

GOVERNMENT OF WEST BENGAL
Office of the Director General
West Bengal Fire & Emergency Services
13-D, Mirza Galib Street, Kolkata – 700 016.

Memo. No. : WBFES /3751 / 17/ Kol-RB/443/17(443/17)

Date: 01.06.17

From : Divisional Fire Officer
Fire Prevention Wing
West Bengal Fire & Emergency Services.

To : The Secretary,
Prantik Co-Operative Housing Society Limited,
157, Binoba Bhabe Road, Kolkata – 700 038.

Sub : Fire Safety Recommendation for Proposed Construction of B+G+VIII Storied Under Group Residential Building at the Premises No- 157, Binoba Bhabe Road, Ward No.-119, Borough No.-XIII, Kolkata – 700 038.

This is in reference to your Letter No. Nil, Dated. 17.03.2017, regarding Fire Safety Measure Proposed Construction of B+G+VIII Storied Under Group Residential Building at the Premises No- 157, Binoba Bhabe Road, Ward No.-119, Borough No.-XIII, Kolkata – 700 038.

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 office is issuing **Fire Safety Recommendation** in favour of the aforesaid building subject to the compliance of the following fire safety measure.

Enclose:

1. One set of plan.
2. Recommendation.


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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 floor area exceeds 750 m² shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
3. The interior finish decoration of the building shall be made low flame spread materials conforming L.S. specifications.
4. Provision of ventilation at the crown of the Central core-duct of the building shall be provided.
5. Arrangements shall have to made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

B. OPEN SPACE & APPROCH:

1. 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.
2. The approach roads 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 less than 4.5 - 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/ R.C.C type having Fire resisting capacity not less than 4 hours.
2. The Staircase of the building shall have permanent vents at the top and openable sashes at the each floor level in the external wall of the building.
3. The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules with up-to-date amendments.
4. All the staircase shall be extended up to terrace of the building and shall be negotiable to each floor.
5. Fire and smoke doors at the entrances of all the staircase enclosures as marked in the plan at each floor level shall be provided. The F.C.D. shall be of at least one hour Fire resisting wire glass window flitted with self-closing type open able in the direction of escape.

D. LIFT:

1. The walls of the lift be enclosure shall be at least two hours Fire Resisting type.
2. Collapsible gate shall not be permitted.
3. One of the lift in each block shall be designed for Fire Lift. The Word "FIRE LIFT" shall conspicuously written at ground floor.

E. REFUGE AREA

1. Refuge area is not less than 15 Sqm. Shall be provided on the external wall with cantilever projection or other suitable means at above 19.55 mtr. Level on each block of the building as shown in the drawings.
2. The Refuge Areas shall be of Fire resisting construction and protected with self-closing F.C.D at the entrance from the corridors at staircase lobbies.
3. The position of Refuge Areas shall be such so that they are negotiable by the Fire Services Ladder from the Ground.

F. BASEMENT

1. The Basement shall be adequately ventilated with aggregate cross sectional area of not less than 2.5% of the area spread evenly round the perimeter of the basement shall be provided in the form of grills.
2. Mechanical smoke venting arrangements shall be provided to all the basements conforming the I.S. Specification.
3. The exit from the basement shall be form open Air and from any points the travel distance shall not exceeds 18.5 M to reach any exit. Continuation of staircase from the basement to upper floor will not be allowed i.e. all staircases shall be segregated on the ground floor level.
4. The basement shall be protected with Auto Sprinkler System conforming to I.S. 3844-1989.
5. The staircase of basement shall be of enclosed type having Fire resistance of not less than 4 hrs. and shall be situated at the periphery of the basement to be entered at ground level only from the open air and in such position that smoke from any Fire in the basement shall not obstruct any exit having the ground upper floor of the building.
6. Mechanical extractors shall have an alternative source of supply.
7. 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.
8. Mechanical extractors shall be designed to permit 30 Air changes per hour in case of Fire or distress call.

G. FIRE FIGHTING WATER:

Underground water reservoir having water capacity of 1,00,000 Ltrs. and overhead reservoir of two nos. 25,000 Lts. Capacity each exclusively for Firefighting purpose as shown with replenishing arrangements @ 1000 lts./min preferably from two different sources of water supply shall be provided. The Water Reservoir shall have overflow arrangement with the domestic Water Reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all time.

H. HYDRANT SYSTEM:

1. The building shall be provided with Wet Riser of 100 mm internal diameter Pipe Line 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 1620 lts/min at the ground floor level outlet and minimum 900 Lts/min at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kgs/Sq. cm. All other requirements shall conforming I.S. 3844-1989.
2. Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level. Conforming the relevant I.S. Specifications.

3. Yard Hydrant / Ring Main Hydrant with provision of two numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S specification.

I. SPRINKLER INSTALLATION:

The automatic Sprinkler installation shall be provided in the Basement area of the building as per I.S. 9972. Alarm gang to be incorporated along with the sprinkler system.

J. FIRE PUMP:

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. One such pump shall always be kept on Stand-by preferably be of diesel driven type.

Provision of Jockey Pump shall also have to be made to keep the water based system 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.

K. 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. The vertical & horizontal electrical ducts shall be sealed at each floor level by Fire resisting material.
3. The electrical installation shall be adequately protected with Automatic Fire Detection & Suppression system as per relevant I.S. specification.
4. Alternate Power Supply:

Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building in case of normal power failure.

L. DETECTION AND ALARM SYSTEM:

1. Manually operated Electrical Fire Alarm system with at least two numbers of break glass type call boxes fitted with Hooters along with public address system, at each floor connecting with visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of the building, other requirements of the system shall be made conforming I.S 2189-1988.
2. Auto fire detection system with the help of heat and 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.
3. 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. FIRST AID FIRE FIGHTING SYSTEM:

First Aid Fire fighting arrangement in the style of placing suitable type of portable Fire Extinguishers, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190-1992.

N. GENERAL RECOMMENDATIONS:

1. Fire License shall have to be obtained for proposed storing and processing with L.P.G and other highly combustible articles.
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 employees 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. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
7. Each year a certificate is to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Life & 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 drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.


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