Office of the Director General of Police
Commandant General, Home Guards &
Director of Civil Defence and
Director General Karnataka State Fire &
Emergency Services
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No.GBC(1)352/2016
(Docket No: KSFES/NOC/27/2016).

6-11-2016

To
The Commissioner,
Davanagere Mahanagara Palike,
P.B.Road,
Davanagere .

Sir,

Sub: Issue of NOC for the construction of 4th floor over the existing Educational Building of ground floor and 3 upper floors at Door No: 994/103 and Sy. No's. 103, 104/1B, 105/1B, 106/1B and 107/1B, Rashtrotthana Vidya Kendra, Nituvalli, Davanagere City.

Ref: Letter No.678/2016 dated 22-08-2016 of the Authorized Signatory, M/s. Rashrotthana Parishat Vidya Kendra, Nituvalli, Davanagere District, Davanagere-577003.

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With reference to the letter of the Authorized Signatory, M/s Rashtrotthana Vidya Kendra, Davanagere cited above, the Regional Fire Officer, Davanagere Range, Davanagere of this department has inspected the building wherein proposed for the construction of 4th floor over the existing Educational Building of ground floor and 3 upper floors at Door No: 994/103 and Sy. Nos. 103, 104/1B, 105/1B, 106/1B and 107/1B, Rashtrotthana Vidya Kendra, Nituvalli, Davanagere City on 16-09-2016 with reference to the drawings, submitted by the applicant and has furnished the details as follows :-

A. <u>Details of the premises</u>.

1. Address of the premises	:	Rashtrotthana Vidya Kendra, Door No: 994/103 and Sy. No's. 103, 104/1B, 105/1B, 106/1B and 107/1B, Nituvalli, Davanagere City.
2. Number of Buildings	:	One.

3. Number of floors

Existing	:	Ground floor & 3 upper floors.
Proposed	:	4th floor.

4. Type of Occupancy : Educational Building

5. Floor wise details of theOccupancy

Ground floor	:	1 Office room, 01 Principal room, 01 Staff room, 7 Nursery class rooms, 05 Class rooms, 01 Activity room, 01 Prayer hall, 01 lobby and 02 Toilets.
1st floor	:	1 Management room, 01 Staff room, 10 Nursery class rooms, 08 Class rooms, 01 Library and 02 Toilets.
2nd floor	:	1 Management room, 01 Staff room, 10 Nursery class rooms, 08 Class rooms, 01 Library and 02 Toilets.
3rd floor	:	1 Staff room, 15 Class rooms, 01 Green room, 01 Auditorium hall, Stage area and 02 Toilets.
4th floor	:	1 Staff room, 10 Class rooms, 01 Indoor Sports room, 01 Audio vision room and 02 Toilets.
Terrace floor	:	3 No's Water stoarage terrace tanks.

6. Height of the Building : 17.90 Mtrs.

7. Site Area : 22864.56 Sq.Mtrs.

8. Built-up area of each floor :-

Ground floor	:	3857.11 Sq.Mtrs.
1st floor	:	3857.11 Sq.Mtrs.
2nd floor	:	2370.71 Sq.Mtrs.
3rd floor	:	2370.71 Sq.Mtrs.

4th floor	:	1849.00 Sq.Mtrs.
Terrace floor	:	31.85 Sq.Mtrs.
9. Total Built-up area	:	14,336.49 Sq.Mtrs.

10. Surrounding properties :-

East	:	12.20 Mtrs wide Nituvalli to KSRTC Bus stand road, thereafter residential area.
West	:	Private property thereafter residential area.
North	:	6.10 Mtrs wide road, thereafter residential area.
South	:	Existing school building thereafter 9.14 Mtrs wide Nituvalli to ESI Hospital road.

B. The plan shows the following structural details indicating the fire prevention, fire fighting and Evacuation measures. These measures are considered adequate as follows:-

Details (1)		Existing (2)
1. Width of the road to which the building abuts and whether it is hard surfaced to carry the weight of 45,000 kgs.	:	The premises is abutting 12.20 mtrs. Wide road Nituvalli to KSRTC Bus stand road, located on the eastern side. The Road is hardened to carry the the weight of 45,000 kgs.
2. Number of entrances and width of each	:	Proposed to provide two entrances, one of 08.00 and another one is 04.00 Mtrs. width from 12.20 Mtrs. wide Nituvalli to KSRTC bus stand road, located on the eastern side.
3. Height clearance over the entrance	:	No arch or any other constructions have been Proposed over the entrance.

