STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)-DELHI
OFFICE OF DELHI POLLUTION CONTROL COMMITTEE
5th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-110006

F.No. DPCC/SEIAA-IV/C-381(ToR)/DL/2021/4015 - 4018 Date: 08/07/2022

To,

M/s TARC Projects Limited,
67 Najafgarh Road, Kirti Nagar,
New Delhi-110015

Subject: Term of Reference (ToR) for Construction of Group Housing at Plot 67, Kirti Nagar, West Delhi, Delhi by M/s TARC Projects Limited.

Sir,

This has reference to the online application filed on 05.02.2022 vide proposal no-SIA/DL/MIS/71214/2022 by you for seeking Term of Reference for the above mentioned project.

The requirements of the projects have been taken into account by SEAC during the appraisal of the project in its 99th meeting held on 22.02.2022 and 105th meeting held on 03.06.2022. The SEIAA took into account of the discussions and environmental conditions imposed during the consideration of the project in the SEAC Meeting held on 22.02.2022 & 03.06.2022.

The Proposal is for grant of Term of Reference(ToR) for construction of Group Housing at Plot 67, Kirti Nagar, West Delhi, Delhi by M/s TARC Projects Limited. The details of the Proposed Project are as under:

The Project is located at **Latitude:**28°34'55.57"N; **Longitude:** 77° 3'6.54"E

Area Details:

The Total (Net) Plot Area of the project is 24,793.580 sqm. The existing Built up Area is 68,142.73 sqm (as per previous EC dated 08.07.2008) which will be demolished. The Proposed Ground Coverage is 3,899.038 sqm and the Proposed Total Built-up Area (FAR + Non FAR Area) is 2,21,677.63sqm. The Proposed FAR Area is 86,274.34 sqm and Proposed Total Non FAR Area is135,403.291 sqm.The total no. of Basements will be 2 nos. The Total Basement Area is 39,372.75 sqm (Basement 1: 19,194.76 sqm and Basement 2: 20,178.00 sqm). The proposed buildings are 4 Residential tower + commercial (CSP) + EWS + club towers. The total nos. of floors will be G+S+27. Total No. of units will be 781 (Dwelling Units: 493 nos, EWS Units: 144 nos and CSP units: 144 nos.) The total no of expected population is 3965 persons. The Max. Height of the buildingis 116.1 m

Water Details:
During Construction Phase,

Total water requirement will be 20 KLD out of which 12 KLD of water will be sourced through treated water from already existing STP for construction activities. For domestic use, 8 KLD water will be sourced through tankers.

During Operational Phase, Total Water requirement of the project will be 605 KLD which will be met by 283 KLD of Fresh water from Delhi Jal Board and 322 KLD of Treated water from in house STP.Out of 283 KLD Fresh Water, 273 KLD Fresh water will be used for Domestic Purposes and 10 KLD will be used for Swimming Pool. Total Waste water generated will be 370 KLD which will be treated inhouseSTP of 550 KLD capacity. Treated Waterfrom STP will be 322 KLD which will be recycled and reused for Flushing (138 KLD), Gardening (44 KLD), DG Cooling/HVAC (138 KLD), Miscellaneous (2 KLD).

Total 5 no. of RWH pits will be provided (4 are existing & 1 will be proposed) with a total capacity of 357.65 m3.

Solid Waste Details

During Construction Phase,Total solid waste generation from laborers will be 52.5 kg/day out of which 31.5 kg/day will be biodegradable which will be disposed off at solid waste disposal sites and 21 kg/day will be non-biodegradable waste and will be given to authorized recyclers. The C & D waste generated at the sitewill be reused to the extant possible at the site and rest will be sent to C&D waste management site.

During the Operation Phase, Approx. 1664 kg/day of domestic solid waste will be generated from the complex out of which 998 kg/day of Biodegradable waste will be treated in OWC present at site and 666 kg/day of Non Biodegradable Waste (Recyclable and Non Recyclable) will be given to approved recyclers.

Power Details:

During Construction Phase, For Power backup failure, DG sets of capacity 2x125kVA will be installed with adequate stack height.

During Operation Phase, Total Power requirement will be 7686 kW and will be supplied by BSES Rajdhani. For Power Back up, Gas based Generator Sets of Capacity 5x1500 kVA and 1x750 kVA will be installed.

2% (153.72 KW) of total energy demand will be met through solar energy.

