भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

Sudip Kumar

Saakaar Constructions Pvt.Ltd. 2nd Floor Pandooi Place Boring Road Patna-1

Date: 05-12-2017

Valid Upto: 04-12-2025

No Objection Certificate for Height Clearance

1. This NOC is issued by Airports Authority of India (AAI) in pursuance of responsibility conferred by and as per the provisions of Govt. of India (Ministry of Civil Aviation) order GSR751 (E) dated 30th Sep. 2015 for Safe and Regular Aircraft Operations.

2. This office has no objection to the construction of the proposed structure as per the following details:

NOC ID :	**PATN/EAST/B/112717/263971**
Applicant Name*	**Abhishek Kumar**
Site Address*	**. 255,256,257,258,259,260,261,262,263,264,336,341 ,342, ,343,344,345,346 , 359 ,360 , 364 , 368, 163,164,165,166,167,168,169,170,171,172, 173, 174,176,278,178,179 ,180, 8 , 17,Usri/Nashirpur/Sandalpur/Danapur/Patna,Patna,Bihar**
Site Coordinates*	**85 01 07.12-25 35 57.50, 85 01 10.55-25 35 59.73, 85 01 17.24-25 35 55.94, 85 01 21.16-25 35 58.47, 85 01 21.84-25 35 54.16, 85 01 24.42-25 35 53.96, 85 01 25.77-25 36 0.73, 85 01 28.43-25 36 0.03,**
Site Elevation in mtrs AMSL as submitted by Applicant*	**45 M**
Permissible Top Elevation in mtrs Above Mean Sea Level(AMSL)	**135M**

*As provided by applicant

3. This NOC is subject to the terms and conditions as given below:

a. Permissible Top elevation has been issued on the basis of Site coordinates and Site Elevation submitted by Applicant. AAI neither owns the responsibility nor authenticates the correctness of the site coordinates & site elevation provided by the applicant. If at any stage it is established that the actual data is different, this NOC will stand null and void and action will be taken as per law. The office in-charge of the concerned aerodrome may initiate action under the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules, 1994"

b. The Structure height (including any superstructure) shall be calculated by subtracting the Site elevation in AMSL from the Permissible Top Elevation in AMSL i.e. Maximum Structure Height = Permissible Top Elevation minus (-) Site Elevation.

c. The issue of the 'NOC' is further subject to the provisions of Section 9-A of the Indian Aircraft Act, 1934 and any notifications issued there under from time to time including the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules,1994.

d. No radio/TV Antenna, lighting arresters, staircase, Mumtee, Overhead water tank and attachments of fixtures of any kind shall project above the Permissible Top Elevation of 135M, as indicated in para 2.

e. Only use of oil fired or electric fired furnace is permissible, within 8 KM of the Aerodrome Reference Point.

f. The certificate is valid for a period of 8 years from the date of its issue.One time revalidation without assessment may be allowed, provided construction work has commenced,subject to the condition that such request shall be made within the validity period of the NOC and the delay is due to circumstances which are beyound the control of the developer.

g. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building. No activity shall be allowed which may affect the safe operations of flights

h. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc. caused by aircraft operations at or in the vicinity of the airport.

i. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series 'B' Part I Section 4, available on DGCA India website: www.dgca.nic.in

j. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans. This NOC for height clearances is to ensure the safe and regular aircraft operations and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc.

k. This NOC has been issued w.r.t. the Civil Airports. Applicant needs to seek separate NOC from Defence, if the site lies within their jurisdiction.

l. In case of any discrepancy/interpretation of NOC letter, English version shall be valid.

m. In case of any dispute w.r.t site elevation and/or AGL height, top elevation in AMSL shall prevail.

Chairman NOC Committee

Region Name: EAST

Address: General Manager Airports Authority of India, Regional Headquarter, Eastern Region, N.S.C.B.I Airport, Kolkata-700052

Email ID: gmatmer@aai.aero

Contact No: 033-25111293

F. No. 21-363/2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 23rd February, 2018

To,

Shri Sudip Kumar,
Managing Director,
M/s Saakar Constructions Pvt. Ltd.
5th Floor, Sone Bhawan, Beer Chand Patel Marg,
R Block, Patna - 800001.

E- Mail: sudip@saakar.com

Subject: Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt. Ltd. - Terms of Reference - reg.

