

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
APPEAL NO. 112 OF 2018

IN THE MATTER OF:

UNIVERSITY OF DELHI

... APPELLANT

VERSUS

MINISTRY OF ENVIRONMENT, FOREST
 AND CLIMATE CHANGE & ORS

... RESPONDENTS

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PLACE: NEW DELHI
 DATED: 8.01.2021

Note: All parties have been served with an advance copy of the present Reply.
 Proof of service is attached herewith.

[Advocate]

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SHORT AFFIDAVIT ON BEHALF OF RESPONDENT NO. 4

(YOUNG BUILDERS (P) LTD.)

The Respondent No.4 states as under:

1. The Appellant has filed the captioned Appeal impugning the grant of Environment Clearance (“EC”) by the State Environmental Impact Assessment Authority (“SEIAA”) (Respondent No. 2) to Young Builders Pvt. Ltd., Respondent No. 4 herein, on 23.03.2018, for the construction of a multi-storey residential complex at Delhi. The Respondent No. 4 is undertaking a residential group housing project (“**the Project**”) near the Vishwavidyalaya Metro Station on the land leased by the Delhi Metro Rail Corporation (“DMRC”), Respondent No. 3 herein, pursuant to an open public auction conducted in 2008, on payment of Rs. 218.20 crores.

2. By way of the Order of this Hon'ble Tribunal dated 27.02.2020, an Independent Expert Committee ("**the Committee**") was formed by this Hon'ble Tribunal to assess the environmental viability of the Project. In the aforesaid Order, this Hon'ble Tribunal observed as under,

62. While prima facie the project does not appear to be viable for the reasons already mentioned, we are of the view that least which ought to be done is to suspend the EC, consequential Consent to Establish and further activities of the project proponent and have an independent evaluation conducted in the interest of environment and public health.

*We have already noted the stand taken by the DPCC that SEIAA is not functional and DPCC is only a secretariat for SEIAA without any SEIAA member available. **Thus, the evaluation will now have to be done by an independent Committee to ascertain viability of the project having regard to the existing environmental status and realistic impact of the project on the recipient environment, including in terms of the ambient air quality.***

The assessment may be made independent of the observations made herein above within two months from today.

The Committee will comprise a senior representative of MOEF&CC; a senior scientist from the Indian Council of Forestry Research and Education, Dehradun; a scientist/engineer from the Central Ground Water Board, New Delhi; a senior scientist/engineer from the Central Pollution Control Board; a representative of National Disaster Management Authority, Govt. of India; representative of School of Planning and Architecture, New Delhi, senior scientists on each from Wadia Institute of Himalayan Geology, Dehradun, G.B. Pant Institute, Almora and IIT Kanpur. The Nodal Agency for compliance and coordination will be Member Secretary, CPCB. First meeting of the Committee may be held preferably within two weeks from today. The Registry may furnish a copy of complete set of paperbook to the Member Secretary, CPCB forthwith.

(Emphasis Supplied)

A Copy of the Order passed by this Hon'ble Tribunal dated 27.02.2020 in Appeal No. 112 of 2018 is annexed herewith and marked as **ANNEXURE A-1. (From Pgs.1611 To 1666).**

3. That thereafter, the Order of this Hon'ble Tribunal dated 27.02.2020 was appealed to the Hon'ble Supreme Court, which passed an Order on 10.06.2020 in Civil Appeal No. 2485 of 2020 (*Young Builders Pvt. Ltd. v. University of Delhi & Ors.*) observing as follows,

(6) We direct the Committee to examine various aspects including the viability of the Project without being influenced by any of the opinions expressed by the National Green Tribunal in the impugned order. The appellant, University of Delhi and Delhi Metro Rail Corporation are at liberty to file their respective representation along with requisite documents before the Committee within the period of two weeks. The Committee before it starts its first deliberation shall afford an opportunity of preliminary hearing to the appellant, University of Delhi and Delhi Metro Rail Corporation. Likewise, the Committee shall also afford a further opportunity of hearing to the appellant, University of Delhi and Delhi Metro Rail Corporation before it submits its final report before the Tribunal.

(7) The Committee shall complete the deliberation and submit its final report within two months from the date of the representation being filed by the appellant and University of Delhi and Delhi Metro Rail Corporation. The Member Secretary, Central Pollution Control Board, shall coordinate and take necessary steps for convening the meeting of the Committee. The meeting of the Committee shall be conducted by virtual hearing, or video conferencing, and afford an opportunity of hearing to the representatives of the parties, mentioned above.

(8) After submission of the final report by the said Committee, the appellant, University of Delhi and Delhi Metro Rail Corporation are at liberty to raise all the contentions/points before the National

Green Tribunal.

A Copy of the Order dated 10.06.2020 passed by the Hon'ble Supreme Court in C.A. No. 2485 of 2020 is annexed herewith and marked as **ANNEXURE A-2. (From Pgs.1667 To 1671)**

4. Pursuant to the Order of this Hon'ble Tribunal, the Committee held meetings on 13.03.2020, 08.07.2020, 14.07.2020, 05.08.2020, 08.10.2020 and 01.12.2020. The Appellant, the Respondent No.4 and the DMRC (Respondent No.3 herein) made submissions before the Committee in the Second Meeting held on 08.07.2020. The Ld. Committee also noted the objections of the University of Delhi *qua* the composition of the Ld. Committee as is evident from the 1st, 2nd and 3rd Minutes of the Meeting of the Committee dated 08.07.2020, 14.07.2020 and 05.08.2020. Further, the Committee Members visited the Project site on 17.08.2020 to physically verify the points of contention and earmark areas of influence, with respect to the environmental impact of the project.
5. The Committee uploaded its Rapid Indicative Environment Assessment Report dated 10.12.2020 on 11.12.2020 ("**the Report**") wherein it was concluded by the Committee that,

*"In view of the impact analysis, **the project seems viable** as environmental impacts, including impact on traffic congestion and urban infrastructure/services, are minimal/nominal."*

(Emphasis Supplied)

A Copy of the Rapid Indicative Environment Assessment Report of the Independent Committee dated 10.12.2020 is annexed herewith and marked as **ANNEXURE A-3. (From Pgs.1672 To 1874)**

6. After a detailed analysis of the objections raised by the Appellant as well as the issues pointed out by this Hon'ble Tribunal in its Order dated 27.02.2020, the Ld. Committee has rendered a clear finding to the effect that the Project is environmentally sustainable and viable.

7. The Report analysed the following aspects of the Project,
 - A. Impact on population density,
 - B. Incremental Air Pollution Load From the Project,
 - C. Estimating Additional Water Requirement,
 - D. Waste Water Generation,
 - E. Solid Waste Management,
 - F. Existing Noise Levels,
 - G. Impact on Traffic Congestion
 - H. Stability of Structure with respect to Earthquake
 - I. Compliance Status

8. The following findings were rendered by the Committee on each of the aforesaid facets of the Project,

A. Impact on population density

*Timarpur ward is the largest ward in the grid and an incremental increase in the population was estimated in this ward. The estimated increase in the population density in the Timarpur ward will be 6777 persons per sq. km. The percentage increment in the ward will be 14%. This increase is significant; however, tall residential buildings do give higher population density. **This increase in density is not likely to impact the urban infrastructure/ services, as noted above.***

B. Incremental Air Pollution Load From The Project

Being a high-income group residential project, the likely source of air pollution is vehicular emissions from estimated additional 615 cars on road during occupancy phase. During assessment, it was assumed that these additional cars would be BS IV compliant and driven by petrol or CNG. The applicable emission limits for CO, HC and NOx were used to estimate additional pollution load. The BS IV 4 wheelers do not generate particulate matter and thus no likely addition to existing PM levels is expected.

*Further, the annual pollution load data from ARAI-TERI, 2018 study for Delhi was used to estimate additional pollution load in Timarpur ward due to additional 615 cars on road due to proposed project, using area as proportionating factor. **Statistically insignificant increment is noted in CO (0.25%), HC (0.09%) and NOx (0.1%) emissions due to proposed project.***

C. Estimating Additional Water Requirement

*It is understood that no ground water will be extracted during construction & occupancy phase of the project. **The water requirement during construction will be met through private tankers and during***

occupancy by Delhi Jal Board for which necessary permission have been obtained. Further, 0.003% increase in water requirement in the grid is anticipated.

D. Waste Water Generation

As total 34% of daily water requirement is proposed to be met through recycling (flushing & horticulture) the daily fresh water demand is lower. Further, a 0.002% percentage increase in existing load of municipal sewer is anticipated due to discharge of treated wastewater from the project.

The proposed STP capacity is adequate with wastewater estimation based on @4 persons per household as indicated by the project proponent. However, it will be inadequate to suitably treat daily wastewater generated when quantity is estimated @4.75 persons per household.

E. Solid Waste Management

An increase of 1.27% from the present generation of solid waste in the grid is estimated due to the project.

F. Existing Noise Levels

As it is a group housing project, miniscule impact on noise environment during occupancy phase is anticipated, except during intermittent operation of the DG sets as backup power.

G. Impact on Traffic Congestion

Based on analysis, it is inferred that the inclusion of additional 615 passenger cars on the road from the project will result in marginal increase in volume to capacity ratio (ranging 0.04 to 0.16). For the various section of roads, it is also observed that increase in volume to capacity ratio during the morning peak hours (0.04-0.06) and evening peak hours (0.05-0.08) is less, as compared to the ratio during

afternoon time (0.09-0.16). **Overall, there will a marginal degradation in level of service.**

H. Stability of Structure with respect to Earth Quake

University of Delhi's north campus falls under the 'high hazard zone' having worst category of "very high" risk index. Thus, seismic stability of 37 storeyed project was taken into consideration during project assessment and the structural stability certificates were verified. It is noted that following approvals have been obtained from concerned authorities, It is noted that following approvals have been obtained from concerned authorities,

- 1) FORM 07 (Structural Stability Certificate) dated 04.07.2017 – This certificate was submitted to North DMC along with building plan approval application*
- 2) STR certificate dated 10.01.2018 – This is the detailed structural stability certificate issued by structural engineer.*
- 3) A detailed foundation recommendation report of Prof. VS Raju, Ex. Director, IIT, Delhi dated 17.04.2018 - In order to keep building structure safe with respect to earthquake.*

I. Complaine Status

The National Capital Territory Delhi has been divided into 15 planning Zones (Divisions). The proposed development lies in Zone 'C', subzone 13, also known as 'Civil Lines Zone and lies in redevelopment area along metro corridor and not in the Civil Lines Bungalow Area. The proposed project has been formulated as per the provisions of its location within the redevelopment zone of MRTS corridor – the land use is residential and the proposed project is group housing. The aspects related to an urban design study to support the proposed built form as suggested in the ZMP has been fulfilled by scrutiny of the proposal by the Delhi Urban Arts Commission on 16th August 2017. A list of approvals obtained from various Departments is as below,

Sr. No.	Approval
	Archaeological Survey of India (ASI) NOC dated 08.05.2009 ^[L] _[SEP]

	Tree removal/transport permission dated 25.05.2011- Department of Forest & Wildlife
	National Monument Authority of India (NMAI) NOC dated 26.12.2012 ^[1] _{SEP}
	Electric Sub Station approval from Tata Power Delhi dated 14.08.2013
	Water supply approval from Delhi Jal Board (DJB)dated 07.10.2015
	Storm water Drainage scheme approval from North DMC dated 24.11.2015
	Sewerage Scheme Approval from DJB dated 11.01.2016
	Delhi Urban Arts Commission (DUAC) approved dated 16.08.2017
	Delhi Fire Services (DFS) Clearance dated 08.09.2017
	Layout Plan Approval 17.11.2017 issued by Standing Committee of North
	Building Plan Sanction (Form B-1) dated 31.07.2019 issued by North DMC

9. The Ld. Committee has made certain suggestions *qua* the implementation of the Project and the answering Respondent undertakes to comply with the same. However, the answering Respondent has an objection to the suggestion (c) made by the Committee regarding restricting the Project to one basement instead of the planned two basements.
10. The following are the suggestions made by the Ld. Committee and the point-wise reply of the answering Respondent therein:
- a. *The project proponent must ensure that all necessary approvals have been obtained and are valid.*

Response of the Respondent No.4 – The Respondent No. 4 will ensure that all necessary approvals are obtained and are valid. As listed by the Committee in pg.30 of the report, various approvals have already been obtained for the project and the same shall be reviewed once the Environmental Clearance as obtained is finally upheld by the Hon’ble NGT.

b. It is noted that the project proponent has calculated the proposed STP capacity as 200 KLD based on the assumption of @4 persons per household. However, based on Census data, 2011, Delhi's average population density is @4.75 persons per household (range 4.6 – 4.9). Thus, the corresponding sewage generation of 225 KLD during the occupancy phase will exceed the proposed STP capacity. Therefore, the project proponent is advised to upgrade STP capacity to 225 KLD or restrict water supply so that peak sewage generation must not exceed 200 KLD.

Response of the Respondent No.4 – The Respondent No. 4 appreciates the concern of the Committee for providing an enhanced capacity of 225 KLD for the Sewage Treatment Plant (“STP”). In this connection, it is pertinent to note that the Environment Clearance was issued to the Project *vide* letter no. DPCC/SEIAA-III/C-353/DL/2018/6908-6919 dated 23.03.2018. The Respondent No. 4 submitted before the State-Level Expert Appraisal Committee (“SEAC”) that it would provide an STP with a capacity of 275 KLD, based on a waste-water discharge of 249 KLD, and the SEAC had acknowledged that the total waste-water generation shall be 249 KLD which will be treated at onsite STP of 275 KLD (*point 2 on page 1 of EC*). The

Respondent No.4 assures this Hon'ble Tribunal that, as prescribed by the EC in point no.2 (at Pg.52 of the present appeal), it would design the STP to cater to 249 KLD effluents and provide a capacity of 275 KLD.

- c. Considering that the project area is part of groundwater discharge zone, it is advised to restrict construction to only one underground basement and one stilt parking, instead of the proposed two. The parking plan may accordingly be revised and necessary approvals obtained.

Response of the Respondent No.4 –

- i. At the outset, it is submitted that there is no legal restriction on the construction of two undergrounds basements in the Municipal Codes, Environmental Laws or the rules appended thereto.
- ii. In any case, it is submitted that there will be no obstruction to the flow of ground water. Once the basement is constructed, the ground water level would recover to its original level and there would be no hindrance in the regional and local ground water flow direction.
- iii. It is critical to note that the Ld. Committee did not raise the issue of two basements with the Respondent No.4, otherwise, the Respondent would have sufficiently addressed the concerns of the Ld. Committee regarding the obstruction of groundwater. Since the aforesaid query was not put to the Respondent No.4, it could not apprise the Ld. Committee of the following facts,
 - a. The National Building Code prescribed for construction of basements does not prescribe any restriction with respect to stoppage of ground water flow and its management. It prescribes

methods for recharging ground water, rainwater harvesting, etc., for effective water management. The Code has not recognized the issue of obstruction of flow as an area of concern. It also prescribes provisions for ventilation, fire and smoke outlets, first aid, corrosion management, sprinklers, and other facilities permissible or non-permissible. Additionally, the General Building requirement of the Ministry of Housing and Urban Development also does not prescribe any such restriction or any mandatory provision with regards to obstruction of ground water flow.

- b. The IS 16700:2017 code for “Criteria for Structural Safety of Tall Concrete Buildings” prescribes that “*9.4 Depth of Foundation - The embedded depth of the building shall be at least 1/15 of height of building for raft foundation...*” The maximum height of towers in the Project is 139.6 meters and in order to comply with the IS code, the depth of foundation must at least be 9.3 meters. In order to have two basements, the depth below the ground will be 10.05.mtrs and 2.4 mtrs for the raft against the 9.3 mtrs minimum requirement under the IS 16700:2017 code. Thus, as it is for the Project Building, the foundation should be a minimum of 9.3 mtrs (i.e. at least 1/15th of the height of the building) and hence it is submitted that the additional depth will not adversely impact the ground water.
- c. As noted by the Ld. Committee in its Report, the Respondent No.4 has obtained all statutory approvals from the authorities including the Layout Plan Approval dt. 17.11.2017 issued by Standing Committee of North and the Building Plan Sanction (Form B-1) dated 31.07.2019 issued by North DMC both of which have sanctioned the construction of 2 basements in the

Project. Further, the subject EC was issued to the Respondent No.4 on the condition that Ground Water discharge shall be subject to prior approval of Delhi Jal Board in terms of Notification dated 12.07.2010 (*refer to Condition No 16 under Construction Phase.*)

A Copy of the Delhi Groundwater Regulation Directions dated 18.05.2010 is annexed herewith and marked as **ANNEXURE A-4 (From Pgs. 1875 To 1880)**

- d. Further, the National Building Code for Substation and Switchrooms prescribes that, “4.2.1(3) *In case there is only one basement in a building, the substation/switchroom shall not be provided in the basement. Also, the floor level of the substation shall not be lowest point of the basement*” In the Project, substation is planned in the upper basement. In case the Ld.Committee’s suggestion of only 1 basement is to be followed then the substation cannot be provided in the basement as per NBC and the same will have to be planned in open areas thereby reducing the green areas and severely affecting the aesthetics.
- e. The area of one basement in the Project is 15,870.13 sqm whereas the stilt area available for parking is only 610.7 sqm, which is only 3.85% of basement area. Obviously, this smaller stilt area cannot accommodate the number of parking available in one basement area. Respondent No.4 will necessarily have to comply with the parking norms as per MPD / UBBL which works out to 852 Equivalent Car Space (ECS). (*Refer to Layout Plan – Annexure A-5 of the present Affidavit*) Reducing the

project to only one basement will require major design changes with respect to parking, fire safety as well as the requirement for a green area and will further delay the project leading to huge escalation in costs.

- f. In the Project, services like STP, pump room, electrical panel room, transformers, DG sets etc. are planned in basements along with parking. The depth of the planned STP is 8 meters to take care of the required capacity which cannot be achieved in a single basement.

A Copy of the Layout Plan of the Respondent No.4's Project is annexed herewith and marked as **ANNEXURE A-5 (From Pgs.1881 To 1890)**

- iv. In any case, as suggested by the Ld. Committee, the Respondent No. 4 has applied to the District Advisory Committee on Ground Water of the Govt. of NCT Delhi before dewatering and seek a No Objection Certificate on 30.12.2020. This clearance is granted by the Authority after an assessment of the ground water situation in the area and the impact of the Project on ground water. Thus, the said Authority can independently analyse the impact of second basement also, and if considered necessary, may also impose appropriate conditions. It ought to be noted that the said NOC is granted as per the "*Guidelines to regulate and control ground water extraction in India*" ("**the Guidelines**") dated 24.09.2020 issued by the Ministry of Jal Shakti, Union of India pursuant to the Orders of this Hon'ble Tribunal and the Hon'ble Supreme Court. The Guidelines contain an exhaustive and detailed list of measures to be

adopted by the Applicant for monitoring and safe use of ground water. Further, specific conditions are mandatorily to be followed by the Applicant such as regular monitoring of dewatering discharge, installation of a STP and payment of abstraction charges/ground water restoration charges depending on the level of ground water in the area. Further, the Applicant must submit an impact assessment report prepared by an accredited consultant on the ground water situation in the area giving detailed plan of pumping, proposed usage of pumped water and comprehensive impact assessment of the same on the ground water regime. Therefore, the entire process enshrined under the Guidelines ensures that environmental risks are considered and management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence are proposed and implemented. The Respondent No. 4 has filed its Application for seeking NOC from the Executive Engineer, Delhi Jal Board on 30.12.2020. Therefore, since there is an existing legal regime to assess and secure the ground water levels, the aforesaid suggestion of the Committee *qua* the two basements and ground water levels would be adequately addressed by the Authority. Further, the Guidelines do not prohibit dewatering but regulate the same taking into consideration various factors.

A copy of the “*Guidelines to regulate and control ground water extraction in India*” dated 24.09.2020 issued by the Ministry of Jal Shakti are annexed herewith and marked as **ANNEXURE A-6** **(From Pgs.1891 To 1919)**

A Copy of the Application of the Respondent No. 4 to the Delhi Jal Board dated 30.12.2020 is annexed herewith and marked as **ANNEXURE A-7 (From Pgs.1920 To 1921)**

v. As may have been observed by the Ld. Committee, the land use of the area in which the Project is being built is predominantly under Public and Semi-public, Residential and Government facilities. It is crucial to note that in the vicinity of the Project, there are several built up or under construction high rise structures with multiple basements including the following:

1. The Delhi Metro Rail corporation has a station and subway hardly 30 meters from the Project and in the direction of the River Yamuna. The facilities there are more than 15 meters deep below the ground.
2. The North Delhi Mall with 4 basements is situated about 700 meters away from the Project in the direction of the River Yamuna.
3. Parsavnath Developers is constructing a group housing project with 3 basements at about 1500 meters from the Project site and towards the River Yamuna.
4. On the upstream side, the Delhi Flour Mills is constructing a group housing project with 3 basements.
5. Further, apart from the above, a number of other high-rise projects with multi basements exist very close to river Yamuna. Prominent amongst these are the 'Supernova' project, which is about 300 meters high, Jaypee Greens 'Wish Town', J.P. Greens Aman I and II and many other high-rise projects.

It is imperative to note that none of the projects in the Project vicinity / along river Yamuna seem to have presented any problems of obstruction of ground water flow and the construction activities have

been permitted by the appropriate authorities for the said constructions.

- d. An undertaking may be submitted that no groundwater will be extracted during the construction phase.

Response of the Respondent No.4 – The Respondent No. 4 shall submit an undertaking that it will not extract any ground water for construction activities.

- e. NOC may be obtained from the District Advisory Committee on Ground Water of Govt. of NCT Delhi before dewatering during construction.

Response of Respondent No.4 – The Respondent No. 4 has already applied on 30.12.2020 to the District Advisory Committee on Ground Water of the Govt. of NCT Delhi to take the appropriate No Objection Certificate before dewatering.

- f. An inlet digital flow meter shall be installed at DJB freshwater supply line.

Response of the Respondent No.4 – The Respondent No. 4 shall install digital flow meter at the Delhi Jal Board fresh water supply line.

- g. All environmental norms should be strictly adhered to during construction and occupancy phase of the project.

Response of the Respondent No.4 – It is submitted that all environmental norms will be strictly adhered to during the construction and occupancy phase of the Project.

11. Furthermore, it is pertinent to note that all the concerns / recommendations made by the Ld. Committee were already examined by SEAC and communicated to the Project Proponent. This proves that SEAC had duly applied its mind and granted EC after thorough assessment of the project and thus, EC should now be validated. The points raised were considered by SEAC as under:

- i. That EC shall be subject to all necessary approvals;
- ii. STP capacity – Impugned EC itself records in Point No 2 that the STP of 275 KLD shall be installed on site as revised plan were sought, submitted by YBPL and examined by the SEAC;
- iii. Ground water discharge – EC issued with a Specific condition that Ground Water discharge shall be subject to prior approval of Delhi Jal Board in terms of Notification dated 12.07.2010 (refer to Condition No 16 under Construction Phase.)
- iv. Digital flow meter installation - EC issued with Condition No 7 under “Other Specific Conditions”.

12. The Respondent No. 4 has also filed its representation before the Member Secretary, CPCB raising the aforesaid points *qua* the Report of the Committee.

A Copy of the Representation of the Respondent No.4 dated 24.12.2020 is annexed herewith and marked as **ANNEXURE A-8. (From Pgs.1922 To 1927)**

13. It is submitted that the Respondent No. 4 undertakes to abide by the Report of the Committee in letter and spirit, however, it would be suitable for the Committee to only reconsider the suggestion no. (c) regarding the restriction on two underground basements since the same would impinge on the structural safety of the Project. Further, the Respondent No. 4 has already sought an NOC from the Delhi Jal Board for dewatering which is pending consideration and therefore any apprehension of the Committee *qua* the obstruction to groundwater would be adequately and holistically considered.
14. The Ld. Committee has also noted that one of the points of contention raised by the Appellant which forms a part of the Order of this Hon'ble Tribunal dated 27.02.2020 relates to the distance between the Project and Critically Polluted Areas in the region, i.e. the Ridge, Delhi-UP Border and other such areas. The Ld. Committee noted in the Report that GIS web tools were used to calculate distance of project from these landmarks and it is noted that shortest aerial distance from Northern Ridge is 500 m, the nearest interstate border is 14.9 km near New Friends Colony and with respect to distance of project site from critically polluted areas, it is 37 km from Najafgarh drain, 5 km from Wazirpur, 10 km from Naraina and 5 km from Anand Parbat. Therefore, the Ld. Committee has duly considered any risk which maybe be posed due to proximity with a critically polluted area and negated the said apprehension.

15. In light of the aforesaid analysis conducted by the Ld. Committee, it is clear beyond an iota of doubt that the Project of Respondent No.4 does not pose any threat to the environment and ecology of the region.
16. The Respondent No. 4 has also been advised at page 21 of the Report, to estimate the total water requirement during the construction phase and submit an agreement with private tanker for supplying the calculated quantity of water during construction phase. This is on the understanding that the embodied water quantity is 27.6 KL/M². Reference has been cited to a paper titled "***Assessment of water consumption in building construction in India.***" By S. Bardhan from the Deptt. Of Architecture, Jadhavpur University, India, published in 2011. In this connection it is humbly suggested that the said paper, at Page 99 Paragraph No. 4.4 titled Results and Discussion states that:

"Inferring from the above calculations, the embodied water of the major building materials together works out to be 25.604 KL/Sq.m while the water consumed during the actual construction was 2 KL/Sq. M. Hence the total embodied water in typical urban construction in Calcutta was found to be 27.604 Kl/sq. m.-----."

The paper also indicates that the water consumption during the actual construction process was found to be only 8% of the total embodied water of the materials together, which is the water consumption within the respective industries at the material production stage.

17. Embodied water is generally regarded as the amount of water which goes into making something (environmentvictoria.org.au/uploads/2016/067>embodied-water.pdf.) and is defined as the amount of water required to manufacture products, including the extracting the raw materials, transporting those materials and processing them into the final product (Illustrated Dictionary of Architecture, 2012, The McGraw-Hill Companies).
18. Understanding that within the 27.604 KL/Sq. Meters, 25.604 KL is the embodied water with respect to the major building materials like cement, brick, steel etc. and that only 2 KL/Sq. Meter is indicated as the actual water requirement during construction stage, Respondent No. 4 has already made a provision of 238 million litres to be actually used during the construction phase of the Project (as mentioned in the EC dated 23.03.2018, Point 2 at Page 1) and for which the Respondent No. 4 has entered into an agreement with an approved contractor to supply treated tanker water.
19. It is submitted that the Ld. Committee at Page 24 has made observations regarding the quantity of construction and demolition wastes (“**C&D Wastes**”) likely to be generated and its management. However, the same has been found to be nominal at Page 31. In this regard, even otherwise, as per the estimates on C&D wastes likely to be generated and as given by the Technology Information Forecasting and Assessment Council (“**TIFAC**”),

it is expected that the C&D waste will not be more than 50 kg/m² of built-up area (Total 1,17,733.82 m² x 50 kg = 5886.7 Tons). There are 04 construction and demolition waste processing facilities in Delhi, located at Burari, Jahangirpuri, East Kidwai Nagar and Shastri Park. The Respondent No. 4 will enter into an agreement with one of these units for handling and disposal of C&D wastes, as and when required. The Respondent No. 4 further undertakes that hazardous wastes such as paint, varnish, solvents, adhesives carrying containers will be kept in separately designated, fully lined and covered sheds with a garland drain, and will be handed over to the recyclers authorized by the State Pollution Control Board / Committee.

20. The present Affidavit is preferred *bona fide* and in the interest of justice.

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PLACE: NEW DELHI
DATED: 8.01.2021

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
APPEAL NO. 112 OF 2018**

IN THE MATTER OF:

UNIVERSITY OF DELHI

... APPELLANT

VERSUS

MINISTRY OF ENVIRONMENT, FOREST
AND CLIMATE CHANGE & ORS

... RESPONDENTS

AFFIDAVIT

I, Rajiv Ranjan Sharma, son of Sh. B. Sharma, resident of House No. 1033, Sector 23A, Gurgaon, Haryana 122017, aged about 51 years, do hereby solemnly state on oath as under:

1. That I am presently employed as Vice President - Project in the Respondent No. 4 Company, and as such I am well conversant with the facts and circumstances of the present case, and competent to swear the present Affidavit.
2. That the accompanying Affidavit has been drafted by my counsel under my instructions.
3. That the contents of the accompanying Affidavit are true and correct to my knowledge, and the same may be treated as part and parcel of my present affidavit.

For Young Builders Pvt. Ltd.

Auth. Signator

DEPONENT

Rajiv Ranjan Sharma
✓

Attest the Deponent who has
signed this Affidavit in my presence

VERIFICATION:

- 7 JAN 2021

Verified at New Delhi on this 7th day of January, 2021 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed therefrom.



ATTESTED

NOTARY (Govt. of India)
Neelam Sharma
Advocate
Ch. No. 16/5, Gate No. 11,
Patil House Courts,
New Delhi-110001
(M): 9899408303

For Young Builders Pvt. Ltd.

Auth. Signator

DEPONENT

7 JAN 2021

ANNEXURE-A1

Item No. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Appeal No. 112/2018

University of Delhi

Appellant(s)

Versus

Ministry of Environment Forest and
Climate Change & Ors.

Respondent(s)

Date of hearing: 10.02.2020

Date of uploading on the website: 27.02.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER

ORDER

Introduction

1. This appeal has been preferred against the order of the State Environment Impact Assessment Authority (SEIAA), Delhi dated 23.03.2018, granting Environmental Clearance (EC) for "Group Housing Complex located at 1 and 3 Cavalry Lane and 4 Chhatra Marg at Civil Lines Delhi" by Young Builders (P) Ltd. The project is proposed on an area of 20,000 sq.m. with built up area of 1,17,733.81 sq. m. with four towers of 139.6m. height having 410 dwelling units. The total floors proposed are S+G+37 with 31,740.26 sq. m. of basement area. The EC was earlier granted in 13.08.2012. An application was submitted for amendment of the EC on 12.02.2018. According to the appellant, as per requirement of notification dated 14.09.2006, prior to its amendment on 22.12.2014, the project was to be treated as Category A to be dealt with by

MoEF&CC. To avoid such procedure, the project proponent prayed for treating the application as a new project after 20.12.2014. The SEIAA declared the earlier EC to be null and void and treated the application for amendment as a fresh application.

Pleadings and contentions of the appellant

2. Case of the appellant in the memo of appeal, written submissions and during arguments is that the land on which project has been proposed originally belonged to the Ministry of Defence. The same was acquired for development of Delhi Metro Rail project vide award dated 19.09.2001 passed by the Land Acquisition Collector, Delhi. A parcel of land admeasuring 3.05 hectares situated at Mall Road, Cavalry Lane and Chhatra Marg, falling in Zone - C (Civil Lines Zone) of the MPD-2001 was handed over to and mutated in the name of Delhi Metro Rail Corporation (DMRC). The land use was categorized under the MPD - 2021, as "public and semi-public facility". The land use was later changed to residential purpose. DMRC proposed to develop a part of the land for group housing for which Lease Agreement dated 15.12.2008 was entered into with the project proponent - M/s Young Builders Private Limited for 2 hectares of land. Possession of the site was given on 23.01.2009 to the said builder.
3. The appellant University objected to the project on the ground that it will affect ambience and character of the university. The project proponent has removed/ transported 156 trees at the construction site in question on 25.05.2011 after permission from the Forest Department. The University represented to the State Expert

Appraisal Committee (SEAC) and DPCC on 08.02.2012 against the project. The matter was also raised before the High Court against transfer of public land to a private builder but the High Court did not interfere with the transfer of land for the project vide judgment dated 27.04.2015 in W.P. (C) No. 2743/2012. The Division Bench dismissed the appeal as barred by limitation which order was affirmed by the Hon'ble Supreme Court on 17.12.2019 in C.A. No. 9488-9489 of 2019. It is submitted that even if in view of the said judgment, the transfer of the land may have become final, validity of grant of Environmental Clearance (EC) is open to challenge which issue needs to be gone into by this Tribunal.

4. Main contention in support of the challenge to the grant of EC is that the same is vitiated as essential facts have not been disclosed in the application of the project proponent. SEAC and SEIAA have not applied mind to various facets of impact of the project on the environment particularly carrying capacity in terms of air quality, noise level, ground water etc. Reliance has been placed on judgment of the Hon'ble Supreme Court in *Hanuman Laxman Aroskar Vs. Union of India, 2019 SCC Online SC 441* to submit that in such circumstances, EC is liable to be set aside by this Tribunal in exercise of power of merit review on the anvil of Sustainable Development and Precautionary principles.

5. It is stated that the project is within 10 kms. of interstate boundary (Delhi – UP) and critically polluted areas (Najafgarh drain, Wazirpur, Naraina and Anand Parbat area) which would have rendered the project to be categorized as Category A as per EIA Notification dated

14.09.2006, prior to amendment on 22.12.2014. Even if the project is to be treated as category B and dealt with by SEIAA, evaluation of carrying capacity of recipient environment to sustain project of such magnitude which is said to be tallest building of more than 37 floors having 410 dwelling units was required to be conducted thoroughly. On the subject of suppression of material facts, it is submitted that the area is covered by the notification of silence zone under the Noise Pollution (Regulation and Control) Rules, 2000 being Notification dated 03.04.2008 issued by NCT of Delhi¹ being within 100 meters from Delhi University and Vallabhbhai Patel Chest Institute which is a super specialty hospital. Apart from the university and its hostels, there are also schools in the area. The project is within 500 mtrs. of the Northern Ridge and no consent from Ridge Management Board has been taken. Reference has also been made to the provisions of the Master Plan of Delhi (MPD), 2021. Prohibition against construction is applicable not only in the Ridge as such, which is notified as a reserved forest, but also for a project very close to and impacting the Ridge in view of Sustainable Development principle.

Morphological Ridge includes area falling outside the notification but having features of the Ridge and forming part of extension of Aravali. In the present case, even the DMRC took permission of the Ridge Management Board for the DMRC project but no such permission has been sought for the present project.

¹ ".....the Lieutenant Governor of the National Capital Territory of Delhi hereby declares the following areas as "Silence Areas/Zones" for the purpose of the said Rules, in the National Capital Territory of Delhi, namely:-

1. An area of 100 meters around all Educational Institutions having more than one thousand students;
2. An area of 100 meters around all Courts;
3. An area of 100 meters around all Government Office Complexes;
4. An area of 100 meters around all 100-bedded and above hospitals."

According to the appellant, the Delhi Ridge is made of quartzite rocks, of which Stone Age tribes used to make tools. In fact, archaeologists have discovered Stone Age ‘factories’ along the Delhi Ridge, evidence of the widespread production of tools. Stone Age tribes were also drawn to the dense forest cover of the Ridge, which provided food (both plant and animal) and shelter. Further, there was plentiful water, a point still relevant today. Delhi is one of the most historic capitals in the world, finding mention in the ancient epic Mahabharata. Two natural features of the city, the Ridge and river Yamuna, have made it a protected and favourite place for rulers over the ages. Therefore, the battle for protecting Delhi’s “Green Lungs” started long ago. In the 14th century, the Ridge forest was covered with thorny shrubs with very little green cover. Emperor Feroze Tughlaq, who was very fond of hunting, afforested the rocky southern part of the Ridge on which Ghiyasud-Din Tughlaq built the fort city of Tughlaqabad. The efforts for betterment of the Ridge continued post-independence and it has become more pressing, regard being had to the incremental change in pollution level. Therefore, for the effective maintenance of the Ridge, the Ridge Management Supervisory Committee was constituted that gave various recommendations, including:

“1. All areas of the ridge should be declared as Reserved Forest under Section 4 of the Indian Forest Act, 1927. The Environmental (Protection) Act, 1986, should be invoked at the time of notification of the area as a Reserved Forest.”

6. The appellant has thereafter referred to the provisions of the Master Plan prohibiting tall buildings in the University area. Clause 11.3 and

Clause 1.4.4 of the Zonal Development Plans have been referred to as follows :

“Clause 11.3 imposes a restriction on the height of tall building as under:-

*“The height of buildings (above and below ground) needs to be seen in the light of modern technology with due consideration for natural disasters like earthquakes, floods etc. Restrictions on tall buildings would be necessary in important areas like Lutyen’s Bungalow Zone, **Civil Lines and North Delhi Campus**. In case of urban extension, areas for specific Urban Design Projects and tall buildings should be indentified.”*

“Clause 1.4.4 of the Zonal Development Plan for Zone-C (Civil Lines) under the MPX-2021 provides as under:

“The Delhi University was established in 1924 and it has a number of old historical buildings, colleges, Viceroy’s lodge etc. of the Colonial period and therefore efforts shall be done to preserve this character. Also efforts shall be done to make it an Integrated Campus (Without thoroughfare) and self-sufficient in terms of modern infrastructure and residential requirements like hostels, staff quarters, security arrangements etc., by optimum utilization of the land. Attempt shall be made to accommodate all institutional requirements within the Campus.

***Therefore, an Urban Design study shall be taken up for this sub-Zone. MPD-2021 has restricted this area for tall buildings.** Delhi University has a large chunk of land allotted in Sub-Zone C-15, (opposite Dushehra Ground) and it is being utilized as Hostel and staff quarters. Optimum utilization of this land shall be done to meet the requirements in future. Listed Heritage buildings, some residences and Colleges of historical importance prepared by DDA, INTACH, ASI and GNCTD are given.”*

7. It is submitted that no study has been carried out in respect of impact of the project on the noise levels. Noise levels are already beyond the permissible limit in the silence zone. The project proponent did not mention the existence of the University and the Vallabhbhai Patel Chest Institute in the application. Deliberate concealment of vital information rendered the application for grant of

EC liable to be rejected under the Regulation 8(vi) of the EIA Notification, 2006. Probable increase in the noise level due to 410 dwelling units proposed will be more than a Leq of 70 dBA over a 24-hour period. This factor has not been taken into account. Given the peculiar location where the project site proposing the tallest building in Delhi is located at Chhatra Marg, University of Delhi, adjoining the Vishwavidyala Metro Station on the one side and the University residences/ departments / schools on the other sides, the SEIAA has failed to take into account the probable adverse impact qua noise that this project will generate.

8. With regard to air pollution, it is submitted that project proponent concealed a report on Group Housing at Mall Road in July 2011 (prepared by Engineering and Planning Consultants, New Delhi). Detailed Traffic Management Plan Report prepared by Professor Geetam Tiwari, IIT Delhi has been relied upon. The report states that between 2011 and 2018 traffic in the area, congestion and pollution figures have varied/ increased considerably which has not been considered. On the subject of impact on traffic, it is stated that the traffic in the area remains high because of the large movement from Vishwavidyalaya Metro Station to Kamla Nagar, Shakti Nagar, Malkaganj and other nearby residential and commercial locations. This traffic figure is in addition to the volume of commuters to and from the University and its various colleges/departments/faculties/schools on the North Campus area. Currently, about 50,000 people use other modes of transport to connect with these places apart from large vehicular movement on daily basis. Entry to Vishwavidyala Metro Station due to the current project is itself a

hindrance as the space connects the Metro Station and Chhatra Marg and Cavalry lane is less than 8.50 meters. Due to no parking being available outside the Metro Station, vehicles are parked randomly which occupy almost the whole of service lane for Metro. Due to this peculiar feature, the DMRC itself has used the land of the proposed project as parking site. According to the DMRC website, the ridership/footfall at the Vishwavidyalaya metro Station alone is around 25,000 persons. In fact, during the admission season in the University of Delhi, in June 2011, the ridership was around 42,000 persons. Increment of at least 900 vehicles is expected due to the operation of the proposed project. It has the potential to cause appreciable increase in vehicular pollutant in the atmosphere of the area which is already polluted. The increase in traffic congestion will make an already congested area totally non-commutable. Even the parking stipulated at the project site in question is insufficient for its own occupants and no yardstick has been adopted by the SEIAA to determine if the parking proposed by Respondent No.4 is capable of catering to the needs of its inhabitants during the operation phase. The width of Chhatra Marg and Cavalry Lane are 10.80 m and 8.5m respectively. Large number of vehicles and about 50,000 people commute on it on a daily basis. Due to the proposed project, there is an estimated addition of 900 vehicles and commuters on existing public infrastructure of two roads which are disproportionately high and make the area risk prone.

9. With regard to the water requirement, it is submitted that the Delhi Jal Board is stated to have given water supply clearance and it states that the total water requirement shall be restricted to 2,57,029 liters

per day. For 1,785 persons, this translates to 144 liters per person per day according to the Delhi Government's Water policy for Delhi (2016), the domestic water demand. Having no cogent indication of the basic norms, the whole burden for meeting water requirement will shift to ground water which will hamper the environmental protection afforded to this area. In such a case, the ground water extraction would be made, which will have deleterious impact on existing water bodies located in the Northern Ridge which is within 500 meters from the proposed project. Central Ground Water Board (CGWB) notified the areas for control and regulation of ground water which includes South Delhi, south West Delhi and Yamuna flood plain area in Delhi with effect from 2000. Chemical constituents in ground water beyond BID norms have been reported from Delhi as follows (contaminated areas, CGWB):-

Fluoride (above 1.5 m/g1)	Nitrate (above 45 mg/1)	Heavy metal: Lead (above 0.01 mg/1)
		Cadmium (above 0.003 mg/1)
East Delhi, New Delhi, North West Delhi, South Delhi, south West Delhi, North Delhi, West Delhi	East Delhi, Central Delhi, New Delhi North Delhi, North West South Delhi, Delhi, South West Delhi, West Delhi	Lead: Along Najafgarh drain in North, West and South-West districts Cadmium: Southwest Chromium: Northwest, South, new Delhi, East

As per information supplied by CGWB (Ground Water Information Booklet of North District, NCT, Delhi, published by CGWB, Ministry of Water Resources, State Unit office, New Delhi,

2013), the entire North Delhi district is a 'notified area' by the Government of NCT of Delhi for regulating extraction of ground water. Major ground water problems identified by the Board in this area are as follows:

- i) Ground water in deeper zones is saline. Depletion of ground water levels is attributed to over-exploitation of ground water. Example, higher Fluoride content at Kingsway Camp (500 meter away from the site in question).
- ii) North District is bounded by the Yamuna River. The district falls in Yamuna sub-basin and forms part of the Ganga basin. The entire district forms part of Yamuna River water shed. The river Yamuna, bordering eastern part of the district, controls the entire drainage system. Parts of western Yamuna Canal, Najafgarh drain and other minor drains flow through North district. This district has prestigious Delhi University, Northern Ridge, ISBT and Tis Hazari Courts. The forest cover of the district is 4.81 sq. Km. Approximately, 0.24 sq. Km. Area of the district is under water bodies.
- iii) Around 40% of the North district is under Yamuna Flood Plain, which is further divided into Active flood plain and older flood plain. The southern part of the district has a thin alluvium cover over Quartzite rock, which is extension of Delhi Ridge near Wazirabad Barrage. Though the development of ground water is not much in the district, in view of the depleting water levels, sustainable management of this precious natural resources is extremely important. The slope of the district is towards south by 0.40 m/km but at places adjoining Delhi Ridge, it gets elevated. Due to this, just northern adjoining areas along the Delhi Ridge form depressions and have been converted into the water logged area.

10. The appellant has referred to the order of the Hon'ble Supreme Court in *M.C. Mehta V. Union of India*² wherein observations have been made about the groundwater scenario in Delhi. After perusal of the Report submitted by the CGWB for its consideration, the Court observed that there is over exploitation of ground water in south

² (2019) 12 SCC 546

District, New Delhi district, South East District, East District, Shahdara, North East District, and almost rest of Delhi is in a semi – critical state.

Thus, the use of ground water for such large project as one proposed by Respondent No.04 will cause depletion of ground water level and thus the same should not be allowed. Depleted ground water conditions will seriously damage the vegetation in the Ridge and also the North Campus of Delhi University.

In such circumstances, the grant of EC is improper when the water requirement cannot be met and it affects the overall capacity to sustain such project.

11. With regard to waste management, the stand of the appellant is that the Respondent No.4 has not provided any details of STP plants, use of technology, location of plant, the area required for its installation, and the location and mode of disposal of discharge after the treatment. Therefore, the information provided by Respondent No.4 in column II (5) (6) of Form I of appendix I relating to solid waste and release of pollutant is grossly inadequate for the grant of environmental clearance. In fact, no approval from SPCB has been taken so far.
12. With regard to fire safety standards, it is submitted that availability of space for conducting a fire-fighting operation is highly questionable in the light of extremely narrow and congested Cavalry Lane on the one side and Chhatra Marg on the other, which is stipulated as the only emergency passage in the impugned EC. Congested Cavalry Lane, which is mentioned as the entry and exit of the proposed

project, is too narrow to cope with the situation of any firefighting operation in the proposed housing complex.

13. The appellant has then referred to the Geo – Technical Investigation and Liquefaction Potential. Reliance has been placed on the studies conducted by L. Thoithoi, P.S. Ningthoujam, R.P. Singh, D.P. Shukla titled “*Liquefaction study of Subsurface Soil in part of Delhi University, North Campus*”. International Journal of Advancement in Earth and Environmental Sciences, 2013, Vol- I, No. 1. Pp.14-22 records:-

“Any high-rise or mega building project will be susceptible to subsidence and liquefaction during a medium to major Earthquake in DU north campus area which lies in Seismic Zone IV.”

Pleadings and contentions of the project proponent and other opposite parties

14. We may now refer to the stand of the project proponent. The project proponent has filed its counter affidavit on 13.08.2018. It is submitted that project does not fall in silence zone. It is also submitted that the University itself has undertaken several construction projects and therefore there will be no violation of the noise norms. The project proponent has submitted traffic management report. There will no impact on increase of traffic on the air around the project. The DJB has already given clearance on the issue of water availability. Ground water problem has no relevance. The project proponent will comply with the waste management rules. Fire safety norms will be met. There will be no negative impact on the Northern Ridge. It is further stated that the distance of the project

from the interstate border (Delhi-UP) is 15 kms. Moreover, vide notification dated 22.12.2014, EIA Notification dated 14.09.2006 has been modified and project cannot now be taken to be Category A. Permission for felling trees was rightly granted. There is no violation of the Master Plan. Due permission has already been granted for construction of the group housing complex. Closeness of the project to Super Specialty Hospital and Delhi University is well known and was not required to be mentioned in the application. It is wrong to assume there will be high density of transport. Air pollution has been duly considered. There is neither any increase of the traffic because of the project nor addition to vehicular pollution. The Geo Technical Registration and Liquefaction Potential has been properly assessed. The project proponent has annexed a copy of the report dated 09.02.2012 of five Members sub Committee constituted by SEAC to consider objections of the Delhi University to the project. On the subject of objection of high rise building, it was observed that the project has been approved by the Chief Town Planner. There is no restriction against construction of tall building in the area. This objection has been negated by the High Court. SEAC may assess the traffic load. With regard to the change of land use, it was submitted that the land use was as per Notification dated 23.09.2005. On the subject of seismic threat, it was submitted that for the area in seismic zone IV, structure designs may be looked into by the sanctioning authority. With regard to the traffic impact, it was observed that the contentions are based merely on apprehension and the matter is covered by the Court judgment. Any deviation will amount to contempt of Court. Environmental concern may be appraised by the

SEAC. However, one of the members Shri Chinmaya R. Gharekhan held a different view to the effect that the project will have adverse effect on the general environment.

15. We may also refer to the pleadings of other opposite parties. Stand of the DPCC in its affidavit filed on 07.08.2018 which is now Secretariat to the erstwhile SEIAA is that tenure of SEIAA was ended over on 31.03.2018. There is no officer who can present SEIAA now. Stand of the North Municipal Corporation of Delhi in its affidavit file on 13.08.2018 is that the building plan has been rejected on 10.04.2018. Objection of the University are to be referred back to SEIAA. The project proponent has filed WP (C) No. 5574/2018 against rejection of the building plan. Affidavit of CPCB dated 13.08.2018 is formal and does not deal with the merits. Reply of the MoEF&CC dated 13.08.2018 is also on similar lines. So are the replies of DMRC dated 05.10.2018, Delhi Govt. and Delhi Fire Services 10.10.2018. DDA, in its reply dated 15.10.2018, has referred to the order of Delhi High Court dated 18.05.2011 in W.P. (C) No. 3135/2010 that development control norms for Metro Station will apply to the land developed for Metro and for land leased out, development norms as per MPD – 2021 will apply, including 200 FAR without restriction of height. Reply of the Ministry of Defence dated 01.02.2019 is that commercial use of the land by the DMRC by transfer to a private builder is not permissible. Reply of the DJB filed on 01.03.2019 is that it has no role in the matter of EC. Delhi University has filed rejoinder to some of the affidavits. The project proponent has also filed additional affidavit on 19.08.2019. It is not necessary to mention the details thereof for dealing with the issue herein.

Proceedings till date

16. The appeal was filed on 10.07.2018. Notice was issued on 12.07.2018. The matter was adjourned on 14.08.2019, 13.09.2018, 11.10.2018, 01.11.2018, 20.12.2018, 11.01.2019, 24.01.2019, 20.02.2019, 06.03.2019, 27.03.2019 for completing pleadings. On 08.04.2019, 29.04.2015, 29.05.2019, 15.07.2019 and 22.07.2019, the issue of condonation of delay was dealt with and by the last mentioned order the delay was condoned and main matter was directed to be listed for hearing. On 19.08.2019 and 09.10.2019, the matter was adjourned on the request of one or the other party. On 11.10.2019, the matter was deferred to await proceedings in Hon'ble Supreme Court (on the issue of validity of transfer of land in favour of the project proponent). The matter was further adjourned on 18.11.2019 and 02.12.2019. It was for the first time that the appeal was taken up and heard on merits on 08.01.2020. The Tribunal observed that earlier EC granted in 2012 having been declared null and void, there was no adequate data base for granting EC on 23.03.2018. Accordingly, the Tribunal constituted a joint Committee to undertake carrying capacity study of the area with reference to the project in question based on relevant data within two months and directed maintenance of *status quo* till then.
17. At the instance of the project proponent, Civil Appeal No. 341/2020 was filed in the Hon'ble Supreme Court with the grievance that all aspects had already been considered by SEIAA in its meeting held on 22.03.2018. A detailed counter affidavit had been filed which was not considered by this Tribunal before seeking evaluation by a joint

Committee and granting *status quo* order. Reliance was placed on Minutes of the 57th meeting of SEIAA while granting EC. Accordingly, the Hon'ble Supreme Court held that a detailed consideration is necessary by this Tribunal before constituting a joint Committee and passing an interim order. The Hon'ble Supreme Court observed:-

“Though it is premature for this Court to advert to the correctness or otherwise of the same, while considering the correctness of the environmental clearance dated 23.03.2018 the material relied upon will have to be taken note at the outset by the NGT even before requiring any other report but there is no reference to all these aspects in the order. Further when the counter affidavit along with the documents were available on record a detailed consideration was necessary and only thereafter if any further report was required by constituting a committee the same would have arisen. However, in the order impugned such consideration is not indicated before requiring the constitution of a Joint Committee for evaluation. The consequential interim order passed would also, therefore, not be sustainable. In that view, the appropriate course would be for the NGT to take note of the contentions put forth by the appellant herein through their counter affidavit and the environmental clearance dated 23.03.2018 and take a decision in the matter. On referring to the contention and materials, the reason for the same not being sufficient or reliable would be an aspect to be recorded and take such further action. To enable such exercise the order impugned dated 08.01.2020 is liable to be set aside, which we accordingly hereby do.

In the result the appeal is allowed, the order dated 08.01.2020 is set aside. The NGT shall take note of the counter affidavit and the documents of the appellant and consider the matter on its merits and pass orders in accordance with law. The same shall be done in an expeditious manner. All contentions of the parties are left open.”

Further consideration of the matter

18. The matter was accordingly taken up 03.02.2020. On account of absence of counsel for the project proponent, it was deferred to 10.02.2020. The appellant expressed apprehension that the project proponent may continue with the project after taking adjournment. It was also stated that the stand of the project proponent before the

Hon'ble Supreme Court that detailed counter affidavit covering all the aspects had already been filed was not correct as the project proponent has filed further affidavit and documents after the order of the Hon'ble Supreme Court. This Tribunal, while granting a short adjournment, directed that the project proponent may not proceed with further activities till consideration of the matter by this Tribunal. The matter was accordingly heard on 10.02.2020 and order was reserved.

Additional documents after order of the Hon'ble Supreme Court

19. We may at the outset mention that the project proponent has filed I.A. No. 75/2020 on 06.02.2020, after the order of the Hon'ble Supreme Court dated 28.01.2020, to place on record eight additional documents, including the minutes of 57th meeting of SEIAA. The appellant has also filed an I.A. No. 67/2020 on 01.02.2020 along with ten additional documents. We are however not making any comment on the issue whether the stand of the project proponent before the Hon'ble Supreme Court was factually correct.
20. We may now make a brief reference to the additional documents filed by the both the parties. The documents filed by the appellant are:-

1. Copy of letter dated 25.10.1943 by the Joint Secretary, Government of India to the Chief Commissioner of Delhi prohibiting high rise building in the neighborhood of Delhi University and its colleges, shown in the map covering 582.44 acres of land.
2. Copy of study conducted by Prof. Geetam Tiwari, IIT Delhi, regarding sustainability of high rise building in the area.

3. Copy of the opinion of Dr. K.S. Rao dated 23.01.2020 on the subject of earthquake vulnerability of the area.
 4. Copy of the office memorandum dated 10.11.2015 of MoEF&CC on the subject of parameters and thrust areas of environmental sustainability while appraising the Building and Construction and Township and Area Development projects.
 5. Copy of the chart showing requirement under the office memorandum dated 10.11.2015 and compliance done by the project proponent.
 6. Copy of the MoEF&CC circular dated 25.10.2017 to comply with the recommendation of CAG with regard to process of EC.
 7. Copy of the minutes of the meeting dated 24.02.2018 by SEAC.
 8. Copy of the office memorandum dated 04.01.2019 of MoEF&CC.
 9. Copy of the letter/article of Dr. Suman Lakhanpau who was member of the SEIAA and had expressed dissenting opinion with regard to the clearance of the project. On the ground that the high rise building was not viable in the area and Ridge will be adversely affected and there will be adverse effect in depleting the ground water.
 10. Copy of the letter/article of Dr. Anupam Chattopadhyay had expressed the opinion that construction of high rise buildings were not viable on account of earth quake potentiality.
21. The documents filed by the project proponent are:-
1. Copy of Form – I (application of EC dated 31.01.2018) seeking amendment of the EC granted on 13.08.2012.
 2. Copy of the presentation made by the respondent No. 4 before the SEAC on 24.02.2018.
 3. Copy of the minutes of the 95th meeting of SEAC held on 24.02.2018.
 4. Copy of the letter dated 09.03.2018 by respondent No. 4 to SEAC.
 5. Copy of the presentation by respondent No. 4 to SEAC dated 13.03.2018.

6. Copy of the letter dated 13.03.2018 by respondent No. 4 to SEAC seeking amendment to the EC.
7. Copy of the minutes of the 96th meeting of SEAC held on 13.03.2018 and 17.03.2018.
8. Copy of the minutes of the 57th meeting of respondent No. 2, SEIAA on 22.03.2018.

22. Even though the appellant raised objection to filing of certain documents by the project proponent at this stage, without going into any technicality, we have considered all the documents filed by both the parties.

Issues for consideration

23. Several arguments have been raised on behalf of the appellant-University but we find it necessary to focus only on matters which we have found to be crucial having bearing on the validity of EC and impact of the project on the environment. This Tribunal has to conduct merit review in exercise of its appellate power to consider the validity of grant of EC as held in the judgment of the Hon'ble Supreme Court in *Hanuman Laxman Aroskar v. Union of India*³ (supra). As observed in the said judgment, the EIA notification intends to ensure that any project complies with the norms for protection of environment. Environment is essential facet of development. EAC and SEAC/SEIAA have to evaluate the information furnished by the project proponent in Form I which is crucial and serves as a base upon which the process of evaluation rests. Deliberate concealment or false or inadequate and misleading

³Hanuman Laxman Aroskar v. Union of India, (2019) SCC online SC 141, para 172

information renders an application liable for rejection. EIA process is directly linked to Sustainable Development Goals (SDGs).

24. Thus, following issues arise for consideration:-

- (i) Whether full disclosure of relevant facts had been made by the project proponent in Form-I and I A which are the formats for application for EC.
- (ii) Whether SEIAA has dealt with the matter, in granting EC, holistically, after due application of mind in appraising the environmental sustainability of the project.
- (iii) Whether a case is made out for interference by this Tribunal with the impugned order.

Observations and Analysis

25. Before we proceed to consider the above issues, we may make certain observations about the approach to be adopted in dealing with such matter. A holistic approach is required in such matters instead of taking the impact of the project in isolation on standalone basis. The Tribunal has to keep in mind crucial features of the project having bearing on the environment like size, height, location, background data of environment including air, water and noise and likely impact of the project on the environment, including the environmentally pristine area – the Northern Ridge which is in the nearby vicinity.

The project is said to be the tallest high rise building in the city comprising S+G+37 floors containing 410 dwelling units in the vicinity of educational institutions, hospital, Metro Station and the Northern Ridge. We have to accordingly consider the impact on the recipient environment, including air quality, noise, traffic congestion, water requirement, waste management, fire safety, earthquake and liquefaction potential and compliance with the Master Plan.

26. As already noted above, the appellant has relied upon office memorandum dated 10.11.2015 issued by the MoEF&CC laying down *Guidelines for Appraisal of Building and Construction Sector Projects* mentioning following thrust areas of environmental sustainability:

- a. Brief description of the project in terms of location and surroundings.
- b. Environmental impacts on project land and its surrounding developments and vice-versa.
- c. Water balance chart with a view to promote waste water treatment, recycle, reuse and water conservation.
- d. Waste water treatment and its details including target standards.
- e. Alternations in the natural slope and drainage pattern and their environmental impacts on the surroundings.
- f. Ground water potential of the site and likely impacts of the project.
- g. Solid waste management during construction and post construction phases.
- h. **Air Quality and Noise Levels; likely impacts of the project during construction and operational phases.**
- i. Energy requirements with a view to minimize power consumption and promote use of renewal energy sources.
- j. **Traffic Circulation System and connectivity with a view to ensure adequate parking, conflict free movements, Energy efficient public transport.**
- k. Green belt/ green cover and the landscape plan.
- l. Disaster/ risk assessment and management plan.
- m. Socio Economic Impacts and operational phases.

- n. EMP during construction and operational phases.
- o. **Any other related parameter of the project which may have any other specific impact on environmental sustainability and ecology.**

27. As laid down in *Hanuman Laxman Aroskar v. Union of India* (supra), all material information, must be furnished in Form - I to enable evaluation of all possible impacts of the project. As required by the guidelines issued by the MoEF&CC, information must be given and evaluated particularly with regard to issues covered under 'h', 'j' and 'o' above.

The notification itself mentions that concealment or misleading renders an application liable to rejection. SEIAA must factor in specific features of the area encompassing all environmental concerns including air quality, water quality, noise quality, traffic congestion, flora and fauna. Recommendation of SEAC must be based on reasons on every relevant aspect. Such reasons are the live link between its process and outcome of adjudicative functions. The whole exercise must lead to environmental sustainability which is the basis of environmental rule of law.

Issue wise consideration

28. With above background, we proceed to deal with issues which have arisen for consideration.
29. **Re: Issue No. (i) – Whether there was due disclosure of information by the project proponent**
- According to the appellant, Forms- I and IA do not mention closeness of the project to Delhi University and Viceroy Building (heritage site).

Najafgarh drain nearby is highly polluted. No information has been given about the natural slope and drainage. No mention has been made that the area is semi critical as per Dynamic Ground Water Study of 2017 requiring clearance from Central Ground Water Authority. The project proponent has mentioned that there is no impact on ground water. What is mentioned is that source of water is municipal supply. There is no evaluation of the additive effect on air quality on account of such high rise building in the area which is already far beyond its carrying capacity.

As against the above, stand of project proponent in its counter affidavit is that there was no need to mention that the project was close to Super Specialty Hospital and Delhi University which fact is well known. There is also no suppression in relation to traffic analysis. There is no requirement of underground water. Clearance has been taken from DJB. All relevant facts have been duly disclosed.

In the written submissions filed on 12.02.2020 by the project proponent, it is mentioned that all necessary approvals have been taken. The project proponent has paid Rs.218.20 crore for the land for a lease for 90 years. Earlier EC dated 13.08.2012 was never challenged. Present challenge is malafide as the project is adjacent to bungalow of the Vice Chancellor. Fresh EC was sought in the year 2018 on account of amendment to building by laws in 2016 which required seeking revised lay out plan. Revised lay out plan was granted on 17.11.2017. The project is B2 category project and for such project stages of screening, scoping, public consultation etc. are

not required. There is no restriction on construction in silence zone. Noise source is only from generator which will be highest quality having no significant impact. Information about air monitoring points was given to SEAC. Baseline data of noise generation exceeds the limits on account of vehicular movement, the project proponent will use wind and noise barrier during and after construction and a thick brick wall with plantation after construction. Air quality data submitted by the project proponent to the SEAC and online air quality data of the nearest station from the project shows that air quality is higher than the standards. Air dispersion modelling results show that increase will be marginal for which mitigation measures will be adopted during construction and operation. Traffic management plan has been submitted to SEAC on 09.03.2018. Traffic volume is 423 pcu at Cavalry lane, 1310 pcu at Chhatra Marg. Traffic growth is 10% in the year 2020, 20% in 2025 and 30% in 2030. Documents of the appellant are authored by vested interests within the University. Parking norms have been followed. Water requirement will be met by the DJB. Revised sewerage scheme has been approved. There are facilities for waste management. Liquefaction potential has been analyzed. Soil evaluation survey has been done. There are other high rise buildings in the vicinity, fire safety standards have been looked into. There is no impact on the Northern Ridge. There is no violation of MPD. As a result of the project, water table will increase on account of rain water harvesting pits. Tree cutting permission has been validly granted.

30. We have taken into account rival stands on the subject of disclosure. The stand of the project proponent itself shows that most of the information given by it was in response to questions by the SEAC without the same being originally given in the Form I and IA. In Form I and IA, there is no mention of data on air quality or impacts of the project on air quality. In Form I, it is mentioned that air quality monitoring will be carried out during EIA/EMP studies (which would have happened if the project was treated as Category A as per the Notification, 2006. However, since the project was treated as Category B2 on account of notification dated 22.12.2014, no such study was conducted). It is further submitted that contribution of vehicular emission will be marginal and within the ambient air quality standards. Green belt will be developed which will act as a barrier. Nothing is mentioned about the impact on air quality during construction and afterwards. Parking has been proposed for 840 vehicles. It is further stated that there will be no significant impact of noise due to provision of wide roads.

On the above material, it is difficult to conclude that requisite disclosure was made by the project proponent. Since air quality is one of the most significant environmental aspect, even if we do not consider other aspects, it can certainly be said that no information was furnished on the subject of air quality in Form I and IA and information furnished later was highly inadequate and not supportive of sustenance of high rise project of such magnitude. A reference to the minutes of the SEAC dated 24.02.2018 shows that the project proponent was required to furnish information with regard to

ambient air monitoring points, traffic management, revised EMP, water mass balance chart etc. There is no consideration of initial non-disclosure in the impugned order of SEIAA or by SEAC which by itself may vitiate the EC.

31. **Re: Issue No. (ii) – Whether SEAC and SEIAA applied before granting EC**

We may now consider whether there is due application of mind by the SEAC and SEIAA in granting EC. The stand of the appellant is that SEIAA has not applied its mind in granting EC. There is no consideration of the ambient air quality status of the area for sustenance of the project in question. The sample test report of air quality submitted by the project proponent itself and placed for consideration before SEAC show that air quality is far beyond permissible limits both in terms of PM_{2.5} and PM₁₀. Against prescribed National Ambient Air Quality Standards of 60 µg/m³ and 100 µg/m³ per day for PM_{2.5} and PM₁₀ respectively, the data shows PM_{2.5} in the range of 134.62 to 240.6 and PM₁₀ to be in the range of 242.72 to 436.8. Similar is the position with regard to NO₂.

A perusal of the impugned order shows that decision to grant EC is based on recommendation of SEAC in terms of minutes of meeting dated 24.02.2018 and 13.03.2018. The said minutes do not contain any discussion on the subject beyond mentioning that recommendation for granting EC was based on the information furnished, documents shown and submitted, presentation made by the project proponent and appraisal done by Committee. Documents furnished have already been referred to above.

32. Minutes of meeting of SEAC dated 24.02.2018 and 17.03.2018 are as follows:-

24.02.2018

“Based on the information furnished, documents shown & submitted, presentation made by the project proponent SEAC sought the following information:

1. *Revised water mass balance chart with minimum excess waste water discharge in rainy and non-rainy season and with action plan to re-use/ recycle the excess treated water.*
2. *Schematic drawing of proposed STP of enhanced capacity.*
3. *Plan for handling the excavated earth is required to be submitted along with revised EMP (Environment Management Plan) for dust mitigation measures as per MoEF Notification No. GSR 94 (E) dated 25.01.2018 incorporating the provisions of spraying nozzles for dust suppression and frequency of spraying.*
4. *Details/location of ambient air monitoring points in basements including the ventilation cycle of fresh and recycle air.*
5. *Point wise comments on the issues raised vide circular no. J-11013/71/2016-IA.I(M) dated 25 October, 2017 are required to be furnished.*
6. *Traffic management plan taking into consideration the latest traffic scenario.*
7. *Landscape plan with demarcation for total green area and soft green area.*
8. *Proposed plan for implementation of renewable energy.”*

17.03.2018

“The project proponent has applied for amendment in EC under the head of fresh case on OSMEC portal stating that wrt EC letter no DPCC/SEAC/50/SEIAA/I/2012 dated 13th August, 2012 construction has not been started. Therefore present proposal is considered as a fresh case and Office Memorandum No. J-11011/618/2010-IA-II(I) dated 30.05.2012 for expansion projects is not applicable. Earlier EC issued vide letter no. DPCC/SEAC/50/SEIAA/I/2012 dated 13th August, 2012 be withdrawn and treated as null and void. With respect to the present application, based on the information furnished,

documents shown & submitted, presentation made by the project proponent and appraisal done by committee. SEAC recommended the case to SEIAA for grant of Environmental clearance imposing the following specific conditions:

1. Chhatra marg should be used for pedestrian and non-motorized vehicle or only in case of emergency with restricted motorized vehicles.
2. Treated water of DJB STP should be used for construction purposes up to the maximum extent possible.
3. Packages/mobile STP shall be provided for labour camp during construction phase.
4. Ground water should be extracted only after the permission from DJB.
5. Boring for Rain Water Harvesting system should not be permitted/done before completion of structure work. All recharge should be limited to shallow aquifer.
6. STP should be adequate to treat the waste water so that BOD level should not exceed 10mg/l in treated water.
7. Flow Meters should be installed to monitor consumption of fresh water as well as treated water and log book for these flow meters be maintained in a regular manner. Flow meters shall be installed at Inlet of STP, outlet of STP, inlet of flushing tanks, inlet of cooling water tanks and reuse line for horticulture purposes.
8. The project proponent, before starting the construction, will reconfirm the nonexistence of any water body in and around (within 500m) the project site. It will be ensured that water body/bodies identified as per guidelines MPD 2012) in and around the project suite shall not be affected due to proposed development work.
9. Minimum 1 tree for every 80 Sq. Mt of plot area should be planted within the project site in accordance with the landscape plan submitted.
10. Solar Photovoltaic (SPV) system should be installed to meet electricity generation equivalent to 1% of demand load or as per the state level/local building bye-laws, whichever is higher. Solar water heating shall be provided to meet its hot water demand as far as possible.
11. Only LEDs should be used.

