

**Office of the Director General
of Police & Director General**
Karnataka State Fire & Emergency
Services and State Disaster
Response Force
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No. GBC(1)296/2013

9-8-2016

To,
The Commissioner,
Bruhath Bangalore Mahanagara Palike,
N.R. Square,
Bangalore-560002.

Sir,

Sub: Issue of Revised No Objection Certificate for the Construction of
High Rise Residential Building at Khatha No. 217/92/5A,
Sy. No. 92/5A & 92/5B, Kogilu Village, Yelahanka Hobli, Ward No.5,
Bangalore North Taluk, Bangalore— reg.

Ref: 1) This office NOC No. GBC (1) 296/2013 dated 13-2-2014.
2) Letter dated 14-4-2016 of the Authorized Signatory,
M/s Mittal Universal Constructions Ltd, No. 16, Ground floor,
Pranava Park, Infantry Road, Bangalore-560 001.

In reference, cited at (1) above, NOC was issued for the construction of a high rise residential building comprising of 2 Basements, Ground & 16 upper floors at Sy. No. 92/5A & 92/5B, Kogilu Village, Yelahanka Hobli, Bangalore North Taluk. Now the builder in his letter, cited at ref (2) above has informed about the changes in the plan and requested to issue revised NOC. Accordingly the Regional Fire Officer, Bangalore North Range of this department has inspected the site proposed for the construction of High Rise Residential Building at Khatha No. 217/92/5A, Sy. No. 92/5A & 92/5B, Kogilu Village, Yelahanka Hobli, Ward No.5, Bangalore North Taluk, Bangalore on 25-6-2016 with reference to the revised drawings, submitted by the applicant and has furnished the details as follows :-

A. Details of the premises.

1. Address of the premises : Khatha No. 217/92/5A,
Sy. No. 92/5A & 92/5B,
Kogilu Village,
Yelahanka Hobli,
Ward No.5,
Bangalore North Taluk.
Bangalore.

2. Number of Buildings : One building with 4 Wings i.e. Wing-A, B, C & D and parking deck– joined together.
3. Number of floors in each Block/Building:-
- Wing – A, B & C : Each with ground & 14 upper floors.
- Wing – D : Part basement, ground & 14 upper floors.
4. Type of Occupancy : Residential.
5. Floor wise details of the Occupancy :-
- Wing-D
- Part basement : 1 Pump room.
- Wing - A , B, C & D with Parking Deck
- Common ground floor : For parking 121 cars (46 cars Mechanical type), 2 Meter rooms, 1 Communication room, 1 Electrical room & 1 D.G area.
- Wing-A
- 1st floor to 14th floor : 4 flats on each floor x 14 floors = 56 flats.
- Wing-B
- 1st floor to 13th floor : 5 flats on each floor x 13 floors = 65 flats.
- 14th floor : 1 Indoor games & 1 Gym.
- Terrace : 1 Swimming pool & 2 Kids pool open to sky.
- Wing-C
- 1st floor to 14th floor : 4 flats on each floor x 14 floors = 56 flats.
- Wing-D
- 1st floor to 14th floor : 5 flats on each floor x 14 floors = 70 flats.
- Total : 247 flats.**



6. Height of the Building : 44.82 Mtrs.
7. Site Area : 11,642.71 Sq. mtrs.
8. Built-up area of each floor :-

Wing-D

Part basement : 53.00 Sq. mtrs.

Wing- A, B, C & D with parking Deck

Common ground floor : 3,236.84 Sq. mtrs.

Wing-A

1st floor : 483.41 Sq. Mtrs.

2nd floor to 13th floor : 5,955.12 Sq. Mtrs.
(496.26 Sq. mtrs. on each floor
x 12 floors)

14th floor : 474.12 Sq. Mtrs.

Wing-B

1st floor : 522.949 Sq. Mtrs.

2nd floor to 13th floor : 6,749.148 Sq. Mtrs.
(562.429 Sq. mtrs. on each floor
x 12 floors)

14th floor : 307.75 Sq. Mtrs.

Wing-C

1st floor : 457.116 Sq. Mtrs.

2nd floor to 13th floor : 5,677.152 Sq. Mtrs.
(473.096 Sq. mtrs. on each floor
x 12 floors)

14th floor : 451.746 Sq. Mtrs.



(1)

(2)

4. Width of open space (Setbacks):-Wing-A, B, C & D- with Parking Deck joined together

- | | | |
|---------------|---|---------------------|
| Front (North) | : | Minimum 13.00 Mtrs. |
| Rear (South) | : | Minimum 13.50 Mtrs. |
| Side (East) | : | Minimum 20.64 Mtrs. |
| Side (West) | : | Minimum 13.00 Mtrs. |
5. Arrangement for parking the Cars : Provision has been made to park 121 Cars (46 cars mechanical type) at ground floor parking area & 159 Cars on the setbacks available all around the building after leaving 8.00 Mtrs. wide driveway from the building line.
6. Number of Staircases : 8 (2 in each Wing).
7. 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 & one separate staircase has been provided to reach part basement of Wing-D. Further provision has been made to enclose all the staircases at each floor level.
8. Staircase size:-
- | | | |
|----------------------------------|---|---|
| (a)Width of the staircases | : | Each of 1.20 mtrs. |
| (b) Width of treads | : | 30 Cms. |
| (c) Height of riser | : | 14.80 Cms. |
| (d) Number of risers in a flight | : | Maximum 10 per flight. |
| (e) Height of hand rails | : | 1.00 mtr. As proposed, the hand rails should be provided at a height of 1.00 mtr. The gap between two verticals should not exceed 15 Cms. |
| (f) Head room clearance | : | Minimum 2.70 mtrs. |





