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Commandant General, Home Guards &
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No. GBC(1)253/2007

9-01-2012.

To,
The Commissioner,
Bruhat Bangalore Mahanagara Palike,
N.R. Square,
Bangalore - 560 002.

Sir,

Sub: Issue of revised No Objection Certificate for the construction of
high rise mixed occupancy building at survey no.164/1,Kodigehalli
Village, Yelahanka Hobli, Bangalore North.

Ref: 1) This office NOC No.GBC(1)253/2007 dated 3-11-2007.
2) Letter dated 25-11-2010 of the Authorised Signatory, M/s. CYMA
Investments, # 2, Vittal Malya Road, Bangalore.

In the reference, cited at (1) above, NOC for the construction of a High Rise Residential building
with 2 blocks of 20.96 mtrs. height comprising common basement, ground & 6 upper floors at
Sy.No.164/1, Kodigehalli Village, Yelahanka Hobli, Bangalore Urban District was issued. Now the
builder, in his letter cited at (2) above, has informed about the change in the plans & requested to
issue revised NOC. Accordingly, the Regional Fire Officer, Bangalore North Range of this department
has reinspected the site proposed high rise mixed occupancy building on 08-01-2011 with reference
to the revised drawings submitted by the applicants & has furnished the details as follows.

A. Details of the premises.

1. Address of the premises.
2. Number of Block/Buildings
3. Number of floors in each
Block/Building:-
Block - A
Commercial Block
Block - B

Survey No. 164/1,
Kodigehalli Village,
Yelahanka Hobli,
Bangalore Urban District.

2 Blocks i.e. Block - A with 4 wings and a
Commercial Block -joined together & Block - B
with 3 wings.

Ground & 7 upper floors.

Basement, ground & 1st floor.

Basement, ground & 7upper floors.

4. Type of occupancy : Residential & Business.

5. Floor wise details of the occupancy :-

Block – A

Residential

Ground floor : For parking 70 cars.
 1st floor to 6th floor : 16 flats on each floor x 6 floors = 96 flats.
 7th floor : 8 flats.

Commercial Block

Basement : For parking 11 cars & 1 Pump room.
 Ground floor : 1 Convenient store.
 1st floor : 1 Convenient store.

Block – B

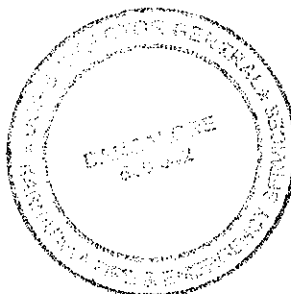
Basement : For parking 57 cars.
 Ground floor : For parking 69 cars.
 1st floor : 12 flats, 1 Club house & 1 Gym.
 2nd floor : 12 flats, 1 Club house & 1 Multipurpose hall.
 3rd floor to 6th floor : 12 flats on each floor x 4 floors = 48 flats.
 7th floor : 6 flats.

6. Height of the Building:-

Block – A : 20.99 mtrs.

Block – B : 21.00 mtrs.

7. Site Area : 9,914.78 Sq. mtrs.



8. Built-up area of each floor :-Block – A & Commercial Block –
Joined together.

Basement (Commercial Block)	:	480.01 Sq.mtrs.
Ground floor	:	2,281.07 Sq.mtrs.
1 st floor	:	2011.63 Sq.mtrs.
2 nd floor	:	1,677.84 Sq.mtrs.
3 rd floor	:	1,848.22 Sq.mtrs.
4 th floor	:	1,864.46 Sq.mtrs.
5 th floor	:	1,777.80 Sq.mtrs.
6 th floor	:	1,924.23 Sq.mtrs.
7 th floor	:	1,534.52 Sq.mtrs.

Block – B & Club House

Basement	:	1,653.67 Sq.mtrs.
Ground floor	:	2,099.26 Sq.mtrs.
1 st floor	:	1,303.06 Sq.mtrs.
2 nd floor	:	1,308.45 Sq.mtrs.
3 rd floor	:	1,341.63 Sq.mtrs.
4 th floor	:	1,362.71 Sq.mtrs.
5 th floor	:	1,363.94 Sq.mtrs.
6 th floor	:	1,418.71 Sq.mtrs.
7 th floor	:	1,134.53 Sq.mtrs.

