

**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)460/2016  
No. KSFES/NOC/200/2016

14-02-2017

To,  
The Commissioner,  
Bruhat Bangalore Mahanagara Palike,  
N.R. Square,  
Bangalore – 560002.

Sir,

Sub: Issue of No Objection Certificate for the construction of high rise residential building at Khatha No. 167/86, Ward No.5, Earlier property bearing Sy.No. 86, Chokkanahalli, Yelahanka Hobli, Bangalore North Taluk, Bangalore – reg.

Ref: Letter dated 15-12-2016 of the Authorized Signatory, M/s Asset Handlers Pvt. Ltd., No. 476, 2<sup>nd</sup> floor, 80 feet road, 6<sup>th</sup> Block, Koramangala, Bangalore – 560 095.

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With reference to the letter of the Authorized Signatory, M/s Asset Handlers Pvt. Ltd. cited above, the Regional Fire Officer, Bangalore North Range of this department has inspected the site proposed for the construction of High Rise Residential building with 2 Blocks i.e. Block-1 & 2 - joined together comprising of common basement, ground floor & 13 upper floors at Khatha No.167/86, Ward No.5, Earlier property bearing Sy.No. 86, Chokkanahalli, Yelahanka Hobli, Bangalore North Taluk, Bangalore on 5-1-2017 with reference to the drawings submitted by the applicant and has furnished the details as follows :-

A. **Details of the premises:**

01. Address of the premises : Khatha No. 167/86,  
Ward No.5,  
Earlier property bearing Sy.No. 86,  
Chokkanahalli,  
Yelahanka Hobli,  
Bangalore North Taluk,  
Bangalore.
02. Number of Buildings : One building with 2 Blocks i.e. Block- 1 & 2 -  
joined together.

03. Number of floors : Common basement, ground floor & 13 upper floors.
04. Type of Occupancy : Residential.
05. Floor wise details of the Occupancy :-

**Block- 1 & 2**

Common Basement : For parking 121 cars, 1 Pump room & 1 D.G area.

**Block-1**

Ground floor : 5 flats & 1 Electrical room.

1<sup>st</sup> floor to 11<sup>th</sup> floor : 6 flats on each floor x 11 floors = 66 flats.

12<sup>th</sup> floor : 4 flats.

13<sup>th</sup> floor : 1 flat, 1 Gym, 1 Steam, 1 Card & Board games & 1 Swimming pool.

**Block-2**

Ground floor : 4 flats.

1<sup>st</sup> floor to 12<sup>th</sup> floor : 4 flats on each floor x 12 floors = 48 flats.

13<sup>th</sup> floor : 2 flats, 1 Reception, 1 Indoor games, 1 Pantry, & 1 Multipurpose hall.

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**Total : 130 flats**  
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06. Height of the Building : 44.35 Mtrs.
07. Site Area : 6,315.74 Sq. Mtrs.
08. Built-up area:-

**Block-1 & 2 – joined together**

Common basement : 3,927.56 Sq.Mtrs.

Ground floor : 1,056.20 Sq.Mtrs.

1<sup>st</sup> floor : 1,071.61 Sq.Mtrs.



2 <sup>nd</sup> floor	:	1,071.61 Sq.Mtrs.
3 <sup>rd</sup> floor	:	1,078.59 Sq.Mtrs.
4 <sup>th</sup> floor	:	1,071.61 Sq.Mtrs.
5 <sup>th</sup> floor	:	1,078.59 Sq.Mtrs.
6 <sup>th</sup> floor to 10 <sup>th</sup> floor (1,071.61 Sq.Mtrs. on each floor x 5 floors)	:	5,358.05 Sq.Mtrs.
11 <sup>th</sup> floor	:	1,078.59 Sq.Mtrs.
12 <sup>th</sup> floor	:	900.77 Sq.Mtrs.
13 <sup>th</sup> floor	:	650.61 Sq.Mtrs.
09. Total Built-up area	:	18,343.79 Sq.Mtrs.
10. <u>Surrounding properties:-</u>		
East	:	16.10 Mtrs. wide Chokkanahalli Main Road.
West	:	Private vacant land.
North	:	High rise residential building & partly vacant land.
South	:	High Rise Residential building.

**B. The plans shows following structural details indicating fire prevention, fire fighting & evacuation measures and are considered adequate as follows:-**

Sl. no.	Details	Existing
01.	Width of the road to which the building abuts and whether it is hardened to carry the weight of 45,000 kgs.	The premises is abutting 16.10 Mtrs. wide Chokkanahalli Main Road located on the eastern side & it is hardened to carry the weight of 45,000 kgs.





