

**GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI**  
**HEADQUARTERS: DELHI FIRE SERVICE**  
Connaught Place: New Delhi-110001

NO. F.6/DFS/MS/BP/2016/ 101

Dated: 12/05/16

To,

Executive Engineer (B) HQ-I  
South Delhi Municipal Corporation  
Office of the executive Engineer (B) HQ  
8<sup>th</sup> Floor, Civic Centre JLN Marg New Delhi

**Sub:** Clearance from fire safety point of view in r/o plot No. 11 Friends Colony West, New Delhi

Sir,

Please refer your letter No. 306/EE(Bldg.)HQ-I/2016 on dated 18.04.2016 on the above cited subject. In this connection it is to inform you that the building plans in respect of proposed building have been scrutinized by this department from fire safety point of view and observed that there is a proposal of construction of a residential building on a plot area of 3595.32 SQM at plot No. 11 Friends Colony West, New Delhi. The building is proposed to be comprised of basement, stilt, ground, first, second and third floor having a covered area of 1737.365, 1737.365, 1737.365, 1718.28, 1718.28 and 1718.28 m<sup>2</sup> respectively. The height of the proposed building shall be 17.10 meter. The plot abuts on 38.10 meter wide road. The premises is accessible through 04 gates of 06 meter wide each. All around 06 meter wide motorable road with 09 meter turning radius is proposed to be provided around the building block.

The building is proposed to be provided with 02 staircases of 1.50 meter width serving from basement to upper floors and segregated at stilt floor. The staircases are meeting the requirement of travel distance as per NBC part-4. 04 lifts from stilt to upper floors are also proposed to be provided in the building.

The fire safety arrangements such as fire extinguishers, hose reel, down comer, MOEFA, automatic sprinkler system in basement and stilt floor, underground water tank 1,00,000liter, an overhead tank of 25000 liters capacity, one electric and one diesel pump of 2280 LPM, one Jockey pump of 180 LPM capacity & terrace pump of 900 LPM are proposed to be provided as per NBC part-IV. Open set back area is not checked as it shall be checked by concerned building sanctioning authority.

The approval of building plans shall be valid only for the present layout of the floors; any subdivision of the floors shall only be done by ensuring the proper means of escape, with the prior approval of this department.

**There is no objection to this department for the construction of the said building subject to the compliance of the following fire safety recommendations:-**

1. **Access:** The plot abuts on 38.10 meter wide road and the building is accessible through 04 gate of 06 meter wide each as against required width of 4.5 meter wide as per NBC part 4. The entrance gate shall fold back for free movement of fire service vehicles against the compound wall of the premises thus leaving the exterior access way within the plot. The archway, if any, shall not be at a height less than 5 meters. 06 meter wide motorable road with 09 meter turning radius for fire tender movement all around the building shall be ensured for free movement of fire tender as marked on the plans.

2. **Number, width, Type and Arrangement of Exits:** The building is proposed to be provided with 02 staircases of 1.50 meter width each serving from basement to upper floors and segregated at stilt floor. The staircases are meeting the requirement of travel distance as per NBC part-4. The clear-cut width of the staircases shall be maintained at the time of completion.
3. **Protection of exits by means of fire check doors and or pressurization:** The fire check doors of minimum 2hrs fire resistance rating shall be provided at the entrance of staircases/lift lobby at each level and as marked on the plans. Pressurization system for staircases, lift well/ lift lobbies shall be installed as per NBC Part IV.
4. **Compartmentation:** The building shall be suitably compartmentalized so that the fire / smoke remain confined to the area where fire incidents have occurred and does not spread to the remaining part of the building.
  - a. The services, standby generator, store etc. must be segregated from other by erecting fire-resisting wall of not less than 04hours rating. Each of the compartments must be individually ventilated and the opening for entry into each of these compartments must be fitted with self-closing fire / smoke check doors of not less than one hour fire rating fitted with magnetic latches.
  - b. All electric cables ducts and shafts shall be properly sealed at all floors with fire resisting material of similar rating. These shafts shall be minimum 02 hours fire rating.
  - c. Under no circumstances, two services shall pass through the same shaft, i.e. separate shaft be used for different purpose.
  - d. The entry to the staircase from all levels shall be segregated with a self-closing fire / smoke check door of not less than 02 hour fire resistance rating. All vertical and horizontal openings at each floor level in entire building shall be sealed properly with the non-combustible material. Wherever false ceiling / suspended ceiling is provided, the same shall be of non-combustible in nature and that the compartmentation shall be extended up to ceiling level.
5. **Smoke Management system:** Smoke venting facilities shall be provided as per NBC Part IV, Fire and Life Safety. Mechanical extractors shall have an interlocking arrangements and the system shall be of such design as to operate on actuation of heat/ smoke sensitive detectors, sprinklers. Smoke extraction system shall be designed to permit 12 air changes per hour in case of fire in basement. A system of fresh air supply shall be provided at floor level and smoke outlet at ceiling level. Following points shall be ensured,
  - i. All ducting shall be constructed of substantial gauge metal conforming to IS: 655. Air duct serving main floor areas, corridors etc. shall not pass through the staircases enclosures.
  - ii. Automatic fire dampers shall be provided in the ducts at the inlets of the fresh air and return air of each compartment/floor.
  - iii. Automatic fire dampers shall be closed automatically upon operation of a detector/sprinkler.
  - iv. The air ducts for every floor/compartment shall be separated. In no way inter-connected with the ducting of any other compartment.
  - v. Under no circumstances, plenum shall be used as "Return Air Passage" for air conditioning purposes.
6. **Fire Extinguishers:** The ISI marked portable fire extinguishers suitable to risk shall be provided in the buildings in accordance with IS -2190/ 1992.
7. **First aid Hose Reel:** Hose reel containing 30m length of 20 mm bore terminating into a shut-off nozzle of 5 mm outlet connected directly to riser shall be provided. This shall conform to IS: 884/1998.
8. **Automatic Fire Detection and Alarming Systems:** Not applicable as per NBC part-4.

