

GOVERNMENT OF TELANGANA STATE DISASTER RESPONSE & FIRE SERVICES DEPARTMENT



From

The Regional Fire Officer Central Region, State Disaster Response and Fire Services, Telangana, Hyderabad.

To, KONDE SREENIVAS REDDY, VIJAYRATNA HIGH SCHOOL.SURVEY NO: 53/A/E, SITUATED AT:PEERZADIGUDA, MADIPALLY (M), MEDCHAL-MALKAJGIRI DISTRICT.TELANGANA

As a set have considered an experience of the second and the considered and the considere	Ack. No.487090002023 Dated:16/05/2023	
Sir, Sub:	TELANGANA STATE DISASTER RESPONSE & FIRE SERVICE DEPARTMENT –Malkajgiri Division. Renewal of No Objection Certificate for Occupancy to the Multi storeyed Building of VIJAYARATNA HIGH SCHOOL, VIJAYRATNA HIGH SCHOOL.SURVEY NO: 53/A/E, SITUATED AT: PEERZADIGUDA, MADIPALLY (M), MEDCHAL- MALKAJGIRI DISTRICT. TELANGANA STATE/- Peerzadiguda/Medipally/Medchal, – Regarding.	
Ref:	1. Acknowledgement No 487090002023 2. This Office NOC for Occupancy Ack/RC No.449450002022 dt.16/05 3. Multi storeyed Building Inspection Committee Report,. Ack. No. 487090002023, dt. 16/05/2023 ***** *******************************	/2023

STATE.,

- 1) The Multi storeyed Building Inspection committee, vide reference cited (3) has inspected the Multi storeyed Building of VIJAYARATNA HIGH SCHOOL, VIJAYRATNA HIGH SCHOOL. SURVEY NO: 53/A/E, SITUATED AT: PEERZADIGUDA, MADIPALLY (M), MEDCHAL-MALKAJGIRI DISTRICT. TELANGANA STATE/-Peerzadiguda/Medipally/Medchal
- 2) The above said building was issued was issued No Objection certificate vide reference cited (2) for Multi storeyed Building with 1 Stilts, 5 Floors, with a height of 20.30 Meters for EDUCATIONAL B-1 Schools up to senior secondary level Occupancy.
- 3) Now the Builder/Authorized person has requested to issue Renewal of No Objection Certificate for Occupancy to the Multi storeyed Building with 1 Stilts, 5 Floors, with a height of 20.30 Meters for EDUCATIONAL B-1 Schools up to senior secondary level Occupancy

4) Open Spaces: The builder provided the following open spaces all around the building. Open spaces provided now Open spaces as per Noc occupancy Sl.No Side 6.00 0.00 North all 6.00 0.00 South 2 9.00 0.00 East 3 6.00 0.00 West 4 provided now b Sl. No Gate Width As per Occupancy NOC as per Noc occupancy Entry gate width 6.00 1 4.5 4.50 Entry Gate Head Clearance 12 6 6.00 Exit Gate Width 3 4.50 4.50 Exit Gate Head Clearance 4

5) Travel Distance		commence and a substranger comment of the Age plant through the control of the Age of th
The state of the s	as per Noc	provided
Sl. No. Item / Description	occupancy	now
The restriction of the state of	And the second of the contract of the second	Consult and the Consultant Association of the Consultant and the Consu

11	Farthest point (Most Remote Point) With in a storey or a mezzanine floor to the door to an Exit.	29.00	29.00
-	The Dead end of the corridor length in exit access. (6 mtrs for Educational,	6.00	6.00
2	Institutional and Assembly, 15mtrs for other Occupancies)	And the second s	A CONTRACTOR OF THE PROPERTY OF THE PARTY OF

6) Stair Cases (As per Occupancy NOC):

Sl.no.	Type of staircases		No of staircases	Floors from	Floors to
1	Internal staircases	1.50	grand marketing day extra regions day has period and consistent day and day an	Stilt	Terrace
2	External staircases	1.50	The second contract of the second contract of the second s	Stilt	Terrace

7) Means of Escape Floor Wise Details:

	Floor	Buil-up Area in Sq.Mtrs	Type of Occupancy	Occupan t Load	Means of escape required as per Occupancy NOC	Means escape available now
a) (minipose nas n	Stilt	462.80	Parking	116.00	2.31	5.00
2	1st Floor	462.80	EDUCATIONAL B-1 Schools up to senior secondary level	116.00	2.31	3.00
	2nd Floor	462.80	EDUCATIONAL B-1 Schools up to senior secondary level	116.00	2.31	3.00
	3rd Floor	462.80	EDUCATIONAL B-1 Schools up to senior secondary level	116.00	2.31	3.00
	4th Floor	462.80	EDUCATIONAL B-1 Schools up to senior secondary level	116.00	2.31	3.00
	5th Floor	462.80	EDUCATIONAL B-1 Schools up to senior secondary level	116.00	2.31	3.00

8) Fire Shaft as per Occupancy NOC:

Item / Description	Required	Provided
Fire Shaft / Fire Lift	1	1

9) Floor Wise details of Fire Fighting Installations:

	Elaam.	Fire Extinguish er	Hose Reel	Automatic Sprinklers System	Manually Operated Electronic Fire Alarm System	Automate detection and alarm system
1	Stilt	3.00	1.00	0.00	1.00	0.00
2	1st Floor	3.00	1.00	0.00	1.00	0.00
3	2nd Floor	3.00	1.00	0.00	1.00	0.00
4	3rd Floor	3.00	1.00	0.00	1.00	0.00
5	4th Floor	3.00	1.00	0.00	1.00	0.00
6	5th Floor	3.00	1.00	0.00	1.00	0.00