Sir,

This has reference to your online proposal No.IA/BR/NCP/70816/2017 dated 06.11.2017, submitted to this Ministry for seeking Terms of Reference (ToR) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986. The proposal is for grant of ToR for project 'Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt. Ltd.' in a plot area of 50,216.89 sqm and total built-up area of 2,37,003.90 sqm.

2. The project/activity is covered under category 'B' of item 8(b) 'Townships and Area Development Projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at SEIAA/SEAC Level. However due to absence of SEIAA/SEAC in Bihar, the project is appraised at Central Level.

2. The proposal for grant Terms of Reference (ToR) to the project was considered by the Expert Appraisal Committee (Infra-2) in its 26th meeting held on 14 - 15 DEcember, 2017.

3. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above said meeting, are as under:

(i) M/s Saakaar Constructions Pvt. Ltd. Proposes to develop Phase I of "Aqua City" at Danapur, Patna, Bihar.

(ii) The project comprises of 23 building blocks (21 Residential+1 Commercial+1 temple) including two basements with a maximum height of 70.55 metres and maximum 21 floors. The proposed project is on a Gross Plot area - 50,216.89 sqm and Built up area 2,37,003.90 sqm.

(iii) Total population of the proposed project will be 9889 which includes the population of 7775 residential+454 Non Resdl+1660 Visitors.

(iv) The total water requirement for the project has been estimated to be 770 KLD. The total fresh water requirement is 544 KLD which includes domestic water requirement. The water requirement for flushing and landscaping will be met through treated water from STP.

For Saakaar Constructions Pvt. Ltd.

(v) Total waste water generated is 606 KLD. The treated water will be recycled and re-used for flushing and landscaping & there will 258 KLD of surplus treated water which will be handed over to nearby construction site.

(vi) The total electrical load demand has been estimated to be 8810 KW for the proposed project. The source of power will be from Patna State Electricity Board (PSEB).

(vii) In case of power failure, DG sets of total capacity of 4200 KVA for the proposed project will be provided as power back-up.

(viii) Investment/Cost of the project is 270 Crores.

4. As per the recommendation of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords ToR to the above project for preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) with the following specific and general conditions in addition to Standard ToR provided at Annexure -1:

Specific Guidelines

(i) The project proponents would submit an affidavit that there is no violation and no part of the project for which the application is being made is implemented.

(ii) The EIA would study the impact of dewatering and draw up an action plan for disposal of the excess water.

(iii) The EIA would study the impact of Demolition and conformance to the Construction and Demolition Rules under the E.P. Act, 1986.

(iv) The Air Quality Index shall be calculated for base level air quality.

(v) A detailed report on compliance to ECBC norms.

(vi) A certificate 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.

(vii) A detailed traffic management and traffic decongestion plan to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development Department and the P.W.D. and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

For Saakaar Constructions Pvt. Ltd.

Managing Director

(viii) The permission of the CGWA for abstraction of ground water and for basement/excavation dewatering.

(ix) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.

(xi) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.

General Guidelines

(i) The EIA document shall be printed on both sides, as far as possible.

(ii) All documents should be properly indexed, page numbered.

(iii) Period/date of data collection should be clearly indicated.

(iv) Authenticated English translation of all material provided in Regional languages.

(v) The letter/application for EC should quote the MoEF&CC File No. and also attach a copy of the letter prescribing the ToR.

(vi) The copy of the letter received from the Ministry on the ToR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.

(vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues mentioned 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 ToR prescribed by the Ministry. Questionnaire related to the project (posted on MoEF&CC website) with all sections duly filled in shall also be submitted at the time of applying for EC.

(viii) Grant of ToR does not mean grant of EC.

(ix) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.

(x) 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&CC) have been complied with and the data submitted is factually correct (Refer MoEF&CC Office memorandum dated 4th August, 2009).

(xi) 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 analysed 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&CC Office Memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.

(xii) All the ToR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

For Saakaar Constructions Pvt. Ltd. Managing Director

5. The above ToR should be considered for the project 'Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt. Ltd.', in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

6. The project proponent shall submit the detailed final EIA/EMP prepared as per ToRs to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF&CC O.M. No.J-11013/41/2006-IA-II(I) (P) dated 08.10.2014.

7. The consultants involved in 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&CC dated 19.07.2013.

8. The prescribed ToR would be valid for a period of three years for submission of the EIA/EMP Reports.

9. This issues with the approval of the Competent Authority.

(Kushal Vashist)
Director

Copy to:

Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS - B/2, Patliputra Industrial Area, Patliputra, Patna, Bihar - 800023.

