

# GOVERNMENT OF TELANGANA STATE DISASTER RESPONSE & FIRE SERVICES DEPARTMENT NO OBJECTION CERTIFICATE FOR OCCUPANCY



or General ter Response and Fire Services, Hyderabad. To, LEGALA NARASIMHA REDDY, PLOT NO:108/109, DOYENS TOWN SHIP, SERILINGAM PALLY, R, R,

Ack. No.399700002021Dated:18/10/2021

TELANGANA STATE DISASTER RESPONSE & FIRE SERVICE DEPARTMENT –.

DIST.,

Issue of No Objection Certificate for Occupancy to the Multi storeyed Building of Sri Chaitanya School Building, EXISTING SCHOOL BUILDING IN PLOT BEARING NO.S. 317,318,319,338,339,340,341 & 342. IN SY No's. 83/P,85 & 86,SITUATED AT SERILINGAMPALLY VILLAGE,

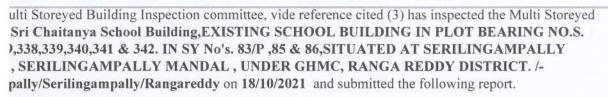
86,SITUATED AT SERILINGAMPALLY VILLAGE , SERILINGAMPALLY MANDAL , UNDER GHMC, RANGA REDDY DISTRICT. /-

**Serilingampally/Serilingampally/Rangareddy**, Hyderabad – Regarding.

- 1. Acknowledgement No399700002021
- 2. This Office Provisional NOC Ack/RC No.326210002020 dt.26/02/2020
- 3. Multi-Storeyed Building Inspection Committee Report,.

Hyderabad Ack. No. 399700002021, dt. 18/10/2021

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lder was issued Provisional No Objection certificate vide reference cited (2) for construction of Multi idlding 1 Cellars,1 Stilts, 4 Floors, with for EDUCATIONAL B-1 Schools up to senior secondary level. ilder has constructed the Multi Storeyed Building with 1 Cellars,1 Stilts, 4 Floors, with a height of 17.97 EDUCATIONAL B-1 Schools up to senior secondary level Occupancy and requested for No Objection or Occupancy.

aces: The builder provided the following open spaces all around the building.

de	Open space Required as per Provisional No Objection Certificate	Open space Provided
orth	6.00	6.00
uth	6.00	6.00

En	try Gate Head Clearance	4.50	6.00
Ex	it Gate Width	6.00	6.00
Ex	it Gate Head Clearance	4.50	6.00

Distance

/ Description	Required (Not More than in Mtrs.)	Provided
nest point ( Most Remote Point) With in a storey or a mezzanine floor to oor to an Exit.	30.00	27.20
Dead end of the corridor length in exit access. (6 mtrs for Educational, autional and Assembly, 15mtrs for other Occupancies)	6.00	1.50

ases (As per NBC 2016)

pe of staircases	Width (In Mtrs)	No of staircases	Floors from	Floors to
ernal staircases	1.50	1	Cellar	Terrace
ternal staircases	1.50	1	Ground	Terrace
mp(Used for Movement of vehicles)	5.40	1	Stilt	Cellar

of Escape Floor Wise Details

	Buil-up Area in Sq.Mtrs	Type of Occupancy	Occupan t Load	Means of escape required as per table 21 of NBC	Means of escape Provided
ar	695.19	Parking	23.00	0.23	6.90
	535.90	Parking	134.00	1.34	12.00
r	536.01	EDUCATIONAL B-1 Schools up to senior secondary level	134.00	1.34	3.00
r	536.01	EDUCATIONAL B-1 Schools up to senior secondary level	134.00	1.34	3.00
r	536.01	EDUCATIONAL B-1 Schools up to senior secondary level	134.00	1.34	3.00
r	536.01	EDUCATIONAL B-1 Schools up to senior secondary level	134.00	1.34	3.00

aft as per clause 2.24 and ANNEX E (E-2) of part 4 NBC 2016.

scription	Required	Provided	
: / Fire Lift	1	0	

Wise details of Fire Fighting Installations:

or ails	Fire Extinguish er	Hose Reel	Automatic Sprinklers System	Manually Operated Electronic Fire Alarm System	Automate detection and alarm system
ar	4.00	1.00	78.00	1.00	0.00
	3.00	1.00	0.00	1.00	0.00
Floor	3.00	1.00	0.00	1.00	0.00
r	3.00	1.00	0.00	1.00	0.00
r	3.00	1.00	0.00	1.00	0.00
r	3.00	1.00	0.00	1.00	0.00