10) Fire Fighting Installations As per Occupancy NOC:

Fire Fighting System.	Required As per Occupancy NOC	Provided
Fire Extinguishers	20	20
First Aid Hose Reel	6	6
Down Comer	1	1
Manually Operated Electronic Fire Alarm Systems	16	6
Capacity of Terrace Tank over Respective Tower Terrace in Litres	25000	25000
Pump capacity in LPM at the Terrace Tank level with min Pressure of 3.5 Kg/CM ²	900	900

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		a ang pilinang managang ang pilinang sa saning sa pilinang sa pilinang sa pilinang sa pilinang sa pilinang sa	and the control and the complete colors is become for the control and the cont
No. o	f Terrace Tanks over Respective Tower in Itrs	0	O conservation and conservation of the conserv
Vo. of	f Pumps at the Terrace Tank level with min pressure of 3.5 Kg/Cm ²	0	The second second second as and second second as a second
1). T	he builder has provided the following additional Fire Safety Requirements a	s per NBC of Ir	ndia 2016:
SI.No	Fire safety Item Floor Openings Fire Protection as per Clause 3.4.5.4		an et en sammen, se sinny an lane, mesteme som søy om helse et en stag som som som som som som lette et en se
100	a) Openings in Service ducts and shafts allowing building services like cab	les Electrical w	irings Telephone
•	cables, plumbing pipes etc., shall be protected by enclosure in the form of control less than 120 min.	lucts / shaft hav	ing a fire resistant's
The State of the S	b)The inspection door for electrical shafts / ducts have fire resistance rating	of 120 min	portioners describer not too, more different enterestation of contrate a quantity of the state o
CALORE STATE OF A STATE OF	c)Medium and low voltage wiring running in shafts / ducts are armoured ty	pe or run throu	gh metal conduits.
-	d)The space between the electrical cables/conduits and the walls/slabs are f	illed in by a fire	e stop material havir
	fire resistance rating of not less than 120 min. This shall exclude requireme	nt of fire stop s	ealing for low voltag
	services shaft. For plumbing shafts in the core of the building, with shaft do	or opening insi	ide the building, the
	shafts shall have inspection doors having fire resistance rating not less than	30 min	3,
	e)For plumbing shafts in the core of the building, with shaft door opening in	nside the buildi	ng, the shafts shall
	have inspection doors having fire resistance rating not less than 30 min		6,
	Vertical openings Fire Protection as per Clause- 3.4.5.6	ng ya ana kan kan masa kan masa kan in sa sa masa sa sa masa kan kan kan kan kan kan kan kan kan ka	ALLA MARIA BANGA III ABANGA BERMERAKAN MARIAMBAN LEM TERPAK EMPAKAN AN ALLE EMPERAK EN AN ALLE EMPERAK EN AN A
COMPANY NA	a) Every vertical opening between the floors of a building is suitably enclose	sed or protected	as necessary, to
	provide the following:	ou or provide	,
	Reasonable safety to the occupants while using the means of egress by prev	enting spread o	of fire, smoke, or
may port to de	fumes through vertical openings from floor to floor to allow occupants to co	omplete their us	se of the means of
and the second	egress. Further it shall be ensured to provide a clear height of 2 100 mm in	the exit access.	
	b) Limitation of damage to the building and its contents.	in per state en nomen en e	en in 1844 yn it der einste lagrif Artherine aufsteld nom din Arbeitaben der Stein der der aus der der Artherin (Artherin 1841). Der einste der Artherin (Artherin 1841) in der einste der Arbeitaben der
	Electrical Installation as per Clause – 3.4.6	erikataka jeterstatu istorika (sister tari erik siste tari erik tari erik tari erik tari erik tari erik tari e	19. 18. 16. 17 PR 16. 25. 18. 18. 18. 18. 18. 18. 18. 18. 18. 18
	(For requirements regarding installations from the point of view of fire safe	tv-reference m	av he made to good
NAME OF TAXABLE PARTY O	practice [4(6)] and 8. Building Services, Section 2 Electrical and Allied Inst	tallations. Of th	e Code.)
NO PAGE	a) In general, it is desirable that the wiring and cabling are with flame retard	dant property. N	Medium and low
	voltage wiring running in shafts and within false ceiling shall run in metal c	conduit. Any 23	0 V wiring for
-	lighting or other services, above false ceiling, shall have 660 V grade insula	ntion.	8
	b) The electric distribution cables/wiring are laid in a separate shaft. The sh	aft is sealed at	every floor with fire
	stop materials having the same fire resistance as that of the floor. High, med	dium and low v	oltage wiring runnii
	in shaft and in false ceiling shall run in separate shaft/conduits.		8
	c) Water mains, gas pipes, telephone lines, intercom lines or any other services	ice line shall no	t be laid in the duct
	for electrical cables; use of bus ducts/solid rising mains instead of cables is	preferred.	
	Emergency power for fire and life safety systems as per Clause- 3.4.6.2	en la consiste printage et e produce de contracte en constituir de la contracte de contracte de contracte de c	actific pro-efficient cumind medica financia manaciant contrata acción rejecto retroso ple fin efficiente
I	Emergency power supplying distribution system for critical requirement for	r functioning of	fire and life safety
S	system and equipment planned for efficient and reliable power and control	supply to the fo	llowing systems an
	equipment is provided		
	a) Fire pumps.		
F	b) Pressurization and smoke venting; including its ancillary systems such as	s dampers and a	actuators.
	c) Fire mans lifts (including all lifts).		THE COLUMN PROPERTY OF THE PARTY AND ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY AND ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY AND ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY AND ADMINISTRATION OF THE PARTY AND ADMINISTRATION OF THE PARTY AND ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PARTY ADMINISTRATION OF THE PAR
	1) Exit signage lighting.	BOUGHTOGA - Ox A STA-SAM CART SACTOR TO A A CONTRACT CART SACTOR	
¥	e) Emergency lighting.		
) Fire alarm system.	un digestration recommende proper recommende des la facilité de décidir de la facilité des la facilité de la fa	CONTRACTOR OF THE SECTION OF THE SEC
- 1	Public address (PA) system (relating to emergency voice evacuation and	annunciation).	en Agricino de Jumpos i Hybrisson de soleci disentendo mon en de el compositor as en el compositor de la com
	n) Magnetic door hold open devices.	WILLIAM STANDS AND STA	
) Lighting in fire command centre and security room	ericcidencia religioni, del producti di discolario di Articcia di Agricolario della religiona escondo	CORNER (OF A MALESTICA MECHANISMOS STATE OF STATE AND A STATE OF STATE AND A STATE OF STATE AND A STATE OF STATE OF STATE AND A STATE OF STATE OF STATE AND A STATE OF S
) Power supply to these systems and equipment shall be from normal and e	mergency (star	ndby generator) pow
) c	sources with changeover facility. If power supply, is from HV source and H	IV generation,	the transformer shou
l l	be planned in standby capacity to ensure continuity of power to such system	ns.	
	(x) Wherever transformers are installed at higher levels in buildings and bac	kup DG sets are	e of higher voltage
	ating, then dual redundant cables shall be taken to all transformers. The ge	nerator shall be	capable of taking
	tarting current of all the fire and life safety systems and equipment as above	e.	
15	The generator shall be capable of taking starting current of all the fire and	l life safety syst	tems and equipment
	hove		
	400 TO.	Completions of the Completion	
r	n) Where parallel HV/LV supply from a separate substation fed from diffe ransformer for emergency, the provision of generator may be waived in co	rent grid is prov	vided with appropria

