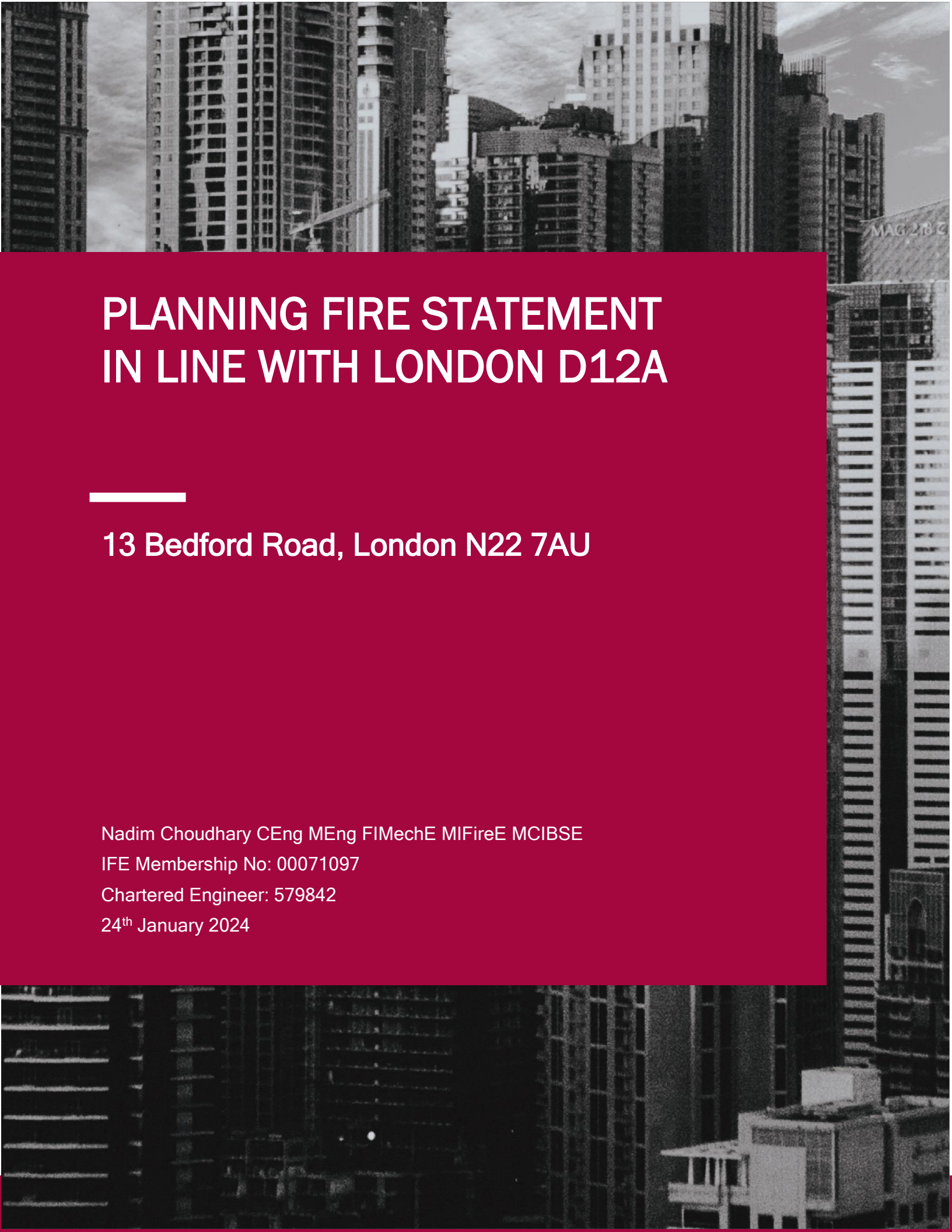




PLANNING FIRE STATEMENT IN LINE WITH LONDON D12A

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24th January 2024

Author Credentials

Nadim has a first-class honors MEng in Aerospace Engineering, an international Diploma in Risk Management including having studied at Oxford University (Exploring the Universe) and Imperial College Business School (Business Economics).

Nadim is ex Technical Director of Arcadis and ex Associate Director of Arup (both global engineering design firms) where he headed up the Safety Risk and Human Factors teams. Nadim is dual Chartered through the Institute of Mechanical Engineers (IMechE) and Chartered Institute of Building Service Engineers (CIBSE).