Fighting Installations as per Table 7 of NBC 2016.

ting System.	Required As per NBC	Provided
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Tank over Respective Tower Terrace in Litres	• • •	25000.00	25000
pacity in LPM at the Terrace Tank Level with Minimum	Pressure of 3.5	900.00	900

builder has provided the following additional Fire Safety Requirements as per NBC of India 2016:

re safety Item

oor Openings Fire Protection as per Clause 3.4.5.4

Openings in Service ducts and shafts allowing building services like cables. Electrical wirings, Telephone bles, plumbing pipes etc., shall be protected by enclosure in the form of ducts / shaft having a fire resistant's t less than 120 min.

The inspection door for electrical shafts / ducts have fire resistance rating of 120 min

Medium and low voltage wiring running in shafts / ducts are armoured type or run through metal conduits.

The space between the electrical cables/conduits and the walls/slabs are filled in by a fire stop material having e resistance rating of not less than 120 min. This shall exclude requirement of fire stop sealing for low voltage vices shaft. For plumbing shafts in the core of the building, with shaft door opening inside the building; the afts shall have inspection doors having fire resistance rating not less than 30 min

For plumbing shafts in the core of the building, with shaft door opening inside the building, the shafts shall ve inspection doors having fire resistance rating not less than 30 min

#### ertical openings Fire Protection as per Clause- 3.4.5.6

Every vertical opening between the floors of a building is suitably enclosed or protected, as necessary, to byide the following:

asonable safety to the occupants while using the means of egress by preventing spread of fire, smoke, or nes through vertical openings from floor to floor to allow occupants to complete their use of the means of ress. Further it shall be ensured to provide a clear height of 2 100 mm in the exit access.

Limitation of damage to the building and its contents.

## ectrical Installation as per Clause - 3.4.6

or requirements regarding installations from the point of view of fire safety, reference may be made to good actice [4(6)] and 8. Building Services, Section 2 Electrical and Allied Installations. Of the Code.)

In general, it is desirable that the wiring and cabling are with flame retardant property. Medium and low ltage wiring running in shafts and within false ceiling shall run in metal conduit. Any 230 V wiring for hting or other services, above false ceiling, shall have 660 V grade insulation.

The electric distribution cables/wiring are laid in a separate shaft. The shaft is sealed at every floor with fire p materials having the same fire resistance as that of the floor. High, medium and low voltage wiring running shaft and in false ceiling shall run in separate shaft/conduits.

Water mains, gas pipes, telephone lines, intercom lines or any other service line shall not be laid in the duct electrical cables; use of bus ducts/solid rising mains instead of cables is preferred.

# nergency power for fire and life safety systems as per Clause- 3.4.6.2

nergency power supplying distribution system for critical requirement for functioning of fire and life safety stem and equipment planned for efficient and reliable power and control supply to the following systems and uipment is provided

Fire pumps.

Fire mans lifts (including all lifts).

Exit signage lighting.

Emergency lighting.

Fire alarm system.

Public address (PA) system (relating to emergency voice evacuation and annunciation).

Magnetic door hold open devices.

lighting in fire command centre and security room

Power supply to these systems and equipment shall be from normal and emergency (standby generator) power arces with changeover facility. If power supply, is from HV source and HV generation, the transformer should planned in standby capacity to ensure continuity of power to such systems.

Wherever transformers are installed at higher levels in buildings and backup DG sets are of higher voltage ing, then dual redundant cables shall be taken to all transformers. The generator shall be capable of taking rung current of all the fire and life safety systems and equipment as above.

pply of power is reliable to these systems and equipment

It shall be ensured that the cabling from the adjoining fire compartment is protected within the compartment vulnerability. The location of the panel/distribution board feeding the fire and life safety system shall be in e safe zone ensuring supply of power to these systems. Circuits of such emergency system shall be protected origin by an automatic circuit breaker with its no-volt coil removed. Master switches controlling essential rvice circuits shall be clearly labeled.

