



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

Memo no.:FSR/0125186221200291

Date: 27-08-2022

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

To: Anusandhan Commotrade Pvt. Ltd.
11,Clive Row,3rd Floor, Kolkata, West Bengal-700001

Sub: Fire Safety Recommendation for proposed construction of a G+XII storied under group Residential Building at Mouza- Uttar Kajirahat, J.L. no. 22, L.R. Dag no. 112(P), 115(P), 116(P), 117(P), P.S. Bishnupur, under Paschim Bishnupur Gram Panchayat, Dist- South 24Pgs, Pin – 700 104.

This is in reference to your application no. 0125186221200291 dated 18-07-2022 regarding the Fire Safety Recommendation for proposed construction of a G+XII storied under group Residential Building at Mouza- Uttar Kajirahat, J.L. no. 22, L.R. Dag no. 112(P), 115(P), 116(P), 117(P), P.S. Bishnupur, under Paschim Bishnupur Gram Panchayat, Dist- South 24Pgs, Pin – 700 104.

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:

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 low flame spread materials conforming relevant 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 made for sealing all the vertical &horizontal ducts by the materials of adequate Fire resisting capacity.

OPEN SPACE & APPROCH :

- 1.The open space surrounding the whole buildings shall be kept clear open to sky and shall conform the relevant building rules as well as permit the accessibility and manoeuvrability of Fire Service Hydraulic ladder jacking with turning facility.
- 2.The approach roads shall be sufficiently strong to withstand the load of Fire Engine Weighing up to 45 M.T.
- 3.The width and height of the access gates into the premises shall not less than 6.5 Mt. X 6.00 Mt. of respecting abutting

the road.

4.All around the driveway should be kept clear for free access.

STAIRCASE :

1.Both the staircase of the building shall be made of bricks / R.C.C type having Fire resisting capacity not less than 2 hours.

2. Both 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 shown/marked in the plan. Exit doors shall conforming the relevant building rules with up-to-date amendments.

4.The staircases shall be extended up to terrace of the buildings and shall be negotiable to each other without entering into any occupied area.

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 the regards.

6.Fire and smoke doors at the entrance of one no. staircases 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 with wire glass window fitted with self closing type openable in the direction of escape.

LIFT :

1.The walls of the lifts enclosure shall be at least two hours Fire resisting type. Collapsible gate shall not be permitted.

2.One of the lift shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor. The speed of Fire Lift in the building shall be such that it can reach the top from the ground floor within 1 minute in visual indications of floor numbers shall incorporated in the lift cars and in case of failure of normal electric supply, it shall automatically trip to alternate supply and also shall have manually operated change over facility. The lift car shall be so wired that in case of power failure, it comes down at the ground level stands still with door open.

REFUGE AREA :

The Refuge area shall be provided on external wall for the Residential Building as shown in plan drawing at the level of 24.140 Mt. level from the 8th floor at staircase half-landing and area not less than 15.00 Sq/m. The refuge area shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the corridor area. The position of refuge area shall be such so the area negotiable by the Fire Service Ladder from the Ground. Clear open space 6X9 Mt. shall have to provided below refuge area.

Fire Kiosk :

Fire Kiosk shall be as marked in the plan of the entrance of the project having direct access. The room shall have the main Fire alarm panel with communication system (suitable public address system) to aid floors and facilities for receiving the message from different floors. Fire Kiosk shall be provided with emergency lighting. Interior finishes shall not use any flammable materials. All controls and monitoring of Fire Alarm systems shall happen from this room. Monitoring of C.C.T.V. or any other critical parameters in building may also be from the same room, details of all floors plans along with the details of Fire Fighting equipment and installations (2 sets laminated and bound) shall be maintained in Fire Kiosk. In charge of the Fire Kiosk shall also be responsible for the maintenance of the various services and Fire Fighting equipment and installations in co-ordination with security, electrical and civil staff of the entire premises.