n) The power supply to the panel/distribution board of these fire and life safety systems shall be through fire proof enclosures or circuit integrity cables or through alternate route in the adjoining fire compartment to ensure supply of power is reliable to these systems and equipment o) It shall be ensured that the cabling from the adjoining fire compartment is protected within the compartment of vulnerability. The location of the panel/ distribution board feeding the fire and life safety system shall be in fire safe zone ensuring supply of power to these systems. Circuits of such emergency system shall be protected at origin by an automatic circuit breaker with its no-volt coil removed. Master switches controlling essential service circuits shall be clearly labeled. p) Cables for fire alarm and PA system shall be laid in metal conduits or armoured to provide physical segregation from the power cables Substation/Transformers fire safety as per Clause - 3.4.6.3 5. a) The substation area is adequately ventilated. b) An independent, ventilated or air conditioned MV panel room provided on the ground level or first basement. This room is provided with access from outside (or through exit passageway accessible from outside). The MV panel room is provided with fire resistant walls and doors of fire resistance of not less than 120 min. c) If the licensees agree to provide meters on upper floors, the licensees' cables is segregated from consumers. Cables by providing a partition in the shaft. Meter rooms on upper floors shall not open into staircase enclosures and ventilated directly to open air outside or in electrical room of 120 min fire resistant walls. d) Electrical MV main distribution panel and lift panels are provided with CO2/inert gas flooding system for all panel compartments with a cylinder located beside the panel. Oil filled substation fire safety as per Clause – 3.4.6.3.1 A substation or a switch-station with oil filled equipment shall be limited to be installed in utility building or in outdoor location. Such substation/utility building shall be at least 7 m away from the adjoining building(s). Substation equipment (exceeding oil capacity of 2 000 litre) in utility building shall have fire rated baffle walls 6. of 240 min rating constructed between such equipment, raised to at least 600 mm above the height of the equipment (including height of oil conservators) and exceeding 300 mm on each side of the equipment. All transformers where capacity exceeds 10 MVA shall be protected by high velocity water spray systems or nitrogen injection system. Dry type substation fire safety as per Clause – 3.4.6.3.2 Transformers located inside a building shall be of dry type and all substation/switch room walls, ceiling, floor, opening including doors shall have a fire resistance 7. rating of 120 min. Access to the substation shall be provided from the nearest fire exit/exit staircase for the purpose of electrical isolation. Standby supply as per clause -3.4.6.4 a) Diesel generator set(s) shall not be installed at any floor other than ground/first basement. If the same are 8. installed indoors, proper ventilation and exhaust shall be planned. The DG set room shall be separated by 120 min fire resistance rated walls and doors. b) The oil tank for the DG sets (if not in the base of the DG) shall be provided with a dyked enclosure having a volumetric capacity of at least 10 percent more than the volume of the oil tank. The enclosure shall be filled with sand for a height of 300 mm. Lightning protection of buildings as per clause - 3.4.6.5 Routing of down conductors (insulated or uninsulated) of lightning protection through electrical or other service shafts are not allowed as it can create fire 9. and explosion during lightning. For details, see Part 8 .Building Services, Section 2 Electrical and Allied Installations' of the Code. Escape Lighting and Exit Signage as per Clause 3.4.7 Exit access, exits and exit discharge shall be properly identified, with adequate lighting maintained in the elements of the egress systems so that all occupants shall be 10. able to leave the facility safely. Lighting as per Clause - 3.4.7.1 a) The exit, exit access and exit discharge systems shall be illuminated continuously. The floors of the means of 11. egress shall be illuminated at all points, including angles and intersections, in corridors and passageways, stairwells, landings of stairwells and exit. b) Emergency lighting shall be powered from a source independent of that supplying the normal lighting. c) Escape lighting shall be capable of, i) indicating clearly and unambiguously the escape routes: ii) providing adequate illumination along such routes to allow safe movement of persons towards and through the exits; and iii) ensuring that fire alarm call points and firefighting equipment provided along the escape routes can be readily located. d) The horizontal luminance at floor level on the centreline of an escape route shall not be less than 10 lumen/m2. In addition, for escape routes up to 2 m wide, 50 percent of the route width shall be lit to a minimum