Cables for fire alarm and PA system shall be laid in metal conduits or armoured to provide physical gregation from the power cables

## andby supply as per clause -3.4.6.4

Diesel generator set(s) shall not be installed at any floor other than ground/first basement. If the same are stalled indoors, proper ventilation and exhaust shall be planned. The DG set room shall be separated by 120 n fire resistance rated walls and doors.

The oil tank for the DG sets (if not in the base of the DG) shall be provided with a dyked enclosure having a lumetric capacity of at least 10 percent more than the volume of the oil tank. The enclosure shall be filled with nd for a height of 300 mm.

ghtning protection of buildings as per clause - 3.4.6.5 Routing of down conductors (insulated or insulated) of lightning protection through electrical or other service shafts are not allowed as it can create fire d explosion during lightning. For details, see Part 8 .Building Services, Section 2 Electrical and Allied stallations' of the Code.

cape Lighting and Exit Signage as per Clause 3.4.7 Exit access, exits and exit discharge shall be properly entified, with adequate lighting maintained in the elements of the egress systems so that all occupants shall be le to leave the facility safely.

## ghting as per Clause - 3.4.7.1

The exit, exit access and exit discharge systems shall be illuminated continuously. The floors of the means of ress shall be illuminated at all points, including angles and intersections, in corridors and passageways, irwells, landings of stairwells and exit.

Emergency lighting shall be powered from a source independent of that supplying the normal lighting.

Escape lighting shall be capable of,

ndicating clearly and unambiguously the escape routes;

providing adequate illumination along such routes to allow safe movement of persons towards and through exits: and

ensuring that fire alarm call points and firefighting equipment provided along the escape routes can be idily located.

The horizontal luminance at floor level on the centreline of an escape route shall not be less than 10 nen/m2. In addition, for escape routes up to 2 m wide, 50 percent of the route width shall be lit to a minimum 5 lumen/m2. In auditoriums, theatres, concert halls and such other places of assembly, the illumination of or exit/access may be reduced during period of performances to values not less than 2 lux.

Required illumination shall be arranged such that the failure of any single lighting unit, such as the burning t of one luminaire, will not leave any area in darkness and does not impede the functioning of the system ther.

The emergency lighting shall be provided to be put on within 5 s of the failure of the normal lighting supply. so, emergency lighting shall be able to maintain the required illumination level for a period of not less than 90 n in the event of failure of the normal lighting even for smaller premises.

Battery pack emergency lighting, because of its limited duration and reliability, shall not be allowed to be ed in lieu of a diesel engine driven emergency power supply.

Escape lighting luminaires should be sited to cover the following locations:

Near each intersection of corridors.

At exits and at each exit door,

Near each change of direction in the escape route,

Near each staircase so that each flight of stairs receives direct light,

Near any other change of floor level,

Outside each final exit and close to it,

) Near each fire alarm call point,

i) Moor firefichting agricument and

ernative supply. The alternative source of supply may be provided by battery continuously trickle charged m the electric mains

**itable arrangements as per clause – 3.4.7.3** Installation of double throw switches to ensure that the lighting talled in the staircase and the corridor does not get connected to two sources of supply simultaneously. The uble throw switch shall be installed in the service room for terminating the stand-by supply.

#### re Command Centre (FCC) as per Clause- 3.4.12

Fire command centre shall be on the entrance floor of the building having direct access. The control room all have the main fire alarm panel with communication system (suitable public address system) to aid floors I facilities for receiving the message from different floors.

Fire command centre shall be constructed with 120 min rating walls with a fire door and shall be provided the emergency lighting. Interior finishes shall not use any flammable materials. All controls and monitoring of alarm systems, pressurization systems, smoke management systems shall happen from this room. Into of integrated building management systems, CCTVs or any other critical parameters in building may obe from the same room.

Details of all floor plans along with the details of firefighting equipment and installations (2 sets laminated 1 bound) shall be maintained in fire command centre.

The fire staff in charge of the fire command centre shall be responsible for the maintenance of the various vices and firefighting equipment

## neral Exit Requirements as per clause - 4.2 4.2.3

Every exit, exit passageway and exit discharge shall be continuously maintained free of all obstructions or pediments to full use in the case of fire or other emergency.

.7b) For non-naturally ventilated areas, fire doors with 120 min fire resistance rating shall be provided and ticularly at the entrance to lift lobby and stair well where a .funnel or flue effect' may be created, inducing an ward spread of fire, to prevent spread of fire and smoke.