4. Width of open space (Setbacks):-

Front (East)	:	Minimum 11.60 Mtrs.
Rear (West)	:	Minimum 06.02 Mtrs.
Side (North)	:	Minimum 06.02 Mtrs.
Side (South)	:	Minimum 07.80 Mtrs.

(1)		(2)
5. Arrangement for parking the Cars	:	Provision has been made to park 50 Cars and 100 two wheelers at open surface area on the eastern side after leaving 6.00 mtrs. wide fire driveway from the Building line.
6. Number of Staircases	:	3.
7. Location of the staircases	:	All the staircases have been designed to abut one of its side to the external wall. Further provision has been made to enclose all the staircases at each floor level.
8. Staircase size:-		
(a) Width of the staircases	:	Each 1.50 Mtrs.
(b) Width of treads	:	30 cms.
(c) Height of riser	:	15 cms.
(d) Number of risers in a flight	:	Maximum 11 risers per flight.
(e) Height of hand rails	:	1.00 mtr. As proposed, the hand rails should be provided at a height of 1.00 metre. The gap between two verticals should not exceed 15 Cms.
(f) Head room clearance	:	Minimum 2.40 mtrs.
9. Travel distance from the farthest point and from dead-end of the	:	Maximum 43.05 Mtrs. from the farthest point and maximum 30.05 Mtrs. from the dead end of the corridor to the staircase in upper floors. The permissible travel distance is 30.00 mtrs. from the farthest point and 15.00 mtrs. from the dead end of corridor. To meet this requirement additional staircases shall be provided or entire building shall be covered with sprinkler system.
10. Number of lifts and capacity		2 lifts, each of 10 passengers capacity.

C. While constructing the building the following fire safety measures should be incorporated:-

Details (1)	Existing (2)	Recommendation (3)
1. Condition of the open space.	--	The required and allowed setbacks of Minimum 6.00 Mtrs. all around the Building, from the Building line should have a RCC slab of 200 mm thickness to carry the load of 45,000 kgs., being the weight of a fire unit. This driveway all around the building should always be kept free and clear. It would be advantageous to the builders and the users to elevate this portion by a few inches and even provide for a different colour, so that people are aware that this is the emergency route for fire Fighting vehicles, ambulances etc. The total setbacks shall be at even level without any structure and projections up to a height of 5.00 Mtrs. These setbacks shall be always kept free from any construction or utilization like garden, landscaping parking etc.
2. Structural materials.	The existing floors have been constructed with RCC materials & Brick walls.	RCC materials and brick walls of not less than two hours fire resistance should be used for the construction of structures of the floor. Only fire resistant materials or materials treated with fire retardant chemicals, should be used for interior decoration the work. While attending the interior decoration the fixed fire fighting systems like sprinklers/risers etc., should not be covered or shifted from their original location.
3. Design of the staircases.	Existing staircases is constructed with non-combustible materials.	All the staircases shall be completely enclosed at each landing to prevent smoke and fire traveling from the lower floors to the upper floors. Enclosures to staircases should be provided with self-closing smoke-stopping swing-door, fitted with door closing devices at the exit to the lobby. These doors should have at least two hours fire resistance capacity. The staircase area should be without glazing or glass brick walls to avoid reflections. Any area of dwelling or storage should not open directly to the staircase.

