



Government of West Bengal
Office of the Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata – 16

Memo No.: FSR/221862506300016696

Date : 19-09-2025

From :
Director
Fire Prevention Wing,
West Bengal Fire & Emergency Services

To :
Arun Kumar Sancheti as authorised Signatory of Maninagar Developers LLP And 4 Others and Authorised representative of PS Group Realty Pvt Ltd being th
066,122/D/5, MATHESWARTOLA ROAD

Sub: Fire Safety Recommendation for a proposed residential complex comprising of Block-A having Tower-1 & Tower-2 of G+38 Storied adjoining G+4 storied podium over common Basement and Block-B of B+G+2 storied Banglow and Block-C G+10 storied Residential Building at premises no. 122/D/5, Matheswartola Road. C.S Dag No.-661, 660, 676, 662, 668, 669, 670, 671, 672, 673, 674, 675, 678, 682, 684, 685, Correspondent To C.S Khatian No.-223, 611, 481, 429, 430, 180, 221, 171, 138, 234, 238, 88, 177, 581, 395, 583 Of Mouza-Tangra, J.L No. 5, Ward No. 66, Borough No. VII, P.S. Pragati Maidan, Kolkata -700046 under Kolkata Municipal Corporation..

Application Reference : KMC (CAF - 2025070108) received on 07-Aug-2025 regarding Fire Safety Recommendation for a proposed residential complex comprising of Block-A having Tower-1 & Tower-2 of G+38 Storied adjoining G+4 storied podium over common Basement and Block-B of B+G+2 storied Banglow and Block-C G+10 storied Residential Building at premises no. 122/D/5, Matheswartola Road, C.S Dag No.-661, 660, 676, 662, 668, 669, 670, 671, 672, 673, 674, 675, 678, 682, 684, 685, Correspondent To C.S Khatian No.-223, 611, 481, 429, 430, 180, 221, 171, 138, 234, 238, 88, 177, 581, 395, 583 Of Mouza-Tangra, J.L No. 5, Ward No. 66, Borough No. VII, P.S. Pragati Maidan, Kolkata -700046 under Kolkata Municipal Corporation..

The plan submitted by you was scrutinized and marked as found necessary from Fire Safety point of view. In returning one set of plan with recommendation, this office is issuing Fire Safety Recommendation in favor of the aforesaid building for compliance of the following fire safety measure.

Recommendation :

CONSTRUCTION:

1. The whole construction of the Proposed building shall be carried out as per approved plan drawings



conforming the relevant building rules of local Municipality Body.

2. The floor area exceeds 750 m² shall be suitably compartmented by separation walls up to ceiling level having two hours fire resisting capacity.
3. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
4. Provision of ventilation at the crown of the central core duct of the building shall be provided.
5. Arrangement shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate fire resisting capacity.

OPEN SPACE AND APPROACH:

1. The open spaces surrounding the building shall conform the relevant building rules as well as permit the accessibility and manoeuvrability of Fire Appliances with turning facility.
2. The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting 45M.T.
3. The width and height of the access gate into the premises shall not be less than
4. 4.5 mt. and 5.0 mt. respecting the abutting road.
5. Drive way should be free from any type of obstruction. No parking will be allowed on the drive way.
6. All the Passage way should be kept clear for free access.

STAIRCASE:

1. The staircase of the building shall be enclosed type. Entire construction shall be made of bricks/R.C.C. type having Fire Resisting capacity not less than 4 hours.
2. Staircase pressurization shall be done as per NBC Part-IV of 2016.
3. The staircase of the building shall have permanent vents at the top and openable sashes at each floor level in the external walls of the building.
4. The width of the staircase shall be made as shown in the plan. Corridors and the exit doors shall conform the relevant Building Rules with up to date amendment.
5. All the staircase shall be extended up to terrace of the building and shall be negotiable to each floor.
6. Fire and smoke doors at the entrances of all the staircase enclosures as shown in the plan at each floor level shall be provided. The F.C.D. shall be of at least one hour Fire Resisting wire glass window fitted with self-closing type openable in the direction of escape.
7. The common wall between two staircases in G+10 storied building shall have to be 4 hours fire rated.

FIRE REFUGE AREA:

1. The measurement of all Refuge Areas shall be as per requirement of occupancy load/floor areas (at the rate 0.3sq.m./person).
2. Refuge areas are to be provided as shown in the plan drawings.
3. The refuge areas shall be of Fire resisting construction and protected with self closing F.C.D. at the entrance from the landing/half landing of staircase.
4. The position of refuge area shall be in such manner so that it shall be negotiable by the Fire Service Ladder from the Ground level. Necessary open space on the Ground level (drive way) shall be so arranged that in case of any emergency Fire Service High Rise Ladder shall be easily placed near Refuge area.