vi) Outside each final exit and close to it,

vii) Near each fire alarm call point,

viii) Near firefighting equipment, and

ix) To illuminate exit and safety signs as required by the enforcing authority.

i) The luminaires shall be mounted as low as possible, but at least 2 m above the floor level.

j) Signs are required at all exits, emergency exits and escape routes, which should comply with the graphic requirements of the relevant Indian Standards.

Exit passageway Provided as per clause - 3.4.7.2. (at ground) and staircase lighting is to be connected to alternative supply. The alternative source of supply may be provided by battery continuously trickle charged 12. from the electric mains

Suitable arrangements as per clause - 3.4.7.3 Installation of double throw switches to ensure that the lighting installed in the staircase and the corridor does not get connected to two sources of supply simultaneously. 13 Double throw switch shall be installed in the service room for terminating the stand-by supply.

Air Conditioning, Ventilation and Smoke Control as per clause - 3.4.8 Air conditioning and ventilating systems shall be so installed and maintained as to minimise the danger of spread of fire, smoke or fumes from one floor to other or from outside to any occupied building or structure. Wherever batteries are provided, the 14. same shall be segregated by 120 min fire rated construction. Ventilation to the room shall be provided as per manufacturer's instructions.

Air handling unit as per Clause -3.4.8.2

a) From fire safety point of view, separate air handling units (AHU) for each floor shall be provided so as to avoid the hazards arising from spread of fire and smoke through the air conditioning ducts. The air ducts shall be 15. separate from each AHU to its floor and in no way shall interconnect with the duct of any other floor. Within a floor it would be desirable to have separate air handling unit provided for each compartment.

Air handling unit shall be provided with effective means for preventing circulation of smoke through the system in the case of a fire in air filters or from other sources drawn into the system, and shall have smoke sensitive devices for actuation in accordance with the accepted standard [4(8)] and control.

b) As per Clause 3.4.8.2.2 Shafts or ducts, if penetrating multiple floors, shall be of masonry construction with fire damper in connecting ductwork or shall have fire rated ductwork with fire dampers at floor crossing. Alternatively, the duct and equipment may be installed in room having walls, doors and fire damper in duct exiting/entering the room of 120 min fire resistance rating. Such shafts and ducts shall have all passive fire control meeting 120 min fire resistance rating requirement to meet the objective of isolation of the floor from spread of fire to upper and lower floors through shaft/duct work.

c) As per Clause 3.4.8.2.3 The air filters of the air handling units are made of non-combustible materials. d) Duct Work as per Clause 3.4.8.3 3.4.8.3.1 Air ducts serving main floor areas, corridors, etc, shall not pass through the exits/exit passageway/ exit enclosure. Exits and lift lobbies, etc, shall not be used as return air

e) As per Clause 3.4.8.3.2 As far as possible, metallic ducts shall be used even for the return air instead of space above the false ceiling.

f) As per Clause 3.4.8.3.3 Wherever the ducts pass through fire walls or floors, the opening around the ducts shall be sealed with materials having fire resistance rating of the compartment. Such duct shall also be provided with fire dampers at all fire walls and floors unless such ducts are required to perform for fire safety operation; and in such case fire damper may be avoided at fire wall and floor while integrity of the duct shall be maintained with 120 min fire resistance rating to allow the emergency operations for fire safety requirements.

