

**GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DIRECTOR GENERAL  
WEST BENGAL FIRE & EMERGENCY SERVICES  
13-D Mirza Ghalib Street, Kolkata- 700 016**

Memo No. IND/WB/FES/20192020/85149

DATE: 10/07/2020

**From :**  
The Director  
Fire Prevention Wing,  
West Bengal Fire & Emergency Services.

**To :**  
Narayan Chandra Ghosh  
39/1, Madhya Para, R.S. Dag No- 201, R.S. Khatlan No- 428, J.L No- 47, Mouza- Ray  
Nagar, P.S & P.O- Bansdrani, Kolkata- 700070, Ward- 112, Borough- XI,  
Tollygunge F.S., Bansdrani,  
Kolkata - 700070.

**Sub :Fire Safety Recommendation for a proposed construction of G + 5 storied building under group Residential at the premises no.- 39/1, Madhya Para, R.S. Dag No- 201, R.S. Khatlan No- 428, J.L No- 47, Mouza- Ray Nagar, P.S & P.O- Bansdrani, Kolkata- 700070, Ward- 112, Borough- XI, Bansdrani, Kolkata - 700070**

This is in reference to your Application No. IND/WB/FES/20192020/85149, dated 10/07/2020, regarding the Fire Safety Measure for a proposed construction of G + 5 storied building under group Residential at the premises no.- 39/1, Madhya Para, R.S. Dag No- 201, R.S. Khatlan No- 428, J.L No- 47, Mouza- Ray Nagar, P.S & P.O- Bansdrani, Kolkata- 700070, Ward- 112, Borough- XI, Bansdrani, Kolkata - 700070.

The plan submitted by you was scrutinized and marked as found necessary from Fire Safety point of view. In returning one set of plan with recommendation, this is issuing Fire Safety Recommendation in favour of the aforesaid building subject to the compliance of the following fire safety measure.

**Recommendation:**

**1. RECOMMENDATION**

The propose plan of G+V storied. Considering height 15.5 mtr Residential Building at premises no.-30/1 Madhyapara R.S dag no-201,RS Khaitan No-428, JL No- 47, Mouza- Roynagar, P.S & P.O- Bansdron, KMC ward no-112, borough-XI, Kolkata-700070 and applies for FSR by the applicant Narayan Chandra Ghosh and Online application ID No- IND/WB/FES/20192020/85149

#### A. Construction:

Materials for rapid flame spread categories including untreated wood fiber board etc. shall be not use. The doors and windows preferably shall be made of metal.

The floor area exceeds 750 m<sup>2</sup> shall be suitably compartmented having four hours fire resisting capacity and sprinkler system should be provided as per N.B.C. Part IV

The interior finish decoration of the building shall be made with the materials with low flame spread and low smoke and toxic gas generating categories conforming I.S. Specification.

Arrangement shall have made for sealing all the vertical service ducts by the materials of adequate Fire resisting capacity.

Fire rating test certificate of all interior finish decoration should be submitted to this office before taking occupancy.

Service Ducts and shafts should be enclosed by walls of 2 hours and doors of one hour fire rating. All such ducts shall be properly sealed and fire stopped at all floor level.

#### b. Open Space & Approach:

The open space surrounding the building shall be kept clear open to sky and shall conform the relevant building rules as well as permit the easy accessibility and maneuverability of the Fire appliances with turning facility.

The approach road and roads surrounding the building shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.

The width and height of the entry gates to the premises shall not be less than 4m and 6m respectively.

Driveway should be free of any type obstruction. No parking will be allowed on the Drive Way.

#### C. Staircase:

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.

The staircases shall have permanent vents at the top equal to 5% of the cross sectional area

of the staircases enclosures and open able vents 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.

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 well shall be 1M above the surrounding roof area.

The width of the staircases and corridors and travel distance of different categories of occupancies shall have to conform the relevant building rules.

Fire and Smoke check doors at the entrances of all the Staircase enclosures at each floor level shall be provided. The F.C.D. shall be at least one hour Fire resisting wire glass window fitted with self closing type open able in the direction of escape.

Considering the staircases are only means of evacuation, emergency lighting arrangement, directional, exit, sign etc. shall be made conforming the relevant I.S. Code in this regards.

#### D. LIFT

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 0.2m<sup>2</sup>.

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

Exit from the lift lobby if located in the core of the building, shall be through a self-closing smoke stop door of 1hour fire resistance.

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

#### E. Fire Fighting Water

Water exclusively for Fire Fighting (Underground Water Reservoir) operation shall be ensure minimum 20,000 lts. and (Over Head Water Reservoir) 10,000 Lts for fire fighting all the time.

The Fire water reservoir shall be having overflow arrangement with the domestic reservoir to stagnancy of water.

Provision of necessary manhole shall be made on the top of the reservoir as per specification.

Provision of replenishment at the rate of at least 1000lts./min. from two separate sources of water supplies shall be made.

The deep-tube wells for the replenishment of the reservoir shall be incorporated with the auto starting facility with the actuation of auto detection and suppression arrangement of the premises and shall also be connected with dual power supply units.