For Saakaar Constructions Pvt. Ltd.

Managing Director

Annexure – I

8(b): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR TOWNSHIP/ AREA DEVELOPMENT PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

(i) Examine details of land use as per Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Check on flood plain of any river.

(ii) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.

(iii) Examine baseline environmental quality along with projected incremental load due to the project.

(iv) 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.

(v) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area. Any obstruction of the same by the project

(vi) Submit the details of the trees to be felled for the project.

(vii) Submit the present land use and permission required for any conversion such as forest, agriculture etc.

(viii) Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.

(ix) Ground water classification as per the Central Ground Water Authority.

(x) Examine the details of Source of water, water requirement, use of treated waste water and prepare a water balance chart.

(xi) 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.

(xii) Examine soil characteristics and depth of ground water table for rainwater harvesting.

(xiii) Examine details of solid waste generation treatment and its disposal.

(xiv) 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.

(xv) DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.

(xvi) 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 analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.

(xvii) A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.

(xviii) Examine the details of transport of materials for construction which should include source and availability.

(xix) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.

(xx) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.

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

(xxii) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

(xxiii) 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".

*****

For Saakaar Constructions Pvt. Ltd.

Managing Director

Gmail

Soumya Dwivedi <soumyadwivedi.ithc3@gmail.com>

Fwd: Acknowledgement Slip for EC application

1 message

Saakaar Aquacity <saakaaraquacity@gmail.com> Mon, Feb 5, 2018 at 11:59 AM
To: soumyadwivedi.ithc3@gmail.com

---------- Forwarded message ----------
From: <monitoring-ec@nic.in>
Date: Mon, Feb 5, 2018 at 11:24 AM
Subject: Acknowledgement Slip for EC application
To: arvind.nautiyal@gov.in, saakaaraquacity@gmail.com
Cc: mefcc.ia3@gmail.com, monitoring-ec@nic.in, vinodsingh.77@gov.in

Acknowledgement Slip for EC application

This is to acknowledge that the proposal has been successfully uploaded on the portal of the Ministry. The proposal shall be examined in the Ministry to ensure that required information has been submitted. An email will be sent seeking additional information , if any, within 20 working days. Once verified, an acceptance letter shall be issued to the project proponent .

Following should be mentioned in further correspondence

1. Proposal No.	: IA/BR/NCP/72364/2017
2. Category of the Proposal	: New Construction Projects and Industrial Estates
3. Name of the proposal	: Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar
4. Date of Receipt of Proposal	: 18 Jan 2018
5. Date of TOR Granted	: 15 Dec 2017
6. Date of submission for EC	: 18/01/2018

6. Name of the Project proponent along with contact details

a) Name of the proponent	: SAAKAAR CONSTRUCTIONS PVT LTD
b) State	: Bihar
c) District	: Patna
d) Pincode	: 800001

For Saakaar Constructions Pvt. Ltd.

Managing Director

Gmail

Saakaar Aquacity <saakaaraquacity@gmail.com>

Acknowledgement Slip for TOR application

1 message

monitoring-ec@nic.in <monitoring-ec@nic.in> Mon, Nov 6, 2017 at 5:46 PM
To: arvind.nautiyal@gov.in, saakaaraquacity@gmail.com
Cc: mefcc.ia3@gmail.com, monitoring-ec@nic.in, vinodsingh.77@gov.in

Acknowledgement Slip for TOR

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

Following should be mentioned in further correspondence

1. Proposal No.	:	IA/BR/NCP/70816/2017
2. Category of the Proposal	:	New Construction Projects and Industrial Estates
3. Project/Activity applied for	:	8(b) Townships and Area Development projects.
4. Name of the proposal	:	Proposed Group Housing Aqua City Phase 1 Danapur Patna, Bihar
5. Date of submission for TOR	:	06 Nov 2017

6. Name of the Project proponent along with contact details

a) Name of the proponent	: SAAKAAR CONSTRUCTIONS PVT LTD
b) Mobile No.	: 9717418804
c) State	: Bihar
d) District	: Patna

For Saakaar Constructions Pvt. Ltd.

Managing Director

e) Pincode : 800001

For Saakaar Constructions Pvt. Ltd.