Nadim became a Chartered Engineer in an unprecedented three years and then followed this up by becoming one of IMechE's youngest Fellows. Nadim is a full member of the Institute of Fire Engineers (IFE) and has specialist experience in Safety, Reliability, Fire and Risk having worked in this field for over 15 years. His experience covers a range of industries including rail, nuclear, defence and the built environment. Nadim has established himself as a technical risk leader and has won numerous industry awards (4-won, 8 finalist positions) testifying to this including being nominated for the prestigious, Royal Academy of Engineering (RAE) Silver Medal Prize.

Nadim has served as a Non-Executive Director on 2 separate Risk and Audit boards, written numerous technical publications and has frequently spoken at international conferences including being invited on to expert panels. Nadim currently sits on the Institute of Fire Engineers working group for fires in electric vehicles.

Revisions

Revision	Date	Prepared By	Comments	Signature
1.0	24.01.2024	Nadim Choudhary	Issued for Comment	

This report has been prepared for the sole benefit, use and information of the client named in this report only and the liability of Rockland Safety Services Ltd, its directors, and Employees in respect of the information contained in the report will not extend to any third party.

This report is formulated based on information and experience available at the time of preparation. It is applicable to the above-mentioned project only in accordance with the client's instructions. It is only valid provided no other modifications are made other than those for which a formal opinion has been sought and given by Rockland Safety Services Ltd.

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1. Purpose of Document

Fire Safety Services trading under Rockland Safety Services Ltd have been instructed to develop a Planning Fire Statement (this document) in line with Policy D12A.

1. Identify suitably positioned unobstructed outside space:
 - For fire appliances to be positioned on
 - Appropriate for use as an evacuation assembly point
2. Be designed to incorporate appropriate features which reduce the risk to life and the risk of serious injury in the event of a fire, including appropriate fire alarm systems and passive and active fire safety measures.
3. Be constructed in an appropriate way to minimise the risk of fire spread.
4. Provide suitable and convenient means of escape, and associated evacuation strategy for all building users.
5. Develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in
6. Provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.

To demonstrate the development proposed has met the highest standards of fire safety, proportionate to the development, the following information has been provided and addressed in line with Policy D12 part A.

The details provided within this document are based at the early planning stage, and the fire safety provisions should be revisited at later stages. This should be captured in a full fire safety strategy, which should detail the specific provisions covering B1-B5 of the Building Regulations.