Wing-D

9. Total Built-up area
- 1st floor : 562.73 Sq. Mtrs.
 - 2nd floor to 13th floor : 7,294.68 Sq. Mtrs.
 - (607.89 Sq. mtrs. on each floor x 12 floors)
 - 14th floor : 588.96 Sq. Mtrs.
10. Surrounding properties:-

- East : 11.00 mtrs. wide Village Road.
- West : High rise building under construction.
- North : 24.00 mtrs. wide Kogilu Main Road & partly private vacant land.
- South : Private vacant land.

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

Details (1)	Existing (2)
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1. Width of the road to which the building abuts and whether it is hard surfaced to carry the weight of 45,000 kgs.

The premises is abutting 24.00 mtrs. wide Kogilu Road, located on the northern side & 11.00 mtrs. wide Village Road, located on the eastern side. Both the roads are hardened to carry the weight of 45,000 kgs.

2. Number of entrances and width of each.

Proposed to provide 2 entrances, one of 12.00 mtrs. width & another of 8.00 Mtrs. width from 24.00 mtrs. wide Kogilu Main Road, located on the northern side.

3. Height clearance over the entrances.

As proposed arch over the entrances with a height clearance of minimum 5.5 mtrs. shall be provided.

(1)	(2)
9. Travel distance from the farthest point and from dead-end of the corridor to the staircase.	Maximum 20.50 mtrs. from the farthest point and maximum 4.00 mtrs. from the dead end of the corridor to the staircases in upper floors.
10. Number of lifts and capacity	8 lifts (One of 12 passengers capacity & another of 14 passengers capacity in each wing).

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

Details (1)	Existing (2)	Recommendation (3)
1. Condition of the open space.	--	Out of the required and allowed setbacks of minimum 13.00 mtrs. around the Building, setback to an extent of minimum 8.00 mtrs. from the Building line should have a RCC slab of 200 mm thickness to carry the load of 45,000 kgs., being the weight of a fire unit. This driveway all around the building, should always be kept free and clear. It would be advantageous to the builders and the users to elevate this portion by a few inches and even provide for a different colour, so that people are aware that this is the emergency route for fire fighting vehicles, ambulances etc. The total setbacks shall be at even level without any structure and projections up to a height of 5.50 mtrs. These setbacks shall be always kept free from any construction or utilization like garden, landscaping parking etc.
2. Structural materials.	---	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 the work. While attending the interior decoration the fixed fire fighting systems like sprinklers/risers etc., should not be covered or shifted from their original location.



(1)	(2)	(3)
3. Design of the staircases	Not indicated	<p>All the staircases should be constructed with non-combustible material and should be completely enclosed at each landing to prevent smoke and fire travelling from lower floors to 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 half-an-hour fire resistance capacity. The staircase area should be without glazing or glass brick walls to avoid reflections. Any area of dwelling or storage shouldn't open directly to staircase area.</p>
4. Specification of lift.	Not indicated	<p>The brick walls, enclosing the lift shafts should be of 90 mm thickness and have fire resistance of not less than 2 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 shall open into ventilated lobby, having one hour fire resistance. Lift car doors should be of metal finish, operating automatically and should have a fire resistance emergency services personnel to ground all the lift cars and use them as 'FIRE LIFT' in an emergency, should be provided.</p>
5. Service ducts/shafts	----	<p>Service ducts should be enclosed by the walls of 100 mm. thickness to have at least two 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 services lines should not be laid in the duct, meant for electric cables.</p>



(1)	(2)	(3)
		The inspection panel doors and any other opening to the shafts should be provided with airtight doors of atleast 2 hours fire resistance capacity.
6. Escape route.	Not indicated	Direction in which the inmates should have to move in the event of any emergency have to be indicated in the corridor/passage on each floor as a guide during evacuation. These marking should be in luminous paint.