Managing Director

F. No.21-363/2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 23rd April, 2018

To,

Shri Sudip Kumar, Managing Director
M/s Saakaar Constructions Pvt Ltd.,
5th Floor, Sone Bhawan, Beer Chand Patel Marg,
R Block, Patna- 800001.

Phone: 9431024229
Email: sudip@saakar.com

Subject: Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar by M/s Saakaar Constructions Pvt Ltd.- Environmental Clearance - reg.

Sir,

This has reference to your online proposal No. IA/BR/NCP/72364/2017 dated 18th January, 2018, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of environmental clearance to the project 'Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar promoted by M/s Saakaar Constructions Pvt Ltd., was considered by the Expert Appraisal Committee (Infra-2) in its 29th meeting held on 20th March, 2018. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting, are as under:-

(i) M/s Saakaar Constructions Pvt Ltd proposed Group Housing Aqua City Phase-1 at Danapur Patna, Bihar on a total plot area of 50,216.89 sqm and total built up area is 2,37,003.90 sqm.

(ii) ToR was granted to the project by MoEF&CC vide letter No. 21-363/2017-IA-III dated 23.02.2018.

(iii) Proposed project is construction of multi-storeyed group housing project. A total of 7,282 sqm is to be developed as landscape area. The project envisages construction of 23(21+1+1) blocks i.e. 21 Residential Towers + 1 Commercial Project + 1 Temple of 2B+G/PO+21 floors. Total population of the proposed project will be 9889 which includes the population of 7775 residents & 2114 floating.

(iv) The total water requirement for the project has been estimated to be 770 KLD. This includes domestic water requirement flushing, Car wash/ Street Wash and landscaping. The total fresh water requirement is 544 KLD which includes domestic water requirement. Domestic water requirement will be met through municipal/ground water. The water requirement for flushing, Car wash/ street wash and landscaping will be met through treated water from STP.

(v) Total waste water generated is 606 KLD which will be treated in onsite STP of 730 KLD. The 226 KLD treated water will be recycled and re-used for flushing, Car Wash/ Street Wash and landscaping & excess treated water of 258 KLD will be used in nearby construction sites/ discharge into Public Sewer.

(vi) The total electrical load demand has been estimated to be 8810 KVA for the proposed project. The source of power will be from Patna State Electricity Board (PSEB).

(vii) In case of power failure, DG sets of total capacity of 4200 KVA (7X600) for the proposed project will be provided as power back-up.

(viii) The domestic solid waste will be generated by the residents of the hospital and people coming to community area will pertain to the Bio-degradable & Non-biodegradable Waste. It is estimated that maximum solid waste generation would be about 4.21 TPD for the proposed project and 480.3 kg of sludge will be generated from the proposed project.

(ix) Parking facility for four wheelers is proposed to be provided (according to local norms).

(x) Sanjay Gandhi Biological Park is 7.15 KM/East from the project site.

(xi) No Court case is pending against the project.

(xii) Investment Cost of the project is Rs. 270 Crores.

(xiii) Employment Potential: During operational phase of the project, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities, who would work as domestic helpers.

(xiv) Benefit of the Project: This will help in improving the quality of life of economically weaker sections of the local area.

3. The project/activity is covered under category 'B' of item 8(b) 'Townships and Area Development Projects' of the Schedule to the EIA Notification, 2006, and requires appraisal at SEIAA/SEAC, Bihar. However, due to non-availability of SEIAA/SEAC in Bihar, proposal considered at Central level by EAC (Infra-2) in the Ministry.

4. The EAC, in its meeting held on 20th March, 2018, after detailed deliberations on the proposal, has recommended for grant of Environmental Clearance to the project. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project Proposed Group Housing Aqua City Phase 1 at Danapur Patna, Bihar promoted by M/s Saakaar Constructions Pvt Ltd., under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

PART A – SPECIFIC CONDITIONS:

(i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

(ii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

(iii) NOC/necessary approval from Sanjay Gandhi Biological Park Authority shall be obtained before commencement of work

(iv) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

Topography and natural Drainage

(v) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

Water requirement, Conservation, rain water Harvesting, and Ground Water Recharge

(vi) As proposed, fresh water requirement from Municipal/Ground water shall not exceed 544 KLD.

(vii) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

(viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

(ix) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

(x) 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.

(xi) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

(xii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

(xiii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model

Building Byelaws, 2016. As proposed 15 nos. of rain water harvesting recharge pts shall be provided.