12. Green building norms should be followed with a minimum 3 star GRIHA rating and Gold rating should be followed up.
13. Total capacity of DG sets should not exceed 50% of the total load.
14. Construction & Demolition waste should be disposed of at authorized C & D waste processing unit.
15. Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum upto 10 meters shall be provided all around the project site before the start of construction.
16. During the Construction Phase for control of dust pollution all precautionary measure should be ensured in compliance of Hon'ble National Green Tribunal order dated 4.12.2014 & 10.04.2015 in O.A. No. 21 of 2014 and O.A. No. 95 of 2014 in the matter of Vardhaman Kaushik vs. Union of India & others and Sanjay Kulshreshtha Vs Union of India 7Ors. And as per MoEF&CC, GOI Notification no. G.S.R.94(E) dated 25.01.2018 regarding mandatory implementation of dust mitigation measures for construction and demolition activities.
17. Project proponent shall be responsible for establishment, operation and maintenance of all common facilities and also for compliance of EC conditions during operation stage.
18. In view of MoEF&CC Office Memorandum No. 21-270/2008-IA.III dated 19.06.2013 read with MoEF&CC Office Memorandum No. 22-154/2015-IA.III dated 10.11.2015, this environmental clearance is granted focusing only on the environment concerns. The project will be regulated by the concerned local Civic Authorities under the provisions of the relevant provisions of the extant MPD-2021, Building Control Regulations and Safety Regulations.
19. The Project Proponent shall obtain water assurance form NDMC/Delhi Jal Board/ authorized source during construction/operation phase for the proposed development work. It must be obtained before starting the construction.
20. The Environmental Clearance is subject to the condition that concerned local civic agencies will give the permission for use/occupation of the building only after the written assurance of DJB/New Delhi Municipal Council/other

such local civic authority (as the case may be) regarding supply of adequate water for residents/occupiers.

21. Grant of environmental clearance does not necessarily implies that water/power supply shall be granted to the project and that their proposal for water/power supply shall be considered by the respective authorities on their merits and decisions taking.
22. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from water/power supply angle shall be entirely at the cost and risk of the project proponent and SEAC/SEIAA, Delhi shall not be responsible in this regard in any manner.
23. Green area should not be less than 25% of the plot area out of which minimum 15% should be of soft green area, so that there should be sufficient recharging of ground water. Further along boundary wall, minimum of soft green space of 2m width be kept for better tree growth & ground water recharge, based on area of 6'x6'/tree being a norm."

33. Minutes of 57th meeting of SEIAA dated 22.03.2018 are as follows:-

"After due deliberations, in its first sitting of 96th meeting held on 13.03.2018 the SEAC observed that the project proponent has applied for amendment in EC under the head of fresh case on OSMEC portal stating that w.r.t. EC letter no DPCC/SEAC/50/SEIAA/1/2012 dated 13th August, 2012 construction has not been started. Therefore, present proposal is considered as a fresh case and Office memorandum No.J-11011/618/2010-IA-II(I) dated 30.05.2012 for expansion project is not applicable. Earlier EC issued vide letter no DPCC/SEAC/50/SEIAA/2012 dated 13th August, 2012 be withdrawn and treated as null and void. With respect to the present application, based on the information furnished, documents shown & submitted, presentation made by the project proponent and appraisal done by committee, SEAC recommended the case to SEIAA for grant of Environmental clearance imposing the specific conditions.

The SEIAA in its 57th meeting held on 22.03.2018 approved the recommendations of SEAC that earlier EC issued vide letter no DPCC/SEAC/50SEIAA.1/2012 DATED 13TH August, 2012 be withdrawn and treated as null and void, and granted fresh Environmental Clearance to the project with the following additional specific conditions.

1. Adequate ventilation should be provided in the basements and during the operation phase the concentration levels of Carbon dioxide, Carbon Monoxide should be monitored periodically and also be reported in periodical compliance reports to be submitted. NO_x, SO_x and PM are also be maintained in basement as per EPA norms.
 2. About 202 KLD of fresh water for operational phase will be met by DJB, hence this project will increase the demand of fresh water from DJB by 202 KLD.
 3. Sign board be placed at project site indicating the Khasra No. of the land as per revenue record.”
34. As already mentioned, the application did not give any data of ambient air quality. Vide subsequent letter dated 09.03.2018, in response to minutes of 95th meeting of SEAC dated 24.02.2018, the project proponent gave point wise reply. Annexure IV thereto is pointwise response to MoEF&CC circular dated 25.10.2017. Appendix I thereto is test report dated 27.01.2018 for ambient air quality analysis as follows:

S. No.	Date	Particulate matter (PM _{2.5} ; ug/m ³ GRC/LAB/STP/AIR/03, Gravimetric Method	Particulate matter (PM ₁₀ ; ug/m ³ IS 5182 (Part 23): 2006	Sulphur Dioxide (PM ₁₀ ; ug/m ³ IS 5182 (Part 23): 2001 Reaff.2006	Nitrogen Dioxide (PM ₁₀ ; ug/m ³ IS 5182 (Part 23): 2006	Carbon Monoxide (CO); ug/m ³ IS 5182 (Part 10): 1999 Reaff.2003
1.	03.01.2018	240.6	412.3	9.3	71.6	1580
2.	05.01.2018	237.4	396.2	17.7	74.1	2110
3.	08.01.2018	195.7	368.4	20.4	82.3	2060
4.	11.01.2018	146.2	324.5	18.9	63.4	1510
5.	14.01.2018	227.9	436.8	29.7	84.5	2470

6.	17.01.2018	210.5	419.4	11.4	89.5	2780
7.	20.01.2018	183.4	318.9	18.3	84.0	1050
8.	24.01.2018	134.6	242.7	15.9	77.6	1010

Ambient Noise level as per test report dated 12.01.2018 annexed thereto which is as follows:-

S. No.	Location	Zone	Limit for As per EP Act, 1986; Leq, DB (A)		Observed value Ledq, dB (A)	
			Day Time	Night Time	Day Time	Night Time
1.	Project Site	Residential area	55	45	63.4	49.8
	* Day Time	6.00 a.m. to 10.00 p.m.				
	** Night Time	10.00 p.m. to 6.00 a.m.				

35. Another document which is part of letter is titled Traffic Analysis for proposed group housing at DU Metro Station (page 663 of the paper book) is as follows:-

“EXISTING TRAFFIC CONDITIONS

CAVALRY LANE:

According to recent traffic survey conducted in February 2018, traffic volume on Cavalry Lane is 423 pcu during AM peak hour. The ADT is recorded to be 3284 pcu comprising of 1087 two wheeler, 707 autos, 926 cars and 2 buses on Cavalry Lane. Over a day, 7 good vehicles, 198 cycles, 45 cycle rickshaws and 926 E-Rickshaws have been noted. In the afternoon peak hour (14:00-15:00 hrs, the recorded traffic volume is 208 pcu. The annexure-1 give the details of pedestrian and vehicular traffic volumes in tabular and graphic form for easy comprehension. It will be noted that the surrounding roads have adequate capacity to absorb traffic generated by the proposed development. Further the placement of access position on Cavalry Lane is not likely to cause any traffic concerns in the context.

CHHATRA MARG:

Similarly traffic survey conducted in February 2018, traffic volume on Chhatra marg is 1310 pcu during AM peak hour. The ADT is recorded to be 14801 pcu comprising of 4999 two wheeler, 1668 autos, 4092 cars and 19 buses.

Over a day, 44 good vehicles, 412 cycles, 1217 cycle rickshaws and 4376 E-Rickshaws have been noted. In the afternoon peak hour (14:00-15:00hrs), the rerecorded traffic volume is 1167 pcu. The annexure 2 give the details of pedestrian and vehicular traffic volumes in tabular and graphic form for easy comprehension.

ESTIMATE OF GENERATED TRAFFIC

It is estimated that the housing scheme will generate some 320 pcu of vehicular traffic under a peak period of four to five hour duration. Critical peak hour traffic volume is estimated at 192 pcu egress and 25 pcu/h ingress traffic volume during AM period. The flow patter will reverse during PM peak period though the duration of PM peak period is generally longer than the AM peak period. It must be stated that considerable proportion of person trips will be made by Metro. Reliance on other modes of transport like cycle richshaw is not expected to be high as the site offers by virtue of its location, excellent conditions for walking and nearness to the metro station. Cavalry Lane accordingly is envisaged to provide the access to motorized vehicles. On adding incremental traffic to the existing traffic on Cavalry Lane, the aggregate traffic works out to be 640 pcu per hour. The existing v/c ratio considering local two lane two-way carriageway configuration works out to be 0.56, and the emerging v/c ratio with project estimated to be 0.857 as per IRC 106. This v/c has built in facility of right turn traffic, parked vehicles and frontage access from the road under consideration. With v/c ratio of 0.85, congested conditions are not expected on Cavalry Lane. Further there is likely to be diversion from car to public transport especially to Metro for essential trips and this is likely to reduce the generated vehicular traffic volume from the proposed development. Walking to Metro Station for travel purposes is likely to find favour with the residential population.”

36. As already noted, SEIAA has based its decision dated 22.03.2018 on the recommendation of SEAC, while SEAC has based its decision on Form – I, Form-I A followed by letter and presentation by the project proponent. There is hardly any tangible and substantive discussion either by SEAC or by SEIAA analyzing various environmental aspects and impacts of the proposed project. Conditions have been laid down which are very generic without any analysis of issues which are patent. Thus, the whole exercise by SEAC or SEIAA is based on non-application of mind which vitiates the EC. Mere imposition of general

conditions that Air (Prevention and Control) of Pollution Act, 1981 (Air Act) and Water (Prevention and Control) of Pollution Act, 1974 (Water Act) norms will be followed is of no consequence when air quality norms are already exceeded and there is not carrying capacity assessment to sustain the project in question.

37. It is undisputed that the land on which the project is proposed belongs to the Ministry of Defence. The same was acquired for Metro Rail Project in 2001. The land use was characterized as public and semi- public as per MPD 2021 which was changed at the instance of DMRC in the year 2008 for group housing project. Proposal for grant of EC was moved initially on 21.08.2009 which was granted on 13.08.2012 for 324 dwelling units with total built up of area 10,265.90 sq.m. The appellant University raised objections on 08.02.2012 which are said to have been considered by the sub-Committee constituted by SEAC. Amendment in the project was sought on 12.02.2018 for covering more area. Prior to 22.12.2014, the requirements of EIA Notification dated 14.09.2006 were as laid down in a note against Entry VIII of the Schedule as follows:-

“General Condition (GC):

Any project or activity specified in Category ‘B’ will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as identified by the Central Pollution Control Board from time to time, (iii) Eco-sensitive areas as notified under Section 3 of the Environment (Protection) Act, 1986, such as, Mahabaleshwar Panchgani, Matheran, Pachmarhi, Dahanu, Doon Valley, and (iv) inter-State boundaries and international boundaries:

Provided that the requirement regarding distance of 10 km of the inter-State boundaries can be reduced or completely done away with by an agreement between the respective States or U.Ts sharing the common boundary in case the activity does not fall within 10 kilometres of the areas mentioned at item (i), (ii) and (iii) above.”

38. The said note was deleted by the notification dated 22.12.2014. The condition shows that the project located in 10 kms. of critically polluted areas or of interstate boundary was treated as separate from any other projects. The location of the present project is within 10 kms. of interstate boundary and also within such distance from critically polluted areas. Thus, on the date earlier EC was earlier granted i.e. 13.08.2012, the project was wrongly treated as Category B. To avoid this legal hurdle, the application appears to have been treated as for grant of a fresh EC though the application was for amendment of the earlier EC, which amendment was not legally permissible without following procedure for Category A project entailing detailed EIA study and accordingly preparation of EMP.

Even for evaluation as Category BI project, appraisal was required to be based on carrying capacity of the area in terms of air quality, noise level and traffic congestion apart from other important environmental considerations. In absence thereof, it is not possible to hold that there is application of mind by SEIAA as claimed by the project proponent.

39. We find merit in the contention on behalf of the appellant that there was hardly any application of mind by SEIAA or SEAC to the available data and to the impact of the project on environment, before granting EC. To give effect to Sustainable Development and

Precautionary principles, EC cannot be granted without such assessment and evaluation, which is also known as 'Carrying Capacity Assessment'. Such assessment becomes all the more necessary when the available data shows that environmental norms are in excess of prescribed parameters. We may consider this aspect in the light of earlier orders of this Tribunal.

Carrying Capacity Assessment for the Project

40. The data furnished by the appellant has been quoted above showing that norms of air quality as well as noise levels are already beyond the prescribed standards. There is, thus, no carrying capacity of the area to sustain any additive load in terms of air or noise levels which undisputedly will happen, even according to the project proponent.

41. This Tribunal has earlier considered the issue of carrying capacity on certain occasions. Reference may be made to the order dated 26.10.2018, in O.A. No. 568/2016, *Ajay Khera Vs. Container Corporation of India Limited & Ors.* as follows:-

*“15. Delhi is over polluted and figures quite high in the ranking of most polluted cities. **There is no study about the capacity of the city in respect of the extent of population which can be accommodated and number of vehicles which can be handled by the roads of Delhi. The Master Plan for Delhi 2021 also does not assess the urban/physical carrying capacity of the NCT of Delhi despite noting a reduction in the carrying capacity of amenities such as drainage.** However, no specific emphasis is laid on determination of carrying capacity of the city on the basis of factors such as availability of land, air and water resources for the increasing population in the light of principles of sustainable development and Intergeneration equity.*

16. Conscious of the threat posed to limited natural resources due to their overuse, this Tribunal in Metro Transit Pvt. Ltd Vs.

South Delhi Municipal Corporation & Ors.⁴ directed the Ministry of Transport to take initiative to assess the number of vehicles to be permitted proportionate to the capacity of the roads in the city in the larger interest of environment. This Tribunal has also directed in *SPOKE Vs. M/s. Kasauli Glaxie Resorts and other connected matters*⁵ to frame guidelines with respect to carrying capacity assessment for similarly placed hill stations as Kasauli and Eco-Sensitive Zone (ESZ) notified by MoEF&CC to check hazards of unregulated development threatening the fragile ecology. In *D.V. Girish v. Union of India & Ors.*⁶ this Tribunal has directed the Ministry of Urban Development and MOEF& CC to conduct detailed carrying capacity study to assess the impact of factors such as construction of resorts, new civil structures, availability of water resources, power lines, soil erosion, extraction of ground water, waste generation and handling, road traffic and pollution and evolve a management plan for preservation of Chikkmangaluru district. Further, in *Social Action for Forest and Environment (SAFE) & Ors. v. Union of India and Ors.*⁷ it was observed that the relevance of the concept of carrying capacity to the concept of sustainability adds to its value for organizing the management framework. **In the light of the current scenario, a similar assessment is necessitated in NCT Delhi.**

17. As a yardstick of sustainability, urban carrying capacity is an important conceptual underpinning that must guide a welfare state in promoting sustainable urban development. The concept of “carrying capacity” addresses the question as to how many people can be permitted into any area without the risk of degrading the environment of the area. A dynamic city policy based on carrying capacity assessment is essential to ameliorate the conditions for urban development and residents living quality. Urban carrying capacity is needed to be developed to balance the demands on the resources on the one hand and the capacity of such resources consistent with the need for environment protection. This is the need for sustainable development. Severely straining and degrading the available natural resources of a particular area without regard to capacity assessment is causing irreversible damage to the ecology in terms of pollution of air, water and earth. What would happen to the traffic flow if all roads become parking? What happens to the road travelers, if there is no adequate oxygen in the air on account of excessive vehicles and congestion? How would unlimited housing be provided to people if the land resources are exhausted at particular place? How will water and waste disposal

⁴ Order dated 23.10.2018 in OA No. 773/2018

⁵ Order dated 05.10.2018 in O.A. No. 218/2017

⁶ Order dated 30.07.2018 in O.A. No. 462/2018

⁷ Order dated 10.12.2015 in O.A.No. 87/2015

needs be met, if there is unplanned population density in a particular city? These questions require serious consideration. "Urban disease" frequently besetting the cities such as traffic congestion, housing shortage, lack of amenity, pose actual challenges and impediments to sustainable development. While emergency measures such as the odd-even scheme, limiting the flow of tourist vehicles and restraining the timing of fire crackers may help momentarily such as is contemplated under the 'Graded Response Action Plan', long term assessment of physical and environmental carrying capacity and devising measures to restrict overuse on reaching optimum capacity is inevitable to ensure sustainable development. Without such assessment and action, the very survival of people is threatened what to talk of working towards Sustainable Development Goals, 2030 to tackle climate change may remain only a dream. Sustainable development is essential policy and strategy for continued economic and social development without detriment to the environment and natural resources on the quality of which continued activity and further development depend⁸. Natural resources have got to be tapped for the purposes of social development but one cannot forget at the same time that tapping of resources have to be done with realistic approach to capacity of a city or area so that environment may not be affected in any serious way; so that there may not be depletion of water resources. Long-term planning must be undertaken consistent with capacity assessment. It has always to be remembered that the air and water are not without limitation⁹.

18. *Accordingly, we consider it necessary to direct assessment of carrying capacity for the NCT Delhi as well as other major cities particularly 102 "non-attainment cities" within reasonable time preferably in one year. Such study can be in phases depending on priority areas having pollution hot spots. Such assessment must specifically study capacity in terms of number of vehicles, extent of population, extent of different nature of activities – institutional, industrial, commercial etc.*

19. *The Ministry of Urban Development in coordination with the Central Pollution Control Board, Ministry of Transport and other concerned Ministries, the Authorities such as Planning Commission as well the States may carry out such study with the assistance of experts in the field. Methodology to do so may be worked out within two months.*

⁸ (2002) 10 SCC 606 T.N. Godavarman Thirumulpad Vs. Union of India, , dated 30.10.2002

⁹ 1986 Supp (1) SCC 517 Rural Litigation & Entitlement Kendra, Dehradun Vs. Stat of UP (Doon Valley Case), AIR 1987 SC 359, dated 18.12.1986

20. As a result of such study, further policy decisions may be taken by concerned Authorities for comprehensive action for checking air pollution in the interest of public health. This may also result in regulation of logistics and infrastructure. The CPCB may act as nodal agency.”

42. In the same matter i.e. Ajay Khera Vs. Container Corporation of India Limited & Ors., supra, further order dated 08.03.2019 is as follows:-

“4. As per report of the WHO, Delhi is one of the 10 most polluted cities in the world. This called for a study about capacity of the city in respect of extent of population and number of vehicles to be permitted. Urban carrying capacity assessment was an essential part of urban planning for giving effect to the concept of sustainable development. It was observed:-

“Severely straining and degrading the available natural resources of a particular area without regard to capacity assessment is causing irreversible damage to the ecology in terms of pollution of air, water and earth. What would happen to the traffic flow if all roads become parking? What happens to the road travelers, if there is no adequate oxygen in the air on account of excessive vehicles and congestion? How would unlimited housing be provided to people if the land resources are exhausted at particular place? How will water and waste disposal needs be met, if there is unplanned population density in a particular city? These questions require serious consideration. “Urban disease” frequently besetting the cities such as traffic congestion, housing shortage, lack of amenity, pose actual challenges and impediments to sustainable development. While emergency measures such as the odd-even scheme, limiting the flow of tourist vehicles and restraining the timing of fire crackers may help momentarily such as is contemplated under the ‘Graded Response Action Plan’, long term assessment of physical and environmental carrying capacity and devising measures to restrict overuse on reaching optimum capacity is inevitable to ensure sustainable development. Without such assessment and action, the very survival of people is threatened what to talk of working towards Sustainable Development Goals, 2030 to tackle climate change may remain only a dream. Sustainable development is essential policy and strategy for continued economic and social development without detriment to the environment and natural resources on the quality of which continued activity and further

development depend. Natural resources have got to be tapped for the purposes of social development but one cannot forget at the same time that tapping of resources have to be done with realistic approach to capacity of a city or area so that environment may not be affected in any serious way; so that there may not be depletion of water resources. Long-term planning must be undertaken consistent with capacity assessment. It has always to be remembered that the air and water are not without limitation.”

8. As regards the direction to prepare carrying capacity assessment report, we find from the interim report submitted by the CPCB that the Ministry of Housing and Urban Affairs is in the process of developing a methodology for the study. The study is to be carried out through Urban Mass Transit Company (UMTC) as a pilot study. Since the order of the Tribunal is more than four months old, the study had to be done in a time bound manner. The same cannot be delayed beyond a point in view of urgency of the situation. **Tackling air pollution cannot remain pending.** Let Central Pollution Control Board furnish such study report, as far as possible, within one month from today.”

43. Again in *Anil Tharthare v. Secretary. Env't. Dept. Govt. of Maharashtra*, 2019 SCC Online NGT 876, it was observed:-

“25. Carrying capacity is integral to the principles of Sustainable Development and Polluter Pays principle. As a yardstick of sustainability, urban carrying capacity is an important conceptual underpinning that must guide a welfare state in promoting sustainable urban development. “Urban disease” frequently besetting the cities such as traffic congestion, housing shortage, lack of amenity, pose actual challenges and impediments to sustainable development. Severely straining and degrading the available natural resources of a particular area without regard to capacity assessment is causing irreversible damage to the ecology in terms of pollution of air, water and earth. In light of serious threat, this Tribunal in Original Application No. 568 of

2016, *Ajay Khera v. Container Corporation of India Limited* vide order dated 26.10.2018, posed the following questions:

- (a) What would happen to the traffic flow if all roads become parking?
- (b) What happens to the road travelers, if there is no adequate oxygen in the air on account of excessive vehicles and congestion?
- (c) How would unlimited housing be provided to people if the land resources are exhausted at particular place?
- (d) How will waste water and solid waste disposal needs be met, if there is unplanned population density in a particular city? These questions require serious consideration.

26. Natural resources have got to be tapped for the purposes of social development but one cannot forget at the same time that tapping of resources have to be done with realistic approach to capacity of a city or area so that environment may not be affected in any serious way. It has always to be remembered that both the air and water as resource are not without limitation.

44. In appeal against the above order in Hon'ble Supreme Court in *Keystone Realtors Pvt. Ltd. v. Anil v. Tharthare*, 2019 SCC Online SC 1543, it was observed:-

*“21.The procedure set out under paragraph 7(ii) of the EIA Notification exists to ensure that where a project is expanded in size, **the environmental impact on the surrounding area is evaluated holistically considering all the relevant factors including air and water availability and pollution, management of solid and wet waste and the urban carrying capacity of the area.** This was not done in the case of the appellant's project. It was not open to the third respondent to grant an 'amendment' to the EC without following the procedure set out in paragraph 7(ii) of the EIA Notification.”*

45. This Tribunal got carrying capacity study conducted in respect of Manali and Mcleodganj in Himachal Pradesh by a Committee *inter-*

alia representing G.B. Pant Institute, Almora; Chief Town Planner, Shimla/senior Architect (Planner); A senior Scientist from MOEF&CC; A senior Scientist from the Indian Council of Forestry Research and Education, Dehradun; Senior Scientist from Wadia Institute of Himalayan Geology, Dehradun; Scientist/ Senior official from the Central Ground Water Board, New Delhi; Scientist/ Senior official from the Central Pollution Control Board, New Delhi; Representative of National Disaster Management Authority, Govt. of India and Representative of School of Planning and Architecture, New Delhi. Based on such study, the Tribunal directed restriction on constructions.¹⁰ The Tribunal observed:-

“13. With regard to Manali, the report makes following recommendations on the subject whether any construction can be allowed at Manali:

“Whether construction in Manali be permitted or whether any restrictions need to be imposed, if so, the nature of restrictions which are to be laid down.

As per the findings of this study, Manali MC has no capacity left to accommodate or sustain additional population/tourist. Allowing any construction would mean Govt. is officially encouraging and making provisions for more population/tourists.

In view of above it is recommended to enforce a complete ban on construction activities in Manali MC except the construction of residential houses for their own uses/purpose and government buildings. The construction of other types should only be permitted unless and until adequate provisions for solid waste management and water supply are put in place.”

15. With regard to McLeodganj, a separate report has been submitted. After examining various parameters, the Expert Committee recommended as follows:

“In view of above it is recommended to enforce a complete ban on construction activities in McLeodganj except the construction of residential houses for their own uses/pur1

¹⁰ Order dated 29.07.2019 in O.A. No. 635/2017, Ramesh Chand v. State of H.P.

and government buildings. The construction of other types should only be perm] unless and until adequate provisions for solid waste management is put in place.”

20. The three templates of ‘carrying capacity assessments’ - two in the present case i.e. Manali and Mcleodganj and one in case of Kasauli which was dealt with by order of this Tribunal vide order dated 05.10.2018 in Original Application No. 218/2017, Society for Preservation of Kasauli and its Environs (SPOKE) v. M/s Kasauli Glaxie Resorts, may be taken into account by the MoEF&CC and CPCB while carrying out further carrying capacity assessments as required in terms of orders of this Tribunal”.

46. In view of above, it is difficult to uphold sustainability of the project in terms of carrying capacity and permissibility of grant of EC without a proper assessment which has not been done.

47. Sustainability of the project has been questioned *inter-alia* having regard to deteriorated air and noise quality, underground water level, traffic congestion, location close to Northern Ridge, height of the building. In Form-I, against the heading Environmental Sensitivity, distance from Yamuna is shown to 1.5 km., from Northern Ridge Reserve Forest (RF) 0.5 km., interstate boundary is mentioned as 6.5 km., densely polluted area is 1.5 km., sensitive man made uses are mentioned as 0.5 to 2.5 km. Area already subject to pollution is mentioned to be none. It is mentioned that site is in Seismic Zone IV. In Form IA, against air environment, it is mentioned contribution of vehicle emission will be marginal. It is further stated that there will be no significant impact of noise.

48. It has been pointed out by the appellant that University and 100 m. from educational institutions having more than 1000 students is ‘silence zone’ as per Notification dated 03.04.2008. These factors

make the project to be environmentally vulnerable, sensitive and critical which aspects have not been duly evaluated. There is no serious consideration of these vital environmental issues.

Air Quality, Noise Level and Traffic Congestion

49. As already mentioned, the data furnished by the project proponent itself shows that air quality in the area has no carrying capacity to permit any additive load in terms ambient air. In absence thereof, permitting a project adding to load of pollution will be against the Sustainable Development and Precautionary principles which are tenets of *right to life*. Similar is the position with regard to noise levels and traffic congestion. On this aspect there is no consideration whatsoever by SEIAA/SEAC. EC has been granted mechanically, overlooking this crucial aspect. There is no consideration of estimation of total existing PM load, estimation of assimilative capacity with respect of PM and estimation of supportive capacity with respect to PM by SEAC/SEIAA.

Additional load of pollution on account of the project to already deteriorated air quality, noise level and traffic congestion

50. Coming to the additional load of pollution on account of added traffic on account of the project, traffic report submitted by the project proponent in the year 2011 mentioned the estimated traffic data to be 320 Passenger Car Equivalent (PCU) during peak hour. Report of Prof. Geetam Tiwari, IIT Delhi relied upon by the appellant is that since the project is for high income group, there will be about 900 motorized trips. The project may be non-complaint of Transit Oriented Development Guidelines (TOD) prepared by DDA. Traffic

report 2011 filed by the project proponent mentions volume to the capacity of 0.7 but the same will exceed 1. Since motorized and pedestrian traffic and road surrounding the project are running to the capacity, any addition on account of the project will be unsustainable.

Second report relied upon by the project proponent of the year 2018 mention width of Cavalry lane as 24 m. According to the appellant, the width of Cavalry lane is 8.5 m. Similarly width of Chhatra Marg is 10.5m and not 24m. The 2018 report mentions number of cars to 925 against 1091 cars in 2011 report. Average Daily Traffic (ADT) as per 2003 report is 3484 PCU as against 1844 PCU in 2011 report. The 2018 report is that traffic volume had dipped from 226 PCU to 208 PCU.

Air Pollution Levels in Delhi

51. Delhi is one of the 122 identified non-attainment cities, based on ambient air quality data compiled by CPCB with reference to the air quality standards under the Air Act, 1981 and EP Act, 1986. This Tribunal is considering the remedial action in the matter in O.A. No. 681/2018. After noting that the identified causes of air pollution include vehicular pollution¹¹, industrial and construction sector pollution¹², reference was made to the Graded Response Action Plan

¹¹ M.C. Mehta v. Union of India (1985)2 SCC 431, M.C. Mehta v. Union of India (2001) 3 SCC 756, M.C. Mehta v. Union of India (1998) 6 SCC 63, M.C. Mehta v. Union of India (2002) 3 SCC 356, M.C. Mehta v. Union of India (1998) 6 SCC 60

¹² M.C. Mehta v. Union of India (1997) 2 SCC 353, M.C. Mehta v. Union of India and Shriram Foods and Fertilizer Industries and Anr. (1986) 2 SCC 235, Rural Litigation and Entitlement Kendra, Dehradun v. State of U.P. (1985) 2SCC 431, Mohd. Haroon Ansari v. District Collector (1998) 6 SCC 60, Union of India v. Union Carbide Co. (1989) 1 SCC 674, M.C. Mehta v. Union of India (1992) 4 SCC 256, Sterlite Industries (India) Ltd. etc. v. Union of India & Ors.(2013) 4SCC 575 , M.C. Mehta v. Union of India (2004) 6 SCC 588, M.C. Mehta v. Kamal Nath (2000)6 SCC 213

(GRAP) notified by the MoEF&CC on 12.01.2017 stipulating specific steps for different levels of air quality such as improvement in emission and fuel quality and other measures for vehicles, strategies to reduce vehicle numbers, non-motorised transport network, parking policy, traffic management, closure of polluting power plants and industries including brick kilns, control of generator sets, open burning, open eateries, road dust, construction dust, etc.¹³. The Tribunal noted that on account of air pollution, India is ranked at 177 out of 180 countries in Environmental Performance Index.¹⁴ As per the World Air Quality Report, 2019 prepared by IQAir Air Visual, Delhi has been reported to be having the worst air quality amongst all the capital cities of the World for the 2nd consecutive year.¹⁵ It is also well known that air pollution contains greenhouse gases which have potential to lead to climate change having serious consequences on human existence. The Tribunal noted that air pollution has enormous impact on public health particularly children, senior citizens and the poor who are more vulnerable. We have already noted the data given by the project proponent showing that air quality norms are exceeded at the location in question. The data is of the date of application. There is no improvement claimed till date. In fact the situation is further deteriorating which is a well known fact.

52. The Tribunal also directed carrying capacity study of all the 102 non-attainment cities (which number went up to 122) vide order dated 08.10.2018 and evolving mechanism for review of Master Plans and

¹³ S.O.118(E), Notification, Ministry of Environment, Forest and Climate Change

¹⁴ <https://www.thehindu.com/sci-tech/energy-and-environment/india-ranks-177-out-of-180-in-environmental-performance-index/article22513016.ece>

¹⁵ World Air Quality Report, 2019 prepared by IQAir Air Visual

shifting polluting activities identified in a study. Similar directions were issued for control of noise pollution. The Tribunal, vide order dated 08.10.2018, directed steps for bringing air quality within prescribed norms by taking steps to prevent polluting activities. The Tribunal directed that action plans be prepared indicating steps to be taken to check different sources of pollution having speedy, definite and specific timelines for execution. The Action Plans should be consistent with the carrying capacity assessment of the non-attainment cities in terms of vehicular pollution, industrial emissions and population density, extent of construction and construction activities etc. Depending upon assessed carrying capacity and source apportionment, the authorities may consider the need for regulating number of vehicles and their parking and plying, population density, extent of construction and construction activities etc. Guidelines may accordingly be framed to regulate vehicles and industries in non-attainment cities in terms of carrying capacity assessment and source apportionment. The matter was last reviewed on 20.11.2019 and further directions were issued for installing sufficient number of air quality monitoring stations, completing carrying capacity study, reviewing Master Plans to give effect to such study, prepare action plans to bring the air pollution and noise pollution within norms, carry out afforestation drive, clear legacy waste dump sites and finalise emergency response systems etc. The matter is still pending further consideration as carrying capacity study reports are awaited. This fact is being mentioned to demonstrate that carrying capacity assessment is crucial for sustainable development which is integral part of right to life guaranteed under the Indian Constitution and any

activity beyond such carrying capacity is not permissible. In the present case, it has already come on record that there is no carrying capacity in the area in terms of air quality to sustain the project in question.

53. The Tribunal has also found that at times EC granted subject to general conditions of compliance of air, water and other environmental norms without effective monitoring mechanism has not been found to be effective mitigation of damage to the environment.¹⁶

High Rise Building

54. We may also consider the grievance against height of the building without considering its impact on the environment especially on account of closeness to the Ridge. We are of view that restrictions on the height of the buildings in such scenarios are inevitable to give effect to the Sustainable Development and Precautionary principles. In an article titled 'The Sustainability of Tall Building Developments: A Conceptual Framework' by Kheir-Al-Kodmany, Department of Urban Planning and Policy, College of Urban Planning and Public Affairs, University of Illinois at Chicago, Chicago, IL 60612, USA, published on 05.01.2018, sustainability of tall buildings on account of potential for fire incidents, adverse impact on micro climate due to

1. ¹⁶ Order dated 22.11.2019 in O.A. No. 837/2018, Sandeep Mittal v. MoEF&CC & Ors.

Para 14. No satisfactory mechanism exists at present, as shown by the above affidavit itself. It is stated that, at present, it takes 4.5 years for monitoring which means that for such long period the non-compliance continues making mockery of law. There has to be speedy monitoring and speedy action, wherever necessary. There has to be a robust plan for the purpose which is the responsibility of the concerned Government Departments. We place on record our disapproval for the present sorry state-of-affairs and expect meaningful improvement.

wind funneling and turbulence around their bases generation of carbon dioxide because of heavy machinery and equipment and waste management has been studied. It may be appropriate to refer to some of the observations:-

“Fire Incidences

Tall buildings are prone to massive losses of lives and valuable properties caused by fire. High-rise buildings present several unique challenges not found in traditional low-rise buildings, including greater difficulties for a firefighter to access a smoldering high-rise building, longer egress times and distances, complex evacuation strategies, and smoke movement and fire control. Typical dangers at a fire incidence involve flame, smoke, heat, toxic gases, flashover, and backdraft explosions. However, the multiple floors of a high-rise building create the cumulative effect of needing greater numbers of firefighters to travel great vertical distances on stairs to evacuate the building.

Environmental Dimension

Further, tall buildings exert an adverse effect on the microclimate due to wind funneling and turbulence around their bases, causing discomfort to pedestrians. They cast a shadow on nearby buildings, streets, parks, and open spaces, and they may obstruct views, reduce access to natural light, and prevent natural ventilation.

Energy and Carbon Emission

Also, tall buildings’ construction requires great energy and generates considerable carbon dioxide because of operating heavy machinery and equipment such as powerful cranes and pumps (e.g., pumping water and concrete to upper floors) and dump trucks. Transporting building materials from far distances (sometimes across the globe) also consumes energy and produces immense carbon dioxide.

Bird Collision

*Bird-glass collisions are an unfortunate side effect of tall building developments throughout the world. Billions of birds perish from collisions with glass yearly, making it the second largest human-made hazard to birds after habitat loss. The U.S. alone is responsible for up to a billion birds yearly. To make matters worse, countless victim birds belong to already declining population species, including Canada Warbler (*Cardellina Canadensis*), Golden-winged Warbler (*Vermivora chrysoptera*), Kentucky Warbler (*Geothlypis Formosa*), Painted Bunting (*Passerina ciris*), Wood Thrush (*Hylocichla mustelina*) and Worm-*

eating Warbler (Helmitheros vermivorum). Clear and reflective glass result in killing birds because birds perceive clear glass as an unobstructed passageway; and consequently, they attempt to fly through. On the other hand, reflective glass reflects the sky, clouds, and nearby vegetation reproducing a perceived habitat familiar and attractive to birds. Since the majority of modern tall buildings are clad in glass, tall buildings become a prime killer. Approximately 98% of flying vertebrates (birds and bats) migrate at heights below 500 m (1640 ft), and today, tallest buildings in the world reach or come close to the upper limits of bird migration paths. Although bird migration happens in fall and spring seasons, their collision into tall buildings occurs year-round [88]. At night, skyscrapers' lights lure birds in search of navigational cues. Birds usually use stars and the moon, and illuminated windows often divert them from their original flight paths. As such, birds can be attracted to artificially lit tall buildings resulting in collisions. This problem manifests on evenings of inclement weather, when the cloud's altitude is low, which forces birds to fly at lower heights. Attracted by the artificial light rays, some birds collide into the buildings' facades.

Waste Management

Tall buildings generate large volumes of waste because they house large population. On average, the disposal rate of an apartment unit is about one ton per year. While this amount of waste is not different from a low-rise residential unit, the method of waste collection in high-rises is more complicated than that in low-rises. One popular disposal method for tall buildings is the chute system, which consists of vertical shafts that transfer waste to a central location bin in a lower level of the building via gravity. Nevertheless, the large amount of waste accumulated on the ground floor poses a challenge to management systems.”

55. We may note that initially the stand of DDA was that Master Plan of Delhi did not allow more than 8 floors. The project proponent filed W.P. (C) No. 3135/2010 before the Delhi High Court where the DDA repeated the said stand as noted in the order of High Court dated 07.03.2011. However, the High Court, considering the argument of the project proponent that project proponent will not able to achieve adequate coverage which was permissible, directed DDA to consider the representation of the project proponent for relaxing the height. Thereafter, on 18.05.2011, the DDA made a statement before the High Court that there will be no restrictions on the height of project.

The environmental issues were however not subject matter of consideration in the said proceedings. Even if there is no legal restriction on height by development authority *de hors* environmental consideration, environmental sustainability issues, in this context which are presently the subject matter of these proceedings, cannot be ignored. Assessment of impact of such tall building on the environment has to be independently done which has not been done, rendering the impugned EC vulnerable on that ground.

Location of the Building – Closeness to Northern Ridge

56. As per data furnished by the project proponent, the distance of the project from the Northern Ridge is within 500 meters. Vide order dated 30.11.2011 Delhi High Court in W.P. (C) No. 3339 of 2011, *Ashok Kumar Tanwar v. Union of India*, held that clearance of Ridge Management Board is required for construction in the Ridge area. This view was affirmed by the Hon'ble Supreme Court (2016) 13 SCC 561, *DDA v. Kenneth Builders & Developers Pvt. Ltd.* No doubt, in the present case, the project is said to be 500 meters away from the Ridge and not in the Ridge as such, the impact of development of project of such magnitude close to the Ridge, which is a Reserve Forest of immense importance and also ecological lifeline of Delhi, was required to be considered which has not been done.

57. As already observed, object of requirement for environmental clearance is to ensure that no project adversely affecting environment comes up. Thus, EC can be granted only after ensuring that project will not have adverse impact on environment and not otherwise. This places responsibility on SEIAA and SEAC to conduct meaningful

appraisal of impact of the project on the environment. Mitigation measures can be prescribed where the project is otherwise viable. In the present case, EC has been granted without adequate appraisal. There are conditions for mitigation, including compliance of Water Act and Air Act. However, once there is no carrying capacity in terms of air quality norms, merely laying down of such general conditions is merely a formality and not adequate safeguard.

58. Considering that carrying capacity of the area to sustain such high rise building has not been conducted and that the air and noise levels are already beyond permissible limits, the building is located very close to reserve forest, river Yamuna, premier educational institutions and hospitals and areas with high traffic density, we find it difficult to hold that there is application of mind in granting the EC. We are of the view that sustainability of this project was required to be evaluated by undertaking carrying capacity assessment in terms of:-

- Estimation of total Existing PM load (both PM_{2.5} and PM₁₀).
- Estimation of total Assimilative Capacity w.r.t. PM load (both PM_{2.5} and PM₁₀).
- Estimation of total Supportive Capacity w.r.t. PM load (both PM_{2.5} and PM₁₀).

As already observed above, the SEAC has not examined the above aspects and also Isopleth of predicted ground level concentration of pollutants because of additive effect of such high rise project, in terms of increased traffic load on recipient air has not been predicted which vitiates the impugned EC. We also do not find

Windrose diagram of air pollution on record as apparently no pollution Windrose analysis has been conducted.

59. In view of above, we conclude that the EC granted is without application of mind.

60. **Re: Issue No. (iii) – Whether case is made out for directions by this Tribunal.**

In view of our conclusion that the EC has been granted without proper evaluation and the project cannot be allowed without such proper evaluation about its sustainability or otherwise in the light of available data, a case is made for interference by this Tribunal for having an evaluation done from an independent Committee of experts. As already noted, existing air and noise levels do not permit any further additive load in the area, particularly a high rise building having adverse impacts on environment, including potential for fire incidents, adverse impact on micro climate due to wind funneling and turbulence around their bases, generation of particulate matter because of heavy machinery and equipment and waste management. There will be unmanageable impact on traffic density and adverse impact on the flora and fauna and groundwater regime of nearby pristine Ridge.

As noted earlier, the site in question was originally parking for the Metro Station. Once the site becomes a group housing complex, the parking which was to be at this site will now be on public roads, causing further congestion and consequent pollution. Delhi is already grappling with the problem of parking and it is a matter of common knowledge that most of the public roads have been converted into parking lots on account of ever increasing number of vehicles without

adequate carrying capacity of road infrastructure. Present location is equally affected, if not more, as already discussed.

61. As already mentioned, it is well settled that Sustainable Development and Precautionary Principles are part of right to life.¹⁷ The same are also enforceable under Section 20 of the National Green Tribunal Act, 2010. The polluting activities have to be prevented for clean

¹⁷ (1996) 5 SCC 647

Para 10. The traditional concept that development and ecology are opposed to each other is no longer acceptable. "Sustainable Development" is the answer. In the international sphere, "Sustainable Development" as a concept came to be known for the first time in the Stockholm Declaration of 1972. Thereafter, in 1987 the concept was given a definite shape by the World Commission on Environment and Development in its report called "Our Common Future". The Commission was chaired by the then Prime Minister of Norway, Ms G.H. Brundtland and as such the report is popularly known as "Brundtland Report". In 1991 the World Conservation Union, United Nations Environment Programme and Worldwide Fund for Nature, jointly came out with a document called "Caring for the Earth" which is a strategy for sustainable living. Finally, came the Earth Summit held in June 1992 at Rio which saw the largest gathering of world leaders ever in the history — deliberating and chalking out a blueprint for the survival of the planet. Among the tangible achievements of the Rio Conference was the signing of two conventions, one on biological diversity and another on climate change. These conventions were signed by 153 nations. The delegates also approved by consensus three non-binding documents namely, a Statement on Forestry Principles, a declaration of principles on environmental policy and development initiatives and Agenda 21, a programme of action into the next century in areas like poverty, population and pollution. During the two decades from Stockholm to Rio "Sustainable Development" has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting ecosystems. "Sustainable Development" as defined by the Brundtland Report means "Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs". We have no hesitation in holding that "Sustainable Development" as a balancing concept between ecology and development has been accepted as a part of the customary international law though its salient features have yet to be finalised by the international law jurists.

11. Some of the salient principles of "Sustainable Development", as culled out from Brundtland Report and other international documents, are Inter-Generational Equity, Use and Conservation of Natural Resources, Environmental Protection, the Precautionary Principle, Polluter Pays Principle, Obligation to Assist and Cooperate, Eradication of Poverty and Financial Assistance to the developing countries. We are, however, of the view that "The Precautionary Principle" and "The Polluter Pays Principle" are essential features of "Sustainable Development". The "Precautionary Principle" — in the context of the municipal law — means:

- (i) Environmental measures — by the State Government and the statutory authorities — must anticipate, prevent and attack the causes of environmental degradation.
- (ii) Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- (iii) The "onus of proof" is on the actor or the developer/industrialist to show that his action is environmentally benign.

Para 13 The Precautionary Principle and the Polluter Pays Principle have been accepted as part of the law of the land. Article 21 of the Constitution of India guarantees protection of life and personal liberty. Articles 47, 48-A and 51-A(g) of the Constitution are as under:

"47. *Duty of the State to raise the level of nutrition and the standard of living and to improve public health.*—The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health.

48-A. *Protection and improvement of environment and safeguarding of forests and wildlife.*—The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.

51-A. (g) to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures."

Apart from the constitutional mandate to protect and improve the environment there are plenty of post-independence legislations on the subject but more relevant enactments for our purpose are: the Water (Prevention and Control of Pollution) Act, 1974 (the Water Act), the Air (Prevention and Control of Pollution) Act, 1981 (the Air Act) and the Environment (Protection) Act, 1986 (the Environment Act). The Water Act provides for the constitution of the Central Pollution Control Board by the Central Government and the constitution of the State Pollution Control Boards by various State Governments in the country. The Boards function under the control of the Governments concerned. The Water Act prohibits the use of streams and wells for disposal of polluting matters. It also provides for restrictions on outlets and discharge of effluents without obtaining consent from the Board. Prosecution and penalties have been provided which include sentence of imprisonment. The Air Act provides that the Central Pollution Control Board and the State Pollution Control Boards constituted under the Water Act shall also perform the powers and functions under the Air Act. The main function of the Boards, under the Air Act, is to improve the quality of the air and to prevent, control and abate air pollution in the country. We shall deal with the Environment Act in the latter part of this judgment.

environment, particularly right to breathe fresh air. Citizens of Delhi are already facing threat to their health on account of air, noise and other pollution. No additive load thereto can be permitted by such unviable mega project.

62. While *prima facie* the project does not appear to be viable for the reasons already mentioned, we are of the view that least which ought to be done is to suspend the EC, consequential Consent to Establish and further activities of the project proponent and have an independent evaluation conducted in the interest of environment and public health.

We have already noted the stand taken by the DPCC that SEIAA is not functional and DPCC is only a secretariat for SEIAA without any SEIAA member available. Thus, the evaluation will now have to be done by an independent Committee to ascertain viability of the project having regard to the existing environmental status and realistic impact of the project on the recipient environment, including in terms of the ambient air quality.

The assessment may be made independent of the observations made herein above within two months from today.

The Committee will comprise a senior representative of MOEF&CC; a senior scientist from the Indian Council of Forestry Research and Education, Dehradun; a scientist/engineer from the Central Ground Water Board, New Delhi; a senior scientist/engineer from the Central Pollution Control Board; a representative of National Disaster Management Authority, Govt. of India; representative of School of Planning and Architecture, New Delhi, senior scientists on

each from Wadia Institute of Himalayan Geology, Dehradun, G.B. Pant Institute, Almora and IIT Kanpur. The Nodal Agency for compliance and coordination will be Member Secretary, CPCB. First meeting of the Committee may be held preferably within two weeks from today. The Registry may furnish a copy of complete set of paperbook to the Member Secretary, CPCB forthwith.

Interim order dated 03.02.2020 restraining the project proponent from proceeding with any further activity will continue till the next date.

A copy of this order be sent to Secretary, MOEF&CC; Director General, Indian Council of Forestry Research and Education, Dehradun; the Central Ground Water Board, New Delhi; the Central Pollution Control Board; National Disaster Management Authority, Govt. of India; School of Planning and Architecture, New Delhi, Wadia Institute of Himalayan Geology, Dehradun, G.B. Pant Institute, Almora and IIT Kanpur by e-mail so that their representatives are nominated immediately.

List for further consideration on 09.07.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

Siddhanta Das, EM

February 27, 2020
Appeal No. 112/2018
A

IN THE SUPREME COURT OF INDIA

CIVIL APPELLATE JURISDICTION

CIVIL APPEAL NO.2485 OF 2020

M/s. Young Builders Private Ltd. ...Appellant(s)

versus

University of Delhi & Ors. ...Respondent(s)

O R D E R

(1) We have heard Mr. Shyam Diwan, learned senior counsel appearing for the appellant. We have also heard Mr. K.V. Vishwanathan, learned Senior counsel appearing for respondent No.1-University of Delhi and Mr. Tushar Mehta, learned Solicitor General appearing for respondent NO.4-Delhi Metro Rail Corporation.

(2) By Order dated 27.02.2020 the National Green Tribunal, Principal Bench, New Delhi, has constituted a Committee as to the viability of the Project having regard to the existing environmental status and the impact of the Project on the recipient environment including ambient air quality.

(3) Mr. Shyam Diwan, learned senior counsel appearing for the appellant, inter alia raised various contentions

that the appellant earlier obtained environmental clearance on 13.08.2012 which was challenged by University of Delhi which was rejected up to the Supreme Court. Therefore because of change of laws, a fresh environmental clearance was obtained on 23.03.2018 which is the subject matter of the present appeal. He has further contended that the National Green Tribunal was not justified in constituting a Committee de hors the rules, and the appellant is therefore aggrieved by the impugned order.

(4) Mr. K.V. Vishwanathan, learned senior counsel appearing for respondent no.1-University of Delhi, has submitted that the earlier clearance dated 13.08.2012 does not survive on account of change of law, and the appellant has obtained a fresh clearance on 23.03.2018 which is the subject-matter of challenge by the University of Delhi. The National Green Tribunal has rightly constituted the Committee to examine the various aspects of the project.

(5) By the impugned order, the National Green Tribunal has constituted a Committee comprising of various experts and also representatives of the Ministry of Environment and Forest (MoEF) and Climate Change (CC) and other

experts.

(6) We direct the Committee to examine various aspects including the viability of the Project without being influenced by any of the opinions expressed by the National Green Tribunal in the impugned order. The appellant, University of Delhi and Delhi Metro Rail Corporation are at liberty to file their respective representation along with requisite documents before the Committee within the period of two weeks. The Committee before it starts its first deliberation shall afford an opportunity of preliminary hearing to the appellant, University of Delhi and Delhi Metro Rail Corporation. Likewise, the Committee shall also afford a further opportunity of hearing to the appellant, University of Delhi and Delhi Metro Rail Corporation before it submits its final report before the Tribunal.

(7) The Committee shall complete the deliberation and submit its final report within two months from the date of the representation being filed by the appellant and University of Delhi and Delhi Metro Rail Corporation. The Member Secretary, Central Pollution Control Board, shall coordinate and take necessary steps for convening the meeting of the Committee. The meeting of the

Committee shall be conducted by virtual hearing, or video conferencing, and afford an opportunity of hearing to the representatives of the parties, mentioned above.

(8) After submission of the final report by the said Committee, the appellant, University of Delhi and Delhi Metro Rail Corporation are at liberty to raise all the contentions/points before the National Green Tribunal.

(9) Since we have directed the Committee to examine the issue without being influenced by any of the opinions expressed by the National Green Tribunal, it is not necessary to pass any further direction. The civil appeal is accordingly disposed of with the above direction and observation.

.....J.
(R. BANUMATHI)

.....J.
(INDU MALHOTRA)

.....J.
(ANIRUDDHA BOSE)

NEW DELHI
DATED : 10.06.2020

ANNEXURE-A3

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

Principal Bench, New Delhi

Appeal No. 112/2018

In The Matter of: -

University of Delhi

Applicant(s)

Vs.

MoEF&CC & Ors.

Respondent(s)

Index

Sr. No.	Particulars	Page No.
1.	Rapid Indicative Environment Assessment Report of the Independent Committee constituted for Evaluating Viability of Group Housing Complex Project by M/s Young Builders (P) Ltd. at Cavalry Lane, University of Delhi in compliance of Hon'ble NGT order dated 10.02.2020 in Appeal No. 112/2018 titled University of Delhi Vs. MoEF&CC & Ors.	
2.	Annexure-I: A copy of Hon'ble NGT order dated 10.02.2020.	
3.	Annexure-II: A Copy of minutes of meetings.	
4.	Annexure-III: Copies of document pertains to Rapid Indicative Environment Assessment.	
5.	Annexure-IV: Copies of approvals obtained from various Agencies/Organizations for proposed project.	



(Prashant Gargava)

Member Secretary

Central Pollution Control Board

Parivesh Bhawan, East Arjun Nagar

Delhi- 110032

Dated: 10.12.2020

Place: Delhi

Rapid Indicative Environment Assessment Report of the Independent Committee constituted by Hon'ble NGT for Evaluating Viability of Group Housing Complex Project by M/s Young Builders (P) Ltd. at Cavalry Lane, University of Delhi

Appeal No. 112 / 2018, University of Delhi vs. MoEF & CC & Others

SECTION I – BACKGROUND

1.1 Background in the matter

Hon'ble NGT vide its Order dated 10.02.2020 in the matter of Appeal No. 112 / 2018 directed:

"While prima facie the project does not appear to be viable for the reasons already mentioned, we are of the view that least which ought to be done is to suspend the EC, consequential Consent to Establish and further activities of the project proponent and have an independent evaluation conducted in the interest of environment and public health. We have already noted the stand taken by the DPCC that SEIAA is not functional and DPCC is only a secretariat for SEIAA without any SEIAA member available. Thus, the evaluation will now have to be done by an independent Committee to ascertain viability of the project having regard to the existing environmental status and realistic impact of the project on the recipient environment, including in terms of the ambient air quality. The assessment may be made independent of the observations made herein above within two months from today.

The Committee will comprise a senior representative of MOEF&CC; a senior scientist from the Indian Council of Forestry Research and Education, Dehradun; a scientist/engineer from the Central Ground Water Board, New Delhi; a senior scientist/engineer from the Central Pollution Control Board; a representative of National Disaster Management Authority, Govt. of India; representative of School of Planning and Architecture, New Delhi, senior scientists each from Wadia Institute of Himalayan Geology, Dehradun, G.B. Pant Institute, Almora and IIT Kanpur. The Nodal Agency for compliance and coordination will be Member Secretary, CPCB. First meeting of the Committee may be held, preferably within two weeks from today".

In pursuant to the order of Hon'ble NGT, representations and relevant documents from the aggrieved party, University of Delhi (hereafter referred as 'DU') and builder M/s Young Builders (P) Ltd., (hereafter referred as 'YBL') of the proposed group housing complex at 1 & 2 Cavalry Lane and 4, Chhatra Marg, Civil Lines, Delhi (hereafter referred as 'project') were sought.

The University of Delhi appealed before the Hon'ble Supreme Court contending that the constitution of fresh Independent Committee is not justified. Hon'ble Supreme Court passed an order on 10.06.2020 stating that,

"(6) We direct the Committee to examine various aspects including the viability of the Project without being influenced by any of the opinions expressed by the National Green Tribunal in the impugned order. The appellant, University of Delhi and Delhi Metro Rail Corporation are at liberty to file their respective representation along with requisite documents before the Committee within the period of two weeks. The Committee before it starts its first deliberation shall afford an opportunity of preliminary hearing to the appellant, University of Delhi and Delhi Metro Rail Corporation. Likewise, the Committee shall also afford a further opportunity of hearing to the appellant, University of Delhi and Delhi Metro Rail Corporation before it submits its final report before the Tribunal".

"(7) The Committee shall complete the deliberation and submit its final report within two months from the date of the representation being filed by the appellant and University of Delhi and Delhi Metro Rail Corporation. The Member Secretary, Central Pollution Control Board, shall coordinate and take necessary steps for convening the meeting of the Committee. The meeting of the Committee shall be conducted by virtual hearing, or video conferencing, and afford an opportunity of hearing to the representatives of the parties, mentioned above".

A copy of Hon'ble NGT order dated 10.02.2020 is annexed at **Annexure-I**.

As per the submissions made by concerned parties, the following main facts have emerged in the matter:

- The total area of said plot is 3.05 hectare, out of these 2 hectares was lease agreed to M/s. Young Builders Pvt Ltd. for the project.
- The location of the project is 1 & 3 Cavalry Lane and 4 Chhatra Marg. It falls in Zone – C (Civil Lines Zone) of the MPD-2021.
- The cost of land is ₹218.20 crore and it is leased for 90 years.
- The first Environmental Clearance (EC) for the project was accorded on 13.08.2012 for 324 dwelling units with a total built-up area of 10,265.90 sq.m.
- The second EC for the project was accorded on 23.03.2018 for 410 dwelling units with built-up area of 1,17,733.81 sq.m. and four towers of 139.6m.
- Floors proposed in the project: S+G+37
- In 2000 - 01, DMRC acquired 3.05-hectare land from the Ministry of Defence under Land Acquisition Act, 1894 for constructing Vishvavidyalaya Metro station.
- On 23.09.2005, on the request of DMRC, DDA changed land use from 'Public and semi-public facility' to 'Residential'.

- In 2006, in view of adequate parking space at Metro Station, surplus land (02 hectare) was agreed to be used for revenue generation.
- On 28.07.2008, pursuant to public notice, an open auction was conducted and norms of residential plot group housing MPD 2021 providing 33.3% ground coverage & no restriction on height were followed.
- On 23.01.2009, lease deed was executed in favour of Young Builder Pvt Ltd.

1.2 Constitution of Independent Committee & deliberations

The constitution of the committees comprised senior officials from Ministry of Environment, Forest & Climate Change, Central Pollution Control Board, Indian Council of Forestry Research & Education, Central Ground Water Board, School of Planning & Architecture, Wadia Institute of Himalayan Geology, G B Pant Institute, Almora, IIT Kanpur and National Disaster Management Authority.

The name and designations of concerned officials is as below,

Table 1.1: Constitution of the Committee

Sl. No.	Name & Designation	Organization	Committee Members
1.	Dr. Prashant Gargava, MS	CPCB	Coordinator
2.	Dr. Vinod K. Singh, Scientist - 'E'	MoEF&CC	Member
3.	Mr. N Bala, Scientist - 'F'	Indian Council of Forestry Research and Education, Dehradun	Member
4.	Mr. Jyoti Kumar Nalli, Scientist - 'D'	Central Ground Water Board, New Delhi	Member
5.	Dr. Meenakshi Dhote, Professor	School of Planning and Architecture, New Delhi	Member
6.	Dr. Vikram Gupta, Scientist - 'F'	Wadia Institute of Himalayan Geology, Dehradun	Member
7.	Mr. S. Tarafdar, Scientist - 'E'	G.B. Pant Institute, Srinagar-Garhwal	Member
8.	Dr. Mukesh Sharma, Professor	IIT Kanpur	Member
9.	Mr. Shambhu Sharma, Joint Adviser	National Disaster Management Authority, Govt. of India	Member

Summary of deliberations held during meetings of Independent Committee is presented below,

- First meeting (March 13, 2020) – The matter was briefed to the members and an impact assessment approach was discussed and finalized. It was agreed to circulate the documents in the matter to the members, visit the site and finalize issues requiring detailed assessment along with the methodology to be adopted.
- Second meeting (July 08, 2020) – M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation presented their submissions before the Committee. Representatives of M/s

Young Builders Private Ltd. made the presentation before the Committee and informed about the project, permissions/approvals obtained along with the control measures proposed during construction and operational phases to achieve the environmental compliance. Representative of DU objected to the nomination of Dr. Meenakshi Dhote, School of Planning & Architecture, New Delhi as member of the Committee on the grounds that she was member of the State Environmental Assessment Committee, which granted the environmental clearance to this project. Representatives of Delhi Metro Rail Corporation (DMRC) presented title and land-use plan of the land. DMRC stated that the project is in public interest.

After hearing the concerned parties, the members deliberated and agreed that (i) Mrs. Meenakshi Dhote shall continue as member of the Committee (ii) DU, YBL & DMRC will submit additional relevant documents and (iii) Members will ensure completion of respective specific tasks assigned to them. It was informed that DU shall present its submissions on 13.07.2020.

- Third Meeting (July 14, 2020) – Representatives of DU did not participate in this meeting and filed an IA before the Hon'ble NGT against nomination and continuation of Prof Meenakshi Dhote. It was agreed to wait till the outcome of the hearing of IA and matter was brought to knowledge of Director, School of Planning and Architecture, Delhi for information and necessary action.
- Fourth Meeting (August 05, 2020) – It was agreed that site visit will be held on 17.08.2020 by the Members of the Committee residing in Delhi and area around the project site will be considered for examining air quality, water quality, ground water levels, etc. Members will provide inputs to CPCB.
- Fifth Meeting (October 08, 2020) – The documents in the matter were examined and members were requested to forward their comments within a week for timely submission of the report.
- Sixth Meeting (December 01, 2020) – The draft report was circulated to all members of the Committee. The observations of the members with respect to compliance status to approvals, incremental pollution load due to proposed project and recommendations were deliberated. The report was finalized with consensus for submission in Hon'ble NGT.

Copy of minutes of meetings is annexed at **Annexure II**.

1.3 Site visit by Independent Committee

Delhi based members of the Committee visited site on 17.08.2020 to physically verify the points of contention and earmark area of influence of environmental impact of the project (Pics 1 to 7). The following members were present during the site visit:

Table 1.2: Constitution of Site Visit Team

	Name & Designation	Organization
1.	Dr. Prashant Gargava	CPCB
2.	Dr. Vinod Kumar Singh	MoEFCC
3	Dr. (Prof.) Meenakshi Dhote	SPA
4	Shri Dherya Saraswat, Consultant EQ	NDMA

During the visit, the following observations were made:

- The site is located at Chhatra Marg and Cavalry road and on the backside of Vishwavidyalaya Metro Station.
- The site is located in the North-east of University of Delhi.
- The nearby buildings include Vice Chancellor residence, School of Open Learning, Women's Hostels (2 nos.), University residences, departments, etc.

Figure 1.1: Satellite imagery of project area grid 2km x 2km

- The site was found fenced up to sufficient height (approx. 30 feet) as shown in Pic - 2.

- As evident in Pic nos. 1, 6 and 7, no site work was going on at the project location. The nearby buildings are Meghdoot Hostel for Women, Gandhi Bhawan and School of Open Learning (Pic nos. 3, 4 and 5).



Pic-1: Site barricaded/fenced all throughout



Pic-2:Fencing towards Chhtra Marg



Pic-3: School of Open Learning



Pic-4:Meghdoot Hostel for women



Pic-5: Gandhi Bhawan



Pic 6.: Project Site



Pic 7: Project Site

SECTION II – SUBMISSIONS RECEIVED FROM DU, YBL, DMRC

2.1 Submission of DU

The submission of DU was examined. The main points of disagreement with proposed project are presented below.

- The project is within 500 m of the Northern Ridge and no consent from Ridge Management Board has been taken.
- It has potential to cause appreciable increase in vehicular pollution in the area as at least 900 vehicles will be added to current load.
- The width of Chhatra Marg and Cavalry Lane are 10.80 m and 8.5m respectively, contrary to submission of YBL.
- The proposed area falls under the silence zone under the Noise Pollution (Regulation and Control) Rules, 2000 being within 100 meters from University of Delhi and Vallabhbhai Patel Chest Institute.
- The land use was categorized under the MPD – 2021, as "public and semi-public facility". The land use was later changed to residential purpose.
- The project will affect ambience and character of the university.
- The project is within 10 km of interstate boundary (Delhi – UP) and critically-polluted areas (Najafgarh drain, Wazirpur, Naraina and Anand Parbat area)
- The project is going to be the tallest building in Delhi with 37 floors and requires thorough assessment.
- The provisions of MPD, 2021 prohibit construction in the Ridge and close by areas. In the present case, necessary approvals were not taken from Ridge Management Board.

The following documents were presented by the DU in support of their submission,

1. Order of Hon'ble Supreme Court dated 10.06.2020 passed in CA 2485/2020 titled M/s Young, Builders Private Ltd. Vs. University of Delhi & Ors.
2. NGT Order dated 10.02.2020 passed in Appeal 112/2018
3. Supreme Court Order communicated to NGT
4. Email - SC Order dated 10.06.2020 Communicated to DU
5. Notification Constituting SEIAA and SEAC
6. 95th Minutes of Meeting of SEAC
7. Meeting Notice of CPCB dated 03.07.2020
8. Ministry of Defence Affidavit filed before NGT in Appeal No. 112/2018
9. Letter dated 25.10.1943 of the Joint Secretary Department of Education, Health and Lands to the Chief Commissioner, Delhi

10. MPD 2021 Clause 11.3 reg Tall Buildings & Zonal Development Plan for Zone-C - Clause 1.4.4
11. Report of Engineer Member, DDA
12. Form IA of M/s Young Builders
13. AAQ Sample Tests
14. NAAQ Notification - AAQ Standard
15. Traffic Analysis Report 2011
16. Report on Persons with Disabilities
17. Traffic Analysis Report 2018
18. Prof. Geetam Tiwari's Report
19. Noise Pollution - Test Reports Noise
20. Water Supply Scheme Clearance dated 07.10.2015
21. Brief Project Summary submitted by M/s Young Builders to SEIAA/SEAC
22. Water Balance Chart dated 13.03.2018
23. MoEF&CC OM dated 10.11.2015
24. Water Balance Chart 09.03.2018
25. Young Builders Response to SEAC Query reg. OM dated 25.10.2017 among others
26. Solar Panel Details submitted by M/s Young Builders to SEAC
27. MoEF&CC Circular dated 25.10.2017
28. Ms. Suman Lakhanpaul's Letter
29. Shri Anupam Chattopadhyay's Letter dated 31.01.2020
30. CPCB Affidavit filed before NGT dated 09.08.2018
31. HC Order passed in Vikas Singh Vs. Lieutenant Governor and Ors dated 20.01.2016
32. Fire Clearance dated 08.09.2017
33. Shri KS Rao's Report dated 25.01.2020
34. HC Order passed in Arpit Bhargava & Anr. Vs North Delhi Municipal Corporation & Ors dated 18.06.2020
35. Soil Investigation Report 2011
36. Soil Investigation Report 2018
37. Foundation Report
38. Letter dated 11.01.2020 of Civitech issued to M/s/ Young Builders
39. Department of Forest and Wildlife, Government of NCT 10.10.2018 filed before NGT dated 10.10.2018 filed before NGT
40. Form 1 - application for EC submitted by M/s Young Builders

2.2 Submission of M/s Young Builders Pvt. Ltd.

M/s Young Builders Pvt. Ltd. submitted information about the project, permissions and approvals obtained along with the measures proposed to be taken during construction and operational phase. The following

documents were submitted by YBL in support of their perspective. The documents were examined and observations of the Committee are presented below.

S. No.	Subject	Remarks
1.	Environmental Clearance (EC) dated 23.03.2018 granted by SEIAA-Delhi to YBPL	Valid till 23.03.2025
2.	NOC from Airport Authority of India (AAI) dated 16.04.2009 & 28.06.2011.	Valid for a period of 5 years only and expired on 27.06.2016.
	Archaeological Survey of India (ASI) NOC – 08.05.2009	Site falls beyond concerned area.
3.	Department of Forest & Wildlife: Trees removal/transplant permission dated 25.05.2011	It was valid for 3 years.
4.	National Monument Authority of India (NMAI) NOC	Site falls beyond concerned area as per letter dated 26.12.2012.
5.	Electric Sub Station approval from Tata Power Delhi	Preliminary approval for HT connection accorded on August 14, 2013. Final approval to be accorded after site visit.
6.	Water Supply approval from Delhi Jal Board (DJB)	Approved with special & general conditions. 07.10.2015 for 257 KLD.
7.	Storm Water Drainage scheme approval from North DMC	Approved with terms & conditions vide letter dated 24.11.2015.
8.	Sewerage Scheme Approval from DJB	Approved with conditions for discharge of 254.5 KLD of sewage vide letter dated 11.01.2016.
9.	Delhi Urban Arts Commission (DUAC) approval dated 16.08.2016 and Delhi Fire Service (DFS) Clearance dated 08.09.2017	DUAC approval dated 16.08.2017. DFS approval available.
10.	Layout Plan Approval issued by Standing Committee of North DMC	Approval dated 27.11.2017
11.	Building Plan Sanction (Form B-1) issued by North DMC	Valid till 30.07.2024
12.	Environmental Clearance (EC) dated 13.08.2012 granted by SEIAA-Delhi to YBPL	Revised EC granted.
13.	SEAC Sub-Committee Report dated 09.02.2012	Matter for record.
14.	Joint Committee Report dated Feb 2010 ordered by Hon'ble Lt. Governor	Matter for record.

