.10.2022, 03.11.2022, & 16.11.2022 with modified OC proposal and revised as built drawing.

In response to our order dated 16.09.2022, a fresh occupancy certificate proposal (part) is submitted subsequent to issue of revised occupancy certificate of club house etc by North Guwahati Municipal Board cancelling the earlier occupancy certificate issued from their end. A joint site verification was done in response of your letter submitted with modified as built drawings on dated 03.11.2022 for consideration of the occupancy certificate proposal and following observations are found:-

- The brick wall at triangle garden was demolished but road is not constructed till now as shown in the as built drawing.
- There are about 54 nos of villas which have encroached the gap at the backside between the two blocks by constructing some A T structures enclosed with half brick wall and iron grill at Gr level. Further about 35 nos of those villas are also found to have unauthorized construction at terraces by constructing some AT/ RCC structure which were not shown in revised as built drawing submitted from your end. Due to non accessibility inside the occupied houses, many of villas which are under lock & key during the time of verification, the exact figure and nature of construction on terraces and in the balconies could not be ascertained in actual. Photographs of some of those villas are enclosed herewith which are taken at the time of joint site inspection for your reference and needful actions.

You are therefore requested to carry out a detailed survey and remove all unauthorized structure as mentioned above and furnish a recasted occupancy certificate proposal along with a compliance report as deemed fit within 15 (fifteen) days from receiving of this communication for further consideration of the occupancy certificate proposal.

Encl : As stated .

(Sri. Kausar Hillaly, ACS)
Chief Executive Officer
Guwahati Metroloitan Dev. Authority
Bhangagarh: Guwahati-5

Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Memo No. GMDA/BP/2214/26112012/597(A) Dated : 12.12.2022.

Copy forwarded to :

1. The Secretary, RERA. This has reference to order No. Assam/RERA/2017/64/170, dated ...22.(with enclosures)
2. Office file.