(1)	(2)
02. Number of entrances and width of each entrances/ exits.	: Proposed to provide one entrance of 8.00 Mtrs. width from 16.10 Mtrs. wide Chokkanahalli Main Road located on the eastern side.
03. Height clearance over the entrance	: No arch or any other constructions have been proposed over the entrances.
04. <u>Width of open space:-</u> <b><u>Wing-1 &amp; 2 – joined together</u></b>	
Front (East)	: Minimum 28.78 Mtrs.
Rear (West)	: Minimum 22.60 Mtrs.
Side (North)	: Minimum 15.37 Mtrs.
Side (South)	: Minimum 14.88 Mtrs.
	Proposed to provide driveway of 8.00 mtrs all around the building.
05. Arrangement for parking the cars	Provision has been made to park 121 cars at basement parking area & 22 cars on the open space available on the eastern & northern side after leaving 8.00 Mtrs. wide driveway from the building line.  Proposed to provide 2 ramps, each of 3.5 Mtrs. width for the cars to reach basement parking area.
06. Number of Staircases	: 3 (2 in Block-1 & one in Block-2 with common terrace).
07. Location of the staircases	: All the staircases have been designed to abut one of its side to the external wall and are terminated at ground floor level. 2 separate staircases have been proposed from ground floor to reach basement parking area. Further provision has been made to enclose all the staircases at each floor levels.



(1)	(2)
08. <u>Staircases sizes :-</u>	
(a) Width of staircases	: Each of 1.25 Mtrs.
(b) Width of treads	: 30 Cms.
(c) Height of riser	: 15 Cms.
(d) No. of risers in a flight	: 10 risers per flight.
(e) Height of hand rails	: 1.00 Mtr. As proposed, the hand rails should provided at a height of 1.00 Mtr. The gap between 2 verticals should not exceed 15 Cms.
(f) Head room clearance	: 2.40 Mtrs.
09. Travel distance from the farthest point and from the dead-end of corridor to the staircases	: Maximum 33.50 Mtrs. from the farthest point to the staircases in basements.  Maximum 21.00 Mtrs. from the farthest point and maximum 7.50 Mtrs. from the dead end of the corridor to the staircases in upper floors.
10. Number of lifts and capacity	: 4 lifts (one of 10 passengers capacity & another of 15 passengers capacity in each block).

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

Sl. No.	Details (1)	Existing (2)	Recommendation (3)
01.	Condition of the open space	-----	Out of the required and allowed setback of minimum 13.00 Mtrs. all around, setbacks to an extent of 8.00 Mtrs. from the building line should be with an 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.





(1)	(2)	(3)
02. Structural materials.	-----	<p>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.</p> <p>RCC materials and brick walls of not less than two hours fire resistance should be used for the construction of structures. Only fire resistant materials or materials treated with fire retardant chemicals, should be used for interior decoration 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.</p>
03 Design of staircases	Not indicated	<p>All the staircases should be constructed with non-combustible materials and should 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 staircases.</p>
04. Specification of lifts	Not Indicated	<p>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</p>



(1)	(2)	(3)
		<p>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 in the building should be connected to an alternative source of power (diesel generator). Grounding switches at the ground floor level to enable the Fire &amp; Emergency Services personnel to ground all the lift cars and use them as 'FIRE LIFT' in an emergency should be provided. All the lifts, extended up to the basement, shall be terminated at the ground floor level or the lift lobby at the basement levels shall be enclosed and pressurized with positive pressure.</p>
<p>05. Service ducts/shafts</p>	<p>-----</p>	<p>Service ducts should be enclosed by walls of 100 mm. thickness to have at least 2 hours 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 2 hours fire resistance capacity.</p> <p>Water mains, telephone lines, intercom lines or any other service lines should not be laid in the duct, meant for electric cables.</p> <p>The inspection panel doors and any other opening to the shafts should be provided with airtight doors of at least 2 hours fire resistance capacity.</p>
<p>06. Escape routes</p>	<p>Not indicated</p>	<p>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.</p>





