



Government Of West Bengal  
Office Of The Divisional Fire Officer, Darjeeling  
West Bengal Fire & Emergency Services  
Station Feeder Road, P.O & P.S Siliguri,  
District: Darjeeling, Pin - 734005

Date: 30-07-2020

Memo no.: FSR/0125186200502246

From:  
Divisional Fire Officer, Darjeeling  
West Bengal Fire & Emergency Services

To: SHREE RAMKRISHNA B T COLLEGE  
MOUZA-DARJEELING, JL NO-24, SHEET NO-36, KH NO-4195, PLOT NO 195 TO 213 27 GANDHI ROAD BAGMARI  
HOUSE DARJEELING

Sub: Fire Safety Recommendation For the Existing G+2 Storied Educational Building under group Educational at  
27 Gandhi Road, Bagmari House, Darjeeling.

This is in reference to your application no. 0125186200502246 dated 28-07-2020 regarding the Fire Safety  
Recommendation For the Existing G+2 Storied Educational Building under group Educational at 27 Gandhi Road, Bagmari  
House, Darjeeling.

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 Part:**

- i) No addition / alteration of the building shall be allowed without the concurrence of this department except the construction works of the means of escape.
- ii) The staircases, corridors & all the means of escape should be free from any obstruction.
- iii) The open space surrounding the building should be kept free from any obstruction.
- iv) There should be two staircases from the terrace to the ground floor of the building and the travel distance should not exceed the limit of 30 meters.

**B) Open Space & approach:-**

- i) 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.
- ii) The approach roads shall be sufficiently strong to withstand the load of fire engine weighting up to 45 M.T.
- iii) The width and height of the access gates into the premises shall not be less than 4.5 meters & 5 meters respectively abutting the roads.

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Dr. S. P. Shrestha

Principal

Shree Ramakrishna B. T. College

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C) Means of escape: -

- i) The Staircases of the building shall be enclosed type & construction shall be made of bricked/RCC type having fire resistance capacity not less than 4 hrs.
  - ii) Time of evacuation should be as per I.S 1644-1988 i.e. 2.5 minutes.
  - iii) The width of the staircases shall be 1.25 meters. Corridors of the building and the exit doors shall conforming the relevant building rules.
  - iv) The staircases shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.
  - v) Fire & Smoke doors at the entrance of all the staircases enclosures at each floor level shall be provided. The F.C.D shall be at least two hour fire resisting with self closing type open able in the direction of the escape.
  - vi) In no way the travel distance from any point of the building exceeds the limit of 22.5 meters.
  - vii) 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.
  - viii) Parking area should not used for any storage.
  - ix) There should be two staircases from the ground floor to the terrace of the building.
- D) Electrical Installation: 1946:1982-(I.S-694)
- i) All electrical installation should be done in accordance with National Electrical code & part -viii "Building Service" section -2 "Electrical installation" good practice. [4(10)].
  - ii) All cable should be of FRLS type & all wiring should be done by the copper wire along with appropriate gauge such as 1.2 sq. mm for light, fan, bulbs etc. 2.5 sq. mm for freeze, TV & 4 sq. for geezer, washing machine etc. less than 0.2M2.
  - iii) Electrical installation shall be tested by the licensed Electricians where as 85 % fire originated from electrical source of energy

E) Alternate power supply :-Arrangement shall be made to supply power with the help of a Generator to operate at least the fire pump, pump for deep tube-well, illumination of stairs, corridors, means of escape etc. in case of normal power failure.

F) Fire Fighting Water: -

- i) The building should be provided with 30000 liters capacity of underground stored water with replenishing arrangement @ 1000 liters of water per minutes preferably from two different sources. The height of the reservoir should not be exceeding 30 cm from the ground level. Fire water reservoir shall have overflow and connected with the domestic water reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all times.
- ii) The location of the underground reservoir should be such so that Fire Service vehicles may get access to the site of the reservoir with a view to draw the water from the said reservoir.

