



TAMIL NADU FIRE AND RESCUE SERVICES DEPARTMENT

From
Thiru. Braj Kishore Ravi, I.P.S.,
DGP / Director,
Tamil Nadu Fire and Rescue Services,
No.17, RukmaniLakshmipathiSalai,
Egmore, Chennai – 600 008.

To
The Member Secretary,
Chennai Metropolitan
Development Authority,
No.1, Gandhi Irwin Road,
Egmore, Chennai – 600 008.

R.Dis.No.5750/C1/2022

Dated.06.07.2022

PP NOC No.93/2022

Sir,

Sub : Tamil Nadu Fire and Rescue Services – Directorate – High Rise Building – Issue of Planning Permission NOC requested - Inspection at M/s Shriram Properties Ltd, S.No.399/1A, 1B, 1C, 1D, 1E, 1F, 3B, 418/1D2, 1A, 1B, 1C, Kuthambakkam Village, Poonamallee Taluk, Thiruvallur District - Reg.

Ref : 1) The applicant letter dated:01.04.2022.
2) The Deputy Director, North-Western Region, report R.C.No.1238/C/2022, Dated:09.06.2022.

Kindly refer to the letter cited above. The MSB inspection committee of the north-western region has inspected the site of M/s. Shriram Properties Ltd, S.No.399/1A, 1B, 1C, 1D, 1E, 1F, 3B, 418/1D2, 1A, 1B, 1C, Kuthambakkam Village, Poonamallee Taluk, Thiruvallur District for which the PP NOC has been requested. The committee has made certain observations with regards to fire and life safety, which are reproduced below:-

Observation:-

These are the planning proposal for construct residential block1, 2, 3, 4, 5, 6 and 7, club house and shop / commercial block. Block 1, 2 and 5 consists of stilt floor + 13 floor with the equal height of 41.68 meters. Block 3, 4, 6 and 7 consists of common basement + stilt floor + 13 floors with the equal height of 41.95 meters. Club house consists of common

basement + ground floor + 2 floors with the height of 10.35 meters. Shop / commercial block consists of stilt floor + 4 floors with the height of 17.42 meters. The proposed residential building has the enough side setback of 9 meters all around the building and inbetween the blocks. The plot area is 36174.14 sq. mts and the total buildup area is 95729.70 sq.mts. The proposed building occupancy is classified to come under Group A Residential Building and the Sub-Division A-4 Apartment Houses as per the National Building Code of India Part-IV fire and life safety-2016.

The following fire and life safety measures should be provided in the proposed building before the actual occupation as listed below:

1. One wet-riser should be provided every 1000 sq. mts area covering all floor area with landing valves along with delivery hoses. The riser should be fully charged with adequate pressure at all times and should have both automatic and manual operation. To feed the wet-riser system, sprinkler and yard hydrant system an underground static water tank of minimum capacity 75000 liters should be provided with refilling facilities for one set of pump. A terrace level tank of capacity 5000 liters also should be provided for each block. To charge the wet-riser, yard hydrant and sprinkler system with one set of pump contains an electrical pump of capacity 2280 LPM should be provided near the underground water tank and an equal capacity of diesel pump should also be provided as an alternative arrangement and one more electrical pump of capacity of 180 LPM should be provided as a jockey pump. Pumps should have the capacity of developing pressure of 3.5kg/cm. sq at terrace level at remotest location. One set of pumps shall be provided for each 100 hydrants or part thereof, with a maximum of two sets. In case of more than one pump set installation, both pump sets shall be interconnected at their delivery headers or alternative to provide an additional set of pumps, the objective can be met by providing additional diesel pump of the

same capacity and doubling the water tank capacity as required for one set of pumps.

2. Fire service inlets (4 Way) should be fitted with NRV at ground level.
3. Yard hydrants should be provided at all around the building at 30 mts interval.
4. Automatic sprinkler system should be provided at Basement floor area.
5. Hose reel assembly should be provided per 1000 sq.mts covering each floor area for each block.
6. Manually operated fire alarm call points should be provided in each floor near exits for each block.
7. "Exit" signage should be provided with alternative source of power supply or battery back-up with "GLOW" TYPE for each block.
8. Emergency lights should be provided at staircase landing and exit routes for each block.
9. Public address system should be provided connecting all the floors for each block.
10. Assembly point should be designated at ground floor for each block.
11. Evacuation route plan should be displayed in all floors for each block.
12. Alternate and independent power system should be provided to fire pumps, pressurization & smoke venting, exit signage lighting, emergency lighting, fire alarm system, public address system, magnetic door hold open devices and fire lift.
13. Number of exit, location and its width should be conforms to the requirement of NBC of India, Part 4, 2016.
14. Minimum two numbers of staircase should be provided with the width of 1.25 meters and they should be away from each other.
15. Minimum one numbers of staircase should be provided with the width of 1.5 meters and they should be away from each other for commercial block.

