

**GOVERNMENT OF WEST BENGAL
OFFICE OF THE DIVISIONAL FIRE OFFICER
WEST BENGAL FIRE & EMERGENCY SERVICES**

Memo No : IND/WB/FES/20182019/29086

DATE: 21/01/2019

From :

**The Divisional Fire Officer
Fire Prevention Wing,
West Bengal Fire & Emergency Services.**

To :

**Sri Debarshi Dutta
Director of Vijay Real Estate Management Consultant
& Trading Co. Pvt. Ltd.**

Sub :Fire Safety Recommendation for a proposed construction of B + G +4 storied building under group Residential at the premises no.-Subhash Palli, R.S. Plot No.4132 R.S. Kh. No.2710, Mouza - Narsingh Bandh, J.L. No.21, Ward No. 79 (New) 41(Old) P.S. Hirapur, under Asansol Fire Station

This is in reference to your Application No. IND/WB/FES/20182019/29086,dated 21/01/2019, regarding the Fire Safety Measure for a proposed construction of B + G +4 storied building under group Residential at the premises no.-.Subhash Palli, R.S. Plot No.4132, R.S.Kh.2710 Mouza - Narsingh Bandh, J.L. No.21, Ward No. 79 (New) 41(Old), P.S. Hirapur, under Asansol Fire Station.

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. RECOMMENDATIONS

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 West Bengal Municipal Building Rules.
- 2.The Floor area exceeds 750 m² shall be suitably compartmented by wall separation walls up to the ceiling level having at least two hrs. Fire Resisting capacity.
- 3.The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
- 4.Provision of ventilation at the Central core-duct of the building shall be provided.
- 5.Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire Resisting capacity.

B.OPEN SPACE & APPROACH ROAD :-

- 1.The open space of the surrounding building shall conform the relevant buildings rules so as to permit the easy accessibility and maneuverability of Fire Appliances to turning facility.
- 2.The approach road shall be sufficiently strong to with stand the load of Fire Engine weighting upto 45 M.T.
- 3.The width and height of the access gates into the premises shall not be less than 4.5 M and 5 M respectively abutting the road. .

C.STAIR CASES :-

- 1.The stair cases of the building shall be enclosed /R/C/C/ type made of bricks having Fire Resisting capacity not less than 4 hrs.
- 2.The stair cases 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, Tread, Rise & flight of the stair cases and corridors/Exit/Lobby etc. shall conform the relevant building rules.
- 4.All the stair cases shall be extended upto to terrace of the building and shall be negotiable to each other without entering into any room.
- 5.Fire and smoke check doors at the entrances of all stair case enclosures at each floor shall be provided. The F.C.D. shall be at least one hour Fire Resistance wire glass window fitted with Self-closing type open able in the direction of escape.

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D.LIFT :-

- 1.The walls of the lift enclosure shall be at least two hr. Fire Resisting type collapsible gate shall not be permitted.
 - 2.One of the lift shall be designed for Fire lift of the height of the building exceeds 15 M.
- E.1.At the periphery of the basement, at least 2 hrs. fire resisting enclosed type staircases shall be constructed. The entry of such stair cases shall be made at ground level only from open air and in such position that smoke from any fire in the basement shall not obstruct any exit serving upper floors of the building.
- 2.Adequate means of escape from the underground structures shall be provided, in accordance with relevant codes and IS. Specification.

F.FIRE FIGHTING WATER :-

- 1.Underground W/R having capacity at 25,000 ltrs. And over head reservoir of 25,000 ltrs for each high rise tower exclusively for Fire Fighting purpose with replenishing arrangements @ 1000 lts/min.preferably from two different sources of water supply shall be provided. The Fire water Reservoir shall have over flow arrangements with the domestic water reservoir as well as to avoid stagnancy of water. The water Reservoir shall be kept full at all time.

G.HYDRANT SYSTEM :

- 1.Provision of standard Hose Reel in conjunction with wet risercum down comer of 100 mm dia having landing valve at each floor level ,connected to overhead reservoir through Booster Pump of 1200 LPM shall be made conforming the relevant I.S. specification.
- 2.Yard Hydrant/Ring Main Hydrant with provision of adequate numbers Hydrant with one number Fire service inlet shall be installed surrounding the building in accordance with relevant I.S. specification.
- 3.Proper Replenishing Arrangement shall have to be made to keep the O.H.W.R. full at all

time.

H. SPRINKLER INSTALLATION :-

1.The automatic sprinkler installation shall be provided in the Basement & office floor of the building as per IS 9972.Alarm gang to be incorporated along with the sprinkler system.

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I.ELECTRICAL INSTALLATION & DISTRIBUTION :-

1.The electrical installation including transformers, switch gears, Main & Metres 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 ducts shall be sealed at alternative floor level.