.9c) Doors in exits shall open in the direction of exit. In case of assembly buildings (Group D) and titutional buildings (Group C-1), exit door shall not open immediately upon a flight of stair and all such ries to the stair shall be through a landing, so that such doors do not impede movement of people descending m a higher floor when fully opened (see Fig. 4A). While for other occupancies, such doors shall not reduce pathway in the landing by more than half the width of such staircase (see Fig. 4B). Over- head or sliding ors shall not be installed.

.11d) Unless otherwise specified, all the exits and exit passageways to exit discharge shall have a clear ceiling ght of at least 2.4 m. However, the height of exit door shall be at least 2.0 m (see Fig. 5).

**2.16**e) Suitable means shall be provided so that all access controlled exit doors, turnstiles, boom barriers and er such exits shall automatically operate to open mode during emergencies like fire, smoke, acts of terrorism, , so that people can safely and quickly egress into safe areas outside. If required, a master controlling device y be installed at a strategic location to achieve this.

.17f) Penetrations into and openings through an exit are prohibited except those necessary like for the fire tection piping, ducts for pressurization and similar life safety services. Such openings as well as vertical sage of shaft through floors shall be protected by passive systems.

it Access as per Clause - 4.4.1

n order to ensure that each element of the means of egress can be effectively utilized, they shall all be perly lit and marked. Lighting shall be provided with emergency power back-up in case of power failures. so, exit signs of adequate size, marking, location, and lighting shall be provided so that all those unfamiliar h the location of the exits may safely find their way.

Exit access to fireman's lift and refuge area on the floor shall be step free and clearly signposted with the ernational symbol of accessibility.

Exit access shall not pass through storage rooms, closets or spaces used for similar purpose.

e Drills and Fire Orders are ensured as per clause – 4.11 Provided Fire notices/orders shall be prepared to fil the requirements of firefighting and evacuation from the buildings in the event of fire and other emergency. e occupants shall be made thoroughly conversant with their action in the event of emergency, by displaying notices at vantage points and also through regular training. Such notices should be displayed prominently in d lettering. For guidelines for fire drills and evacuation procedures for high rise buildings, see Annex D.

e Extinguishers/Fixed Firefighting Installations as per clause - 5.1 5.1.1 All buildings depending upon

in the event of a fire incidence. The requirements of fire extinguishers/yard hydrant systems/wet riser/downmer installation and capacity of water storage tanks and fire pumps, etc, shall be as specified in Table 7. The quirements regarding size of mains/risers shall be as given in Table 8. The typical arrangements of downmer and wet riser installations are shown in Fig. 13. The wet riser shall be designed for zonal distribution suring that unduly high pressures are not developed in risers and hose-pipes.

First-aid firefighting appliances shall be provided and installed in accordance with good practice [4(18)]. The efighting equipment and accessories to be installed in buildings for use in firefighting shall also be in cordance with the accepted standard [4(17)] and shall be maintained periodically so as to ensure their perfect viceability at all times.

Valves in fixed firefighting installations shall have supervisory switch with its signalling to fire alarm panel or have chain(s), pad lock(s), label and tamper-proof security tag(s) with serial number to prevent npering/unauthorized operation. These valves shall be kept in their intended open position.

) In addition to wet riser or down-comer, first- aid hose reels shall be installed in buildings (where required der Table 7) on all the floors, in accordance with accepted standard [4(19)]. The first-aid hose reel shall be nected directly to the riser/down-comer main and diameter of the hose reel shall not be less than 19 mm.

Wet risers shall be interconnected at terrace level to form a ring and cut-off shall be provided for each nection to enable repair/ maintenance without affecting rest of the system.

Pressure at the hydraulically remote hydrant and at the highest hydrant shall not be less than 3.5 bar. The assure at the hydrants shall however not exceed 7.0 bar, considering the safety of operators. It may be planned provide orifice plates for landing valves to control pressure to desired limit especially at lower levels; this ald also be achieved through other suitable means of pressure reducing devices such as pressure controlled drant valves.