(1)	(2)	(3)
4. Specification of lift.	Not jndicated	The brick walls, enclosing the lift shafts, should be of 90 mm thickness and have a fire resistance of not less than two hours. Shaft should have permanent vent of not less than 0.2 sq.mtrs. clear area, immediately under the machine room. Lift motor rooms should be preferably located at the top of the shaft and separated by the enclosing wall of shaft or by the floor of the machine room. Landing doors of lift enclosures should open into a ventilated lobby having one hour fire resistance. Lift car doors should be of metal finish, operating automatically and should have fire resistance capacity of one hour. Exit from the lift lobby should be through a self closing smoke stopping door of 15 mm thickness, having one hour fire resistance capacity. This is to prevent smoke and fire traveling from the lower floors to the upper floors. The lift machine rooms should be separate and no other machinery should be installed therein. Each lift should be connected to an alternative source of power (generator). Grounding switches at the ground floor level to enable the Fire & Emergency Services personnel to ground all the lift cars and use them as ' FIRE LIFT' in an emergency should be provided.
5. Service ducts/shafts.	---	Service ducts should be enclosed by walls of 100 mm. thickness to have at least two hrs fire resistance capacity. A vent, opening at the top of the service shafts, should be provided between one fourth and half of the area of the shafts. The electrical distribution cables and wiring should be laid in a separate duct. All the ducts should be sealed at every alternate floor with non-combustible metal doors having at least two hours fire resistance capacity. Water mains, telephone lines, intercom lines or any other service lines should not be laid in the duct, meant for electric cables. The inspection panel doors and any other opening to the shafts should be provided with airtight doors of at least two hours fire resistance capacity.

(1)	(2)	(3)
6. Escape route.	Not indicated.	Direction in which the inmates should have to move in the event of any emergency have to be indicated in the corridor/passage on each floor as a guide during evacuation. These marking should be in luminous paint.

D. The builder should arrange for the following fire fighting and evacuation measures:-

Details (1)	Existing (2)	Recommendation (3)
1. Electric power supply.	---	Circuits for water pumps, lifts, staircase lighting in the building should be by separate line and independently connected so that they can be operated by one switch installed the ground floor. Dual operated switches should be installed in the service room for terminating the standby supply. As proposed one standby generator of 150 KVA capacity shall be installed in a separate room, after leaving 6.00 mtrs. wide driveway from the building line, to supply alternative power for staircase lighting, corridor lighting, fire fighting systems and lifts etc., in the event of failure of electricity supply, in the building.
2. Wet riser-cum-down comer. systems.	Proposed to provide 4 down comer systems.	As proposed 4 down comer systems, near the the staircases should be provided. Each down down comer should be of 100 mm internal diameter and of G.I. 'C' Class pipe. From each down comer single hydrant outlets should be provided at each landing. Hose reel hose of minimum 19 mm size of adequate length to reach the farthest point of each floor should be provided with a shut off branch having a nozzle of 5 mm size. The hose reel hose should be connected at each landing by means of an adaptor. Adequate B.I.S. marked reinforced rubber lined delivery hoses of 63 mm size to reach the farthest point of the floor from the system should be provided with a branch pipe near each hydrant outlet in a proper box to protect it from withering.

(1)	(2)	(3)
		At least two fire service inlets to boost the water in the comer directly from the mobile pump should also be provided. These inlets should be located at an easily accessible position, preferably near the entry point to the premises. Each down comer systems an connected to an overhead tank of 25,000 liters capacity with an electrical driven booster pump capable of delivering 900 litres of water per minute at 0.3N/mm2 pressure (total 4 overhead tanks & 4 Booster pumps).
3. Manually operated fire alarm system	Proposed to provide manually operated electrical fire alarm system with call boxes near each staircase landing.	Manually operated electrical fire alarm system should be installed with call boxes located near each staircase landing of the Building. The call boxes should be of "break glass' type, where the call is transmitted automatically to the control room the control room when the glass of the system is broken. This system should also be connected to an alternative source of power supply (diesel generator). The call boxes should be so installed that their location can be easily noticed from either direction and should be at a height of one meter from the floor level.
4. Public address system.	Proposed to provide public address system with two way communication facility.	As proposed a public address system with two way communication facility should be provided at each floor near each staircase landing with its console at the control room, located on the ground floor.
5. Assembly Area	Not marked.	An area at an appropriate place in the allowed/ required setbacks shall be earmarked with a proper board as 'ASSEMBLY AREA' for the occupants to assemble after evacuation during practice drill and in an emergency.