16. Fire escape- internal staircase and external staircase:

a) Internal staircases:

As per clause 4.4.2.4.3 of the national building code of India part IV fire and life safety 2016-All staircases shall be minimum width of 1.25 meter. The minimum width of tread without nosing shall be 250mm. The maximum height riser shall be 190 mm. The number of riser shall be limited to 12 per flights.

b) Fire Exit:

As per the National building code of India part IV fire and life safety 2016 - every exit, exit access or exit discharge shall be continuously maintained free of all obstructions or impediments to full use in the case of fire or other emergency.

All exits shall provide continuous means of egress to the exterior open space leading to a street.

Exits shall be so arranged that they may be reached without passing through another occupied unit.

c) External staircases:

As per clause 4.4.2.4.3 of the National Building Code of India part IV fire and life safety 2016-All external stairs shall be directly connected to the ground.

External staircases shall always be kept in sound and usable condition.

Entrance to the external stairs shall be separate and remote from the internal staircase.

Care shall be taken to ensure that no wall opening or window opens on to or close to an external stairs.

The route to the external stairs shall be free of obstructions at all times.

Handrails to be provided on both sides shall be of a height not less than 1000 mm and not exceeding 1200 mm. There shall be provision of balusters with maximum gap of 150 mm.

The external stairs shall be constructed of non-combustible materials, and any doorway leading to it shall have the required fire resistance.

No external staircases, used as a fire escape, shall be inclined at an angle greater than 45 degrees from the horizontal.

d) **Fire lifts:**

- a. Where applicable, fire lifts shall be provided with a minimum capacity for 8 passengers and fully automated with emergency switch on ground level. In general, buildings 15m in height or above shall be provided with fire lifts.
- b. In case of fire, only fireman shall operate the fire lifts. In normal course, it may be used by other persons.
- c. Each fire lift shall be equipped with suitable inter-communications equipment for communicating with the control room on the ground floor of the buildings.
- d. The number and location of fire lifts in a building shall be decided after taking into consideration various factors like building population, floor area, compartmentation. etc.

17. One fire lift should be provided for each block.

18. Lightning arrester should be provided for each block.

19. Refuge area should be provided at 24th, 39th meter level as per the requirements of NBC of India, Part 4, 2016 if balconies are not provided at each floor for each block.

20. The first aid firefighting equipment's should be provided at all floors for in accordance with the IS 2190:2010 requirements for each block including club house.

21. Clear side set back area of 9 meters should be provided all around the building and inbetween the blocks without any obstructions so as to allow fire service vehicle to move closer to the building at the time of emergency and it should be designed to withstand a weight of 65tonns at any point of operation for the use of Hydraulic platform vehicle. The setback area slop gradient should not be elevated from the ground level. The entry, movement and exit of the setback should have no slope and should be hard paved and support the operation of the aerial ladder platform.

Side setback:

Setback area should be free of any obstruction, such as fountains, statutes, flower pots, decorative idols, ramp etc., to facilitate movement of vehicle and people during emergencies as per the Tamilnadu Combined development and building rules 2019 rule no.35(23). Side setback road should be starts from the periphery of the building line.

22. As per the proposed plan copy, the basement used for car parking facility only.

23. Basement:

1. The construction of the basement shall be allowed by the Authority in accordance with the land use and other provisions specified in CMDA/DTCP regulations.
2. The following uses shall be permitted in the basements:
 - (a) Storage of household or other goods of non-combustible material.
 - (b) Strong rooms, bank cellars, etc.,
 - (c) Utility services of the building – like AC equipments, pump rooms, dry transformers etc.,
 - (d) Parking spaces.

3. The authority may consider mercantile occupancy in the malls or shopping complexes in the first basement if the height of roof is more than 4 m and if it is fully air conditioned, well ventilated and is fully sprinkled.
4. Further, institutional occupancy of medical or health purposes involving radiation facilities in the first basement may be permitted subject to the MCI regulations and to the provision of required lighting, ventilation, water supply, drainage and sanitation.
5. The basement can be permitted beyond the building lines at ground level subject to a clear minimum front margin of 4.5 m and side and rear margins of 3 m, and further subject to non-habitual uses and provision for mechanical ventilation and all safety provisions and drainage.