(xiv) Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

(xv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

Solid Waste Management

(xvi) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

(xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

(xviii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed 200 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

(xix) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

(xx) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained

Sewage Treatment Plant

(xxi) Sewage shall be treated in the STP based on MBBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, gardening, car and street washing and excess treated water shall be used for nearby construction site/discharge to municipal sewer with prior permission.

(xxii) No sewage or untreated effluent water would be discharged through storm water drains.

(xxiii) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

(xxiv) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

(xxv) The project/activity shall be dove tailed with the sewerage collection and disposal facilities to be created by the Municipal Corporation/Competent State Authorities so that all sewage generated in the construction and operation phases is disposed accordingly. Necessary permission from the Municipal Authority shall be obtained

Energy

(xxvi) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

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

(xxviii) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

(xxix) Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

(xxx) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.

(xxxi) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

(xxxii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as

on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

Air Quality and Noise

(xxxiii) A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site

(xxxiv) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

(xxxv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

(xxxvi) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

(xxxvii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

(xxxviii) For indoor air quality the ventilation provisions as per National Building Code of India.

(xxxix) Ambient noise levels shall conform to Commercial standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

Green Cover

(xl) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained. As proposed 7282 sqm area shall be provided for green belt development.

Top Soil preservation and Reuse

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

Transport

(xlii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

(xliii) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

(xliv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

(xlv) A dedicated entry/exit and parking shall be provided for the commercial activities

Environment management Plan

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

Others

(xlvii) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

(xlviii) A First Aid Room shall be provided in the project both during construction and operations of the project.

(xlix) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.

PART B - GENERAL CONDITIONS

(i) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.

(ii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.

(iii) Officials from the Regional Office of MoEF&CC, Ranchi who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the APCCF, Regional Office of MoEF&CC, Ranchi.

(iv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.

(v) The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

(vi) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

(vii) These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.

(viii) The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at http://www.envfor.nic.in. The advertisement shall be

made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of this Ministry at Ranchi.

(ix) Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(x) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

(xi) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

(xii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

5. This issues with the approval of the Competent Authority.

(Kushal Vashist)
Director

Copy to:

1) The Principal Secretary, Environment and Forest Department, Government of Bihar, Secretariat, Patna-800015.
2) Addl. Principal Chief Conservator of Forests (C), Ministry of Environment, Forests and Climate Change, Regional Office (ECZ, Bungalow No. A-2, Shyamali Colony, Ranchi-834002.
3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4) Member Secretary, Bihar Pollution Control Board, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Paliputra Industrial Area, Patliputra, Patna (Bihar) - 800 023, E-MAIL - bspcb@yahoo.com.
5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6) Guard File/ Record File/ Notice Board.

(Kushal Vashist)
Director

Ref no – F/021/17-18 Date - 13-11-2017

From : VISHNU KUMAR CHOUDHARY
ARCHITECT
Reg. No – AR/88-15 P.M.C.
Choudhary Kumar Consultants Pvt. Ltd.
Pandooi Place , Boring Road , Patna -1 Mob - 9431012776

To,
The Fire Officer,
Govt. Of Bihar,
Subject : **Issue of No Objection Certificate against construction Of Building**
Sir,

I , hereby submitting the map for the Proposed Residential Complex for NOC against Fire Provisions.

I hereby request you to kindly issue No Objection Certificate against the below mentioned Residential Buildings comprising 21 nos of Towers from (Ub+G+10) to (UB +G+13) , (UB +G+21), (Stilt + 15) , (LB+UG+G+10) to (LB+UG+G+13) as per the List attached here with for **Saakaar Constructios Pvt. Ltd. Through its Director- Sudip Kumar** ,over Plot NO. 255,256,257,258,259,260,261,262,263,264,336,341 ,342, ,343,344,345,346 , 359 ,360 & 364, **under Mauza-Usari ,Thana-No-32,**

PlotNo-163,164,165,166,167,168,169,170,171,172, 173, 174,176,278,178,179 &180 **under Mauza- Nashirpur, Thana No 42 ,**

and Plot No 8 & 17 **under Mauza- SadalPur, Thana No 43.** Patna

situated at **Makhdumpur Usri Sarari Bandh Road , Patna**. After examining in lieu of the Fire Protection arrangements .

Thanking you

VISHNU KUMAR CHOUDHARY

ARCHITECT
Reg. No – AR/88-15 P.M.C.

Enclosures : 2 copies of map

Recieved letter
22/11/2017.