9. **Manually operated fire alarm system:** Manually operated fire alarm call points at suitable locations on each floor of the buildings shall be installed as per National Building Code and the same shall conform to IS-2189/1999.
10. **Public Address System:** Not applicable as per NBC part-4.
11. **Automatic Sprinkler System:** Automatic sprinkler system shall be provided in the at the basement and stilt floor. The pipe size, sprinkler spacing etc. shall be according to the IS: 15105 / 2002
12. **Internal Hydrant and Yard Hydrant:** As proposed downcomer/ wetriser system shall be provided as per IS 3844-1989. Hose box of suitable dimension shall be provided near each internal hydrant. Its design shall be such that it can be readily opened in an emergency. Each box shall contain two lengths of 63 mm diameter, 15m length, rubber lined delivery hoses conforming to IS: 636 complete with 63 mm instantaneous coupling conforming to IS: 903 with a nozzle of 16 mm diameter.
13. **Pumping Arrangements:** One electric and one diesel pump of 2280 LPM, one jockey pump of 180 LPM and terrace pump of 900 LPM capacity shall be provided. The pump shall be automatic in operation as per NBC-IV.
14. **Captive Water Storage for fire fighting:** An underground water tank of 1,00,000 liter capacity and an overhead water storage tank of 25,000 liters capacity shall be provided for fire fighting. The replenishment through bore well or from the town main shall be ensured @ 1000 LPM. This shall conform to the requirements given in National Building Code of India Part-IV.
15. **Exit Signage:** Exit signage shall be provided in the building at appropriate locations. Floor level marking, all exits and exit way marking signs in entire complex must be illuminated and wired to independent circuit supplied by alternate source of power supply. Wiring for the illuminated exit signs shall be suitably protected against fire. Illuminated / glowing paint strips shall be provided at each level to guide the direction for escaping towards a safe place. The size and colour of the exit signs shall be as per IS 9457: 1980.
16. **Provision of lifts:** 04 lifts from stilt to upper floors are proposed to be provided. The lifts shall be equipped with a fireman's grounding switch so that, it is possible to ground the lift during a fire/ emergency. In case of failure of normal supply, it shall automatically trip over to the alternate supply. Suitable slope in the floor of lift lobby shall be made to prevent water, used during fire fighting etc. at any landing, from entering into lift shaft. All other conditions and provisions shall be provided strictly in accordance to Clause C-1.5 (a to q) of National Building Code of India Part IV.
17. **Standby Power Supply:** Emergency lighting, exit signs, staircase and corridor lighting circuit, lift, fire pumps smoke extraction system and pressurization shall be powered from an additional source of power supply like generator and shall be automatic in action. The emergency lighting system shall be capable of continuous operation for a minimum duration of 1 hour and 30 minutes. The emergency lighting shall be provided to be put on within 1 second of the failure of the normal lighting supply.
18. **Refuge Area:** Not applicable as per NBC part-4
19. **Fire Control Room:** Not applicable as per NBC part-4
20. **Special Fire Protection Systems for Protection of Special Risk:** The electric sub-station, installation of Transformer, LT & HT panels shall be as per the provisions specified by the Electrical Authority/ NBC part 4. However, the following points shall be followed:-
  - a. The HT & LT panels shall be separated with the walls of 02 hours fire resistance rating. It is necessary to separate shield wall extending up to the one meter on sides above the highest point of the transformer.

- b. The electrical distribution cables/wiring shall be laid in a separate duct. The duct shall be sealed at every floor with non-combustible materials having the same fire resistance as that of the duct. Low and medium voltage wiring running in shaft and in false ceiling shall run in separate conduits.
- c. Water mains, telephone lines, intercom lines, gas pipes or any other service line shall not be laid in the duct for electrical cables; use of bus ducts/ solid rising mains instead of cables is preferred.
- d. Separate circuit for fire fighting pumps, staircases and corridor lighting and blowers for pressurizing system shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes, so that fire in one circuit will not affect the others.
- e. The inspection panel doors and any other opening in the shafts shall be provided with air tight doors having fire resistance of not less than 2hrs. The electric installations shall be as per BIS 1646.

It shall be ensured that provisions of all requisite fire and life safety measures stipulated in National Building Code of India shall be complied in letter and spirit before the occupancy of the building under intimation to this department. For any complaint/ grievances regarding building permit please contact on mail id [hpc\\_buildingpermit@dda.org.in](mailto:hpc_buildingpermit@dda.org.in).

Encl: **One set of building plan**

Yours faithfully

  
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(Dr.G.C.Misra)  
**Director**  
011 - 23414000