



**Government Of West Bengal
Office Of The Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata - 16**

Memo no.:FSR/0125186218701072

Date: 28-12-2021

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

To: ROCHITA CONSTRUCTION PVT. LTD.
43/3, HAZRA ROAD, KOLKATA-700019

Sub: Fire Safety Recommendation for proposed construction of B+G+XVII storied under group Residential Building at premises no. 52D, Bondel Road, P.S. Karaya, KMC Ward No. 065, Borough-VII, Kolkata-700019.

This is in reference to your application no. 0125186218701072 dated 08-12-2021 regarding the Fire Safety Recommendation for proposed construction of B+G+XVII storied under group Residential Building at premises no. 52D, Bondel Road, P.S. Karaya, KMC Ward No. 065, Borough-VII, Kolkata-700019.

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 favor of the aforesaid building subject to the compliance of the following fire safety measure.

Recommendation:

A.CONSTRUCTION:

- 1.The whole construction of the proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body.
- 2.The interior finish decoration of the building shall be made of low flame spread materials conforming to I.S. specifications.
- 3.Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- 4.Arrangements shall have to be made for sealing all the vertical & horizontal ducts by the materials of adequate Fire resisting capacity & the doors of service ducts / shafts of 2hr. Fire rating.

B.OPEN SPACE & APPROACH:

- 1.The open spaces surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire Appliances with turning facility.
- 2.The approach road shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
- 3.The width and height of the access gates into the premises shall not be less than 4.5 and 5.5 M respecting abutting the road.

C.STAIRCASE:

- 1.The staircase of the building shall be enclosed type. Entire construction shall be made of bricks / RCC type having Fire Resisting Capacity not less than 4 hours.
- 2.The staircase of the building shall have permanent vents at the top and open able sashes at each floor level in the external wall of the building.
- 3.The width of the Staircase shall have to be made as shown in the plan. Corridors and the exit doors shall conforming the relevant building rules.
- 4.Fire & Smoke doors at the entrance of staircase enclosures as shown / marked in the plan at each floor level shall have to be provided. The F.C.D. shall be of the least two hour Fire resisting Wire Glass Window fitted with self closing type openable in the direction of escape.
- 5.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.
- 6.Pressurization of staircase & Lift lobby shall have to be provided as shown in the plan.

D.LIFT:

- 1.The walls of the lift enclosure of the building shall be at least two hours FIRE resisting type.
- 2.All the lifts of the building shall be designed as high speed "FIRE LIFT" and shall be conspicuously indicated / marked.
- 3.The Electric power shall be from separate supply mains in the building and cables run with in the lift shafts, light, supply on emergency in case of failure of normal power supply lift shall automatically trip over alternate power supply.
- 4.Collapsible gate shall not be permitted.
- 5.In case of failure of normal electric supply, it shall automatically trip of alternate supply and also shall have manually operated change over facility. Alternatively, the lift shall be so wired that in case of power failure, it comes down at ground level stands still with door open.

E.REFUGE AREA:

- 1.The Refuge areas shall be provided on the external wall as cantilever projection for this Building as shown in plan drawings.
- 2.The refuge areas shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the corridor or the staircase landings.
- 3.The position of refuge Areas shall be such that they are negotiable by the Fire service Aerial Ladder from the ground floor.

F.BASEMENT:

- 1Automatic mechanical smoke venting arrangements shall be provided to the basement conforming the relevant I.S. Specification and provision of NBC Part IV, 2016.
- 2.Mechanical extractor shall have an alternate source of supply.
- 3.Mechanical extractor shall have an internal locking arrangement so that extracting shall continue to operate and supply fans shall stop automatically with the actuation of fire detectors / suitable detection system.
- 4.Basements shall be protected with automatic sprinkler & detection system, Hose Reel Hose, Hydrant points conforming relevant I.S. specification incorporating with alarm gong bell.

G.FIRE FIGHTING WATER :

Under Ground Water Reservoir of 200,000 ltrs capacity and Over Head Water Reservoir of 25,000 ltrs capacity exclusively for firefighting purpose with replenishing arrangements @2000 ltrs/min. preferably from two different sources of water shall have to be provided. The water reservoirs shall have overflow arrangement with the domestic water reservoir as well as to prevent stagnancy of water. The water reservoirs shall be kept full at all time.