(1)	(2)	(3)
6. Portable fire extinguishers.	Proposed to provide suitable type of portable fire extinguishers as per the requirements.	a) One ABC Powder extinguisher of 6 kgs. capacity and 2 fire buckets filled with clean dry fine sand should be provided for every 8 Cars in the surface parking area. b) One ABC Powder extinguisher of 6 kgs. Capacity should be provided inside each lift machine room. c) One ABC Powder extinguisher of 6 kgs. capacity should be provided near the entrance to the D.G. Room. d) One ABC Powder extinguisher of 6 kgs. capacity should be kept near each staircase landing on every floor. e) All the extinguishers suggested above should be with B.I.S. markings and should be located at an easily accessible position without obstructing the normal passage.
7. Fire safety plan.	---	A Fire safety plan for preventing and extinguishing any accidental fire in the building and action to be taken by the occupants in case of such fire should be prepared in advance and got approved by the Director, Karnataka Fire and Emergency Services. The fire safety plan, so approved, should contain the telephone numbers of the nearest Fire Control i.e., Davanagere Fire Station Telephone number 08192-258101. The plan should be distributed to all the occupants and employees in the building and should be displayed on every floor.

(1)	(2)	(3)
		A Fire Command Station should be established in the lobby of the building on the entrance floor and such command station should be adequately illuminated. The main control of the public address system and fire alarm system should be at the Fire Command Station. A Fire Command Station should be established in the lobby of the building on the entrance floor and such command station should be adequately illuminated. The main control of the public address system and fire alarm system should be at the Fire Command Station. A Fire Safety Director should be nominated for the Building. He should conduct fire and evacuation drills periodically. He should nominate a Fire Warden for each floor and ensure that no individual of the building does anything which causes or stimulates an accidental fire and in case of lapses in respect of fire prevention measures, he should take action as deemed fit to ensure the safety from the fire point of view. If the action is beyond his capacity he should inform the Fire and Emergency Services department.
8. Training	Not indicated	40% of the occupant/employees should be got trained in fire prevention & fire fighting at the R.A. Mundkur Fire & Emergency Services Academy. Bannerghatta Road, Bangalore – 560 029.within 6 months from the date of occupation of the building. For this purpose, before approaching this department for final clearance certificate, the applicant should give an undertaking in the form of an affidavit regarding the maintenance of the fire prevention and fire fighting measures suggested above and arranging training of 40% of th occupants in fire prevention and fire fighting with 6 months from the date of issue of the clearan certificate.

E. General:-

1) All the fire prevention, fire fighting and evacuation measures Suggested / Recommended in B, C & D shall be strictly adhered to adopted.

2) Hazardous materials such as petroleum products, explosives, chemicals etc. should not be stored on any floor of the building.

3) Refuse dumps or storage should not be permitted in any of the floors.

4) Liquefied petroleum gas should not be stored in the building, except limited quantity required for each kitchen.

5) Plan and occupancy should not be changed without informing the Fire and Emergency Services and without taking clearance.

6) The occupancy certificates should not be issued without obtaining the clearance certificate from the Fire and Emergency Services Department as per Zonal Regulation of the Local Authority.

7) Such reasonable changes/modifications as may be found necessary, after the Building is fully constructed, will have to be agreed to be done by the builder/occupants of the building.

8) All the metal fittings of down comer riser system and all the extinguishers suggested above should have B.I.S markings.

9) Apart from the above the Building shall be constructed by following all the rules & conditions stipulated in Part-III & IV of NBC & local zoning regulations strictly, failing which the NOC issued will not be valid.

10) The NOC is issued from the Fire Prevention and Fire Fighting point of view. Karnataka State Fire & Emergency Services Department will not endorse the ownership of the premises and not responsible for any disputes which may arise in due course.

Subject to the strict adherence to the conditions laid down as above, issue of license for the construction of 4th floor over the existing Educational Building of ground floor and 3 upper floors at Door No: 994/103 and Sy. No's. 103, 104/1B, 105/1B, 106/1B and 107/1B, Rashtrotthana Vidya Kendra, Nituvalli, Davanagere City may please be considered.

Yours faithfully,

Director General of Police
and Director General,
Karnataka Fire & Emergency Services.

Copy to:-

1) The Authorised Signatory, M/s. Rashtrotthana Parishat Vidya Kendra, Nituvalli, Davanagere District.
2) The Regional Fire Officer, Davanagere Range, Davanagere.