LIFT:

1. The walls of the lift enclosure of the building shall be at least two hours FIRE resisting type respectively shown in the plan with the event at top of area not less than 0.2m².
2. Lift lobby pressurization shall be done as per NBC Part-IV of 2016.
3. The lift of the building shall be designed at high speed "Fire Lift" and conspicuously indicated shown in the plan.
4. One of the lift car of the building shall be large enough to accommodate standard Ambulance Stretcher and Medical Attendants.
5. In case of failure of normal electric supply, it shall automatically trip over to alternate supply. For apartment houses these change over of supply could be done through manually operated change over switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level and comes to stand still with door open.
6. Exit from the lift lobby if located in the core of the building, shall be through a self- closing smoke stop door of 1hour fire resistance.
7. The speed of the fire lifts in the building shall be such that it can reach the top from the ground floor within 1 minute in visual indications of floor numbers shall incorporated in the lift cars.
8. All other requirements shall conform the I.S. specification including the communication facility in



the lift cars connecting with the Fire Control Room of the building.

9. All lifts and lift lobbies are to be pressurised with a pressurisation level of 50 Pa in case of FIRE.

BASEMENT:

1. The Basement shall be adequately ventilated with aggregate cross sectional area of not less than 2.5% of the area spread evenly round the perimeter of the basement shall be provided in the form of grills.

2. Mechanical smoke venting arrangements shall be provided to all the basements conforming the relevant I.S.

Specification & provision of N.B.C.- Part IV.

3. The exit from the basement shall be from open Air and from any points the travel distance shall not exceed 15 mtr. to reach any exit.

4. All the basements shall be protected with Automatic Sprinkler System conforming to I.S. 3844- 1989.

5. The staircases of basements shall be of enclosed type and pressurized having Fire resistance of not less than 4 hrs., to be entered at ground level only from the open air and in such positions that smoke from any Fire in the basement shall not obstruct any exit of upper floor of the building.

6. Mechanical extractors shall have an alternative source of supply.

7. Mechanical extractor shall have an internal locking arrangement so that extracting shall continue to operate and supply fans shall stop automatically with the actuation of Fire Detectors / Sprinklers.

8. Mechanical extractors shall be designed to permit 12 Air Changes per Hour in case of Fire or Distress Call.

9. Basement compartmentation shall be achieved as shown in plan & protection shall be made as per provision of N.B.C-Part-IV.

FIRE FIGHTING WATER:

Underground water reservoir having water Capacity 400000 ltrs. (as shown in the submitted plan drawing) and overhead water reservoir shall be provided as shown 2 nos. 25KL and 1 no. 10KL exclusively for firefighting purpose with replenishing arrangements @ 1000 Ltrs./min. preferably from two different sources of water supply shall be provided. The water reservoirs shall have overflow arrangement with the domestic water reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all time.

HYDRANT SYSTEM:

1. The building shall be provided with separate Wet Riser of each building of 150mm. Internal diameter pipe Line with single outlet landing valves at the staircase landings/half landings at the rate of one such riser for 1000 sq .m. of floor area. The system shall be so designed that shall be kept charged with water all the time under pressure and capable to discharge not less than 2850Lts./min. at the ground floor level outlet and minimum 900 Lts./min. at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kgs/cm2. All other requirements shall conform I.S. 3844 – 1989.

2. Provision of Hose Reel in conjunction with wet Riser shall be made at each floor level conforming the relevant I.S. specification.

3. Ring/Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the project in accordance with relevant I.S. specification.

4. Fire service inlets shall have to be installed at the entrance of the premises.

SPRINKLER INSTALLATION:

The automatic sprinkler installation shall be provided in all floor areas of Block-A, basement of Block-B and all other assembly floor areas as per I.S. 9972. Alarm Gong to be incorporated along with the sprinkler system.

FIRE PUMP:

1. One no. Jokey pump capacity 180 LPM,

2. One no. Main pump capacity 2850 LPM ..

3. One no. Diesel driven Stand by pump of capacity 2850LPM.

4. One no. separate sprinkler pump of capacity 2850LPM.

5. Lower levels in high rise buildings 60 m or above in height are likely to experience high pressure and therefore, it is recommended to consider multi-stage, multi-outlet pumps (creating pressure zones) or variable frequency drive pumps or any other equivalent arrangement.

6. If any one set of pumps shall be provided for each 100 hydrants or part thereof, with a maximum of two sets. In case of more than one pump set installation, both pump sets shall be interconnected at their delivery headers.