g) As per Clause 3.4.8.3.4 The ducting within compartment would require minimum fire resistance rating of 30 min. Such ducting material in substantial gauge shall be in accordance with good practice [4(9)]. If such duct crosses adjacent compartment/floor and not having fire dampers in such compartment/floor, it would require fire resistance duct work rating of 120 min. The requirements of support of the duct shall meet its functional time h) As per Clause 3.4.8.3.5 The materials used for insulating the duct system (inside or outside) shall be of noncombustible type. Any such insulating material shall not be wrapped or secured by any material of combustible i) As per Clause 3.4.8.3.6 Inspection panels shall be provided in the ductwork to facilitate the cleaning nature. accumulated dust in ducts and to obtain access for maintenance of fire dampers. j) As per Clause 3.4.8.4 Fire or fire/smoke dampers 3.4.8.4.1 These dampers shall be evaluated to be located in supply air ducts, fresh air and return air ducts/ passages at the following points: i) At the fire separation wall, ii) Where ducts/passages enter the vertical shaft, iii) Where the ducts pass through floors, and iv) At the inlet of supply air duct and the return air duct of each compartment on every floor. k) As per Clause 3.4.8.4.2 Damper shall be of motorized type/fusible link. Damper shall be so installed to provide complete integrity of the compartment with all passive fire protection sealing. Damper should be accessible to maintain, test and also replace, if so required. Damper shall be integrated with Fire Alarm Panel and shall be sequenced to operate as per requirement and have interlocking arrangement for fire safety of the building. Manual operation facilities for damper operation shall also be provided. Glazing as per Clause -3.4.10.1 The glazing shall be in accordance with Part 6 .Structural Design, Section 8 Glass and Glazing' of the Code. The entire glazing assembly shall be rated to that type of construction as given in Table 1. This shall be applicable along with other provisions of this Part related to respective uses as specified 16. therein. i) The use of glass shall not be permitted for enclosures of exits and exit passageway. Fire Command Centre (FCC) as per Clause- 3.4.12 a) Fire command centre shall be on the entrance floor of the building having direct access. The control room shall have the main fire alarm panel with communication system (suitable public address system) to aid floors 17. and facilities for receiving the message from different floors. b) Fire command centre shall be constructed with 120 min rating walls with a fire door and shall be provided with emergency lighting. Interior finishes shall not use any flammable materials. All controls and monitoring of fire alarm systems, pressurization systems, smoke management systems shall happen from this room. Monitoring of integrated building management systems, CCTVs or any other critical parameters in building may also be from the same room. c) Details of all floor plans along with the details of firefighting equipment and installations (2 sets laminated and bound) shall be maintained in fire command centre. d) The fire staff in charge of the fire command centre shall be responsible for the maintenance of the various services and firefighting equipment General Exit Requirements as per clause - 4.2 4.2.3 a) Every exit, exit passageway and exit discharge shall be continuously maintained free of all obstructions or 18. impediments to full use in the case of fire or other emergency. 4.2.7b) For non-naturally ventilated areas, fire doors with 120 min fire resistance rating shall be provided and particularly at the entrance to lift lobby and stair well where a .funnel or flue effect' may be created, inducing an upward spread of fire, to prevent spread of fire and smoke. 4.2.9c) Doors in exits shall open in the direction of exit. In case of assembly buildings (Group D) and institutional buildings (Group C-1), exit door shall not open immediately upon a flight of stair and all such entries to the stair shall be through a landing, so that such doors do not impede movement of people descending from a higher floor when fully opened (see Fig. 4A). While for other occupancies, such doors shall not reduce the pathway in the landing by more than half the width of such staircase (see Fig. 4B). Over- head or sliding doors shall not be installed. 4.2.11d) Unless otherwise specified, all the exits and exit passageways to exit discharge shall have a clear ceiling height of at least 2.4 m. However, the height of exit door shall be at least 2.0 m (see Fig. 5). 4.2.16e) Suitable means shall be provided so that all access controlled exit doors, turnstiles, boom barriers and other such exits shall automatically operate to open mode during emergencies like fire, smoke, acts of terrorism, etc, so that people can safely and quickly egress into safe areas outside. If required, a master controlling device may be installed at a strategic location to achieve this. 4.2.17f) Penetrations into and openings through an exit are prohibited except those necessary like for the fire protection piping, ducts for pressurization and similar life safety services. Such openings as well as vertical passage of shaft through floors shall be protected by passive systems.

c) Mechanical ventilation system shall be designed to permit 12 air changes per hour in case of fire or distress