Hydrants for firefighting and hose reels shall be located in the lobby in firefighting shaft. Those hydrants nned to be provided near fire exit staircase on the floor shall be within 5 m from exit door in exit access. Such drant cabinet may finish with doors to meet interior finishes with requirement of glass panel to provide ibility to the installations inside and inscribed with the word: FIRE HOSE CABINET of letter size 75 mm in ght and 12 mm in width. Such door of the fire hose cabinet need not be fire resistant rated. The location of the cabinets shall be shown on floor plan and duly displayed in the landing of the respective fire exit staircase.

**Itomatic Sprinkler Installation as per clause** – **5.1.3** The requirements shall be as given below: Automatic sprinklers shall be installed wherever required in terms of Table 7 throughout the building in cordance with good practice [4(20)].

If selective sprinklering is adopted, there is a real danger of a fire starting in one of the unsprinklered area hering momentum spreading to other areas and reaching the sprinklered areas as a fully developed fire. In the sprinklers can be rendered useless or ineffective.

Automatic sprinklers shall be installed in false ceiling voids exceeding 800 mm in height. Installation of sprinklers may be excluded in any area to be used for substation and DG set.

In areas having height 17 m or above such as in atria, sprinkler installations may be rendered ineffective and ace may be avoided.

Pressure in sprinkler system shall not exceed 12 bar or else high pressure sprinkler to be installed for above 12 operations.

The maximum floor area on any one floor to be protected by sprinklers supplied by any one sprinkler system or from an installation control valve shall be based on system protection area limitations considering ximum floor area on any one floor to be 4 500 m2 for all occupancies except industrial and hazardous supancies, where Authorities shall be consulted for advice based on type and nature of risk.

Sprinkler installation control valves, shall be installed inside the fire pump room.

The sprinkler flow switches provided shall be monitored by fire alarm panel.

It is essential to make provisions for avoiding water from sprinkler/hydrant operation entering lifts and ctrical rooms.

Ramps at all levels shall be protected with sprinklers.

#### 5 ELECTRICAL SERVICES

The specific requirements for electrical installations in multi-storeyed buildings given in Part 8 .Building vices, Section 2 Electrical and Allied Installations of the Code and Section 7 of National Electrical Code 11 to be complied.

Basemenf car parking	3000
Business buildings	3000

w of the above and as per recommendations of the multistoried building inspection Committee, the No Certificate for Occupancy is issued to Multi Storied Building Sri Chaitanya School Building, EXISTING L BUILDING IN PLOT BEARING NO.S. 317,318,319,338,339,340,341 & 342. IN SY No's. 83/P,85 & ATED AT SERILINGAMPALLY VILLAGE, SERILINGAMPALLY MANDAL, UNDER GHMC, REDDY DISTRICT. /-Serilingampally/Serilingampally/Rangareddy

ght of 17.97 Meters for EDUCATIONAL B-1 Schools up to senior secondary levelOccupancy subject to ving conditions, which also include the responsibilities of the Builder, Management Body of the building,

s and fire and security personnel.

er and Management Body	Occupant	Management Body and fire and security personnel
nall be prominently displayed in ntire building		All the occupants must know the correct method of operation of the fire fighting systems installed.
oss of life or property due to unctioning of fire safety ares and other installations shall responsibility of the gement.	All occupants shall be trained to operate the fire safety equipment during emergency.	Mock drills should be conducted once in 3 months for initial two years. Thereafter, once in every 6 months.
ion / alteration, if any in the ng may be verified by building rity.	Mock drills should be conducted once in 3 months for initial two years.  Thereafter, once in every 6 months.	All security personnel shall be trained to operate the fire safety equipment during emergency and guiding the occupants in safe evacuation. Call the fire Brigade by dialing 101.
No objection Certificate for pancy is valid for five year from the of issue of this letter.	Raise the alarm if the fire cannot be controlled, evacuate the area completely at once from the nearest safe exit.	Attack the fire using available fire equipment only if you feel capable of controlling it. If not, take all steps to isolate the area by closing doors and windows.

onal Fire Safety Measures Recommended by the Department:

Objection Certificate for Occupancy is valid for Five years from the date of issue of this letter. It is the ility of the builder to apply for renewal NOC, duly remitting the user charges as per G.O. Ms. No. 71, Home A) Department, dated 01-04-2010, two months before expiry of this No Objection Certificate.

Yours Sincerely, Director General of State Disaster Response & Fire Services Telangana, Hyderabad