	Joint Inspection Report dated...March, 2010	Matter for record.
15.	Form 1 submitted to SEAC on 31.01.2018	Matter for record.
16.	Form 1A submitted to SEAC on 31.01.2018	Matter for record.
17.	Conceptual Plan submitted to SEAC on 31.01.2018	Matter for record.
18.	Environmental Management Plan	Matter for record.
19.	Risk Assessment and Disaster Management Plan	Matter for record.
20.	Traffic Analysis of 2011	Matter for record.
21.	Soil investigation report including liquefaction analysis of 2011	Matter for record.
22.	EC – 13.08.2012	Matter for record.
23.	SEAC subcommittee meeting convened on 24.01.2012	Matter for record.
24.	Revised water mass balance chart	Seen
25.	Revised schematic drawing of STP of enhanced capacity	Seen
26.	Ambient air monitoring points & ventilation points for upper & lower basements	Diagram is unclear.
27.	Pointwise response to MoEF&CC Circular dated 25.10.2017	Matter for record.
28.	Traffic analysis of February, 2018 (taking into consideration latest traffic scenario)	Matter for record.
29.	Landscape Plan of total green and soft green area	Matter for record.
30.	Plan showing location of solar panels (renewable energy)	Matter for record.
31.	YBPL letter dated 13.03.2018 submitting additional information to SEAC	Matter for record.
32.	YBPL presentation dated 24.02.2018 before SEAC	Matter for record.
33.	YBPL presentation dated 13.03.2018 before SEAC	Matter for record.
34.	Minutes of SEAC 95 th meeting dated 24.02.2018 (held on)	Matter for record.
35.	Minutes of SEAC 96 th meeting dated 13.03.2018 & 17.03.2018 (held on)	Matter for record.
36.	Minutes of SEIAA 57 th meeting dated 22.03.2018 (held on)	Matter for record.

37.	Structural Stability Certificate issued by Prof. V. S. Raju Consultants (Report on Foundation Recommendations)	Matter for record.
38.	List of other projects granted EC in the vicinity/Delhi, along with copies of EC	Matter for record.
39.	YBPL written submission dated 12.02.2020 before Hon'ble NGT	Matter for record.

2.3 Submission of Delhi Metro Rail Corporation

In its submission, DMRC presented facts related to title and land-use of the site. It was stated that the project is in public interest. The following documents were submitted by DMRC in support of their perspective.

1. Hon'ble Supreme Court Order dated 10.06.2020 in Civil Appeal No. 2485 of 2020
2. MoUD Decision dated 17.11.1996
3. Plans for Parking space
4. Joint Inspection Report March, 2010
5. Sub-Committee Report, 2012 constituted by SEAC
6. High Court of Delhi Judgement dated 27.04.2015 in the WP(C) 2743/2012
7. Division Bench Judgement dated 29.10.2018 in +LPA 89/2018, CM Nos. 8651/2018, 8654/2018, 8651/2018, 8655/2018, 26300/2018 & 412259/2018
8. Hon'ble Supreme Court Order dated 10.06.2020 in Civil Appeal No. 9488-9489 of 2019 (Arising out of SLP (Civil) Nos. 5581-5582 of 2019).

SECTION III – RAPID INDICATIVE ENVIRONMENT ASSESSMENT

For rapid indicative environment assessment of the site, a 2 km by 2 km area was examined for likely impact during construction and operational activities of the project. As the project is a group housing scheme, the likely environmental impacts are anticipated on air quality primarily due to additional vehicular movement, additional water requirement, wastewater disposal, solid waste generation, noise generation and traffic congestion.

To assess the incremental changes in environmental media, an assessment of scale of activities and their potential impacts was undertaken. Based on the incremental changes and extent of impacts, environmental viability of the project is evaluated. Status and validity of various clearances obtained by the project proponent is also presented.

(A) Impact on population density

The impact of proposed project on population density of the area was examined. As evident from the 2 km x 2 km imagery grid of the project site, it is a densely habited area. The land use distribution indicates that largest land-use in the grid is under Public & Semi-Public facilities (36.5%) followed by residential (28.3%) and government (11.5%) facilities. The grid falls in 6 wards and out of these most of the area lies in the Timarpur ward (59.7%).

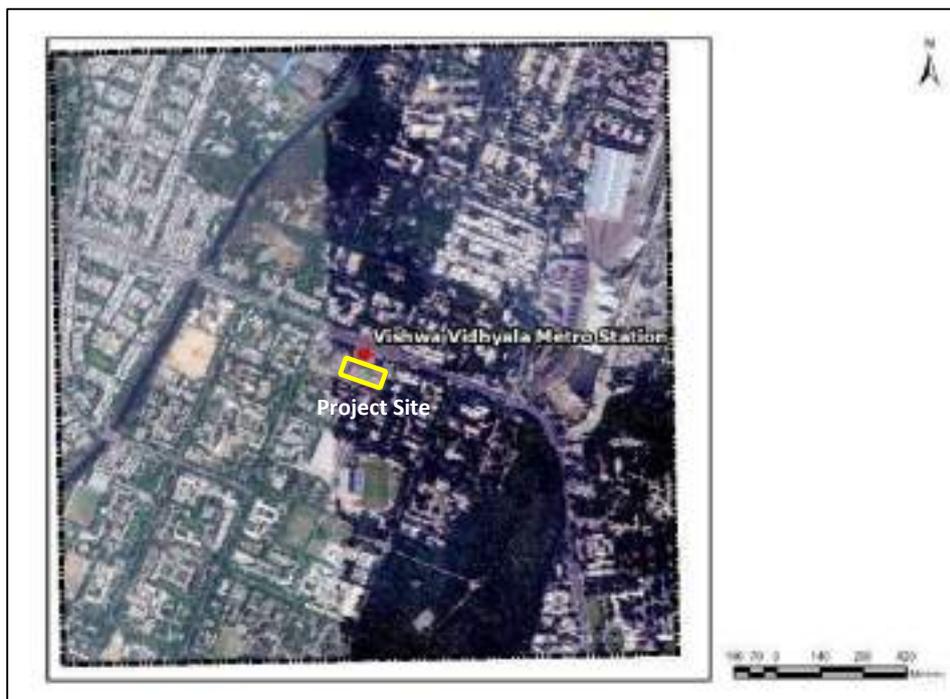


Figure 3.1: Imagery of 2Km by 2Km around the Vishwavidyalaya metro station



Figure 3.2: Land-use in the 2 km x 2km grid (Master Plan Delhi 2021)

Table 3.1: Land-use distribution in 2kmx 2km grid

S. No.	Land-use in 2kmx 2km grid	Area (sq.km)	Percentage
1	Public & Semi-Public facilities	1.5	36.5
2	Residential	1.1	28.3
3	Government	0.5	11.5
4	Transportation	0.4	9.0
5	Recreational	0.3	7.7
6	Commercial	0.1	3.0
7	Drain	0.1	2.1
8	Utility	0.1	1.9

The grid falls in 6 wards. Of these wards, most of the area lies in the Timarpur ward (59.7%), followed by GTB Nagar (23.9%) and Majnu ka Tilla (14.2%) as shown in Table 3.2. The ward boundaries are shown in Figure 3.3 and as evident most of the grid area falls under Timarpur ward (no. 10). The ward wise land use distribution is shown in Figure 3.4.

Table 3.2: Wards distribution in the study grid

S No.	Ward Name	Ward No.	Area (sq. km.)	Percentage
1	Timarpur	10	2.390	59.7
2	GTB Nagar	12	0.957	23.9
3	Majnu Ka Tilla	78	0.568	14.2
4	Kashmiri Gate	77	0.054	1.3
5	Mukherjee Nagar	11	0.029	0.7
6	Model Town	72	0.003	0.1

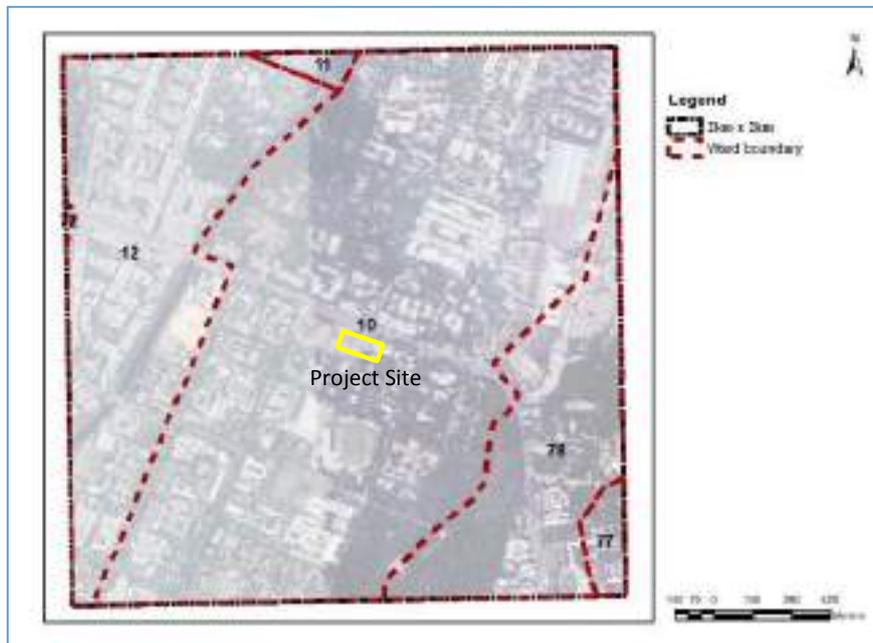


Figure 3.3: Ward boundaries in the grid (mapsofindia.com)

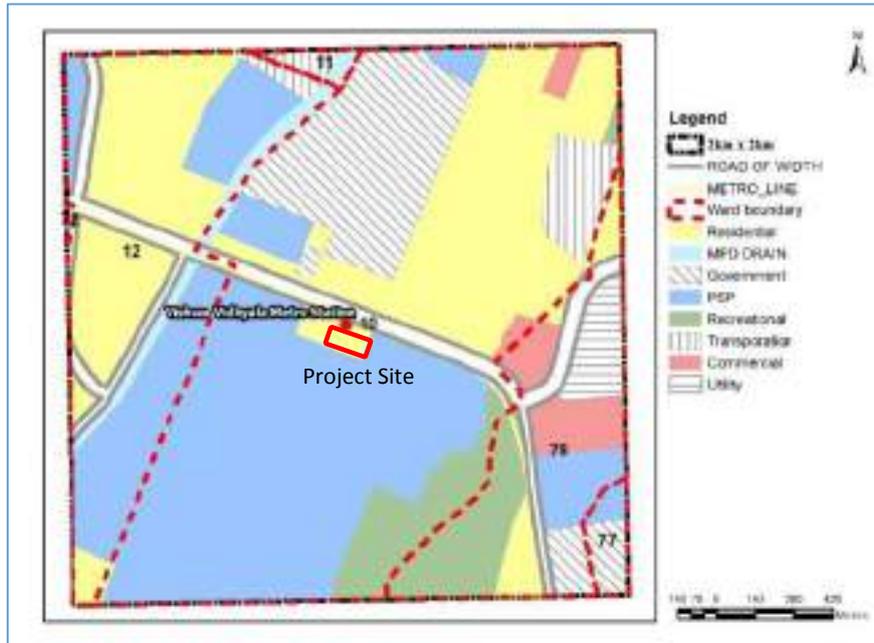


Figure 3.4: Ward wise Land use distribution as per Master Plan Delhi 2021 and Zonal Development Plan for Zone C

Table 3.3: Area, Number of households & population in each ward located in the grid

S No.	Ward Name	Ward No.	Area (sq. km.)	Housing Units	Population (Household size@4.75 persons, as per Census)
1	Timarpur	10	2.39	3000	14,250
2	GTB Nagar	12	0.957	4500	21,375
3	Majnu Ka Tilla	78	0.5678	600	2,850
	Total		3.9148	8100	38,475

Since, Timarpur ward is the largest ward in the grid, the increase in population density due to proposed project is estimated using present population density in Timarpur ward as baseline. The present population density in Timarpur ward is $14250 / 2.39 = 5962$ persons per sq.km.

The additional population in the ward due to project site = $410 \text{ dwelling} \times 4.75 \text{ household size} = 1947$ persons

The expected increase in the population density in Timarpur ward will be $16197 / 2.39 = 6777$ persons per sq.km. The percentage increment in the population density of the ward due to proposed project is 14%.

INFERENCE

An increment of 1947 persons per sq. km. is anticipated in ward area due to proposed project, i.e. an increment of 14% in the existing population density in the ward, which is statistically significant and likely to result in alteration in present conditions.

(B) INCREMENTAL AIR POLLUTION LOAD FROM THE PROJECT

(a) **Construction phase** – Emissions are likely from site preparation and general construction works, operation of DG sets and vehicular movement.

Table 3.4: Estimation of pollution load during construction phase

Activity	Emission factor	Unit conversion	Estimated pollution load
Construction & excavation	TSP (total suspended particles) = 1.2 Tons/Acre/ Month of activity (CPCB SA Study, 2010)	Area = 2 hectare = 4.94211 acre Months of activity = 36 months (approx.)	213.5 tons during three-year period or Approx. 71 tons/ yr.
DG sets	As per form 1A, DG set will run only as back up (Capacity = 1500 KVA). Duration of operation: intermittent	*Monthly outage data of scheduled and unscheduled power outages for Timarpur available on Tata Power website was examined. It is noted that power outage varies seasonally from approx. 3 hours to up to 18 hours in a month. Hence, during the construction phase of the project only intermittent operation of back up DG set will be required.	
Vehicular emissions (Truck, dumper, JCB, etc.)	TSP: 0.42 g/km (model 2006-2010, large trucks)	Nos. of heavy vehicles deployed = 30 / day (approx.) Internal road length in the grid = 34 km Total distance travelled within grid per vehicle per day = 20 km (approx.) Month of activity = 36 months (approx.)	1.1(or 0.657) tons during three years or Approx. 00.22 tons/ yr.

(b) Occupancy Phase

The main source of air pollution during occupancy phase will be vehicular emissions. With respect to operation of DG sets, as the power will be supplied by Tata Power Limited, the three nos. of DG sets (3 X 1500 KVA) are provided as backup. Monthly outage data of scheduled and unscheduled power outages for Timarpur available on Tata Power website was examined. It is noted that power outage based on season, scheduled power checks and unscheduled outages varies from approx. 3 hours to up to 18 hours for a month. Hence, considering the intermittent nature of operation, the estimated emission (i.e 0.226 tonnes per year) is insignificant and the same is omitted from this assessment.

With respect to vehicular emissions, the total road length in the grid is 34 km, out of this, major roads are 4.7 km and minor roads are 29 km. NH-44 passes through the grid crosses having approximately length of 2.5 km inside the grid. A snapshot of road length in grid is presented below,

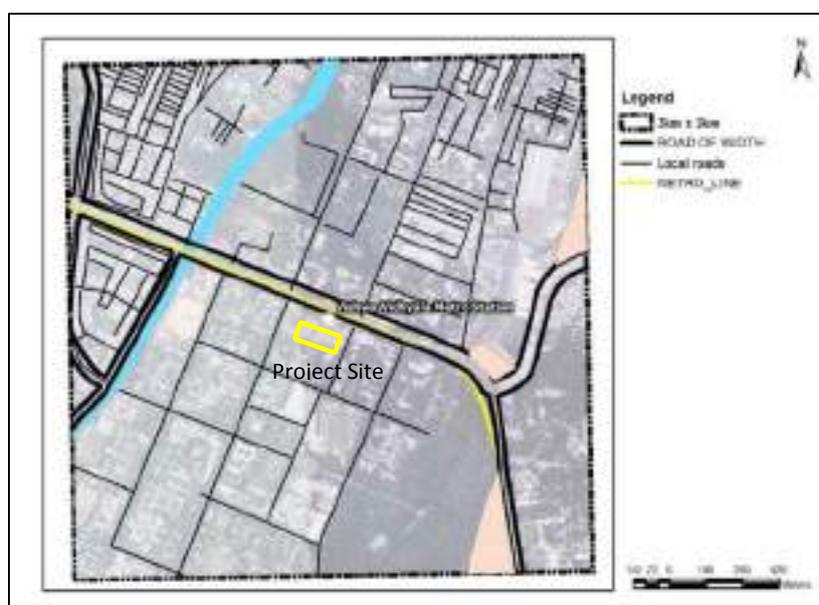


Figure 3.4: Roads in the study grid

As per Form 1A, proposed parking is 854 ECs (including visitor parking)

Total road length within the grid = 34 km

Considering one fourth of total road length in grid is travelled by each car per day = $34 / 4 = 8.5$ km

No. of cars owned by occupants = 410 unit's x 2 cars per household

Considering 1.5 cars used daily,

No. of occupant's cars on road daily = 615 cars (considering all cars on BS IV petrol or CNG)

Considering, car usage 235 days per year

Table 3.5: Estimated pollution load for BS IV – 4W with Petrol or CNG engines

	BS IV limit (g/km)	Emission load for 8.5 km (g/car/day)	Total emission expected due to 615 cars on road daily in the grid		Based on annual emission inventory of pollutants ARAI-TERI, 2018		Percentage increase in pollution load in Timarpur ward due to additional cars
			Daily (kg/day)	Yearly (tons/yr)	Delhi (148400 Hac)	Estimated for Timarpur (239 hac)	
CO	2.0	17	10.45	2.45	598 kilotons/yr	963 tons/yr	0.25%
HC	0.55	4.67	2.87	0.67	427 kilotons/ yr	687 tons/yr	0.09%
NO_x	0.25	2.12	1.3	0.3	156 kilotons/yr	251 tons/yr	0.1%

Present Ambient air quality

The nearest ambient air quality station to the project site is located at North Campus. The annual average concentration for the years 2018 and 2019 for SO₂, NO₂, NH₃, Benzene, PM_{2.5}, PM₁₀ and CO was analysed and it is noted that while NO₂ was within stipulated norms, PM_{2.5} and PM₁₀ were exceeding standards during 2018 and 2019. The details are as tabulated below.

Table 3.6: Annual Average Pollutant Concentration

Year	Parameters→ /Location↓	SO ₂	NO ₂	NH ₃	Benzene	PM _{2.5}	PM ₁₀
	Standard	50	40	100	5	40	60
2019	North Campus	-	22.0	-	-	108	224
2018	North Campus	-	29.6	-	-	109	242
Note:							
<ul style="list-style-type: none"> ▪ All concentrations are in µg/m³ 							

The percentage exceedance of CO 8 hourly standard during 2019 at North Campus station was 45.9 %. The details are as presented below,

Table 3.7: Status of CO at North Campus (2019)

Total number of 8 hourly average counts out of 1095	No. of exceedance (w.r.t 8 hourly standard)	Exceedance (in %)	Minimum value (mg/m³)	Maximum value (mg/m³)
934	429	45.9	0.1	8.0
8 hourly standards of CO = 2 mg/m ³				

INFERENCE

Being a high-income group residential project, the likely source of air pollution is vehicular emissions from estimated additional 615 cars on road during occupancy phase. During assessment, it was assumed that these additional cars would be BS IV compliant and driven by petrol or CNG. The applicable emission limits for CO, HC and NOx were used to estimate additional pollution load. The BS IV 4 wheelers do not generate particulate matter and thus no likely addition to existing PM levels is expected.

Further, the annual pollution load data from ARAI-TERI, 2018 study for Delhi was used to estimate additional pollution load in Timarpur ward due to additional 615 cars on road due to proposed project, using area as proportionating factor. Statistically insignificant increment is noted in CO (0.25%), HC (0.09%) and NOx (0.1%) emissions due to proposed project.

(C) ESTIMATING ADDITIONAL WATER REQUIREMENT**(a) Construction phase**

As per Form 1A submitted by project proponent, water requirement during construction phase will be met through private water tankers and no ground water will be extracted. It is opined that the construction of 37 floors and four towers along with basements will require huge quantity of fresh water for material preparation, mixing, curing, etc. The proponent has not provided information on quantity of water to be used during construction phase.

As per a study, the embodied water quantity of a multi-storied apartment building of steel and RC construction is 27.6 KL per sq.m. of built-up area (*Assessment of water resource consumption in building construction in India S. Bardhan Dept. of Architecture, Jadavpur University, India, 2011*).

Hence, proponent is advised to estimate total water requirement during the construction phase and submit an agreement with private water tanker provided for supplying the calculated quantity of water during

construction phase. Further, an undertaking may be submitted by proponent that no ground water will be extracted during construction phase.

(b) Occupancy phase

The water requirement during occupancy phase is presented in Table 3.8.

Table 3.8: Water requirement during occupancy phase

Type of water requirement	Additional data	Water requirement
Occupants	Total occupancy = 410 dwelling @4.75persons = 1947 persons @ 135 LPCDHIG (NBC, 2016)	263 KLD
Visitor	194 persons @15 lpcd (NBC, 2016)	2.9 KLD
Horticulture	--	10 KLD
Total requirement		275.9 KLD

The total domestic water requirement for occupants and visitors will be 266 KLD, 30% of this intended to be used for flushing is proposed to be met through recycling of treated wastewater. The horticulture requirements will be met by treated wastewater.

Thus, the fresh water requirement will be 182 KLD and will be supplied by Delhi Jal Board during operational phase. The proponent has obtained approval for supply of 257.029 KLPD of fresh water.

At present, the estimated water usage in the grid is as follows,

Estimated water usage in the grid = Population (38,475) x 135 LPCD = 5194125 LPCD = 5194 KLD

Additional fresh water requirement due to project during occupancy = 182 KLD

A percentage increase of about 0.003% in fresh water requirement is anticipated in the grid.

Existing Ground Water Condition

The project area is 1.8 km from river Yamuna at an elevation of 217 m MAMSL (Meter Above Mean Sea Level). The ground water level as measured in piezometer located in front of Department of Geology, Delhi University is 6.1 MBGL (Meter Below Ground Level). The water level ranges between 6.0 to 8.5 MBGL in the project area. The River Yamuna is flowing in East at an elevation of 202 MAMSL (approx.). The Najafgarh drain is flowing in West of the project area at a distance of 500 m (approx.) at an elevation of 205 MAMSL (approx.). The elevation difference between Najafgarh drain, Project Area & River Yamuna clearly indicate that project area lies at an elevated land between Najafgarh Drain & River Yamuna. The subject area is also ground water discharge zone. The Alwar Quartzitic basement is encountered in the subject area between depth range of 12 to 30 MBGL. It is understood that the project area is part of ground water discharge zone. The construction of double basement may disturb/obstruct natural flow line of ground water. Therefore, the project may be modified with one underground basement and one stilt parking.

INFERENCE

It is understood that no ground water will be extracted during construction & occupancy phase of the project. The water requirement during construction will be met through private tankers and during occupancy by Delhi Jal Board for which necessary permission have been obtained. Further, 0.003% increase in water requirement in the grid is anticipated.

(D) WASTEWATER GENERATION

During, construction phase domestic wastewater will be generated and community toilet and septic tanks are proposed to be provided to handle the same

Occupancy phase,

$$\begin{aligned} \text{Quantity of wastewater generated} &= 0.8 \times \text{domestic water requirement (CPEEHO)} \\ &= 0.8 \times 182 \text{ KLD} + 1 \times 79.2 \text{ KLD} = 225 \text{ KLD (peak value)} \end{aligned}$$

Proposed capacity of STP operating on MBR technology = 200 KLD

The project proponent has calculated proposed STP capacity as 200 KLD based on assumption for population @4 persons per household. However, as per Census data, 2011, the average population density for Delhi is @4.75 persons per household (range 4.6 – 4.9). Thus, the corresponding sewage generation of 225 KLD during occupancy phase of the project may exceed proposed STP capacity.

The treated wastewater is proposed to be recycled for flushing & horticulture and rest will be discharged through municipal sewer. Provisions for dual plumbing have been proposed.

Treated wastewater will be about 180 KLD (0.8 X 225 KLD). With proposed reuse/recycle (recycle for flushing 79.2 KLD + horticulture 10 KLD), discharge into municipal sewer will be about 90.8 KLD.

Present wastewater discharge in the municipal sewer in the grid = $0.8 \times 51,94,125 \text{ LPCD} = 4.15 \text{ MLD}$

A percentage increase of 0.002% in flow is anticipated on municipal sewer due to discharge of treated wastewater from project.

INFERENCE

As total 34% of daily water requirement is proposed to be met through recycling (flushing & horticulture) the daily fresh water demand is lower. Further, a 0.002% percentage increase in existing load of municipal sewer is anticipated due to discharge of treated wastewater from the project.

The proposed STP capacity is adequate with wastewater estimation based on @4 persons per household as indicated by the project proponent. However, it will be inadequate to suitably treat daily wastewater generated when quantity is estimated @4.75 persons per household.

(E) SOLID WASTE MANAGEMENT

Construction phase

During the construction phase earthwork will involve soil excavation and cutting of the earth. It is informed that the cut and fill material at site is nearly at par and hence movement of soil is unlikely. Further, it is informed that construction and demolition waste will be handled by site contractor including collection and storage of waste generated. All construction wastes generated will reportedly be consumed within site and remaining will be disposed.

However, an estimation of quantity of C & D waste likely to be generated and quantity of excavation material expected is not provided. Further, C & D waste management plan is not submitted by the project proponent. It is noted that handling of C & D waste is outsourced to site contractor. Further, hazardous wastes such as paint, varnish, solvents, adhesive, etc. leftovers are also expected to be generated.

Occupancy phase

In a High-Income Group residential society 0.6 kg/ capita/ day of solid waste is expected to be generated (CPEEHO, MoUD).

Total occupants = 194(waste from visitors has not been taken into consideration)

Estimated municipal waste generated per day = $1957 \times 0.6 = 1168$ kg/ day

Table 3.9: Estimation of types of waste based on SBM Manual II*

	Quantity (kg/day)	Action
Total municipal waste	1168	
*Biodegradable @47.43%	554	To be treated in organic waste convertor
*Inert @25.16%	294	Disposed off
*Recyclable @ 27.41%	320	To recycler
Horticulture waste (Form 1A)	0.17	To be composted
STP sludge (Form 1A)	19.5	To be composted

Only Inert waste is to be disposed off from the project site = 294 kg/day

Present generation of solid waste in the grid = $38,475 \times 0.6 = 23,085$ kg/ day (information on recycling or composting not available for the grid)

An increase of 1.27% from the present generation of solid waste in the grid is estimated.

A solid waste management plan for occupancy phase has been examined. It is noted that waste will be collected into separate biodegradable and non-biodegradable waste bins. Biodegradable waste will be treated in organic waste convertor in the premises, however capacity of convertor and technical details are not being provided. The recyclable waste will be handed to recyclers. The horticulture waste and STP sludge will reportedly be composted and used as manure.

INFERENCE

An increase of 1.27% from the present generation of solid waste in the grid is estimated due to the project.

(F) EXISTING NOISE LEVELS

One of the point of contention is whether the project falls under 'Silence zone', it is defined as area less than 100 metres around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority. The nearest hospital to project site is Patel Chest Hospital, which is located at an aerial distance of around 600 m and thus silence zone standards are not applicable.

The nearest noise quality monitoring station is Civil Lines which falls under commercial zone with standards 65 dB(A) daytime and 55 dB(A) night time. The annual data was analysed and it is noted that annual average values during 2018 was 61 dB(A) daytime and 59 dB(A) night time. Further, the annual average value during 2019 was 62 dB(A) daytime and 58 dB(A) night time.

It is noted that daytime annual average value is within stipulated standards and slight exceedance is noted in night time values mainly due to plying of trucks towards Delhi Boarder.

INFERENCE

As it is a group housing project, miniscule impact on noise environment during occupancy phase is anticipated, except during intermittent operation of the DG sets as backup power.

(G) IMPACT ON TRAFFIC CONGESTION

The impact of additional cars on road during occupancy phase of the project was assessed on five road sections namely, Chatra Marg, Vishwavidyalaya to Vidhansabha Road, Vidhansabha to Vishwavidyalaya, GC Narang Road and Cavalary Road. A traffic count survey was done by CPCB on October 12, 2020.

The assessment is as presented below,

Table 3.10: Assessment of impact on traffic congestion due to proposed project

Road Section	Length of road section (km)	Time of Day (for travel time data)	Travel Time (min)	Speed, v (km/hr)	Car	LCV	HCV	S*-Car	S-LCV	S-HCV	S_avg	Capacity of road(C)(vehicles /hour)	Volume (V) (vehicles/Hour)	V/C	Increased Volume after addition of 615 cars (V)	Projected V/C
												Using formula, 1000 X Speed/S_avg)	Using formula, $\Sigma(\text{No. of vehicle X PCU}) / \text{no. of lanes X time duration}$			
Data retrieved from google map				CPCB traffic count survey			Center to center spacing of vehicles (m)									
Chatra Marg (2)	1.1	10am	3	22	1530	557	6	7.9	8.9	10.4	9.07	2426	666	0.27	819	0.34
	1.1	1:30pm	3	22	611	237	1	7.9	8.9	10.4	9.07	2426	544	0.22	852	0.35
	1.1	7pm	3	22	1442	660	0	7.9	8.9	10.4	9.07	2426	691	0.28	844	0.35
Vishwavidyalaya to Vidhansabha Road (3)	1.2	10am	3	24	4256	2546	246	8.3	9.3	10.8	9.47	2535	1681	0.66	1784	0.70
	1.2	1:30pm	4	18	1831	911	117	7.1	8.1	9.6	8.27	2177	1335	0.61	1540	0.71
	1.2	7pm	4.5	16	3926	1521	148	6.7	7.7	9.2	7.87	2034	1235	0.61	1338	0.66
Vidhansabha to Vishwavidyalaya (3)	1.2	10am	6	12	4204	1178	243	5.9	6.9	8.4	7.07	1698	1215	0.72	1317	0.78
	1.2	1:30pm	4.5	16	1772	822	108	6.7	7.7	9.2	7.87	2034	1247	0.61	1452	0.71
	1.2	7pm	5	14.4	4559	2557	263	6.38	7.38	8.88	7.55	1908	1744	0.91	1846	0.97
GC Narang Road (2)	0.75	10am	2	22.5	888	670	3	8	9	10.5	9.17	2455	559	0.23	713	0.29
	0.75	1:30pm	3	15	571	380	0	6.5	7.5	9	7.67	1957	666	0.34	973	0.50
	0.75	7pm	3	15	856	660	0	6.5	7.5	9	7.67	1957	544	0.28	698	0.36
Cavalary Road (2)	0.75	10am	2	22.5	236	93	0	8	9	10.5	9.17	2455	106	0.04	259	0.11
	0.75	1:30pm	2	22.5	60	31	0	8	9	10.5	9.17	2455	61	0.02	369	0.15
	0.75	7pm	2	22.5	188	157	0	8	9	10.5	9.17	2455	126	0.05	279	0.11

*Centre to centre space between vehicles

Using,

Avg. vehicle length = Car 3.5m, LCV = 4.5 m, HCV = 6 m

PCU = Car =1, LCV = 2, HCV = 3

INFERENCE

Volume to capacity ratio (V/C) and speed are two main parameters to assess the Level of Service (LoS), provided by the road. When the v/c ratio value equals 'one', it signifies the complete saturation of capacity of the road, resulting in congestion. Whereas, value towards '0', implies free flow condition.

Based on analysis, it is inferred that the inclusion of additional 615 passenger cars on the road from the project will result in marginal increase in volume to capacity ratio (ranging 0.04 to 0.16). For the various section of roads, it is also observed that increase in volume to capacity ratio during the morning peak hours (0.04-0.06) and evening peak hours (0.05-0.08) is less, as compared to the ratio during afternoon time (0.09-0.16). Overall, there will a marginal degradation in level of service.

(H) STABILITY OF STRUCTURE WITH RESPECT TO EARTHQUAKE

As per macro seismic zoning map of India, the Bureau of Indian Standards has classified the entire country into four major groups — Zone V (high intensity) to Zone II (low intensity). Delhi NCR falls in Zone IV. Zone IV and V fall under "severe" to "very severe" categories respectively. University of Delhi's north campus falls under the 'high hazard zone' having worst category of "very high" risk index. Thus, seismic stability of 37 storeyed project was taken into consideration during project assessment and the structural stability certificates were verified. It is noted that following approvals have been obtained from concerned authorities,

- 1) **FORM 07 (Structural Stability Certificate) dated 04.07.2017** – This certificate was submitted to North DMC along with building plan approval application
- 2) **STR certificate dated 10.01.2018** – This is the detailed structural stability certificate issued by structural engineer.
- 3) **A detailed foundation recommendation report** of Prof. VS Raju, Ex. Director, IIT, Delhi dated 17.04.2018 - In order to keep building structure safe with respect to earthquake.

Copies of these documents are annexed at **Annexure III**.

(I) COMPLIANCE STATUS

The National Capital Territory Delhi has been divided into 15 planning Zones (Divisions). The proposed development lies in Zone 'C', subzone 13, also known as 'Civil Lines Zone and lies in redevelopment area along metro corridor and not in the Civil Lines Bungalow Area. The proposed project has been formulated as per the provisions of its location within the redevelopment zone of MRTS corridor – the land use is residential and the proposed project is group housing. The aspects related to an urban design study to support the proposed built form as suggested in the ZMP has been fulfilled by scrutiny of the proposal by the Delhi Urban Arts Commission on 16th August 2017. A list of approvals obtained from various Departments is as below,

Table 3.11: List of approvals obtained for proposed project

S. No.	Approval
▪	Archaeological Survey of India (ASI) NOC dated 08.05.2009
▪	Tree removal/transport permission dated 25.05.2011- Department of Forest & Wildlife
▪	National Monument Authority of India (NMAI) NOC dated 26.12.2012
▪	Electric Sub Station approval from Tata Power Delhi dated 14.08.2013
▪	Water supply approval from Delhi Jal Board (DJB)dated 07.10.2015
▪	Storm water Drainage scheme approval from North DMC dated 24.11.2015
▪	Sewerage Scheme Approval from DJB dated 11.01.2016
▪	Delhi Urban Arts Commission (DUAC) approved dated 16.08.2017 and
▪	Delhi Fire Services (DFS) Clearance dated 08.09.2017
▪	Layout Plan Approval 17.11.2017 issued by Standing Committee of North DMC
▪	Building Plan Sanction (Form B-1) dated 31.07.2019 issued by North DMC

Copies of approvals are annexed at **Annexure IV**.

One of the points of contention is regarding distance of the project site from Ridge, Delhi –UP border and critically polluted areas. GIS web tools were used to calculate distance of project from these landmarks and it is noted that shortest aerial distance from Northern Ridge is 500 m (<https://wikimapia.org/#lang=en&lat=28.691435&lon=77.213480&z=16&m=w>).

The nearest interstate border is 14.9 km near New Friends Colony.

With respect to distance of project site from critically polluted areas, it is 37 km from Najafgarh drain, 5 km from Wazirpur, 10 km from Naraina and 5 km from Anand Parbat.

SUMMARY OBSERVATIONS ON VIABILITY OF THE PROJECT

The Hon'ble Supreme Court of India, vide its order dated June 10, 2020 directed the Committee to examine various aspects, including viability of the project. Accordingly, the proposed project was examined for compliance/approval status for statutory requirements and an independent assessment of environmental and other impacts during the construction and occupancy phase was undertaken. Specifically, all environmental and other components, water, air, solid waste, traffic congestion, population density (representing impact on services), load on urban infrastructure, structural design adequacy have been examined.

It is observed that project proponents have obtained necessary approvals/clearances such as electric sub-station, water supply, sewerage scheme, storm water drainage scheme, Delhi fire services, Delhi urban arts commission, layout plan, tree removal/transport permission, etc. (Annexure IV).

To assess the impact on the environment, the incremental impact of the project was examined. It was then inferred if the impact was insignificant or otherwise in comparison to baseline status. The impact was examined in a grid of 2 km x 2 km (project site at the grid centre) as the maximum impact will be caused in the close vicinity of the project.

Air Pollution: An increase in emission was estimated as: 0.25% in CO, 0.09% in HC, and 0.1% in NO_x and insignificant in PM (particulate matter) during the construction and occupancy phase. The estimated incremental increase is insignificant to the baseline emissions.

Water Demand and Solid waste: An increase of 0.003% (of water demand in the grid) in the freshwater requirement, 0.002% in discharge of treated sewage into the municipal sewer, an increase of 1.27% in solid waste generation from the current generation in the grid was considered nominal.

Noise Pollution: No significant impact of noise on the environment is foreseen except during intermittent operation of the DG sets; however, the DG set will be compliant to CPCB noise norms for DG sets.

Traffic Congestion: An on-field traffic count, vehicle speed, volume and capacity of main roads was undertaken. Traffic volume to capacity ratio (V/C) and vehicle speed are two main parameters to assess the Level of Service (LoS) provided by the road. There was a marginal increase in volume to capacity ratio (ranging from 0.04 to 0.16), suggesting that the LoS was acceptable to even during peak traffic hours.

Population density: Timarpur ward is the largest ward in the grid and an incremental increase in the population was estimated in this ward. The estimated increase in the population density in the Timarpur ward will be 6777 persons per sq. km. The percentage increment in the ward will be 14%. This increase

is significant; however, tall residential buildings do give higher population density. This increase in density is not likely to impact the urban infrastructure/ services, as noted above.

Structural and Earthquake Resistance Design: (i) **FORM 07 (Structural Stability Certificate) dated 04.07.2017** was submitted to North DMC along with building plan approval application by the proponent, (ii) **STR certificate dated 10.01.2018** having the detailed structural stability certificate issued by the structural engineer, and (iii) **A detailed foundation recommendation report** of Prof. VS Raju, Ex. Director, IIT, Delhi dated 17.04.2018, were considered as views of experts for structural safety concerning earthquake.

The Committee members have suggested the following measures for implementation:

- The project proponent must ensure that all necessary approvals have been obtained and are valid.
- It is noted that the project proponent has calculated the proposed STP capacity as 200 KLD based on the assumption of @4 persons per household. However, based on Census data, 2011, Delhi's average population density is @4.75 persons per household (range 4.6 – 4.9). Thus, the corresponding sewage generation of 225 KLD during the occupancy phase will exceed the proposed STP capacity. Therefore, the project proponent is advised to upgrade STP capacity to 225 KLD or restrict water supply so that peak sewage generation must not exceed 200 KLD.
- Considering that the project area is part of groundwater discharge zone, it is advised to restrict construction to only one underground basement and one stilt parking, instead of the proposed two. The parking plan may accordingly be revised and necessary approvals obtained.
- An undertaking may be submitted that no groundwater will be extracted during the construction phase.
- NOC may be obtained from the District Advisory Committee on Ground Water of Govt. of NCT Delhi before dewatering during construction.
- An inlet digital flow meter shall be installed at DJB freshwater supply line.
- All environmental norms should be strictly adhered to during construction and occupancy phase of the project.

In view of the impact analysis, the project seems viable as environmental impacts, including impact on traffic congestion and urban infrastructure/services, are minimal/nominal.

The viability of the project is contingent upon adequacy of the environment management plan submitted and adherence to the commitments made by project proponent and follow best practices. All EC conditions must be complied with at all times.



(Vinod K. Singh)

Scientist – ‘E’
MoEF&CC



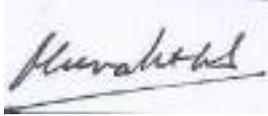
(N Bala)

Scientist – ‘F’
ICFRE, Dehradun



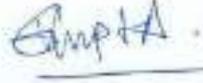
(Jyoti Kumar Nalli)

Scientist – ‘D’
CGWB, New Delhi



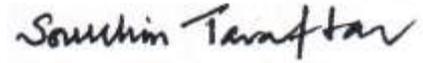
(Meenakshi Dhote)

Professor
SPA, Delhi



(Vikram Gupta)

Scientist – ‘F’
WIHG, Dehradun



(S. Tarafdar)

Scientist – ‘E’
GBPNIHE, Srinagar-Garhwal



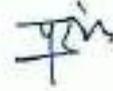
(Mukesh Sharma)

Professor
IIT Kanpur

*

(Shambhu Sharma)

Joint Adviser
NDMA



(Prashant Gargava)

Member Secretary
CPCB

* It is understood that official is no longer working in NDMA, hence his signature could not be obtained.
The report was shared with NDMA.

Item No. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Appeal No. 112/2018

University of Delhi

Appellant(s)

Versus

 Ministry of Environment Forest and
Climate Change & Ors.

Respondent(s)

Date of hearing: 10.02.2020

Date of uploading on the website: 27.02.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER

ORDER

Introduction

1. This appeal has been preferred against the order of the State Environment Impact Assessment Authority (SEIAA), Delhi dated 23.03.2018, granting Environmental Clearance (EC) for "Group Housing Complex located at 1 and 3 Cavalry Lane and 4 Chhatra Marg at Civil Lines Delhi" by Young Builders (P) Ltd. The project is proposed on an area of 20,000 sq.m. with built up area of 1,17,733.81 sq. m. with four towers of 139.6m. height having 410 dwelling units. The total floors proposed are S+G+37 with 31,740.26 sq. m. of basement area. The EC was earlier granted in 13.08.2012. An application was submitted for amendment of the EC on 12.02.2018. According to the appellant, as per requirement of notification dated 14.09.2006, prior to its amendment on 22.12.2014, the project was to be treated as Category A to be dealt with by

MoEF&CC. To avoid such procedure, the project proponent prayed for treating the application as a new project after 20.12.2014. The SEIAA declared the earlier EC to be null and void and treated the application for amendment as a fresh application.

Pleadings and contentions of the appellant

2. Case of the appellant in the memo of appeal, written submissions and during arguments is that the land on which project has been proposed originally belonged to the Ministry of Defence. The same was acquired for development of Delhi Metro Rail project vide award dated 19.09.2001 passed by the Land Acquisition Collector, Delhi. A parcel of land admeasuring 3.05 hectares situated at Mall Road, Cavalry Lane and Chhatra Marg, falling in Zone – C (Civil Lines Zone) of the MPD-2001 was handed over to and mutated in the name of Delhi Metro Rail Corporation (DMRC). The land use was categorized under the MPD – 2021, as “public and semi-public facility”. The land use was later changed to residential purpose. DMRC proposed to develop a part of the land for group housing for which Lease Agreement dated 15.12.2008 was entered into with the project proponent – M/s Young Builders Private Limited for 2 hectares of land. Possession of the site was given on 23.01.2009 to the said builder.

3. The appellant University objected to the project on the ground that it will affect ambience and character of the university. The project proponent has removed/ transported 156 trees at the construction site in question on 25.05.2011 after permission from the Forest Department. The University represented to the State Expert

Appraisal Committee (SEAC) and DPCC on 08.02.2012 against the project. The matter was also raised before the High Court against transfer of public land to a private builder but the High Court did not interfere with the transfer of land for the project vide judgment dated 27.04.2015 in W.P. (C) No. 2743/2012. The Division Bench dismissed the appeal as barred by limitation which order was affirmed by the Hon'ble Supreme Court on 17.12.2019 in C.A. No. 9488-9489 of 2019. It is submitted that even if in view of the said judgment, the transfer of the land may have become final, validity of grant of Environmental Clearance (EC) is open to challenge which issue needs to be gone into by this Tribunal.

4. Main contention in support of the challenge to the grant of EC is that the same is vitiated as essential facts have not been disclosed in the application of the project proponent. SEAC and SEIAA have not applied mind to various facets of impact of the project on the environment particularly carrying capacity in terms of air quality, noise level, ground water etc. Reliance has been placed on judgment of the Hon'ble Supreme Court in *Hanuman Laxman Aroskar Vs. Union of India, 2019 SCC Online SC 441* to submit that in such circumstances, EC is liable to be set aside by this Tribunal in exercise of power of merit review on the anvil of Sustainable Development and Precautionary principles.

5. It is stated that the project is within 10 kms. of interstate boundary (Delhi – UP) and critically polluted areas (Najafgarh drain, Wazirpur, Naraina and Anand Parbat area) which would have rendered the project to be categorized as Category A as per EIA Notification dated

14.09.2006, prior to amendment on 22.12.2014. Even if the project is to be treated as category B and dealt with by SEIAA, evaluation of carrying capacity of recipient environment to sustain project of such magnitude which is said to be tallest building of more than 37 floors having 410 dwelling units was required to be conducted thoroughly. On the subject of suppression of material facts, it is submitted that the area is covered by the notification of silence zone under the Noise Pollution (Regulation and Control) Rules, 2000 being Notification dated 03.04.2008 issued by NCT of Delhi¹ being within 100 meters from Delhi University and Vallabhbhai Patel Chest Institute which is a super specialty hospital. Apart from the university and its hostels, there are also schools in the area. The project is within 500 mtrs. of the Northern Ridge and no consent from Ridge Management Board has been taken. Reference has also been made to the provisions of the Master Plan of Delhi (MPD), 2021. Prohibition against construction is applicable not only in the Ridge as such, which is notified as a reserved forest, but also for a project very close to and impacting the Ridge in view of Sustainable Development principle.

Morphological Ridge includes area falling outside the notification but having features of the Ridge and forming part of extension of Aravali. In the present case, even the DMRC took permission of the Ridge Management Board for the DMRC project but no such permission has been sought for the present project.

¹ ".....the Lieutenant Governor of the National Capital Territory of Delhi hereby declares the following areas as "Silence Areas/Zones" for the purpose of the said Rules, in the National Capital Territory of Delhi, namely:-

1. An area of 100 meters around all Educational Institutions having more than one thousand students;
2. An area of 100 meters around all Courts;
3. An area of 100 meters around all Government Office Complexes;
4. An area of 100 meters around all 100-bedded and above hospitals."

According to the appellant, the Delhi Ridge is made of quartzite rocks, of which Stone Age tribes used to make tools. In fact, archaeologists have discovered Stone Age ‘factories’ along the Delhi Ridge, evidence of the widespread production of tools. Stone Age tribes were also drawn to the dense forest cover of the Ridge, which provided food (both plant and animal) and shelter. Further, there was plentiful water, a point still relevant today. Delhi is one of the most historic capitals in the world, finding mention in the ancient epic Mahabharata. Two natural features of the city, the Ridge and river Yamuna, have made it a protected and favourite place for rulers over the ages. Therefore, the battle for protecting Delhi’s “Green Lungs” started long ago. In the 14th century, the Ridge forest was covered with thorny shrubs with very little green cover. Emperor Feroze Tughlaq, who was very fond of hunting, afforested the rocky southern part of the Ridge on which Ghiyasud-Din Tughlaq built the fort city of Tughlaqabad. The efforts for betterment of the Ridge continued post-independence and it has become more pressing, regard being had to the incremental change in pollution level. Therefore, for the effective maintenance of the Ridge, the Ridge Management Supervisory Committee was constituted that gave various recommendations, including:

“1. All areas of the ridge should be declared as Reserved Forest under Section 4 of the Indian Forest Act, 1927. The Environmental (Protection) Act, 1986, should be invoked at the time of notification of the area as a Reserved Forest.”

6. The appellant has thereafter referred to the provisions of the Master Plan prohibiting tall buildings in the University area. Clause 11.3 and

Clause 1.4.4 of the Zonal Development Plans have been referred to as follows :

“Clause 11.3 imposes a restriction on the height of tall building as under:-

*“The height of buildings (above and below ground) needs to be seen in the light of modern technology with due consideration for natural disasters like earthquakes, floods etc. Restrictions on tall buildings would be necessary in important areas like Lutyen’s Bungalow Zone, **Civil Lines and North Delhi Campus**. In case of urban extension, areas for specific Urban Design Projects and tall buildings should be indentified.”*

“Clause 1.4.4 of the Zonal Development Plan for Zone-C (Civil Lines) under the MPX-2021 provides as under:

“The Delhi University was established in 1924 and it has a number of old historical buildings, colleges, Viceroy’s lodge etc. of the Colonial period and therefore efforts shall be done to preserve this character. Also efforts shall be done to make it an Integrated Campus (Without thoroughfare) and self-sufficient in terms of modern infrastructure and residential requirements like hostels, staff quarters, security arrangements etc., by optimum utilization of the land. Attempt shall be made to accommodate all institutional requirements within the Campus.

***Therefore, an Urban Design study shall be taken up for this sub-Zone. MPD-2021 has restricted this area for tall buildings.** Delhi University has a large chunk of land allotted in Sub-Zone C-15, (opposite Dushehra Ground) and it is being utilized as Hostel and staff quarters. Optimum utilization of this land shall be done to meet the requirements in future. Listed Heritage buildings, some residences and Colleges of historical importance prepared by DDA, INTACH, ASI and GNCTD are given.”*

7. It is submitted that no study has been carried out in respect of impact of the project on the noise levels. Noise levels are already beyond the permissible limit in the silence zone. The project proponent did not mention the existence of the University and the Vallabhbhai Patel Chest Institute in the application. Deliberate concealment of vital information rendered the application for grant of

EC liable to be rejected under the Regulation 8(vi) of the EIA Notification, 2006. Probable increase in the noise level due to 410 dwelling units proposed will be more than a Leq of 70 dBA over a 24-hour period. This factor has not been taken into account. Given the peculiar location where the project site proposing the tallest building in Delhi is located at Chhatra Marg, University of Delhi, adjoining the Vishwavidyala Metro Station on the one side and the University residences/ departments / schools on the other sides, the SEIAA has failed to take into account the probable adverse impact qua noise that this project will generate.

8. With regard to air pollution, it is submitted that project proponent concealed a report on Group Housing at Mall Road in July 2011 (prepared by Engineering and Planning Consultants, New Delhi). Detailed Traffic Management Plan Report prepared by Professor Geetam Tiwari, IIT Delhi has been relied upon. The report states that between 2011 and 2018 traffic in the area, congestion and pollution figures have varied/ increased considerably which has not been considered. On the subject of impact on traffic, it is stated that the traffic in the area remains high because of the large movement from Vishwavidyalaya Metro Station to Kamla Nagar, Shakti Nagar, Malkaganj and other nearby residential and commercial locations. This traffic figure is in addition to the volume of commuters to and from the University and its various colleges/departments/ faculties/schools on the North Campus area. Currently, about 50,000 people use other modes of transport to connect with these places apart from large vehicular movement on daily basis. Entry to Vishwavidyala Metro Station due to the current project is itself a

hindrance as the space connects the Metro Station and Chhatra Marg and Cavalry lane is less than 8.50 meters. Due to no parking being available outside the Metro Station, vehicles are parked randomly which occupy almost the whole of service lane for Metro. Due to this peculiar feature, the DMRC itself has used the land of the proposed project as parking site. According to the DMRC website, the ridership/footfall at the Vishwavidyalaya metro Station alone is around 25,000 persons. In fact, during the admission season in the University of Delhi, in June 2011, the ridership was around 42,000 persons. Increment of at least 900 vehicles is expected due to the operation of the proposed project. It has the potential to cause appreciable increase in vehicular pollutant in the atmosphere of the area which is already polluted. The increase in traffic congestion will make an already congested area totally non-commutable. Even the parking stipulated at the project site in question is insufficient for its own occupants and no yardstick has been adopted by the SEIAA to determine if the parking proposed by Respondent No.4 is capable of catering to the needs of its inhabitants during the operation phase. The width of Chhatra Marg and Cavalry Lane are 10.80 m and 8.5m respectively. Large number of vehicles and about 50,000 people commute on it on a daily basis. Due to the proposed project, there is an estimated addition of 900 vehicles and commuters on existing public infrastructure of two roads which are disproportionately high and make the area risk prone.

9. With regard to the water requirement, it is submitted that the Delhi Jal Board is stated to have given water supply clearance and it states that the total water requirement shall be restricted to 2,57,029 liters

per day. For 1,785 persons, this translates to 144 liters per person per day according to the Delhi Government's Water policy for Delhi (2016), the domestic water demand. Having no cogent indication of the basic norms, the whole burden for meeting water requirement will shift to ground water which will hamper the environmental protection afforded to this area. In such a case, the ground water extraction would be made, which will have deleterious impact on existing water bodies located in the Northern Ridge which is within 500 meters from the proposed project. Central Ground Water Board (CGWB) notified the areas for control and regulation of ground water which includes South Delhi, south West Delhi and Yamuna flood plain area in Delhi with effect from 2000. Chemical constituents in ground water beyond BID norms have been reported from Delhi as follows (contaminated areas, CGWB):-

Fluoride (above 1.5 m/g1)	Nitrate (above 45 mg/1)	Heavy metal: Lead (above 0.01 mg/1)
		Cadmium (above 0.003 mg/1)
East Delhi, New Delhi, North West Delhi, South Delhi, south West Delhi, North Delhi, West Delhi	East Delhi, Central Delhi, New Delhi North Delhi, North West South Delhi, Delhi, South West Delhi, West Delhi	Lead: Along Najafgarh drain in North, West and South-West districts Cadmium: Southwest Chromium: Northwest, South, new Delhi, East

As per information supplied by CGWB (Ground Water Information Booklet of North District, NCT, Delhi, published by CGWB, Ministry of Water Resources, State Unit office, New Delhi,

2013), the entire North Delhi district is a 'notified area' by the Government of NCT of Delhi for regulating extraction of ground water. Major ground water problems identified by the Board in this area are as follows:

- i) Ground water in deeper zones is saline. Depletion of ground water levels is attributed to over-exploitation of ground water. Example, higher Fluoride content at Kingsway Camp (500 meter away from the site in question).
- ii) North District is bounded by the Yamuna River. The district falls in Yamuna sub-basin and forms part of the Ganga basin. The entire district forms part of Yamuna River water shed. The river Yamuna, bordering eastern part of the district, controls the entire drainage system. Parts of western Yamuna Canal, Najafgarh drain and other minor drains flow through North district. This district has prestigious Delhi University, Northern Ridge, ISBT and Tis Hazari Courts. The forest cover of the district is 4.81 sq. Km. Approximately, 0.24 sq. Km. Area of the district is under water bodies.
- iii) Around 40% of the North district is under Yamuna Flood Plain, which is further divided into Active flood plain and older flood plain. The southern part of the district has a thin alluvium cover over Quartzite rock, which is extension of Delhi Ridge near Wazirabad Barrage. Though the development of ground water is not much in the district, in view of the depleting water levels, sustainable management of this precious natural resources is extremely important. The slope of the district is towards south by 0.40 m/km but at places adjoining Delhi Ridge, it gets elevated. Due to this, just northern adjoining areas along the Delhi Ridge form depressions and have been converted into the water logged area.

10. The appellant has referred to the order of the Hon'ble Supreme Court in *M.C. Mehta V. Union of India*² wherein observations have been made about the groundwater scenario in Delhi. After perusal of the Report submitted by the CGWB for its consideration, the Court observed that there is over exploitation of ground water in south

² (2019) 12 SCC 546

District, New Delhi district, South East District, East District, Shahdara, North East District, and almost rest of Delhi is in a semi – critical state.

Thus, the use of ground water for such large project as one proposed by Respondent No.04 will cause depletion of ground water level and thus the same should not be allowed. Depleted ground water conditions will seriously damage the vegetation in the Ridge and also the North Campus of Delhi University.

In such circumstances, the grant of EC is improper when the water requirement cannot be met and it affects the overall capacity to sustain such project.

11. With regard to waste management, the stand of the appellant is that the Respondent No.4 has not provided any details of STP plants, use of technology, location of plant, the area required for its installation, and the location and mode of disposal of discharge after the treatment. Therefore, the information provided by Respondent No.4 in column II (5) (6) of Form I of appendix I relating to solid waste and release of pollutant is grossly inadequate for the grant of environmental clearance. In fact, no approval from SPCB has been taken so far.
12. With regard to fire safety standards, it is submitted that availability of space for conducting a fire-fighting operation is highly questionable in the light of extremely narrow and congested Cavalry Lane on the one side and Chhatra Marg on the other, which is stipulated as the only emergency passage in the impugned EC. Congested Cavalry Lane, which is mentioned as the entry and exit of the proposed

project, is too narrow to cope with the situation of any firefighting operation in the proposed housing complex.

13. The appellant has then referred to the Geo – Technical Investigation and Liquefaction Potential. Reliance has been placed on the studies conducted by L. Thoithoi, P.S. Ningthoujam, R.P. Singh, D.P. Shukla titled “*Liquefaction study of Subsurface Soil in part of Delhi University, North Campus*”. International Journal of Advancement in Earth and Environmental Sciences, 2013, Vol- I, No. 1. Pp.14-22 records:-

“Any high-rise or mega building project will be susceptible to subsidence and liquefaction during a medium to major Earthquake in DU north campus area which lies in Seismic Zone IV.”

Pleadings and contentions of the project proponent and other opposite parties

14. We may now refer to the stand of the project proponent. The project proponent has filed its counter affidavit on 13.08.2018. It is submitted that project does not fall in silence zone. It is also submitted that the University itself has undertaken several construction projects and therefore there will be no violation of the noise norms. The project proponent has submitted traffic management report. There will no impact on increase of traffic on the air around the project. The DJB has already given clearance on the issue of water availability. Ground water problem has no relevance. The project proponent will comply with the waste management rules. Fire safety norms will be met. There will be no negative impact on the Northern Ridge. It is further stated that the distance of the project

from the interstate border (Delhi-UP) is 15 kms. Moreover, vide notification dated 22.12.2014, EIA Notification dated 14.09.2006 has been modified and project cannot now be taken to be Category A. Permission for felling trees was rightly granted. There is no violation of the Master Plan. Due permission has already been granted for construction of the group housing complex. Closeness of the project to Super Specialty Hospital and Delhi University is well known and was not required to be mentioned in the application. It is wrong to assume there will be high density of transport. Air pollution has been duly considered. There is neither any increase of the traffic because of the project nor addition to vehicular pollution. The Geo Technical Registration and Liquefaction Potential has been properly assessed. The project proponent has annexed a copy of the report dated 09.02.2012 of five Members sub Committee constituted by SEAC to consider objections of the Delhi University to the project. On the subject of objection of high rise building, it was observed that the project has been approved by the Chief Town Planner. There is no restriction against construction of tall building in the area. This objection has been negated by the High Court. SEAC may assess the traffic load. With regard to the change of land use, it was submitted that the land use was as per Notification dated 23.09.2005. On the subject of seismic threat, it was submitted that for the area in seismic zone IV, structure designs may be looked into by the sanctioning authority. With regard to the traffic impact, it was observed that the contentions are based merely on apprehension and the matter is covered by the Court judgment. Any deviation will amount to contempt of Court. Environmental concern may be appraised by the

SEAC. However, one of the members Shri Chinmaya R. Gharekhan held a different view to the effect that the project will have adverse effect on the general environment.

15. We may also refer to the pleadings of other opposite parties. Stand of the DPCC in its affidavit filed on 07.08.2018 which is now Secretariat to the erstwhile SEIAA is that tenure of SEIAA was ended over on 31.03.2018. There is no officer who can present SEIAA now. Stand of the North Municipal Corporation of Delhi in its affidavit file on 13.08.2018 is that the building plan has been rejected on 10.04.2018. Objection of the University are to be referred back to SEIAA. The project proponent has filed WP (C) No. 5574/2018 against rejection of the building plan. Affidavit of CPCB dated 13.08.2018 is formal and does not deal with the merits. Reply of the MoEF&CC dated 13.08.2018 is also on similar lines. So are the replies of DMRC dated 05.10.2018, Delhi Govt. and Delhi Fire Services 10.10.2018. DDA, in its reply dated 15.10.2018, has referred to the order of Delhi High Court dated 18.05.2011 in W.P. (C) No. 3135/2010 that development control norms for Metro Station will apply to the land developed for Metro and for land leased out, development norms as per MPD – 2021 will apply, including 200 FAR without restriction of height. Reply of the Ministry of Defence dated 01.02.2019 is that commercial use of the land by the DMRC by transfer to a private builder is not permissible. Reply of the DJB filed on 01.03.2019 is that it has no role in the matter of EC. Delhi University has filed rejoinder to some of the affidavits. The project proponent has also filed additional affidavit on 19.08.2019. It is not necessary to mention the details thereof for dealing with the issue herein.

Proceedings till date

16. The appeal was filed on 10.07.2018. Notice was issued on 12.07.2018. The matter was adjourned on 14.08.2019, 13.09.2018, 11.10.2018, 01.11.2018, 20.12.2018, 11.01.2019, 24.01.2019, 20.02.2019, 06.03.2019, 27.03.2019 for completing pleadings. On 08.04.2019, 29.04.2015, 29.05.2019, 15.07.2019 and 22.07.2019, the issue of condonation of delay was dealt with and by the last mentioned order the delay was condoned and main matter was directed to be listed for hearing. On 19.08.2019 and 09.10.2019, the matter was adjourned on the request of one or the other party. On 11.10.2019, the matter was deferred to await proceedings in Hon'ble Supreme Court (on the issue of validity of transfer of land in favour of the project proponent). The matter was further adjourned on 18.11.2019 and 02.12.2019. It was for the first time that the appeal was taken up and heard on merits on 08.01.2020. The Tribunal observed that earlier EC granted in 2012 having been declared null and void, there was no adequate data base for granting EC on 23.03.2018. Accordingly, the Tribunal constituted a joint Committee to undertake carrying capacity study of the area with reference to the project in question based on relevant data within two months and directed maintenance of *status quo* till then.
17. At the instance of the project proponent, Civil Appeal No. 341/2020 was filed in the Hon'ble Supreme Court with the grievance that all aspects had already been considered by SEIAA in its meeting held on 22.03.2018. A detailed counter affidavit had been filed which was not considered by this Tribunal before seeking evaluation by a joint

Committee and granting *status quo* order. Reliance was placed on Minutes of the 57th meeting of SEIAA while granting EC. Accordingly, the Hon'ble Supreme Court held that a detailed consideration is necessary by this Tribunal before constituting a joint Committee and passing an interim order. The Hon'ble Supreme Court observed:-

“Though it is premature for this Court to advert to the correctness or otherwise of the same, while considering the correctness of the environmental clearance dated 23.03.2018 the material relied upon will have to be taken note at the outset by the NGT even before requiring any other report but there is no reference to all these aspects in the order. Further when the counter affidavit along with the documents were available on record a detailed consideration was necessary and only thereafter if any further report was required by constituting a committee the same would have arisen. However, in the order impugned such consideration is not indicated before requiring the constitution of a Joint Committee for evaluation. The consequential interim order passed would also, therefore, not be sustainable. In that view, the appropriate course would be for the NGT to take note of the contentions put forth by the appellant herein through their counter affidavit and the environmental clearance dated 23.03.2018 and take a decision in the matter. On referring to the contention and materials, the reason for the same not being sufficient or reliable would be an aspect to be recorded and take such further action. To enable such exercise the order impugned dated 08.01.2020 is liable to be set aside, which we accordingly hereby do.

In the result the appeal is allowed, the order dated 08.01.2020 is set aside. The NGT shall take note of the counter affidavit and the documents of the appellant and consider the matter on its merits and pass orders in accordance with law. The same shall be done in an expeditious manner. All contentions of the parties are left open.”

Further consideration of the matter

18. The matter was accordingly taken up 03.02.2020. On account of absence of counsel for the project proponent, it was deferred to 10.02.2020. The appellant expressed apprehension that the project proponent may continue with the project after taking adjournment. It was also stated that the stand of the project proponent before the

Hon'ble Supreme Court that detailed counter affidavit covering all the aspects had already been filed was not correct as the project proponent has filed further affidavit and documents after the order of the Hon'ble Supreme Court. This Tribunal, while granting a short adjournment, directed that the project proponent may not proceed with further activities till consideration of the matter by this Tribunal. The matter was accordingly heard on 10.02.2020 and order was reserved.

Additional documents after order of the Hon'ble Supreme Court

19. We may at the outset mention that the project proponent has filed I.A. No. 75/2020 on 06.02.2020, after the order of the Hon'ble Supreme Court dated 28.01.2020, to place on record eight additional documents, including the minutes of 57th meeting of SEIAA. The appellant has also filed an I.A. No. 67/2020 on 01.02.2020 along with ten additional documents. We are however not making any comment on the issue whether the stand of the project proponent before the Hon'ble Supreme Court was factually correct.
20. We may now make a brief reference to the additional documents filed by the both the parties. The documents filed by the appellant are:-

1. Copy of letter dated 25.10.1943 by the Joint Secretary, Government of India to the Chief Commissioner of Delhi prohibiting high rise building in the neighborhood of Delhi University and its colleges, shown in the map covering 582.44 acres of land.
2. Copy of study conducted by Prof. Geetam Tiwari, IIT Delhi, regarding sustainability of high rise building in the area.

3. Copy of the opinion of Dr. K.S. Rao dated 23.01.2020 on the subject of earthquake vulnerability of the area.
 4. Copy of the office memorandum dated 10.11.2015 of MoEF&CC on the subject of parameters and thrust areas of environmental sustainability while appraising the Building and Construction and Township and Area Development projects.
 5. Copy of the chart showing requirement under the office memorandum dated 10.11.2015 and compliance done by the project proponent.
 6. Copy of the MoEF&CC circular dated 25.10.2017 to comply with the recommendation of CAG with regard to process of EC.
 7. Copy of the minutes of the meeting dated 24.02.2018 by SEAC.
 8. Copy of the office memorandum dated 04.01.2019 of MoEF&CC.
 9. Copy of the letter/article of Dr. Suman Lakhanpau who was member of the SEIAA and had expressed dissenting opinion with regard to the clearance of the project. On the ground that the high rise building was not viable in the area and Ridge will be adversely affected and there will be adverse effect in depleting the ground water.
 10. Copy of the letter/article of Dr. Anupam Chattopadhyay had expressed the opinion that construction of high rise buildings were not viable on account of earth quake potentiality.
21. The documents filed by the project proponent are:-
1. Copy of Form – I (application of EC dated 31.01.2018) seeking amendment of the EC granted on 13.08.2012.
 2. Copy of the presentation made by the respondent No. 4 before the SEAC on 24.02.2018.
 3. Copy of the minutes of the 95th meeting of SEAC held on 24.02.2018.
 4. Copy of the letter dated 09.03.2018 by respondent No. 4 to SEAC.
 5. Copy of the presentation by respondent No. 4 to SEAC dated 13.03.2018.

6. Copy of the letter dated 13.03.2018 by respondent No. 4 to SEAC seeking amendment to the EC.
7. Copy of the minutes of the 96th meeting of SEAC held on 13.03.2018 and 17.03.2018.
8. Copy of the minutes of the 57th meeting of respondent No. 2, SEIAA on 22.03.2018.

22. Even though the appellant raised objection to filing of certain documents by the project proponent at this stage, without going into any technicality, we have considered all the documents filed by both the parties.

Issues for consideration

23. Several arguments have been raised on behalf of the appellant-University but we find it necessary to focus only on matters which we have found to be crucial having bearing on the validity of EC and impact of the project on the environment. This Tribunal has to conduct merit review in exercise of its appellate power to consider the validity of grant of EC as held in the judgment of the Hon'ble Supreme Court in *Hanuman Laxman Aroskar v. Union of India*³ (supra). As observed in the said judgment, the EIA notification intends to ensure that any project complies with the norms for protection of environment. Environment is essential facet of development. EAC and SEAC/SEIAA have to evaluate the information furnished by the project proponent in Form I which is crucial and serves as a base upon which the process of evaluation rests. Deliberate concealment or false or inadequate and misleading

³Hanuman Laxman Aroskar v. Union of India, (2019) SCC online SC 141, para 172

information renders an application liable for rejection. EIA process is directly linked to Sustainable Development Goals (SDGs).