All the pump designed so as to supply water 900 LPM at a pressure of 3.5kg/cm2 at the furthest point. All the pumps shall be incorporated with both manual and auto starting facilities. All other requirements shall



conforming I.S. 12469-1988.

Multi-Layer Automated Mechanized Car Parking System:

1. Structural design: - The M.L.C.P. shall be constructed of structural steel construction.
2. Vertical Deck Separation: - For M.L.C.P. having Multi Car Parking level, vertical Fire separation between the upper and lower decks by using a non-perforated and non-combustible materials (Structural Steel Plate) shall be provided. This is to minimize direct impingement of flame to the Car in the upper deck and also to prevent dripping of any possible leaking fuel to the lower deck. Proper drainage system shall have to be provided for accidental leaking of oil from the car and sand bed shall be provided at the ground level.
3. Fire Engine Access way: - Access way shall be provided for the Fire Engine to gain access to the car park entrance and exit.
4. Fire Hydrant: - Fire hydrants are to be provided in accordance with Cl. 4.4
5. Natural Ventilation: - Each car parking deck shall be provided with at least 50% external ventilation openings of the perimeter wall areas and uniformly distributed.
6. Sprinkler & Detection System: - Open Modular Type Sprinkler along with detectors shall be provided in all M.L.C.P. areas as per relevant I.S. Specification. Cross zone wise sprinkler system shall have to be implemented.
7. Operating System: - Both Mechanical and Manual type operating system shall have to be provided.

ELECTRICAL INSTALLATION AND DISTRIBUTION:

1. The electrical installation including Switch Gears, Main & Meters etc. and the distribution system of the premises shall be made satisfying the code of practice for Fire safety in general building as laid down in I.S. specification 1946-1982.
2. The vertical ducts shall be supply sealed at each floor level.
3. The electrical installation shall be adequately protected with CO2 / D.C.P.
4. Electrical distribution system of the building shall be made in the form of concealed wiring or in heavy gauge M.S. conduit continuously bonded to the earth. Cables shall be I.S. marked and preferably be of F.R.L.S. categories. M.C.B. shall be installed in electrical circuit to avoid electrical fire hazards.
5. Mechanical ventilation for Electrical Room shall be provided.
6. Alternative power supply: Arrangement shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Fire Alarm System, etc. and also illuminating the staircase, corridors etc. and other assembly places of the building/premises in case of normal power failure.

7. Alternative Power Supply:-

Arrangement for alternative power supply shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Deep Tube-Well Pump, Fire Alarm System, Lifts, etc. and also for illuminating the Staircase, Corridors, Lobbies etc. and other places of assembly of the building in case of normal power failure.

AUTO DETECTION AND ALARM SYSTEM:-

1. Manually operated Electrical Fire Alarm system with break glass type call boxes fitted with Hooters along with public address system at each floor connecting with audio-visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of the building, other requirements of the system shall be made conforming I.S. specification 2189-1988.
2. Auto Fire Detection System with the help of Heat and Smoke Detectors shall be installed in all places of below and preferably above false ceiling of the building. The system shall also be made in place of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. specification.
3. Beam detector shall be provided where applicable.
4. The suppression system shall be made with Fire Extinguishers particularly in Computer, Electrical processing and Data Room and in all rooms of irreplaceable articles.
5. Public Address System linked between all floors and Control Room shall have to be established.
6. All the installation shall also satisfy the I.S. Specification 2189 as amended and the code of practice as laid down in N.B.C. Part – IV.

GAS BANK:-

1. L.P.G. (Liquefied Petroleum Gas) Bank shall be constructed as per Gas Cylinder Rules-2004 and I.S. 6044 maintaining adequate safety distance between an installation of same and any building, public place, roadways and other surroundings. Anti static mastic bituminized flooring shall be made inside the L.P.G. bank.
2. Cross ventilation shall be provided at ground level and at the top and the ventilators shall be covered



by two layers of non-corrigible metal wire mesh.

3. L.P.G. Bank shall never be used as store room of other articles.
4. Gas Sensor shall be installed inside the L.P.G. Bank while the isolation valve or regulating devices shall be retained outside the Bank for easy operation on any operation.
5. No electrical connection, wirings, fittings shall be installed inside the Gas Bank.
6. The L.P.G. Bank shall be protected either by Auto Modular (D.C.P. type) or by portable D.C.P.
- a. fire extinguisher of adequate capacity and sand buckets with dry sand.
7. L.P.G. Bank shall be constructed of brick wall and R.C.C/Asbestos roofing having three sides closed and one side provided with open able C.I/Steel double leaf door which will open outwardly.
8. Checking, testing and proper maintenance of L.P.G. installation, L.P.G. manifold. Pipe lines shall be checked by expert (authorized) agency and a certificate of safety to that effect to be endorsed to this department in due course.
9. Public Address System :-

Public address system linked between all floors and Control Room shall have to be established in the ground floor of the buildings.