call. However, for be as given in Part 8 Building Services, Section 3 Air conditioning Heating and Mechanical Ventilation of the Code. d) In multi-level basements, independent air intake and smoke exhaust shafts (masonry or reinforced concrete) for respective basement levels and compartments therein shall be planned with its make-up air and exhaust air fans located on the respective level and in the respective compartment. Alternatively, in multi-level basements, common intake masonry (or reinforced cement concrete) shaft may serve respective compartments aligned at all basement levels. Similarly, common smoke exhaust/outlet masonry (or reinforced cement concrete) shafts may also be planned to serve such compartments at all basement levels. All supply air and exhaust air fans on respective levels shall be installed in fire resisting room of 120 min. Exhaust fans at the respective levels shall be provided with back draft damper connection to the common smoke exhaust shaft ensuring complete isolation and compartmentation of floor isolation to eliminate spread of fire and smoke to the other compartments/floors. e) Due consideration shall be taken for ensuring proper drainage of such shafts to avoid insanitation condition. Inlets and extracts may be terminated at ground level with stall board or pavement lights as before. Stall board and pavement lights should be in positions easily accessible to the fire brigade and clearly marked AIR INLET or SMOKE OUTLET with an indication of area served at or near the opening. f) Smoke from any fire in the basement shall not obstruct any exit serving the ground and upper floors of the building. g) The smoke exhaust fans in the mechanical ventilation system shall be fire rated, that is, 250°C for 120 min. h) The smoke ventilation of the basement car parking areas shall be through provision of supply and exhaust air ducts duly installed with its supports and connected to supply air and exhaust fans. Alternatively, a system of impulse fans (jet fans) may be used for meeting the requirement of smoke ventilation complying with the following: i) Structural aspects of beams and other down stands/services shall be taken care of in the planning and provision of the jet fans. ii) Fans shall be fire rated, that is, 250°C for 120 min. iii) Fans shall be adequately supported to enable operations for the duration as above. iv) Power supply panels for the fans shall be located in fire safe zone to ensure continuity of power supply. v) Power supply cabling shall meet circuit integrity requirement in accordance with accepted standard [4(13)]. i) The smoke extraction system shall operate on actuation of flow switch actuation of sprinkler system. In addition, a local and/or remote .manual start-stop control/switch' shall be provided for operations by the fire fighters. i) Visual indication of the operation status of the fans shall also be provided with the remote control. k) No system relating to smoke ventilation shall be allowed to interface or cross the transformer area, electrical switchboard, electrical rooms or exits. 1) Smoke exhaust system having make-up air and exhaust air system for areas other than car parking shall be required for common areas and exit access corridor in basements/underground structures and shall be completely separate and independent of car parking areas and other mechanical areas. m) Supply air shall not be less than 5 m from any exhaust discharge openings. Fire Drills and Fire Orders are ensured as per clause - 4.11 Provided Fire notices/orders shall be prepared to fulfil the requirements of firefighting and evacuation from the buildings in the event of fire and other emergency. The occupants shall be made thoroughly conversant with their action in the event of emergency, by displaying fire notices at vantage points and also through regular training. Such notices should be displayed prominently in bold lettering. For guidelines for fire drills and evacuation procedures for high rise buildings, see Annex D. Fire Extinguishers/Fixed Firefighting Installations as per clause - 5.1 5.1.1 All buildings depending upon the occupancy use and height shall be protected by fire extinguishers, hose reels, wet riser, down-comer, yard hydrants, automatic sprinkler installation, deluge system, high/medium velocity water spray, foam, water mist systems, gaseous or dry powder system, manual/automatic fire alarm system, etc, in accordance with the provisions of various clauses given below, as applicable: a) These fire extinguishing equipment and their installation shall be in accordance with accepted standards 29. [4(17)]. The extinguishers shall be mounted at a convenient height to enable its quick access and efficient use by all in the event of a fire incidence. The requirements of fire extinguishers/yard hydrant systems/wet riser/downcomer installation and capacity of water storage tanks and fire pumps, etc, shall be as specified in Table 7. The requirements regarding size of mains/risers shall be as given in Table 8. The typical arrangements of downcomer and wet riser installations are shown in Fig. 13. The wet riser shall be designed for zonal distribution ensuring that unduly high pressures are not developed in risers and hose-pipes. b) First-aid firefighting appliances shall be provided and installed in accordance with good practice [4(18)]. The firefighting equipment and accessories to be installed in buildings for use in firefighting shall also be in accordance with the accepted standard [4(17)] and shall be maintained periodically so as to ensure their perfect serviceability at all times.

28.

c) Valves in fixed firefighting installations shall have supervisory switch with its signalling to fire alarm panel or to have chain(s), pad lock(s), label and tamper-proof security tag(s) with serial number to prevent tampering/unauthorized operation. These valves shall be kept in their intended open position. d) In addition to wet riser or down-comer, first- aid hose reels shall be installed in buildings (where required under Table 7) on all the floors, in accordance with accepted standard [4(19)]. The first-aid hose reel shall be connected directly to the riser/down-comer main and diameter of the hose reel shall not be less than 19 mm. e) Wet risers shall be interconnected at terrace level to form a ring and cut-off shall be provided for each connection to enable repair/ maintenance without affecting rest of the system. f) Pressure at the hydraulically remote hydrant and at the highest hydrant shall not be less than 3.5 bar. The pressure at the hydrants shall however not exceed 7.0 bar, considering the safety of operators. It may be planned to provide orifice plates for landing valves to control pressure to desired limit especially at lower levels; this could also be achieved through other suitable means of pressure reducing devices such as pressure controlled hydrant valves. g) Hydrants for firefighting and hose reels shall be located in the lobby in firefighting shaft. Those hydrants planned to be provided near fire exit staircase on the floor shall be within 5 m from exit door in exit access. Such hydrant cabinet may finish with doors to meet interior finishes with requirement of glass panel to provide visibility to the installations inside and inscribed with the word: FIRE HOSE CABINET of letter size 75 mm in height and 12 mm in width. Such door of the fire hose cabinet need not be fire resistant rated. The location of such cabinets shall be shown on floor plan and duly displayed in the landing of the respective fire exit staircase. Static water storage tanks as per clause - 5.1.2.1 a) firefighting shall always be available in the form of underground/terrace level static storage tank with capacity 30. specified for each building with arrangements or replenishment. b) Water for the hydrant services shall be stored in an easily accessible surface/underground lined reservoir or above ground tanks of steel, concrete or masonry. The effective capacity of the reservoir above the top of the pump casing (flooded suction) for various types of occupancies shall be as indicated in Table 7. c) Water for firefighting shall be stored in two or more interconnected compartments of equal size to facilitate cleaning and maintenance of the tanks without interrupting the water availability for firefighting. d) To prevent stagnation of water in the static water storage tank, the suction tank of the domestic water supply shall be fed only through an overflow arrangement from the fire water storage tanks to maintain the level therein at the minimum specified capacity. e) Alternatively, domestic and fire water can be stored in two interconnected compartments as mentioned above. The suction inlet(s) for the domestic water pumps shall be so located at an elevation that minimum water requirements for firefighting as stated in Table 7 will be always available for fire pumps. f) The static storage water supply required for the above mentioned purpose shall entirely be accessible to the fire engines of the local fire service. Suitable number of manholes shall be provided for inspection, repairs, insertion of suction hose, etc. As an alternative to the arrangement of manholes to allow access from the top, suitable arrangement to enable efficient access to the tank by the firemen from the adjoining fire pump room having direct access from the ground level, shall be made. The underground fire water storage tank(s) shall not be more than 7 m in depth from the level having fire brigade draw-out connection, while the draw-out connection shall not be more than 5 m away from the tank wall. g) The covering slab shall be able to withstand a total vehicular load of 45 t (or as applicable) equally divided as a four-point load when the slab forms a part of pathway/driveway. h) The static water storage tank shall be provided with a fire brigade collecting head with 4 number 63 mm diameter (2 number 63 mm diameter for pump with capacity 1 400 litre/min) instantaneous male inlets arranged in a valve box at a suitable point at street level. i) The same shall be connected to the static tank by a suitable fixed galvanized iron pipe not less than 150 mm in diameter to discharge water into the tank when required at the rate of 2 250 litre/min, if tank is in the basement or not approachable for the fire engines. j) Each of the static water storage tanks shall also be provided with a fire brigade draw out collecting head with 63 mm diameter instantaneous male draw out arranged in a valve box at a suitable point at street level. This draw out shall be connected to galvanized iron pipe of 100 mm diameter with foot valve arrangement in the tank. Firefighting pump house as per clause 5.1.2.2 The requirements shall be as given below: a) It is preferable to install the pump house at ground level. Pump house shall be situated so as to be directly 31. accessible from the surrounding ground level. b) Pump house shall be installed not lower than the second basement. When installed in the basement, staircase with direct accessibility (or through enclosed passageway with 120 min fire rating) from the ground, shall be provided. Access to the pump room shall not require tonegotiate through other occupancies within the basement. c) Pump house shall be separated by fire walls all around and doors shall be protected by fire doors (120 min rating).