**D. The builder should arrange for following fire fighting & evacuation measures:-**

Sl. No.	Details (1)	Existing (2)	Recommendation (3)
01.	Electric power supply	-----	<p>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.</p> <p>As proposed 2 standby generators, one of 300 KVA &amp; another of 320 KVA capacity shall be installed at basement to provide alternative power for staircase lighting, corridor lighting, fire fighting systems, lifts etc., in the event of failure of electricity supply, in the building.</p>
02.	Wet riser-cum-down comer systems	Proposed to provide 2 wet riser-cum-down comer systems (one in each Block).	<p>As proposed 2 wet riser-cum-down comer systems (one in each Block), near the staircase shall be provided. Each riser should be of 100 mm internal diameter and made of G.I. 'C' class pipe. From each riser single hydrant outlet 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 to be of an adaptor. A minimum of 2 external hydrants at suitable locations (adjacent to the compound wall) with adequate space between them should also be provided from each system. Adequate B.I.S. marked reinforced rubber lined delivery hoses of 63 mm size to reach the farthest point of the floor/setbacks from the system should be provided with a branch pipe near each hydrant outlet (both internal and external) in a proper box to protect it from withering. At least two fire service inlets to boost the water in the riser 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.</p>





(1)	(2)	(3)
03. Manually operated fire alarm system	Proposed to provide manually operated electrical fire alarm system with call boxes near each staircase landing.	Each wet riser-cum-down comer system should be connected to an RCC overhead tank of 10,000 litres capacity and an underground tank of 75,000 litres capacity. One diesel driven pump and one electrically driven pump, each capable of delivering 1620 litres of water per minute at 0.3N/mm2 pressure and one jockey pump capable of delivering 180 litres of water per minute shall be installed near the combined underground tank. The impeller of the pumps should be made of bronze.  Manually operated electrical fire alarm system provide manually 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 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.
04. Automatic fire detection system.	Proposed to provide automatic fire detection system with 22 smoke detector heads at 13 <sup>th</sup> floor club house area.	As proposed automatic smoke detection system in club house shall be provided with its console at ground floor level.
05. Automatic sprinkler system.	Proposed to provide automatic sprinkler system with 284 sprinkler heads at basement parking area & 22 sprinkler heads at 13 <sup>th</sup> floor club house area.	Adequate. Separate water for sprinkler system to use 10% of the sprinkler system for about 30 minutes shall be provided.



(1)	(2)	(3)
06. Public address system	Proposed to provide public address system with 2 way communication facility.	As proposed a public address system with 2 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.
07. Assembling area	Not marked	An area at an appropriate place in the allowed / required set-backs shall be earmarked in the building with a proper board as 'ASSEMBLING AREA' for the occupants to assemble after evacuation during practice drill and in an emergency.
08. Portable fire extinguishers	Proposed to provide suitable type of portable fire extinguishers as per the requirements.	<p>a) One ABC powder fire extinguisher of 6 kgs. capacity for every 8 cars at parking area &amp; also parking of cars under shelter.</p> <p>b) One ABC powder fire extinguisher of 6 kgs. capacity should be provided near the entrance to each main switch board room, inside each lift machine room and inside each kitchen.</p> <p>c) One ABC powder fire extinguisher of 6 kgs. capacity should be provided near the transformer yard, if installed and near the entrance to the generator room.</p> <p>d) One ABC powder fire extinguisher of 6 kgs. capacity should be kept near each staircase landing on every floor of each block.</p> <p>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.</p>
09. Fire safety plans	-----	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 General, Karnataka Fire and Emergency Services Department. The fire safety plan, so





(1)	(2)	(3)
		<p>approved, should contain the telephone numbers of the nearest fire control room ie., 101, 22971500, 22971550 and 22971600. The plan should be distributed to all the occupants and employees in the Building and should be displayed on every floor of this building.</p> <p>A fire command station should be established in the lobby of the building on the entrance floor of each Part 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.</p> <p>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.</p>
10. Training	Not indicated	<p>40% of occupants should be got trained in fire fighting at R.A. Mundkur Fire and Emergency Services Academy, Banner-ghatta road, Bangalore – 29 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 few of the occupants in fire prevention and fire fighting within 6 months from the date of issue of the clearance certificate.</p>



**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.
- 5) Plan & occupancy should not be changed without informing the Fire & Emergency Services and without taking clearance.
- 6) The occupancy certificates should not be issued without obtaining the clearance certificate from the Fire & Emergency Services department as per Chapter 3.16 (v) of the Zoning Regulation 2007 of the Bangalore Development 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 ring main hydrant 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) This 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 High Rise residential building with 2 Blocks at Khatha No. 167/86, Ward No.5, Earlier property bearing Sy.No. 86, Chokkanahalli, Yelahanka Hobli, Bangalore North Taluk, Bangalore may be considered.



Yours faithfully

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

Copy to:

- 1) The Authorized Signatory, M/s Asset Handlers Pvt. Ltd., No. 476, 2<sup>nd</sup> floor, 80 feet road, 6<sup>th</sup> Block, Koramangala, Bangalore – 560 095.
- 2) The Regional Fire Officer, Bangalore North Range.