AIR CONDITIONING SYSTEM (centralized air conditioning if any):-

1. The A.H.U. shall be separated for each floor with the system Air Ducts for individual floors.
2. Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning system.
3. The system of auto shut down of A.H.U. shall be incorporated with the auto detection and alarm system.
4. The air handling units room shall not be used for storage of any combustible materials.
5. Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning System.
6. The system of auto shut down of AHU shall be incorporated with the auto detection and alarm system.
7. Escape route like staircase, common corridors, lift lobby etc. shall not be used as return air passage.
8. Wherever the ducts pass through Fire wall of floors, the opening arounding the ducts shall be sealed with Fire resisting materials such as asbestos rope vermiculite concrete etc.
9. The metallic ducts shall be used even for the return air instead of space above the false ceiling.
10. The materials used for insulating the duct system (inside or outside) shall be of non- combustible materials glass wool shall not be wrapped or secured by any materials of combustible nature.
11. Area more than 750 sq. m. on individual floor shall be segregated by a Fire wall and automatic fire damper for isolation shall be provided.
12. Air duct services main floor area, corridors etc. shall not pass through the staircase enclosures.
13. The air handling units shall be separation for each floor, and air ducts for every floor shall be separated and in no way interconnected with the ducting of any other floor.
14. If the air handling units serve more than 1 floor, the recommendation given above shall be complied with additional conditions given below:-
 - a. Proper arrangements by way of automatic Fire dampers working on fuseable link for isolating all ducting at every floor from the main riser shall be made.
 - b. When the automatic Fire alarm operates the respective air handling units of the air conditioning system shall automatically switched off.
15. The vertical shaft for treated fresh air shall be of masonry construction.
16. The air filters for air handling units shall be of non combustible materials.
17. The air handling units room shall not be used for storage of any combustible materials.
18. Inspection panel shall be provided in the main trucking to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.
19. No combustible materials shall be fixed nearer than 15cm to any duct unless such duct properly enclosed and protected with non combustible materials (glass wool or Spun wool with neoprene facing enclosed and wrapped with aluminum sheeting) at least 3.2m thick. And which would not readily conduct heat.

FIRST AID FIRE FIGHTING SYSTEM: -

First Aid Fire Fighting arrangement in the style of portable Fire Extinguishers, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190-1992.

GENERAL RECOMMENDATIONS:-

1. Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other



highly combustible articles.

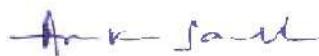
2. Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
3. Floor numbers and directional sign, showing the nearest exit Refuge Area. Fire Points etc. shall have photo luminescent signals at each floor of all blocks of building including shall be made available conforming the relevant I.S. Specification.
4. Provision of emergency illuminating exit shall be made at all floor levels of all blocks of building conforming the I.S. Specification.
5. If diesel oil is stored beyond the specified quantity license shall be accorded from the appropriate authority.
6. The occupants, employees and security staff shall be conversant with installed First aid Fire Fighting equipments of the building and to operate in the event of Fire and Testing.
7. Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the building to keep them in perfectly good working conditions at all times.
8. Trained and experienced fire fighting staff not less than six per shift under the qualified and experienced Fire Officer shall be maintained round the clock. A crew of trained Fireman shall be maintained round the clock for safety of the building.
9. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
10. Haphazard indoor or outdoor storage shall be avoided.
11. Telephone numbers of all Emergency Services and Departments shall be hanged at conspicuous places of all floors and inside Office/Reception Counter.

On compliance of all the above Fire Safety recommendation, the Director General, West Bengal Fire & Emergency Services shall be approach for necessary inspection and testing of the installation, Fire Safety Certificate in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installations of the building, till such time establishment may run at the risk and responsibility of the concern authority.

N.B.: Any deviation and changes the nature of use of the building in respect of the approved plan drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

Memo No.: FSR/221862506300016696

PS Group Realty Pvt. Ltd.



(Constituted Attorney / Authorised Signatory)



Signature Not Verified

Digitally Signed:
Name: SHYAM CHANDRA MONDAL
Date: 19-Sep-2023 15:14:01
Reason: D-Sign
Location: E-District

Director

West Bengal Fire & Emergency Services