6. The basement shall have the following requirements:

- a) The basement shall be in every part at least 2.4m in height from the floor to the underside of the roof slab or ceiling.
- b) Adequate ventilation shall be provided for the basement. Each Basement shall be separately ventilated. Vents with cross-sectional area (aggregate) not less than 2.5 percent of the floor area spread evenly round the perimeter of the basement shall be provided in the form of grills, or breakable stall board lights or pavement lights or by way of shafts. Alternatively, a system of air inlets shall be provided at basement floor level and smoke outlets at basement ceiling level. Inlets and extracts may be terminated at ground level with stall board or pavement lights as before, but ducts to convey fresh air to the basement floor level have to be laid. Stallboard and pavement lights should be in positions easily accessible to the fire brigade and clearly marked 'SMOKE OUTLET' or 'AIR INLET' with an indication of area served at or near the opening.

- c) Adequate arrangement shall be made such that surface drainage does not enter the basement.
- d) The walls and floors of the basement shall be water-tight and be so designed that the effect of the surrounding soil and moisture, if any, are taken into account in design and adequate damp proofing treatment is given.
- e) Applicant/owner of the building shall install suitable pumps for pumping the waste water into the sewer in place of directly connecting in to the sewer to avoid any risk of the sewerage or salvage heading back into the basement at any time.
- f) The access to the basement shall be spate from the main and alternate staircase providing access and exit from higher floors. Where the staircase is continuous the same shall be enclosed type serving as a fire separation from the basement floor and higher floors.
- g) Basement exits shall be sufficient to provide for the capacity of the basement and in no case shall be less than two independent basement exits.
- h) Basements having incidental occupancies to main occupancy shall be planned with exit requirements of the basements for the actual occupancy within the basement.
- i) Where basement is used for car parking and also there is direct approach from any occupancy above to the basement, door openings leading to the basement shall need to be protected with fire door with 120 min fire rating, except for exit discharge doors from the basements.

7. The basement should not be used the following purpose :

- a) The basement shall not be used for residential purpose.
- b) No service duct shafts shall be extended in the basement level.

- c) Basement should not be used for theatre, assembly halls, exhibition halls, club rooms, gymnasiums and restaurants.
- d) Kitchens, canteen, pantry or dining not allowed in the basement.
- e) Should not be used for substation or oil transformer in the basement.
- f) Basement should not be used for combustible material storage.
- g) Any material which involve highly corrosive, toxic or noxious alkalis, acids or other liquids or chemicals producing flame, fumes, and explosive, poisonous irritant or corrosive gases.

8. Mechanical ventilation system shall be provided with an alternative source of power supply.

24. Electrical installation and wiring, ducts should meet the requirements of NBC of India, Part 4, 2016.

25. The width and height of any arch or gate, if any, should have the clearance of not less than 4.5m and 5m respectively.

26. The service ducts such as power cables, communication cables, ducts etc should be protected with proper fire sealing/fire dampers.

27. The fire dampers should be located at air conditioned ducts for check the spread of heat, flame, smoke and gases.

28. The cable gallery should be routed through fire resistance duct or fire protected tray.

29. As per section 3.2 of BIS 12459, 1988 – code of practice for fire safety in cable regularization, 1m transparent fire retardant coatings shall be applied to all cables at termination points in electrical panels and all cables inside the distribution boxes.

30. Fire resistant and low smoke emission cable should be used.

31. A trained fire officer with a crew shall be arranged to maintain as well as to operate the fire protection systems in case of any need.

32. During construction of the building the following fire protection measures should be provided in good working condition.

1. Dry riser minimum 100 mm diameter pipe with hydrant outlets on the floors constructed with a fire service inlet to boost the water in the riser from fire service pumps.
2. Drums filled with water of 2000 liters capacity with two fire buckets on each floor.
3. A water storage tank of minimum 20000 liters capacity, which may be used for other construction purposes also.

The MSB inspection team has recommended to issue a planning permission / no objection certificate to the proposed building subject to the fulfillment of all the above mentioned conditions.

In view of compliance with the above said facts a PP NOC is issued from the fire service point of view to accord planning permission for the above said proposed building subject to fulfillment of all the above said conditions, as recommended by the MSB committee. After completion of this project the compliance certificate should be obtained to ensure the fire safety measures.


for Director, 617100.
Fire and Rescue Services,
Tamil Nadu.

To:

M/s. Shriram Properties Limited,
Lakshmi Neela Rite Choice Chamber,
1st Floor, New No.9, Bazullah Road,
T. Nagar, Chennai - 600 017.

Copy to:

The Deputy Director, Fire and Rescue Services,
North-Western Region, Vellore.