#### F. Down Corner system

The building shall be provided with 100 mm Dia with provision of Down Corner with hose boxes, containing one/two lengths of 63mm delivery hose and shed branch pipe shall be provided at all the time and Hose Reel Hose unit with provision of outlets in each floor at the staircases landings/hall landings as per available at the rate of one such unit of Down Corner and Hose Reel per 1000sq.m. of floor area.

#### G. Hose Reel Hose system:-

Hose Reel Unit. - Provision of hose reel units on swiveling drum in conjunction with wet riser near each landing valves shall be made at each floor level of the building.

All other requirements of the water base Fire Protection System shall be made as per I.S. Specification 3844-1989 (with up to date amendment).

#### H. Automatic Sprinkler Installation:-

The entire covered car parking floor shall be suitably protected by automatic Sprinkler installation conforming the grade as per I.S. Specification.

#### I. Water Projector Protection:-

The Electrical installations viz. transformer, HT, LT switch gear etc. shall be protected by high or medium velocity Water Projector System as per suitability.

#### J. Fire Pump

1620 Lts. / min. giving a pressure not less than 0.3N/m<sup>2</sup>.

The Main pump will be provided with suction and delivery size not less than 15 cms. dia.

A set ball valve to supply the tank with at least 1000 ltrs. Per minute from the fire pump and shall have to be made to keep up the water based system under pressurized condition at all the time.

The suction of pump shall preferably be positive type down corner pipe line with suitable terrace pump with over head tank.

A stand by fire pump of equal capacity shall have to be provided.

#### L. Electrical Distribution System:

Electrical distribution system of all the building shall be made in the form of concealed wiring or in heavy gauge M.S. conducted continuously bonded to earth cables shall be I.S. marked and preferably to be F.R.L.S. categories.

Electrical distribution System shall conform all the requirements laid down in I.S. 1645-1982. For every 230V wiring above false ceiling 660 grade insulated cable shall be used. Transformer Switch Gear H.T., L.T. and other electrical rooms shall be at the ground floor level. The other electric rooms shall be at least 4hrs. Fire resisting capacity adequate ventilation arrangement shall have to be made in all the rooms. Dry and explosion proof type transformer shall be installed. All electrical installation viz. Transformers, Switch Gears, L.T., HT rooms shall be protected with both auto detection and suppression systems as per suitability.

#### K. Detection:-

Addressable analogue manual call boxes incorporating with sounders shall be installed in all the floor area of the building in such a manner that maximum travel distance shall not be more than 22.5m in order to reach any of the call point. Auto fire detection system with the help of smoke detector shall be installed in all places of below and preferably above false ceiling of the building. The system shall also be made in places of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189-1988.

#### L. Alarm System:-

Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will sounded on the same floor and immediate alternate floor.

#### M. Public Address System:-

1. Public address system linked between all floors and Control Room shall have to be established.

Both way Public address system linked between all floors and Control Room shall have to be established.

All the installation shall also satisfy the I.S. Specification 2189 as amended and the code of practice as laid down in N.B.C. pt. IV.

#### N. AIR CONDITIONING SYSTEM (if any)

The A.H.U shall be separated for each floor with the system Air Ducts for individual floors.  
2) Arrangements shall be made for isolation of the strategic location by incorporating auto

- dangers in the air conditioning system
- 3) The system of auto shutdown of A.H.U shall be incorporated with the detection and alarm system
  - 4) The air handling unit's room shall not be used for storage of any combustible materials

#### O Other Protection Measures

Close circuit T.V. shall have to be provided in the building

#### P First Aid Fire Fighting System

First Aid Fire fighting arrangement in the style of placing suitable type of portable Fire Extinguishers - 1 & 1 mark, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2100-1992.

Special rescue equipment like Smoke Hood, self contained B.A. set portable lights at least two pairs (4 sets) shall be made available in the main fire Control Room of the premises

#### Q General Recommendations

Floor numbers and directional sign, showing the nearest exit Refuge Area, Fire Points etc. shall have photo luminescent signals at each floor of all blocks of building including shall be made available conforming the relevant I.S. Specification.

Provision of emergency illuminating exit shall be made at all floor levels of all blocks of building conforming the I.S. Specification

Fire license have to be obtained for proposed storing and processing with highly combustible articles

If diesel oil is stored beyond the specified quantity license shall be accorded from the appropriate authority

The occupants, employees and security staff shall be conversant with installed First aid Fire Fighting equipments of the building and to operate in the event of Fire and Testing.

Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments and means of escapes installed in the building to keep them in perfectly good working conditions at all times by authorized competent agency in this regard

Practice and evacuation drill shall be arranged at regular interval of time involving all the

occupants and security staff shall be recorded.

Trained and experienced Fire fighting staff under the qualified and experienced fire officer shall be maintained round the clock.

This shall be tested as Fire Safety Recommendation on compliance of all the above Fire and Life safety recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of the installation, Fire Safety Certificate 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.: 1) A fire kiosk shall have to provide.

2) 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 Fire Safety Recommendation Will be treated as cancelled.

Director- In-Charge

Services

Fire Prevention Wing  
West Bengal Fire & Emergency

Director  
West Bengal Fire & Emergency Services

Signature valid  
Digitally signed by TAJUN  
KUMAR SINGH  
Date: 2020.07.10 12:31:20 IST