24. Thus, following issues arise for consideration:-

- (i) Whether full disclosure of relevant facts had been made by the project proponent in Form-I and I A which are the formats for application for EC.
- (ii) Whether SEIAA has dealt with the matter, in granting EC, holistically, after due application of mind in appraising the environmental sustainability of the project.
- (iii) Whether a case is made out for interference by this Tribunal with the impugned order.

Observations and Analysis

25. Before we proceed to consider the above issues, we may make certain observations about the approach to be adopted in dealing with such matter. A holistic approach is required in such matters instead of taking the impact of the project in isolation on standalone basis. The Tribunal has to keep in mind crucial features of the project having bearing on the environment like size, height, location, background data of environment including air, water and noise and likely impact of the project on the environment, including the environmentally pristine area – the Northern Ridge which is in the nearby vicinity.

The project is said to be the tallest high rise building in the city comprising S+G+37 floors containing 410 dwelling units in the vicinity of educational institutions, hospital, Metro Station and the Northern Ridge. We have to accordingly consider the impact on the recipient environment, including air quality, noise, traffic congestion, water requirement, waste management, fire safety, earthquake and liquefaction potential and compliance with the Master Plan.

26. As already noted above, the appellant has relied upon office memorandum dated 10.11.2015 issued by the MoEF&CC laying down *Guidelines for Appraisal of Building and Construction Sector Projects* mentioning following thrust areas of environmental sustainability:

- a. Brief description of the project in terms of location and surroundings.
- b. Environmental impacts on project land and its surrounding developments and vice-versa.
- c. Water balance chart with a view to promote waste water treatment, recycle, reuse and water conservation.
- d. Waste water treatment and its details including target standards.
- e. Alternations in the natural slope and drainage pattern and their environmental impacts on the surroundings.
- f. Ground water potential of the site and likely impacts of the project.
- g. Solid waste management during construction and post construction phases.
- h. **Air Quality and Noise Levels; likely impacts of the project during construction and operational phases.**
- i. Energy requirements with a view to minimize power consumption and promote use of renewal energy sources.
- j. **Traffic Circulation System and connectivity with a view to ensure adequate parking, conflict free movements, Energy efficient public transport.**
- k. Green belt/ green cover and the landscape plan.
- l. Disaster/ risk assessment and management plan.
- m. Socio Economic Impacts and operational phases.

- n. EMP during construction and operational phases.
- o. **Any other related parameter of the project which may have any other specific impact on environmental sustainability and ecology.**

27. As laid down in *Hanuman Laxman Aroskar v. Union of India* (supra), all material information, must be furnished in Form - I to enable evaluation of all possible impacts of the project. As required by the guidelines issued by the MoEF&CC, information must be given and evaluated particularly with regard to issues covered under 'h', 'j' and 'o' above.

The notification itself mentions that concealment or misleading renders an application liable to rejection. SEIAA must factor in specific features of the area encompassing all environmental concerns including air quality, water quality, noise quality, traffic congestion, flora and fauna. Recommendation of SEAC must be based on reasons on every relevant aspect. Such reasons are the live link between its process and outcome of adjudicative functions. The whole exercise must lead to environmental sustainability which is the basis of environmental rule of law.

Issue wise consideration

28. With above background, we proceed to deal with issues which have arisen for consideration.
29. **Re: Issue No. (i) – Whether there was due disclosure of information by the project proponent**
- According to the appellant, Forms- I and IA do not mention closeness of the project to Delhi University and Viceroy Building (heritage site).

Najafgarh drain nearby is highly polluted. No information has been given about the natural slope and drainage. No mention has been made that the area is semi critical as per Dynamic Ground Water Study of 2017 requiring clearance from Central Ground Water Authority. The project proponent has mentioned that there is no impact on ground water. What is mentioned is that source of water is municipal supply. There is no evaluation of the additive effect on air quality on account of such high rise building in the area which is already far beyond its carrying capacity.

As against the above, stand of project proponent in its counter affidavit is that there was no need to mention that the project was close to Super Specialty Hospital and Delhi University which fact is well known. There is also no suppression in relation to traffic analysis. There is no requirement of underground water. Clearance has been taken from DJB. All relevant facts have been duly disclosed.

In the written submissions filed on 12.02.2020 by the project proponent, it is mentioned that all necessary approvals have been taken. The project proponent has paid Rs.218.20 crore for the land for a lease for 90 years. Earlier EC dated 13.08.2012 was never challenged. Present challenge is malafide as the project is adjacent to bungalow of the Vice Chancellor. Fresh EC was sought in the year 2018 on account of amendment to building by laws in 2016 which required seeking revised lay out plan. Revised lay out plan was granted on 17.11.2017. The project is B2 category project and for such project stages of screening, scoping, public consultation etc. are

not required. There is no restriction on construction in silence zone. Noise source is only from generator which will be highest quality having no significant impact. Information about air monitoring points was given to SEAC. Baseline data of noise generation exceeds the limits on account of vehicular movement, the project proponent will use wind and noise barrier during and after construction and a thick brick wall with plantation after construction. Air quality data submitted by the project proponent to the SEAC and online air quality data of the nearest station from the project shows that air quality is higher than the standards. Air dispersion modelling results show that increase will be marginal for which mitigation measures will be adopted during construction and operation. Traffic management plan has been submitted to SEAC on 09.03.2018. Traffic volume is 423 pcu at Cavalry lane, 1310 pcu at Chhatra Marg. Traffic growth is 10% in the year 2020, 20% in 2025 and 30% in 2030. Documents of the appellant are authored by vested interests within the University. Parking norms have been followed. Water requirement will be met by the DJB. Revised sewerage scheme has been approved. There are facilities for waste management. Liquefaction potential has been analyzed. Soil evaluation survey has been done. There are other high rise buildings in the vicinity, fire safety standards have been looked into. There is no impact on the Northern Ridge. There is no violation of MPD. As a result of the project, water table will increase on account of rain water harvesting pits. Tree cutting permission has been validly granted.

30. We have taken into account rival stands on the subject of disclosure. The stand of the project proponent itself shows that most of the information given by it was in response to questions by the SEAC without the same being originally given in the Form I and IA. In Form I and IA, there is no mention of data on air quality or impacts of the project on air quality. In Form I, it is mentioned that air quality monitoring will be carried out during EIA/EMP studies (which would have happened if the project was treated as Category A as per the Notification, 2006. However, since the project was treated as Category B2 on account of notification dated 22.12.2014, no such study was conducted). It is further submitted that contribution of vehicular emission will be marginal and within the ambient air quality standards. Green belt will be developed which will act as a barrier. Nothing is mentioned about the impact on air quality during construction and afterwards. Parking has been proposed for 840 vehicles. It is further stated that there will be no significant impact of noise due to provision of wide roads.

On the above material, it is difficult to conclude that requisite disclosure was made by the project proponent. Since air quality is one of the most significant environmental aspect, even if we do not consider other aspects, it can certainly be said that no information was furnished on the subject of air quality in Form I and IA and information furnished later was highly inadequate and not supportive of sustenance of high rise project of such magnitude. A reference to the minutes of the SEAC dated 24.02.2018 shows that the project proponent was required to furnish information with regard to

ambient air monitoring points, traffic management, revised EMP, water mass balance chart etc. There is no consideration of initial non-disclosure in the impugned order of SEIAA or by SEAC which by itself may vitiate the EC.

31. **Re: Issue No. (ii) – Whether SEAC and SEIAA applied before granting EC**

We may now consider whether there is due application of mind by the SEAC and SEIAA in granting EC. The stand of the appellant is that SEIAA has not applied its mind in granting EC. There is no consideration of the ambient air quality status of the area for sustenance of the project in question. The sample test report of air quality submitted by the project proponent itself and placed for consideration before SEAC show that air quality is far beyond permissible limits both in terms of PM_{2.5} and PM₁₀. Against prescribed National Ambient Air Quality Standards of 60 µg/m³ and 100 µg/m³ per day for PM_{2.5} and PM₁₀ respectively, the data shows PM_{2.5} in the range of 134.62 to 240.6 and PM₁₀ to be in the range of 242.72 to 436.8. Similar is the position with regard to NO₂.

A perusal of the impugned order shows that decision to grant EC is based on recommendation of SEAC in terms of minutes of meeting dated 24.02.2018 and 13.03.2018. The said minutes do not contain any discussion on the subject beyond mentioning that recommendation for granting EC was based on the information furnished, documents shown and submitted, presentation made by the project proponent and appraisal done by Committee. Documents furnished have already been referred to above.

32. Minutes of meeting of SEAC dated 24.02.2018 and 17.03.2018 are as follows:-

24.02.2018

“Based on the information furnished, documents shown & submitted, presentation made by the project proponent SEAC sought the following information:

1. *Revised water mass balance chart with minimum excess waste water discharge in rainy and non-rainy season and with action plan to re-use/ recycle the excess treated water.*
2. *Schematic drawing of proposed STP of enhanced capacity.*
3. *Plan for handling the excavated earth is required to be submitted along with revised EMP (Environment Management Plan) for dust mitigation measures as per MoEF Notification No. GSR 94 (E) dated 25.01.2018 incorporating the provisions of spraying nozzles for dust suppression and frequency of spraying.*
4. *Details/location of ambient air monitoring points in basements including the ventilation cycle of fresh and recycle air.*
5. *Point wise comments on the issues raised vide circular no. J-11013/71/2016-IA.I(M) dated 25 October, 2017 are required to be furnished.*
6. *Traffic management plan taking into consideration the latest traffic scenario.*
7. *Landscape plan with demarcation for total green area and soft green area.*
8. *Proposed plan for implementation of renewable energy.”*

17.03.2018

“The project proponent has applied for amendment in EC under the head of fresh case on OSMEC portal stating that wrt EC letter no DPCC/SEAC/50/SEIAA/I/2012 dated 13th August, 2012 construction has not been started. Therefore present proposal is considered as a fresh case and Office Memorandum No. J-11011/618/2010-IA-II(I) dated 30.05.2012 for expansion projects is not applicable. Earlier EC issued vide letter no. DPCC/SEAC/50/SEIAA/I/2012 dated 13th August, 2012 be withdrawn and treated as null and void. With respect to the present application, based on the information furnished,

documents shown & submitted, presentation made by the project proponent and appraisal done by committee. SEAC recommended the case to SEIAA for grant of Environmental clearance imposing the following specific conditions:

1. Chhatra marg should be used for pedestrian and non-motorized vehicle or only in case of emergency with restricted motorized vehicles.
2. Treated water of DJB STP should be used for construction purposes up to the maximum extent possible.
3. Packages/mobile STP shall be provided for labour camp during construction phase.
4. Ground water should be extracted only after the permission from DJB.
5. Boring for Rain Water Harvesting system should not be permitted/done before completion of structure work. All recharge should be limited to shallow aquifer.
6. STP should be adequate to treat the waste water so that BOD level should not exceed 10mg/l in treated water.
7. Flow Meters should be installed to monitor consumption of fresh water as well as treated water and log book for these flow meters be maintained in a regular manner. Flow meters shall be installed at Inlet of STP, outlet of STP, inlet of flushing tanks, inlet of cooling water tanks and reuse line for horticulture purposes.
8. The project proponent, before starting the construction, will reconfirm the nonexistence of any water body in and around (within 500m) the project site. It will be ensured that water body/bodies identified as per guidelines MPD 2012) in and around the project suite shall not be affected due to proposed development work.
9. Minimum 1 tree for every 80 Sq. Mt of plot area should be planted within the project site in accordance with the landscape plan submitted.
10. Solar Photovoltaic (SPV) system should be installed to meet electricity generation equivalent to 1% of demand load or as per the state level/local building bye-laws, whichever is higher. Solar water heating shall be provided to meet its hot water demand as far as possible.
11. Only LEDs should be used.

12. Green building norms should be followed with a minimum 3 star GRIHA rating and Gold rating should be followed up.
13. Total capacity of DG sets should not exceed 50% of the total load.
14. Construction & Demolition waste should be disposed of at authorized C & D waste processing unit.
15. Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum upto 10 meters shall be provided all around the project site before the start of construction.
16. During the Construction Phase for control of dust pollution all precautionary measure should be ensured in compliance of Hon'ble National Green Tribunal order dated 4.12.2014 & 10.04.2015 in O.A. No. 21 of 2014 and O.A. No. 95 of 2014 in the matter of Vardhaman Kaushik vs. Union of India & others and Sanjay Kulshreshtha Vs Union of India 7Ors. And as per MoEF&CC, GOI Notification no. G.S.R.94(E) dated 25.01.2018 regarding mandatory implementation of dust mitigation measures for construction and demolition activities.
17. Project proponent shall be responsible for establishment, operation and maintenance of all common facilities and also for compliance of EC conditions during operation stage.
18. In view of MoEF&CC Office Memorandum No. 21-270/2008-IA.III dated 19.06.2013 read with MoEF&CC Office Memorandum No. 22-154/2015-IA.III dated 10.11.2015, this environmental clearance is granted focusing only on the environment concerns. The project will be regulated by the concerned local Civic Authorities under the provisions of the relevant provisions of the extant MPD-2021, Building Control Regulations and Safety Regulations.
19. The Project Proponent shall obtain water assurance form NDMC/Delhi Jal Board/ authorized source during construction/operation phase for the proposed development work. It must be obtained before starting the construction.
20. The Environmental Clearance is subject to the condition that concerned local civic agencies will give the permission for use/occupation of the building only after the written assurance of DJB/New Delhi Municipal Council/other

such local civic authority (as the case may be) regarding supply of adequate water for residents/occupiers.

21. Grant of environmental clearance does not necessarily implies that water/power supply shall be granted to the project and that their proposal for water/power supply shall be considered by the respective authorities on their merits and decisions taking.

22. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from water/power supply angle shall be entirely at the cost and risk of the project proponent and SEAC/SEIAA, Delhi shall not be responsible in this regard in any manner.

23. Green area should not be less than 25% of the plot area out of which minimum 15% should be of soft green area, so that there should be sufficient recharging of ground water. Further along boundary wall, minimum of soft green space of 2m width be kept for better tree growth & ground water recharge, based on area of 6'x6'/tree being a norm."

33. Minutes of 57th meeting of SEIAA dated 22.03.2018 are as follows:-

"After due deliberations, in its first sitting of 96th meeting held on 13.03.2018 the SEAC observed that the project proponent has applied for amendment in EC under the head of fresh case on OSMEC portal stating that w.r.t. EC letter no DPCC/SEAC/50/SEIAA/1/2012 dated 13th August, 2012 construction has not been started. Therefore, present proposal is considered as a fresh case and Office memorandum No.J-11011/618/2010-IA-II(I) dated 30.05.2012 for expansion project is not applicable. Earlier EC issued vide letter no DPCC/SEAC/50/SEIAA/2012 dated 13th August, 2012 be withdrawn and treated as null and void. With respect to the present application, based on the information furnished, documents shown & submitted, presentation made by the project proponent and appraisal done by committee, SEAC recommended the case to SEIAA for grant of Environmental clearance imposing the specific conditions.

The SEIAA in its 57th meeting held on 22.03.2018 approved the recommendations of SEAC that earlier EC issued vide letter no DPCC/SEAC/50SEIAA.1/2012 DATED 13TH August, 2012 be withdrawn and treated as null and void, and granted fresh Environmental Clearance to the project with the following additional specific conditions.

1. Adequate ventilation should be provided in the basements and during the operation phase the concentration levels of Carbon dioxide, Carbon Monoxide should be monitored periodically and also be reported in periodical compliance reports to be submitted. NO_x, SO_x and PM are also be maintained in basement as per EPA norms.
 2. About 202 KLD of fresh water for operational phase will be met by DJB, hence this project will increase the demand of fresh water from DJB by 202 KLD.
 3. Sign board be placed at project site indicating the Khasra No. of the land as per revenue record.”
34. As already mentioned, the application did not give any data of ambient air quality. Vide subsequent letter dated 09.03.2018, in response to minutes of 95th meeting of SEAC dated 24.02.2018, the project proponent gave point wise reply. Annexure IV thereto is pointwise response to MoEF&CC circular dated 25.10.2017. Appendix I thereto is test report dated 27.01.2018 for ambient air quality analysis as follows:

S. No.	Date	Particulate matter (PM _{2.5} ; ug/m ³ GRC/LAB/STP/AIR/03, Gravimetric Method	Particulate matter (PM ₁₀ ; ug/m ³ IS 5182 (Part 23): 2006	Sulphur Dioxide (PM ₁₀ ; ug/m ³ IS 5182 (Part 23): 2001 Reaff.2006	Nitrogen Dioxide (PM ₁₀ ; ug/m ³ IS 5182 (Part 23): 2006	Carbon Monoxide (CO); ug/m ³ IS 5182 (Part 10): 1999 Reaff.2003
1.	03.01.2018	240.6	412.3	9.3	71.6	1580
2.	05.01.2018	237.4	396.2	17.7	74.1	2110
3.	08.01.2018	195.7	368.4	20.4	82.3	2060
4.	11.01.2018	146.2	324.5	18.9	63.4	1510
5.	14.01.2018	227.9	436.8	29.7	84.5	2470

6.	17.01.2018	210.5	419.4	11.4	89.5	2780
7.	20.01.2018	183.4	318.9	18.3	84.0	1050
8.	24.01.2018	134.6	242.7	15.9	77.6	1010

Ambient Noise level as per test report dated 12.01.2018 annexed thereto which is as follows:-

S. No.	Location	Zone	Limit for As per EP Act, 1986; Leq, DB (A)		Observed value Ledq, dB (A)	
			Day Time	Night Time	Day Time	Night Time
1.	Project Site	Residential area	55	45	63.4	49.8
	* Day Time	6.00 a.m. to 10.00 p.m.				
	** Night Time	10.00 p.m. to 6.00 a.m.				

35. Another document which is part of letter is titled Traffic Analysis for proposed group housing at DU Metro Station (page 663 of the paper book) is as follows:-

“EXISTING TRAFFIC CONDITIONS

CAVALRY LANE:

According to recent traffic survey conducted in February 2018, traffic volume on Cavalry Lane is 423 pcu during AM peak hour. The ADT is recorded to be 3284 pcu comprising of 1087 two wheeler, 707 autos, 926 cars and 2 buses on Cavalry Lane. Over a day, 7 good vehicles, 198 cycles, 45 cycle rickshaws and 926 E-Rickshaws have been noted. In the afternoon peak hour (14:00-15:00 hrs, the recorded traffic volume is 208 pcu. The annexure-1 give the details of pedestrian and vehicular traffic volumes in tabular and graphic form for easy comprehension. It will be noted that the surrounding roads have adequate capacity to absorb traffic generated by the proposed development. Further the placement of access position on Cavalry Lane is not likely to cause any traffic concerns in the context.

CHHATRA MARG:

Similarly traffic survey conducted in February 2018, traffic volume on Chhatra marg is 1310 pcu during AM peak hour. The ADT is recorded to be 14801 pcu comprising of 4999 two wheeler, 1668 autos, 4092 cars and 19 buses.

Over a day, 44 good vehicles, 412 cycles, 1217 cycle rickshaws and 4376 E-Rickshaws have been noted. In the afternoon peak hour (14:00-15:00hrs), the rerecorded traffic volume is 1167 pcu. The annexure 2 give the details of pedestrian and vehicular traffic volumes in tabular and graphic form for easy comprehension.

ESTIMATE OF GENERATED TRAFFIC

It is estimated that the housing scheme will generate some 320 pcu of vehicular traffic under a peak period of four to five hour duration. Critical peak hour traffic volume is estimated at 192 pcu egress and 25 pcu/h ingress traffic volume during AM period. The flow patter will reverse during PM peak period though the duration of PM peak period is generally longer than the AM peak period. It must be stated that considerable proportion of person trips will be made by Metro. Reliance on other modes of transport like cycle richshaw is not expected to be high as the site offers by virtue of its location, excellent conditions for walking and nearness to the metro station. Cavalry Lane accordingly is envisaged to provide the access to motorized vehicles. On adding incremental traffic to the existing traffic on Cavalry Lane, the aggregate traffic works out to be 640 pcu per hour. The existing v/c ratio considering local two lane two-way carriageway configuration works out to be 0.56, and the emerging v/c ratio with project estimated to be 0.857 as per IRC 106. This v/c has built in facility of right turn traffic, parked vehicles and frontage access from the road under consideration. With v/c ratio of 0.85, congested conditions are not expected on Cavalry Lane. Further there is likely to be diversion from car to public transport especially to Metro for essential trips and this is likely to reduce the generated vehicular traffic volume from the proposed development. Walking to Metro Station for travel purposes is likely to find favour with the residential population.”

36. As already noted, SEIAA has based its decision dated 22.03.2018 on the recommendation of SEAC, while SEAC has based its decision on Form – I, Form-I A followed by letter and presentation by the project proponent. There is hardly any tangible and substantive discussion either by SEAC or by SEIAA analyzing various environmental aspects and impacts of the proposed project. Conditions have been laid down which are very generic without any analysis of issues which are patent. Thus, the whole exercise by SEAC or SEIAA is based on non-application of mind which vitiates the EC. Mere imposition of general

conditions that Air (Prevention and Control) of Pollution Act, 1981 (Air Act) and Water (Prevention and Control) of Pollution Act, 1974 (Water Act) norms will be followed is of no consequence when air quality norms are already exceeded and there is not carrying capacity assessment to sustain the project in question.

37. It is undisputed that the land on which the project is proposed belongs to the Ministry of Defence. The same was acquired for Metro Rail Project in 2001. The land use was characterized as public and semi- public as per MPD 2021 which was changed at the instance of DMRC in the year 2008 for group housing project. Proposal for grant of EC was moved initially on 21.08.2009 which was granted on 13.08.2012 for 324 dwelling units with total built up of area 10,265.90 sq.m. The appellant University raised objections on 08.02.2012 which are said to have been considered by the sub-Committee constituted by SEAC. Amendment in the project was sought on 12.02.2018 for covering more area. Prior to 22.12.2014, the requirements of EIA Notification dated 14.09.2006 were as laid down in a note against Entry VIII of the Schedule as follows:-

“General Condition (GC):

Any project or activity specified in Category ‘B’ will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as identified by the Central Pollution Control Board from time to time, (iii) Eco-sensitive areas as notified under Section 3 of the Environment (Protection) Act, 1986, such as, Mahabaleshwar Panchgani, Matheran, Pachmarhi, Dahanu, Doon Valley, and (iv) inter-State boundaries and international boundaries:

Provided that the requirement regarding distance of 10 km of the inter-State boundaries can be reduced or completely done away with by an agreement between the respective States or U.Ts sharing the common boundary in case the activity does not fall within 10 kilometres of the areas mentioned at item (i), (ii) and (iii) above.”

38. The said note was deleted by the notification dated 22.12.2014. The condition shows that the project located in 10 kms. of critically polluted areas or of interstate boundary was treated as separate from any other projects. The location of the present project is within 10 kms. of interstate boundary and also within such distance from critically polluted areas. Thus, on the date earlier EC was earlier granted i.e. 13.08.2012, the project was wrongly treated as Category B. To avoid this legal hurdle, the application appears to have been treated as for grant of a fresh EC though the application was for amendment of the earlier EC, which amendment was not legally permissible without following procedure for Category A project entailing detailed EIA study and accordingly preparation of EMP.

Even for evaluation as Category BI project, appraisal was required to be based on carrying capacity of the area in terms of air quality, noise level and traffic congestion apart from other important environmental considerations. In absence thereof, it is not possible to hold that there is application of mind by SEIAA as claimed by the project proponent.

39. We find merit in the contention on behalf of the appellant that there was hardly any application of mind by SEIAA or SEAC to the available data and to the impact of the project on environment, before granting EC. To give effect to Sustainable Development and

Precautionary principles, EC cannot be granted without such assessment and evaluation, which is also known as 'Carrying Capacity Assessment'. Such assessment becomes all the more necessary when the available data shows that environmental norms are in excess of prescribed parameters. We may consider this aspect in the light of earlier orders of this Tribunal.

Carrying Capacity Assessment for the Project

40. The data furnished by the appellant has been quoted above showing that norms of air quality as well as noise levels are already beyond the prescribed standards. There is, thus, no carrying capacity of the area to sustain any additive load in terms of air or noise levels which undisputedly will happen, even according to the project proponent.

41. This Tribunal has earlier considered the issue of carrying capacity on certain occasions. Reference may be made to the order dated 26.10.2018, in O.A. No. 568/2016, *Ajay Khera Vs. Container Corporation of India Limited & Ors.* as follows:-

*“15. Delhi is over polluted and figures quite high in the ranking of most polluted cities. **There is no study about the capacity of the city in respect of the extent of population which can be accommodated and number of vehicles which can be handled by the roads of Delhi. The Master Plan for Delhi 2021 also does not assess the urban/physical carrying capacity of the NCT of Delhi despite noting a reduction in the carrying capacity of amenities such as drainage.** However, no specific emphasis is laid on determination of carrying capacity of the city on the basis of factors such as availability of land, air and water resources for the increasing population in the light of principles of sustainable development and Intergeneration equity.*

16. Conscious of the threat posed to limited natural resources due to their overuse, this Tribunal in Metro Transit Pvt. Ltd Vs.

South Delhi Municipal Corporation & Ors.⁴ directed the Ministry of Transport to take initiative to assess the number of vehicles to be permitted proportionate to the capacity of the roads in the city in the larger interest of environment. This Tribunal has also directed in *SPOKE Vs. M/s. Kasauli Glaxie Resorts and other connected matters*⁵ to frame guidelines with respect to carrying capacity assessment for similarly placed hill stations as Kasauli and Eco-Sensitive Zone (ESZ) notified by MoEF&CC to check hazards of unregulated development threatening the fragile ecology. In *D.V. Girish v. Union of India & Ors.*⁶ this Tribunal has directed the Ministry of Urban Development and MOEF& CC to conduct detailed carrying capacity study to assess the impact of factors such as construction of resorts, new civil structures, availability of water resources, power lines, soil erosion, extraction of ground water, waste generation and handling, road traffic and pollution and evolve a management plan for preservation of Chikkmangaluru district. Further, in *Social Action for Forest and Environment (SAFE) & Ors. v. Union of India and Ors.*⁷ it was observed that the relevance of the concept of carrying capacity to the concept of sustainability adds to its value for organizing the management framework. **In the light of the current scenario, a similar assessment is necessitated in NCT Delhi.**

17. As a yardstick of sustainability, urban carrying capacity is an important conceptual underpinning that must guide a welfare state in promoting sustainable urban development. The concept of “carrying capacity” addresses the question as to how many people can be permitted into any area without the risk of degrading the environment of the area. A dynamic city policy based on carrying capacity assessment is essential to ameliorate the conditions for urban development and residents living quality. Urban carrying capacity is needed to be developed to balance the demands on the resources on the one hand and the capacity of such resources consistent with the need for environment protection. This is the need for sustainable development. Severely straining and degrading the available natural resources of a particular area without regard to capacity assessment is causing irreversible damage to the ecology in terms of pollution of air, water and earth. What would happen to the traffic flow if all roads become parking? What happens to the road travelers, if there is no adequate oxygen in the air on account of excessive vehicles and congestion? How would unlimited housing be provided to people if the land resources are exhausted at particular place? How will water and waste disposal

⁴ Order dated 23.10.2018 in OA No. 773/2018

⁵ Order dated 05.10.2018 in O.A. No. 218/2017

⁶ Order dated 30.07.2018 in O.A. No. 462/2018

⁷ Order dated 10.12.2015 in O.A.No. 87/2015

needs be met, if there is unplanned population density in a particular city? These questions require serious consideration. "Urban disease" frequently besetting the cities such as traffic congestion, housing shortage, lack of amenity, pose actual challenges and impediments to sustainable development. While emergency measures such as the odd-even scheme, limiting the flow of tourist vehicles and restraining the timing of fire crackers may help momentarily such as is contemplated under the 'Graded Response Action Plan', long term assessment of physical and environmental carrying capacity and devising measures to restrict overuse on reaching optimum capacity is inevitable to ensure sustainable development. Without such assessment and action, the very survival of people is threatened what to talk of working towards Sustainable Development Goals, 2030 to tackle climate change may remain only a dream. Sustainable development is essential policy and strategy for continued economic and social development without detriment to the environment and natural resources on the quality of which continued activity and further development depend⁸. Natural resources have got to be tapped for the purposes of social development but one cannot forget at the same time that tapping of resources have to be done with realistic approach to capacity of a city or area so that environment may not be affected in any serious way; so that there may not be depletion of water resources. Long-term planning must be undertaken consistent with capacity assessment. It has always to be remembered that the air and water are not without limitation⁹.

18. *Accordingly, we consider it necessary to direct assessment of carrying capacity for the NCT Delhi as well as other major cities particularly 102 "non-attainment cities" within reasonable time preferably in one year. Such study can be in phases depending on priority areas having pollution hot spots. Such assessment must specifically study capacity in terms of number of vehicles, extent of population, extent of different nature of activities – institutional, industrial, commercial etc.*

19. *The Ministry of Urban Development in coordination with the Central Pollution Control Board, Ministry of Transport and other concerned Ministries, the Authorities such as Planning Commission as well the States may carry out such study with the assistance of experts in the field. Methodology to do so may be worked out within two months.*

⁸ (2002) 10 SCC 606 T.N. Godavarman Thirumulpad Vs. Union of India, , dated 30.10.2002

⁹ 1986 Supp (1) SCC 517 Rural Litigation & Entitlement Kendra, Dehradun Vs. Stat of UP (Doon Valley Case), AIR 1987 SC 359, dated 18.12.1986

20. As a result of such study, further policy decisions may be taken by concerned Authorities for comprehensive action for checking air pollution in the interest of public health. This may also result in regulation of logistics and infrastructure. The CPCB may act as nodal agency.”

42. In the same matter i.e. Ajay Khera Vs. Container Corporation of India Limited & Ors., supra, further order dated 08.03.2019 is as follows:-

“4. As per report of the WHO, Delhi is one of the 10 most polluted cities in the world. This called for a study about capacity of the city in respect of extent of population and number of vehicles to be permitted. Urban carrying capacity assessment was an essential part of urban planning for giving effect to the concept of sustainable development. It was observed:-

“Severely straining and degrading the available natural resources of a particular area without regard to capacity assessment is causing irreversible damage to the ecology in terms of pollution of air, water and earth. What would happen to the traffic flow if all roads become parking? What happens to the road travelers, if there is no adequate oxygen in the air on account of excessive vehicles and congestion? How would unlimited housing be provided to people if the land resources are exhausted at particular place? How will water and waste disposal needs be met, if there is unplanned population density in a particular city? These questions require serious consideration. “Urban disease” frequently besetting the cities such as traffic congestion, housing shortage, lack of amenity, pose actual challenges and impediments to sustainable development. While emergency measures such as the odd-even scheme, limiting the flow of tourist vehicles and restraining the timing of fire crackers may help momentarily such as is contemplated under the ‘Graded Response Action Plan’, long term assessment of physical and environmental carrying capacity and devising measures to restrict overuse on reaching optimum capacity is inevitable to ensure sustainable development. Without such assessment and action, the very survival of people is threatened what to talk of working towards Sustainable Development Goals, 2030 to tackle climate change may remain only a dream. Sustainable development is essential policy and strategy for continued economic and social development without detriment to the environment and natural resources on the quality of which continued activity and further

development depend. Natural resources have got to be tapped for the purposes of social development but one cannot forget at the same time that tapping of resources have to be done with realistic approach to capacity of a city or area so that environment may not be affected in any serious way; so that there may not be depletion of water resources. Long-term planning must be undertaken consistent with capacity assessment. It has always to be remembered that the air and water are not without limitation.”

8. As regards the direction to prepare carrying capacity assessment report, we find from the interim report submitted by the CPCB that the Ministry of Housing and Urban Affairs is in the process of developing a methodology for the study. The study is to be carried out through Urban Mass Transit Company (UMTC) as a pilot study. Since the order of the Tribunal is more than four months old, the study had to be done in a time bound manner. The same cannot be delayed beyond a point in view of urgency of the situation. **Tackling air pollution cannot remain pending.** Let Central Pollution Control Board furnish such study report, as far as possible, within one month from today.”

43. Again in *Anil Tharthare v. Secretary. Env't. Dept. Govt. of Maharashtra*, 2019 SCC Online NGT 876, it was observed:-

“25. Carrying capacity is integral to the principles of Sustainable Development and Polluter Pays principle. As a yardstick of sustainability, urban carrying capacity is an important conceptual underpinning that must guide a welfare state in promoting sustainable urban development. “Urban disease” frequently besetting the cities such as traffic congestion, housing shortage, lack of amenity, pose actual challenges and impediments to sustainable development. Severely straining and degrading the available natural resources of a particular area without regard to capacity assessment is causing irreversible damage to the ecology in terms of pollution of air, water and earth. In light of serious threat, this Tribunal in Original Application No. 568 of

2016, *Ajay Khera v. Container Corporation of India Limited* vide order dated 26.10.2018, posed the following questions:

- (a) What would happen to the traffic flow if all roads become parking?
- (b) What happens to the road travelers, if there is no adequate oxygen in the air on account of excessive vehicles and congestion?
- (c) How would unlimited housing be provided to people if the land resources are exhausted at particular place?
- (d) How will waste water and solid waste disposal needs be met, if there is unplanned population density in a particular city? These questions require serious consideration.

26. Natural resources have got to be tapped for the purposes of social development but one cannot forget at the same time that tapping of resources have to be done with realistic approach to capacity of a city or area so that environment may not be affected in any serious way. It has always to be remembered that both the air and water as resource are not without limitation.

44. In appeal against the above order in Hon'ble Supreme Court in *Keystone Realtors Pvt. Ltd. v. Anil v. Tharthare*, 2019 SCC Online SC 1543, it was observed:-

*“21.The procedure set out under paragraph 7(ii) of the EIA Notification exists to ensure that where a project is expanded in size, **the environmental impact on the surrounding area is evaluated holistically considering all the relevant factors including air and water availability and pollution, management of solid and wet waste and the urban carrying capacity of the area.** This was not done in the case of the appellant's project. It was not open to the third respondent to grant an 'amendment' to the EC without following the procedure set out in paragraph 7(ii) of the EIA Notification.”*

45. This Tribunal got carrying capacity study conducted in respect of Manali and Mcleodganj in Himachal Pradesh by a Committee *inter-*

alia representing G.B. Pant Institute, Almora; Chief Town Planner, Shimla/senior Architect (Planner); A senior Scientist from MOEF&CC; A senior Scientist from the Indian Council of Forestry Research and Education, Dehradun; Senior Scientist from Wadia Institute of Himalayan Geology, Dehradun; Scientist/ Senior official from the Central Ground Water Board, New Delhi; Scientist/ Senior official from the Central Pollution Control Board, New Delhi; Representative of National Disaster Management Authority, Govt. of India and Representative of School of Planning and Architecture, New Delhi. Based on such study, the Tribunal directed restriction on constructions.¹⁰ The Tribunal observed:-

“13. With regard to Manali, the report makes following recommendations on the subject whether any construction can be allowed at Manali:

“Whether construction in Manali be permitted or whether any restrictions need to be imposed, if so, the nature of restrictions which are to be laid down.

As per the findings of this study, Manali MC has no capacity left to accommodate or sustain additional population/tourist. Allowing any construction would mean Govt. is officially encouraging and making provisions for more population/tourists.

In view of above it is recommended to enforce a complete ban on construction activities in Manali MC except the construction of residential houses for their own uses/purpose and government buildings. The construction of other types should only be permitted unless and until adequate provisions for solid waste management and water supply are put in place.”

15. With regard to McLeodganj, a separate report has been submitted. After examining various parameters, the Expert Committee recommended as follows:

“In view of above it is recommended to enforce a complete ban on construction activities in McLeodganj except the construction of residential houses for their own uses/pur1

¹⁰ Order dated 29.07.2019 in O.A. No. 635/2017, Ramesh Chand v. State of H.P.

and government buildings. The construction of other types should only be perm] unless and until adequate provisions for solid waste management is put in place.”

20. The three templates of ‘carrying capacity assessments’ - two in the present case i.e. Manali and Mcleodganj and one in case of Kasauli which was dealt with by order of this Tribunal vide order dated 05.10.2018 in Original Application No. 218/2017, Society for Preservation of Kasauli and its Environs (SPOKE) v. M/s Kasauli Glaxie Resorts, may be taken into account by the MoEF&CC and CPCB while carrying out further carrying capacity assessments as required in terms of orders of this Tribunal”.

46. In view of above, it is difficult to uphold sustainability of the project in terms of carrying capacity and permissibility of grant of EC without a proper assessment which has not been done.

47. Sustainability of the project has been questioned *inter-alia* having regard to deteriorated air and noise quality, underground water level, traffic congestion, location close to Northern Ridge, height of the building. In Form-I, against the heading Environmental Sensitivity, distance from Yamuna is shown to 1.5 km., from Northern Ridge Reserve Forest (RF) 0.5 km., interstate boundary is mentioned as 6.5 km., densely polluted area is 1.5 km., sensitive man made uses are mentioned as 0.5 to 2.5 km. Area already subject to pollution is mentioned to be none. It is mentioned that site is in Seismic Zone IV. In Form IA, against air environment, it is mentioned contribution of vehicle emission will be marginal. It is further stated that there will be no significant impact of noise.

48. It has been pointed out by the appellant that University and 100 m. from educational institutions having more than 1000 students is ‘silence zone’ as per Notification dated 03.04.2008. These factors

make the project to be environmentally vulnerable, sensitive and critical which aspects have not been duly evaluated. There is no serious consideration of these vital environmental issues.

Air Quality, Noise Level and Traffic Congestion

49. As already mentioned, the data furnished by the project proponent itself shows that air quality in the area has no carrying capacity to permit any additive load in terms ambient air. In absence thereof, permitting a project adding to load of pollution will be against the Sustainable Development and Precautionary principles which are tenets of *right to life*. Similar is the position with regard to noise levels and traffic congestion. On this aspect there is no consideration whatsoever by SEIAA/SEAC. EC has been granted mechanically, overlooking this crucial aspect. There is no consideration of estimation of total existing PM load, estimation of assimilative capacity with respect of PM and estimation of supportive capacity with respect to PM by SEAC/SEIAA.

Additional load of pollution on account of the project to already deteriorated air quality, noise level and traffic congestion

50. Coming to the additional load of pollution on account of added traffic on account of the project, traffic report submitted by the project proponent in the year 2011 mentioned the estimated traffic data to be 320 Passenger Car Equivalent (PCU) during peak hour. Report of Prof. Geetam Tiwari, IIT Delhi relied upon by the appellant is that since the project is for high income group, there will be about 900 motorized trips. The project may be non-complaint of Transit Oriented Development Guidelines (TOD) prepared by DDA. Traffic

report 2011 filed by the project proponent mentions volume to the capacity of 0.7 but the same will exceed 1. Since motorized and pedestrian traffic and road surrounding the project are running to the capacity, any addition on account of the project will be unsustainable.

Second report relied upon by the project proponent of the year 2018 mention width of Cavalry lane as 24 m. According to the appellant, the width of Cavalry lane is 8.5 m. Similarly width of Chhatra Marg is 10.5m and not 24m. The 2018 report mentions number of cars to 925 against 1091 cars in 2011 report. Average Daily Traffic (ADT) as per 2003 report is 3484 PCU as against 1844 PCU in 2011 report. The 2018 report is that traffic volume had dipped from 226 PCU to 208 PCU.

Air Pollution Levels in Delhi

51. Delhi is one of the 122 identified non-attainment cities, based on ambient air quality data compiled by CPCB with reference to the air quality standards under the Air Act, 1981 and EP Act, 1986. This Tribunal is considering the remedial action in the matter in O.A. No. 681/2018. After noting that the identified causes of air pollution include vehicular pollution¹¹, industrial and construction sector pollution¹², reference was made to the Graded Response Action Plan

¹¹ M.C. Mehta v. Union of India (1985)2 SCC 431, M.C. Mehta v. Union of India (2001) 3 SCC 756, M.C. Mehta v. Union of India (1998) 6 SCC 63, M.C. Mehta v. Union of India (2002) 3 SCC 356, M.C. Mehta v. Union of India (1998) 6 SCC 60

¹² M.C. Mehta v. Union of India (1997) 2 SCC 353, M.C. Mehta v. Union of India and Shriram Foods and Fertilizer Industries and Anr. (1986) 2 SCC 235, Rural Litigation and Entitlement Kendra, Dehradun v. State of U.P. (1985) 2SCC 431, Mohd. Haroon Ansari v. District Collector (1998) 6 SCC 60, Union of India v. Union Carbide Co. (1989) 1 SCC 674, M.C. Mehta v. Union of India (1992) 4 SCC 256, Sterlite Industries (India) Ltd. etc. v. Union of India & Ors.(2013) 4SCC 575 , M.C. Mehta v. Union of India (2004) 6 SCC 588, M.C. Mehta v. Kamal Nath (2000)6 SCC 213

(GRAP) notified by the MoEF&CC on 12.01.2017 stipulating specific steps for different levels of air quality such as improvement in emission and fuel quality and other measures for vehicles, strategies to reduce vehicle numbers, non-motorised transport network, parking policy, traffic management, closure of polluting power plants and industries including brick kilns, control of generator sets, open burning, open eateries, road dust, construction dust, etc.¹³. The Tribunal noted that on account of air pollution, India is ranked at 177 out of 180 countries in Environmental Performance Index.¹⁴ As per the World Air Quality Report, 2019 prepared by IQAir Air Visual, Delhi has been reported to be having the worst air quality amongst all the capital cities of the World for the 2nd consecutive year.¹⁵ It is also well known that air pollution contains greenhouse gases which have potential to lead to climate change having serious consequences on human existence. The Tribunal noted that air pollution has enormous impact on public health particularly children, senior citizens and the poor who are more vulnerable. We have already noted the data given by the project proponent showing that air quality norms are exceeded at the location in question. The data is of the date of application. There is no improvement claimed till date. In fact the situation is further deteriorating which is a well known fact.

52. The Tribunal also directed carrying capacity study of all the 102 non-attainment cities (which number went up to 122) vide order dated 08.10.2018 and evolving mechanism for review of Master Plans and

¹³ S.O.118(E), Notification, Ministry of Environment, Forest and Climate Change

¹⁴ <https://www.thehindu.com/sci-tech/energy-and-environment/india-ranks-177-out-of-180-in-environmental-performance-index/article22513016.ece>

¹⁵ World Air Quality Report, 2019 prepared by IQAir Air Visual

shifting polluting activities identified in a study. Similar directions were issued for control of noise pollution. The Tribunal, vide order dated 08.10.2018, directed steps for bringing air quality within prescribed norms by taking steps to prevent polluting activities. The Tribunal directed that action plans be prepared indicating steps to be taken to check different sources of pollution having speedy, definite and specific timelines for execution. The Action Plans should be consistent with the carrying capacity assessment of the non-attainment cities in terms of vehicular pollution, industrial emissions and population density, extent of construction and construction activities etc. Depending upon assessed carrying capacity and source apportionment, the authorities may consider the need for regulating number of vehicles and their parking and plying, population density, extent of construction and construction activities etc. Guidelines may accordingly be framed to regulate vehicles and industries in non-attainment cities in terms of carrying capacity assessment and source apportionment. The matter was last reviewed on 20.11.2019 and further directions were issued for installing sufficient number of air quality monitoring stations, completing carrying capacity study, reviewing Master Plans to give effect to such study, prepare action plans to bring the air pollution and noise pollution within norms, carry out afforestation drive, clear legacy waste dump sites and finalise emergency response systems etc. The matter is still pending further consideration as carrying capacity study reports are awaited. This fact is being mentioned to demonstrate that carrying capacity assessment is crucial for sustainable development which is integral part of right to life guaranteed under the Indian Constitution and any

activity beyond such carrying capacity is not permissible. In the present case, it has already come on record that there is no carrying capacity in the area in terms of air quality to sustain the project in question.

53. The Tribunal has also found that at times EC granted subject to general conditions of compliance of air, water and other environmental norms without effective monitoring mechanism has not been found to be effective mitigation of damage to the environment.¹⁶

High Rise Building

54. We may also consider the grievance against height of the building without considering its impact on the environment especially on account of closeness to the Ridge. We are of view that restrictions on the height of the buildings in such scenarios are inevitable to give effect to the Sustainable Development and Precautionary principles. In an article titled 'The Sustainability of Tall Building Developments: A Conceptual Framework' by Kheir-Al-Kodmany, Department of Urban Planning and Policy, College of Urban Planning and Public Affairs, University of Illinois at Chicago, Chicago, IL 60612, USA, published on 05.01.2018, sustainability of tall buildings on account of potential for fire incidents, adverse impact on micro climate due to

1. ¹⁶ Order dated 22.11.2019 in O.A. No. 837/2018, Sandeep Mittal v. MoEF&CC & Ors.

Para 14. No satisfactory mechanism exists at present, as shown by the above affidavit itself. It is stated that, at present, it takes 4.5 years for monitoring which means that for such long period the non-compliance continues making mockery of law. There has to be speedy monitoring and speedy action, wherever necessary. There has to be a robust plan for the purpose which is the responsibility of the concerned Government Departments. We place on record our disapproval for the present sorry state-of-affairs and expect meaningful improvement.

wind funneling and turbulence around their bases generation of carbon dioxide because of heavy machinery and equipment and waste management has been studied. It may be appropriate to refer to some of the observations:-

“Fire Incidences

Tall buildings are prone to massive losses of lives and valuable properties caused by fire. High-rise buildings present several unique challenges not found in traditional low-rise buildings, including greater difficulties for a firefighter to access a smoldering high-rise building, longer egress times and distances, complex evacuation strategies, and smoke movement and fire control. Typical dangers at a fire incidence involve flame, smoke, heat, toxic gases, flashover, and backdraft explosions. However, the multiple floors of a high-rise building create the cumulative effect of needing greater numbers of firefighters to travel great vertical distances on stairs to evacuate the building.

Environmental Dimension

Further, tall buildings exert an adverse effect on the microclimate due to wind funneling and turbulence around their bases, causing discomfort to pedestrians. They cast a shadow on nearby buildings, streets, parks, and open spaces, and they may obstruct views, reduce access to natural light, and prevent natural ventilation.

Energy and Carbon Emission

Also, tall buildings’ construction requires great energy and generates considerable carbon dioxide because of operating heavy machinery and equipment such as powerful cranes and pumps (e.g., pumping water and concrete to upper floors) and dump trucks. Transporting building materials from far distances (sometimes across the globe) also consumes energy and produces immense carbon dioxide.

Bird Collision

*Bird-glass collisions are an unfortunate side effect of tall building developments throughout the world. Billions of birds perish from collisions with glass yearly, making it the second largest human-made hazard to birds after habitat loss. The U.S. alone is responsible for up to a billion birds yearly. To make matters worse, countless victim birds belong to already declining population species, including Canada Warbler (*Cardellina Canadensis*), Golden-winged Warbler (*Vermivora chrysoptera*), Kentucky Warbler (*Geothlypis Formosa*), Painted Bunting (*Passerina ciris*), Wood Thrush (*Hylocichla mustelina*) and Worm-*

eating Warbler (Helmitheros vermivorum). Clear and reflective glass result in killing birds because birds perceive clear glass as an unobstructed passageway; and consequently, they attempt to fly through. On the other hand, reflective glass reflects the sky, clouds, and nearby vegetation reproducing a perceived habitat familiar and attractive to birds. Since the majority of modern tall buildings are clad in glass, tall buildings become a prime killer. Approximately 98% of flying vertebrates (birds and bats) migrate at heights below 500 m (1640 ft), and today, tallest buildings in the world reach or come close to the upper limits of bird migration paths. Although bird migration happens in fall and spring seasons, their collision into tall buildings occurs year-round [88]. At night, skyscrapers' lights lure birds in search of navigational cues. Birds usually use stars and the moon, and illuminated windows often divert them from their original flight paths. As such, birds can be attracted to artificially lit tall buildings resulting in collisions. This problem manifests on evenings of inclement weather, when the cloud's altitude is low, which forces birds to fly at lower heights. Attracted by the artificial light rays, some birds collide into the buildings' facades.

Waste Management

Tall buildings generate large volumes of waste because they house large population. On average, the disposal rate of an apartment unit is about one ton per year. While this amount of waste is not different from a low-rise residential unit, the method of waste collection in high-rises is more complicated than that in low-rises. One popular disposal method for tall buildings is the chute system, which consists of vertical shafts that transfer waste to a central location bin in a lower level of the building via gravity. Nevertheless, the large amount of waste accumulated on the ground floor poses a challenge to management systems.”

55. We may note that initially the stand of DDA was that Master Plan of Delhi did not allow more than 8 floors. The project proponent filed W.P. (C) No. 3135/2010 before the Delhi High Court where the DDA repeated the said stand as noted in the order of High Court dated 07.03.2011. However, the High Court, considering the argument of the project proponent that project proponent will not able to achieve adequate coverage which was permissible, directed DDA to consider the representation of the project proponent for relaxing the height. Thereafter, on 18.05.2011, the DDA made a statement before the High Court that there will be no restrictions on the height of project.

The environmental issues were however not subject matter of consideration in the said proceedings. Even if there is no legal restriction on height by development authority *de hors* environmental consideration, environmental sustainability issues, in this context which are presently the subject matter of these proceedings, cannot be ignored. Assessment of impact of such tall building on the environment has to be independently done which has not been done, rendering the impugned EC vulnerable on that ground.

Location of the Building – Closeness to Northern Ridge

56. As per data furnished by the project proponent, the distance of the project from the Northern Ridge is within 500 meters. Vide order dated 30.11.2011 Delhi High Court in W.P. (C) No. 3339 of 2011, *Ashok Kumar Tanwar v. Union of India*, held that clearance of Ridge Management Board is required for construction in the Ridge area. This view was affirmed by the Hon'ble Supreme Court (2016) 13 SCC 561, *DDA v. Kenneth Builders & Developers Pvt. Ltd.* No doubt, in the present case, the project is said to be 500 meters away from the Ridge and not in the Ridge as such, the impact of development of project of such magnitude close to the Ridge, which is a Reserve Forest of immense importance and also ecological lifeline of Delhi, was required to be considered which has not been done.

57. As already observed, object of requirement for environmental clearance is to ensure that no project adversely affecting environment comes up. Thus, EC can be granted only after ensuring that project will not have adverse impact on environment and not otherwise. This places responsibility on SEIAA and SEAC to conduct meaningful

appraisal of impact of the project on the environment. Mitigation measures can be prescribed where the project is otherwise viable. In the present case, EC has been granted without adequate appraisal. There are conditions for mitigation, including compliance of Water Act and Air Act. However, once there is no carrying capacity in terms of air quality norms, merely laying down of such general conditions is merely a formality and not adequate safeguard.

58. Considering that carrying capacity of the area to sustain such high rise building has not been conducted and that the air and noise levels are already beyond permissible limits, the building is located very close to reserve forest, river Yamuna, premier educational institutions and hospitals and areas with high traffic density, we find it difficult to hold that there is application of mind in granting the EC. We are of the view that sustainability of this project was required to be evaluated by undertaking carrying capacity assessment in terms of:-

- Estimation of total Existing PM load (both PM_{2.5} and PM₁₀).
- Estimation of total Assimilative Capacity w.r.t. PM load (both PM_{2.5} and PM₁₀).
- Estimation of total Supportive Capacity w.r.t. PM load (both PM_{2.5} and PM₁₀).

As already observed above, the SEAC has not examined the above aspects and also Isopleth of predicted ground level concentration of pollutants because of additive effect of such high rise project, in terms of increased traffic load on recipient air has not been predicted which vitiates the impugned EC. We also do not find

Windrose diagram of air pollution on record as apparently no pollution Windrose analysis has been conducted.

59. In view of above, we conclude that the EC granted is without application of mind.

60. **Re: Issue No. (iii) – Whether case is made out for directions by this Tribunal.**

In view of our conclusion that the EC has been granted without proper evaluation and the project cannot be allowed without such proper evaluation about its sustainability or otherwise in the light of available data, a case is made for interference by this Tribunal for having an evaluation done from an independent Committee of experts. As already noted, existing air and noise levels do not permit any further additive load in the area, particularly a high rise building having adverse impacts on environment, including potential for fire incidents, adverse impact on micro climate due to wind funneling and turbulence around their bases, generation of particulate matter because of heavy machinery and equipment and waste management. There will be unmanageable impact on traffic density and adverse impact on the flora and fauna and groundwater regime of nearby pristine Ridge.

As noted earlier, the site in question was originally parking for the Metro Station. Once the site becomes a group housing complex, the parking which was to be at this site will now be on public roads, causing further congestion and consequent pollution. Delhi is already grappling with the problem of parking and it is a matter of common knowledge that most of the public roads have been converted into parking lots on account of ever increasing number of vehicles without

adequate carrying capacity of road infrastructure. Present location is equally affected, if not more, as already discussed.

61. As already mentioned, it is well settled that Sustainable Development and Precautionary Principles are part of right to life.¹⁷ The same are also enforceable under Section 20 of the National Green Tribunal Act, 2010. The polluting activities have to be prevented for clean

¹⁷ (1996) 5 SCC 647

Para 10. The traditional concept that development and ecology are opposed to each other is no longer acceptable. "Sustainable Development" is the answer. In the international sphere, "Sustainable Development" as a concept came to be known for the first time in the Stockholm Declaration of 1972. Thereafter, in 1987 the concept was given a definite shape by the World Commission on Environment and Development in its report called "Our Common Future". The Commission was chaired by the then Prime Minister of Norway, Ms G.H. Brundtland and as such the report is popularly known as "Brundtland Report". In 1991 the World Conservation Union, United Nations Environment Programme and Worldwide Fund for Nature, jointly came out with a document called "Caring for the Earth" which is a strategy for sustainable living. Finally, came the Earth Summit held in June 1992 at Rio which saw the largest gathering of world leaders ever in the history — deliberating and chalking out a blueprint for the survival of the planet. Among the tangible achievements of the Rio Conference was the signing of two conventions, one on biological diversity and another on climate change. These conventions were signed by 153 nations. The delegates also approved by consensus three non-binding documents namely, a Statement on Forestry Principles, a declaration of principles on environmental policy and development initiatives and Agenda 21, a programme of action into the next century in areas like poverty, population and pollution. During the two decades from Stockholm to Rio "Sustainable Development" has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting ecosystems. "Sustainable Development" as defined by the Brundtland Report means "Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs". We have no hesitation in holding that "Sustainable Development" as a balancing concept between ecology and development has been accepted as a part of the customary international law though its salient features have yet to be finalised by the international law jurists.

11. Some of the salient principles of "Sustainable Development", as culled out from Brundtland Report and other international documents, are Inter-Generational Equity, Use and Conservation of Natural Resources, Environmental Protection, the Precautionary Principle, Polluter Pays Principle, Obligation to Assist and Cooperate, Eradication of Poverty and Financial Assistance to the developing countries. We are, however, of the view that "The Precautionary Principle" and "The Polluter Pays Principle" are essential features of "Sustainable Development". The "Precautionary Principle" — in the context of the municipal law — means:

- (i) Environmental measures — by the State Government and the statutory authorities — must anticipate, prevent and attack the causes of environmental degradation.
- (ii) Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- (iii) The "onus of proof" is on the actor or the developer/industrialist to show that his action is environmentally benign.

Para 13 The Precautionary Principle and the Polluter Pays Principle have been accepted as part of the law of the land. Article 21 of the Constitution of India guarantees protection of life and personal liberty. Articles 47, 48-A and 51-A(g) of the Constitution are as under:

"47. *Duty of the State to raise the level of nutrition and the standard of living and to improve public health.*—The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health.

48-A. *Protection and improvement of environment and safeguarding of forests and wildlife.*—The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.

51-A. (g) to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures."

Apart from the constitutional mandate to protect and improve the environment there are plenty of post-independence legislations on the subject but more relevant enactments for our purpose are: the Water (Prevention and Control of Pollution) Act, 1974 (the Water Act), the Air (Prevention and Control of Pollution) Act, 1981 (the Air Act) and the Environment (Protection) Act, 1986 (the Environment Act). The Water Act provides for the constitution of the Central Pollution Control Board by the Central Government and the constitution of the State Pollution Control Boards by various State Governments in the country. The Boards function under the control of the Governments concerned. The Water Act prohibits the use of streams and wells for disposal of polluting matters. It also provides for restrictions on outlets and discharge of effluents without obtaining consent from the Board. Prosecution and penalties have been provided which include sentence of imprisonment. The Air Act provides that the Central Pollution Control Board and the State Pollution Control Boards constituted under the Water Act shall also perform the powers and functions under the Air Act. The main function of the Boards, under the Air Act, is to improve the quality of the air and to prevent, control and abate air pollution in the country. We shall deal with the Environment Act in the latter part of this judgment.

environment, particularly right to breathe fresh air. Citizens of Delhi are already facing threat to their health on account of air, noise and other pollution. No additive load thereto can be permitted by such unviable mega project.

62. While *prima facie* the project does not appear to be viable for the reasons already mentioned, we are of the view that least which ought to be done is to suspend the EC, consequential Consent to Establish and further activities of the project proponent and have an independent evaluation conducted in the interest of environment and public health.

We have already noted the stand taken by the DPCC that SEIAA is not functional and DPCC is only a secretariat for SEIAA without any SEIAA member available. Thus, the evaluation will now have to be done by an independent Committee to ascertain viability of the project having regard to the existing environmental status and realistic impact of the project on the recipient environment, including in terms of the ambient air quality.

The assessment may be made independent of the observations made herein above within two months from today.

The Committee will comprise a senior representative of MOEF&CC; a senior scientist from the Indian Council of Forestry Research and Education, Dehradun; a scientist/engineer from the Central Ground Water Board, New Delhi; a senior scientist/engineer from the Central Pollution Control Board; a representative of National Disaster Management Authority, Govt. of India; representative of School of Planning and Architecture, New Delhi, senior scientists on

each from Wadia Institute of Himalayan Geology, Dehradun, G.B. Pant Institute, Almora and IIT Kanpur. The Nodal Agency for compliance and coordination will be Member Secretary, CPCB. First meeting of the Committee may be held preferably within two weeks from today. The Registry may furnish a copy of complete set of paperbook to the Member Secretary, CPCB forthwith.

Interim order dated 03.02.2020 restraining the project proponent from proceeding with any further activity will continue till the next date.

A copy of this order be sent to Secretary, MOEF&CC; Director General, Indian Council of Forestry Research and Education, Dehradun; the Central Ground Water Board, New Delhi; the Central Pollution Control Board; National Disaster Management Authority, Govt. of India; School of Planning and Architecture, New Delhi, Wadia Institute of Himalayan Geology, Dehradun, G.B. Pant Institute, Almora and IIT Kanpur by e-mail so that their representatives are nominated immediately.

List for further consideration on 09.07.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

Siddhanta Das, EM

February 27, 2020
Appeal No. 112/2018
A

Minutes of the first Meeting of the Independent Committee constituted by Hon'ble NGT in Appeal No. of 112/2018

Hon'ble NGT in case of Appeal No. 112 of 2018 dated 10.02.2020 (University of Delhi Vs. MoEF&CC & Ors.) constituted first Independent Committee for evaluating & ascertaining viability of 'Group Housing Complex' proposed to be built by M/s Young Builders (P) Ltd. The first meeting of the Committee was held in CPCB, Delhi on March 13, 2020. The list of participants is enclosed at **Annexure I** The meeting was chaired by Member Secretary, CPCB

MS, CPCB briefed the members of the major issues related to the Court matter. A brief on the Court matter is enclosed at **Annexure II**.

It was informed that various documents have been submitted by the appellant as the project proponent which need to be examined in detail by the Committee.

The matter was deliberated upon by the Committee members and the following approach was proposed to carry out the assessment:

- a) Copy of documents available with CPCB shall be circulated to the Members. NGT shall be requested to provide the remaining document which shall be circulated to all the members on receipt
- b) The Committee may visit the proposed project site to get first-hand information related to the Court matter on the various issues
- c) The Committee will finalize issues which require detailed assessment along with the methodology/ approach to be adopted for the same.
- d) On the basis the documents and site- visit, the Committee will finalize issues which require detailed assessment along with the methodology/ approach to be adopted for the same

The meeting ended with thanks to the chair.

BRIEF OF COURT MATTER (Appeal No. of 112/2018)

- a) The project is proposed on an area of 20,000 sq.m. with built up area of 1,17,733.81 sq. m. with four towers of 139.6m. height having 410 dwelling units. The total floors proposed are S+G+37 with 31,740.26 sq. m. of basement area.
- b) The EC was earlier granted in 13.08.2012 for built-up area 70265.95 sqm , for 324 units .
- c) An application was submitted for amendment of the EC on 12.02.2018 and Environment Clearance was granted by SEIAA on March 23, 2018.
- d) Delhi University has challenged the EC granted on July 12, 2018 on the ground that essential facts have not been disclosed in the application of the project proponent. SEAC and SEIAA have not applied mind to various facets of impact of the project
- e) The matter was heard in Hon'ble NGT on 08.01.2020. The Tribunal observed that earlier EC granted in 2012 having been declared null and void, there was no adequate data base for granting EC on 23.03.2018. Accordingly, the Tribunal constituted a joint Committee to undertake carrying capacity study of the area with reference to the project in question based on relevant data within two months and directed maintenance of status quo till then
- f) Civil Appeal No. 341/2020 was filed in the Hon'ble Supreme Court by the Project proponent and Hon'ble Supreme Court set aside Order dated 8.1.20 of the Hon'ble NGT and held The NGT shall take note of the counter affidavit and the documents of the appellant and consider the matter on its merits and pass orders in accordance with law .
- g) In view of the above, the independent Committee has been constituted ascertaining viability of the said project. The committee has to submit its report within two months, Meanwhile, as per Interim order dated 03.02.2020 the project proponent has been restrained from carrying out further activity.

The various issues related to the proposed project raised by the appellant include the following:

- i. Status of land use
- ii. Status of land transfer
- iii. Approval from Ridge management Board
- iv. Impact on Air Quality, Noise pollution and Groundwater extraction
- v. Traffic management
- vi. Waste water treatment
- vii. Solid waste management
- viii. Fire safety
- ix. Earthquake resistance

Annexure-II

List of Participants in the Meeting

First meeting of the Committee in the matter of Appeal No. 112/2018 titled as University of Delhi Vs. Ministry of Environment Forest and Climate Change & Ors.

Venue: Conference Hall, 2nd Floor, CPCB, Delhi

Date: 13th March, 2020

Sl. No.	Name & Designation	Organization
1.	Dr. Prashant Gargava, Member Secretary	Central Pollution Control Board, Delhi
2.	Dr. Vinod K. Singh, Scientist 'E'	Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi - 110003
3.	Mr. N. Bala, Scientist 'F'	Indian Council of Forestry Research and Education, P.O. - New Forest, Dehradun - 248 006
4.	Mr. Jyothi Kumar Nalli, Scientist 'D'	Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad - 121001
5.	Dr. Meenakshi Dhote, HOD-LA,	Delhi School of Planning and Architecture 4-Block-B, Indraprastha Estate, New Delhi-
6.	Mr. S. Tarafdar, Scientist 'E'	G. B. Pant Institute, Almora, Kosi-Katarmal, Almora, Uttarakhand 263643
7.	Dr. Mukesh Sharma, Professor	Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, UP - 208016 (Attended through Video Conferencing)
8.	Mr. Rajesh Debroy, Sct 'E'	Central Pollution Control Board
9.	Mrs. Divya Sinha, AD	Central Pollution Control Board

Central Pollution Control Board
Urban Pollution Control Division-I
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

Minutes of Meeting

In the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi &Ors.

Meeting date & time : July 08, 2020 at 3:00 PM onwards through Video Conferencing.

Agenda : In compliance with Hon'ble Supreme Court's Order dated 10.06.2020, to give opportunity of preliminary hearing to M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation before the Committee constituted by the Hon'ble NGT in the matter of Appeal No. 112/2018 titled as University of Delhi Vs. Ministry of Environment Forest and Climate Change & Ors.

Participants : The list of Committee Members and Representatives of M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation attended the meeting is enclosed as Annexure-I.

Member Secretary, CPCB - the Nodal Agency for compliance and coordination in this matter welcomed all the participants. After introduction, Member Secretary, CPCB briefed about Order dated 10.06.2020 issued by Hon'ble Supreme Court and requested M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation to present their views/submissions before the Committee. There were no time restrictions for making presentation to allow adequate opportunity for hearing.

Representatives of M/s Young Builders Private Ltd. made a presentation before the Committee and informed about the project, Permissions/Approvals obtained and measures proposed to be taken during construction and Operational phases (post construction stages) to maintain environmental compliance. They also claimed that, all the necessary permissions have been obtained by them to carry out their Project Work and necessary studies have also been conducted.

Representative of University of Delhi objected to the nomination of Dr. Meenakshi Dhote, School of Planning & Architecture, New Delhi on grounds that she was also a

Member of the State Environmental Assessment Committee, which had granted environmental clearance to the project. It also sought another date in the next week for making their presentation.

Representatives of Delhi Metro Rail Corporation (DMRC) also attended the hearing and presented about history of the title and land-use of the land in question, sale-contract with M/s YBPL. DMRC also stated that it supports M/S YBPL' submissions. It is stated by them that the project is in public interest and its execution has been delayed significantly resulting in project cost has also been increased.

After hearing of M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation, members deliberated and agreed on following:

1. M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation Relevant may be requested to provide relevant papers to all the Members of the Committee. CPCB shall circulate the documents, already receive by it from all the three parties among the Members.
2. Members will send list of documents/papers, additional information, etc. that may be required for deliberations.
3. With regard to continuity of Mrs. Meenakshi Dhote as a member of the Committee, members opined that she is a respectable professional, who has been nominated by Director, School of Planning and Architecture, and not serving as Chairperson or Coordinator. Besides, the Committee also includes other Experts as Members. As such, she may continue. However, CPCB may seek opinion from its legal department on the issue.
4. As requested by Delhi University, another opportunity of hearing / presentation before the Committee will be given to them on 13.07.2020 at 4:00 onwards.
5. Committee Members may visit the proposed project site after completion of hearing and submission of papers by the parties.

Meeting ended with the vote of thanks to the members.

Annexure-I

List of Participants in the Meeting

Meeting in the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi & Ors.

Venue: Through Video Conferencing

Date: July 08, 2020 at 3:00 PM onwards

Sl. No.	Name & Designation	Organization
1.	Dr. Prashant Gargava, Member Secretary	Central Pollution Control Board, Delhi
2.	Dr. Vinod K. Singh, Scientist 'E'	Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi - 110003
3.	Mr. Surinder Kumar Juneja	Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad - 121001
4.	Representative	National Disaster Management Authority, Govt. of India, NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi - 110029
5.	Dr. Meenakshi Dhote, HOD-LA,	Delhi School of Planning and Architecture 4-Block-B, Indraprastha Estate, New Delhi-110002
6.	Mr. Vikram Gupta	Wadia Institute of Himalayan Geology, 33 GMS Road, Dehradun - 248001, India
7.	Mr. S. Tarafdar, Scientist 'E'	G. B. Pant Institute, Almora, Kosi-Katarmal, Almora, Uttarakhand 263643
8.	Dr. Mukesh Sharma, Professor	Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, UP - 208016
9.	Mr. N.K. Gupta, AD & DH-UPC-I	Central Pollution Control Board
10.	Mr. Rejendra Bhola, Mr. Yashpal singh	Young Builders Private Ltd., Regd. Off. 43, Babar Road, Bengali Market, New Delhi - 110001
11.	Mr. Sanjay Upadhyay, Mr. Vipin Tiwary	University of Delhi, 5, Cavalry Lane, University of Delhi, Delhi - 110007
12.	Mr. Tarun Johri, Mr. Sanjay Kute	Delhi Metro Rail Corporation Ltd., Metro Bhawan Fire Brigade Lane, Barakhamba Road, New Delhi - 110001

Central Pollution Control Board
Urban Pollution Control Division-I
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

Minutes of Meeting

In the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi &Ors.