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

Details (1)	Existing (2)	Recommendation (3)
1. Electric power supply.	---	<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, each of 500 KVA capacity shall be installed at ground floor to supply alternative power for staircase lighting, corridor lighting, fire fighting systems, lifts etc., in the event of failure of electricity supply, in the building.</p>
2. Wet riser-cum-down comer.	Proposed to provide 4 Wet Riser-cum-down comer systems (one in each Wing).	As proposed 4 Wet Riser-cum-down comer systems (one in each Wing), near the staircases, shall be provided. Each riser should be of 100 mm internal diameter and of G.I. 'C' Class pipe. From each riser single hydrant outlets should be provided at each landing. Hose reel hose of minimum 19 mm size of adequate length o reach the farthest point of each floor should be provided with a shut off branch having a nozzle of 5 mm size. The hose reel hose should be connected at each landing by means of an adaptor. A minimum of 2 external hydrants at a suitable locations (adjacent to the compound wall) with adequate space between them should also be provided from



(1)	(2)	(3)
3. Manually operated fire alarm system	Proposed to provide manually operated electrical fire alarm system with call boxes near each staircase landing.	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 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. Each Wet riser-cum-down comer system should be connected to an 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/mm ² pressure and an jockey pump with a capacity of 180 LPM shall be installed near the combined underground tank The impeller of all the pumps should be made of bronze. Manually operated electrical fire alarm system should be installed with call boxes located near the staircases 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.
4. Automatic fire Detection system	Proposed to provide automatic fire detection system with 11 smoke detector heads at 14 th floor club house in wing-B.	As proposed automatic smoke detection system shall be provided with its console at ground floor level.



(1)	(2)	(3)
5. Automatic sprinkler system.	Proposed to provide automatic sprinkler system with 9 sprinkler heads at part basement of Wing-D, 186 sprinkler heads at ground floor parking area & 44 sprinkler heads at 14 th floor club house of Wing-B.	Adequate. Sprinkler system should be connected to wet riser systems.
6. Public address system.	Proposed to provide public address system with two way communication facility.	As proposed a public address system with two way communication facility should be provided at each floor near each staircase landing with its console at the control room, located on the ground floor of each Wing.
7. Assembly Area	Not marked.	An area at an appropriate place in the allowed/ required setbacks shall be earmarked with a proper board as 'ASSEMBLY AREA' for the occupants to assemble after evacuation during practice drill and in an emergency.
8. Portable fire extinguishers.	Proposed to provide suitable type of portable fire extinguishers as per the requirements.	<p>a) One ABC Powder extinguisher of 5 kgs. capacity for every 8 Cars at ground floor parking area and also on the open space parking area.</p> <p>b) One ABC extinguisher of 2 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 extinguisher of 5 kgs. capacity should be provided near the transformer, if installed and near the Diesel Generators.</p>



(1)	(2)	(3)
9. Fire safety plan.	---	<p>d) One ABC Powder extinguisher of 5 liters capacity should be kept near each staircase landing on every floor of each Wing.</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> <p>A Fire safety plan for preventing and extinguishing any accidental fire in each Wing and action to be taken by the occupants in case of such fire should be prepared in advance and got approved by the Director, Karnataka Fire & Emergency Services. The fire safety plan, so approved, should contain the telephone numbers of the nearest Fire Control i.e., 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.</p> <p>A Fire Command Station should be established in the lobby of each Wing on the entrance floor and such command station should be adequately illuminated. The main control of the public address system and fire alarm system should be at the Fire Command Station.</p> <p>A Fire Safety Director should be nominated for each Wing. 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 & Emergency Services department.</p>



(1)	(2)	(3)
10. Training	Not indicated	40% of the occupant/employees should be got trained in fire prevention & fire fighting at the R.A. Mundkur Fire & Emergency Services Academy. Bannerghatta Road, Bangalore –560 029 within 6 months from the date of occupation of the building. For this purpose, before approaching this department for final clearance certificate, the applicant should give an undertaking in the form of an affidavit regarding the maintenance of the fire prevention and fire fighting measures suggested above and arranging training of 40% of the occupants in fire prevention and fire fighting within 6 months from the date of issue of the clearance certificate.

E. General:-

- 1) All the fire prevention, fire fighting and evacuation measures suggested / recommended in B, C & D shall be strictly adhered to adopted.
- 2) Hazardous materials such as petroleum products, explosives, chemicals etc. should not be stored on any floor of the building.
- 3) Refuse dumps or storage should not be permitted in any of the floors.
- 4) Liquefied petroleum gas should not be stored in the building.
- 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 wet riser system and all the extinguishers suggested above should have B.I.S markings.

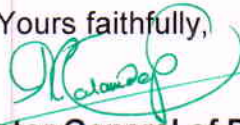


- 9) Apart from the above the Building shall be constructed by following all the rules & conditions stipulated in Part-III & IV of NBC & local zoning regulations strictly, failing which the NOC issued will not be valid.
- 10) The NOC is issued from the Fire Prevention and Fire Fighting point of view. Karnataka State Fire & Emergency Services Department will not endorse the ownership of the premises and not responsible for any disputes which may arise in due course.

Subject to the strict adherence to the conditions laid down as above, issue of license for the construction of High Rise Residential Building with 4 Wings i.e. Wing-A, B, C & D – joined together at Khatha No. 217/92/5A, Sy. No. 92/5A & 92/5B, Kogilu Village, Yelahanka Hobli, Ward No.5, Bangalore North Taluk, Bangalore may be considered. NOC issued on 13-02-2014 may be treated as cancelled.



Yours faithfully,


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

Copy to:

- 1) The Authorized Signatory, M/s Mittal Universal Constructions Ltd, No. 16, Ground floor, Pranava Park, Infantry Road, Bangalore-560 001.
- 2) The Regional Fire Officer, Bangalore North Range, Bangalore.