Parking Facility Details: Total Parking required is 1226 ECS and Total Proposed Parking is 1420 ECS includingelectrical car parking provision of 284 ECS.
Eco-Sensitive Areas Details: Distance of Okhla Wildlife Sanctuary from project site is 19.01 Km SE and from Asola Wildlife Sanctuary is 20.20 Km SSE.
Plantation Details: The proposed Green Area is 14,706.58 sqm. (59.31 % of total plot area). Total no. of trees required at the site are 310 nos. and Total no. of trees proposed are 310 nos. At present there are no major vegetation at the project site.
Cost Details: Total Cost of the project is Rs 300 Crores.

Based on information furnished, presentation made and discussions held, the SEAC in its 105th meeting held on 03.06.2022 recommended the Term of Reference (ToR) for conducting Environment Impact Assessment Study by the project proponent.

The State Level Environment Impact Assessment Authority, Delhi (SEIAA-Delhi) in its 61st meeting held on 20.06.2022 hereby accords the Term of Reference as per provisions of Environment Impact Assessment Notification (EIA), 2006 and its subsequent amendments for conducting Environment Impact Assessment Study and information to be included in EIA/EMP report for Construction of Group Housing at Plot 67, Kirti Nagar, West Delhi, Delhi by M/s TARC Projects Limited as follows:

1. *The Project Proponent should implement the guidelines issued by committee Guidelines/ mechanism for using Anti Smog Gun in construction and Demolition projects having built-up area greater than 20,000 sqm issued by Department of Environment, NCT of Delhi, vide letter no. F. No.DPCC/(12)(1)(285)lab2020/2790- 2810 dated 16.09.2021 available at https://dustcontroldpcc.delhi.gov.in/Upload/GuidelinesPDF/43/FilePDF_43_723774.PDF. Besides use of Anti-Smog Gunn the Project Proponent shall ensure that environment friendly Dust suppresant and soil stabilising chemical would be sprayed at prescribed interval on unpaved area of the construction sites to agglomerate the fine dust particles into aggregate too large to become airborne. This must be done in all those areas where there is movement of trucks and other construction machinery at frequent intervals to prevent formations of fine dust particles.*
2. *Project proponent shall install reference-grade (USEPA approved system) Continuous Particulate Monitoring System consisting of three nods capable of monitoring dust emission from the construction site. The system must have the capacity for simultaneous monitoring of PM2.5 and PM10 and equip for data transfer on a real-time basis to the server of DPCC.*
3. *The project proponent should obtain in-principle approval from DUAC.*
4. *Examine details of land use as per Master plan and land use around 10km radius of the project site. Analysis should be made base on latest satellite imagery for land use with raw images. Share the elevation range of the site (minimum and maximum elevation above mean sea level) and the 10 year, 50 yr and 100 yr flood maps for the area and whether it is within the flood zone or directly on the flood plain of any river.*
5. *Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.*
6. *Examine baseline environmental quality along with projected incremental load due to the project.*
7. *Water conservation scenario during monsoon period should be duly addressed.*
8. *Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater,(c) surface water,(d) air,(e) bio-diversity,(f) noise and vibrations,(g) socio economic and health.*
9. *Submit a copy of the contour plan with slopes, drainage pattern and low-lying area of the site and surrounding area. If there is any obstruction of the drainage lines and low-lying area proposed by the project, then the rationale for the same may be stated along with any mitigation measures.*

10. *Submit the present land use and permission required for any conversion such as forest, agriculture etc. Submit the land type (kism) of each of the khasra numbers/plots of the site as per the revenue record/last jamabandi of the site. Is the site recorded as a low-lying area, waterbody, gairmumkinpahar, forest in the revenue record ?*

11. *Submit Roles and responsibility of the developer etc for compliance of Environmental regulations under the provisions of EP Act.*

12. *Ground water classification (whether over exploited, critical, semi-critical or safe) as per the Central Ground Water Authority*

13. *Examine the details of Source of Water, water requirement, use of treated waste water and prepare a water balance chart. Segregated figures for potable and non potable water requirement during construction and operation phase.*