9. Total Built-up area : 28,385.74 Sq.mtrs.



10. Surrounding properties :-

East	:	Shops & vacant land.
West	:	Vacant land.
North	:	13.00 mtrs. wide Kodigehalli – Thindlu road.
South	:	Coconut Plantation.

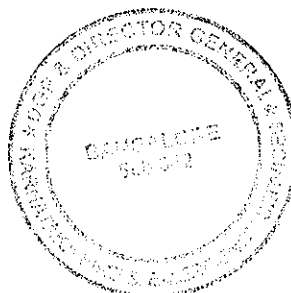
A. The plan shows the following structural details indicating the fire prevention, fire fighting and evacuation measures. These measures are considered adequate as follows:-

Details (1)	Existing (2)
1. Width of the road to which abuts and whether it is hard surfaced to carry a weight of 45,000 Kgs.	The premises is abutting the 13.00 mtrs. wide Kodigehalli – Thindlu road, located on the northern side. The road is hardened to carry the weight of 45,000 kgs.
14. Number of entrances and width of each.	Proposed to provide 2 entrances, each of 6.00 mtrs. width one remote to the other from 13.00 mtrs. wide Kodigehalli – Thindlu road, located on the northern side.
3. Height clearance over the entrance.	No arch or any other constructions have been proposed over the entrances.

4. Width of open space (Setbacks):-

Block – A & Commercial
Block – joined together.

Front (East)	:	Minimum 7.00 mtrs.
Rear (West)	:	7.00 mtrs.
Side (North)	:	Minimum 7.00 mtrs.
Side (South)	:	Minimum 7.00 mtrs.



(1)	(2)
<u>Block – B</u>	
Front (East)	: Minimum 7.00 mtrs.
Rear (West)	: 7.00 mtrs.
Side (North)	: Minimum 7.00 mtrs.
Side (South)	: 7.00 mtrs.
7. Arrangement for parking the cars.	: Provision has been made to park 70 Cars at ground floor parking area of Block – A, 11 cars at basement parking area of Commercial Block, 57 cars at basement & 69 cars at ground floor parking area of Block – B. Proposed to provide 2 ramps, for the vehicles to reach each basement parking area.
6. <u>Number of Staircases:-</u>	
Block – A	: 4 (One in each wing with common terrace).
Block – B	: 3 (One in each wing with common Terrace).
7. Location of the staircases	: All the staircases of have been designed to abut one of its side to the external wall and are terminated at ground floor. Separate staircases have been proposed to reach each basement area from the ground floor.
8. <u>Staircase size:-</u>	
a) Width of staircases	: Each of 1.22 mtrs.
b) Width of Treads	: 30 cms.
c) Height of Riser	: 15 cms.
d) No. of Risers in a flight	: Maximum 10 risers per flight.
e) Height of Hand Rails	: 1.00 metre. As proposed the handrails should be provided at a height of 1 metre. The gap between two verticals should not exceed 15 cms.
f) Head Room Clearance	: Minimum 2.4 mtrs.



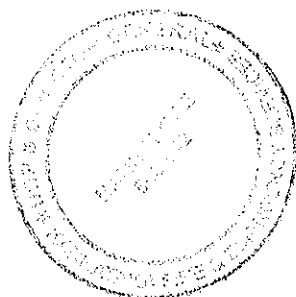
(1)	(2)
9. Travel distance from the farthest point and from dead-end of the corridor to the staircase.	: Maximum 20.00 mtrs. from the farthest point and maximum 6.00 mtrs. from the dead end of the corridor to the staircases in both the blocks.
10. <u>Number of lifts & capacity:-</u>	
Block – A	: 4 (one in each wing), each of 8 passengers capacity.
Block – B	: 3 (one in each wing), each of 8 passengers capacity.

B. 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 setbacks of minimum 7.00 mtrs. all around, the setbacks to an extent of 6.00 mtrs. from each building line should have a RCC slab of 200 mm thickness to carry a load of 45,000 kgs. being the weight of a fire unit. This driveway all around each 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 of minimum 7.00 mtrs. all around each building shall be at even level without any structure and projections up to a height of 5.00 mtrs. These setbacks shall be always 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.