2. Introduction

2.1. Description

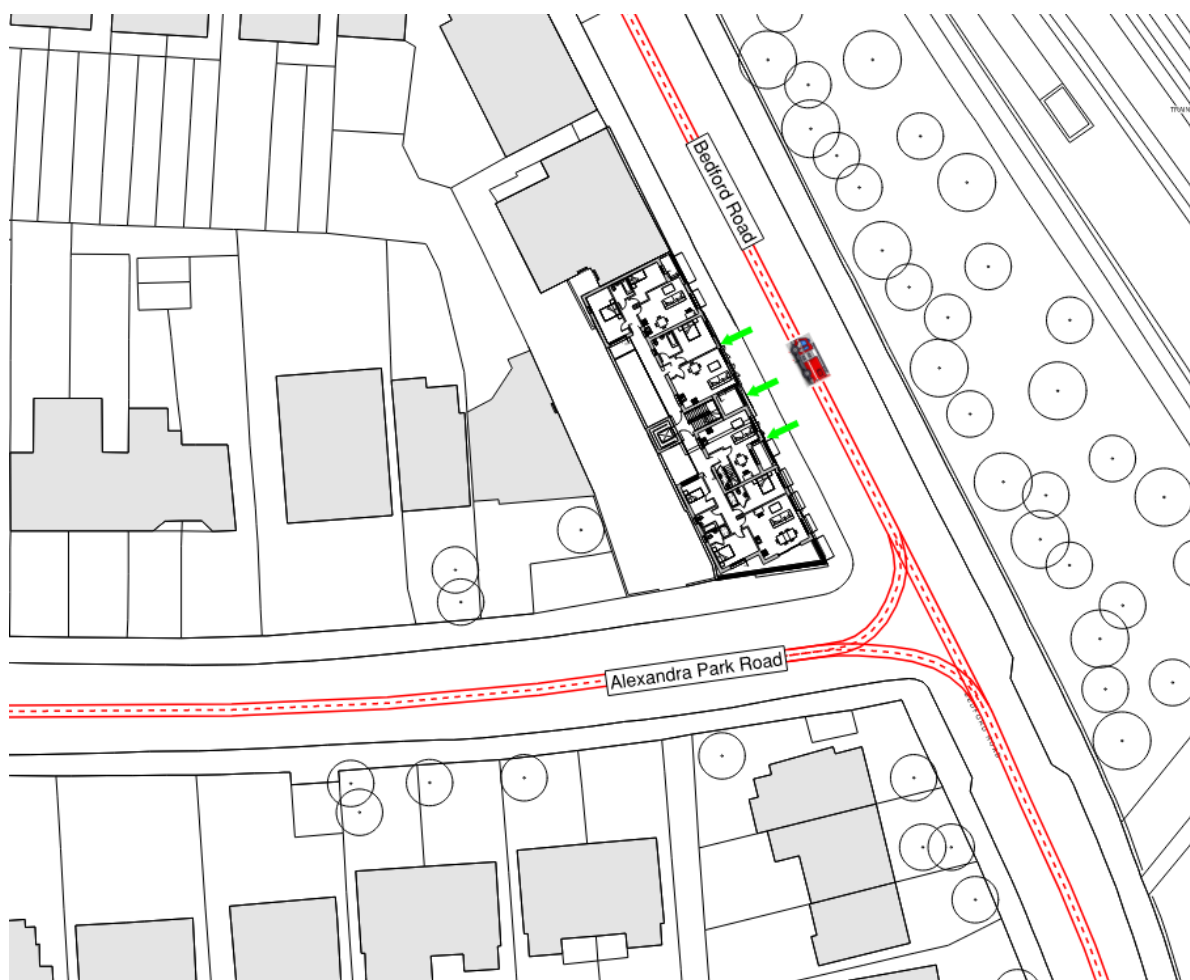
1. The proposed scheme involves a mixed-used development consisting of a new building.
2. The proposed building consists of six storeys (B, G+4), served by one stair core and one lift, with a top occupied floor assumed to be more than 11m but less than 18m above the lowest adjoining ground.
3. The basement includes a plantroom and a services room. The ground floor includes two commercial units and ancillary areas (bin store, bike store). All the above ground floors will include residential flats.
4. The site is flanked by Bedford Road towards the East, Alexandra Park Road towards the South, and other developments towards the North and West.
5. It is proposed to use BS 9991:2015 in support of the balcony approach design. It is noted that ADB has recently been updated in 2019, 2020 and 2022. It is proposed to supplement BS 9991 by incorporating the recent ADB updates in accordance with contemporary industry standards.
6. BS 9999 has been employed in the design of the ancillary and commercial areas at ground and basement floors.
7. Following the guidance of Section 6 in BS 9999, a risk profile has been established for each area within the building. The fire growth rates have been reduced by one unit as automatic fire suppression should be provided throughout the building. The selected risk profiles for each area are presented below:
 - Residential areas - Ci2
 - Bin store, bike store and plantrooms - A2
 - Commercial units - B2
8. Therefore, the governing risk profile for the entire building has been conservatively employed as B2, considering the provision of automatic fire suppression throughout.

3. Policy D12A Provisions

3.1. Unobstructed External Space

Identify suitably positioned unobstructed outside space for fire appliances to be positioned on.

1. Pump appliance access is expected to be provided via Bedford Road, which represents an existing public road. This is an existing public road, expected to meet the requirements of GN 29.
2. Vehicle access to the commercial units and ancillary areas should be immediately in front of the building on Bedford Road. This should also be within 18m and line of sight of the entrance to the staircase and associated dry rising main inlet valve.
3. This results in the pump appliance parking within 45m measured along a route suitable for laying hose from any point in any commercial unit or ancillary area on the basement and ground floors.
4. A dry rising main in accordance with BS 9990 should be provided in the staircase in order for all above ground floor areas in the building to be within 45m along a route suitable for laying hose.