Meeting date & time : July14, 2020 at 4:00 PM onwards through Video Conferencing.

Agenda : In compliance with Hon'ble Supreme Court's Order dated 10.06.2020, to give opportunity of preliminary hearing to 'University of Delhi' before the Committee constituted by the Hon'ble NGT in the matter of Appeal No. 112/2018 titled as University of Delhi Vs. Ministry of Environment Forest and Climate Change & Ors.

Participants : List of Committee Members having attended the meeting is enclosed as Annexure - I.

2nd meeting of the Committee was convened on 14.07.2020 through video conference to give preliminary hearing to the Delhi University.

Member Secretary, CPCB welcomed the participants. It was informed that the representative of Delhi University did not join and had sent communication that with regard to their objection on continuity of Prof Meenakshi Dhote, representative of the School of Planning & Architecture, Delhi, as mentioned in the previous meeting, the University of Delhi has filed an IA (Interlocutory Application) before Hon'ble NGT against nomination & continuation of Prof Meenakshi Dhote.

The matter was discussed by the Committee and following was agreed:

1. The Committee may wait till the outcome of the hearing of IA filed by University of Delhi by the Hon'ble NGT.
2. The matter may be brought to the knowledge of the Director, School of Planning and Architecture, Delhi for his information and necessary action in the matter.

Meeting ended with the vote of thanks to the members.

Annexure-I

List of Participants in the Meeting

Meeting in the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi &Ors.

Venue: Through Video Conferencing

Date: July 14, 2020 at 4:00 PM onwards

Sl. No.	Name & Designation	Organization
1.	Dr. Prashant Gargava, Member Secretary, CPCB, Delhi	Central Pollution Control Board, Delhi
2.	Mr. N. Bala, Scientist 'F'	Indian Council of Forestry Research and Education, P.O. - New Forest, Dehradun-248006
3.	Mr. Surinder Kumar Juneja	Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad - 121001
4.	Dr. Meenakshi Dhote, HOD-LA,	Delhi School of Planning and Architecture 4-Block-B, Indraprastha Estate, New Delhi-110002
5.	Mr. Vikram Gupta	Wadia Institute of Himalayan Geology, 33 GMS Road, Dehradun - 248001, India
6.	Mr. S. Tarafdar, Scientist 'E'	G. B. Pant Institute, Almora, Kosi-Katarmal, Almora, Uttarakhand 263643
7.	Dr. Mukesh Sharma, Professor	Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, UP - 208016

Central Pollution Control Board
Urban Pollution Control Division-I
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

Minutes of Meeting

In the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi & Ors.

Meeting date & time : August 05, 2020 at 4:30 PM onwards through Video Conferencing.

Agenda : In compliance with Hon'ble Supreme Court's Order dated 10.06.2020, to give opportunity of preliminary hearing to 'University of Delhi' before the Committee constituted by the Hon'ble NGT in the matter of Appeal No. 112/2018 titled as University of Delhi Vs. Ministry of Environment Forest and Climate Change & Ors.

Participants : List of Committee Members having attended the meeting is enclosed as Annexure.

3rd meeting of the Committee was convened on 05.08.2020 through video conferencing to give preliminary hearing to the Delhi University and discuss future course of action.

Member Secretary, CPCB welcomed the Members. It was informed to the Committee that a communication, in consultation with the members, was sent to the Delhi University requesting for personal hearing on 5.08.2020, else Committee may proceed, based on the available written submissions, for timely completion of the assignment. Further, Delhi University expressed their inability to attend the meeting and communicated the following:

- i. IA (Interlocutory Application) filed before Hon'ble NGT against nomination & continuation of Prof Meenakshi Dhote has been registered on 17.07.2020. However, it is still not taken up by Hon'ble NGT and awaited.
- ii. Reiterated their objection on continuity of Prof Meenakshi Dhote, representative of the School of Planning & Architecture, Delhi, as already mentioned in the meeting dated 08.07.2020 and communication dated 14.07.2020.

- iii. University of Delhi has requested for postponing of this meeting till the issue is decided by Hon'ble NGT.

The matter was discussed by the Committee and following action points were agreed:

1. Committee shall abide by the Order of the Hon'ble Tribunal on hearing of IA filed by University of Delhi. However, meantime, the Committee may continue its proceedings in the matter for completion of task on-time.
2. Site visit may be held on 17.08.2020 at 11:00 AM onwards by the Members of the Committee staying in Delhi.
3. Area within five km radius of the project site may be considered for examining available data on various environmental parameters, such as air quality, water quality, ground water levels, waste management plans during construction stage and post construction stage, etc., though, as informed by the representative of MoEFCC, impact zone is defined only for the projects covered under A category. The present project fall under B category.
4. Information/ data so far furnished by University of Delhi, Young Builders Private Limited and Delhi Metro Rail Corporation may again be circulated to the members by CPCB. Members will provide inputs regarding issues required to be examined along with requirement of data, documents, etc. to CPCB latest by 11.08.2020.

Meeting ended with the vote of thanks to the members.

List of Participants in the Meeting

Meeting in the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi & Ors.

Venue: Through Video Conferencing

Date: August 05, 2020 at 4:30 PM onwards

Sl. No.	Name & Designation	Organization
1.	Dr. Prashant Gargava, Member Secretary, CPCB, Delhi	Central Pollution Control Board, Delhi
2.	Dr. Vinod K. Singh, Scientist 'E'	Ministry of Environment, Forests & Climate Change
3.	Mr. N. Bala, Scientist 'F'	Indian Council of Forestry Research and Education, Dehradun
4.	Mr. Jyothi Kumar	Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad - 121001
5.	Mr. Javed Iqbal	National Disaster Management Authority ⁰
6.	Dr. Meenakshi Dhote, HOD-LA,	Delhi School of Planning and Architecture
7.	Mr. Vikram Gupta	Wadia Institute of Himalayan Geology, 33 GMS Road, Dehradun - 248001, India
8.	Mr. S. Tarafdar, Scientist 'E'	G. B. Pant Institute, Almora, Kosi-Katarmal, Almora, Uttarakhand 263643
9.	Dr. Mukesh Sharma, Professor	Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, UP - 208016

Central Pollution Control Board
Urban Pollution Control Division-I
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

Minutes of 5th Meeting

Meeting date & time : October 08, 2020 at 5:00 PM onwards.

Mode of the Meeting : Through Video Conferencing

Agenda : In compliance with Hon'ble Supreme Court's Order dated 10.06.2020, to give further opportunity of hearing to M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation before the Committee constituted by the Hon'ble NGT in the matter of Appeal No. 112/2018 titled as University of Delhi Vs. Ministry of Environment Forest and Climate Change & Ors. before submitting final Reports before Hon'ble Tribunal.

Participants : The list of Committee Members and Representatives of Appellant having attended the meeting is enclosed as Annexure.

Background:

With Reference to Hon'ble Supreme Court Order dated 10.06.2020 in the matter of Civil Appeal No. 2485 of 2020 titled as "M/s. Young Builders Private Ltd. Vs University of Delhi & Ors. and Hon'ble NGT's Order of hearing dated 10.02.2020 and uploaded on 27.02.2020 in the matter of Hon'ble NGT Appeal No. 112/2018 titled as University of Delhi Vs. Ministry of Environment Forest and Climate Change & Ors. meeting of the Committee was convened on 08.10.2020 through Video Conferencing to give further opportunity of hearing to M/s Young Builders Private Ltd., University of Delhi and Delhi Metro Rail Corporation before the Committee before submitting final Reports by the Committee before Hon'ble Tribunal.

Record of the Proceedings:

Member Secretary, CPCB welcomed the Members and Representatives of Appellant and Respondents. It was observed that the Representative of University of Delhi has not preferred to attend the hearing. After introduction of representatives, Member Secretary, CPCB briefed about objective of the meeting. The list of documents submitted by the appellant and Respondents to the Committee were presented and displayed in the meeting. Thereafter, M/s Young Builders Private Ltd. and Delhi Metro Rail Corporation were requested to present their views/submissions before the

Committee, if any, and also confirm that the documents / representation made by them are in order.

Representatives of M/s Young Builders Private Ltd. informed about the project and claimed as follows :

- Necessary permissions have been obtained by them to carry out the Project Work.
- Necessary studies have been conducted and measures will be taken during construction and Operational phases (post construction stages) to maintain environmental compliance like air quality and waste management.
- They also requested the Committee for early disposal of the matter.

After their presentation, following queries have been raised by the Committee to the M/s YBPL.

- Site distance from the sensitive and seismic zone.
- Design considerations by the builder to make the project earthquake resistant and whether the design is in line with ISO specifications.
- Duration of the construction phase
- Demand and source of water during construction phase on daily basis or for completion of total project and on which basis supplier had been requested to supply the same amount of water.

The M/s YBPL representative stated that, the most of the information with regard to above queries are available in Form I submitted by them and for remaining they will send the information to the Committee as early as possible.

Representatives of Delhi Metro Rail Corporation (DMRC) also attended the hearing and informed about background of the proposed project and designated use of the land in question, sale-contract with M/s YBPL. It is stated by them that the project is in public interest and its execution has been delayed and requested the Committee for early finalization of its report.

M/s YBPL and M/s DMRC confirmed that the set of documents submitted by them are in order.

After availing the opportunity of hearing, M/s Young Builders Private Ltd. and Delhi Metro Rail Corporation left the meeting. The committee members discussed the matter further and agreed on following:

1. The Committee members shall intimate about requirement of additional data if necessary by 12.10.2020 so that the Appellant and Respondent can be requested accordingly.

2. Members shall forward their views /remarks in the matter especially with regard to their expertise on priority preferably by 16.10.2020 so that the report can be submitted timely.

Meeting ended with the vote of thanks to the members.

Annexure

List of Participants in the Meeting

Meeting in the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi & Ors.

Venue: Through Video Conferencing **Date:** October 08, 2020 at 5:00 PM onwards

Sl. No.	Name & Designation	Organization
1.	Dr. Prashant Gargava, Member Secretary	Central Pollution Control Board, Delhi
2.	Mr. Sahidul Haque, Scientist	Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad - 121001
3.	Dr. Meenakshi Dhote, HOD-LA,	Delhi School of Planning and Architecture 4-Block-B, Indraprastha Estate, New Delhi-110002
4.	Dr. Vikram Gupta	Wadia Institute of Himalayan Geology, 33 GMS Road, Dehradun - 248001, India
5.	Mr. S. Tarafdar, Scientist 'E'	G. B. Pant Institute, Almora, Kosi-Katarmal, Almora, Uttarakhand 263643
6.	Dr. Mukesh Sharma, Professor	Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, UP - 208016
7.	Mr. Satish Bansal, Ms. Tripti Bansal Mr. Balram Chaudhary Mr. Shubhankar	Young Builders Private Ltd., Regd. Off. 43, Babar Road, Bengali Market, New Delhi - 110001
8.	Mr. G. K. Bansal, GM Dr. Singh, Advocate	Delhi Metro Rail Corporation Ltd., Metro Bhawan Fire Brigade Lane, Barakhamba Road, New Delhi - 110001
9.	Mr. N.K. Gupta, AD & DH- UPC-I	Central Pollution Control Board



**Minutes of Sixth Meeting of the Committee Constituted to evaluate viability of group housing project by M/s. Young Builders (P) Ltd., in the matter appeal no. 112/ 2018
December 01, 2020, through Video Conferencing**

Agenda – Finalization of rapid indicative environment assessment report evaluating viability of group housing complex project by M/s Young Builders (P) Ltd. at Cavalry Lane, University of Delhi

Member Secretary, CPCB welcomed the participants and informed that the draft rapid indicative environment assessment report evaluating viability of group housing complex project by M/s Young Builders (P) Ltd. at Cavalry Lane, University of Delhi was circulated for comments and inputs were received from Members of the Committee.

The draft report was presented and after detailed discussion following was agreed,

- The members agreed that the project seems viable as environmental impacts, including impact on traffic congestion and urban infrastructure/services, are minimal/nominal.
- The population per household will be calculated as per census data for Delhi ranging between 4.6 – 4.9 persons per household. An average value of 4.75 persons per household will be considered.
- It was confirmed that Delhi Fire safety approval has been obtained by the project proponent.
- It was opined that project being high rise residential building, the fire safety norms should strictly be followed and proper implementation ensured by project proponents.

It was agreed that following suggestions of the committee will be incorporated in the final report,

- The project proponent must ensure that all necessary approvals have been obtained and are valid.
- Since the project area is part of groundwater discharge zone, it is advised to restrict construction to one underground basement and one stilt parking, instead of the proposed two. The parking plan may accordingly be revised and necessary approvals obtained.
- An undertaking may be submitted that no groundwater will be extracted during the construction phase.
- NOC may be obtained from the District Advisory Committee on Ground Water of Govt. of NCT Delhi before dewatering during construction.
- An inlet digital flow meter shall be installed at DJB freshwater supply line.
- All environmental norms should be strictly adhered to during construction and occupancy phase of the project.

List of Participants in the Meeting

Meeting in the Matter of CIVIL APPEAL NO. 2485 OF 2020 before Hon'ble Supreme Court titled as "M/s. Young Builders Private Ltd. Vs University of Delhi & Ors.

Venue: Through Video Conferencing **Date:** October 08, 2020 at 5:00 PM onwards

Sl. No.	Name & Designation	Organization
1.	Dr. Prashant Gargava, Member Secretary	Central Pollution Control Board, Delhi
2.	Mr. Sahidul Haque, Scientist	Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad - 121001
3.	Dr. Meenakshi Dhote, HOD-LA,	Delhi School of Planning and Architecture 4-Block-B, Indraprastha Estate, New Delhi-110002
4.	Dr. Vikram Gupta	Wadia Institute of Himalayan Geology, 33 GMS Road, Dehradun - 248001, India
5.	Mr. S. Tarafdar, Scientist 'E'	G. B. Pant Institute, Almora, Kosi-Katarmal, Almora, Uttarakhand 263643
6.	Dr. Mukesh Sharma, Professor	Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, UP – 208016
7.	Mr. Satish Bansal, Ms. Tripti Bansal Mr. Balram Chaudhary Mr. Shubhankar	Young Builders Private Ltd., Regd. Off. 43, Babar Road, Bengali Market, New Delhi - 110001
8.	Mr. G. K. Bansal, GM Dr. Singh, Advocate	Delhi Metro Rail Corporation Ltd., Metro Bhawan Fire Brigade Lane, Barakhamba Road, New Delhi – 110001
9.	Mr. N.K. Gupta, AD & DH-UPC- I	Central Pollution Control Board

FORM- A-4
(Chapter 2, Para 2.12.3)

CERTIFICATE OF STRUCTURAL SAFETY

(To be submitted by Structural Engineer and Owner)

The following certificate is to be submitted along with the building plans drawing while submitting the plans for obtaining building permission for building on Plot no. 1,3 Cavalry Lane & 4 Chhatra Marg, Civil Lines, Delhi-7 Scheme Group Housing.

- Certified that the building plans submitted to the authority/ concerned local body shall be designed for safety requirements.
- It is also certified that the structural design shall be based on National Building Code, including safety from natural hazards, based on soil conditions (as per Soil Investigation Report no 860 dated 27-05-2009 prepared by M/s Rao Engineering Enterprises) will be taken into consideration and would be duly incorporated in structural drawings of the building to be constructed.

Signature of Structural Engineer _____
 Name of Structural Engineer **RAJESH KUMAR BÜGGAL**
 Address of Structural Engineer **A-150 YODANA VIHAR DELHI -110092**
 Date 04-07-2017



COUNTER SIGNED BY

Signature of Owner(s) _____
 Name of Owner(s) **Rajesh Kumar Buggal**
 Address of Owner(s) **103/234, Gurgaon**
 Date 04-07-2017





Prof. V.S.RAJU CONSULTANTS
(Geotechnical and Structural)
Gachibowli, Hyderabad – 500 032

Document No. VSRC/RGH/VVMS/YBPL/FR/01

DATED: 17.04.2018

Report on Foundation Recommendations

Project

Residential Group Housing at Vishwavidyalaya
Metro Station, New Delhi

Client

Young Builders Pvt. Ltd., New Delhi

		<i>T. JayaBharathi</i>	<i>C.R. Balaji</i>	<i>V.S. Raju</i>
17.04.18	R0	T. JAYABHARATHI	C.R. BALAJI	V. S. RAJU
DATE	REVISION	PREPARED BY	REVIEWED BY	REVIEWED AND APPROVED BY

The Team:

Prof. V.S.Raju
(Formerly: Director, IIT Delhi &
Professor & Dean, IIT Madras)

Senior Partner:

Mr. C. R. Balaji, B.E Structural Engineering, MASCE, MIEI, MIGS
(Annamalai University)

Junior Associates:

1. Mr. V. Ashok Vardhana Reddy, B.Tech, Civil Engineering
(RGUKT RK VALLEY)
2. Ms. Y. Geetha, B.Tech, Civil Engineering
(RGUKT RK VALLEY)
3. Ms. T. Jayabharathi, B.Tech, Civil Engineering
(RGUKT RK VALLEY)
4. Ms. P. Sireesha, B.Tech, Civil Engineering
(RGUKT RK VALLEY)
5. Mr. N. Suresh, B.Tech, Civil Engineering
(RGUKT RK VALLEY)

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Annexures:

1. Note on Foundation Recommendations by Prof.V.S.Raju Consultants communicated vide email dated 29.03.2018.
2. Initial Soil Investigation report by M/S. Rao Engineering Enterprises, New Delhi.
3. Confirmatory Soil Investigation report by M/S. Ground Engineering Limited, New Delhi.

REPORT ON FOUNDATION RECOMMENDATIONS

Project: Proposed Group Housing at Vishwavidyalaya Metro Station, New Delhi

17.04.2018

1. Preamble:

M/s. Young Builders Private Limited, New Delhi is proposing a project in New Delhi. The proposed project consists of five multi storied high rise towers (Towers A, B, C, D and E) and EWS flats. All the towers including EWS flats have the structural configuration of 2 B + G + 38 upper floors.

M/s. Young Builders Private Limited, New Delhi requested the undersigned to review the soil investigation reports and give optimum recommendations for foundations.

A note on foundation recommendations was communicated vide email dated 29.03.2018. See Annexure 1 for soft copy of the same.

This report gives the foundation recommendations for the proposed towers and EWS flats including safe bearing capacity and settlement calculations.

2. Review of soil investigation report:

Soil investigations for the proposed project were carried out by M/s. Rao Engineering Enterprises, New Delhi. We have reviewed the soil investigation report titled "Soil Investigation work for proposed project "Group Housing project at Vishwavidyalaya metro station", New Delhi". Soft copy of the soil report is given in Annexure 2.

Total 10 boreholes (BH 1 to BH 10) have been carried out. Boreholes BH 1, BH 2, BH 3 and BH 4 have been explored upto a depth of 40 m and BH 5, BH 6, BH 7, BH 8 and BH 9 is upto 30 m and BH 10 is upto 20 m below Existing Ground Level (EGL).

The bore logs are given in Enclosure 1.

The soil strata predominantly consists of silty sand and sandy silt.

The soil investigations were carried out in May 2009. There is a large variation between boreholes in terms of Standard Penetration Test (SPT) N values. In view of this, confirmatory soil investigations were recommended.

3. Confirmatory Soil Investigations:

Confirmatory soil investigations have been carried out by M/s. Ground Engineering Ltd, New Delhi in February 2018. We have reviewed the confirmatory soil investigation report titled "Soil investigation & soil analysis for Group Housing project near Viswavidyalaya Metro Station for Young Builders, New Delhi". Soft copy of the soil report is given in Annexure 3.

Three confirmatory boreholes (NBH 1, NBH 2 and NBH 3) have been carried out. All the three boreholes have been explored upto a depth of 40.45 m below EGL.

The confirmatory bore logs are given in Enclosure 2.

The soil strata predominantly consists of sandy silt and gravelly silt.

4. Ground Water Table (GWT):

GWT was encountered at depths ranging from 7.5 m to 7.7 m below EGL during the initial soil investigations carried out in May 2009. GWT was encountered in the confirmatory boreholes carried out in February 2018 at depths ranging from 8.45 m to 10.2 m below EGL. It is likely that the GWT has gone down during the last 9 years.

5. The Structure and Relevant Boreholes:

The proposed group housing project consists of 5 towers viz., Tower A, B, C, D and E and EWS flats. All towers & EWS flats have the structural configuration of 2B + Ground floor + 38 upper floors.

The relevant boreholes Tower-wise are:

Tower A	-	NBH 1
Tower B	-	BH 1, BH 6 and NBH 2
Tower C	-	BH 3

Tower D	-	BH 7
Tower E	-	BH 4, BH 8 and NBH 3
EWS flats	-	BH 9

A site plan showing location of the towers and boreholes is given in Enclosure 3.

The finished floor level of lowest basement (2nd basement) is 10.05 m. See Enclosure 4 for the section showing the finished floor level.

6. Shear Strength Parameters considered in our Foundation Analysis:

In the initial soil report (M/s. Rao Engineering Enterprises, New Delhi), the reported shear strength parameters are inappropriate. Taking into account all the data presented in the soil report, in particular, the SPT N value and based on our prior experience in similar strata conditions in the National Capital Region (NCR), we have considered the shear strength parameters as given below:

- For silty sand layers, angle of internal friction (ϕ) has been obtained from Figure 1 of IS: 6403 – 1981, based on average corrected SPT N. However, on a conservative side, the value of angle of internal friction is limited to 32° .
- For sandy silt and gravelly silt layers, angle of internal friction (ϕ) considered as 30° , on a conservative side.
- Bulk unit weight of soil (γ) is considered as 18 kN/m^3 as given in the soil report.

7. Foundation Analysis:

The undersigned carried out an independent assessment of the soil investigation results (field and laboratory tests) presented in the reports by M/s. Rao Engineering Enterprises, New Delhi and M/s. Ground Engineering Ltd, New Delhi. The purpose of this assessment is to arrive at an economical foundation system, which fully satisfies the bearing capacity and settlement criteria.

7.1 Methodology adopted for foundation analysis:

Allowable bearing capacity is calculated as per IS: 6403 – 1981.

Allowable bearing capacity is the lowest of:

- (i) Net safe bearing capacity
- (ii) The net soil pressure that can be imposed on the base with settlements not exceeding the permissible value of 75 mm for rafts resting on sandy soils as per IS: 1904 - 1986.

On the other hand, as per IS: 16700 – 2017 (Tall structures code), the maximum vertical settlement may be relaxed to 125 mm in case of raft foundations, subject to maximum angular distortion of raft not exceeding 1 / 500.

7.1.1 Net Safe Bearing Capacity:

The average corrected SPT N value is calculated by considering effective depth from founding level to 1.5 times the width of foundation. If average SPT N corrected is ≤ 10 , Local Shear Failure (LSF) is to be considered. If average SPT N corrected is ≥ 30 , General Shear Failure (GSF) is to be considered. If $10 \leq$ average SPT N corrected ≤ 30 , then linear interpolation between LSF and GSF is to be done.

The ultimate net bearing capacity (UBC) of shallow foundation based on shear criteria is calculated using the formula given in IS: 6403 – 1981.

Ultimate Net Bearing Capacity as per General Shear Failure criteria is given by,

$$Net\ UBC = C N_c S_c d_c i_c + q (N_q - 1) S_q d_q i_q + 0.5 B \gamma N_\gamma S_\gamma d_\gamma i_\gamma W$$

Ultimate Net Bearing Capacity as per Local Shear Failure criteria is given by,

$$Net\ UBC = \frac{2}{3} C N_c^1 S_c d_c i_c + q (N_q^1 - 1) S_q d_q i_q + \frac{1}{2} B \gamma N_\gamma^1 S_\gamma d_\gamma i_\gamma W$$

Where,

C	=	Cohesion, kN/m ²
q	=	Effective overburden pressure, kN/m ²

B	=	Width of the foundation, m
γ	=	Bulk Unit weight of soil, kN/m ³
N_c, N_q and N_γ	=	Bearing capacity factors for general shear failure
N'_c, N'_q and N'_γ	=	Bearing capacity factors for local shear failure
S_c, S_q and S_γ	=	Shape factors
d_c, d_q and d_γ	=	Depth factors
W	=	Water table correction factor

The net safe bearing capacity is determined by dividing the ultimate net bearing capacity with a factor of safety of 2.5.

7.1.2 Net Soil Pressure / Safe Bearing Pressure:

The requirement is that the settlements are to be within the permissible settlements. As per IS: 1904 – 1986, the permissible settlements for rafts resting on sandy soils are 75 mm. However, as per IS: 16700 – 2017 (Tall structures code), the maximum vertical settlement may be relaxed to 125 mm in raft foundations, subject to maximum angular distortion of raft not exceeding 1 / 500.

Settlements are calculated as per “IS: 8009 (Part 1) - 1976 (Reaffirmed 1998) - Code of practice for calculations of settlements of shallow foundations subjected to symmetrical static vertical loads” based on soil profile from boreholes. For the purpose of calculation of settlements, net bearing pressure is considered as the loading from the foundation on the soil.

The increase in pressure due to foundation load at different layers is calculated from Figure 18 of IS: 8009 (Part 1) - 1976, which gives influence factor for uniformly loaded rectangular area (Boussinesq theory).

The settlements are given by the equation:

$$\text{Settlement, } S = (\sigma_z / E_s) \times H$$

$$\sigma_z = \text{Pressure increase at middle of the layer}$$

H = Thickness of the layer

E_s = Soil modulus

σ_z is calculated from the following formulae,

$\sigma_z = 4 \times p \times I_B$

p = Net Bearing Pressure

I_B = Influence factor, a function of L / Z and B / Z
(Fig: 18 of IS: 8009)

L = Length of the foundation / 2

B = Width of the foundation / 2

Z = Depth from the founding level to the middle of each layer.

For settlement calculations, the layers upto 1.5 times the width of raft from base of raft is considered. Boreholes BH 1 to BH 4 have been explored upto 40 m depth. Beyond 40 m depth, it is assumed that the same strata will continue till the zone of influence (1.5 times width of raft). Boreholes BH 5 to BH 9 have been explored upto 30 m depth. Beyond 30 m depth, it is assumed that the same strata will continue till the zone of influence (1.5 times width of raft). Boreholes NBH 1 to NBH 3 have been explored upto 40 m depth. Beyond 40 m depth, it is assumed that the same strata will continue till the zone of influence (1.5 times width of raft).

After calculating the settlements for each layer, depth factor correction (Fig. 12 of IS: 8009 (Part 1) - 1976) and the rigidity factor correction (Ref: Clause 9.5.2 of IS: 8009, (Part 1) - 1976) have been applied for estimating the final settlements.

7.2 Soil Modulus E_s :

For a given loading condition, the soil modulus E_s of the strata will govern the settlements. Based on our extensive experience, we find that soil modulus for cohesionless soils obtained based on correlation between SPT N and E_s given by Schultze and Muhs is more appropriate. This correlation is based on actual settlement observations

of structures and back calculations. Some footing load tests have also confirmed the validity of this correlation.

Schultze and Muhs curve (Enclosure 5) gives the correlation only upto SPT N value of 50.

For SPT N > 50, we have extrapolated and used the following equation:

$$E_s = E_{s \text{ for } N = 50} + \{(N - 50) * 87.5\} \text{ in } t/m^2$$

This is on the conservative side, because as the soil becomes denser i.e. SPT N higher and higher, the soil becomes less and less compressible.

7.3 Sub-grade Modulus:

For settlement calculations, net bearing pressure is to be used, because upto the overburden pressure there will be negligible settlements. By definition, sub-grade modulus is the ratio of average net base pressure to settlement. However, in the structural analysis of the raft, the gross bearing pressure is applied. In view of this, sub-grade modulus is calculated as the ratio of gross bearing pressure to settlement.

8. Foundation Recommendations:

The proposed group housing project consists of 5 towers viz., Tower A, B, C, D and E and EWS flats. All towers & EWS flats have the structural configuration of 2B + Ground floor + 38 upper floors.

Raft foundation is recommended for all the towers and EWS flats.

The finished floor level of lowest basement (2nd basement) is 10.05 m. The thickness of the raft is assumed as 2 m and the actual thickness will be as per structural requirements. The founding level of the raft is considered as 12.05 m below EGL. The average loading intensity per floor is considered as 1.5 t/m² as communicated vide email dated 12.03.2018 from Civtech Consultants, New Delhi (See Enclosure 6).

The raft foundation recommendations is based on the assumptions that the water table will be lowered ahead of the excavation to 1 m below the bottom of excavation i.e., base

of the raft and maintained till enough downward load is mobilized to resist the uplift pressure.

8.1 Tower A:

The foot print area of Tower A is 599 m². The raft size based on an offset with 1 m from the tower foot print is 745 m². Safe bearing capacity and settlements are calculated based on relevant borehole NBH 1.

8.1.1 Safe Bearing Capacity (SBC) of raft from shear failure considerations:

As per procedure given in section 7.1.1 of this report, raft SBC from shear failure considerations works out to about 80 t/m² as against net bearing pressure of 35.8 t/m². This shows that rafts of present size resting on sandy / silty strata generally do not fail in bearing. Hence, the raft settlements control the allowable soil pressure. Typical safe bearing capacity calculations are given in Enclosure 7.

8.1.2 Raft Settlements:

Settlements have been calculated as explained in section 7.1.2 of this report. For the purpose of calculation of settlements, net bearing pressure is considered as the loading from the raft on the soil. An equivalent rectangular raft which has the same area as the proposed raft has been considered for settlement analysis.

The Gross Bearing Pressure (GBP), Net Bearing Pressure (NBP), estimated settlements and sub-grade modulus are given in Table 1 below:

Table 1: GBP, NBP, Settlements and Sub-grade modulus for Tower A

Relevant Borehole	Offset of raft from foot print (m)	Area of raft (m ²)	GBP (t/m ²)	NBP (t/m ²)	Estimated settlement of the raft (mm)	Estimated sub-grade modulus (kg/cm ³)	Recommended sub-grade modulus (kg/cm ³)
NBH 1	1	745	56.1	35.8	71	0.79	1.03 **

** See Para 8.1.3

Note: Gross Bearing Pressure is the total load of the structure at the founding level. Net bearing pressure is GBP less the overburden pressure i.e. the amount of soil excavated.

The estimated settlements are 71 mm, which are within the permissible limits of 125 mm as per IS: 16700 - 2017.

Typical calculations of GBP, NBP and Settlements are given in Enclosure 8.

8.1.3 Sub-grade Modulus for the structural design of the raft:

The estimated sub-grade modulus for the raft is 0.79 kg/cm^3 .

Based on the actual settlement observations carried out on buildings on similar strata conditions in the National Capital Region (NCR), where we were the foundation consultants, the observed settlements are less than the estimated settlements by about 30 %. Hence, recommend increase in estimated subgrade modulus by 30 %.

With this, the recommended sub-grade modulus for the structural design of the raft is 1.03 kg/cm^3 .

However, it is important to ensure that

- The raft stiffness of each tower should be such that the angular distortion of the raft between any two points should not be more than $1/500$. This might mean that the raft thickness and with it, its rigidity should be adequate not only from structural requirements but also to limit the deformations.

8.2 Tower B and Tower C:

The foot print area of Tower B and Tower C is same i.e., 510 m^2 . The raft size based on an offset with 1 m from the tower foot print is 641 m^2 . Safe bearing capacity and settlements are calculated based on relevant boreholes BH 1, BH 6 and NBH 2 for Tower B and BH 3 for Tower C.

8.2.1 Safe Bearing Capacity (SBC) of raft from shear failure considerations:

As per procedure given in section 7.1.1 of this report, raft SBC from shear failure considerations works out to about 80 t/m² for Tower B and 90 t/m² for Tower C as against net bearing pressure of 37.5 t/m². This shows that rafts of present size resting on sandy / silty strata generally do not fail in bearing. Hence, the raft settlements control the allowable soil pressure.

8.2.2 Raft Settlements:

Settlements have been calculated as explained in section 7.1.2 of this report. For the purpose of calculation of settlements, net bearing pressure is considered as the loading from the raft on the soil. An equivalent rectangular raft which has the same area as the proposed raft has been considered for settlement analysis of both the towers B and C.

The Gross Bearing Pressure (GBP), Net Bearing Pressure (NBP), estimated settlements and sub-grade modulus for Tower B are given in Table 2 below:

Table 2: GBP, NBP, Settlements and Sub-grade modulus for Tower B

Relevant Boreholes	Offset of raft from foot print (m)	Area of raft (m ²)	GBP (t/m ²)	NBP (t/m ²)	Estimated settlement of the raft (mm)	Estimated sub-grade modulus (kg/cm ³)	Recommended sub-grade modulus (kg/cm ³)
BH 1	1	641	55.5	37.3	75	0.74	0.96
BH 6				37.4	76	0.73	0.95
NBH 2				35.4	57	0.97	1.26
Average:					69	0.81	1.06^{**}

****** See Para 8.1.3

The estimated average settlements are 69 mm, which are within the permissible limits of 125 mm as per IS: 16700 - 2017.

The estimated average sub-grade modulus for the raft is 0.81 kg/cm^3 . The recommended sub-grade modulus for the structural design of the raft is 1.06 kg/cm^3 .

However, it is important to ensure that

- The raft stiffness of each tower should be such that the angular distortion of the raft between any two points should not be more than $1/500$. This might mean that the raft thickness and with it, its rigidity should be adequate not only from structural requirements but also to limit the deformations.

The Gross Bearing Pressure (GBP), Net Bearing Pressure (NBP), estimated settlements and sub-grade modulus for Tower C are given in Table 3 below:

Table 3: GBP, NBP, Settlements and Sub-grade modulus for Tower C

Relevant Borehole	Offset of raft from foot print (m)	Area of raft (m^2)	GBP (t/m^2)	NBP (t/m^2)	Estimated settlement of the raft (mm)	Estimated sub-grade modulus (kg/cm^3)	Recommended sub-grade modulus (kg/cm^3)
BH 3	1	641	55.5	37.5	80	0.69	0.9^{**}

** See Para 8.1.3

The estimated settlements are 80 mm, which are within the permissible limits of 125 mm as per IS: 16700 - 2017.

The estimated sub-grade modulus for the raft is 0.69 kg/cm^3 . The recommended sub-grade modulus for the structural design of the raft is 0.9 kg/cm^3 .

However, it is important to ensure that

- The raft stiffness of each tower should be such that the angular distortion of the raft between any two points should not be more than $1/500$. This might mean that the raft thickness and with it, its rigidity should be adequate not only from structural requirements but also to limit the deformations.

8.3 Tower D and Tower E:

The foot print area of Tower D and Tower E is same i.e., 784 m². The raft size based on an offset with 1.5 m from the tower foot print is 987 m². Safe bearing capacity and settlements are calculated based on relevant boreholes BH 7 for Tower D and BH 4, BH 8 and NBH 3 for Tower E.

8.3.1 Safe Bearing Capacity (SBC) of raft from shear failure considerations:

As per procedure given in section 7.1.1 of this report, raft SBC from shear failure considerations works out to about 90 t/m² for Tower D and Tower E as against net bearing pressure of 37.4 t/m². This shows that rafts of present size resting on sandy / silty strata generally do not fail in bearing. Hence, the raft settlements control the allowable soil pressure.

8.3.2 Raft Settlements:

Settlements have been calculated as explained in section 7.1.2 of this report. For the purpose of calculation of settlements, net bearing pressure is considered as the loading from the raft on the soil. An equivalent rectangular raft which has the same area as the proposed raft has been considered for settlement analysis of both the towers D and E.

The Gross Bearing Pressure (GBP), Net Bearing Pressure (NBP), estimated settlements and sub-grade modulus for Tower D are given in Table 4 below:

Table 4: GBP, NBP, Settlements and Sub-grade modulus for Tower D

Relevant Borehole	Offset of raft from foot print (m)	Area of raft (m ²)	GBP (t/m ²)	NBP (t/m ²)	Estimated settlement of the raft (mm)	Estimated sub-grade modulus (kg/cm ³)	Recommended sub-grade modulus (kg/cm ³)
BH 7	1.5	987	55.4	37.4	98	0.57	0.74**

** See Para 8.1.3

The estimated settlements are 98 mm, which are within the permissible limits of 125 mm as per IS: 16700 - 2017.

The estimated sub-grade modulus for the raft is 0.57 kg/cm^3 . The recommended sub-grade modulus for the structural design of the raft is 0.74 kg/cm^3 .

However, it is important to ensure that

- The raft stiffness of each tower should be such that the angular distortion of the raft between any two points should not be more than 1/500. This might mean that the raft thickness and with it, its rigidity should be adequate not only from structural requirements but also to limit the deformations.

The Gross Bearing Pressure (GBP), Net Bearing Pressure (NBP), estimated settlements and sub-grade modulus for Tower E are given in Table 5 below:

Table 5: GBP, NBP, Settlements and Sub-grade modulus for Tower E

Relevant Boreholes	Offset of raft from foot print (m)	Area of raft (m^2)	GBP (t/m^2)	NBP (t/m^2)	Estimated settlement of the raft (mm)	Estimated sub-grade modulus (kg/cm^3)	Recommended sub-grade modulus (kg/cm^3)
BH 4	1.5	987	55.4	37.2	99	0.56	0.73
BH 8				37.2	100	0.55	0.72
NBH 3				36.6	81	0.68	0.88
Average:					93	0.59	0.77**

** See Para 8.1.3

The estimated average settlements are 93 mm, which are within the permissible limits of 125 mm as per IS: 16700 - 2017.

The estimated average sub-grade modulus for the raft is 0.59 kg/cm^3 . The recommended sub-grade modulus for the structural design of the raft is 0.77 kg/cm^3 .

However, it is important to ensure that

- The raft stiffness of each tower should be such that the angular distortion of the raft between any two points should not be more than 1/500. This might mean that the raft thickness and with it, its rigidity should be adequate not only from structural requirements but also to limit the deformations.

8.4 EWS Flats:

The foot print area of EWS flats is 663 m². The raft size based on an offset with 1 m from the tower foot print is 796 m². Safe bearing capacity and settlements are calculated based on relevant borehole BH 9.

8.4.1 Safe Bearing Capacity (SBC) of raft from shear failure considerations:

As per procedure given in section 7.1.1 of this report, raft SBC from shear failure considerations works out to about 75 t/m² as against net bearing pressure of 39.8 t/m². This shows that rafts of present size resting on sandy / silty strata generally do not fail in bearing. Hence, the raft settlements control the allowable soil pressure.

8.4.2 Raft Settlements:

Settlements have been calculated as explained in section 7.1.2 of this report. For the purpose of calculation of settlements, net bearing pressure is considered as the loading from the raft on the soil. An equivalent rectangular raft which has the same area as the proposed raft has been considered for settlement analysis.

The Gross Bearing Pressure (GBP), Net Bearing Pressure (NBP), estimated settlements and sub-grade modulus are given in Table 6 below (See next page):

Table 6: GBP, NBP, Settlements and Sub-grade modulus for EWS flats

Relevant Borehole	Offset of raft from foot print (m)	Area of raft (m ²)	GBP (t/m ²)	NBP (t/m ²)	Estimated settlement of the raft (mm)	Estimated sub-grade modulus (kg/cm ³)	Recommended sub-grade modulus (kg/cm ³)
BH 9	1	796	57.9	39.8	85	0.68	0.88**

** See Para 8.1.3

The estimated settlements are 85 mm, which are within the permissible limits of 125 mm as per IS: 16700 - 2017.

The estimated sub-grade modulus for the raft is 0.68 kg/cm³. The recommended sub-grade modulus for the structural design of the raft is 0.88 kg/cm³.

However, it is important to ensure that

- The raft stiffness of each tower should be such that the angular distortion of the raft between any two points should not be more than 1/500. This might mean that the raft thickness and with it, its rigidity should be adequate not only from structural requirements but also to limit the deformations.

9. Foundation Recommendations for Extended Basements:

For extended basement area, isolated footings are recommended. Finished Floor Level (FFL) of the extended basements will be same as the tower basement finished floor level i.e., 10.05 m below EGL. The thickness of isolated footings is assumed as 750 mm. The actual thickness will depend as per structural requirements. The founding level is 10.80 m below EGL (with 750 mm thickness). The boreholes carried out in the extended basements area include BH 2, BH 5 and BH 10.

Safe Bearing Capacity (SBC) calculations have been carried out for the sizes ranging from 2 m x 2 m to 5 m x 5 m and the boreholes-wise summary is given in Table 7 below (See next page):

Table 7: Summary of Safe Bearing Capacities

Borehole Number	Size of isolated footings (m x m)	Safe Bearing Capacity (t/m ²)
BH 2	2 x 2	18
	3 x 3	21
	4 x 4	24
	5 x 5	27
BH 5	2 x 2	7
	3 x 3	10
	4 x 4	12
	5 x 5	14
BH 10	2 x 2	9
	3 x 3	11
	4 x 4	13
	5 x 5	17

SBC for the intermediate sizes can be obtained by linearly interpolating the above values.

Typical safe bearing capacity calculations for isolated footings are given in Enclosure 9.

9.1 Net bearing pressure from super-structure for the extended basements:

Net bearing pressure = Gross bearing pressure - Overburden pressure

Average loading intensity for each Basement = 1.5 t/m²

Loading intensity for 2 basements = 1.5 x 2
= 3 t/m²

Overburden pressure = Founding level x Bulk unit weight of the soil

$$\begin{aligned}
 &= (7.5 \times 1.8) + [(10.8 - 7.5) \times 1] \\
 &= 16.8 \text{ t/m}^2 \\
 \text{Net bearing pressure} &= 3 - 16.8 \\
 &= -13.8 \text{ t/m}^2
 \end{aligned}$$

The estimated net bearing pressure is negative. This means, theoretically there will be no settlements.

The recommended sub-grade modulus for the structural design of the isolated footings is 3 kg/cm³.

10. Lowering of Ground Water Table (GWT) :

The current GWT level is reported at depths ranging from 8.45 m to 10.2 m below EGL. With assumed raft thickness of 2 m, the founding level will be at 12.05 m below EGL. This means that the founding level will be 1.85 m to 3.6 m below water table level.

It is extremely important to lower the water table 1 m below the founding level in advance i.e., before the excavation is done i.e., 13.05 m below EGL and maintained till enough downward load is mobilized to counteract the uplift pressure.

The strata at founding level is predominantly silt and will not give out water easily. This aspect is to be kept in mind by the dewatering contractor.

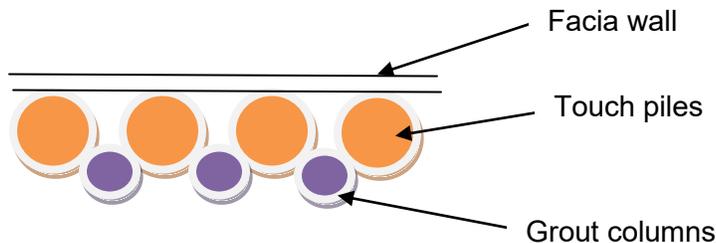
Dewatering scheme has to be designed by a specialist agency on a design execution basis.

11. Shoring for Deep Excavations:

As the final excavation depth is about 12 m below EGL for the towers and about 11 m below EGL for extended basements, the shoring system has to be designed properly.

The following options may be considered:

Option 1: Touch piles with temporary earth anchors and grout columns in the rear and fascia wall on the basement side.



Option 2: Diaphragm wall with temporary earth anchors and the diaphragm wall will serve as the basement wall.

Design of shoring system is a specialist job and done by a specialist agency on a design execution basis.

12. Design of Basement wall:

The basement wall should be designed to resist the lateral earth pressure due to backfill. Based on the value of angle of internal friction of 30 degrees, the coefficient of active earth pressure K_a can be taken as 0.33, coefficient of passive earth pressure K_p as 3 and coefficient of earth pressure at rest K_0 as 0.5.

13. Precautions to be taken during construction of foundations:

- a) The excavation should be done in a controlled fashion, so that the layer below excavation is not disturbed / loosened. Even after lowering the water table, if the excavation surface is found moist and difficult to compact, it is recommended to lay two layers of soling stones (230 mm in thickness in total) on the excavated surface and well compacted with a vibro roller before placing the mud-mat.
- b) The excavation should be done in a controlled fashion, so that the layer below foundation level is not disturbed / loosened.

- c) Flooding of the excavation is not permitted and is to be strictly avoided.
- d) Precautions to be taken to ensure that the rain water does not flow into the excavation, particularly till the mud-mat is placed. This can be achieved by placing a 40 cm earthen bund or 2 layers of sand bags around the excavation at top and draining the surface water away from the excavation.
- e) Proper surface drainage away from the excavation should be provided to prevent surface water entering the excavation.

14. Settlement Observations:

Settlement observations are highly recommended as they will give valuable information on the performance of the foundation system adopted.

The settlement information is also invaluable, as it will significantly contribute to improvements in design procedures, ensuring economy along with safety for your similar projects in future.

The following options could be followed for settlement observations:

- a) Option 1: Settlement plates on the floor. The levelling staff can be placed on the plates and the Reduced Level (RL) of the floor could be measured at regular intervals.
- b) Option 2: 15 cm x 15 cm steel plates with cross lines engraved in them can be fixed to columns in case of framed structures and to walls in case of masonry structures.

For a typical raft, the settlement measurements should be measured in 7 locations. One at the centre, four at the edges and two at the sides as shown in Figure 1 below.

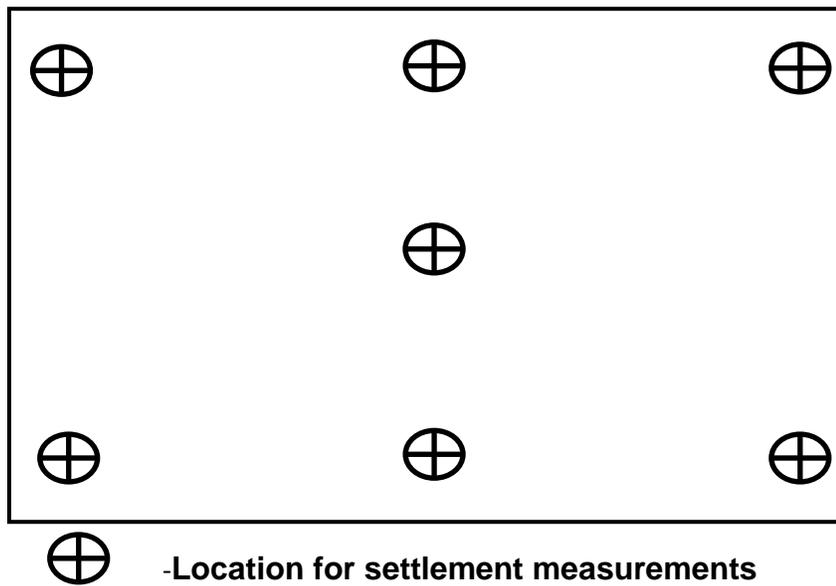


Figure 1: Typical raft showing the locations for settlement observations

15. Recommendations and Conclusions:

- M/s. Young Builders Private Limited is proposing a project in New Delhi. The proposed project consists of five multi storied high rise towers (Towers A, B, C, D and E) and EWS flats.
- All the towers have the structural configuration of 2B + G + 38 upper floors.
- Total 10 boreholes have been carried out by M/s. Rao Engineering Enterprises, New Delhi (Initial Soil Investigations).
- Ground Water Table (GWT) was reported at depths ranging from 7.5 m to 7.7 m below EGL in the initial soil investigations carried out in May 2009.
- Three confirmatory boreholes have been carried out by M/s. Ground Engineering Private Limited, New Delhi.

- GWT was reported at depths ranging from 8.45 m to 10.2 m below EGL in the confirmatory soil investigations carried out in February 2018.
- Raft foundations are recommended for all the towers. The raft foundation recommendations is based on the assumptions that the water table will be lowered ahead of the excavation to 1 m below the bottom of excavation i.e., base of the raft and maintained till enough downward load is mobilized to resist the uplift pressure.
- For Towers A, B, C and EWS flats, raft with 1 m offset from tower foot print is recommended.
- For Towers D and E, raft with 1.5 m offset from tower foot print is recommended.
- Isolated footings are recommended for extended basements. The safe bearing capacities of the isolated footings are ranging from 7 t/m² to 27 t/m² for sizes ranging from 2 m x 2 m to 5 m x 5 m. The recommended sub-grade modulus is 3 kg/cm³.
- It is extremely important to lower the water table 1 m below the founding level in advance i.e., before the excavation is done i.e., 13.05 m below EGL. Dewatering scheme has to be designed by a specialist agency on a design execution basis.
- The final excavation depth is about 12 m below EGL for the towers and about 11 m below EGL for extended basements. The shoring system i.e., trench piles with temporary earth anchors and grout columns in the rear and fascia wall on the basement side or diaphragm wall with temporary earth anchors has to be designed by a specialist agency on a design execution basis.

Prof.V.S.Raju Consultants

- Settlement observations are highly recommended as they will give valuable information on the performance of the foundation system adopted. This will help in optimum design of foundations for your future projects.

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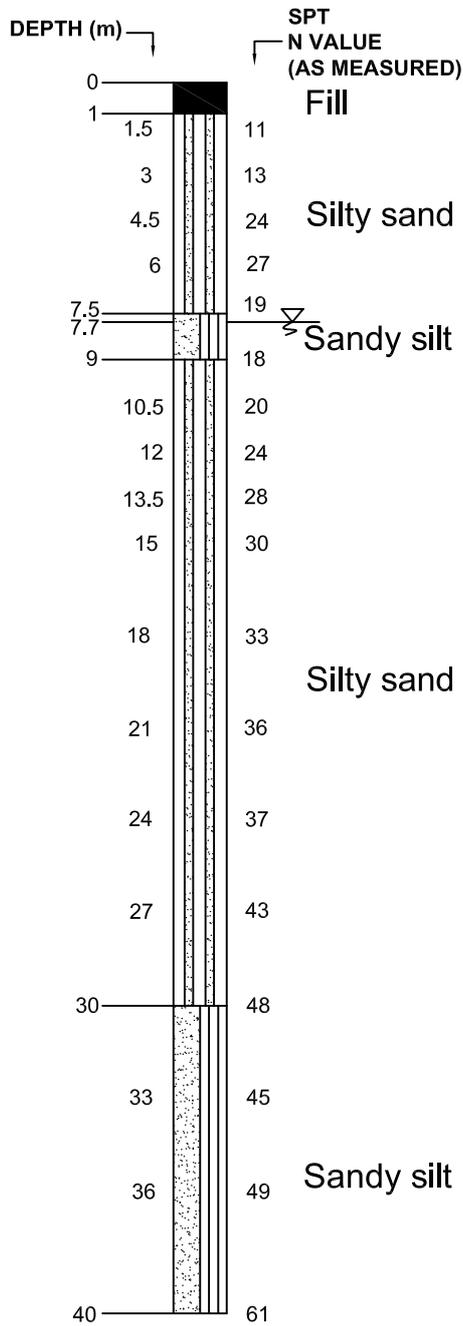
16. References:

- ❖ IS 1904:1986 – Code of practice for design and construction of foundations in soils: General requirements.
- ❖ IS: 6403 - 1981 – Code of practice for determination of bearing capacity of shallow foundations.
- ❖ IS: 8009 - (Part 1), 1976 - Code of practice for calculation of settlements of foundations – Part 1- shallow foundations subjected to symmetrical static vertical loads.
- ❖ Correlation between SPT N value and soil modulus, E_s by Schultze and Muhs – Cohesion-less soils.
- ❖ IS: 16700 – 2017 - Code of practice for “Criteria for structural Safety of Tall Concrete Buildings”.

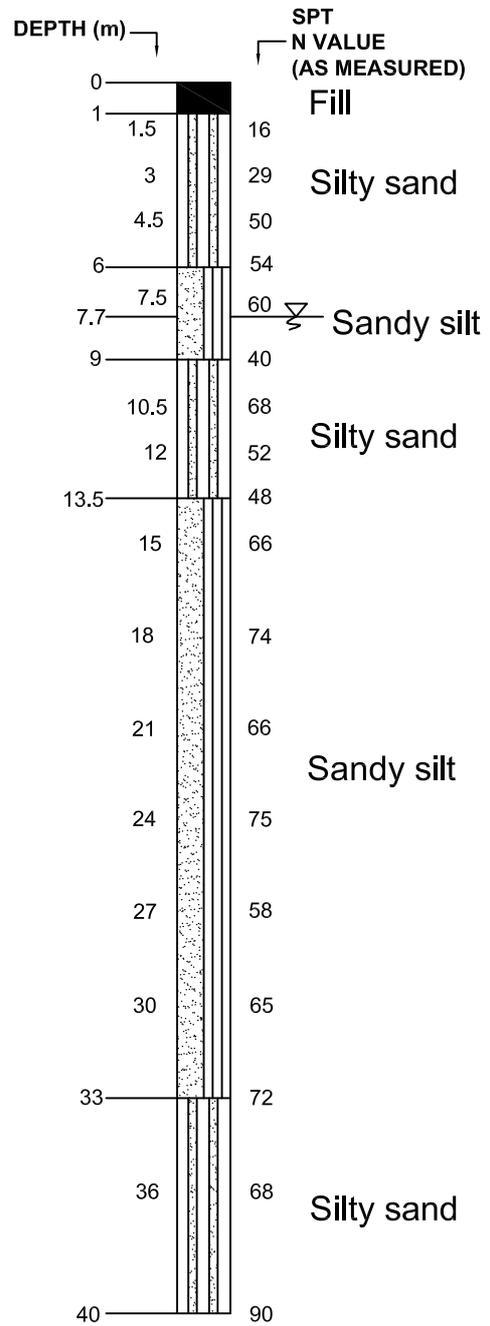
1807

ENCLOSURE 1

BORE LOGS AS PER INITIAL SOIL INVESTIGATIONS



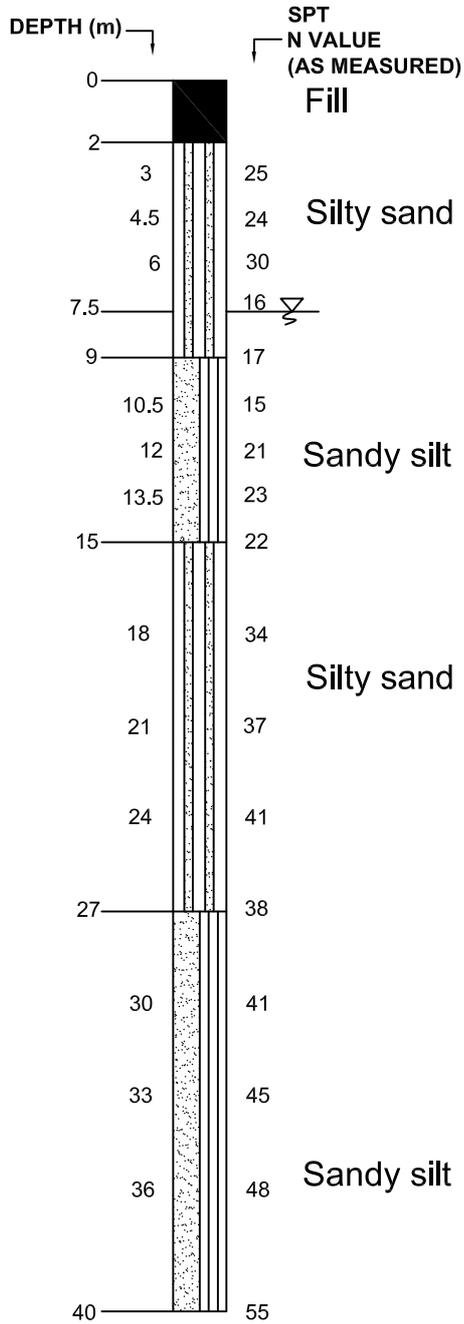
BOREHOLE BH 1



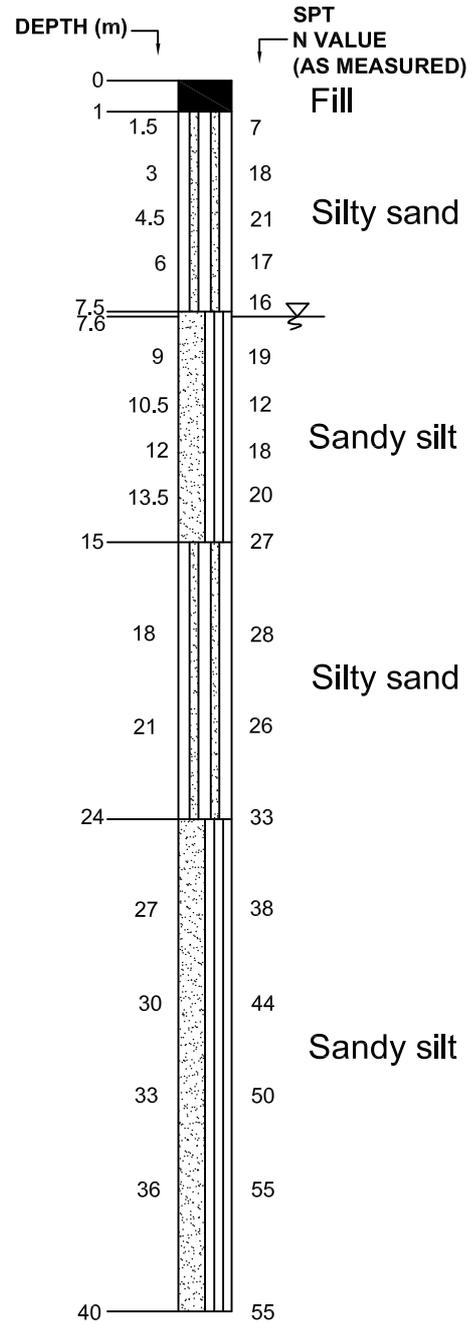
BOREHOLE BH 2



As per soil bore logs by Rao Engineering Enterprises, New Delhi
 (Period of field investigations - May 2009)



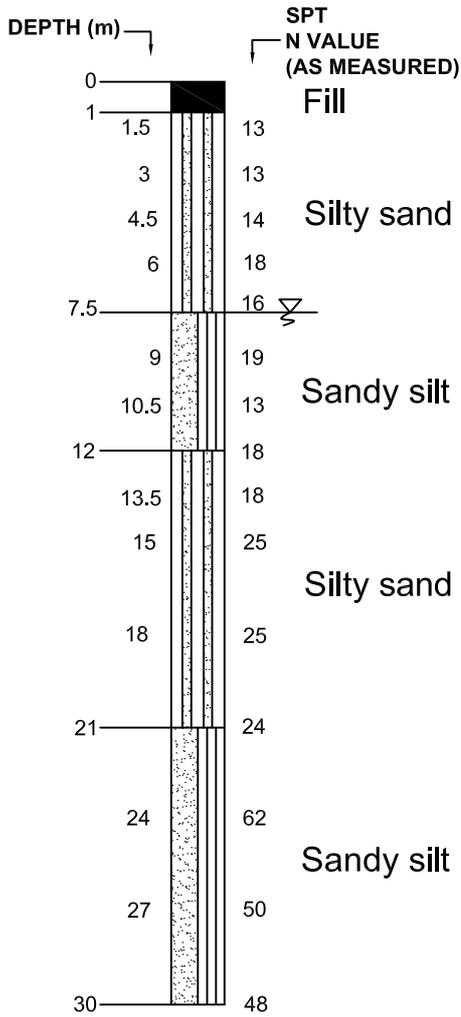
BOREHOLE BH 3



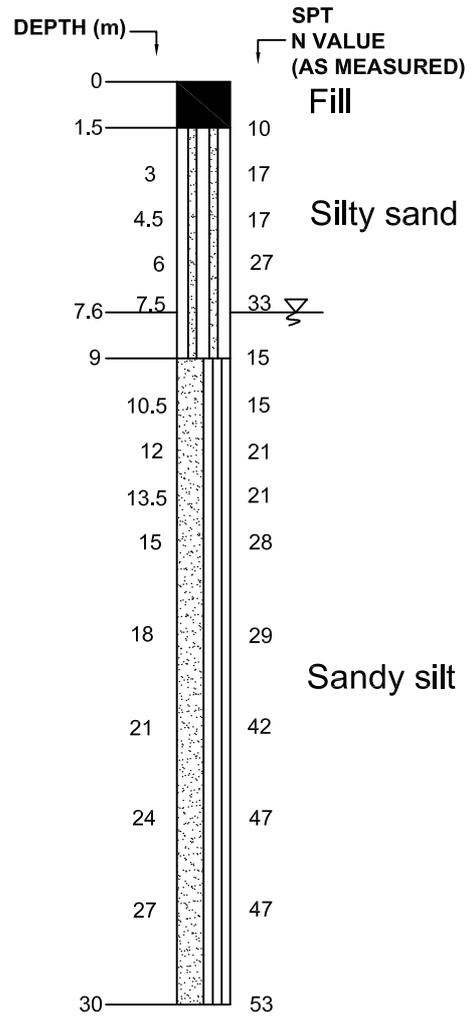
BOREHOLE BH 4



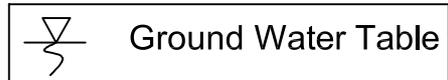
**As per soil bore logs by Rao Engineering Enterprises, New Delhi
(Period of field investigations - May 2009)**



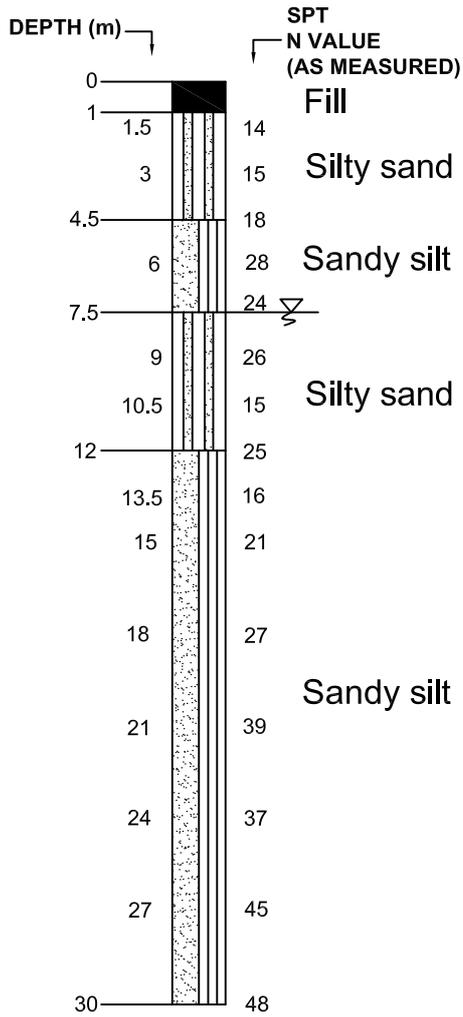
BOREHOLE BH 5



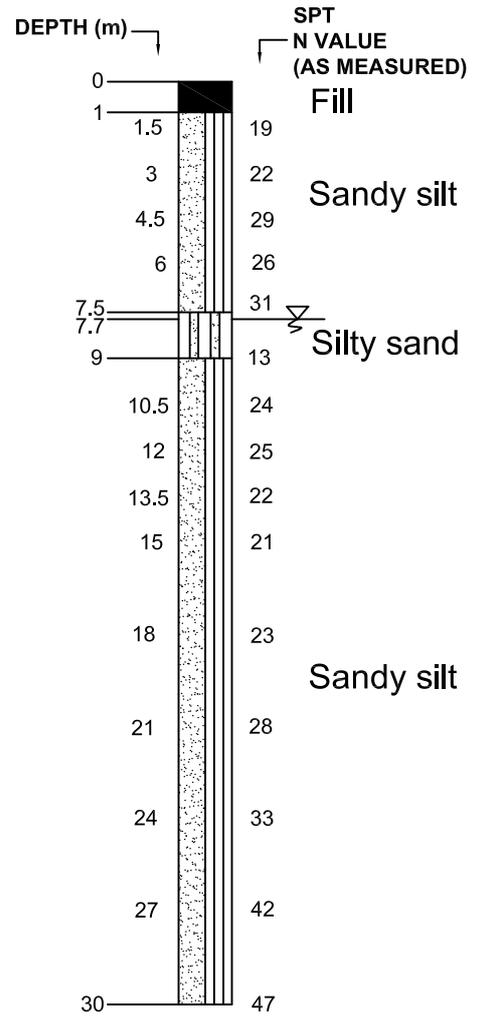
BOREHOLE BH 6



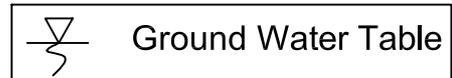
**As per soil bore logs by Rao Engineering Enterprises, New Delhi
(Period of field investigations - May 2009)**



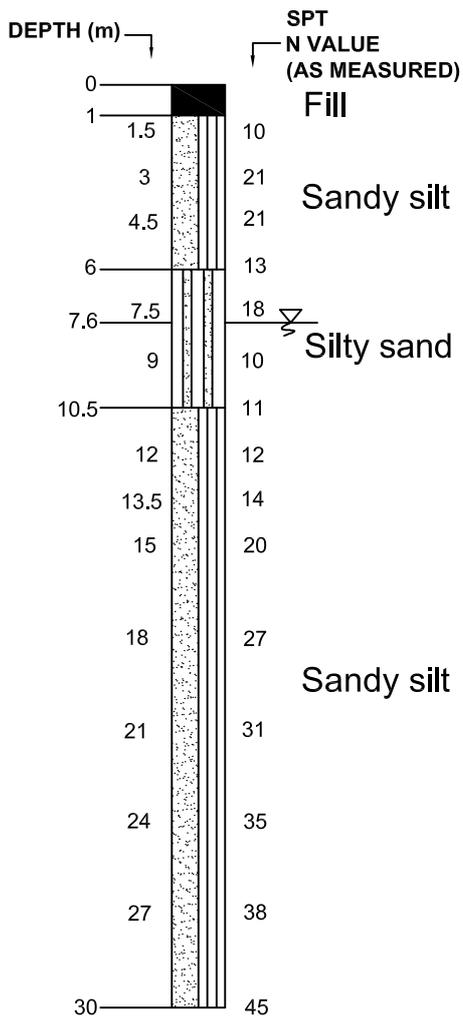
BOREHOLE BH 7



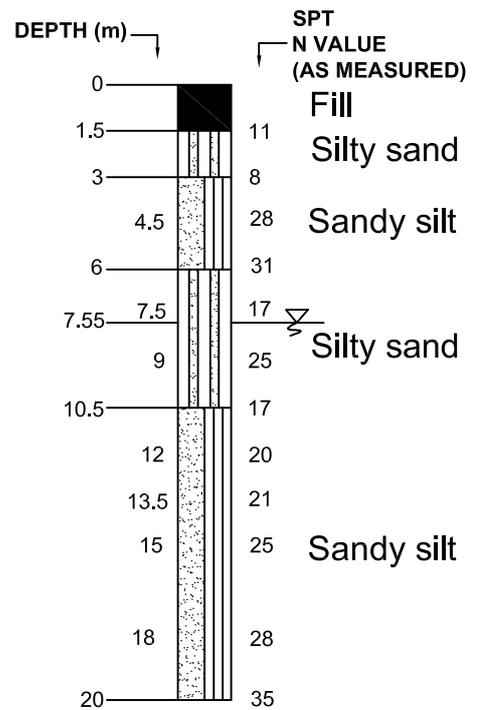
BOREHOLE BH 8



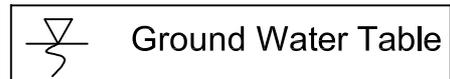
**As per soil bore logs by Rao Engineering Enterprises, New Delhi
(Period of field investigations - May 2009)**