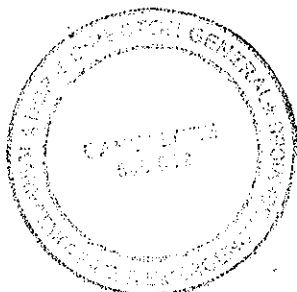
(1)	(2)	(3)
3. Design of the staircases.	Not indicated	All the staircases should be constructed with non-combustible materials and should be completely enclosed at each landing to prevent smoke and fire traveling from the lower floors to the upper floors. Enclosures to staircases should be provided with 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 staircase.
4. Specification of lift.	Not indicated	The brick walls, enclosing the lift shafts, should be of 90 mm thickness and have a fire resistance of not less than two hours. Shaft should have permanent vent of not less than 0.2 Sq.mtrs. clear area, immediately under the machine room. Lift motor rooms should be preferably located at the top of the shaft and separated by the enclosing wall of shaft or by the floor of the machine room. Landing doors of lift enclosures should open into a ventilated lobby having one hour fire resistance. Lift car doors should be of metal finish, operating automatically and should have fire resistance capacity of one hour. Exit from the lift lobby should be through a self closing smoke stopping door of 15 mm thickness, having one hour fire resistance capacity. This is to prevent smoke and fire traveling from the lower floors to the upper floors. The lift machine rooms should be separate and no other machinery should be installed therein. Each lift should be connected to an alternative source of power(generator). Grounding switches at the ground floor level, to enable the Fire & Emergency Services personnel to ground all the lift cars and use them as ' FIRE LIFT' in an emergency should be provided. The lifts, extended to the basement, shall be terminated at the ground floor level or the lift lobby at the basement level shall be enclosed and pressurized with positive pressure.



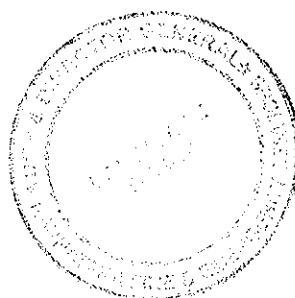
(1)	(2)	(3)
5. Service ducts/shafts.	-----	Service ducts should be enclosed by walls of 100 mm. thickness to have at least two hours fire resistance capacity. A vent, opening at the top of the service shafts, should be provided between one fourth and half of the area of the shafts. The electrical distribution 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 two hours fire resistance capacity. Water mains, telephone lines, intercom lines or any other service lines should not be laid in the duct, meant for electric cables. The inspection panel doors and any other opening to the shafts should be provided with airtight doors of at least two hours fire resistance capacity.
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 of each block, as a guide during evacuation. These marking should be in luminous paint.

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

Details (1)	Existing (2)	Recommendation (3)
1. Electric power supply	-----	Circuits for water pumps, lifts, staircase lighting in the building should be by separate line and independently connected so that they can be operated by one switch installed the ground floor. Dual operated switches should be installed in the service room for terminating the standby supply. As proposed 3 generators, 2, each of 350 KVA capacity & another of 500 KVA capacity on the setbacks available on the eastern side of Block – A after leaving 6.00 mtrs. wide driveway, to supply alternative power for staircase lighting, corridor lighting, fire fighting systems and lifts etc., in the event of failure of electricity supply in the building.



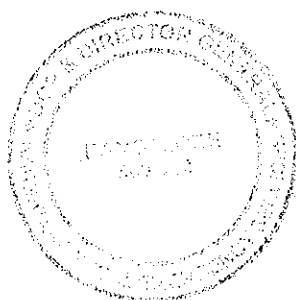
	(1)	(2)	(3)
2	Wet riser-cum-down comer.	Proposed to provide 4 down comer systems, one in each wing of Block – A & 3 down comer systems one in each wing of Block – B (Total – 7 down comer systems).	As proposed 4 down comer systems, one near the staircase of each wing of Block – A & 3 down comer systems one near the staircase of each wing of Block – B (Total – 7 down comers systems) shall be provided. Each system should be of 100 mm internal diameter and of G.I. 'C' class pipe. From each down comer single hydrant outlet should be provided at each landing. Hose reel hose of minimum 12 mm size of adequate length to reach the farthest point of each floor of each block should be provided with a shut off branch having a nozzle of 5 mm size. The hose reel hose should be connected at each landing by means of an adaptor. Adequate B.I.S. marked reinforced rubber lined delivery hoses of 63 mm size to reach the farthest point of the floor/setbacks from the system should be provided with a branch pipe near each hydrant outlet in a proper box to protect it from withering. Each system shall be connected to an overhead tank of 25,000 liters capacity with a pump, capable of delivering 900 liters of water per minute near each overhead tank. The impeller of all the pumps should be of bronze.
3.	Manually operated fire alarm system	Proposed to provide manually operated electrical fire alarm system with call boxes near each staircase landing of each floor of each block.	Manually operated electrical fire alarm system should be installed with call boxes located near each staircase landing. 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.