14. *A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.*

15. *Rain Water Harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water, Examine details.*

    a. *Calculate runoff from (a) roof top, (b) other paved areas, and (c) green areas separately.*

    b. *Recent/Enhanced peak rainfall runoff data be used in the runoff calculation for designing storm water retention capacity, to make the site future ready – given the experience of last 5 years with extreme rainfall events and likely increase in frequency of such extreme events due to climate change.*

    c. *Prepare management strategy for runoff for each of these (a) roof top, (b) other paved areas, and (c) green areas*

    d. *Design natural storm water retention capacity in the green areas by marginal lowering, and gradient management to enhance natural retention and percolation, and indicate the natural retention capacity created in cubic metres.*

    e. *Indicate rainfall retention capacity created via storage tanks/percolation pits*

    f. *Rain water harvesting/ retention plan needs to be revised with RWH pits, taking into account the recent higher flash rain data along with actual percolation rate of the soil at site or min. 1 Recharge bore per 5000 sqm of Built up Area whichever is more along with the storage capacity of min. 1 day of total fresh water requirement along with layout and location plan.*

16. *Examine soil characteristics and depth of ground water table for rain water harvesting along with with actual percolation rate of soil at site.*

17. *Examine details of solid waste generation treatment and its disposal*

18. *Examine and submit details of use of solar energy and alternative source of Energy to reduce the fossil energy consumption. Energy conservation and energy efficiency.*

19. *DG sets likely to be used during construction and operational phase of the Project. Emissions from DG sets must be taken into considered while estimation the impacts on air environment. Examine and submit details.*

20. *Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analyzed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.*

21. *A detail traffic and transportation study should be made for existing and projected passenger and cargo traffic.Traffic Management Plan should take into consideration the latest traffic scenario. Detailed calculation of roads, bicycle paths, pedestrian spaces should be provided.*

22. *Examine the details of transport of materials for construction which should include source and availability.*

23. *Examine separately the details for construction and operation phases both for Environmental Management plan and Environment Monitoring Plan with cost and parameters*

24. *Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.*

25. *Details of litigation pending against the project, if any, with direction/order passed by any Court of Law against the Project should be given.*

26. *The Cost of the project (Capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.*

27. *The Project Proponent should include a specific chapter for control of Dust Pollution during construction phase in the Environmental Management Plan incorporating the steps as per MoEF Notification No. GSR 94 (E) dated 25.01.2018/Hon'ble National Green Tribunal order 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 & others, CAQM/CPCB/DPCC extant statutory orders/guidelines/directions issued time to time including registration on Dust Pollution Control Self Assessment Portal with provision of video fencing and low cost sensors for monitoring PM 2.5, PM 10.*

28. *Detail of Parking (ECS) as per requirement of Building Bye Laws/ EIA Manual.*

29. *In case the project involves diversion of forests land, guidelines under OM dated 20.03.2013 may be followed and necessary action taken accordingly.*

30. *Submit details of the trees to be conserved and trees to be felled / removed ,if any, by ground coverage, and trees to be removed for other paved areas ,for the project including their species and whether it also involves any protected or endangered species*

31. *Prepare and submit an existing tree inventory of the site listing each tree along with its species name and girth, and a tree layout plan showing the location of each tree on the site and within 10 m of the site. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation.*

32. *Explore the possibilities of utilizing the debris/waste materials available in and around the project area.*

33. *Submit Environmental Management and Monitoring Plan for all phases of the project viz. construction and operation.*

34. *Submit NOC of Airport Authority of India for proposed height of the building.*

35. *Detail of water requirement during construction phase andits source. Project Proponent is required to clarify the arrangement for reusing the STP treated water/similar other source along with the mechanism proposed for making this water fit for use in construction phase.*

36. *Outlet parameters of proposed STP during operation phase needs to be checked for the feasibility of its reuse in flushing, horticulture, HVAC etc.*

37. *Justification to achieve the standards with the proposed technology of STP is required to be given.*

38. *Proposal should be included for a provision of toxic gas (Combustible gas, Carbon dioxide and Hydrogen sulphide) detectors for STP area.*

39. *The cost of environmental monitoring projected in the proposal should be commensurate with the environmental safe guard proposed.*

40. *Details of all the outlets from the proposed building including the outlet of STP required to be submitted with a proposal to install flow-meters at each of the outlets.*

41. *Project is required to quantify the no. of labours and the detailed plan for the proposed labour camps and amenities for housing them during construction phase.*

42. *Landscape details to be provided with a measured impact on the micro-climate. Green area should be demarcated as per building bye laws and 25% green area and consolidated area of minimum 15 % of plot area should be kept as soft green area, so that there should be sufficient recharging of ground water.*