AQUA CITY- Phase - 1
Danapur, Patna - Bihar.

MASTERPLANNING | ARCHITECTURE | DESIGN
STUDIO DRA DELHI LONDON PRAGUE DUBLIN
WWW.INDIA.STUDIODRA.COM

PROPSED RESIDENTIAL DEVELOPMENT (AQUA CITY) FOR SAAKAAR CONSTRUCTION Pvt. Ltd. AT MAKHDUMPUR USRI SARARI ROAD , PATNA

Over Plot NO. 255,256,257,258,259,260,261,262,263,264,336,341 ,342, 343,344,345,346 , 359 ,360 & 364, under Mauza-Usari ,Thana-No-32, Plot No -163,164,165,166,167,168,169,170,171, 173, 174,176,278,178,179 &180 under Mauza- Nashirpur, Thana No 42 , and Plot No 8 & 17 under Mauza- SadalPur, Thana No 43. Patna

DETAILS OF RESIDENTIAL TOWERS WITH NO. OF FLOORS AND HEIGHT

S.NO	CLUSTER	TOWER	MAX NO. OF FLOORS	HEIGHT (MTS)	NO.OF FLATS (NOS.)	FAR AREA (SQM)	BUILT UP AREA (SQM)
1	1	1	UB+G+21	73.90	42.00	11790.00	12487.20
2	2	2	LB+UB+G+13	45.00	52.00	11790.00	12487.20
		3	LB+UB+G+12	41.80	50.00		
		4	LB+UB+G+11	38.60	46.00		
		5	LB+UB+G+10	35.40	42.00		
3	3	6	UB+G+13	45.00	52.00	29460.25	30249.39
		7	UB+G+12	41.80	48.00		
		8	UB+G+11	38.60	44.00		
		9	UB+G+11	38.60	48.00		
		10	UB+G+10	35.40	44.00		
4	4	11B	UB+G+13	45.00	36.00	15610.50	16052.98
		11A	UB+G+12	41.80	32.00		
		12	UB+G+11	38.60	72.00		
5	5	13	UB+G+12	41.80	132.00	14325.59	14630.84
6	6	14	LB+UB+G+11	38.60	46.00	22828.01	23667.50
		15	LB+UB+G+12	41.80	50.00		
		16	LB+UB+G+13	45.00	54.00		
7	7	17	LB+UB+G+13	45.00	53.00	10535.23	10878.00
8	8	18	UB+G+11	38.60	60.00	22592.27	23225.02
		19	UB+G+12	41.80	65.00		
		20	UB+G+13	45.00	56.00		
9	9	EWS/LIG	STILT+14	41.85	476.00	23728.48	25753.98
TOTAL					1600.00		

To,
The Fire Officer,
Govt. Of Bihar,

I Sudip Kumar, Managing Director of Saakaar Constructions Pvt. Ltd. having Survey Plot NO. 255,256,257,258,259,260,261,262,263,264,336,341 ,342, ,343,344,345,346 , 359 ,360 & 364, **under Mauza-Usari ,Thana-No-32,**

PlotNo-163,164,165,166,167,168,169,170,171,172,173,174,176,278,178,179 &180 **under Mauza- Nashirpur, Thana No 42 ,**

and Plot No 8 & 17 **under Mauza- SadalPur, Thana No 43.** Patna

situated at **Makhdumpur Usri Sarari Bandh Road , Patna..**
The Road is 30.5 mtr wide.

I will provide the equipments suggested by Fire Department.

Yours Faithfully

For Saakaar Constructions Pvt. Ltd.

Managing Director
Sudip Kumar (M.D)
Saakaar Constructions Pvt. Ltd.

Mr./Mrs./Miss. Sudip Kumar
who is identified by..... Advocate, Solemnly affirmed and declared before me.

Mukul Kumar Sharma
Notary, Patna, Bihar, India

Identify the deponent who has appeared before me in my presence

Provisional Fire Clearance **(Above 15Mtr. Height)**

Letter No. 4240

OFFICE OF THE STATE FIRE OFFICER-CUM-DIRECTOR , BIHAR , PATNA.

From,

Upendra Prasad Singh,
State Fire Officer,
Bihar, Patna.

To,

Ar. Vishnu Kumar Choudhary ,
Regd. No. –AR/88/15,
Choudhary Kumar Consultants Pvt. Ltd,
Pandooi Place, Boring Road, Patna.

Patna Dt. 30./11./2017.