G) Terrace Tank:-One Terrace Tank of capacity Minimum 30000 liter should be installed in the building along with suitable terrace pump & wet riser cum down comer system.

H) External Hydrant System:-IS-13039-1991:-The whole area of your building is to be protected by adequate no. of pillar type hydrants system i.e. @ one pillar hydrant per 1000 sq. meters of area or as per the vulnerability of the place

I) SPRINKLAR INSTALLATION- IS-9972-2002- The automatic sprinkler installation shall be provided in the basement & other vulnerable areas of the building, such as corridors means of escape storage area all strategic location of the building as per code of practice.

J) Hose Reel System:-IS 884-1985, the Hose reel hose system should be provided at each floor of the building. The internal dia of the said hose reel shall be 19 mm to 32 mm and the discharge capacity not less than 22.5 LPM. While the length of the hose reel not more than 36.50 meters. The distance of such Installation should be in such a way that no part of the floor is more than 6 meters distance from a hose nozzle when fully

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ended.

1) Pumps for fire fighting Installation-IS-12469-1988

The pump should be installed in front side of lodge just over the entrance and arranged in such manner so that it will start automatically due to fall in pressure as prefixed in the installation by installing a Jockey pump. As per NBC the discharge capacity of the said pump minimum 900 liters per minutes.

All the pumps shall be so designed as to supply water at the 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) All the pumps shall be incorporated with both normal and auto starting facilities, the suction of the pump shall preferably of positive type or in case of negative suction the system shall be wet riser- cum- down comers with suitable terrace pump fitted with over head tank.

4) Small Gears:- IS 903-1993- Hose box, 1.5 meters permoline delivery hose & gun metal short branch half inch dia @ one set each at or near all the pillar hydrant, landing valve on all floors of the building should be installed

5) Detection & Alarm System: Suppression system & Public address system-IS 2189-1988. Sufficient Nos. of manually operated electrical fire alarm system of break glass type call boxes and fitted with alarm like Hooters with public address system, talk back system at different places of the building should be installed & connecting with audio visual panel board shall be made in Control Room as per the IS Code of practice. The control room shall be available in the ground floor.

6) Lighting Protection of the Building: - This protection for buildings shall be provided as given in Part-VIII building services, section-2 electrical installation.

7) ALARM SYSTEM-IS 2189-1999:

Manually operated electrical fire alarm system shall have to be provided covering the entire premises.

GENERAL RECOMMENDATIONS:-

1) Fire notice for fire fighting and evacuation from the building should be provided and shall be displayed at all places of the building as per clause 5.5 of N.B Code.

2) Floor No. and Directional Sign of escape route should be displayed prominently as per clause 5.5 of the N.B Code.

3) All the staffs and others shall be conversant with the installed fire fighting equipments of the building so that they can operate the same in case of exigency. A fire crew should be available at the building at all times.

4) Arrangement shall be made for regular checking, testing and proper maintenance of all fighting equipments and keep them in good working condition at all times.

5) Mock fire drill and evacuation drill should be done periodically, with participation of all employees and others and in this regard in each year is to be obtained from this end as laid down in the norms.

6) A register for the recording of mock fire drill, evacuation drill, testing and checking of whole fire fighting installation, electrical installation should be maintained and shall be liable to produce the same to the authorized officers of this department on demand.

7) Good housekeeping should be maintained.

Note:-

1) The fire service recommendations are issued subject to the free from any court case or legal re-encumbrances.

2) This shall be treated as provisional N.O.C. On compliance of all the fire and life safety recommendations, The Divisional Fire Officer(Darjeeling Division), West Bengal Fire & emergency Services shall be approached for necessary inspection and testing of the installation.

Final Fire Safety Certificate in favour of the occupancy shall be issued on being satisfied with the test and safety performance of safety aspects of the installation of the building

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30/07/2020

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