BOREHOLE BH 9



BOREHOLE BH 10

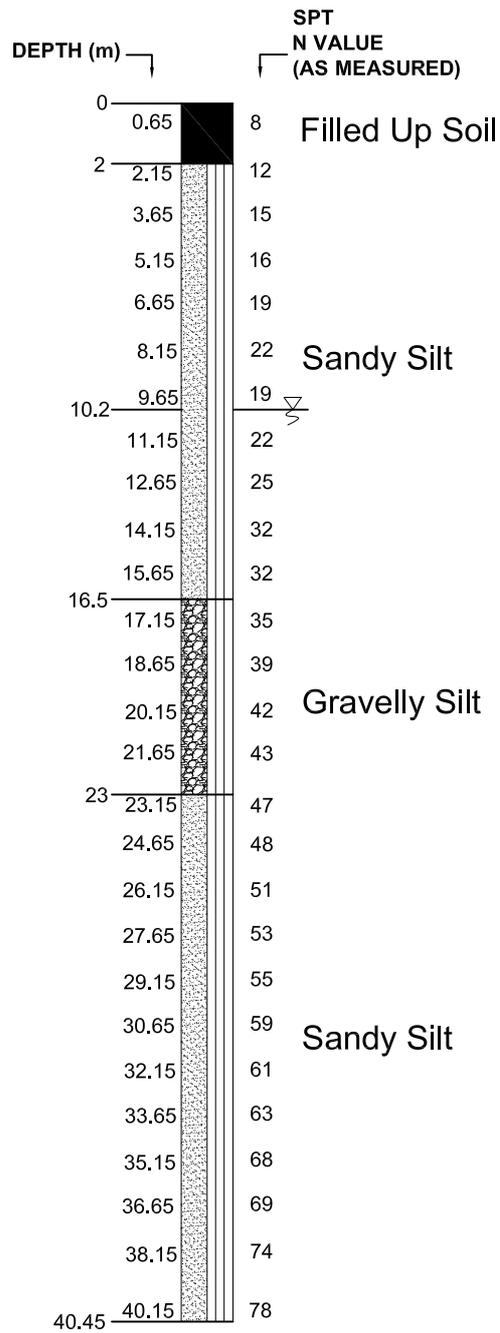


As per soil bore logs by Rao Engineering Enterprises, New Delhi
 (Period of field investigations - May 2009)

1813

ENCLOSURE 2

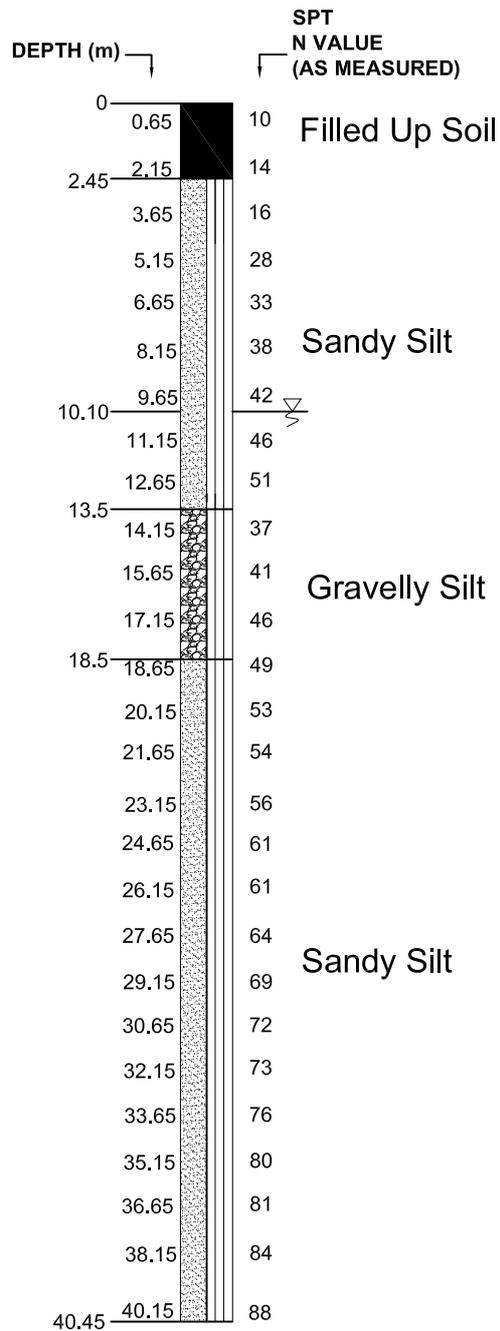
**BORE LOGS AS PER CONFIRMATORY
SOIL INVESTIGATIONS**



CONFIRMATORY BOREHOLE NBH 1

☒ Ground Water Table

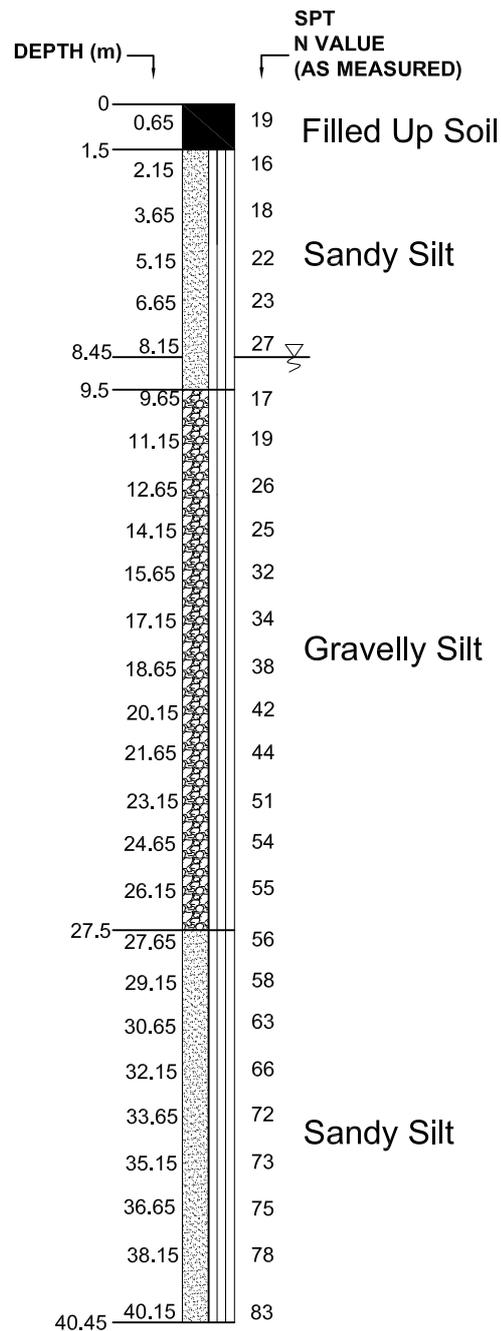
**As per soil bore logs by Ground Engineering Limited, New Delhi
(Period of field investigations : February 2018)**



CONFIRMATORY BOREHOLE NBH 2

☒ Ground Water Table

**As per soil bore logs by Ground Engineering Limited, New Delhi
(Period of field investigations : February 2018)**



CONFIRMATORY BOREHOLE NBH 3

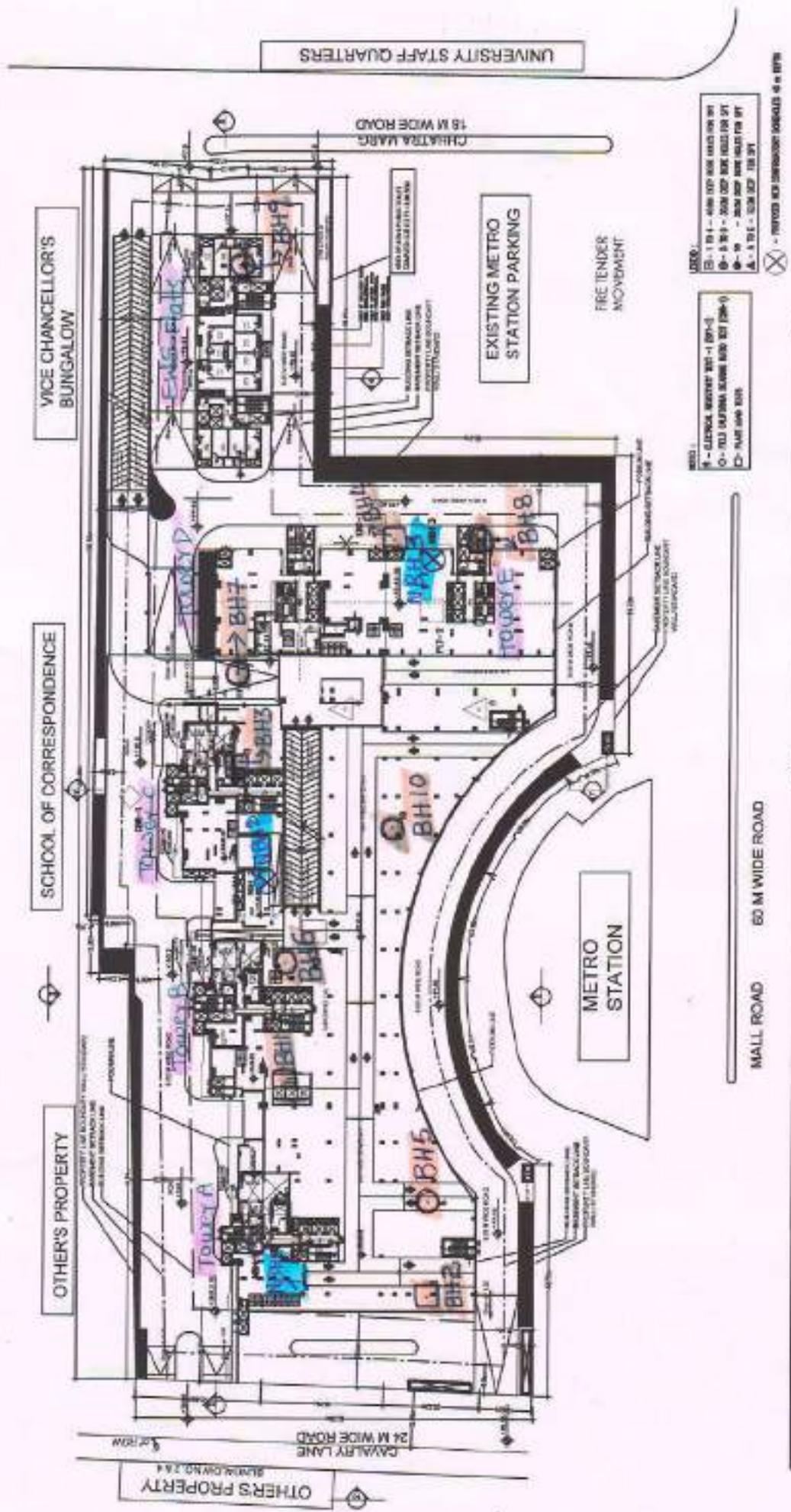
☞ Ground Water Table

**As per soil bore logs by Ground Engineering Limited, New Delhi
(Period of field investigations : February 2018)**

1817

ENCLOSURE 3

**SITE PLAN SHOWING THE LOCATION OF
PROPOSED TOWERS AND BOREHOLES**

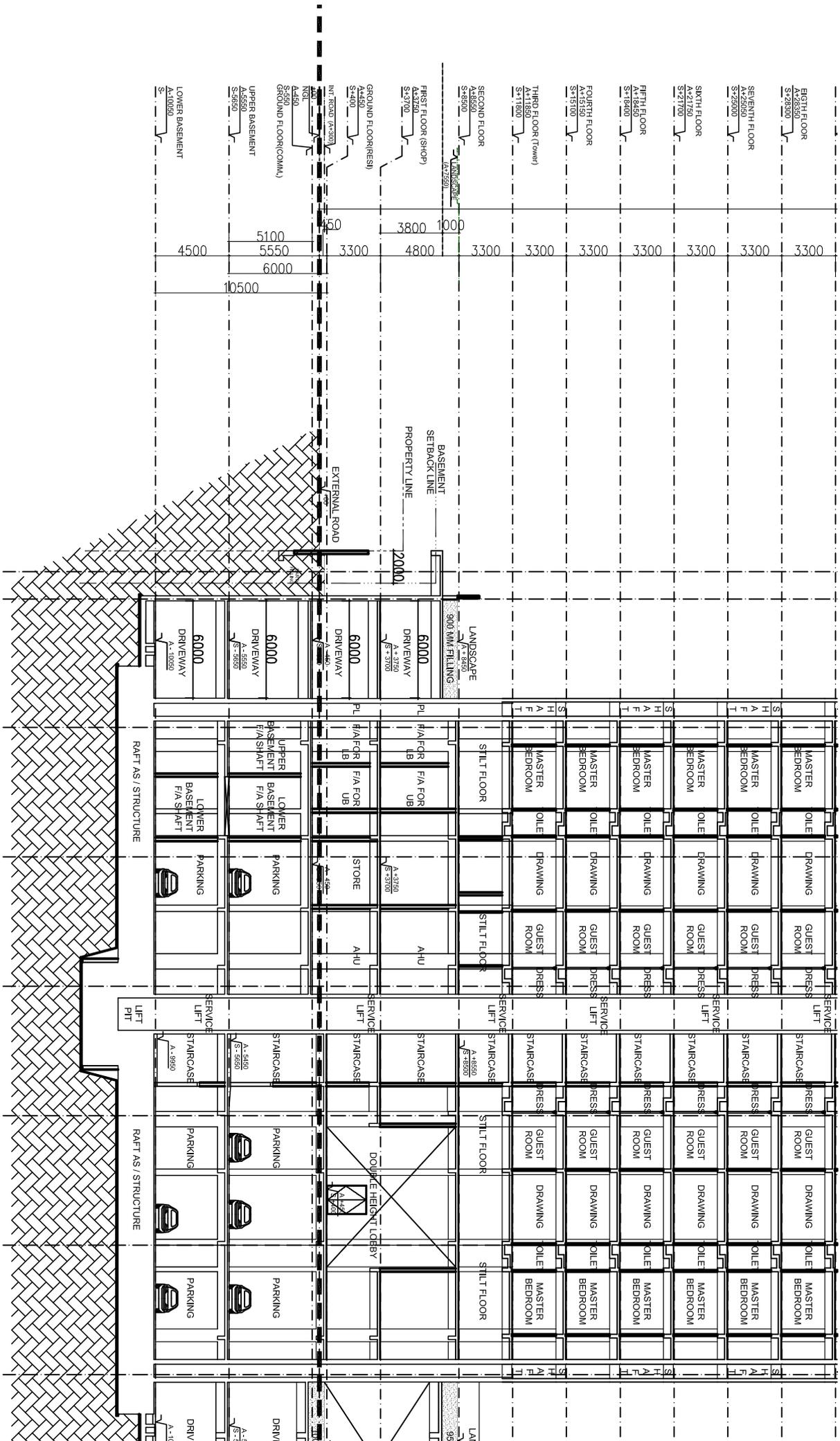


- — Boreholes as per initial soil investigations
- — Boreholes as per confirmatory soil investigations

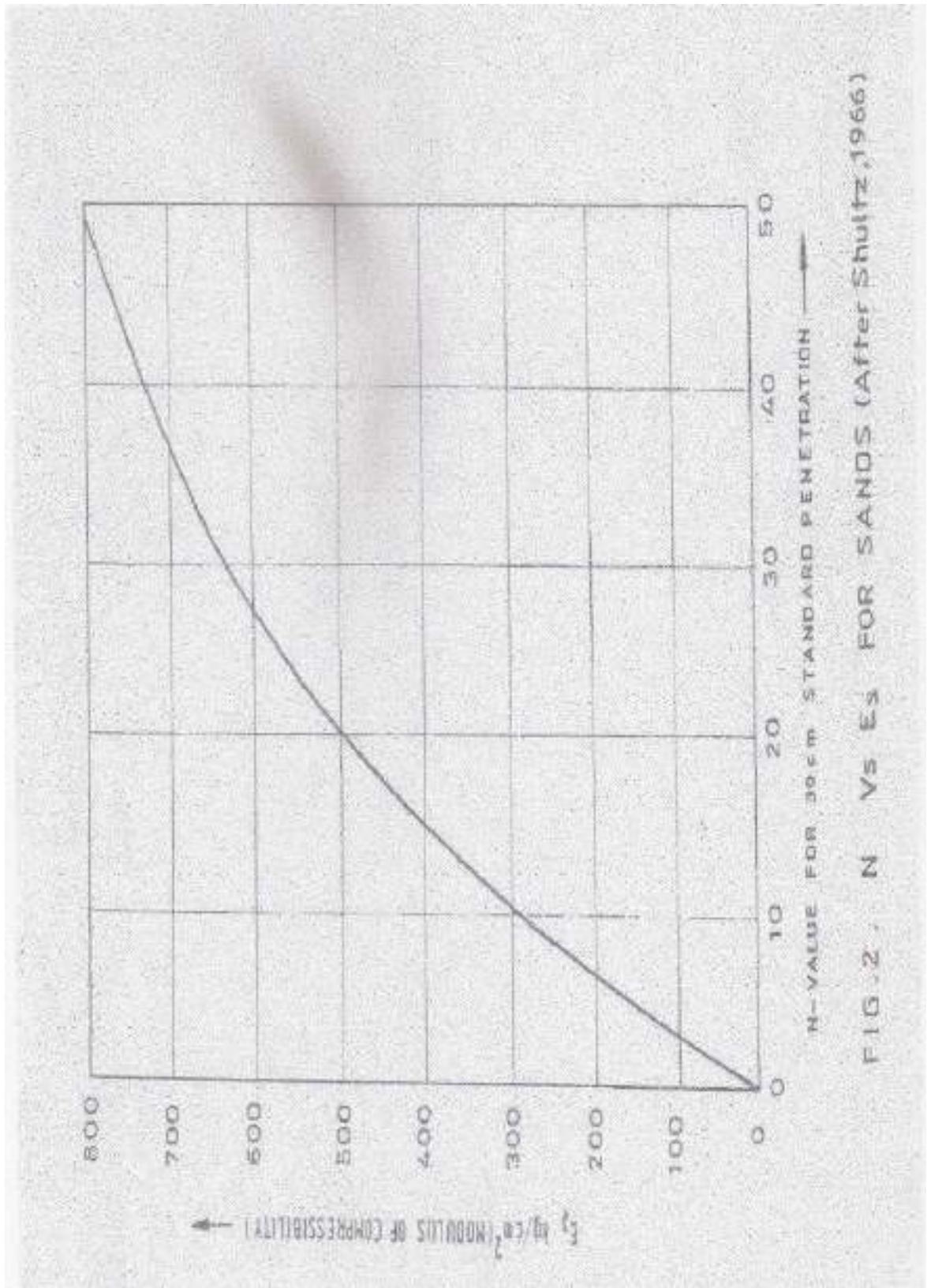
1819

ENCLOSURE 4

**SECTION SHOWING FINISHED FLOOR LEVEL OF THE
LOWEST BASEMENT (2nd BASEMENT)**



**SCHULTZE AND MUHS CORRELATION
BETWEEN SPT N AND SOIL MODULUS (E_s)
FOR COHESION-LESS SOILS**



1823

ENCLOSURE 6

**MAIL DATED 12.03.2018 FROM CIVITECH
CONSULTANTS PRIVATE LIMITED REGARDING
AVERAGE LOADING INTENSITY PER FLOOR**

Fwd: Residential Project at Viswavidyalaya Metro Station - Information Required
Yahoo/Inbox

Rajesh Kumar <rkd@civtech.in>

To: raju vegesna, Rajiv Ranjan

12 Mar at 2:01 PM

----- Forwarded message -----

From: **Saji Antony** <saji@civtech.in>

Date: Mon, Mar 12, 2018 at 1:59 PM

Subject: Re: Residential Project at Viswavidyalaya Metro Station - Information Required

To: rajivranjan@youngbuilders.in, Rajesh Kumar <rkd@civtech.in>

Cc: RK Bholá <rkbhola@civtech.in>

Sir

Please find the drawings attached.

1. For 1 & 4 Ground floor Plan attached with tower foot print marked.
2. for 2 & 3 Section drawing attached.
3. average load intensity per floor is **15KN/SQ M.**

Thanks & regards

Saji

**TYPICAL SAFE BEARING CAPACITY
CALCULATIONS OF RAFT WITH 1 m
OFFSET (TOWER A FOR NBH 1)**

Project: Group Housing at Vishwavidyalaya Metro Station, New Delhi**BEARING CAPACITY BASED ON SHEAR CRITERIA (Based on IS: 6403-1981)****Sub: Safe Bearing capacity for Tower A with 1 m offset and 2 m thick raft as per NBH 1**

Bore Hole	=	NBH 1
Ground water table location (Dw)	=	10.2 m
Unit weight of soil (weighted average) (γ)	=	1.8 t/m ³
Submerged unit weight of soil (γ')	=	1 t/m ³
Average SPT $N_{corrected}$ value	=	51
(Considered upto 1.5 B (as per IS 6403 - 1981))		

Type of Foundation:		Raft Foundation
Founding Level	=	12.05 m
Type of Analysis $N_{corrected} \geq 30$		General Shear Failure
Thickness of Raft (Df)	=	2 m
Length of Raft (L)	=	28.22 m
Width of Raft (B)	=	26.40 m
Angle of internal friction (ϕ)	=	30 deg.
Cohesion (C)	=	0 t/m ²

Bearing capacity factors

N_c	=	30.14
N_q	=	18.40
N_γ	=	22.40

Shape factors

S_c	=	1.19
S_q	=	1.19
S_γ	=	0.63

Depth factors

d_c	=	1.03
d_q	=	1.01
d_γ	=	1.01

Effective overburden pressure (q)	=	2 t/m ²
Factor of safety (FoS)	=	2.5

Ultimate Bearing Capacity (UBC)

$$UBC = C * N_c * S_c * d_c * i_c + q * (N_q - 1) * S_q * d_q * i_q + 0.5 * B * \gamma * N_\gamma * S_\gamma * d_\gamma * i_\gamma * w$$

Where, w = Water table correction factor

$$w = 0.50$$

$$\text{Ultimate Bearing Capacity} = 211 \text{ t/m}^2$$

$$\text{Safe bearing capacity as per General Shear Failure criteria, (SBC) = UBC/FoS} = 84 \text{ t/m}^2$$

Project: Group Housing at Vishwavidyalaya Metro Station, New Delhi

Subject: SPT 'N' Correction for NBH 1

GWT	=	10.2	m	Submerged unit weight (γ')	10	kN/m³
				Bulk Unit weight of soil (γ)	18	kN/m³

Depth (m)	Bulk Unit weight of soil (γ) (kN/m ³)	Over burden pressure P' (kN/m ²)	SPT N	SPT N' (Overburden Correction)	SPT N'' (After dilatancy Correction)
12.05	18	202	22	22	22
12.65	18	208	25	25	25
14.15	18	223	32	32	32
15.65	18	238	32	32	32
17.15	18	253	35	35	35
18.65	18	268	39	39	39
20.15	18	283	42	42	42
21.65	18	298	43	43	43
23.15	18	313	47	47	47
24.65	18	328	48	48	48
26.15	18	343	51	51	51
27.65	18	358	53	53	53
29.15	18	373	55	55	55
30.65	18	388	59	59	59
32.15	18	403	61	61	61
33.65	18	418	63	63	63
35.15	18	433	68	68	68
36.65	18	448	69	69	69
38.15	18	463	74	74	74
40.15	18	483	78	78	78
51.65	18	598	78	78	78

Average SPT N value 51

Note: No correction has been applied as the reported soil is Sandy Silt and Gravelly Silt.

**TYPICAL CALCULATIONS OF GROSS BEARING
PRESSURE, NET BEARING PRESSURE AND
SETTLEMENTS OF RAFT WITH 1 m OFFSET
(TOWER A FOR NBH 1)**

Project: Proposed Group Housing at Vishwavidyalaya Metro Station, New Delhi

Sub:Calculations of Net bearing pressure for Tower A (2B + Ground Floor + 38 Floors):

Borehole Number	=	NBH 1	
Area of foot print of the tower	=	599	m ²
Total area of the raft with 1 m offset from tower footprint	=	745	m ²
Founding Level of the raft	=	12.05	m
Ground water table location (Dw)	=	10.2	m
Unit weight of the soil	=	1.8	t/m ³
Submerged unit weight of soil (γ')	=	1	t/m ³

Loads:

Load due to each basement	=	1.5	t/m ²
Load due to each floor	=	1.5	t/m ²
Load due to water tank	=	2	t/m ²

Total load due to all the floors(G + 34 storeys) per unit area of the tower footprint	= 39 x { (1.5 x 599) } / {599 }
	= 58.5 t/m ²
Total load due to all the floors with 2 basement , roof & water tank (2B + G + 38 storeys)	= 58.5 + 3 + 2
	= 63.5 t/m ²
Load on the raft due to tower	= (Area of foot print of the tower * Load per unit area) /(area of the raft)
	= (599 x 63.5) / 745
	= 51.1 t/m ²
Thickness of the raft	= 2 m
Self weight of the raft	= 2.5 x 2
	= 5 t/m ²
Total Gross bearing pressure at base of the raft	= 56.1 t/m²
Net bearing pressure	= Gross bearing pressure - overburden pressure @ base of footing
Overburden pressure	= 10.2 x 1.8 + 1.9 x 1
	= 20.2 t/m ²
Net bearing pressure	= 56.1 - 20.2
	= 35.8 t/m²
Net bearing pressure on the raft is 35.8 t/m²	

Project: Proposed Group Housing at Vishwavidyalaya Metro Station, New Delhi**Calculation of Settlements of Raft for Tower A based on Boussinesq Equation**

Settlements are calculated as per IS 8009 (Part 1) 1976 for

NBH 1

Soil strata	Depth	Thickness (m)	SPT (N)	Es (t/m ²)	Settlement (mm)
L0	12.05 - 12.65	0.6	22	5300	4.06
L1	12.65 - 14.15	1.5	25	5700	9.43
L2	14.15 - 15.65	1.5	32	6500	8.22
L3	15.65 - 16.5	0.85	32	6500	4.61
L4	16.5 - 18.65	2.15	35	6800	10.87
L5	18.65 - 20.15	1.5	39	7200	6.84
L6	20.15 - 21.65	1.5	42	7400	6.33
L7	21.65 - 23	1.35	43	7500	5.31
L8	23 - 24.65	1.65	47	7800	5.83
L9	24.65 - 26.15	1.5	48	7900	4.84
L10	26.15 - 27.65	1.5	51	8087.5	4.38
L11	27.65 - 29.15	1.5	53	8262.5	3.95
L12	29.15 - 30.65	1.5	55	8437.5	3.56
L13	30.65 - 32.15	1.5	59	8787.5	3.15
L14	32.15 - 33.65	1.5	61	8962.5	2.84
L15	33.65 - 35.15	1.5	63	9137.5	2.57
L16	35.15 - 36.65	1.5	68	9575	2.26
L17	36.65 - 38.15	1.5	69	9662.5	2.07
L18	38.15 - 40.15	2	74	10100	2.41
L19	40.15 - 51.65	11.5	78	10450	9.62

Note: For $N \leq 50$, Es values are obtained from Schultze and Muhs correlation

$$\text{For } N > 50, E_s = E_s @ N = 50 + [(N - 50) * 87.5] \text{ in } t/m^2$$

Foundation Level will be @12.05 m for a raft thickness of 2 m.

Gross bearing pressure @ 12.05 m = 56.1 t/m²Net bearing pressure @ 12.05 m = 35.8 t/m²Raft size based on 1 m offset from tower footprint = 745 m²

For the purpose of settlement calculation, considering an equivalent rectangular raft with same area as

Raft size (2L x 2B) = 28.21 x 26.40 745

L x B = 14.105 x 13.2 m

<u>Layer L0</u>	12.05 - 12.65	0.6	m thickness
$Z_0 =$	0.3	m	
$L/Z_0 =$	47.02	$B/Z_0 =$	44.00
$l_B =$	0.2500	(Referring to Fig - 18 of IS : 8009 (Part 1))	
$\sigma_z =$	35.85	t/m^2	
S0=	4.06	mm	
<u>Layer L1</u>	12.65 - 14.15	1.5	m thickness
$Z_0 =$	1.35	m	
$L/Z_0 =$	10.45	$B/Z_0 =$	9.78
$l_B =$	0.2499	(Referring to Fig - 18 of IS : 8009 (Part 1))	
$\sigma_z =$	35.84	t/m^2	
S1=	9.43	mm	
<u>Layer L2</u>	14.15 - 15.65	1.5	m thickness
$Z_0 =$	2.85	m	
$L/Z_0 =$	4.95	$B/Z_0 =$	4.63
$l_B =$	0.2485	(Referring to Fig - 18 of IS : 8009 (Part 1))	
$\sigma_z =$	35.63	t/m^2	
S2=	8.22	mm	
<u>Layer L3</u>	15.65 - 16.5	0.85	m thickness
$Z_0 =$	4.025	m	
$L/Z_0 =$	3.50	$B/Z_0 =$	3.28
$l_B =$	0.2458	(Referring to Fig - 18 of IS : 8009 (Part 1))	
$\sigma_z =$	35.24	t/m^2	
S3=	4.61	mm	
<u>Layer L4</u>	16.5 - 18.65	2.15	m thickness
$Z_0 =$	5.525	m	
$L/Z_0 =$	2.55	$B/Z_0 =$	2.39
$l_B =$	0.2399	(Referring to Fig - 18 of IS : 8009 (Part 1))	
$\sigma_z =$	34.39	t/m^2	
S4=	10.87	mm	

<u>Layer L5</u>	18.65 - 20.15	1.5	m thickness
$Z_0 =$	7.35	m	
$L/Z_0 =$	1.92	$B/Z_0 =$	1.80
$I_B =$	0.2290	(Referring to Fig - 18 of IS : 8009 (Part 1))	
$\sigma_z =$	32.84	t/m^2	
S5=	6.84	mm	

<u>Layer L6</u>	20.15 - 21.65	1.5	m thickness
$Z_0 =$	8.85	m	
$L/Z_0 =$	1.59	$B/Z_0 =$	1.49
$I_B =$	0.2177	(Referring to Fig - 18b of IS : 8009 (Part 1))	
$\sigma_z =$	31.21	t/m^2	
S6=	6.33	mm	

<u>Layer L7</u>	21.65 - 23	1.35	m thickness
$Z_0 =$	10.275	m	
$L/Z_0 =$	1.37	$B/Z_0 =$	1.28
$I_B =$	0.2056	(Referring to Fig - 18b of IS : 8009 (Part 1))	
$\sigma_z =$	29.48	t/m^2	
S7=	5.31	mm	

<u>Layer L8</u>	23 - 24.65	1.65	m thickness
$Z_0 =$	11.775	m	
$L/Z_0 =$	1.20	$B/Z_0 =$	1.12
$I_B =$	0.1922	(Referring to Fig - 18b of IS : 8009 (Part 1))	
$\sigma_z =$	27.55	t/m^2	
S8=	5.83	mm	

<u>Layer L9</u>	24.65 - 26.15	1.5	m thickness
$Z_0 =$	13.35	m	
$L/Z_0 =$	1.06	$B/Z_0 =$	0.99
$I_B =$	0.1778	(Referring to Fig - 18b of IS : 8009 (Part 1))	
$\sigma_z =$	25.50	t/m^2	
S9=	4.84	mm	

<u>Layer L10</u>	26.15 - 27.65	1.5	m thickness
Z0 =	14.85	m	
L/Z0 =	0.95		B/Z0 = 0.89
IB =	0.1645	(Referring to Fig - 18b of IS : 8009 (Part 1))	
σ_z =	23.59	t/m ²	
S10=	4.38	mm	

<u>Layer L11</u>	27.65 - 29.15	1.5	m thickness
Z0 =	16.35	m	
L/Z0 =	0.86		B/Z0 = 0.81
IB =	0.1518	(Referring to Fig - 18b of IS : 8009 (Part 1))	
σ_z =	21.76	t/m ²	
S11=	3.95	mm	

<u>Layer L12</u>	29.15 - 30.65	1.5	m thickness
Z0 =	17.85	m	
L/Z0 =	0.79		B/Z0 = 0.74
IB =	0.1398	(Referring to Fig - 18b of IS : 8009 (Part 1))	
σ_z =	20.05	t/m ²	
S12=	3.56	mm	

<u>Layer L13</u>	30.65 - 32.15	1.5	m thickness
Z0 =	19.35	m	
L/Z0 =	0.73		B/Z0 = 0.68
IB =	0.1287	(Referring to Fig - 18b of IS : 8009 (Part 1))	
σ_z =	18.46	t/m ²	
S13=	3.15	mm	

<u>Layer L14</u>	32.15 - 33.65	1.5	m thickness
Z0 =	20.85	m	
L/Z0 =	0.68		B/Z0 = 0.63
IB =	0.1185	(Referring to Fig - 18b of IS : 8009 (Part 1))	
σ_z =	16.99	t/m ²	
S14=	2.84	mm	

Layer L15 33.65 - 35.15 1.5 m thickness
 Z0 = 22.35 m
 L/Z0 = 0.63 B/Z0 = 0.59
 IB = 0.1092 (Referring to Fig - 18b of IS : 8009 (Part 1))
 σ_z = 15.65 t/m²
S15= 2.57 mm

Layer L16 35.15 - 36.65 1.5 m thickness
 Z0 = 23.85 m
 L/Z0 = 0.59 B/Z0 = 0.55
 IB = 0.1007 (Referring to Fig - 18b of IS : 8009 (Part 1))
 σ_z = 14.43 t/m²
S16= 2.26 mm

Layer L17 36.65 - 38.15 1.5 m thickness
 Z0 = 25.35 m
 L/Z0 = 0.56 B/Z0 = 0.52
 IB = 0.0930 (Referring to Fig - 18b of IS : 8009 (Part 1))
 σ_z = 13.33 t/m²
S17= 2.07 mm

Layer L18 38.15 - 40.15 2 m thickness
 Z0 = 27.1 m
 L/Z0 = 0.52 B/Z0 = 0.49
 IB = 0.0849 (Referring to Fig - 18b of IS : 8009 (Part 1))
 σ_z = 12.17 t/m²
S18= 2.41 mm

Layer L19 40.15 - 51.65 11.5 m thickness
 Z0 = 33.85 m
 L/Z0 = 0.42 B/Z0 = 0.389955687
 IB = 0.06
 σ_z = 8.74
S19= 9.62 mm

$$\text{Settlement (Sum of S0 to S19)} = 103.15 \text{ mm}$$

Calculation of Correction factors:

$$1. \text{Rigidity factor} = 0.8 \quad (\text{Ref: 9.5.2 of IS: 8009 (Part 1)})$$

2. Depth factor

$$\text{Depth} = 12.05 \text{ m}$$

$$\text{Length} = 28.21 \text{ m}$$

$$\text{Width} = 26.40 \text{ m}$$

$$D / (L \times B)^{0.5} = 0.44$$

$$L / B = 1.07$$

$$\text{Depth factor} = 0.87 \quad (\text{Ref: Fig - 12 of IS:8009 (Part 1)})$$

Applying rigidity factor and depth factor correction

$$\text{Total settlement} = (103.15 \times 0.8 \times 0.87) = 71 \text{ mm}$$

$$\begin{aligned} \text{Subgrade modulus} &= \frac{\text{Gross bearing pressure}}{\text{settlement}} = 7895 \text{ kN/m}^3 \\ &= 0.79 \text{ kg/cm}^3 \end{aligned}$$

1837

ENCLOSURE 9

**TYPICAL SAFE BEARING CAPACITY
CALCULATIONS OF ISOLATED FOOTINGS**

Project: Group Housing at Vishwavidyalaya Metro Station, New Delhi**BEARING CAPACITY BASED ON SHEAR CRITERIA (Based on IS: 6403-1981)****Safe Bearing Capacity of Isolated Footing**

Bore Hole	=	BH 2
Ground water table location (Dw)	=	7.70 m
Unit weight of soil (weighted average) (γ)	=	1.8 t/m ³
Submerged unit weight of soil (γ')	=	1 t/m ³
Average SPT $N_{corrected}$ value	=	49
(Considered upto 1.5 B (as per IS 6403 - 1981))		

Type of Foundation	=	Isolated Footing
Founding Level	=	10.8 m
Type of Analysis $N_{corrected} \geq 30$	=	General Shear Failure

Thickness of Footing (Df)	=	0.75 m
Length of Isolated Footing (L)	=	4 m
Width of Isolated Footing (B)	=	4 m
Angle of internal friction (ϕ) for Silty Sand layers	=	32 deg.
Angle of internal friction (ϕ) for Sandy Silt layers	=	30 deg.
Cohesion (C)	=	0 t/m ²

Bearing capacity factors

N_c	=	33.02
N_q	=	21.08
N_γ	=	27.01

Shape factors

S_c	=	1.3 (From Table 2 IS:6403)
S_q	=	1.2
S_γ	=	0.8

Depth factors

d_c	=	1.07
d_q	=	1.03
d_γ	=	1.03

Effective overburden pressure (q)	=	0.75 t/m ²
Factor of safety (FoS)	=	2.5

Ultimate Bearing Capacity (UBC)

$$UBC = C * N_c * S_c * d_c * i_c + q * (N_q - 1) * S_q * d_q * i_q + 0.5 * B * Y * N_\gamma * S_\gamma * d_\gamma * i_\gamma * w$$

Where, w	=	Water table correction factor
w	=	0.50

$$\text{Ultimate Bearing Capacity} = 59 \text{ t/m}^2$$

$$\text{Safe bearing capacity as per General Shear Failure criteria, (SBC) = UBC/FoS} = 24 \text{ t/m}^2$$

Subject: SPT 'N' Correction for BH 2**Project: Group Housing at Vishwavidyalaya Metro Station, New Delhi**

GWT	7.7	m	Submerged Unit Weight (γ')	10	kN/m^3
			Bulk unit weight of soil (γ)	18	kN/m^3

Depth (m)	Bulk Unit weight of soil (γ) (kN/m^3)	Overburden Pressure P' (kN/m^2)	SPT N	SPT N' (Overburden Correction)	SPT N'' (After dilatancy Correction)
10.8	18	170	68	56	36
12	18	182	52	42	28
13.5	18	197	48	48	48
15	18	212	66	66	66
16.8	18	230	66	66	66

Average corrected SPT N value 49

Note:

1. Correction Factor for Overburden $C_n = 0.77 \cdot \text{LOG}_{10}(2000/P')$

Where , P' is Overburden Pressure in kN/m^2

2. Dilatancy Correction, $N'' = 15 + 0.5 \cdot (N' - 15)$. Where N' is the SPT N corrected for Overburden

Dilatancy correction is to be applied, if the SPT N corrected for overburden is greater than 15 below GWT.

GWT - Ground Water Table.

SOFT COPIES OF:

- 1. NOTE ON FOUNDATION RECOMMENDATIONS BY
PROF.V.S.RAJU CONSULTANTS COMMUNICATED VIDE
EMAIL DATED 29.03.2018.**
- 2. INITIAL SOIL INVESTIGATION REPORT BY
M/S. RAO ENGINEERING ENTERPRISES, NEW DELHI.**
- 3. CONFIRMATORY SOIL INVESTIGATION REPORT BY
M/S. GROUND ENGINEERING LIMITED, NEW DELHI.**

STRUCTURAL ENGINEERING, ARCHITECTURE, PROJECT MANAGEMENT

Date: 10-01-2018

STRUCTURE DESIGN SAFETY

- The Building structure will be designed to strictly comply with all applicable BIS codes (with their latest revisions), especially the following:
 - IS-456:2002 Design of Reinforced Concrete Structures
 - IS-1893:2016 Criteria for earthquake Resistant Design of Structures
 - IS-1670:2017 Criteria for Structural Safety of Tall Concrete Buildings
- Latest softwares will be used for the detailed computer modelling of the buildings such as
 - Etabs
 - SAFE
 - StaadPro
- Delhi is located in Seismic Zone 4 as per IS-1893, and the buildings will be designed to safely resist all loading as applicable to Seismic Zone 4.

ADDITIONAL SAFETY FEATURES FOR HIGH RISE BUILDING

- Wind Tunnel study specific to the building and its surroundings will be conducted to arrive at the actual wind loads.
- The Slenderness Ratio (Height/Base Width) has been kept as 7.5 even though the maximum code permissible figure is 8.
- The maximum Seismic Drift at the roof level is restricted to 0.18% even though the maximum code permissible figure is 0.40%
- The Structure Design of the building will be got approved from IIT Delhi or IIT Roorkee. This is in addition to the design Peer Review being done by Mehro Consultants-Vintech.
- The buildings are designed as Type 1 structure from Fire Safety consideration so that the structure will remain safe and stable for longer duration in the unlikely event of a sustained fire. (Most buildings are generally designed as Type 2 structures, and Fire rating for Type 1 building is double of that for Type 2 building)

FOUNDATION SYSTEM

- The Soil Investigation at the site was carried out in 2009. To be doubly sure of the investigations, the Soil Investigation by a second agency was performed in 2018.
- Thereafter, expert opinion was sought from Prof.V.S.Raju (ex-Director, IIT Delhi) for the most effective and stable foundation system for the buildings, and the same recommended system is diligently adopted for the foundation design.

Structure Design is being done by

Rajendra Kumar Bhola

B.Tech (Civil)	1983	Indian Institute of Technology, Delhi
M.A.Sc (Structures)	1985	University of British Columbia, Vancouver, Canada
Fellow	F-330	Indian Association of Structural Engineers
Member	M-313	Consulting Engineers Association of India



Young Builders Pvt. Ltd.List of Approvals

S.No.	Approval
1	Archaeological Survey of India (ASI) NOC dated 08.05.2009
2	Trees removal/transplant permission dt 25.05.2011 - Department of Forest & Wildlife
3	National Monument Authority of India (NMAI) NOC dated 26.12.2012
4	Electric Sub Station approval from Tata Power Delhi dated 14.08.2013
5	Water Supply approval from Delhi Jal Board (DJB) dated 07.10.2015
6	Storm Water Drainage scheme approval from North DMC dated 24.11.2015
7	Sewerage Scheme Approval from DJB dated 11.01.2016
8	Delhi Urban Arts Commission (DUAC) approval dated 16.08.2017 and Delhi Fire Services (DFS) Clearance dated 08.09.2017
9	Layout Plan Approval 17.11.2017 issued by Standing Committee of North DMC
10	Building Plan Sanction (Form B-1) dated 31.07.2019 issued by North DMC

एच.टी. कोटा
सर्कल-10001

F. No. 12/76/2009-NOC- 1108
Government of India
Archaeological Survey of India
Delhi Circle, Safdarjung Tomb,

New Delhi - 110003
Dated the..... 31.5.09.....

To,

M/s Young Builders (P) Ltd.
43, Babar Road, Bengali Market,
New Delhi-110001

Sub: No objection certificate for reconstruction/ construction/ addition/ alteration at Property No. 1,3 Cavalary Lane and 4 Chhatra Marg, Mall Road, Civil Lines, (Near Vishwavidyalaya Metro Station), Delhi-reg.

Sir

With reference to your letter dated 27.03.2009 on the subject cited above, I have the honour to inform that on verification it has been found that the site of proposed construction i.e. Property No. **1,3 Cavalary Lane and 4 Chhatra Marg, Mall Road, Civil Lines, (Near Vishwavidyalaya Metro Station), Delhi**, where reconstruction/construction/addition /alteration has been proposed falls neither within the prohibited nor regulated area of any centrally protected monument located in the locality under reference.

Yours faithfully


6.5.9
Superintending Archaeologist

No. F. 8(46)/COT/NFD/08-09/300-501
 GOVT. OF NCT OF DELHI
 DEPARTMENT OF FOREST AND WILD LIFE
 OFFICE OF THE DEPUTY CONSERVATOR OF FOREST
 NORTH FOREST DIVISION, KAMLA NEHRU RIDGE,
 DELHI-110007, (Ph:- 011 - 23953561)

Dated: 25th May 2011

To
 ✓ M/s Young Builder Pvt. Ltd.,
 43, Babar Road, Begali Market,
 New Delhi - 110001

Sub: Permission for removal/transplant of 156 nos. of trees (101 nos. of trees felling & 55 nos. of trees transplanting) standing at 1, 3 Cavalry Lane & 4, Chhatra Marg, mall Road, Civil Lines, Near Vishwavidyalaya Metro Station, Delhi - 110007 - reg.

Ref: 1. Your letter no. Nil, dated 03/03/2011 received in this office on 15/03/2011.
 2. This office letter no. F. 8(46)/COT/NFD/08-09/96-97, dated 03/05/2011.
 3. Your letter vide no. Nil, dated 24/05/2011 received on 24/05/2011 along-with Cheque No. 406017, dated 23/05/2011 from Indusland Bank, Barakhamba Road, New Delhi - 01.
 4. Govt. of NCT of Delhi Notification no. 6(46)/COT/NFD/08-09/194-99, dated 25/05/2011.

Kindly refer to the letter under reference for removal/transplant of 156 nos. of trees (101 nos. of trees felling & 55 nos. of trees transplanting) standing at 1, 3 Cavalry Lane & 4, Chhatra Marg, mall Road, Civil Lines, Near Vishwavidyalaya Metro Station, Delhi - 110007. Permission for felling/transplant of above mentioned trees as per the enclosed authenticated list of the said trees is granted subject to the following:-

Conditions:-

1. In lieu of the 156 nos. of trees the applicant shall plant 1560 nos. saplings of 5-6 ft height and of local/indigenous tree species, like Amaltas, Kusum, Neem, Kachnar, Pargal, Jamun, Pilkhan and Shehtot etc. close to the site of existing tree within 9 months time and subsequently maintain the same for 3 years in accordance with Delhi Preservation of Tree Act 1994.
2. Permission to remove/transplant the aforesaid trees is granted at your own risk and any other statutory requirement must be completed prior to the removal of the trees.
3. Felling/transplanting of above mentioned trees is done under the supervision of experienced horticulturist.
4. Felling/transplanting of the said 156 nos. trees shall be completed within 60 days time from the date of the permission.
5. Out of 156 nos. of trees, 55 nos. of trees shall be transplanted to Garhi Mandu City Forests Nursery.
6. Applicant shall be fully responsible for this matter after the felling of the aforesaid trees and for any dispute and judicial implication in the court.
7. The sum of Rs. 43,68,000/- vide Bankers Cheque no. 406017, dated 23/05/2010 from Indusland Bank, Barakhamba Road, New Delhi - 110001 deposited as Security Deposit with refundable/nonrefundable component of Rs. 14,000/- per tree for ensuring compensatory plantation by the applicant viz a viz the Forest Department shall be refunded only after confirmation of the creation of the complete plantation and subsequently on successful maintenance of the raised seedlings properly for three years and its verification. In case of failure to create the plantation or failure to confirm this office about the creation of the 1560 nos. of plantation on or before 9 months time of the issue of this letter or failure to maintain

- the created saplings properly and satisfactorily for 3 years the security amount shall be forfeited and action shall be taken as per DPT/1964.
- F. All the concerned institutions/nearby residents/other owners of the trees (if any) must be intimated in advance of the removal of the aforesaid trees.
- E. Wood so obtained after removal to be sent necessarily to M.C.D public crematoria & Shri Ram Kumar Joshiya, IO of this division is being deputed for the monitoring/tree felling of the above said work. You are requested to intimate this office at least 3 days in advance before starting the felling of the said trees.


 (Nisheet Saxena)
 Dy. Conservator of Forests
 North Forest Division/Tree Officer

Copy to:-

1. Shri Ram Kumar Joshiya, IO for information & necessary action & submit the overall report.


 Dy. Conservator of Forests
 North Forest Division/Tree Officer
 A/W

F. No. 2-9/2012-NOC/NMA
Government of India
Ministry of Culture
National Monument Authority

24, Tilak Marg, New Delhi-110001
Date: 26.12.2012

To,

Young Builders (P) Ltd.
43, Babar Road,
Bengali Market,
New Delhi-110001

Sub: Issue of No Objection Certificate – New Construction for Group Housing

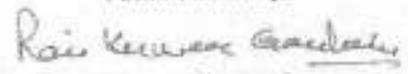
Sir,

Please refer to your letter on the subject cited above.

In this context, I am directed to inform that your property no. 1, 3 Cavalary Lane and 4 Chhatra Marg, Mall Road, Civil Lines, (Near Vishwa Vidyalaya Metro Station) Delhi falls beyond the regulated area of centrally protected monument. Hence, NOC from NMA is not required as per the provisions of 'The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010'.

This issues with the approval of the Member Secretary, National Monuments Authority.

Yours faithfully,


(Ravi Kumar Gautam)
Administrative Officer



TATA POWER-DDL

Date: 14th Aug '13

Ref. No. TPDDL/KCG/404

Young Builders(P) Ltd.
43, Babar Road, Bangali Market,
New Delhi-110001

Ref: Your Letter dated 29th July 2013

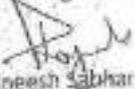
Subject: ESS approval for proposed residential development (Group Housing) at 1, 3 Cavalry Lane & 4
Chhatra Marg, Civil Lines, Delhi-9

Dear Sir,

With reference to your letter on 29th July '13 for approval of the ESS plan of Substation, we would like to inform you that required HT connection on 11 KV voltage level (3' X 3' space for RMU room) may be released, subject to feasibility of load at time application made from your site. Further the substation space as proposed by you in first basement is OK. However the final approval can be made only after site visit.

The same is earmarked in attached layout plan.

Warm Regards


Rajneesh Sabharwal
Client Manager
(Key Consumer Group)

Enclosures:

1. Layout plan of RMU and HT meter room.

TATA POWER DELHI DISTRIBUTION LIMITED

A Joint Venture of Tata Power & Government of Delhi

"CENCARE Building", Opposite C-2 Block, Keshavpuram, New Delhi-110038
Tel: 91-11-66039001 Fax: 91-11-66039256

OFFICE OF THE EXECUTIVE ENGINEER (PL)W-III
 DELHI JAL BOARD, VARUNALAYA PH-I,
 JHANDEWALAN, KAROL BAGH NEW DELHI-5

No. F3027/EE(P)W-III/2015/2315

Date: 07/10/15

Subject: Water Supply Scheme for Group housing at 1,3 Cavalry lane and 4 Chitra Marg Near Vishwavidyalaya Metro Station, Civil line Delhi

The special conditions for approval of above said water supply scheme up to UGR are as under:

1. Total requirement of water for the complex will be restricted to 257029 liters per day. However if water demand is increased subsequently, applicant is legally bound to intimate DJB and pay infrastructure charges thereon.
2. The height of construction i.e. no. of storey's shall be restricted to as per plan.
3. Underground reservoirs of 1,28,500 liters capacity, shall be constructed by the applicant. Their top water levels (TWL's) will be kept below the ground level but top of underground reservoirs should be kept at least 30 cm. above the normal ground level. The UGR shall be modified if already constructed for more capacity.
4. The concerned Executive Engineer(Maintenance) may allow water connection to this complex as per available feasibility. In case, the DJB water is not available, the applicant may be advised to make his own arrangement for supply of water. The required permission from the Advisory Committee under DC(Revenue) or any other agency, if any, for making interim water arrangement shall be taken by the applicant DJB shall not be responsible for the same.
5. Pump of adequate capacity and head shall be provided with 100% standby arrangement so that water may reach up to the desired head. In addition, alternate arrangement of diesel pumps may also be made so that the same can be used at the time of electricity failure.
6. The water supply services including underground reservoir and boosting arrangements shall be maintained by the applicant and will not be taken over by this department.
7. The applicant has deposited an amount of Rs. 77,10,870/- only for average water demand of 257029 lpd towards the cost of infrastructure fund @ Rs.30/- per liter.
8. Approval is subject to the provision of sewerage disposal and storm water arrangements which has to be got approved from SE(P)Dr. of this departments and from MCD respectively.
9. All corrections made on plan and design calculations etc. i.e. approved documents shall be strictly adhered to. No additions and alterations shall be made in the approved documents without prior approval of the planning Cell.
10. Water harvesting through storing of run-off water including rain water in all new building on plots of 100 sqm and above shall be mandatory. The plans submitted to the local bodies shall indicate the system of storm water drainage along with points of collection of water in surface reservoirs or in recharge wells. These provisions shall be applicable as per the Public Notice(s) of Central Ground water Authority issued from time to time.
11. The applicant will have to install recycling waste water plant. The recycled water will be used for non potable use and horticultural purposes.

07/10/15
 EE (PL)W-III
 07/10/15

OFFICE OF THE EXECUTIVE ENGINEER (P) W-III
 DELHI JAL BOARD : GOVT OF NCT OF DELHI
 VARUNALAYA BH-1 KAROL BAGH, NEW DELHI

No. F3(721)N2/EE(P)WIII/15/2315 Dated: 07/10/2015

To M/s Young Builders (P) Ltd
43, Babar Road Bengali Mkt.
New Delhi-01

Subject: - Water supply scheme / Water connection for Group Housing at
1,3 Cavalary lane and 4 Chhatra Marg,
near Vishuavidyalaya Metro Station,
Civil Lines, Delhi -

Water supply scheme for the above area received vide your letter

no..... dated 08/09/2015

Has been scrutinized in this office and is approved subject to the compliance
 of the special and general conditions added with it.

Encl:- 1. One copy of approved plan and conditions.
 2. Original G-8 Receipt no 3166.72 dt. 6/10/15 &
challan no. 927 dt 6/10/15

Executive Engineer (P) W-III

Copy to:-

1. Executive Engineer (N) Zone.

[Signature]
 7/10/15
 Executive Engineer (P) W-III

[Signature]
 07/10/15

NORTH DELHI MUNICIPAL CORPORATION
OFFICE OF THE EXECUTIVE ENGINEER (P)-1
10th FLOOR, CIVIC CENTRE
MINTO ROAD NEW DELHI-110002

No. F.J (3)/2015/EE (P)-1/D-42

Dated:- 24.11.2015

To,

Young Builders P. Ltd.
43, Babar Road, Bangla Market
New Delhi 110001

Subject:- Storm Water Drainage Scheme for Proposed Group housing at I & III
Canopy Lane & 4th Street near Civil Lines (Vishwa Vidyalaya
metro station) Delhi

Ref. No.

Dated 06.10.2015

The SWD scheme of the above referred area has been scrutinized and approved subject to the following terms and conditions.

1. All the G.T.S. levels indicated in the hydraulic chart/plan shall be strictly adhered to.
2. The correctness of levels mentioned in the proposed hydraulic design chart/plans shall be sole responsibility of the developing agency.
3. The FSL of the proposed drain shall be above the FSL of the existing drain/outfall nallah.
4. Adequate number of gully grating chambers as per CPWD specifications shall be provided for easy access of storm water in the proposed drains.
5. Road cutting permission (wherever) required to be obtained from Road Maintaining authority.
6. Proper outfall structure shall be provided at the connection point of the proposed drains with the existing drains/nallah.
7. The developing agency shall take prior written permission from the maintaining authority of the area before making connection into the existing drains/nallah.
8. RCC NP2/NP3/NP4 class pipe ISI marked must be provided as per site loading and bedding conditions. Latest IS. Code 458-1988 for RCC pipe may be followed.
9. Clear earth cushion over the pipe must be 1.0M minimum and where the cushion is less than 1.0M the pipe shall be encased fully with C.C. 1:3:6.
10. Wherever the drain are trapped in the pipe drain silt pit with vertical bars shall be provided at the connection point, so that the floating material do not enter in the pipe drain.
11. Brick masonry chamber/manholes as per CPWD specifications shall be constructed at straight reaches, at junction points of two or more drains and at the change of Dia/Size. The centre to centre distance of chambers/manholes shall be as per CPWD Specification/norms i.e. Max 20 Mtr.

12. The existing drains/nallah into which the connection is proposed shall be made functional before making connection into it.
13. The developing agency shall ensure that in no case the S.W. system is connected with sewerage system.
14. It will be ensured by the developing agency that none of the underground utility services are damaged while executing the work. If any damaged is caused to underground utility work services, it shall be responsibility of the developing agency to rectify the same at their own cost or get it done from the concerned deptt. at their cost.
15. No discharge from any other area is allowed in the scheme.
16. The proposed pipe drains shall be so laid that it is away from building line and enables installations of sewer cleaning machine and other equipments for cleaning/desilting/maintenance operations.
17. No. Drain shall be covered. If it is to be covered then the revise proposal should be submitted to this office for further approval.
18. For any practical problem during execution of work at site, the revised proposal should be submitted to this office for further scrutiny.

All the general conditions attached..... shall be strictly adhered to

EX. ENGINEER (P)-I

M. M. M. M.
ASST. ENGINEER

OFFICE OF THE EXECUTIVE ENGINEER (PLG.) DR
DELHI JAL BOARD, GOVT. OF NCT OF DELHI
VARUNALAYA PH-I KAROL BAGH, NEW DELHI-110005

No.F.3(140)/CLZ/EE(P)Dw/2016/ 983

Dated 11/01/16

The Young Builders Pvt. Ltd.,
43, Bebar Road, Bengali Market,
New Delhi-110001

Subject - Revised sewerage scheme for proposed Group Housing Project at 1, 3 Cavalary lane and
4 Chhatra Marg near Vishwavidyalaya Metro Station, Civil Lines, Delhi.

Ref: - Your application for new sewer connection.

Service plan of the above referred colony has been scrutinized and is approved subject
to the following conditions:-

1. All corrections made on the plan and design calculations shall be strictly adhered to.
2. The reference benchmark shall tally with GTS benchmark.
3. The work shall conform to DJB guidelines.
4. The minimum lateral distance between water supply main and sewer line should be kept 3m & vertical 0.9 m. The water supply main should be kept above the sewer line.
5. No vent shaft should be shown in the plots/private land etc.
6. The general conditions (attached) shall be strictly followed. Special attention is invited to conditions No: 3&4 of general condition of approval.
7. The Owner shall take prior written permission from the SE, sewer maintenance of concerned zone for making connection of its sewerage system with peripheral sewer.
8. No building activity shall be allowed in the area till the peripheral sewerage schemes of the area is submitted by DDA/Developing Agency with suitable disposal arrangement & the same is approved by DJB.
9. Since the laying and commissioning of outfall sewer and provision of sewerage treatment and disposal works are yet to be completed, hence Owner shall have to make necessary interim sewage disposal arrangements such as septic tanks (as per IS code 2470 volume I & II) or oxidation ponds (as per relevant IS code) or mini STP till such time these works are provided by the DDA/ Developing Agency/DJB.
10. The Owner shall have to deposit/have deposited an amount of ₹ 6898494/- with this department towards infrastructure fund for the above sewerage scheme for average discharge i/c SSI of 254557 LPD of sewage @ Rs. 27.10 per litre vide challan no1649 dated 01.01.2016.
11. The Owner shall be responsible for all the levels and feasibility of the proposed connection in the existing sewer/proposed peripheral sewer and they will make the sewer connection at their own cost.
12. The Owner shall be liable to pay the infrastructure fund as and when demanded by the DJB as revised or otherwise.
13. The developing agency shall be responsible for maintenance of the sewerage system after commissioning till it is handed over to DJB.
14. No storm water drain shall be connected into the sewerage system.
15. The drop connection shall be provided at all the points where fall is more than 60 cms.
16. The Owner agency shall treat the hospital/Hotel/workshop sewage up to the domestic level before discharging into the outfall sewer and it should not be objectionable by DPCC Deptt. and by the nearby residents.

Contd P-2

-2-

17. The extruded burnt sewer bricks conforming to IS-4885-1988 shall be used for construction of manholes.
18. For all the Owners the "Water Harvesting through storing of water runoff including rainwater in all new building on plots of 100sq.mtrs and above will be mandatory. The plans submitted to the local bodies shall indicate the system of storm water drainage along with points of collection of the water in surface reservoirs or in recharge wells. These provisions will be applicable as per the public notice (s) of Central Ground Water Authority issued from time to time".
19. All buildings having a minimum discharge of 10,000 liters and above per day shall incorporate waste water-re-cycling system. The recycled water shall be used for horticultural purposes.
20. Below 500 mm dia, DWC HDPE solid wall pipes PE-80 PN-4 pipes marked as HIS shall be used in the sewerage system and all pipes shall conform with IS-14333 duly marked.
21. The HDPE/RCC pipes duly lined with 2-3 mm PVC lining shall be used for sewers of sizes 600 mm dia and above as per relevant IS code.

It is clarified that the building activity should not be released unless, condition no. 1 to 21 are complied with the water system/storm water arrangements and are provided as per approval of the department.

Encl: One set of drawing and design chart along with copy of challan.


Ex. Engineer (Plg.) Dr.

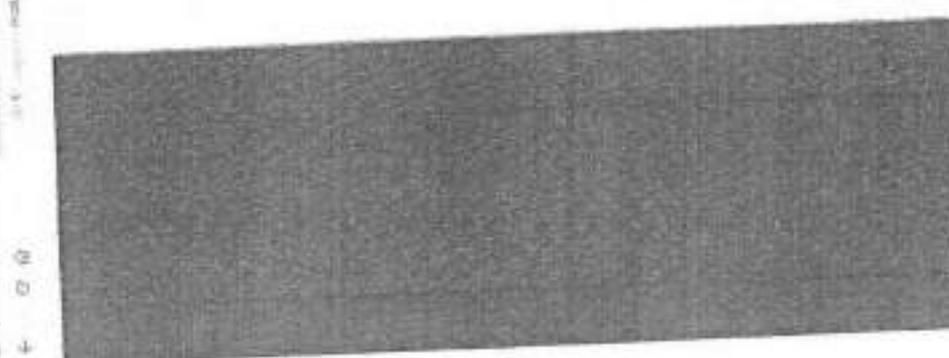
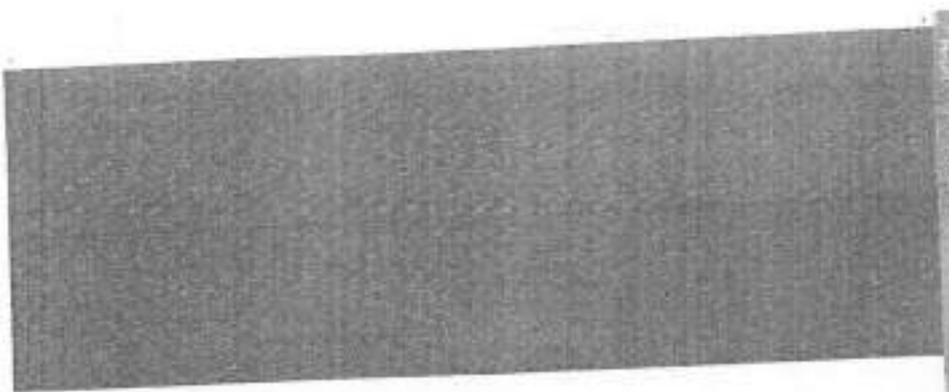
Item	Description	Unit	Quantity	Unit Price	Total Price
1	Office Supplies	Box	1	100.00	100.00
Subtotal					
100.00					
Tax					
10.00					
Total					
110.00					

Item	Description	Unit	Quantity	Unit Price	Total Price
1	Office Supplies	Box	1	100.00	100.00
Subtotal					
100.00					
Tax					
10.00					
Total					
110.00					

Item	Description	Unit	Quantity	Unit Price	Total Price
1	Office Supplies	Box	1	100.00	100.00
Subtotal					
100.00					
Tax					
10.00					
Total					
110.00					

Item	Description	Unit	Quantity	Unit Price	Total Price
1	Office Supplies	Box	1	100.00	100.00
Subtotal					
100.00					
Tax					
10.00					
Total					
110.00					

13	04/20/2007	04/20/2007	14/08/2017
14	04/20/2007	04/20/2007	14/08/2017
15	04/20/2007	04/20/2007	14/08/2017
16	04/20/2007	04/20/2007	14/08/2017
17	04/20/2007	04/20/2007	14/08/2017
18	04/20/2007	04/20/2007	14/08/2017
19	04/20/2007	04/20/2007	14/08/2017
20	04/20/2007	04/20/2007	14/08/2017
21	04/20/2007	04/20/2007	14/08/2017
22	04/20/2007	04/20/2007	14/08/2017



पु. वि. (डी.एच.) लॉक 431-6004-8-8-2010
 दिनांक 11/11/2017 को पूर्व
 उत्तरी दिल्ली नगर निगम की
 सभा
 के प्रस्ताव संख्या 91 की प्रतिलिपि।
 म. संख्या

Item No. 10 :— Revised Layout Plan for Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi.

Commissioner's letter No. F. 33/CTP/NDMC/790/C&C dated 21-6-2017.

The above-mentioned proposal of Revised Layout Plan for Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi has been submitted by Sh. Rajiv Ranjan Sharma, AVP-Projects on behalf of M/s. Young Builders Private Ltd., New Delhi for approval of North DMC U/s 313 of DMC Act, 1957.

I. Previous Approval :

The layout plan of Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi was first approved by Standing Committee of the North Delhi Municipal Corporation vide Resolution No. 315 dated 22-3-2013 & later vide Resolution No. 94 dated 8-7-2015. The conditions of approval vide dated 8-7-2015 are given below :—

- (i) 5% extra FAR shall be available only after the applicant satisfies regarding the requisite rating for the Green Buildings. For the purpose of this, the applicant shall keep the local body informed regarding the necessary steps taken to achieve 5 star rating. In case of non-compliance of the conditions, after obtaining occupancy certificate, penalty at market rate shall be levied for incentive FAR by Land Ceiling Agency.
- (ii) Any nuisance shall carried out by the applicant is liable to be municipalized/taken over by the Local Body/Authority.
- (iii) The applicant shall get the building plans approved from Building Deptt. of MCD as per approved layout/prevalent regulations of Master/Zonal Plans and building bye-laws.
- (iv) The applicant shall deposit if not already deposited a security amount @ Ra. 5/- per sq.yd. of the gross area of plot under the scheme within 15 days of having been intimated of the approval of the layout plan, as a guarantee for development and laying of services including roads and parking as per the approved layout/services including roads and parking as per the approved layout/services plans failing which the sanction shall not be considered as valid.
- (v) The applicant shall get the services plans approved from respective services Deptt. of MCD before the sanction of Building Plans and shall lay and maintain the services including roads, parking, landscaping as per approved layout plan/landscape plans, services plans and standard cross-sections and other regulations of MCD to the complete satisfaction of Commissioner, MCD within period of one year from the date of the approval of layout/services plans, whichever is later, failing which the sanction shall lapse. However, a further period of one year may be permitted for development work by the Commissioner, MCD for the reasons to be recorded.
- (vi) Commissioner, MCD shall have the right to forfeit a part or whole of the security amount in case the services are not provided to the satisfaction of the Commissioner, MCD, within the period as mentioned in Condition No. (iii) above.