Identify suitably positioned unobstructed outside space appropriate for use as an evacuation assembly point.

1. This is expected to be along Bedford Road and Alexandra Park Road, without obstructing the fire service access route.
2. The exact location of the assembly point should be outlined in the fire risk assessment conducted by the building operator. Management policies and procedures to be developed by the building operator in accordance with their duties in terms of the Regulatory Reform (Fire Safety) Order 2005.
3. In support of London Plan Policy D5, the lift should be designed as an evacuation lift. All ground floor areas are expected to be provided with step-free egress to the outside, via all the existing escape routes.

3.2. Reduce the Risk to Life

The development is designed to incorporate appropriate features which reduce the risk to life and the risk of serious injury in the event of a fire, including appropriate fire alarm systems and passive and active fire safety features.

1. In accordance with BS 9991 and BS 9999, the building should include 60-minute structural fire resistance, considering the top occupied floor (fourth floor) is assumed to be more than 11m, but less than 18m.
2. The proposed building is located on a constrained urban site, in close proximity to site boundaries. All external walls sited within 1m or less from relevant boundaries are to be provided with fire-rated construction achieving 60 minutes fire resistance from both sides throughout. Any glazed areas are to include 60 minutes integrity and insulation glazing, kept fixed shut. For the North and West elevations, the walls should be constructed as party walls, considering the relevant boundary distance is less than 1m.
3. Each residential unit should include a Grade D1 Category LD1 fire detection and alarm system designed, installed and maintained in accordance with BS 5839-6.
4. The common residential parts of the building should be covered by a standalone Category L5 fire detection and alarm system designed, installed and maintained in accordance with BS 5839-1. The communal system should include smoke detection in the communal staircase and ancillary areas.
5. Each commercial unit should include a standalone Category L2 fire detection and alarm system designed, installed and maintained in accordance with BS 5839-1.
6. The fire alarm panel should be located near the main entrance of the residential staircase on the ground floor.
7. The communal residential and commercial fire detection and alarm systems should be interlinked with each other in order to provide a notification signal to the other systems, upon activation of any system in any area.
8. Wall and ceiling linings should achieve the performance in Table 6.1 of ADB.
9. All floors should be constructed as compartment floors achieving 60 minutes fire resistance. Any shaft penetrating compartment floors should be constructed as a

protected shaft achieving 60 minutes fire resistance (i.e., staircase, service risers, lift, etc.).

10. Each flat should be a standalone, independent fire compartment achieving 60 minutes fire resistance and FD30S fire doors.
11. Each protected entrance hall or protected internal staircase within flats should achieve 30 minutes fire resistance and FD30 fire doors.
12. Each ancillary area should be a standalone, independent fire compartment achieving 60 minutes fire resistance and FD30S fire doors.
13. Each commercial unit should be a standalone, independent fire compartment achieving 60 minutes fire resistance and FD60S fire doors.
14. In support of balcony / deck escape from the residential units, the façade of the balcony / deck should include 60 minutes fire resistance and FD30S fire doors up to a minimum of 1.1m above the balcony deck. Windows should not extend below 1.1m above the finished floor level of the balcony / deck. Radiation analysis should also be undertaken where glazed areas from some rooms are at a 90° angle to the balconies, in order to ensure the escape routes are protected.
15. The staircase should include smoke ventilation provided by a 1.0m² AOV.
16. At the basement and ground level, the lift and staircase should be approached only via a protected lobby, enclosed in 60 minutes fire resisting construction and FD30S fire doors. It is proposed to include a 60-minute fire and smoke curtain in the lift aperture at basement level in order to limit the risk of smoke ingress into the lift shaft, compromising the use of the evacuation lift and spreading smoke into the staircase above.
17. A lift and staircase lobby should be provided at the basement and should include 0.4m² permanent ventilation in order to mitigate any residual smoke ingress.
18. Basement smoke ventilation is proposed via natural smoke outlets, achieving not less than 1/40 of the floor area of each compartment. The vents should be sited as high as practicable and be evenly distributed along the perimeter of that compartment onto Bedford Road.
19. Mechanical smoke ventilation in accordance with Section 14.2.4 of BS 9991 is also a possible design solution, if the basement ancillary areas would also be fitted with a BS EN 12845 sprinkler system.
20. As the building includes a floor in excess of 11m above ground, automatic fire suppression should be provided throughout the building.
21. Within residential units, it is proposed to employ a Category 2 residential grade suppression system designed, installed and maintained in accordance with BS 9251, as the top occupied floor (fourth floor) is in excess of 11m, but less than 18m above ground.
22. Within all commercial units and ancillary areas (i.e., plantrooms, bin stores, bike stores) it is proposed to employ a commercial grade suppression system designed, installed and maintained in accordance with BS EN 12845. Considering the onerous water storage and pump requirements, it is expected that a large plantroom should be provided in support of this system.
23. As an alternative to the commercial grade suppression system, the maximum compartment size of the commercial units could be adjusted in accordance with Table 4 of BS 9991, in order to provide only a residential grade suppression system throughout