(1)	(2)	(3)
4. Automatic sprinkler system.	Proposed to provide automatic sprinkler system with 132 sprinkler heads at ground floor parking area of Block – A, 26 sprinkler heads at basement parking area of commercial Block, 92 sprinkler heads at basement & 119 sprinkler heads at ground floor parking area of Block – B.	Adequate. Separate water & pump to use 10% of the sprinkler system for about 30 minutes shall be provided.
5. 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 block.
6. Portable fire extinguishers.	Proposed to provide suitable type of portable fire extinguishers as per the requirements.	a) One ABC Powder extinguisher of 5 kgs. capacity and 2 fire buckets filled with clean dry fine sand should be provided for every 8 Cars at basement & ground parking areas of each block. b) One CO₂ extinguisher of 2 kgs. capacity should be provided near the entrance to each main switch board room, each kitchen & each lift room. c) One ABC Powder extinguisher of 5 kgs. capacity should be provided near the transformer, if installed. d) One ABC powder extinguisher of 5 kgs. capacity should be provided near the entrance to each generator room. e) One Water type gas cartridge extinguisher of 9 liters capacity should be kept near each staircase landing on every floor. f) 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.



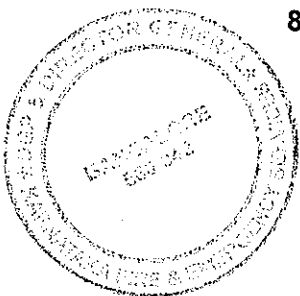
(1)	(2)	(3)
7. Fire safety plan.		A Fire safety plan for preventing and extinguishing any accidental fire in each building and action to be taken by the occupants in case of such fire should be prepared in advance and got approved by the Director, Karnataka Fire & Emergency Services. The fire safety 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 each building and should be displayed on every floor. A Fire Command Station should be established in the lobby of each building on the entrance floor and such command station should be adequately illuminated. The main control of the public address system and fire alarm system should be at the Fire Command Station. A Fire Safety Director should be nominated for each 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 & Emergency Services department.
8. Assembly area	Not marked	An area at an appropriate place in the allowed/ required setbacks shall be earmarked with a proper board as "ASSEMBLY AREA" for the occupants to assemble after evacuation during practice drill and in an emergency.



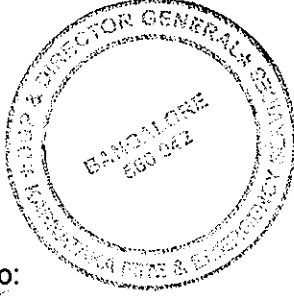
(1)	(2)	(3)
9. Training	Not indicated	40% of the occupant/employees should be got trained in fire prevention & fire fighting at the R.A. Mundkur Fire & Emergency Services Academy. Bannerghatta Road, Bangalore -560 029. within 6 months from the date of occupation of the building. For this purpose, before 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 except limited quantity required for each kitchen.
- 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 clause 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.



Subject to the strict adherence to the conditions laid down as above, issue of license for the construction of High Rise Mixed Occupancy Buildings at Sy.No.164/1,Kodigehalli Village, Yelahanka Hobli, Bangalore North may please be considered. The NOC, issued on 3-11-2007, shall be treated as cancelled.



Yours faithfully


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

Copy to:

- ✓ 1) The Authorised Signatory, M/s. CYMA Investments, No.2, Vittal Malya Road, Bangalore.
- 2) The Regional Fire Officer, Bangalore North Range.