d) Pump house shall be well ventilated and due care shall be taken to avoid water stagnation. e) No other utility equipment shall be installed inside fire pump room. f) Insertions like flexible couplings, bellows, etc, in the suction and delivery piping shall be suitably planned and g) Installation of negative suction arrangement and submersible pumps shall not be allowed. h) Pump house shall be sufficiently large to accommodate all pumps, and their accessories like PRVs, installation control valve, valves, diesel tank and electrical panel. i) Battery of diesel engine operated fire pump shall have separate charger from emergency power supply circuit. j) Exhaust pipe of diesel engine shall be insulated as per best engineering practice and taken to a safe location at ground level, considering the back pressure. k) Fire pumps shall be provided with soft starter or variable frequency drive starter. Automatic Sprinkler Installation as per clause – 5.1.3 The requirements shall be as given below: a) Automatic sprinklers shall be installed wherever required in terms of Table 7 throughout the building in 32. accordance with good practice [4(20)]. b) If selective sprinklering is adopted, there is a real danger of a fire starting in one of the unsprinklered area gathering momentum spreading to other areas and reaching the sprinklered areas as a fully developed fire. In such an event, the sprinklers can be rendered useless or ineffective. c) Automatic sprinklers shall be installed in false ceiling voids exceeding 800 mm in height. d) Installation of sprinklers may be excluded in any area to be used for substation and DG set. e) In areas having height 17 m or above such as in atria, sprinkler installations may be rendered ineffective and hence may be avoided. f) Pressure in sprinkler system shall not exceed 12 bar or else high pressure sprinkler to be installed for above 12 g) The maximum floor area on any one floor to be protected by sprinklers supplied by any one sprinkler system riser from an installation control valve shall be based on system protection area limitations considering maximum floor area on any one floor to be 4 500 m2 for all occupancies except industrial and hazardous occupancies, where Authorities shall be consulted for advice based on type and nature of risk. h) Sprinkler installation control valves, shall be installed inside the fire pump room. i) For industrial buildings, such installation control valves may be installed outside the building and Authorities shall be consulted in situations where it is not possible to locate them inside the buildings. It is advisable to provide lectrically operated siren for each valve outside the buildings in addition to water gongs in such case. j) The sprinkler flow switches provided shall be monitored by fire alarm panel. k) It is essential to make provisions for avoiding water from sprinkler/hydrant operation entering lifts and I) Ramps at all levels shall be protected with sprinklers. Automatic High Velocity and Medium Velocity Water Spray Systems as per clause 5.1.4 Automatic high velocity water spray or emulsifying system shall be provided for protection of outdoor and/ or indoor oil-cooled transformers as applicable in accordance with good practice [4(21)] where applicable (see Annex E). Also, 33. medium velocity water spray system shall be provided for tankage (where applicable), conveyors, cable galleries and other occupancies listed in good practice [4(21)]. Fire Fighting shaft as per E-2 of Annexure E of part 4 NBC of India 2016 EGRESS AND EVACUATION STRATEGY a) One firefighting shaft shall be planned for each residential building/tower, in an educational building/block, and for each compartment of institutional, assembly, business and mercantile occupancy types. For other 34. occupancy types, requirement of fire fighting shaft shall be ascertained in consultation with the local fire authority. The firefighting shaft shall necessarily have connectivity directly to exit discharge or through exit passageway (having 120 min fire resistance walls) to exit discharge. b) Staircase and fire lift lobby of a firefighting shaft shall be smoke controlled as per 4.4.2.5 and Table 6. c) It is recommended that the pressurization requirement for staircase in firefighting shaft and for other fire exit staircases in buildings greater than 60 m in height be evaluated to limit the force required to operate the door assembly (in the direction of door opening) to not more than 133 N to set the door leaf in motion. The aspect of pressurization, door area/width and door closure shall be planned in consideration to the above. E-2 EGRESS AND EVACUATION STRATEGY The firefighting shafts have connectivity directly to exit 35. discharge or through exit passageway (having 120 min fire resistance walls) to exit discharge. Smoke control as per clause 4.4.2.5 Staircase and fire lift lobby of a firefighting shaft shall be smoke controlled as per 4.4.2.5 and Table 6. The pressurization requirement for staircase in firefighting shaft and for other fire exit 36. staircases in buildings greater than 60 m in height be evaluated to limit the force required to operate the door assembly (in the direction of door opening) to not more than 133 N to set the door leaf in motion. The aspect of pressurization, door area/width and door closure shall be planned in consideration to the above.