- (vii) The applicant would be allowed to develop the site including laying of services and to carry out construction of bldg. simultaneously. The security as guarantee shall only be released after it has been verified by Building Deptt./Services Deptt. that entire development work and laying services has been completed as per approved layout/services plan. The completion certificate shall also be issued only after confirming that development work and laying of services has been carried out as per approved layout/services plans.
- (viii) The applicant shall submit an undertaking to the effect that area, if any affected under road widening shall be handed over to MCD/concerned authority as and when required.
- (ix) The applicant shall demolish/remove all structures not forming part of proposed plan before issue of completion certificate.
- (x) No further sub-division of flats as originally approved for one dwelling unit shall be permitted.
- (xi) The land under the scheme shall not be converted into customary plots and no portion of land in the group housing scheme can be sold out at any stage.
- (xii) The applicant shall comply with all conditions of approval of services plans.
- (xiii) Applicants shall indemnify MCD through and Indemnity Bond keeping it harmless in case of any dispute if arises at any stage with respect to the shapes, size, extent, title/ownership of land.
- (xiv) Trees, if any affected in the proposal shall not be felled without the permission of Competent Authority.
- (xv) Applicant shall abide by the guidelines of Archaeological Survey of India, in case any monument existing nearby.
- (xvi) The applicant shall develop the site as per the plans approved by Delhi Urban Arts Commission and shall adhere to its conditions. The applicant shall also adhere to the Instructions/Conditions as given by the Chief Fire Officer while approving the layout plan from fire safety point of view. Fresh approvals of CFO and DUAC shall be obtained for each building block at the time of sanction of building plan.
- (xvii) The disposal of dwelling unit meant for EWS shall be as per the policy of DDA/Min. of Urban Development/Govt. of India.
- (xviii) The applicant shall file an undertaking stating that no equity shall be claimed by them if ultimately it is found that MPD-2021 suffers from infirmity and demolition of unauthorised and for permissible construction is to be made, the same shall be carried out and the MCD shall not be responsible for any loss/damage as a result of granting the aforesaid sanction.
- (xix) The applicant shall obtain approval of the ESS site from the concerned authority before the sanction of building plans.
- (xx) Approval from the Environment Committee & ASI shall be obtained & shall be submitted before the sanction of Bldg. Plans.
- (xxi) The applicant/developer shall deposit the levy on additional FAR at the rates notified with approval of Govt. from time to time at the time sanction of building plans.

Stg.-C/NDMC [2]

2. **Area and Location :**

As per the possession plan the total area under proposal is 20000 sq.mt. (2 Ha.) and is located near Vishwavidyalay Metro Station. The site has been auctioned by DMRC for residential use i.e. for development of Group Housing. Surroundings are as under :-

North	—	Vishwavidyalay Metro Station/Mall Road 60 m. R/W
South	—	Others property
East	—	Cavalary Lane 24 m ROW
West	—	Chhatra Marg 18 m ROW

The approach of the site is from Cavalary Lane.

3. **Landuse :**

The landuse of the site admeasuring 2.0 Ha. in Zone-C on the MRTS Station has been changed to Residential from Public and Semi-Public Facility vide Notification of MoUD dated 23-9-2005. As per Zonal Development Plan (Zone-C) approved under 2021, the site falls "Residential use zone".

The Landuse is thus conforming.

4. **Ownership :**

As per the lease deed document, the land in question has been purchased by M/s. Young Builders from DMRC. DMRC has executed a lease deed in favour of M/s. Young Builders (P) Ltd. for the land admeasuring 2.0 Ha. near Vishwavidyalay Metro Station for residential development. Lease deed document has been registered with the office of Sub-Registrar on 19-2-2013. The said site formed part of 3.05 Ha. land at Vishwavidyalay Metro Station (Zone-C) for which the landuse has been changed to Residential from Public and Semi-Public Facility vide Notification of MoUD dated 23-9-2005. DDA Authority in its meeting 12-5-2011 resolved to treat the land admeasuring 2.0 Ha. as separate entity. The balance area of 1.05 Ha. has been developed as Vishwavidyalay Metro Station.

5. **Present Proposal :**

The site has not been developed as per the plan approved vide Resolution No. 94 dated 8-7-2015. The revised proposal has been formulated on the same area on which the group housing was approved earlier. The revised proposal envisages the construction of three residential blocks having 258 main dwelling units i.e Tower-B (139.6 mt. height) having area of each dwelling unit 184.96 sq.mt., Tower-C (136.3 mt. height) having area of each dwelling unit 184.96 sq.mt., Tower-D (129.7 mt. height) having area of each dwelling unit 110.99 sq.mt. In Tower-D on Second & Third Floor community facilities accommodating Community Hall and Sports Facilities has also been proposed. The applicant has proposed a separate EWS block having 152 dwellings units comprising of dwelling unit size 33.31 sq.mt. of carpet area. Proposed height of EWS block is 80.2 mt. The applicant has proposed shops & PSP facilities in EWS block and this area has been included in FAR of EWS block. Parking has been proposed on two levels of basement & two levels of podium.

Parking has been proposed on two levels of basement and two levels of podium (free from ground coverage and FAR) subject to fire safety requirement. Above the two levels of podium, stilt has been proposed in two blocks and earmarked for landscaping. The applicant has proposed Fire Check Floor above 70 mt. at immediate habitable floor level (free from FAR as per Clause 9.3.8 of UBBL-2016).

Slg-C/NDMC [3]

6. Site Report :

Towards north, east & west of site is temporary bounded with tin sheet boards and towards south side bounded with other's property boundary wall. Shape, size of bounded/demarcated site tallying with the shape, size shown in the proposed layout plan submitted by the applicant. The site under reference is lying vacant however there is an existing toilet block shown for demolition on the proposed layout plan is existing at site. Some lamp poles are existing in site premises. The existing width of the roads as taken at site is as under :—

1. Cavalry Lane = 13.50 mt. wide (existing) + 5.25 mt. wide open space.
2. Chhutra Marg = 18.00 mt. (existing).
3. Width of Mall Road including open land as taken at site has been marked on the proposed layout plan.

7. Development Control Norms as per MPD-2021 for Group Housing as follows :

A. As per MPD-2021, Development Controls for Group Housing are as under :—

- Minimum size of the plot = 3000 sq.mt.
- Ground Coverage = 33.3%
- Maximum FAR = 200
- Height—NR (Subject to the clearance from AAI/Fire Deptt. and other statutory bodies)
- Parking—2.0 ECS/100 sq.mt. built up and 0.5 ECS/100 sq.mt. for EWS/Service personal housing

(Amended Norms for Group Housing as per Notification dated 13-5-2013)

- (i) The upper limit of density be taken as 200 DUs/Hect. (900pph) with flexible Dwelling Unit sizes to achieve optimal utilization of land. The density for Slum & JJ Clusters (In Situ Upgradation/Rehabilitation/Redevelopment of Slum & JJ Clusters, Resettlement Colonies) and EWS Public Housing Schemes be 900 DUs/Ha.
- (ii) Plots for group housing should be located on road facing a minimum width of 18 m ROW/ 7.5 m ROW for Redevelopment Areas/Rehabilitation Area/Special Area/Village (Lal Dora/Fimi)/Extended Lal Dora).
- (iii) Additional Floor Area minimum 400 sq.mt. or at the rate of 0.6% of permissible FAR shall be allowed free from FAR to cater to community needs such as community/recreational hall, Crèche, library, reading room, senior citizen recreation room/club and society office.
- (iv) The Central Government in consultation with the DDA may relax density and other norms for public housing and projects of national importance.
- (v) The developer shall ensure that minimum 15% of the proposed FAR to be constructed for Community Service Personnel/EWS and lower category. Such flats should have a carpet area between 25-40 sq.mtr. This 15% of the proposed FAR for Community Service Personnel/EWS and lower category housing would be over and above 200 permissible FAR and density mentioned at (i)(a), (b) & (c) above. Employer Housing of Central Government, State Government and other Government Agencies are not required to

Sig.-ONDMC [4]

follow the requirement of FAR or Dwelling Units for Community Service Personnel/EWS and lower income category.]] 41[50% of the EWS Housing Stock shall be retained by Developer Entity (DE) and disposed only to the Apartment owners, at market rates, to house Community Service Personnel (CSP) working for the Residents/Owners of the Group Housing. These will be developed by DE at the respective Group Housing site/premises or contiguous site. Remaining 50% of DUs developed by DE to be sold to DDA for EWS housing purpose will be sold to DDA/Local Bodies at base cost of Rs. 2,000/- per sq.ft. as per CPWD Index of 2013 (plus cost of EWS parking) which shall be enhanced as per CPWD escalation index at the time of actual handing over and can be developed by DE at an alternate nearby site. Necessary commercial and PSP facilities shall also be provided by the DE for this separate housing pocket. The EWS housing component created by the DE shall be subject to quality assurance checks, as prescribed in this regard by Govt./DDA. The final handing/taking over of this component shall be subject to fulfilling the quality assurance requirements. The DE shall be allowed to undertake actual transfer/transaction of saleable component under its share/ownership to the prospective buyers only after the prescribed land and EWS housing component is handed over to the DDA.

8. Details of Proposal :

S. No.	Particulars	Present Proposal	Remarks
1.	Plot Area	20000 sq.mt. (2.0 Hac.)	
2.	Permissible Ground Coverage (33.3%)	6660 sq.mt.	
3.	Proposed Total Ground Coverage	1881.6 sq.mt. i.e. 9.4%	Tower-B = 373.19 sq.mt. Tower-C = 373.19 sq.mt. Tower-D = 638.15 sq.mt. EWS = 497.07 sq.mt.
4.	Permissible FAR	200 i.e. 40000 sq.mt.	As per MPD-2021, Development Controls for Group Housing.
5.	Area of proposed shops and PSP facilities in EWS-Block	296.92 sq.mt.	As per MoUD notification dated 13-5-13, Necessary commercial and PSP facilities shall also be provided by the DE for this separate housing pocket (EWS block).
6.	Permissible area of community needs such as community/recreational hall, Crèche, library, reading room, senior citizen recreation room/club and society office.	400 sq.mt. or at the rate of 0.6% of permissible FAR shall be allowed free from FAR	As per MoUD notification 13-5-13. "Additional Floor Area minimum 400 sq.mt. or at the rate of 0.6% of permissible FAR shall be allowed free from FAR to cater to community needs such as community/recreational hall, Crèche, library, reading room, senior citizen recreation room/club and society office.

Stg.-C/NDMC (5)

7.	Permissible area for sports facilities and Swimming Pool	100 sq.mt.	As per MPD-2021 Clause 13.3.15 to incentivise development of sports facilities and swimming pool (upto maximum 100 sq.mt.) within the group housing areas, schools, clubs, etc. shall not be counted towards ground coverage and FAR.
8.	Total area proposed for community facilities	1168.68 sq.mt.	Balance area 668.68 sq.mt. i.e. (1168.68 sq.mt.-500 sq.mt.) counted in the main FAR.
9.	Proposed total covered area on all floors for main dwellings units	39998.59 sq.mt.	
10.	Achieved FAR	199.99	
11.	Permissible covered area for EWS minimum 15% of proposed FAR of 39998.59 sq.mt.	5999.78 sq.mt.	
12.	Proposed covered area for EWS block	8306.52 sq.mt. i.e 20.77%	For EWS = 8009.6 sq.mt. For Shops and PSP facilities = 296.92 sq.mt. (8009.6+296.92) = 8306.52 sq.mt.
13.	No. of Proposed Dwelling Units	258 DUs	
14.	No. of EWS Dwelling Units	152 DUs	
15.	Total No. of DUs (Main + EWS)	410 DUs	
16.	Permissible Density	200 DUs/Hac.	
17.	Proposed Density for Main Dwelling Units	129 DUs/Hac.	
18.	Population @ 4.5 persons/DUs for main DUs	1161 persons	
19.	Population @ 2.5 persons/DUs for EWS DUs	380 persons	
20.	Total Population	1541 persons	
21.	Permissible Height	NR.	
22.	Proposed Height (Max.)	139.6 mts.	Subject to clearance from AAI/ Fire Deptt. and other statutory bodies.
23.	Basement Provided	31740.26 sq.mt. For Parking—27240.3 sq.mt. For services—4500 sq.mt. i.e. 14.2%	Basement permitted up to the set back line, Maximum equivalent to parking and Services requirement. The area provided for services should not exceed 30% of the basement.

Sig-CNDMC[6]

24. Podium Details	Level (1) = 6493.24 sq.mt. Level (2) = 7210.07 sq.mt. Landscape area = 6826.42 sq.mt.	As per Clause 8(7), Chapter-17 of MPD-2021, Podium(s)/Multistorey Podium with tower above shall be permitted within setback lines and free from FAR & Ground coverage. Soil is use of landscaping.
25. Stilt area under Tower B&C	610 sq.mt.	

The norms provided is as per MPD-2021 & is in order.

9. Parking :		
(i) Parking required @ 2 ECS/100 sq.mts. for main units		= 810 ECS
(ii) Parking required @ 0.5 ECS/100 sq.mts. for EWS		= 42 ECS
Total required parking		= 852 ECS
Parking proposed		
(i) Basement		= 187 ECS
⊗ Upper basement parking		= 186 ECS
⊗ Lower basement parking		
(ii) Podium		= 235 ECS
⊗ Podium parking at level (1) ground floor		= 246 ECS
⊗ Podium parking at level (2) first floor		= 854 ECS
Total proposed parking		

10. Setbacks :

For this size of the plot(s) setback required as per MPD-2021 are 15 Mt. in front and 12 Mt. on all other sides. Set backs are provided as per MPD-2021.

11. Green/Open Area Calculations :

1. Required green area 50% of open area	= 3353.85 sq.mt.
2. Proposed green/open area	= 3411.97 sq.mt.

The Open/Green Area are provided as per the laid down norms and thus is in order.

12. LOSC Consideration dated 1-6-2017 :

The proposal was again considered by LOSC vide Item No. 44/17 dated 1-6-2017 and the decision taken is reproduced as under :—

"The case was discussed. It was informed that the layout plan of Group Housing was earlier approved in the year 2013 and thereafter in the year 2015. The applicant has now proposed three residential blocks and a separate EWS block which includes shops and PSP facilities.

Stg.-CNDMC(7)

Parking has been proposed on two levels of basement and two levels of podium (free from ground coverage and FAR) subject to fire safety requirement. Above the two levels of podium, still has been proposed in two blocks and earmarked for landscaping. The applicant has proposed Fire Check Floor above 70 m. at immediate habitable floor level (free from FAR as per Clause 9.3.8 of UBBL-2016). The applicant has also proposed 5% of additional FAR for green building as per GRIHA rating under the provisions of MPD-2021.

Podium has been permitted under the provisions of MPD-2021 vide notification S.O. No 678(E) dated 4-3-2014 and UBBL-2016. The instant case being the first proposal under consideration of LOSC, the CE (Bldg.) has suggested that a study be carried out by the Chief Architect for any existing building with podium in the NCR and a report be submitted within 15 days.

After discussion it was decided as under :—

1. The case be place before the Standing Committee for approval subject to condition that any specific recommendation made by the Chief Architect in the report shall be considered by BPC at the time of sanctioning of building plans.
2. The 5% extra FAR for green building on the basis of registration of GRIHA is deferred, since as per Clause 8.6, Chapter-17 of MPD-2021, the regulation for enforcement of various services w.r.t. GRIHA rating is not yet notified by GNCTD.
3. The applicant be informed to submit corrected drawings as per decision in respect of GRIHA provisions as stated above."

13. Further Compliance :

With reference to the LOSC decision vide dated 1-6-2017, the applicant has submitted the corrected drawings vide dated 5-6-2017 in respect of GRIHA provisions.

14. CFO Approval :

Proposal requires approval of CFO at the time of sanctioning of Bldg. Plans.

15. DUAC Approval :

Proposal requires approval of DUAC at the time of sanctioning of Bldg. Plans.

16. Clearance of Airport Authority of India :

Proposal requires clearance from Airport Authority of India at the time of sanctioning of Bldg. Plans.

17. Approval of Environment Committee :

Proposal requires approval of Environment Committee before sanction of Building Plan.

18. Services :

Services shall be laid and maintained as per the laid down condition of MCD/CPWD and applicant shall comply with all the conditions of approval of services plan.

Sig-CNDMC(8)

19. Recommendations :

In view of above and as required U/s 313 of DMC Act (amended-to-date) the Revised Layout Plan for Group Housing at Vishwavidyalaya Mstrn, Civil Lines, Delhi is placed before Standing Committee for approval subject to the following conditions :-

- (i) With regard to podium, the Chief Architect will submit a report within 15 days and any specific recommendation made by the Chief Architect in the report shall be considered by BPC at the time of sanctioning of building plans.
- (ii) The applicant shall get the building plans approved from Building Deptt. of MCD as per approved layout/prevalent regulations of Master/Zonal Plans and building bye-laws.
- (iii) The applicant shall deposit if not already deposited a security amount @ Rs. 5/- Per sq.yd. of the gross area of plot under the scheme within 15 days of having been intimated of the approval of the layout plan, as a guarantee for development and laying of services including roads and parking as per the approved layout/services including roads and parking as per the approved layout/services plans failing which the sanction shall not be considered as valid.
- (iv) The applicant shall get the services plans approved from respective services Deptt. of MCD before the sanction of building plans and shall lay and maintain the services including roads, parking, landscaping as per approved layout plan/landscaping plans, services plans and standard cross-sections and other regulations of MCD to the complete satisfaction of Commissioner, MCD within period of one year from the date of the approval of layout/services plans, whichever is later, failing which the sanction shall lapse. However, a further period of one year may be permitted for development work by the Commissioner, MCD for the reasons to be recorded.
- (v) Commissioner, MCD shall have the right to forfeit a part or whole of the security amount in case the services are not provided to the satisfaction of the Commissioner, MCD, within the period as mentioned in Condition No. (iii) above.
- (vi) The applicant would be allowed to develop the site including laying of services and to carry out construction of bldg. simultaneously. The security as guarantee shall only be released after it has been verified by Building Deptt./Services Deptt. that entire development work and laying services has been completed as per approved layout/services plan. The completion certificate shall also be issued only after confirming that development work and laying of services has been carried out as per approved layout/services plans.
- (vii) The applicant shall submit an undertaking to the effect that area, if any affected under road widening shall be handed over to MCD/concerned authority as and when required.
- (viii) The applicant shall demolish/remove all structures not forming part of proposed plan before issue of completion certificate.
- (ix) No further sub-division of flats as originally approved for one dwelling unit shall be permitted.
- (x) The land under the scheme shall not be converted into customary plots and no portion of land in the group housing scheme can be sold out at any stage.
- (xi) The applicant shall comply with all conditions of approval of services plans.

Str.-CNDMC [5]

- (xii) Applicants shall indemnify MCD through and Indemnity Bond keeping it harmless in case of any dispute if arises at any stage with respect to the shapes, size, extent, title/ownership of land.
- (xiii) Trees, if any affected in the proposal shall not be felled without the permission of Competent Authority.
- (xiv) Applicant shall abide by the guidelines of Archaeological Survey of India, in case any monument existing nearby.
- (xv) All the necessary clearances/NOCs from external agencies namely CFO, DUAC and other compliances shall be obtained at the time of sanctioning of building plans.
- (xvi) The clearance from the Environment Committee and other agencies as per the requirement shall be submitted before the sanction of Bldg. Plans.
- (xvii) The disposal of dwelling unit meant for EWS shall be as per the policy of DD/Min. of Urban Development/Govt. of India.
- (xviii) The applicant shall file an undertaking stating that no equity shall be claimed by them if ultimately it is found that MPD-2021 suffers from infirmity and demolition of unauthorized and for permissible construction is to be made, the same shall be carried out and the MCD shall not be responsible for any loss/damage as a result of granting the aforesaid sanction.
- (xix) Any misuro shall carried out by the applicant is liable to be municipalized/taken over by the Local Body/Authority.
- (xx) The applicant shall obtain approval of the ESS site from the concerned authority before the sanction of building plans.
- (xxi) The applicant/developer shall deposit the levy on additional FAR at the rates notified with approval of Govt. from time to time at the time sanction of building plans.
- (xxii) All the earlier conditions wherever applicable shall be adhere to the applicant.

Item No.10 Revised Layout Plan for Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi.

Reso.No.
91

Resolved that the proposal of the Commissioner as contained in his letter No. F. 33/CTP/NDMC/790/C&C dated 21.06.2017, be approved, subject to the terms & conditions mentioned in the aforesaid letter.

Me 27/11/17
Section Officer (S.O.)
Municipal Secretary Office
North Delhi Municipal Corporation

Note: - Given below is the Remark provided by concern sanctioning authority:-

"This sanction has been accorded under EODB on the basis of documents undertaking submitted by the Owner & Architect. In case any misrepresentation / discrepancy in respect of the provision of MPD, UBBL, Other zoning regulations and statutory requirement is observed at any stage, the sanction shall be deemed revoked besides other action as per Law.

DFS department vide letter dt 15/7/19 has approved the proposal. It shall be ensured that provisions of all requisite fire and life safety measures stipulated in DFS approval, UBBL-2016 & National Building Code of India Part-IV shall be complied in letter and spirit before the occupancy of the building.

All the observations/conditions of DJB & DUAC provided in NOC are to be complied by the applicant in letter and spirit before the occupancy of the building.

This sanction granted under EODB shall not be construed to authorize any person to do anything in contravention or against the terms of lease or title of the land or against MPD, any regulations, bye-laws, ordinance, etc.

Encl: One set on sanctioned plan

Yours Faithfully

Assistant Engineer (Building)

HQ/HQ Zone(digital signature)

For Commissioner NORTH DMG

Copy to: (1) E.E. (B)Civil Lines Zone

(2) AA & C (HQ/HQ Zone)

Validity unknown

Digitally signed by SANJEEV

DARA

Date: 2019.07.11 10:38:00 IST

FORM- B-1
(Chapter 2, Para 2.1)
GRANT OF SANCTION



NAME OF THE SANCTIONING AUTHORITY **NORTH DELHI MUNICIPAL CORPORATION**

Building Department (HQ) / HQ Zone

File No. 10065712 Dated: 31/07/2019

To,

Ms Young Builders Pvt Limited
43 Babar Road, New Delhi,
New Delhi

GRANT OF SANCTION

Sub: Sanction Under Clause 336 of Delhi Municipal Corporation Act, 1957

Dear Sir/Madam,

With reference to your application dated **03/07/2019** for the grant of sanction to erect/re-erect/add to/alteration in the building to carry out the development specified in the said application relating to Plot no. **1 3 4**, Pocket no. _____, Block no. _____, Sector no. _____, Situated in/ at **1, 3 Cavalary Lane 4 Chhatra Marg, Civil Lines, Delhi-7**. I have to state that the same has been sanctioned on **26/07/2019** by the MCD subject to the following conditions and corrections made on the plans:-

1. The plans are valid up to 30 day of month Jul year 2024.
2. The construction will be undertaken as per sanctioned plan only and no deviation from the bye-laws will be permitted without prior sanction. Any deviation done against the bye-laws is liable to be demolished and the supervising Architect, engaged on the job will run the risk of having his license cancelled.
3. Violation of building bye-laws will not be compounded.
4. It will be duty of the owner of the plot and the Architect preparing the plan to ensure that the sanctioned plans are as per prevalent building bye-laws. If any infringement of the bye-laws remains unnoticed the NORTH DELHI MUNICIPAL CORPORATION reserves the right to amend the plans as and when the infringement comes to its notice and NORTH DELHI MUNICIPAL CORPORATION will stand indemnified against any claim on this account.
5. The party shall not occupy or permit it to occupy the building or use permit the building or part there of affected by any such work until occupancy certificate is issued by the sanctioning Authority.
6. NORTH DELHI MUNICIPAL CORPORATION will stand indemnified and kept harmless from all proceedings in courts and before other authorities of all expenses/losses/claims which the NORTH DELHI MUNICIPAL CORPORATION may incur or become liable to pay as a result or in consequences of the sanction accorded by it to these building plans.
7. The door and window leaves shall be fixed in such a way that they shall not when open project on any street.
8. The party will convert the house into dwelling units of each floor as per the approved parameters of the project and shall use the premises only for residential purpose.
9. The building shall not be constructed within minimum mandatory distance as specified in Indian Electricity Rules and as per the requirement of Delhi Vidut Board from the voltage lines running on any side of the site.
10. The land left open on consequences of their enforcement of the set back rule shall form part of the public street.
11. The thickness of outer walls will be maintained at least 0.23 mt. (9").

12. The basic levels should be got ascertained from the concerned at the site of the construction.
13. The owner will display boards of minimum size of 3 ft. X 4ft. indicating the following
- i. Plot No. and location
.....
 - ii. Name of lessee/owner
.....
 - iii. Use of the property as per lease deed
.....
 - iv. Date of sanction of Building Plan with No.
.....
 - v. Sanction valid up to
.....
 - vi. Use of different floors and areas sanctioned
.....
 - vii. Name of the Architect & his address
.....
 - viii. Name of the contractor and his address
.....
14. The provision of the display board on the construction site is a mandatory requirement and non-compliance of the same will invite a penalty of Rs. 5000/-.
15. It will be ensured that the construction / demolition work shall be carried out in such a manner that no disturbance/nuisance is caused to residents of the neighborhood.
16. It will be ensured by the owner and the Architect that during the construction the building plans sanctioned shall satisfy all the Environmental Conditions for Buildings and Constructions of Chapter 3, Annexure XIV of these Bye laws and as amended from time to time or any specific orders issued by the Govt.
17. Intimation of Completion of work up to Plinth Level, Plinth Level inspection and the issue of Plinth level Inspection shall be done as per procedures laid down in the Chapter 2 of these bye-laws.
18. The building shall be constructed strictly in accordance with the sanction plan as well as in accordance with the certificate submitted jointly by the owner/Architect/Structural Engineer for safety requirement as stipulated in Chapter 9 of these Building Bye-Laws, and the structural Design including safety from any natural hazards duly incorporated in the design of the building as per the Government Of India Notification issued time to time and Annexure VII of these Bye Laws.
19. The mulba during the construction will be removed on weekly basis. If the same is not done, in that case the local body shall remove the mulba and the cost shall be borne by the owner of the plot.
20. During construction, it is mandatory on the part of the owner to properly screen the construction site of the main road by means of erecting a screen wall not less than 8 ft. in height from ground level which is to be painted to avoid unpleasant look from the road side. In addition to this a net or some other protective material shall be hoisted at the facades or the building to ensure that any falling material remains within the protected area.
21. Noise related activities will not be taken up for construction at night after 10.00 PM.

- 22 (i) Every builder or owner shall put tarpaulin on scaffolding around the area of construction and the building. No person including builder, owner can be permitted to store any construction material particularly sand on any part of the street, roads in any colony.
- (ii) The construction material of any kind that is stored in the site will be fully covered in all respects so that it does not disperse in the air in any form.
- (iii) The construction material and debris shall be carried in the trucks or other vehicles which are fully covered and protected so as to ensure that the construction debris or the construction material does not get dispersed into the air or atmosphere, in any form whatsoever.
- (iv) The dust emissions from the construction site should be completely controlled and all precautions taken in that behalf.
- (v) The vehicles carrying construction material and construction debris of any kind should be cleared before it is permitted to ply on the road after unloading of such material.
- (vi) Every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris shall be provided with mask to prevent inhalation of dust particles.
- (vii) Every owner and or builder shall be under obligation to provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and construction debris releable to dust emission.
- (viii) It shall be the responsibility of every builder to transport construction material and debris waste to construction site, dumping site or any other place in accordance with rules and in terms of this order.
- (ix) All to take appropriate measures and to ensure that the terms and conditions of the earlier order and these orders should strictly comply with by fixing sprinklers, creations of green air barriers.
- (x) Compulsory use of wet jet in grinding and stone cutting.
- (xi) Wind breaking walls around construction site.
- (xii) All efforts to be made to increase the tree cover area by planting large number of trees of various species depending upon the quality content of soil and other natural attendant circumstances.
- (xiii) All the builders who are building commercial, residential complexes which are covered under the EIA Notification of 2006 shall provide green belt around the building that they construct.
23. The sanctioning authority approves Architectural Drawings/Development Control norms with respect to the Building Bye Laws and Master Plan provisions only. The technical drawings/documents submitted by the owner/consultant/Architect/Engineer/Structural Engineer/Landscape Architect /Urban Designer/Engineer for Utility Services are considered as part of the records/information supporting the building permit only. The responsibility of the correctness of information/application of technical provisions fully vests with the owner/consultant/Architect/Engineer/Structural Engineer/Landscape Architect /Urban Designer/Engineer for Utility Services and shall be liable as per laws.
24. No puncture, perforation, cutting, chiseling, trimming of any kind for any purpose are permitted in the structural members (beams / columns) submitted by the structural engineer as structural drawing for building permit in accordance with the relevant structural codes.
25. The sanction will be void ab initio if any material fact has been suppressed or mis-represented or if auxiliary conditions mentioned above are not complied.

Plot No. 134 Pkt No.
 Block No. Sector No.
 Situated in/at. 1, 3 Cavalary Lane 4 Chhatra Marg, Civil Lines, Delhi-7
 Delhi.

Government of National Capital Territory of Delhi
Department of Environment
Level-6, Wing-C, Delhi Secretariat, IP Estate, New Delhi

F8(348)/EA/Env/09/ 1041 - 1061

Dated 18.05.2010

Order

Sub: Direction under section 5 of the Environment (Protection) Act, 1986

Whereas, the Central Government has authorized the Lieutenant Governor of the National Capital Territory of Delhi vide notification S.O. 667 (E) dated the 10th September, 1992 to exercise powers under section 5 of the Environment (Protection) Act, 1986 for the National Capital Territory of Delhi and to issue directions thereunder, to any person, officer or any authority for the closure, prohibition or regulation of any operation or process or stoppage or regulation of the supply of electricity or water or any other services.

And whereas Delhi Jal Board constituted under the Delhi Water Board Act, 1998 (Delhi Act 4 of 1998) is dealing with water supply network of drinking, domestic, industrial and commercial water in the National Capital Territory of Delhi;

And whereas continued abstraction of ground water has led to severe depletion of ground water resources;

And whereas non - restricted and non - regulated abstraction of ground water has serious long term environmental implications;

And whereas over abstraction of ground water can result in drying up of ground water resources and may also affect water quality;

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And whereas Central Ground Water Authority had, in the year of 2000, notified the South and South-West districts of Delhi as "Notified Areas" and imposed prohibition and restriction in those districts on the construction and installation of any structure for abstraction of ground water resources to avoid further depletion and deterioration in water quality in the said districts;

And whereas through, another notification in March 2006, Central Ground Water Authority has notified East, New Delhi, North-East, North-West and West districts of Delhi as over exploited areas needing regulation, and registration of ground water abstraction structures in those districts was made compulsory.

Now, therefore, in exercise of power conferred by section 5 of the Environment (Protection) Act, 1986 (29 of 1986) read with the Ministry of Home Affairs, Government of India Notification S.O.667 (E) bearing F.No, U-11030/J/91- UTL dated the 10th September, 1992 and in supersession of directions issued vide Order Nos F8(348)/EA/Env/09/14433-14451 and F8(348)/EA/Env/09/14452-14470 dated the 30th March 2009 as well as Order Nos. F8(348)/EA/Env/09/555-582 and F8(348)/EA/Env/09/583-610 dated the 30th April 2009, the Lt. Governor of the National Capital Territory of Delhi , hereby issues the following directions, namely:

- (1) In the whole of the National Capital Territory of Delhi, no person, group, authority, association or institution shall draw ground water through bore-well or tube-well (both new as well as existing and drawing ground water without permission of Central Ground Water Authority) for domestic, commercial, agricultural and or industrial uses without the prior permission of the "**Competent Authority**" that is to say, the Delhi Jal Board or the New Delhi Municipal Council as the case may be.

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- 1877
- (2) The issue of grant of permission for borewell/tubewell shall be dealt by Competent Authority through the Deputy Commissioner (Revenue) of each revenue area, GNCTD, who is hereby appointed as “**Authorized Officer**” for the purpose of regulation of ground water development and management in the respective revenue areas under the jurisdiction.
- (3) The Deputy Commissioner (Revenue) of each revenue area, GNCTD, who is the Authorized Officer, are further delegated with the power of dealing with other issues such as checking violation, and sealing illegal wells, launching of prosecution against offenders etc. including grievance redressal related to ground water, based on the recommendations of the Advisory Committee.
- (4) An Advisory Committee in each nine revenue areas of the National Capital Territory of Delhi is hereby constituted under the Chairmanship of the Deputy Commissioner of each revenue area comprising of the following members:
1. Deputy Commissioner (Revenue), of concerned revenue area : Chairman;
 2. Director (Panchayat) : Member;
 3. Chief Engineer nominated by Delhi Jal Board : Member;
 4. Representative of Central Ground Water Board, New Delhi : Member;
 5. Representatives of local bodies having jurisdiction over the area: Member;
 6. Representative of Department of Environment, GNCTD/DPCC : Member
 7. Representative of reputed NGO in the field of Groundwater Management nominated by the Deputy Commissioner concerned : Member;
- (5) The Advisory Committee shall meet atleast once in every month to take up various issues related to ground water regulation and management in the concerned revenue area and give recommendations to the Deputy Commissioner for further consideration and enforcement. Only the recommended groundwater boring cases shall be forwarded to Competent Authority for grant of permission.

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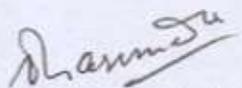
- 1878
- (6) In emergent violation cases such as illegal groundwater drawl, the Authorized Officer, subject to his satisfaction, shall ensure the discontinuation of the same by the seizure of drilling rig, sealing of tubewell/borewell if so constructed and also disconnection of electricity supply to the energized tubewell even if it is through DG sets, without waiting for recommendation of Advisory Committee. However the details of such action shall be placed by the Authorized Officer in the next Advisory Committee meeting.
 - (7) If any person, group, authority, association or institution, intends to draw ground water through bore-well or tube-well(both new as well as existing and drawing ground water without permission of Central Ground Water Authority), he shall take prior permission from Competent Authority. Such permission shall be obtained through submission of an application to Zonal Offices of the Competent Authority, in the form specified by the Competent Authority.
 - (8) The Executive Engineer of the Competent Authority, incharge of the concerned area shall recommend the case, based on the facts on the ground, to the concerned Deputy Commissioner (Revenue) of the revenue area who shall issue orders in the light of the recommendations of Executive Engineer of the Competent Authority and the Advisory Committee.
 - (9) If the plot size of the building is more than 200 sq. meters, the permission to draw ground water through borewell or tubewell (both new as well as existing and drawing groundwater without permission of Central Ground Water Authority) shall be subject to the condition that the occupier or owner of the said plot or building shall install rain water harvesting system in such building.
 - (10) The permission to draw ground water through borewell or tubewell (both new as well as existing and drawing ground water without permission of Central Ground Water Authority) for commercial and or industrial use shall be subject

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to the condition that the concerned person or authority shall install the rain water harvesting structure, and shall ensure reuse of the water in horticulture or cooling or toilet flushing, etc after proper treatment of waste water or any other suggestions given by the concerned Advisory Committee.

- (11) Each of the Advisory Committee in addition to their above mentioned statutory duties, will inform Delhi Pollution Control Committee about any water pollution occurring, due to extraction of water from tube-well or bore-well so that necessary action may be initiated under the provision of the Water (Prevention and Control of Pollution) Act, 1974.
- (12) The permission of borewell installation for agricultural purpose may be granted to genuine agriculturists by the **Advisory Committee under concerned Deputy Commissioner (Revenue) based on the recommendation of Block Development Officer and Agriculture Department / Irrigation & Flood Control Department, Govt of NCT of Delhi.** Agriculture activity may be verified from Khasra Girdawari documents and also based on actual evaluation.
- (13) Any violation of the above directions shall be punishable under section 15 of the Environment (Protection) Act, 1986 (29 of 1986).

By order and in the name of Lieutenant Governor,
Of the National Capital Territory of Delhi,



(Dharmendra)

Secretary (Environment)

F8 (348)/EA/Env/09 (1041-106)

Date: 18.05.2010

Copy for necessary action to:

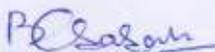
1. Divisional Commissioner, Govt. of NCT of Delhi, 5, Sham Nath Marg, Delhi.

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2. CEO, Delhi Jal Board, Varunalaya, Karol Bagh, New Delhi.
3. Chairman, New Delhi Municipal Council, Palika Kendra, New Delhi.
4. Dy. Commissioner (Revenue) of all 9 districts of Delhi.

Copy for information to:

1. Secretary, Ministry of Environment and Forest, Govt. of India, CGO Complex, Lodhi Road, New Delhi.
2. Secretary, Ministry of Water Resources, Govt. of India, Sharam Shakti Bhawan, Rafi Marg, New Delhi.
3. Chairman, Central Ground Water Board, ND-IV, Bhujal Bhawan, Faridabad.
4. Pr. Secretary to LG, Govt. of NCT of Delhi.
5. Pr. Secretary to CM, Govt. of NCT of Delhi.
6. VC, DDA, Vikas Sadan, New Delhi.
7. Pr. Secretary, Urban Development, Govt. of NCT of Delhi.
8. Commissioner (MCD), Town Hall, Delhi.
9. Chairman, NDMC, Palika Kendra, New Delhi.
10. Chief Executive Officer, Delhi Cantonment Board.
11. Secretary, PWD, Govt. of NCT of Delhi, Delhi Secretariat.
12. DG, CPWD, Nirman Bhawan, New Delhi.
13. Chairman, Central Pollution Control Board, East Arjun Nagar, Delhi.
14. Director (Panchayat), Old Civil Supply Building, Tis Hazari Courts, Delhi.
15. Conservator of Forest, Forest Department, Govt. of NCT of Delhi.
16. Member Secretary, DPCC, Kashmere Gate, Delhi.
17. OSD to Chief Secretary, Govt. of NCT of Delhi


(Dr. B.C. Sabata)
Dy. Secretary (Env.)

मु. प्रो. (टी.एच.)-जा.स. 431-5000-8-6-2016

दिनांक 11/11/2017 को हुई

उत्तरी दिल्ली नगर निगम

की बसायी समिति (उत्तरी)

सभा

के प्रस्ताव संख्या 91
नव संख्या

की प्रतिलिपि।

ANNEXURE-A5

Item No. 10 --- Revised Layout Plan for Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi.

Commissioner's letter No. F. 33/CTP/NDMC/790/C&C dated 21-6-2017.

The above-mentioned proposal of Revised Layout Plan for Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi has been submitted by Sh. Rajiv Ranjan Sharma, AVP-Projects on behalf of M/s. Young Builders Private Ltd., New Delhi for approval of North DMC U/s 313 of DMC Act, 1957.

I. Previous Approval :

The layout plan of Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi was first approved by Standing Committee of the North Delhi Municipal Corporation vide Resolution No. 315 dated 22-3-2013 & later vide Resolution No. 94 dated 8-7-2015. The conditions of approval vide dated 8-7-2015 are given below :—

- (i) 5% extra FAR shall be available only after the applicant satisfies regarding the requisite rating for the Green Buildings. For the purpose of this, the applicant shall keep the local body informed regarding the necessary steps taken to achieve 5 star rating. In case of non-compliance of the conditions, after obtaining occupancy certificate, penalty at market rate shall be levied for incentive FAR by Land Owning Agency.
- (ii) Any misuse shall carried out by the applicant is liable to be municipalized/taken over by the Local Body/Authority.
- (iii) The applicant shall get the building plans approved from Building Deptt. of MCD as per approved layout/prevalent regulations of Master/Zonal Plans and building bye-laws.
- (iv) The applicant shall deposit if not already deposited a security amount @ Rs. 5/- per sq.yd. of the gross area of plot under the scheme within 15 days of having been intimated of the approval of the layout plan, as a guarantee for development and laying of services including roads and parking as per the approved layout/services including roads and parking as per the approved layout/services plans failing which the sanction shall not be considered as valid.
- (v) The applicant shall get the services plans approved from respective services Deptt. of MCD before the sanction of Building Plans and shall lay and maintain the services including roads, parking, landscaping as per approved layout plan/landscape plans, services plans and standard cross-sections and other regulations of MCD to the complete satisfaction of Commissioner, MCD within period of one year from the date of the approval of layout/services plans, whichever is later, failing which the sanction shall lapse. However, a further period of one year may be permitted for development work by the Commissioner, MCD for the reasons to be recorded.
- (vi) Commissioner, MCD shall have the right to forfeit a part or whole of the security amount in case the services are not provided to the satisfaction of the Commissioner, MCD, within the period as mentioned in Condition No. (iii) above.

- (vii) The applicant would be allowed to develop the site including laying of services and to carry out construction of bldg. simultaneously. The security as guarantee shall only be released after it has been verified by Building. Deptt./Services Deptt. that entire development work and laying services has been completed as per approved layout/ services plan. The completion certificate shall also be issued only after confirming that development work and laying of services has been carried out as per approved layout/ services plans.
- (viii) The applicant shall submit an undertaking to the effect that area, if any affected under road widening shall be handed over to MCD/concerned authority as and when required.
- (ix) The applicant shall demolish/remove all structures not forming part of proposed plan before issue of completion certificate.
- (x) No further sub-division of flats as originally approved for one dwelling unit shall be permitted.
- (xi) The land under the scheme shall not be converted into customary plots and no portion of land in the group housing scheme can be sold out at any stage.
- (xii) The applicant shall comply with all conditions of approval of services plans.
- (xiii) Applicants shall indemnify MCD through and Indemnity Bond keeping it harmless in case of any dispute if arises at any stage with respect to the shapes, size, extent, title/ownership of land.
- (xiv) Trees, if any affected in the proposal shall not be felled without the permission of Competent Authority.
- (xv) Applicant shall abide by the guidelines of Archaeological Survey of India, in case any monument existing nearby.
- (xvi) The applicant shall develop the site as per the plans approved by Delhi Urban Arts Commission and shall adhere to it conditions. The applicant shall also adhere to the Instructions/Conditions as given by the Chief Fire Officer while approving the layout plan from fire safety point of view. Fresh approvals of CFO and DUAC shall be obtained for each building block at the time of sanction of building plan.
- (xvii) The disposal of dwelling unit meant for EWS shall be as per the policy of DDA/Min. of Urban Development/Govt. of India.
- (xviii) The applicant shall file an undertaking stating that no equity shall be claimed by them if ultimately it is found that MPD-2021 suffers from infirmity and demolition of unauthorised and for permissible construction is to be made, the same shall be carried out and the MCD shall not responsible for any loss/damage as a result of granting the aforesaid sanction.
- (xix) The applicant shall obtain approval of the ESS site from the concerned authority before the sanction of building plans.
- (xx) Approval from the Environment Committee & ASI shall be obtained & shall be submitted before the sanction of Bldg. Plans.
- (xxi) The applicant/developer shall deposit the levy on additional FAR at the rates notified with approval of Govt. from time to time at the time sanction of building plans.

2. Area and Location :

As per the possession plan the total area under proposal is 20000 sq.mt. (2 Ha.) and is located near Vishwavidyalay Metro Station. The site has been auctioned by DMRC for residential use i.e. for development of Group Housing. Surroundings are as under :—

North	—	Vishwavidyalay Metro Station/Mall Road 60 m. R/W
South	—	Others property
East	—	Cavalary Lane 24 m ROW
West	—	Chhatra Marg 18 m ROW

The approach of the site is from Cavalary Lane.

3. Landuse :

The landuse of the site admeasuring 2.0 Ha. in Zone-C on the MRTS Station has been changed to Residential from Public and Semi-Public Facility vide Notification of MoUD dated 23-9-2005. As per Zonal Development Plan (Zone-C) approved under 2021, the site falls "Residential use zone".

The Landuse is thus conforming.

4. Ownership :

As per the lease deed document, the land in question has been purchased by M/s. Young Builders from DMRC. DMRC has executed a lease deed in favour of M/s. Young Builders (P) Ltd. for the land admeasuring 2.0 Ha. near Vishwavidyalay Metro Station for residential development. Lease deed document has been registered with the office of Sub-Registrar on 19-2-2013. The said site formed part of 3.05 Ha. land at Vishwavidyalay Metro Station (Zone-C) for which the landuse has been changed to Residential from Public and Semi-Public Facility vide Notification of MoUD dated 23-9-2005. DDA Authority in its meeting 12-5-2011 resolved to treat the land admeasuring 2.0 Ha. as separate entity. The balance area of 1.05 Ha. has been developed as Vishwavidyalay Metro Station.

5. Present Proposal :

The site has not been developed as per the plan approved vide Resolution No. 94 dated 8-7-2015. The revised proposal has been formulated on the same area on which the group housing was approved earlier. The revised proposal envisages the construction of three residential blocks having 258 main dwelling units i.e Tower-B (139.6 mt. height) having area of each dwelling unit 184.96 sq.mt., Tower-C (136.3 mt. height) having area of each dwelling unit 184.96 sq.mt., Tower-D (129.7 mt. height) having area of each dwelling unit 110.99 sq.mt. In Tower-D on Second & Third Floor community facilities accommodating Community Hall and Sports Facilities has also been proposed. The applicant has proposed a separate EWS block having 152 dwellings units comprising of dwelling unit size 33.31 sq.mt. of carpet area. Proposed height of EWS block is 80.2 mt. The applicant has proposed shops & PSP facilities in EWS block and this area has been included in FAR of EWS block. Parking has been proposed on two levels of basement & two levels of podium.

Parking has been proposed on two levels of basement and two levels of podium (free from ground coverage and FAR) subject to fire safety requirement. Above the two levels of podium, stilt has been proposed in two blocks and earmarked for landscaping. The applicant has proposed Fire Check Floor above 70 mt. at immediate habitable floor level (free from FAR as per Clause 9.3.8 of UBBL-2016).

Stg.-C/NDMC [3]

6. Site Report :

Towards north, east & west of site is temporary bounded with tin sheet boards and towards south side bounded with other's property boundary wall. Shape, size of bounded/demarcated site tallying with the shape, size shown in the proposed layout plan submitted by the applicant. The site under reference is lying vacant however there is an existing toilet block shown for demolition on the proposed layout plan is existing at site. Some lamp poles are existing in site premises. The existing width of the roads as taken at site is as under :—

1. Cavalry Lane = 13.50 mt. wide (existing) + 5.25 mt. wide open space.
2. Chhatra Marg = 18.00 mt. (existing).
3. Width of Mall Road including open land as taken at site has been marked on the proposed layout plan.

7. Development Control Norms as per MPD-2021 for Group Housing as follows :

A. As per MPD-2021, Development Controls for Group Housing are as under :—

- Minimum size of the plot = 3000 sq.mt.
- Ground Coverage = 33.3%
- Maximum FAR = 200
- Height—NR (Subject to the clearance from AAI/Fire Deptt. and other statutory bodies)
- Parking—2.0 ECS/100 sq.mt. built up and 0.5 ECS/100 sq.mt. for EWS/Service personal housing.

(Amended Norms for Group Housing as per Notification dated 13-5-2013)

- (i) The upper limit of density be taken as 200 DUs/Hect. (900pph) with flexible Dwelling Unit sizes to achieve optimal utilization of land. The density for Slum & JJ Clusters (In Situ Upgradation/Rehabilitation/Redevelopment of Slum & JJ Clusters, Resettlement Colonies) and EWS Public Housing Schemes be 900 DUs/Ha.
- (ii) Plots for group housing should be located on road facing a minimum width of 18 m ROW 7.5 m ROW for Redevelopment Areas/Rehabilitation Area/Special Area/Village (Lal Dora/Firmi)/Extended Lal Dora).
- (iii) Additional Floor Area minimum 400 sq.mt. or at the rate of 0.6% of permissible FAR shall be allowed free from FAR to cater to community needs such as community/recreational hall, Crèche, library, reading room, senior citizen recreation room/club and society office.
- (iv) The Central Government in consultation with the DDA may relax density and other norms for public housing and projects of national importance.
- (v) The developer shall ensure that minimum 15% of the proposed FAR to be constructed for Community Service Personnel/EWS and lower category. Such flats should have a carpet area between 25-40 sq.mtr. This 15% of the proposed FAR for Community Service Personnel/EWS and lower category housing would be over and above 200 permissible FAR and density mentioned at (i)(a), (b) & (c) above. Employer Housing of Central Government, State Government and other Government Agencies are not required to

follow the requirement of FAR or Dwelling Units for Community Service Personnel/EWS and lower income category.}] 41[50% of the EWS Housing Stock shall be retained by Developer Entity (DE) and disposed only to the Apartment owners, at market rates, to house Community Service Personnel (CSP) working for the Residents/Owners of the Group Housing. These will be developed by DE at the respective Group Housing site/premises or contiguous site. Remaining 50% of DUs developed by DE to be sold to DDA for EWS housing purpose will be sold to DDA/Local Bodies at base cost of Rs. 2,000/- per sq.ft. as per CPWD Index of 2013 (plus cost of EWS parking) which shall be enhanced as per CPWD escalation index at the time of actual handing over and can be developed by DE at an alternate nearby site. Necessary commercial and PSP facilities shall also be provided by the DE for this separate housing pocket. The EWS housing component created by the DE shall be subject to quality assurance checks, as prescribed in this regard by Govt./DDA. The final handing/taking over of this component shall be subject to fulfilling the quality assurance requirements. The DE shall be allowed to undertake actual transfer/transaction of saleable component under its share/ownership to the prospective buyers only after the prescribed land and EWS housing component is handed over to the DDA.

8. **Details of Propossal :**

S. No.	Paticulars	Present Proposal	Remarks
1.	Plot Area	20000 sq.mt. (2.0 Hac.)	
2.	Permissible Ground Coverage (33.3%)	6660 sq.mt.	
3.	Proposed Total Ground Coverage	1881.6 sq.mt. i.e. 9.4%	Tower-B = 373.19 sq.mt. Tower-C = 373.19 sq.mt. Tower-D = 638.15 sq.mt. EWS = 497.07 sq.mt.
4.	Permissible FAR	200 i.e. 40000 sq.mt.	As per MPD-2021, Development Controls for Group Housing.
5.	Area of proposed shops and PSP facilities in EWS-Block	296.92 sq.mt.	As per MoUD notification dated 13-5-13, Necessary commercial and PSP facilities shall also be provided by the DE for this separate housing pocket (EWS block).
6.	Permissible area of community needs such as community/recreational hall, Crèche, library, reading room, senior citizen recreation room/club and society office.	400.sq.mt. or at the rate of 0.6% of permissible FAR shall be allowed free from FAR	As per MoUD notification 13-5-13 "Additional Floor Area minimum 400 sq.mt. or at the rate of 0.6% of permissible FAR shall be allowed free from FAR to cater to community needs such as community/recreational hall, Crèche, library, reading room, senior citizen recreation room/club and society office.

Stg.-C/NDMC [5]

7.	Permissible area for sports facilities and Swimming Pool	100 sq.mt.	As per MPD-2021 Clause 13.3.15 to incentivise development of sports facilities and swimming pool (upto maximum 100 sq.mt.) within the group housing areas, schools, clubs, etc. shall not be counted towards ground coverage and FAR.
8.	Total area proposed for community facilities	1168.68 sq.mt.	Balance area 668.68 sq.mt. i.e. (1168.68 sq.mt.-500 sq.mt.) counted in the main FAR.
9.	Proposed total covered area on all floors for main dwellings units	39998.59 sq.mt.	
10.	Achieved FAR	199.99	
11.	Permissible covered area for EWS minimum 15% of proposed FAR of 39998.59 sq.mt.	5999.78 sq.mt.	
12.	Proposed covered area for EWS block	8306.52 sq.mt. i.e 20.77%	For EWS = 8009.6 sq.mt. For Shops and PSP facilities = 296.92 sq.mt. (8009.6+296.92) = 8306.52 sq.mt.
13.	No. of Proposed Dwelling Units	258 DUs	
14.	No. of EWS Dwelling Units	152 DUs	
15.	Total No. of DUs (Main + EWS)	410 DUs	
16.	Permissible Density	209 DUs/Hac.	
17.	Proposed Density for Main Dwelling Units	129 DUs/Hac.	
18.	Population @ 4.5 persons/DUs for main DUs	1161 persons	
19.	Population @ 2.5 persons/DUs for EWS DUs	380 persons	
20.	Total Population	1541 persons	
21.	Permissible Height	NR	
22.	Proposed Height (Max.)	139.6 mts.	Subject to clearance from AAI/ Fire Deptt. and other statutory bodies.
23.	Basement Provided	31740.26 sq.mt. For Parking—27240.3 sq.mt. For services—4500 sq.mt. i.e. 14.2%	Basement permitted up to the set back line, Maximum equivalent to parking and Services requirement. The area provided for services should not exceed 30% of the basement.

24.	Podium Details	Level (1) = 6493.24 sq.mt. Level (2) = 7210.07 sq.mt. Landscape area = 6826.42 sq.mt.	As per Clause 8(7), Chapter-17 of MPD-2021, Podium(s)/Multistorey Podium with tower above shall be permitted within setback lines and free from FAR & Ground coverage.
25.	Stilt area under Tower B&C	610 sq.mt.	Stilt is use of landscaping.

The norms provided is as per MPD-2021 & is in order.

9. Parking :

(i) Parking required @ 2 ECS/100 sq.mts. for main units	= 810 ECS
(ii) Parking required @ 0.5 ECS/100 sq.mts. for EWS	= 42 ECS
Total required parking	= 852 ECS
Parking proposed	
(i) Basement	
● Upper basement parking	= 187 ECS
● Lower basement parking	= 186 ECS
(ii) Podium	
● Podium parking at level (1) ground floor	= 235 ECS
● Podium parking at level (2) first floor	= 246 ECS
Total proposed parking	= 854 ECS

10. Setbacks :

For this size of the plot(s) setback required as per MPD-2021 are 15 Mt. in front and 12 Mt. on all other sides. Set backs are provided as per MPD-2021.

11. Green/Open Area Calculations :

1. Required green area 50% of open area	= 3353.85 sq.mt.
2. Proposed green/open area	= 3411.97 sq.mt.

The Open/Green Area are provided as per the laid down norms and thus is in order.

12. LOSC Consideration dated 1-6-2017 :

The proposal was again considered by LOSC vide Item No. 44/17 dated 1-6-2017 and the decision taken is reproduced as under :—

"The case was discussed. It was informed that the layout plan of Group Housing was earlier approved in the year 2013 and thereafter in the year 2015. The applicant has now proposed three residential blocks and a separate EWS block which includes shops and PSP facilities.

Stg.-C/NDMC [7]

Parking has been proposed on two levels of basement and two levels of podium (free from ground coverage and FAR) subject to fire safety requirement. Above the two levels of podium, still has been proposed in two blocks and earmarked for landscaping. The applicant has proposed Fire Check Floor above 70 m. at immediate habitable floor level (free from FAR as per Clause 9.3.8 of UBBL-2016). The applicant has also proposed 5% of additional FAR for green building as per GRIHA rating under the provisions of MPD-2021.

Podium has been permitted under the provisions of MPD-2021 vide notification S.O. No 678(E) dated 4-3-2014 and UBBL-2016. The instant case being the first proposal under consideration of LOSC, the CE (Bldg.) has suggested that a study be carried out by the Chief Architect for any existing building with podium in the NCR and a report be submitted within 15 days.

After discussion it was decided as under :—

1. The case be place before the Standing Committee for approval subject to condition that any specific recommendation made by the Chief Architect in the report shall be considered by BPC at the time of sanctioning of building plans.
2. The 5% extra FAR for green building on the basis of registration of GRIHA is deferred, since as per Clause 8.6, Chapter-17 of MPD-2021, the regulation for enforcement of various services w.r.t. GRIHA rating is not yet notified by GNCTD.
3. The applicant be informed to submit corrected drawings as per decision in respect of GRIHA provisions as stated above."

13. Further Compliance :

With reference to the LOSC decision vide dated 1-6-2017, the applicant has submitted the corrected drawings vide dated 5-6-2017 in respect of GRIHA provisions.

14. CFO Approval :

Proposal requires approval of CFO at the time of sanctioning of Bldg. Plans.

15. DUAC Approval :

Proposal requires approval of DUAC at the time of sanctioning of Bldg. Plans.

16. Clearance of Airport Authority of India :

Proposal requires clearance from Airport Authority of India at the time of sanctioning of Bldg. Plans.

17. Approval of Environment Committee :

Proposal requires approval of Environment Committee before sanction of Building Plan.

18. Services :

Services shall be laid and maintained as per the laid down condition of MCD/CPWD and applicant shall comply with all the conditions of approval of services plan.

19. Recommendations :

In view of above and as required U/s 313 of DMC Act (amended-to-date) the Revised Layout Plan for Group Housing at Vishwavidyalay Metro, Civil Lines, Delhi is placed before Standing Committee for approval subject to the following conditions :—

- (i) With regard to podium, the Chief Architect will submit a report within 15 days and any specific recommendation made by the Chief Architect in the report shall be considered by BFC at the time of sanctioning of building plans.
- (ii) The applicant shall get the building plans approved from Building Deptt. of MCD as per approved layout/prevalent regulations of Master/Zonal Plans and building bye-laws.
- (iii) The applicant shall deposit if not already deposited a security amount @ Rs. 5/- Per sq.yd. of the gross area of plot under the scheme within 15 days of having been intimated of the approval of the layout plan, as a guarantee for development and laying of services including roads and parking as per the approved layout/services including roads and parking as per the approved layout/services plans failing which the sanction shall not be considered as valid.
- (iv) The applicant shall get the services plans approved from respective services Deptt. of MCD before the sanction of building plans and shall lay and maintain the services including roads, parking, landscaping as per approved layout plan/landscape plans, services plans and standard cross-sections and other regulations of MCD to the complete satisfaction of Commissioner, MCD within period of one year from the date of the approval of layout/services plans, whichever is later, failing which the sanction shall lapse. However, a further period of one year may be permitted for development work by the Commissioner, MCD for the reasons to be recorded.
- (v) Commissioner, MCD shall have the right to forfeit a part or whole of the security amount in case the services are not provided to the satisfaction of the Commissioner, MCD, within the period as mentioned in Condition No. (iii) above.
- (vi) The applicant would be allowed to develop the site including laying of services and to carry out construction of bldg. simultaneously. The security as guarantee shall only be released after it has been verified by Building Deptt./Services Deptt. that entire development work and laying services has been completed as per approved layout/services plan. The completion certificate shall also be issued only after confirming that development work and laying of services has been carried out as per approved layout/services plans.
- (vii) The applicant shall submit an undertaking to the effect that area, if any affected under road widening shall be handed over to MCD/concerned authority as and when required. A/H
- (viii) The applicant shall demolish/remove all structures not forming part of proposed plan before issue of completion certificate.
- (ix) No further sub-division of flats as originally approved for one dwelling unit shall be permitted.
- (x) The land under the scheme shall not be converted into customary plots and no portion of land in the group housing scheme can be sold out at any stage.
- (xi) The applicant shall comply with all conditions of approval of services plans.

- (xii) Applicants shall indemnify MCD through and Indemnity Bond keeping it harmless in case of any dispute if arises at any stage with respect to the shapes, size, extent, title/ownership of land.
- (xiii) Trees, if any affected in the proposal shall not be felled without the permission of Competent Authority.
- (xiv) Applicant shall abide by the guidelines of Archaeological Survey of India, in case any monument existing nearby.
- (xv) All the necessary clearances/NOCs from external agencies namely CFO, DUAC and other compliances shall be obtained at the time of sanctioning of building plans.
- (xvi) The clearance from the Environment Committee and other agencies as per the requirement shall be submitted before the sanction of Bldg. Plans.
- (xvii) The disposal of dwelling unit meant for EWS shall be as per the policy of DDA/Min. of Urban Development/Govt. of India. *will be followed*
- (xviii) The applicant shall file an undertaking stating that no equity shall be claimed by them if ultimately it is found that MPD-2021 suffers from infirmity and demolition of unauthorised and for permissible construction is to be made, the same shall be carried out and the MCD shall not responsible for any loss/damage as a result of granting the aforesaid sanction.
- (xix) Any misuse shall carried out by the applicant is liable to be municipalized/taken over by the Local Body/Authority. *A. H. ...*
- (xx) The applicant shall obtain approval of the ESS site from the concerned authority before the sanction of building plans. *...*
- (xxi) The applicant/developer shall deposit the levy on additional FAR at the rates notified with approval of Govt. from time to time at the time sanction of building plans.
- (xxii) All the earlier conditions wherever applicable shall be adhere to the applicant.

Item No.10 Revised Layout Plan for Group Housing at Vishwavidyalay Metro Station, Civil Lines, Delhi.

Reso.No.
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Resolved that the proposal of the Commissioner as contained in his letter No. F. 33/CTP/NDMC/790/C&C dated 21.06.2017, be approved, subject to the terms & conditions mentioned in the aforesaid letter.

Me 27/11/17
Section Officer (S.O.)
Municipal Secretary Office
North Delhi Municipal Corporation

27/11/17

MINISTRY OF JAL SHAKTI
(Department Of Water Resources, River Development And Ganga Rejuvenation)
(CENTRAL GROUND WATER AUTHORITY)

NOTIFICATION

New Delhi, the 24th September, 2020

S.O. 3289(E).—WHEREAS, on the directions of Hon'ble Supreme Court vide its order dated the 10th December, 1996 passed in Civil writ Petition No 4677 of 1985, MC Mehta Vs Union of India, the Central Government constituted the Central Ground Water Authority (hereafter referred to as the 'Authority') vide notification number S.O. 38 (E), dated the 14th January, 1997 to exercise powers under Section 5 of the Environment (Protection) act, 1986 (29 of 1986) for the purposes of regulation and control of Ground Water management and development and to exercise certain powers and perform certain functions relating thereto;

AND WHEREAS, the Authority has been regulating ground water development and management by way of issuing 'No Objection Certificates' for ground water extraction to industries or infrastructure projects or Mining Projects etc., and framed guidelines in this connection from time to time in twenty two States and two Union territories, where ground water development is not being regulated by the State Government Union Territory administration concerned;

AND WHEREAS, some of the State Governments or, Union territories enacted legislations and issued regulatory directions or orders for regulating ground water development and management;

AND WHEREAS, the Hon'ble National Green Tribunal, New Delhi vide order dated the 15th April 2015 in OA Nos. 204/205/206 of 2014 has issued directions to the Authority to ensure that any person operating tube-well, or any means to extract ground water shall obtain permission from the Authority and shall operate the same subject to the law in force, even if such unit is existing unit or the unit is yet to be established;

AND WHEREAS, the said Hon'ble Tribunal vide its order dated the 09th July, 2015 in OA Nos. 34 and 37 of 2014 directed all industrial units which are members of the Common Effluent Treatment Plants (CETPs) to approach the Authority through State Pollution Control Board for obtaining 'No Objection Certificate' in accordance with the law;

AND WHEREAS, the aforesaid Hon'ble Tribunal vide order dated the 13th July, 2017 in OA No 200- of 2014 directed that every industry should be directed to pay for extraction of such water, that too, subject to the conditions stated in the order permitting such extraction;

AND WHEREAS, the said Hon'ble Tribunal vide its order dated the 28th August, 2018 in O.A. Nos. 176 of 2015 and 59 of 2012 respectively directed the Ministry of Water Resources, River Development and Ganga Rejuvenation to forthwith review the existing mechanism so as to ensure effective steps for conserving the groundwater resources;

AND WHEREAS, in pursuance of the directions of the Hon'ble National Green Tribunal and powers conferred by sub-section (3) of section 3 and section 5 of the Environment (Protection) Act, 1986 the Authority, with a view to protect the ground water resources had circulated the draft guidelines for grant of 'No Objection Certificate' on the 11th October, 2017 inviting comments and suggestions from all the stakeholders;

AND WHEREAS, all objections and suggestions received in response to the said draft guideline have been duly considered by the Central Government, the Authority notified the guidelines to regulate groundwater over-exploitation and to conserve the groundwater resources in the country vide notification number S.O. 6140 (E), dated the 12th December, 2018;

AND WHEREAS, the aforesaid Hon'ble Tribunal vide order dated the 03rd January 2019 in the OA No. 176 of 2015 directed that the above mentioned notification dated the 12th December, 2018 may not be given effect to as it is unsustainable if tested on 'Precautionary Principle, Sustainable development as well as Inter-generational Equity Principles' and if implemented, will result in fast depletion of groundwater and damage to water bodies and will be destructive of the fundamental right to life under Article 21 of the Constitution of India;

AND WHEREAS, the said Hon'ble Tribunal vide order dated the 11th September, 2019 constituted a committee to deliberate on steps for preventing depletion of groundwater, robust monitoring mechanism

against unauthorised extractions and fulfillment of 'No Objection Certificate' conditions, environment compensation etc and to submit a report;

AND WHEREAS, the aforesaid committee submitted the report along-with draft guidelines to regulate groundwater extraction and groundwater conservation in Hon'ble Tribunal on the 16th March, 2020;

AND WHEREAS, the above said Hon'ble Tribunal vide order dated the 20th July, 2020 directed to comply with certain points for sustainable groundwater management while issuing 'No Objection Certificates' to commercial establishments by the Authority;

Now therefore, in pursuance of the directions of Hon'ble National Green Tribunal and the powers conferred by sub-section (3) of Section 3 read with Section 5 of the Environment (Protection) Act, 1986 (29 of 1986), the Department of Water Resources, River Development & Ganga Rejuvenation, hereby notifies the guidelines to regulate and control groundwater extraction in the country in supersession to this Ministry notification vide S.O. 6140 (E), dated the 12th December, 2018 as per the Schedule below:

SCHEDULE

Guidelines to regulate and control ground water extraction in India

(with immediate effect)

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[F. No. CGWA-21/4/2020-CGWA]

ASHISH KUMAR, Director

ANNEXURES

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- Annexure II: Guidelines for construction of piezometers and monitoring of groundwater levels and quality.
- Annexure III: Measures to be adopted to ensure prevention from pollution in the plant premises of polluting industries/ projects.
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- Annexure VI: Indicative list of Infrastructure projects.
- Annexure VII: Supreme Court Order in Civil Writ petition 36 of 2009 regarding measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells.
- Annexure VIII: List of States/ Union territories where ground water extraction is being regulated by Central Ground Water Authority (CGWA)
- Annexure IX: Glossary of technical terms used
- Annexure X : Annual water audits by the industries

Guidelines to regulate and control groundwater extraction in India**Preamble and Background:**

On the directions of Hon'ble Supreme Court vide its order dated 10th December, 1996 passed in Civil writ Petition No 4677 of 1985, MC Mehta Vs Union of India, the Central Government had constituted the Central Ground Water Board as Authority vide notification number S.O. 38 (E), dated the 14th January, 1997 to exercise powers under sub section (3) of section 3 of the Environment (Protection) act, 1986 (29 of 1986) for the purposes of regulation and control of Ground Water Management and Development and to exercise certain powers and perform certain functions as per the said Act.

The Authority has been regulating ground water development and management by way of issuing 'No Objection Certificates' for ground water extraction to industries or infrastructure projects or Mining Projects etc., and framed guidelines in this connection from time to time applicable in twenty two States and two Union territories, where ground water development is not being regulated by the State Government and Union territory administration concerned.

To have sustainable management of water resources in the country groundwater abstraction guidelines have been prepared to regulate groundwater extraction and conserve the scarce groundwater resources in the country.

These guidelines will come into force with immediate effect from the date of Gazette Notification and will supersede all earlier guidelines issued by the Central Ground Water Authority (CGWA).

These guidelines will have pan India applicability. Ground water abstraction in States/ Uts (which are not regulating ground water abstraction) shall continue to be regulated by Central Ground Water Authority.