Double Layer Car Parking :

i)Vertical Deck Separation : Fire separation between the upper and lower decks by using a non-perforated and non-combustible materials (structural Steel plate) shall be provided. Proper drainage system shall have to be provided for accidental leaking of oil from the car and sand bed shall be provided at the ground level.

ii)Fire Engine Access Way : Access way shall be provided for the Fire Engine to gain access to the car park entrance and exit.

iii) Fire Hydrant : Fire Hydrant are to be provided in accordance with the provision of N.B.C Part IV 2016 and relevant I.S. specification.

iv) Natural Ventilation : Each car parking deck shall be provided with at least 50% external ventilation openings on the perimeter wall areas with uniformly distribution pattern.

v) Sprinkler & Detection System : Open Modular type Sprinkler along with detectors shall be provided in all M.L.C.P area as per relevant I.S. Specification.

vi) Cross zone wise Sprinkler system shall have to be implemented.

vii) Operating System : Both Mechanical and Manual type operating system for M.L.C.P shall have to be provided.

FIRE FIGHTING WATER :

Underground Water Reservoir of 1,01,250 Lt. for Fire Fighting purpose for the building and Overhead Water Reservoir above 10,000 Lt. capacity as shown/marked in the plan exclusively for Fire Fighting purpose, shall be provided with replenishing arrangements @ 1000 Lt/min. preferably from two different sources of water supply shall be provided. The water reservoir shall be kept full at all time and the Fire Water Reservoir shall have overflow arrangement with the domestic Water Reservoir to avoid stagnancy of water. Provision of placing Fire Appliances near the underground water reservoir to be made to draw water in case of emergency.

HYDRANT SYSTEM :

1. The building shall be provided with Wet Riser of 150mm. 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 2280 Lt/min. at the ground floor level outlet and minimum 900 Lt/min. at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kg/cm². All other requirements shall conform 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/ with provision of adequate numbers Hydrant point with provision of suitable adequate number of Fire Service inlet shall be provided surrounding the building in accordance with relevant I.S. specification.

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. One such pump shall always be kept on Stand-By to be installed of Diesel Driven type.

2. Provision of the Jockey Pump shall also have to be made to keep the water based system under pressurized condition at all the time. All the Fire Pumps shall be incorporated with both manual and auto starting facilities. The suction of Fire Pumps shall preferably of positive suction type or in case of negative suction the system shall be wet riser cum down comer with suitable terrace pump with overhead tank.

SPRINKLER INSTALLATION :

The automatic Sprinkler installation shall be provided at Ground floor area and double layer car parking area of outside of the building as I.S. 9972. Alarm gong to be incorporated along with the Sprinkler System. Sprinkler test line to be incorporated at the roof level.

ALARM, DETECTION AND SUPPRESSION SYSTEM :

1. Manually operated Electrical Fire Alarm System of 2 nos. of break glass type call boxes fitted with Hooters at each floor connecting with visual panel board. Hooters will be sounded on the same floor and immediate alternate floor. The visual panel board shall be provided at the entrance of ground floor.

2.Auto Fire detection system with the help of Smoke Detector shall be installed in all places of the ground Floor 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.The suppression system shall be made with Fire Extinguisher in computer, D.G. area, Electrical processing and data room and in a room of irreplaceable articles. Auto detection and suppression system to be provided at Transformer area.

4.Close Circuit T.V. shall have to be provided for the entire floor area of the building.

ELECTRICAL INSTALLATION & DISTRIBUTION :

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

2.Electrical distribution System shall conform all the requirements as laid in I.S. 1646-1982.

3.The vertical & horizontal electrical ducts shall be sealed at each floor level by Fire fire resisting materials.

ALTERNATE POWER SUPPLY :

Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pumps, Pump for Deep Tube-Well, Fire Alarm System and also for illuminating both staircase, passage and Fire Lift etc. and other places of assembly of the building in case of normal power failure.

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.

GENERAL RECOMMENDATIONS:

1.Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles (If any).

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.The Department of Fire & Emergency Services, Government of West Bengal, shall not take any responsibility in respect of any legal dispute if pending or arises about the title of land/property.

7.Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of the buildings.

On compliance of all the above Fire and Life Safety Recommendation, 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 test and performance of safety aspects of installation of the both Buildings.

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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