- FIRE SAFETY REQUIREMENTS FOR LIFTS as per clause E-3 of Annexure E of part 4 NBC of India 2016 E-4 HORIZONTAL EXITS/REFUGE AREA Horizontal exits are through a fire door of 120 min rating in a fire resistant wall High rise apartment buildings with apartments having balcony, need not to be provided with refuge area; however apartment buildings without balcony shall provide refuge area as given above. Refuge areas for apartment buildings of height above 60 m while having balconies shall be provided at 60 m and 38. thereafter at every 30 m. The refuge area shall be an area equivalent to 0.3 m2 per person for accommodating occupants of two consecutive floors, where occupant load shall be derived on basis of 12.5 m2 of gross floor area and additionally 0.9 m2 for accommodating wheel chair requirement or shall be 15 m2, whichever is higher. E-5 ELECTRICAL SERVICES a) The specific requirements for electrical installations in multi-storeyed buildings given in Part 8. Building 39. Services, Section 2 Electrical and Allied Installations of the Code and Section 7 of National Electrical Code 2011 to be complied. b) Wherever transformers are planned at higher floors, the HT cables shall be routed through a separate shaft having its own fire resistance rating of 120 min. Wherever HT generators are planned centrally at ground or first basement level, redundant transformers and HT cables shall be planned for buildings above 60 m in height. The builder submited the compliance certificate by the respective technical consultant, Architect, structural, 40. Electrical, HVAC Engineers and fire safety consultants. 3.4.10.2 Glass facade shall be in accordance with the following: a) For fully sprinklered buildings having fire separation of 9 m or more, tempered glass in a non-combustible assembly, with ability to hold the glass in place, shall be provided. It shall be ensured that sprinklers are located 41. within 600 mm of the glass facade providing full coverage to the glass. NOTE. In case of all other buildings, fire resistance rating of glass facade shall be in accordance with Table 1. b) All gaps between floor-slabs and façade assembly shall be sealed at all levels by approved fire resistant sealant material of equal fire rating as that of floor slab to prevent fire and smoke propagation from one floor to c) Openable panels shall be provided on each floor and shall be spaced not more than 10 m apart measured along the external wall from centre-to-centre of the access openings. Such openings shall be operable at a height between 1.2 m and 1.5 m from the floor, and shall be in the form of openable panels (fire access panels) of size not less than 1 000 mm × 1 000 mm opening outwards. The wordings, .FIRE OPENABLE PANEL. OPEN IN CASE OF FIRE, DO NOT OBSTRUCT. of at least 25 mm letter height shall be marked on the internal side. Such panels shall be suitably distributed on each floor based on occupant Concentration. These shall not be limited to cubicle areas and shall be also located in common areas/corridors to facilitate access by the building occupants and fire personnel for smoke exhaust in times of distress. ATRIUM Fire safety as per Annexure-F (Clause-6) of part – 4 NBC of India 2016 42. Compartmentation as per clause - 4.5 4.5.2 All floors shall be compartmented/zoned with area of each compartment being not more than 750 m2. The 43. maximum size of the compartment shall be as follows, in case of sprinklered basement/building: SI. No Compartment-ation Area m2 12) The builder has provided the following additional Fire Safety Requirements For Helipad as per NBC of India 2016: 13. Remarks: The Renewal NOC file is approved based on the recommendation of inspection committee 14. Additional Fire Safety Measures Recommended by the Department: 15) In view of the above and as per recommendations of the Multi storeyed building inspection Committee, the Renewal of No Objection Certificate for occupancy is issued to Multi storeyed Building with VIJAYARATNA HIGH SCHOOL, VIJAYRATNA HIGH SCHOOL. SURVEY NO: 53/A/E, SITUATED AT:PEERZADIGUDA,MADIPALLY (M),MEDCHAL-MALKAJGIRI DISTRICT.TELANGANA STATE/-Peerzadiguda/Medipally/Medchal
- | SI | No | Builder and Management Body | Occupant | Management Body and fire and security personnel |
 |-a) All the fire protection | arrangements shall be maintained | in good condition as seen during inspection. | All the escape/exit roots shall not be kept locked/blocked or encroached | encroached | systems installed.

with a height of 20.30 Meters for EDUCATIONAL B-1 Schools up to senior secondary level Occupancy subject to

the following conditions

	-b) Do's and Don'ts in case of fire shall be prominently displayed in entire building		
2	measures and other installations shall	All occupants shall be trained to operate the fire safety equipment during emergency.	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
3	Addition / alteration, if any in the building may be verified by building authority.	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.
4	This No objection Certificate for occupancy is valid for Five year from the date 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.

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

Yours Sincerely, Regional Fire Officer Central Region, Response & Fire Services, Telangana, Hyderabad.

Copies to:

- i) The Management
- ii) Multi storeyed Building Inspection Committee
- iii) Copy submitted to Regional Fire officer
- iv) Copy submitted to DG fire services

"THIS IS COMPUTER GENERATED DOCUMENT AND DO NOT REQUIRE ANY STAMP OR SIGNATURE"