43. *Air quality pollution load and its negative impacts to be clarified along with mitigation options during the construction and lifetime of the project.*

44. *Give Typical Floor Plans with dimensions to demonstrate how natural ventilation & day lighting is being achieved supported with screenshots of suitable software based out puts.*

45. *Proportion wise step diagram to be provided showing the amount of Reduction in Net per capita Energy Demand achieved as compared to base case scenario, through (i) Load Reduction Strategies, (ii) Passive Strategies, (iii) Renewables, and (iv) Energy Recovery strategies. Atleast 2 % of total energy demand to be sourced from Renewables. Percentage reduction through each of the aforesaid strategies to be provided in a consolidated diagram format for easy comprehension.*

46. *Proposal for provisioning the energy audit during operation phase.*

47. *Proportion wise Step Diagram showing the amount of reduction in Net Per Capita Water Demand achieved through (1) Each Demand reduction strategy (eg. Low flow fixtures, Xeriscaping etc.), (2) Recycling and Reuse.*

48. *Elaborated effects of the building activity in altering the microclimates with self- assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects.*

49. *Give plan for managing, conserving the top soil excavated during construction and for its reuse. Give the extent of total soil excavation (in m3) proposed and where the excavated soil will be gainfully used.*

50. *Proposal should include provision for electric charging of the e-Vehicles as per Building Bye Laws.*

51. *Typical Floor Plans with dimensions to demonstrate how natural ventilation & day lighting is being achieved supported with screenshots of suitable software based out puts. Energy Simulation Modeling for the entire complex using appropriate softwares to be submitted along with the proposal.*

52. *Ideally the environmental clearance application along with EIA study should be submitted after preliminary 'In Principle Approval' from the local bodies duly rooted through development authorities in accordance with approved master plan*

53. *Any Further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model TOR available on Ministry website http://moef.nic.in/Manual/Townships.*

GENERAL GUIDELINES

1. *The EIA document shall be printed on both sides, as for as possible.*
2. *All documents should be properly indexed, page numbered.*
3. *Period/date of data collection should be clearly indicated.*
4. *Authenticated English translation of al material provided in Regional languages.*
5. *The letter/application for EC should quote the MOEF & CC file no. and also attach a copy of the letter prescribing the TOR.*
6. *The copy of the letter received from the SEAC on the TOR prescribed for the project should be attached as an annexe to the final EIA-EMP Report.*
7. *The final EIA-EMP report submitted must incorporate the issues in TOR. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP report where the specific issue raised have been incorporated.*
8. *Grant of TOR does not mean grant of EC.*
9. *The status of accreditation of the EIA consultants with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.*
10. *On the front page of EIA/EMP reports, the name of the consultant/ consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed TORs(TOR proposed by the project proponent and additional TOR given by the MOEF) have been complied with and the data submitted is factually correct(Refer MOEF office memorandum dated 4th august,2009).*
11. *While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analyzed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MOEF office memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.*
12. *As stipulated in amendment notification No. S.O. 751(E) dated 17th February, 2020, the above ToR would be valid for a period of four years from the date of issue. The project proponent shall submit*

detailed final EIA Report and EMP prepared as per above ToR within the stipulated period of four years.

13. *The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc. vide notification of the MOEF dated 19.07.2013.*
14. *The Prescribed ToR would be valid for a period of four years for submission of the EIA/EMP Reports.*
15. *The EIA-EMP report submitted must incorporate the construction and demolition waste management plan with identification of waste disposal/ recycling site.*

You are required to submit the detailed final EIA/EMP prepared as per ToRs to the SEAC for considering the proposal for environmental clearance. The General guidelines shall also be considered for preparation of EIA/EMP.

(Dr. K.S. Jayachandran)
Member Secretary, SEIAA- Delhi

Copy to:

1. Member Secretary, Delhi Pollution Control Committee, 5th Floor, I.S.B.T. Building, Kashmere Gate, Delhi-110006.
2. Member Secretary, SEAC-Delhi, Delhi Pollution Control Committee, 5th Floor, I.S.B.T. Building, Kashmere Gate, Delhi-110006.
3. Master file EIA, DPCC.

(Dr. K.S. Jayachandran)
Member Secretary, SEIAA- Delhi