3.The electrical installation shall be adequately protected with C02/D.C.P.

4.Alternative power supply – Arrangements shall have to made to supply with the help of a generator to operate at least the Fire Pump, Pump for deep tube well, Fire Alarm System, Fire Lift etc. and also for illuminating the stair case, corridors etc and other places of assembly of the building in case of normal power failure.

J.DETECTION , ALARM AND SUPPRESSILON SYSTEM :-

1.Manually operated Electrical Fire Alarm system with at least three nos.of break glass type call boxes fitted with hooters along with P.A.system, tack back facilities at each floor shall be made in the control room. The control room shall be located at the ground floor of the building. Other requirements of the system shall be conformed 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 in office area 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 Extinguishers and total flooding system with CO2 /FM-200 particularly in computer and Electrical processing and Data Room.

4.Hooter will be sounded in such a manner so that an operation of a Detector or M.C.P. Hooters will sounded on the same floor and immediate alternative floor.

K.A.C.SYSTEM :- (If any) :-

1.The A.H.U. shall be separated for each floor with the system of Air Ducts for individual floors.

2.Arrangement shall be made for isolation at the strategic Locations by incorporating Auto Dampers in the A.C. System.

3.The system of auto shut down of A.H.U. shall be incorporated with the auto detection and alarm system.

4.The air handling units room shall not be used for storage of any combustible materials.

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L.FIRST AID FIRE FIGHTING SYSTEM :-

1.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.

M.GENERAL RECOMMENDATIONS :-

1.Fire notice for Fire Fighting and evacuation from the building shall be prepared and displayed at all vulnerable places of the building.

3.Floor nos. 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 & Testing.

5.Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installations and equipments installed in the building to keep them in perfectly good working condition at all times.

6.A crew of trained Fireman under experienced officer shall be engaged round the clock for safety of the building and occupants.

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

8. Each year a certificate is to be obtained from the Dy. Director (South Zone), this Deptt. certifying about the satisfactory services, performance of all the lives and Fire safety arrangement and 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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2. RECOMMENDATIONS

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 West Bengal Municipal Building Rules.
2. The Floor area exceeds 750 m² shall be suitably compartmented by wall separation walls up to the ceiling level having at least two hrs. Fire Resisting capacity.
3. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
4. Provision of ventilation at the Central core-duct of the building shall be provided.
5. Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire Resisting capacity.

B. OPEN SPACE & APPROACH ROAD :-

1. The open space of the surrounding building shall conform the relevant buildings rules so as to permit the easy accessibility and maneuverability of Fire Appliances to turning facility.
2. The approach road shall be sufficiently strong to with stand the load of Fire Engine weighting upto 45 M.T.
3. The width and height of the access gates into the premises shall not be less than 4.5 M and 5 M respectively abutting the road. .

C. STAIR CASES :-

1. The stair cases of the building shall be enclosed /R/C/C/ type made of bricks having Fire Resisting capacity not less than 4 hrs.
2. The stair cases 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, Tread, Rise & flight of the stair cases and corridors/Exit/Lobby etc. shall conform the relevant building rules.

4. All the stair cases shall be extended upto to terrace of the building and shall be negotiable to each other without entering into any room.

5. Fire and smoke check doors at the entrances of all stair case enclosures at each floor shall be provided. The F.C.D. shall be at least one hour Fire Resistance wire glass window fitted with Self-closing type open able in the direction of escape.

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D. LIFT :-

1. The walls of the lift enclosure shall be at least two hr. Fire Resisting type collapsible gate shall not be permitted.

2. One of the lift shall be designed for Fire lift of the height of the building exceeds 15 M.

E.1. At the periphery of the basement, at least 2 hrs. fire resisting enclosed type staircases shall be constructed. The entry of such stair cases shall be made at ground level only from open air and in such position that smoke from any fire in the basement shall not obstruct any exit serving upper floors of the building.

2. Adequate means of escape from the underground structures shall be provided, in accordance with relevant codes and IS. Specification.

F. FIRE FIGHTING WATER :-

1. Underground W/R having capacity at 25,000 ltrs. And over head reservoir of 25,000 ltrs for each high rise tower exclusively for Fire Fighting purpose with replenishing arrangements @ 1000 lts/min. preferably from two different sources of water supply shall be provided. The Fire water Reservoir shall have over flow arrangements with the domestic water reservoir as well as to avoid stagnancy of water. The water Reservoir shall be kept full at all time.

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**Divisional Fire Officer
West Bengal Fire & Emergency Services**

Signature valid

Digitally signed by ASHIM
SARKAR

Date: 2019.01.21 17:29:42 IST