Sub :- The views regarding proposed fully residential building of above 15 mtr. in height to be constructed at Mauza-Usari, Nashirpur & Sadalpur, Dist- Patna.

Sir,

Please refer to your letter no.-F/021/17-18 dt. – 13/11/2017 through which this aforesaid plan has been sent to us for examination, which was examined by the Fire Service committee.

During examination of the plan it was found that a 21 nos. of Towers from (UB+G+10) to (UB+B+13), (UB+G+21), (Stilt + 15), (LB+UG+G+10) to (LB+UG+G+13), fully residential building, shall be constructed on 120 feet wide road belongs to Saakaar Construction Pvt. Ltd., Through Its Director:- Sudip Kumar, on having Plot no.-255,256,257,258,259,260,261,262,263,264,336,341, 342, 343,344,345,346,359,360, 364, 163,164,165,166,167,168,169,170,171,172,173,174,176,278, 178, 179 , 180, 8 & 17 at Mauza – Usari, Nashirpur & Sadalpur, Dist- Patna.

We clear the plan after giving following advice/suggestions/ recommendations based on NBC guideline, local building by laws & the local circumstances which must be followed by the concerned Architect / Developer/ Land owner as the case may be.

i) **Construction :**

a) The whole construction of the proposed building shall be carried out as per approved plan drawing conforming the relevant building rules of local Municipal Corporation as per Building Bye laws Bihar, 2014.
b) The floor area exceeds 750 m ^{2} shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
c) The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
d) Provision of ventilation at the crown of the central core-duct of the building shall be provided.
e) Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

ii) **Open Space & Approach :**

a) The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility 3.60 m/s (minimum).
b) The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 20 M.T.
c) The width and height of the access gates into the premises shall not be less than 4.5 M and 5M respecting abutting the road.

iii) **Stair Case :-**

a) The Staircase of the building shall be enclosed type. Entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
b) The Staircase of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and openable sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
c) All the Staircase of the building shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace. The roof of the Stair wall shall be 1M above the surrounding roof area.
d) The width of the Staircases and corridor and travel distance of different categories of occupancies shall have to confirm the relevant building rules.
e) In case of two staircase, one must be on outer wall.
f) Both staircase are not went down to basement floor, for approach to basement, there should be another staircase for approach.

iv) **LIFT :-**

a) The walls of the Lift enclosure of the building shall be at least two hours Fire resisting type respectively marked in the plan with the event at top of area not less than 0.2 m^2.

b) The lift of the building shall be designed at high speed "Fire Lift" and conspicuously indicated marked in the plan.

c) In case of failure of normal electric supply, it shall automatically trip over to alternate supply. For apartment houses these change over of supply could be done through manually operated change over switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level land comes to stand still with door open.

d) Arrangement shall be provided for extraction of smoke in all the lift shaft by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire and shall be of such design as to operate on actuation of sprinkler or Fire Alarm. In case of failure of normal electric supply. It shall automatically trip to alternate supply.

e) All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.

v) That the basement should be equipped with automatic sprinkler's installation & must have two separate exits.

vi) That active Fire protection system such as down comer system with landing valve and hose reel at each floor incorporated with 900 LPM pump each blocks provided at Terrace level, ISI marked Fire extinguishers as per I.S 2190/1992 & relevant specification, F.R. check door, manual call alarm point, Fire safety luminescent sign & other Fire precautionary measures as mentioned in NBC be provided before occupancy.

vii) That an underground water static tank of not less than 1,00,000 Ltrs. capacity with automatic refilling arrangements prefebly on front side where Fire Brigade vehicles can reach easily & overhead water static tank of not less than 10,000 Ltrs. Capacity each blocks should be made available before occupancy.

viii) That there should be a clear passage of 3.66 Mtr. or above, all around of the both blocks of the building with a clear height of 5 Mts to facilitate the movement of Fire vehicles at the time of emergency.

ix) That a refugee area of 15M^2 above 8th floor be made available as per NBC norms.

x) That the internal finishing shall be non-combustible or class – I surface spread of flame.

xi) That electric cables must be shield at each floor with intumescent coating .

xii) That Fire exit drill be carried out regularly at least twice in a year after occupation.

xiii) That the building must be constructed on at least 40 feet wide road and it is responsibility of the concerned Architect to be ensure the road width because he is the passing authority.

xiv) That AMC should be given to a qualified firm or person for the maintenance of above recommended Fire equipments.

xv) That the setback shall be checked by the Architect / Passing authority as per the established rule. If any thing wrong , the Architect / Passing authority shall be held responsible.

xvi) It is hereby made clear that in case of any legal dispute arising in future, in which above recommendations have not been complied, the responsibility will fall entirely upon the Developers/ Architect/ Landowner as the case may be and not on the recommending Govt. authority (i.e. the office of the State Fire Office, Bihar).

xvii) It is hereby made also clear that this office (i.e. the office of the State Fire Officer-cum-Director, Bihar, Patna) is not responsible for any legal dispute of the land upon which the proposed building shall be constructed.