H.WATER LAYOUT SYSTEM:

- 1.The building shall be provided with Wet Risers of 150 mm dia internal diameter Pipe Line each with provision of landing valves at the Staircase landings / half landings at the rate of one such riser for 1000 Sq. m. of floor area. The system shall be so designed that shall be kept charged with water all the time under pressure and capable to discharge 2850 lts/min at the ground floor level outlet and minimum 900 lts/min at the top most and farthest outlet. In both cases the running pressure shall not be less than 3.5 Kgs/Sq.cm. All other requirements shall be conforming I.S. 3844 – 1989.
- 2.Provision for Hose Reel units in conjunction with Wet Riser shall be made near each landing valves.
- 3.Provision of adequate numbers of Yard Hydrant with atleast two numbers Fire Service Inlet shall be installed surrounding the building in accordance with relevant I.S. specifications.

I.FIRE PUMP:

- 1.Provision of the Fire Pump shall have to be made to supply water at the rate-designed pressure and discharge into the Water based system, which shall be installed in the building.
- 2.One such pump shall always be kept on stand-by preferably be of diesel driven type.
- 3.Provision of separate pump for sprinkler system to be made to keep the water based system under pressurized condition at all the time and shall be installed.
- 4.Provision of separate Jockey Pumps for hydrant and sprinklers shall also have to be made to keep the water based suppression systems under pressurized condition at all the time. All the pumps shall be incorporated with both manual and auto starting facilities. The suction of pumps shall preferably of positive type or in case of negative suction the system shall be wet riser-cum-down comer with suitable terrace pump with overhead tank.

J.Electrical Installation & Distribution:

- 1.The electrical installation including transformers, Switch Gears, Main & Meters etc. and the distribution system of the premises shall be made satisfying the code of practice for Fire safety in general building as laid down in I.S. specification 1946 – 1982.
- 2.Electrical distribution system shall conform all the requirements as laid in I. S. 1646-1982.
- 3.The electrical installation shall be adequately protected with automatic CO2/D.C.P.
- 4.All electrical installation viz. Transformer Switch Gear L. T., H. T. rooms shall be protected with both auto detection and suppression systems as per suitability.
- 5.Alternative Power Supply :
Arrangements shall have to be made to supply power with the help of a generator to operate atleast the Fire Pumps, Pump for deep Tube-well, Fire Alarm System, lifts, etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building incase of normal power failure.

K.Sprinkler Installation:

The automatic sprinkler installation shall have to be provided in all floor area of the building including basement and alarm gang to be incorporated. Sprinkler test line shall have to be provided as per suitability.

L.INTELLIGENCE ANALOGUE SYSTEM:

- 1.Auto Fire Alarm System with analogue addressable smoke / heat detectors as per suitability shall be installed in all floor area of the building including basement.
- 2.Addressable analogue manual call boxes incorporating with sounders shall be installed in all floors area of the building in such a manner that maximum travel distance shall not be more than 22.5 m in order to reach any of the call point.
- 3.Micro Processor based fire alarm panel shall be installed and all shall also be connected with main panel at the Fire Control Room of the premises having direct dialing facility to the local fire service unit.

4.Both way public address systems & talk back systems linked between all floors and Control Room. Shall have to be established.

5.All the installations shall also be satisfy the I.S. specifications 2189 (as amended) and the code of practice as laid down in the N.B.C. Part-IV, 2016. 6. C. C. Camera & Public Address System :- Public address system linked between all floors and Fire Control Room shall have to be established. Fire Control Room: i. A well designed Fire Control Room with C.C.T.V. and Fire Control Panel and monitoring 24X7. Preparation of Emergency Evacuation: ii. There is need to have a clear policy and proper implementation of emergency evacuation measures.

M.FIRSTAID FIRE FIGHTING SYSTEM:

First Aid firefighting arrangement in the style of placing suitable type and sufficient nos of portable Fire Extinguishers, Fire buckets etc in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190-92.

N.GENERAL RECOMMENDATIONS:

- 1.Necessary sanction and approval for such construction and occupancy of this project must be obtained from competent authorities.
- 2.Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- 3.Floor numbers and directional sign of escape route shall be displayed prominently.
- 4.The occupancy and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire and Testing.
- 5.Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the building to keep them in perfectly good working conditions at all times.
6. A crew of trained Firemen under an experienced officer shall be maintained round the clock for safety of the entire premises / occupancy.
- 7.Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
- 8.The certificate has to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Life and Fire Safety arrangements and installation of the building.

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 favour 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 drawings, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

Director
West Bengal Fire & Emergency Services