Further, wherever States/ Uts have come out with their own groundwater abstraction guidelines, which are inconsistent with the CGWA guidelines, the provisions of CGWA guidelines will prevail. However, in case the guidelines followed by such States/ Uts contain some more stringent provisions than CGWA guidelines, such provisions may also be given effect to by the States/ Uts Authorities in addition to those contained in the CGWA guidelines. States may be at liberty to suggest additional conditions/ criteria based on the local hydro-geological situations which shall be reviewed by CGWA/Ministry of Jal Shakti, Government of India before acceptance.

All new/existing industries, industries seeking expansion, infrastructure projects and mining projects abstracting ground water, unless specifically exempted under Para 1.0 below, will be required to seek No Objection Certificate from Central Ground Water Authority or, the concerned State/ UT Ground Water

Authority as the case may be. The entire process of grant of No Objection Certificate shall be online through a web based application system.

Water management plans shall be prepared by all the State Ground Water Authorities/ Organizations for all Over-exploited, Critical and Semi-critical assessment units starting with Over-exploited units. Water management plans shall be reviewed and updated periodically. Water management plans, data on water availability and scarcity and policy framed in this regard shall be placed on the websites of Central Ground Water Authority/ State Ground Water Authority.

1.0 Exemptions from seeking No Objection Certificate:

Following categories of consumers shall be exempted from seeking No Objection Certificate for ground water extraction:

- (i) Individual domestic consumers in both rural and urban areas for drinking water and domestic uses.
- (ii) Rural drinking water supply schemes.
- (iii) Armed Forces Establishments and Central Armed Police Forces establishments in both rural and urban areas.
- (iv) Agricultural activities.
- (v) Micro and small Enterprises drawing ground water less than 10 cum/day.

1.1 Registration of Drilling Rigs

State / Ut Governments shall be responsible for registering drilling rigs operating within their jurisdiction and for maintaining the database of wells drilled by them. Appropriate link shall be provided in CGWA portal for making the data available to CGWA.

2.0 Drinking & Domestic use for Residential apartments/ Group Housing Societies/ Government water supply agencies in urban areas

For grant of No Objection Certificate for ground water extraction, the project proponent has to furnish the details as per the guidelines issued by the CGWA in proper format as available in CGWA website. No Objection Certificate for new /existing wells shall be granted only in such cases where the local Government water supply agency is unable to supply requisite amount of water in the area.

No Objection Certificate shall be granted subject to the following specific conditions:

- i) Installation of Sewage Treatment Plants shall be mandatory for all residential apartments/ Group Housing Societies where ground water requirement is more than 20 m³/day. The water from Sewage Treatment Plants shall be utilized for toilet flushing, car washing, gardening etc.
- ii) The No Objection Certificate shall be valid for a period of five years from the date of issue or till such time local Government water supply is provided to the project area, whichever is earlier. In case the project proponent receives water supply from the concerned local Government Water Supply Agency during the validity of the No Objection Certificate, intimation regarding availability of public water supply shall be sent by the project proponent to CGWA and No Objection Certificate will be cancelled by the Authority. In other cases, the project proponent will apply for renewal of No Objection Certificate, ninety days before the expiry of No Objection Certificate.
- iii) Proponents shall be liable to pay ground water abstraction charges for the quantum of ground water proposed to be extracted, as per rates mentioned in Table 5.1.

Documents to be submitted with the application

- a) Details of water requirement computed as per National Building Code, 2016 (**Annexure I**), taking into account recycling/ reuse of treated water for flushing etc.
- b) Affidavit on non-judicial stamp paper of Rs. 10/- by the applicant, confirming non/ inadequate availability of public water supply in case of users requiring ground water up to 10 m³/ day for drinking/ domestic use.
- c) Certificate of non-availability of water from local government water supply agency in cases requiring ground water in excess of 10 m³/ day for drinking/ domestic use. Government water supply agencies

applying for No Objection Certificate shall submit copy of government approval of the scheme/project proposed to be implemented.

- d) Ground water quality data of existing bore well/ tube well/ dug well from any National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory or Govt. approved laboratory (in case of existing projects applying for no objection certificate)
- e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

3.0 Agriculture Sector

Agriculture sector is the backbone of the Indian economy. As per Minor Irrigation Census 2013-14, 87.86% of wells are owned by marginal, small and semi-medium farmers having land holding up to 4 hectares (ha). Around 9.18 % of wells are owned by medium farmers having land holding 4 – 10 ha and 2.96% of the wells are owned by big farmers having land holding more than 10 ha.

Considering the number of ground water abstraction structures, regulation of ground water in agriculture sector through a 'command and control' strategy will prove to be an arduous task. Therefore, a participatory approach for sustainable ground water management would be more productive.

States/Uts are advised to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater.

Agriculture sector shall be exempted from obtaining No Objection Certificate for ground water extraction.

4.0 Commercial Use

No new major industries shall be granted No Objection Certificate in over-exploited assessment areas except as per the policy guidelines.

Availability of ground water resources shall be given due regard while considering applications for grant of No Objection Certificate for commercial use.

Commercial entities extracting ground water shall be required to submit online annual water audit report including an audit of water use as mentioned in the relevant sections. CGWA/ State Ground Water Authority (SGWA) shall publish all such audit reports online.

CGWA/ SGWAs shall engage independent agencies to verify the compliance of No Objection Certificate conditions periodically.

4.1 Industrial Use

In Over-exploited assessment units, No Objection Certificate shall not be granted for ground water abstraction to any new industry except those falling in the category of Micro, Small and Medium Enterprises (MSME). However, No Objection Certificate for drinking/ domestic use for work force, green belt use by these new industries shall be permitted. Expansion of existing industries involving increase in quantum of ground water abstraction in over-exploited assessment units shall not be permitted. No Objection Certificate shall not be granted to new packaged water industries in Overexploited areas, even if they belong to MSME category.

No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:

- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m³/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC) certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be

- required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in Section 15 shall be mandatory for industries drawing/ proposing to draw more than 10 m³/day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 15 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Detailed guidelines for design and construction of piezometers are given in **Annexure II**. Monthly water level data shall be submitted to the CGWA through the web portal.
 - v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
 - vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
 - vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution (**Annexure III**).
 - viii) All industries drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 5.2 A and 5.3 A.
 - ix) All existing industries drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as applicable as per Tables 5.2 B and 5.3 B.

Documents to be submitted with the application

- (a) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water supply from local government agencies in cases where ground water requirement is up to 10 m³/day.
- (b) Certificate regarding non/ partial availability of fresh water/ treated waste water supply from the local government water supply agency in cases where requirement of ground water is more than 10 m³/day.
- (c) Ground water quality data of existing bore well/ tube well/ dug well from any NABL accredited laboratory or Govt. approved laboratory (in case of existing projects applying for No Objection Certificate)
- (d) Water quality data of bore well/ tube well/ dug well in respect of existing industries from NABL accredited laboratories/Government approved laboratories.
- (e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.
- (f) **Impact Assessment report:** All projects extracting/proposing to extract ground water in excess of 100 m³/day in Over-exploited, Critical and Semi-critical areas shall have to mandatorily submit impact assessment report of existing/ proposed ground water withdrawal on the ground water regime and also socio-economic impacts report prepared by accredited consultants. Pro-forma for the report is given in **Annexure IV**.

4.2 Mining Projects

All existing as well as new mining projects will be required to obtain No Objection Certificate for ground water abstraction. Since mining projects are location specific, there will be no ban on grant of No Objection Certificate for abstraction of ground water for such projects in over-exploited assessment units.

No Objection Certificate for mining projects shall be granted subject to the following specific conditions:

- i) It shall be mandatory for all the mining industries to ensure that water available from de-watering operations is properly treated and should be gainfully utilized for supply for irrigation, dust

suppression, mining process, recharge in downstream and for maintaining e-flows in the river system.

- ii) Construction of observation well(s) (piezometers) along the periphery in the premises, for monthly ground water level monitoring, shall be mandatory for mines drawing/ proposing to draw more than 10 m³/day of ground water. Depth and aquifer zone tapped in the piezometer shall be commensurate with that of pumping well/ wells.
- iii) In addition, the proponent shall monitor ground water levels by establishing observation wells (piezometers) in the core and buffer zones as specified in the No Objection Certificate.
- iv) In case of coal and other base metal mining the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- v) In addition to this, all mining units shall also monitor the water quality of mine seepage and mine discharge through NABL accredited/ Govt. approved laboratories and the same shall be submitted at the time of self compliance.
- vi) All mining projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 5.4 A.
- vii) All mining projects drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 5.4 B.

Documents to be submitted with the application

- (a) Mining plan approved by the concerned Govt. agency/ department.
- (b) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.
- (c) Comprehensive report prepared by accredited consultant on ground water conditions in both core and buffer zones of the mine, depth wise and year wise mine seepage calculations, impact assessment of mining and dewatering on ground water regime and its socio-economic impact, details of recycling, reuse and recharge, reduction of pumping with use of technology for mining and water management to minimize and mitigate the adverse impact on ground water, based on local conditions. Format for report is given in **Annexure V**.

4.3 Infrastructure projects:

Since infrastructure projects are location specific, grant of No Objection Certificate to such projects located in over-exploited assessment units shall not be banned. New infrastructure projects/ residential buildings may require dewatering during construction activity and/ or use ground water for construction. In both cases, applicants shall seek No Objection Certificate from CGWA before commencement of work. However, in over-exploited assessment units, use of ground water for construction activity shall be permitted only if no treated sewage water is available within 10 km radius of the site. New as well as existing Infrastructure projects shall also be required to seek No Objection Certificate for abstraction of ground water.

No 'No Objection Certificate' shall be granted for extraction of groundwater for Water Parks, Theme Parks and Amusement Parks in over-exploited assessment units.

Indicative list of Infrastructure projects is given in Annexure VI.

The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:

- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data through the web portal to CGWA/SGWA as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by CGWA/SGWA.

- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m³/day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc.
- iii) For infrastructure dewatering/ construction activity, No Objection Certificate shall be valid for specific period as per the detailed proposal submitted by the project proponent.
- iv) All infrastructure projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Table 5.3 A.
- v) All infrastructure projects (new/ existing) drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 5.3 B.

Documents to be submitted with the application

- (a) In cases where dewatering is involved, submission of impact assessment report prepared by an accredited consultant on the ground water situation in the area giving detailed plan of pumping, proposed usage of pumped water and comprehensive impact assessment of the same on the ground water regime shall be mandatory. The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc.
- (b) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water from any other source in case water is required for construction in safe and semi critical areas.
- (c) Certificate from a government agency regarding non availability of treated sewage water for construction within 10 km radius of the site in critical and over-exploited areas.
- (d) Certificate of non-availability of water from local government water supply agency in respect of all categories of assessments units for commercial use.
- (e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.
- (f) Details of water requirement computed as per National Building Code, 2016 (**Annexure I**), taking into account recycling/ reuse of treated water for flushing etc. (in case of completed infrastructure projects for commercial use).
- (g) Completion certificate from the concerned agency for infrastructure projects requiring water for commercial use.

5.0 Ground water abstraction/ restoration charges

All residential apartments/ group housing societies/ Government water supply agencies in urban areas shall be required to pay ground water abstraction charges.

All industries/mining/ infrastructure projects drawing ground water in safe, semi-critical and critical assessment units will have to pay ground water abstraction charges based on quantum of ground water extraction and category of assessment unit as per details given in this guideline.

All existing mining/ infrastructure projects and existing industries including MSME drawing ground water in over-exploited assessment units will have to pay ground water restoration charges based on quantum of ground water extraction. Further, new MSME, new infrastructure and new Mining projects in over exploited areas shall also be required to pay ground water restoration charges.

Existing industries, infrastructure units and mining projects which have installed/constructed artificial recharge structures in compliance of the conditions prescribed in the groundwater guidelines prevailing at the time of grant of No Objection Certificate or its renewal shall be eligible for a rebate of 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, subject to their satisfactory performance and verification.

The revenue generated from the proposed water abstraction/ restoration charges shall be kept in a separate fund for implementation of site specific suitable demand/ supply side interventions.

5.1 Rates of Ground water abstraction /restoration charges

I. Drinking and domestic use for residential apartments/ group housing societies/ Government water supply agencies in Urban areas

All residential apartments/ Group Housing Societies requiring water only for drinking/domestic use requiring No Objection Certificate would pay ground water abstraction charges as per rates given below in Table 5.1.

Table 5.1 Ground Water Abstraction charges for Drinking & Domestic use.

Quantum of Groundwater withdrawal (m ³ /month)	Rate of ground water abstraction charges (Rs. per m ³)
0-25	No charge
26-50	1.00
>50	2.00

Government water supply agencies and Government infrastructure projects shall pay Ground water abstraction Charges @ Rs. 0.50 per m³.

II. Packaged Drinking Water units

Rates of ground water abstraction charges for packaged drinking water units in safe, semi-critical and critical assessment units are given in Table 5.2 A and those for ground water restoration charges in over-exploited assessment units are given in Table 5.2 B.

Table 5.2 A: Rates of ground water abstraction charges for packaged drinking water units (Rs per m³)

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal				
		Up to 50m ³ /day	51 to <200 m ³ /day	200 to <1000 m ³ /day	1000 to <5000 m ³ /day	5000 m ³ /day and above
1.	Safe	1.00	3.00	5.00	8.00	10.00
2.	Semi-critical	2.00	5.00	10.00	15.00	20.00
3.	Critical	4.00	10.00	20.00	40.00	60.00

Table 5.2 B: Rates of ground water restoration charges for packaged drinking water units (Rs per m³)

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal				
		Up to 50 m ³ /day	51 to <200 m ³ /day	200 to <1000 m ³ /day	1000 to <5000 m ³ /day	5000 m ³ /day and above
1.	Over-exploited (existing industries only)	8.00	20.00	40.00	80.00	120.00

III. Other Industries & infrastructure projects

Rates of ground water abstraction charges for other industries and infrastructure projects in safe, semi-critical and critical assessment units are given in Table 5.3 A and those for ground water restoration charges in over-exploited assessment units are given in Table 5.3 B.

Table 5.3 A: Rates of Ground Water abstraction charges for other industries & infrastructure projects (Rs per m³)

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m ³ /day	200 to <1000 m ³ /day	1000 to <5000 m ³ /day	5000 m ³ /day and above
1.	Safe	1.00	2.00	3.00	5.00
2.	Semi-critical	2.00	3.00	5.00	8.00
3.	Critical	4.00	6.00	8.00	10.00

Table 5.3 B: Rates of ground water restoration charges for other industries & infrastructure projects (Rs per m³)

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m ³ /day	200 to <1000 m ³ /day	1000 to <5000 m ³ /day	5000 m ³ /day and above
1.	Over-exploited (existing industries / new Industries as per the present Guidelines)	6.00	10.00	16.00	20.00

IV. Mining projects

Rates of ground water abstraction charges for mining, which are drawing ground water in safe, semi-critical and critical assessment units are given in Table 5.4 A and those for ground water restoration charges in case of projects drawing ground water in over-exploited assessment units are given in Table 5.4 B.

Table 5.4 A: Rates of ground water abstraction charges for mining (Rs. per m³)

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m ³ /day	200 to <1000 m ³ /day	1000 to <5000 m ³ /day	5000 m ³ /day and above
1.	Safe	1.00	2.00	2.50	3.00
2.	Semi-critical	2.00	2.50	3.00	4.00
3.	Critical	3.00	4.00	5.00	6.00

Table 5.4 B: Rates of ground water restoration charges for mining (Rs. per m³)

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m ³ /day	200 to <1000 m ³ /day	1000 to <5000 m ³ /day	5000 m ³ /day and above
1.	Over-exploited	4.00	5.00	6.00	7.00

6.0 Bulk Water Supply

All private tankers abstracting ground water and use it for supply as bulk water suppliers will now mandatorily seek No Objection Certificate for ground water abstraction. The bulk water suppliers through tankers drawing ground water in safe, semi-critical and critical assessment units shall pay groundwater abstraction charges as per the **Table-6.1 A**. The bulk water suppliers drawing ground water in over-exploited assessment units shall pay the groundwater restoration charges as per the **Table-6.1 B**. All tankers will have to install GPS based system for their monitoring of movement/area of operation.

Modalities for issue of No Objection Certificate for bulk/tanker water supplies shall be worked out in consultation with States/Uts and suitable guidelines in this regard will be framed and issued separately for the same.

Table-6.1A: Groundwater abstraction charges for Bulk/Tanker water supplies

Category	Rate per m ³ (in Rs.)
Safe	10
Semi Critical	20
Critical	25

Table-6.1B: Groundwater abstraction charges for Bulk/Tanker water supplies

Category	Rate per m ³ (in Rs.)
Over Exploited	35

7.0 Abstraction of Saline ground water

Abstraction of saline ground water in areas having either saline ground water at all depths or pockets of saline ground water in an otherwise fresh water area for use by industries/ dewatering by infrastructure/ mining projects including those located in over-exploited areas would be encouraged. Such industries shall be exempted from paying ground water abstraction charges.

The list of such assessment units having saline ground water at all depths as per the latest assessment of dynamic ground water resources will be made available by the CGWA in their website. However, due care shall be taken in respect of disposal of effluents by the units so as to protect the water bodies and the aquifers from pollution.

Detailed guidelines in this regard shall be prepared and issued separately.

8.0 Protection of Wetland Areas

The wet land areas in the country are very crucial as they are direct reflection of the presence of ground water in such areas. The protection of the wetland areas is being separately handled by the Wetland Authorities. Since ground water is very crucial for the survival of the wetland area, any excessive ground water development within the zone of wetland area would affect the volume of water in that wetland.

Projects falling within 500 m. from the periphery of demarcated wetland areas shall mandatorily submit a detailed proposal indicating that any ground water abstraction by the project proponent does not affect the protected wetland areas. Furthermore, before seeking permission from CGWA, the projects shall take consent/approval from the appropriate Wetland Authorities to establish their projects in the area.

9.0 General compliance conditions in No Objection Certificate

- i. Installation of digital water flow meter (conforming to BIS/ IS standards) having telemetry system in the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate through the web-portal.
- ii. Proponents shall mandatorily get water flow meter calibrated on from an authorized agency once in a year.
- iii. Proponents shall install roof top rain water harvesting & recharge systems in the project area.
- iv. Proponents shall pay Ground Water Abstraction/ Restoration Charges based on quantum of ground water extraction as applicable as per the rates given in Section 6.
- v. Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 15. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in **Annexure-II**.
- vi. Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- vii. If the existing well becomes defunct due to mechanical failure within the validity period of No Objection Certificate, the user can construct a replacement well under intimation to CGWA on web portal. The defunct well shall be properly sealed (**Refer Annexure VII**). The user will be required to submit documentary proof in this regard. However, if the existing abstraction structures fails to yield water and he proponent desires to drill another tubewell in the same premises, prior permission of the Authority shall be required. If the replacement well is to be drilled in some different place, the proponent shall obtain fresh No Objection Certificate.
- viii. Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- ix. In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.

10.0 Monitoring of compliance of No Objection Certificate Conditions

To monitor the compliance of No Objection Certificate conditions, Central Ground Water Authority and State/ UT Ground Water Authorities shall take the following steps:

- a. Suitable MIS will be developed for compliance monitoring.
- b. District Collectors/Deputy Commissioners (DCs) /District Magistrates (DMs) are authorized to take enforcement measures like sealing of unauthorized ground water abstraction structures, disconnection of electricity, launching of prosecution against those violating the No Objection Certificate conditions and taking action for imposition of Environmental Compensation.
- c. Technical officers of CGWB/ CGWA and State groundwater organizations are authorized to take actions with respect to monitoring and periodic inspections with the approval of competent authority.
- d. In case of violation of any of the No Objection Certificate conditions, the proponents shall be liable to pay the penalties as per **Section 16**.

11.0 Renewal of No Objection Certificate

No objection certificate shall be renewed periodically, subject to the compliance of the conditions mentioned therein:

- i. The applicant shall apply for renewal of No Objection Certificate at least ninety days prior to expiry of its validity.
- ii. Application for renewal of No Objection Certificate shall be accompanied by the Compliance Report.
- iii. Before granting renewal, Central Ground Water Authority or State/ Ut Authority shall satisfy itself that the conditions of No Objection Certificate have been complied with.
- iv. In case of change in category of the assessment unit, renewals would be granted with conditions as laid down for new category.
- v. No Objection Certificate will be renewed for the terms specified for various uses as follows:

Category	Use	Term of renewal
Critical, Semi-critical and safe	Infrastructure projects for drinking & domestic use and urban Water Supply Agencies	5 years
	Industries	3 years
	Mines	2 years
Over exploited	All users in 'Over-exploited areas'	2 years

- vi. If the application for renewal is submitted in time and the CGWA/ the respective State/ Ut Authority is unable to process the application in time, No Objection Certificate shall be deemed to be extended till the date of renewal of No Objection Certificate.
- vii. If the proponent fails to apply for renewal within 3 months from the date of expiry of No Objection Certificate, the proponent shall be liable to pay Environmental Compensation for the period starting from the date of expiry of No Objection Certificate till No Objection Certificate is renewed by the competent authority.

12.0 Extension of No Objection Certificate

If the proponent is unable to construct the well(s) during the validity period of No Objection Certificate for genuine reasons, the proponent will have to apply for extension of No Objection Certificate. Application for extension should be supported by documents justifying the reasons for delay. Other conditions for grant of extension of No Objection Certificate will be the same as that for fresh No Objection Certificate.

Extension of No Objection Certificate will be granted for a maximum period of two years. No further extension will be granted after the expiry of the extended period. In that case, the applicant will have to apply afresh for grant of No Objection Certificate.

13.0 Delegation of powers against illegal groundwater withdrawal

Central Ground Water Authority has appointed the District Magistrate/ District Collector/ Sub Divisional Magistrates of each Revenue District/Sub division as Authorized Officers, who have been delegated the power to seal illegal wells, disconnect electricity supply to the energised well, launch prosecution against offenders etc. including grievance redressal related to ground water in their respective jurisdictions.

In order to further decentralise and strengthen the monitoring and compliance mechanism as per the guidelines, officials of concerned Departments of Revenue and Industries of the States/Uts shall be appointed as Authorised Officers in consultation with the State/Ut Governments.

A copy of the No Objection Certificate issued by the CGWA in the No Objection Certificate Application Portal (NOCAP) will be forwarded to the respective District Magistrate/ District Collector. In case of any violation of the directions of Central Ground Water Authority and non-fulfilment of the conditions laid

down in the No Objection Certificate, the Authorised Officers will file appropriate Petition/Original Application etc under sections 15 to 21 of the Environment (Protection) Act, 1986 in appropriate Courts.

14.0 Ground Water Level Monitoring

All the project proponents (drawing ground water more than 10 cum/d) have to mandatorily construct Piezometers (observation wells) within their premises for monitoring of the ground water levels. Such a mechanism of compliance conditions has been made to ensure that every month the ground water level in the project area can be monitored and observed. In this regard the necessary criteria for monitoring of water levels through piezometers by the project proponents is given in Table 14.1.

Table 14.1 No. of Piezometers to be constructed & Type of Water Level Monitoring Mechanism

S.No.	Quantum of Ground water withdrawal (cum/d)	No. of piezometer required	Monitoring mechanism		
			Manual	DWLR	DWLR with Telemetry
1	<10	0	0	0	0
2	11-50	1	1	0	0
3	51-500	1	0	1	0
4	>500	2	0	1	1

The piezometer shall be suitably located to ensure that zone of aquifer tapped in the piezometer is the same as that of the pumping well.

15.0 Environmental Compensation

Extraction of ground water for commercial use by industries, infrastructure units and mining projects without a valid No Objection Certificate from appropriate authority shall be considered illegal and such entities shall be liable to pay Environmental Compensation for the quantum of ground water so extracted. The norms prescribed by Central Pollution Control Board (CPCB) shall be utilized for calculating the Environmental compensation as mentioned below:

$$EC_{GW} = \text{Ground water consumption per day} \times \text{Environmental Compensation rate (ECR}_{GW}) \times \text{No. of days} \times \text{Deterrence factor}$$

where ground water consumption is in m³/day and ECR_{GW} in Rs./ cum

15.1 Rates of Environmental Compensation:

Rates of Environmental Compensation (ECR_{GW}) for various types of users in different categories of assessment units are given in Table 15.1 to 15.3.

Table 15.1 : ECR_{GW} for Packaged Drinking Water units

S.No.	Area Category	Water Consumption (cum/day)			
		<200/	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR _{GW}) in Rs./m ³			
	Safe	12	18	24	30
2	Semi critical	24	36	48	60
3	Critical	36	48	66	90
4	Over- exploited	48	72	96	120

Note :-Minimum EC_{GW} shall not be less than Rs 1,00,000/-

Table 15.2: ECR_{GW} for Mining/ infrastructure dewatering projects

S.No.	Area Category	Water Consumption (cum/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR _{GW}) in Rs./m ³			
1	Safe	15	21	30	40
2	Semi critical	30	45	60	75
3	Critical	45	60	85	115
4	Over- exploited	60	90	120	150

Note :-Minimum EC_{GW} shall not be less than Rs 1,00,000/-

Table 15.3: ECR_{GW} for Industrial units

S.No.	Area Category	Water Consumption (cum/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR _{GW}) in Rs./m ³			
1	Safe	20	30	40	50
2	Semi critical	40	60	80	100
3	Critical	60	80	110	150
4	Over- exploited	80	120	160	200

Note :-Minimum EC_{GW} shall not be less than Rs 1,00,000/-

15.2 Deterrent Factors to compensate losses and environmental damage (for packaged drinking water units, mining, industries and infrastructural dewatering projects)

The following deterrent factors based on the duration of illegal ground water extraction shall be levied to compensate for the losses and environmental damages as detailed in Table 15.4.

Table 15.4: Deterrent factor based on quantum of ground water withdrawal and number of years of illegal withdrawal

S.No.	Water Consumption	Deterrence Factor		
		< 2 years	2-5 years	>5 years
1	<1000 KLD	1.00	1.00	1.25
2	1000-5000 KLD	1.00	1.00	1.50
3	>5000 KLD	1.00	1.25	2.00

Note: KLD – Kilolitre per day

16.0 Provision of Penalty

Penalty shall be imposed on the proponents for non-compliance of No Objection Certificate conditions issued by the appropriate authority. Rates of penalty proposed for non-compliance of various conditions of No Objection Certificate are given in Table 16.1. The rates of the penalty shall be reviewed periodically with the approval of competent authority in Ministry of Jal Shakti.

Table 16.1: Penalty provision for non Compliance of No Objection Certificate conditions

S. No.	Items	Charges in Rs.
1	Non installation/faulty Digital water Flow meter with telemetry system.	200000
2	Non disclosure/ construction of additional groundwater abstraction structures a) Non-functional Structures. b) Defunct/Abandoned Note: Given rates are for unit non-functional/defunct/abandoned structures. This shall be multiplied with total such structures to arrive at consolidated penalty.	200000 100000
3	Reporting of fresh water zones as Brackish / Saline zones in application.	200000
4	Non Installation of Piezometer.	200000
5	Non Installation/faulty DWLR/Telemetry system	100000
6	Non Construction/Inadequate capacity of Recharge / Water conservation structures.	500000
7	Non maintenance of Recharge structures.	200000
8	Injection of treated/untreated water into the aquifer system. Note: In addition to penalty, the proponent shall bear the cost of aquifer remediation as per the provisions of Environment (Protection) Act, 1986.	1000000
9	Non Submission of Water level/Water quality Data.	50000
10	Non-maintenance of log book of daily withdrawal/non submission of Groundwater abstraction data.	50000
11	Non submission of photograph of recharge structure(s).	50000
12	Non Submission of Self Compliance report.	100000
13	Construction of groundwater abstraction structures by un authorized/unregistered Drilling Rigs (per structures).	100000
14	Non registration of water supply tankers.	500000
15	Submission of false information/ undertaking.	100000

Charges shall also be payable for correction/modification in the existing issued No Objection Certificate letter. The details of such charges are given in [Table 16.2](#).

Table 16.2: Proposed Charges for correction/Modification in the existing issued No Objection Certificate

S. No.	Items	Charges in Rs.
1	Change in recharge quantum	10000
2	Change in User ID.	5000
3	Change in firm Name	5000
4	Extension of No Objection Certificate	5000
5	Issuance of duplicate No Objection Certificate	5000
6	Issuance of corrigendum to No Objection Certificate	5000
7	Any other items/corrections etc	5000

17.0 Other important Conditions (Applicable to all):

- i. Sale of ground water by a person/ agency not having valid no objection certificate from CGWA/State Ground Water Authority is not permitted.
- ii. In infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- iii. In case of Infrastructure projects, the firm/entity shall ensure implementation of dual water supply system in the projects. Compliance of the same shall be submitted through the web portal.
- iv. Non-compliance of conditions mentioned in the No Objection Certificate may be taken as sufficient reason for cancellation of no objection certificate accorded/ non-renewal of No Objection Certificate.
- v. No application shall be entertained without supporting documents as specified in relevant sections.
- vi. Abstraction structure(s) should be located inside the premises of project property.
- vii. Self compliance of conditions laid down in the no objection certificate shall be reported by the users online in the web portal of Central Ground Water Authority/state Ground Water Authority.
- viii. Processing fee prescribed, if any, from time to time shall be charged for various services.

Note:

1. Guidelines are subject to modification from time to time.
2. In case of any discrepancy between Hindi and English versions of this document including the annexures, the English version shall prevail.

Annexure I**Estimation of Water Requirements for drinking and domestic use****(Source: National Building Code 2016, BIS)**

a) Residential Buildings:

Accommodations	Population
1 Bedroom dwelling unit	4
2 Bedroom dwelling unit	5
3 Bedroom dwelling unit	6
4 Bedroom dwelling unit and above	7

Notes:

- 1) The above figures consider a domestic household including support personnel, wherever applicable.
- 2) For plotted development, the population may be arrived at after due consideration of the expected number and type of domestic household units.
- 3) Dwelling unit under EWS category shall have population requirement of 4 and studio apartment shall have population requirement of 2.

As a general rule the following rates per capita per day may be considered for domestic and non-domestic needs:

a) For communities with populations up to 20,000:

1)	Water supply through stand post:	40 lphd (Min)
2)	Water supply through house service: connection	70 to 100 lphd

- b) For communities with: 100 to 135 lphd
population 20,000 to 100,00 together with
full flushing system
- c) For communities with population: 150 to 200 lphd
above 100,000 together with
full flushing system

Note—The value of water supply given as 150 to 200 litre per head per day may be reduced to 135 litre per head per day for houses for Medium Income Group (MIG) and Low Income Groups (LIG) and Economically Weaker Section of Society (EWS), depending upon prevailing conditions and availability of water.

Out of the 150 to 200 litre per head per day, 45 litre per head per day may be taken for flushing requirements and the remaining quantity for other domestic purposes.

A. Water Requirements for Buildings Other than Residences

Sl No.	Type of Building	Domestic litres per head/ day	Flushing Litres per head/ day	Total Consumption Litres per head/ day
1.	Factories including canteen where bath rooms are required to be provided	30	15	45
2.	Factories including canteen where no bath rooms are required to be provided	20	10	30
3.	Hospital (excluding laundry and kitchen):			
	a) Number of beds not exceeding 100	230	110	340
	b) Number of beds exceeding 100	300	150	450
	c) Out Patient Department (OPD)	10	5	15
4.	Nurses' homes and medical quarters	90	45	135
5.	Hostels	90	45	135
6.	Hotels (up to 3 star) excluding laundry, kitchen, staff and water bodies	120	60	180
7.	Hotels (4 star and above) excluding laundry, kitchen, staff and water bodies	260	60	320
8.	Offices (including canteen)	25	20	45
9.	Restaurants and food court including water requirement for kitchen:			
	a) Restaurants	55 per seat	15 per seat	70 per seat
	b) Food Court	25 per seat	10 per seat	35 per seat
10.	Clubhouse	25	20	45
11.	Stadiums	4	6	10

		5 per seat	10 per seat	15 per seat
12.	Cinemas, concert halls and theatres and multiplex			
13.	Schools/Educational institutions:			
	a) Without boarding facilities	25	20	45
	b) With boarding facilities	90	45	135
14.	Shopping and retail (mall)			
	a) Staff	25	20	45
	b) Visitors	5	10	15
15.	Traffic Terminal stations			
	a) Airports	40	30	70
	b) Railway stations (Junction) with bathing facility	40	30	70
	c) Railway stations (Junction) without bathing facility	30	15	45
	d) Railway stations (Intermediate) with bathing facility	25	20	45
	e) Railway stations (Intermediate) without bathing facility	15	10	25
	f) Interstate bus terminals	25	20	45
	g) Intrastate Bus Terminals/Metro Stations	10	5	15

Notes:

1. For calculating water demand for visitors, consumption of 15 litre per head per day may be taken.
2. The water demand includes requirement of patients, attendants, visitors and staff. Additional water demand for kitchen, laundry and clinical water shall be computed as per actual requirements.
3. The number of persons shall be determined by average number of passengers handled by stations, with due considerations given to the staff and vendors who are using these facilities.
4. Consideration should be given for seasonal average peak requirements.
5. The hospitals may be categorized as Category A (25 to 50 beds), Category B(51 to 100 beds), Category C (101 to 300 beds), Category D (301 to 500) and Category E (501 to 750 beds).

Annexure II**Guidelines for construction of Piezometers and monitoring of Ground Water Levels and Quality**

Piezometer is a borewell/tubewell used only for measuring the water level by lowering a tape/sounder or automatic / digital water level measuring equipment. It is also used to take water sample for water quality testing whenever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum distance of 50 m from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about four inches to six inches.
- The depth of the piezometer should be the same as that of the pumping well from which ground water is being abstracted. If, more than one pumping wells are constructed tapping aquifers at different depths, more than one piezometers shall be required to be constructed tapping different aquifers as in the pumping wells.

- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tubewells has been stopped for about four to six hours.
- The ground water quality has to be monitored once in a year during pre-monsoon (April/ May) period by industries and mines drawing ground water. Samples of ground water should be analyzed from NABL accredited laboratory.
- A permanent display board should be installed at Piezometer/ Tubewell site for providing the location, piezometer/ tubewell number, depth and zone tapped of piezometer/tubewell for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care off.

Annexure III

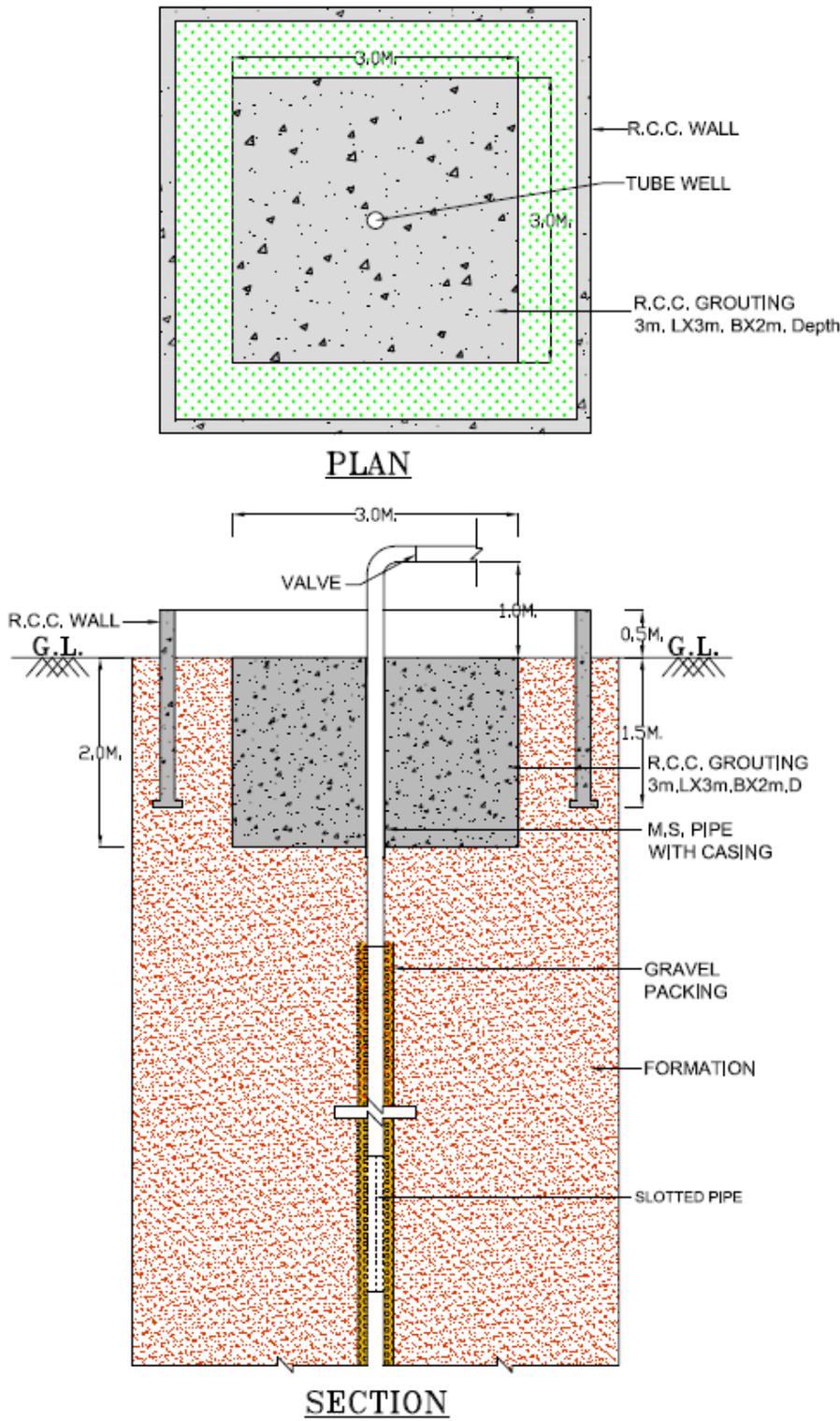
Measures to be adopted to ensure prevention from pollution in the plant premises of polluting industries/ projects

It has been observed that ground water in and around polluting industries like Tannery, Slaughter Houses, Dye, Chemical, Coalwashery, other hazardous units, etc., is polluted. In order to prevent further deterioration of ground water quality, it is essential to take all necessary measures for well head protection. All industries/ projects falling under this category are hereby directed to follow the under mentioned procedure both for existing and new category.

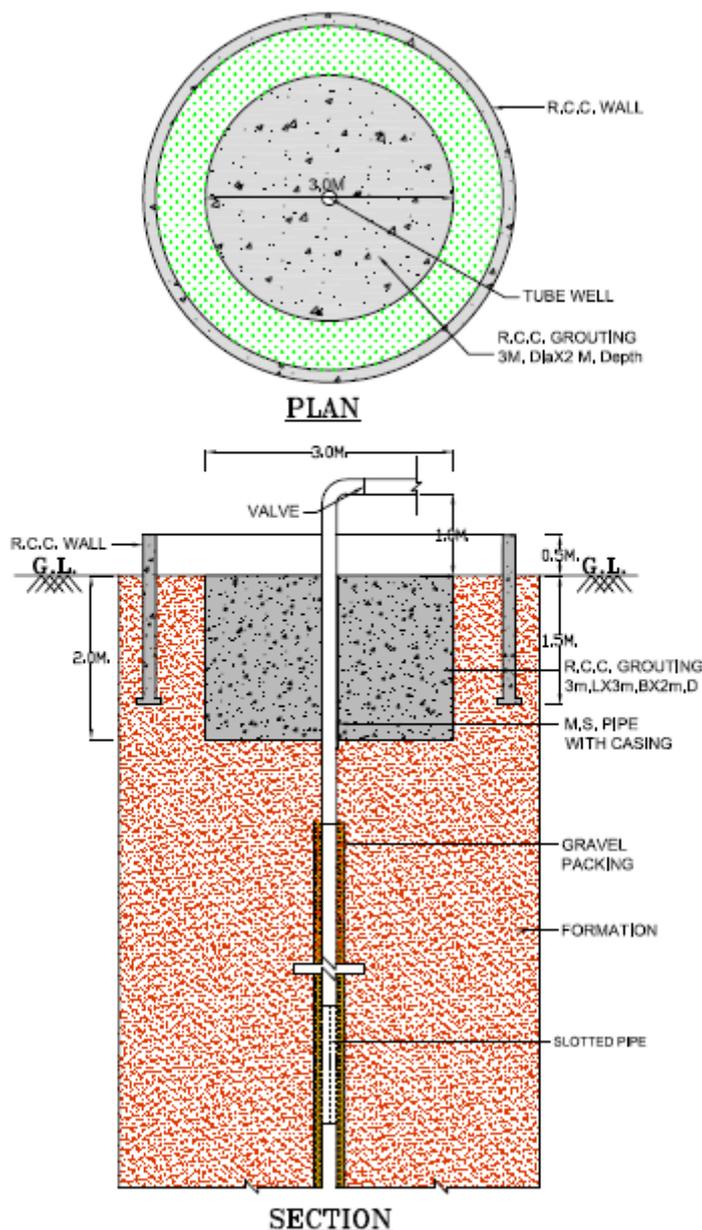
1. No tube well/ bore well / dug well should be constructed in the vicinity of the processing unit. Tube well/ bore well should be constructed at the place which is hygienically maintained.
2. Only Mild Steel pipe should be used for assembly/ casing and PVC (Poly Vinyl Chloride) or similar pipes should not be used. The tube well/ bore well having PVC or similar pipes should be abandoned and filled back.
3. Around the tube well/ bore well, RCC (Reinforced Concrete Cement) grouting of 3 meters (length) x 3 meters (width) x 2 meters (depth) must be provided. The pipe of the tube well/ bore well must be raised 1 meter above ground level (1 magl). The tube well/ bore well must be surrounded by RCC wall of 0.5 meter height and 1.5 meter depth to prevent any surface contamination to enter the constructed tube well/ bore well. Plan/Sectional diagram is enclosed for reference (Appendix 1 and 2).
3. The tube well/ bore well must be fitted with NRV (Non Return Valve) in order to ensure that the constructed tube well/ bore well is exclusively used for abstraction of ground water only.
4. At no point of time there should be any injection of any water or fluid into the constructed tube well/ bore well/ Piezometer.
5. The industries/ projects under this category should not implement any recharge measures within the plant premises.
6. Any tube well/ bore well located/ constructed in the vicinity of STP (Sewage Treatment Plant) or ETP (Effluent Treatment Plant) should be abandoned and filled back.
7. The piezometer to be constructed for monitoring purpose should follow the same procedure as that for tube well/ bore well for such industries/ projects.

Appendix 1

Plan/ Sectional diagram showing well head protection



Plan/ Sectional diagram showing well head protection

**Annexure-IV****Outline of hydro-geological Report for obtaining No Objection Certificate for industries**

1. Brief about the proposed project giving location details, coordinates, google/ toposheet maps, etc. demarcating the project area.
2. Ground water situation in and around the project area including water level and quality data and maps along with quality issues, if any. In case of mines, ground water conditions in both core and buffer zone should be described.
3. Details of the tubewells/ borewells proposed to be constructed. This includes the drilling depth, diameter, tentative lithological log, details of pump to be lowered, H.P. of pump, tentative discharge of tubewells/ borewells, etc. Locations to be marked on the site plan/ map. Location of proposed piezometers.

4. Details of Geophysical studies carried out in and around the project area. Ground water resources computation of the block in which the project falls.
5. Approved Mine plan in case of mines and detailed dewatering plan in case of mine/ infrastructure dewatering projects.
6. Proposed usage of pumped water in case of mining/ infrastructure dewatering projects.
7. Comprehensive assessment of the impact on the ground water regime in and around the project area highlighting the risks and proposed management strategies proposed to overcome any significant environmental issues.
8. Proposed measures for disposal of waste water by industries drawing saline water.
9. Measures to be adopted for water conservation which include recycling, reuse, treatment, etc. This includes the water balance chart being adopted by the firm along with details of water conservation methods to be adopted.
 - Brief write up along with capacity and flow chart of Sewage Treatment Plants / Effluent Treatment Plants / Combined Effluent Treatment Plants existing/ proposed within the project.
 - Details of water conservation measures to be adopted to reduce/ save the ground water.
 - Total water balance chart showing the usage of water for various processes.
10. Any other details pertaining to the project.

Annexure V

Format of the Report on ground water conditions (for mining projects)

Introduction

Project description

Background

Objectives and scope

Regional setting

Location

Landuse

Climate

Topography and drainage

Geology –Regional and Local

General Hydrogeology (aquifer types, aquifer depth, zone tapped etc.)

Groundwater condition (In core and buffer zones)

Spatial and temporal variations in water levels Groundwater quality (Shallow and deep aquifer)

Impact of groundwater extraction on local groundwater

Hydrograph of water level/piezometer in monitoring wells

Trend analysis of historical water levels Flow net analysis (groundwater flow direction)

Year wise/ bench wise mine dewatering computation as per approved mine plan

Conclusions

Annexure VI

Indicative list of Infrastructure projects

Residential townships including commercial buildings
Office building
School
College
University
Special Economic Zone
Metro Station
Railway Station
Bus Depot
Airport
Seaport
Highway infrastructure
Fire station
Warehouse
Business Plaza
Malls & Multiplex
Hospitals
Nursing Homes
Resort
Hotel/ Restaurant/ Food Plaza
Holiday home/Guest house/ Hostels
Banquet Hall/ Marriage Gardens
IT Complex
Logistics & Cargo
Clubs
Trade Centre

Annexure -VII

Supreme Court Order in Civil Writ petition 36 of 2009 regarding measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

In Re: Measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

Union of India and Ors.

Respondents(s)

ORDER

With this Court issuing requisite guidelines vide order dated 11th February, 2010, subject to slight modifications, nothing survives in the present writ petition.

That modification is as follows:

- (i) The owner of the land/ premises, before taking any steps for constructing bore well/ tube well must inform in writing to the concerned authorities in the area, i.e., District Collector/ District Magistrate/ Sarpanch of the Gram Panchayat/ any other Statutory Authority/ concerned officers of the Department of Ground Water/ Public Health/ Municipal Corporation, as the case may be, about the construction of bore well/ tube well.
- (ii) Registration of all the drilling agencies, namely, Government/ Semi Government, Private etc. should be mandatory with the district administration/ Statutory Authority wherever applicable.
- (iii) Erection of signboard at the time of construction near the well with the following details:-
 - (a) Complete address of the drilling agency at the time of construction/ rehabilitation of well.
 - (b) Complete address of the user agency/owner of the well.
- (iv) Erection of barbed wire fencing or any other suitable barrier around the well during construction.
- (v) Construction of cement/ concrete platform measuring 0.50x0.50x0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.
- (vi) Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.
- (vii) In case of pump repair, the tube well should not be left uncovered.
- (viii) Filling of mud pits and channels after completion of works.
- (ix) Filling up abandoned bore wells by clay/sand/boulders/pebbles/drill cuttings etc. from bottom to ground level.
- (x) On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.
- (xi) District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of bore holes/ tube wells are being taken care through the concerned state/ Central Government agencies.
- (xii) District/ Block/ Village wise status of bore wells/tube wells drilled viz. No. of wells in use, No. of abandoned bore wells/ tube wells found open, No. of abandoned bore wells/ tube wells properly filled up to ground level and balance number of abandoned bore wells/ tube wells to be filled up to ground level is to be maintained at District Level.

In rural areas, the monitoring of the above is to be done through Village Sarpanch and the Executive from the Agriculture Department.

In case of urban areas, the monitoring of the above is to be done through Junior Engineer and the Executive from the concerned Department of Ground Water/Public Health/ Municipal Corporation etc.

- (xiii) If a bore well/ tube well is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water/ Public Health/ Municipal Corporation/ Private Contractor etc. must be obtained by the aforesaid agencies that the 'Abandoned' bore well/tube well is properly filled upto the ground level. Random inspection of the abandoned wells is also to be done by the Executive of the concerned agency/ department. Information on all such data on the above are to be maintained in the District Collector/ Block Development Office of the State.

We are informed that the last paragraph of the earlier order dated 11th February, 2010, concerning publicity has been duly complied with.

Subject to the above, the writ petition is disposed of.

.....CJL.
[S.H. KAPADIA]

.....J.
[K.S. RADHAKRISHNANA]

.....J.
[SWATANTER KUMAR]

New Delhi,
August 6, 2010

ANNEXURE VIII

List of States/Union territories where ground water extraction is being regulated by Central Ground Water Authority

1. Andaman and Nicobar Islands
2. Assam
3. Arunachal Pradesh
4. Bihar
5. Chhattisgarh
6. Dadra and Nagar Haveli and Daman and Diu
7. Gujarat
8. Haryana
9. Jharkhand
10. Madhya Pradesh
11. Maharashtra
12. Manipur
13. Meghalaya
14. Mizoram
15. Nagaland
16. Odisha
17. Punjab
18. Rajasthan
19. Sikkim
20. Tripura
21. Uttar Pradesh
22. Uttarakhand
23. Andhra Pradesh (only mining projects)
24. Telangana (only mining projects)

Glossary of technical terms used

1. **Safe area:** Area categorized as SAFE from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
2. **Semi-critical area:** Area categorized as SEMI-CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
3. **Critical area:** Area categorized as CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organisations. Details available on the websites of NOCAP and CGWB.
4. **Over-exploited area:** Area categorized as OVER-EXPLOITED from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organisations. Details available on the websites of NOCAP and CGWB.
5. **Aquifer:** Geological formation capable of storing and transmitting ground water.
6. **Deeper Aquifer:** In areas having multiple aquifer system, the aquifer(s) occurring below the uppermost aquifer.
7. **Well:** Any structure used for the extraction of groundwater, including open wells, dug wells, bore wells, dug-cum-bore wells, tube wells, filter points, collector wells, infiltration galleries, recharge wells, or any of their combinations or variations.
8. **Government Agency:** May be Central or State Government body.
9. **Supplier:** Government/ Government approved Water Supply Agency.
10. **Mine:** Area where mining activity is taking place, or area abandoned after mining.
11. **Illegal Ground Water abstraction Structure:** Any energized abstraction structure viz. dugwell, tubewell, borewell which is being used to withdraw ground water without valid No Objection Certificate from Central Ground Water Authority.
12. **Rainwater Harvesting:** The technique or system of collection and storage of rainwater, at micro watershed scale, including roof-top harvesting, for future use or for recharge of groundwater.
13. **Mining Project:** Project which involves mining activity either open cast or underground or both.
14. **Ground Water Draft:** Quantum of ground water withdrawal.
15. **Saline Water:** Water having salinity in excess of 2500 μ siemens/cm at 25⁰C.
16. **Water Table Intersection:** Intersection of the water table on excavation of the overlying material due to mining or other activities.
17. **Drinking and domestic use:** Besides drinking & domestic use of households, this category will cover drinking requirement of industries not requiring water for industrial process; drinking, washing, cleaning use etc. in case of hospitals, hotels, malls & multiplexes, institutions, offices, banquet halls, fire stations, metro stations, railway stations, airports, sea ports, stadia etc.
18. **Recycle/Reuse:** Using treated waste water for various purposes/ putting water to multiple uses.
19. **Government Department:** Either Central Government or State Government.
20. **Municipality:** Municipality, a Municipal Corporation or similar body of local urban governance by any other name.
21. **Groundwater:** Water, which exists below the surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers;
22. **Bgl :** Below Ground Level.
23. **BCM :** Billion cubic metres.

24. **Groundwater Abstraction structure:** Structure used to withdraw groundwater like bore well / tube well / dug well/dug cum bore well/tunnel well.
25. **Observation well or Piezometer:** A bore well/tube well used only for measuring the water level/piezometric head and to take water sample periodically but not used for groundwater abstraction.
26. **Water Audit:** A method of quantifying water use in simple or complex systems, with a view to reducing water usage and often saving money on otherwise unnecessary water use.
27. **Ground water pollution:** If concentration of any parameter in ground water exceeds the maximum permissible limit for drinking water prescribed by the Bureau of Indian Standards.
28. **Cooperative Group Housing Societies/ Builder flats:** A Housing Society is a society formed by house owners within a residential complex. The housing society formed must be formally registered with registrar of co-operatives.
29. **KLD – Kilo Litre per day**
30. **EC_{GW}** - Environmental compensation for drawing illegal ground water.
31. **EC_{GWR}** - Environmental compensation rates for drawing illegal ground water.

ANNEXURE X

Annual water audits by the industries (Source – CII)

Water audit is a systematic process of objectively obtaining a water balance by measuring flow of water from the site of water withdrawal or treatment, through the distribution system, and into areas where it is used and finally discharged. Conducting a water audit involves calculating water balance, water use and identifying ways for saving water.

Water audit involves preliminary water survey and detailed water audit. Preliminary water survey is conducted to collect background information regarding plant activities, water consumption and water discharge pattern and water billing, rates and water cess. After the analysis of the secondary data collected from the industry, detailed water audit is conducted, which involves the following steps:

- On site training and discussion with facility manager and personnel
- Water system analysis
- Quantification of baseline water map
- Monitoring and measurements using pressure and flow meters and various other devices
- Quantification of inefficiencies and leaks
- Quantification of water quality loads and discharges
- Quantification of variability in flows and quality parameters
- Strategies for water treatment and reuse or direct use

A detailed water balance is finally developed. Water quality requirement at various user areas is mapped, which helps in developing 'recycle' and 'reuse' opportunities.

The detailed water audit report contains the following:

- Water consumption and wastewater generation pattern
- Specific water use and conservation
- Complete water balance of the facility
- Water saving opportunities
- Method of implementing the proposals
- Full description and figures
- Investment required

Industries can undertake following measures for water conservation:

- Setting up of norms for water budgeting
- Modernization of industrial process to reduce water consumption
- Recycling water with a re-circulating cooling system
- Ozonation cooling water approach which can result in five fold reduction in blow down when compared to traditional chemical treatment
- Reduction in reuse of de-ionized water by eliminating some plenum flushes, converting from a continuous flow to an intermittent flow system and improving control on the use
- Use of waste water for gardening
- Proper processing of effluents to adhere to the norms of disposal.

30 December 2020

To,
 The Executive Engineer (North)
 Delhi Jal Board,
 Mukherjee Nagar,
 Delhi - 9

Ex. Engineer (North)-
 Diary No. 785-f
 Date... 30/12/2020

Re.: Proposed Group Housing Project at 1, 3 Cavalary lane and 4 Chhatra Marg near Vishwavidyalaya Metro Station, Civil Lines, Delhi

Sub.: Application for seeking permission for sub-soil water extraction for construction/ Dewatering purpose in land during Construction period

Dear Sir,

With reference to the stated subject, please find enclosed our filled application form bearing form serial no. 2167. We have also deposited Rs. 500 vide challan no. 187 dated 14.12.2020(copy enclosed).

As per the soil investigation and analysis report of March 2018 (copy enclosed), the existing sub soil water level is varying from 8.45 meter to 10.2-meter depth below the existing ground level as mentioned at page no. 6 sr. no. 4.4. The depth of our basement is 10.05 meter and raft are 2.4 meter, so the overall depth of our foundation is 12.45 meter. To do excavation till the required depth of 12.45 meter dewatering is required to lower down the existing subsoil water level. We will be using the extracted water for construction purpose as per need.

This is to inform you that we have got our water supply, sewerage and storm water scheme approved (copy enclosed) as per the details mentioned below-

SNO.	Scheme Name	Approval No & Date	Approved by	Infrastructure Fund Deposited
1	Water Supply	No.F.3(721)/NZ/EE(P)W-III/15/2315 dated 07.10.2015	Delhi Jal Board	Rs. 77,10,870/-
2	Sewerage	No F.3(140)/CLZ/EE(P)/Dr./2016/983 dated 11.01.2016	Delhi Jal Board	Rs. 68,98,494/-
3	Storm Water	No.F.1(3)/2015/EE(P1)/D-42 dated 24.11.2015.	North DMC	-

In 2016, Building by-laws got changed and UBBL 2016 came into effect from 31.03.2016 and we have to revise our building layout/ plans according to the UBBL 2016. Our revised layout was approved by Standing Committee of North DMC on 17.11.2017 (copy enclosed). Environment Clearance issued to our project on 23.03.2018 vide letter no. DPCC/SEIAA-III/C-353/DL/2018/6908-6919 (copy attached). Then we have applied online to Delhi Jal Board to get the approval of water and sewer scheme and the same was approved vide approval no.- DJB/EE(N)/2019/536 dated 11.07.2019 and we have further deposited Rs. 1,28,36,203 as

infrastructure fund (copy enclosed). In total, we have deposited of Rs. 2,74,45,567/- to Delhi Jal Board as infrastructure fund.

We trust that the above documents/information is to your satisfaction and meet all your requirements. We request you to kindly consider our case on priority and grant us permission for sub-soil water extraction for construction/ De-watering purpose most expeditiously.

Thanking you,

Yours truly,
Young Builders Private Limited

Rajiv Ranjan Sharma
VP - Projects



Enclosures -

S No.	Document
1	Filled Application form bearing form serial no. 2167
2	Deposit Receipt of Rs. 500
3	Soil investigation and analysis report of March 2018
4	Copy of the approved layout scheme for water supply dated 07.10.2015, sewerage dated 11.01.2016 and storm water dated 24.11.2015
5	Copy of revised layout approved by Standing Committee of North DMC on 17.11.2017
6	Copy of environment clearance approval dated 23.03.2018
7	Copy of revised DJB approval letter for water & Sewer scheme dated 11.07.2019 along with revised layout and Harvesting pit details
8	Copy of earlier approval letter for water supply, sewerage & storm water scheme
9	Copy of lease deed
10	Sample water test report

To,

24.12.2020

The Member Secretary,
Central Board Pollution Control,
Ministry of Environment, Forest & Climate Change,
Parivesh Bhawan, East Arjun Nagar,
Delhi 110 032.

Kind Attn: Dr. Prashant Gargava

Re. (i) Hon'ble Supreme Court Order dated 10.06.2020 in Civil Appeal No. 2485 of 2020 titled Young Builders Private Ltd. vs. University of Delhi & Ors.

(ii) Appeal No. 112/2018 before Hon'ble NGT - University of Delhi vs MoEF&CC & Ors.

Sub.: Hon'ble Committee's Report dt. 10.12.2020 uploaded on NGT's website on 11.12.2020

Respected Sir,

This has reference to the Report dated 10.12.2020 of this Hon'ble Committee titled "*Rapid Indicative Environment Assessment Report*" in the captioned matter rendered in terms of the directions of the Hon'ble National Green Tribunal *vide* its Order dated 27.02.2020 in Appeal No. 112 of 2018. (University of Delhi v. MoEF & CC & Ors.) as modified by the Order dated 10.06.2020 of the Hon'ble Supreme Court. The Hon'ble Committee concluded in the aforesaid Report that the Group Housing Project of Young Builders Pvt. Ltd., is environmentally viable.

Pursuant to the abovementioned Report, we are making the following submissions for kind consideration of the Hon'ble Committee:

1. Young Builders would ensure that all necessary approvals are obtained and are valid. As listed by the Hon'ble Committee, various approvals have already been obtained for the project and the same shall be reviewed once the Environmental Clearance is finally allowed by the Hon'ble NGT.
2. We appreciate the concern of the Hon'ble Committee for providing an enhanced capacity of 225 KLD for the Sewage Treatment Plant. In this connection your kind attention is drawn to the Environment Clearance issued to our project *vide* letter no. DPCC/SEIAA-III/C-353/DL/2018/6908-6919 dated 23-03-2018. On our commitments before the SEAC to

provide a STP of 275 KLD, based on a waste-water discharge of 249 KLD, the SEAC had acknowledged that the total waste-water generation shall be 249 KLD which will be treated at onsite STP of 275 KLD (point 2 on page 1 of EC). We assure this Hon'ble Committee that, as prescribed by the EC Condition, we will design our STP to cater to 249 KLD effluents and provide a capacity of 275 KLD.

3. Based on an apprehension that construction of a double basement may disturb / obstruct natural flow line of ground water, the Hon'ble Committee has advised the proponents to restrict construction to only one underground basement and one stilt parking, instead of the proposed two. We have been advised to revise the parking plan and seek necessary approvals. In this connection, we humbly submit as follows:
 - a. To the best of our knowledge, there will be no obstruction to the flow of ground water. Once the basement is constructed, the ground water level would recover to its original level and there would be no hindrance in the regional and local ground water flow direction.
 - b. The National Building Code prescribed for construction of basements does not prescribe anything with regards to stoppage of ground water flow and its management. It prescribes methods for recharging ground water, rainwater harvesting etc. for effective water management. The code has not recognized the issue of obstruction of flow as an area of concern. It also prescribes provision for ventilation, fire and smoke outlets, first aid, corrosion management, sprinklers, and other facilities permissible or non-permissible. Additionally, the General Building requirement of the Ministry of Housing and Urban Development also does not recognize it as an area of concern and does not prescribe any mandatory provision with regards to obstruction of ground water flow.
 - c. In any case, as suggested by the Hon'ble Committee, we will apply to the District Advisory Committee on Ground Water of the Govt. of NCT Delhi before dewatering and seek the No Objection Certificate. This clearance is given by the Authority after an assessment of the ground water situation in the area and the impact of the project on ground water. Thus, the said Authority will independently assess the impact of second basement also and if necessary, may impose appropriate conditions.

- d. As may have been observed by the Hon'ble Committee, the land use of the area is predominantly under Public and Semi-public, Residential and Government facilities and there are many built up or under construction high rise structures with multi basements in the vicinity as follows:
- i. The Delhi Metro Rail corporation has a station and subway hardly 30 meters away and in the direction of the River Yamuna. The facilities here are more than 15 meters deep below the ground.
 - ii. The North Delhi Mall with 4 basements is situated about 200 meters away from us in the direction of the Yamuna.
 - iii. Parsvnath Builders are constructing a group housing project with 3 basements at about 500 meters from our site and towards the Yamuna.
 - iv. On the upstream side, the Delhi Flour Mills is constructing a group housing project with 3 basements.

Further, apart from the above, a number of other high-rise projects with multi basements exist very close to river Yamuna. Prominent amongst these are the 'Supernova' project, which is about 300 meters high, Jaypee greens 'Wish Town', J.P. Greens Aman I and II and many other high-rise projects. Thus, none of the projects in project vicinity / along river Yamuna seem to have presented any problems of obstruction of ground water flow.

- e. We have already planned our project to be compliant to the regulatory requirements. Reducing the project to only one basement will require major design changes.
- f. In order to have two basements, the depth below ground will be 10.05 meters for two basement and 2.4 meters for the raft against 9.3 meters minimum requirement under the IS 16700:2017 code for tall concrete buildings. Thus, as it is for the project building, the foundation should be minimum 9.3 meters (i.e. at least 1/15 of the height of the building) and hence, in our submission, an additional depth will not adversely impact the ground water.

4. In view of the aforesaid submissions, it would be in public interest to permit construction of two basements which will enhance the parking capacity of the project, without causing any prejudice to the environment. For this purpose, we welcome any further suggestions/conditions that may be found suitable or necessary to enable us to construct the second basement. Additional conditions may also provide for additional drainage for ground water, if found necessary.
5. We most humbly also wish to submit that this query was not raised to us during the opportunities provided for interaction on 08/07/2020 and 08/10/2020 respectively. Had this been known to us, we would have made the above submissions earlier before the Hon'ble Committee for kind consideration.
6. As advised, we shall submit an undertaking that we shall not extract any ground water for construction activities.
7. As advised, we shall install digital flow meter at the DJB fresh water supply line.
8. All environmental norms will be strictly adhered to during the construction and occupancy phase of the project.
9. We have been advised, at page 21 of the report, to estimate the total water requirement during the construction phase and submit an agreement with private tanker for supplying the calculated quantity of water during construction phase. This is on the understanding that the embodied water quantity is 27.6 KL/M². Reference has been cited to a paper titled "*Assessment of water consumption in building construction in India, S. Bardhan, Deptt. Of Architecture, Jadhavpur University, India, 2011.*"
10. In this connection it is humbly suggested that the said paper at page 99 para 4.4 Results and Discussion states that "*Inferring from the above calculations, the embodied water of the major building materials together works out to be 25.604 KL/Sq.m while the water consumed during the actual construction was 2 KL/Sq. M. Hence the total embodied water in typical urban construction in Calcutta was found to be 27.604 Kl/sq. m.-----.*"

11. The paper also indicates that the water consumption during the actual construction process was found to be only 8% of the total embodied water of the materials together, which is the water consumption within the respective industries at the material production stage.
12. Embodied water is generally regarded as the amount of water which goes into making something (environment.victoria.org.au/uploads/2016/06/7-embodied-water.pdf) and is defined as the amount of water required to manufacture products, including the extracting the raw materials, transporting those materials and processing them into the final product (Illustrated Dictionary of Architecture 2012 The Mc Graw-Hill companies).
13. Understanding that within the 27.604 KL/Sq. Meters, 25.604 Kiloliters is the embodied water with respect to the major building materials like cement, brick, steel etc. and that only 2 KL/Sq. Meter is indicated as the actual water requirement during construction stage, we have already made a provision of 238 million liters to be actually used during the construction phase (as mentioned in our EC dated 23.03.2018, point 2 on page 1) and for which have entered into an agreement with an approved contractor to supply treated tanker water.
14. The Hon'ble Committee at Page 24 has made observations regarding the quantity of construction and demolition wastes likely to be generated and its management. However, the same has been found to be nominal at Page 31. In this regard, even otherwise, as per the estimates on C&D wastes likely to be generated and as given by TIFAC, we expect the C&D waste to be not more than 50 kg/sq. meters of built-up area (Total 117733.82 sqm x 50 kg = 5886.7 Tons). There are 03 construction and demolition waste processing facilities in Delhi located at Burari, Jahangirpuri, East Kidwai Nagar and Shastri Park. We shall enter into an agreement with one of these units for handling and disposal of C&D wastes, as and when required.
15. Hazardous wastes such as paint, varnish, solvents, adhesives carrying containers will be kept in separately designated fully lined covered sheds with a garland drain and will be handed over to the recyclers authorized by the State Pollution Control Board / Committee.

It is hoped that the contents aforesaid meet the satisfaction of the Committee. We request the Hon'ble Committee to kindly consider the above and if considered appropriate, submit an addendum report to the NGT permitting two basements. If any further clarifications are required, we will be happy to provide. We once again thank the Hon'ble Committee for the report as submitted to the Hon'ble NGT and for finding our project viable.

Thanking You,

Yours sincerely,

For Young Builders Pvt. Ltd.



Director



Rajesh Chauhan <chauhanrajes@gmail.com>

Service of Affidavit in University of Delhi v. MoEF & CC & Ors. on behalf of Respondent No.4

1 message

Rohan Talwar <rohan.talwar@aglaw.in>

Fri, Jan 8, 2021 at 6:59 PM

To: upc1.cpcb@gov.in, mscb.cpcb@nic.in, anuragdulaw@gmail.com, associatesralli@gmail.com, prataprahul@gmail.com, adnrao@adnrao.com, kheharlawassociates@gmail.com, kushsharma84@gmail.com, mail@ardhendumauli.com, sakshipopli@gmail.com, pujakalra09@gmail.com

Cc: Anirudh Bhatia <anirudh.bhatia@aglaw.in>, chauhanrajes@gmail.com

Sir/Ma'am,

We represent Respondent No.4, Young Builders Pvt. Ltd. in the captioned matter titled as University of Delhi v. MoEF & CC & Ors. (Appeal No. 112 of 2018) before the Hon'ble National Green Tribunal, Principal Bench, New Delhi.

Please find attached a copy of the Short Affidavit filed by us on behalf of the Respondent No.4.

Please treat this e-mail as advance service upon you.

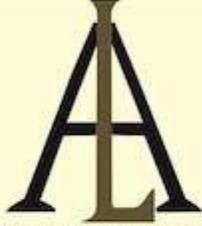
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Regards,

--

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