This shall be treated as provisional. On compliance of all the above Fire and Life Safety recommendations, this office shall be approached for necessary inspection and testing of the installation, Final in favor of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B. - Any deviation and changes the nature of use of the building in respect of the approved plan drawing without obtaining prior permission from this office, this provisional will be treated as cancelled.

The maps are being returned with sign and stamp .

Encl – As Above

Yours faithfully,

(Upendra Prasad Singh)

State Fire Officer
Bihar, Patna

We clear the plan after giving following advice/suggestions/ recommendations based on NBC guideline, local building by laws & the local circumstances which must be followed by the concerned Architect / Developer/ Land owner as the case may be.

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a) The whole construction of the proposed building shall be carried out as per approved plan drawing conforming the relevant building rules of local Municipal Corporation as per Building Bye laws Bihar, 2014.

b) The floor area exceeds 750 m ^{2} shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.

c) The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.

d) Provision of ventilation at the crown of the central core-duct of the building shall be provided.

e) Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

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a) The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility 3.60 m/s (minimum).

b) The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 20 M.T.

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b) The Staircase of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and openable sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.

c) All the Staircase of the building shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace. The roof of the Stair wall shall be 1M above the surrounding roof area.

d) The width of the Staircases and corridor and travel distance of different categories of occupancies shall have to confirm the relevant building rules.

e) In case of two staircase, one must be on outer wall.

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c) In case of failure of normal electric supply, it shall automatically trip over to alternate supply. For apartment houses these change over of supply could be done through manually operated change over switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level land comes to stand still with door open.

d) Arrangement shall be provided for extraction of smoke in all the lift shaft by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire and shall be of such design as to operate on actuation of sprinkler or Fire Alarm. In case of failure of normal electric supply. It shall automatically trip to alternate supply.

e) All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.

v) That the basement should be equipped with automatic sprinkler's installation & must have two separate exits.

vi) That active Fire protection system such as down comer system with landing valve and hose reel at each floor incorporated with 900 LPM pump each blocks provided at Terrace level, ISI marked Fire extinguishers as per I.S 2190/1992 & relevant specification, F.R. check door, manual call alarm point, Fire safety luminescent sign & other Fire precautionary measures as mentioned in NBC be provided before occupancy.

vii) That an underground water static tank of not less than 1,00,000 Ltrs. capacity with automatic refilling arrangements prefebly on front side where Fire Brigade vehicles can reach easily & overhead water static tank of not less than 10,000 Ltrs. Capacity each blocks should be made available before occupancy.

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ix) That a refugee area of 15M^2 above 8th floor be made available as per NBC norms.

x) That the internal finishing shall be non-combustible or class – I surface spread of flame.

xi) That electric cables must be shield at each floor with intumescent coating .

xii) That Fire exit drill be carried out regularly at least twice in a year after occupation.

xiii) That the building must be constructed on at least 40 feet wide road and it is responsibility of the concerned Architect to be ensure the road width because he is the passing authority.

xiv) That AMC should be given to a qualified firm or person for the maintenance of above recommended Fire equipments.

xv) That the setback shall be checked by the Architect / Passing authority as per the established rule. If any thing wrong , the Architect / Passing authority shall be held responsible.

xvi) It is hereby made clear that in case of any legal dispute arising in future, in which above recommendations have not been complied, the responsibility will fall entirely upon the Developers/ Architect/ Landowner as the case may be and not on the recommending Govt. authority (i.e. the office of the State Fire Office, Bihar).

xvii) It is hereby made also clear that this office (i.e. the office of the State Fire Officer-cum-Director, Bihar, Patna) is not responsible for any legal dispute of the land upon which the proposed building shall be constructed.

8/11/17

State Fire Officer
Bihar, Patna.