the building, albeit with enhancements locally within the commercial units and ancillary areas.

24. In support of London Plan Policy D5, the lift should be designed as an evacuation lift.
25. The ancillary areas should not connect directly to the staircase, lift or the discharge route from the staircase. Therefore, significant design adjustment is expected to have the bike store, bin store and basement staircase accessed directly from the outside, without connecting to the residential staircase serving flats.

3.3. Minimise the Risk of Fire Spread

The development is constructed in an appropriate way to minimise the risk of fire spread.

1. In accordance with BS 9991 and BS 9999, the building should include 60-minute structural fire resistance, considering the top occupied floor (fourth floor) is assumed to be less than 18m, but more than 11m.
2. The proposed building is located on a constrained urban site, in close proximity to site boundaries. All external walls sited within 1m or less from relevant boundaries are to be provided with fire-rated construction achieving 60 minutes fire resistance from both sides throughout. Any glazed areas are to include 60 minutes integrity and insulation glazing, kept fixed shut. For the North and West elevations, the walls should be constructed as party walls, considering the relevant boundary distance is less than 1m.
3. A detailed BR 187 assessment should be undertaken for all elevations at the detailed design stage to ensure that the maximum unprotected façade permitted is not exceeded.

3.4. Means of Escape

Provide suitable and convenient means of escape, and associated evacuation strategy for all building users.

1. Each residential unit should include a Grade D1 Category LD1 fire detection and alarm system designed, installed and maintained in accordance with BS 5839-6.
2. The common residential parts of the building should be covered by a standalone Category L5 fire detection and alarm system designed, installed and maintained in accordance with BS 5839-1. The communal system should include smoke detection in the communal staircase, common balconies and ancillary areas.
3. Each commercial unit should include a standalone Category L2 fire detection and alarm system designed, installed and maintained in accordance with BS 5839-1.
4. The fire alarm panel should be located near the main entrance of the residential staircase on the ground floor.
5. The communal residential and commercial fire detection and alarm systems should be interlinked with each other in order to provide a notification signal to the other systems, upon activation of any system in any area.

6. All residential units should employ a 'defend-in-place strategy', whereby only the residential unit of fire origin should evacuate immediately upon activation of the fire detection and alarm system therein.
7. All residential ancillary areas (bike stores, bin stores, plantroom) should employ a simultaneous evacuation strategy, whereby all residential ancillary areas should evacuate immediately upon activation of the fire alarm anywhere in the communal parts of the building.
8. Commercial units should employ a simultaneous evacuation strategy, separately, whereby only the commercial unit of fire origin evacuates immediately upon activation of the fire detection and alarm system therein.
9. The majority of flats should be designed as flats with protected entrance halls, in line with Figure 11 of BS 9991. The protected entrance halls should be limited to travel distances of no more than 9m and should serve all habitable rooms. Cooking appliances are to be sited away from the escape route.
10. The duplex flat should be designed as a maisonette with a protected internal staircase, in line with Figure 3 of BS 9991. Travel distances should be limited to 9m within the full landing of the protected internal staircase. Cooking appliances are to be sited away from the escape route.
11. The building should follow the balcony or deck approach design in accordance with Figure 5.b) of BS 9991.
12. Each common balcony / deck should include an imperforate surface without any voids or lightwells. The ceiling should direct smoke outwards not along the balcony. The balconies / decks should not be more than 2m wide.
13. At least 50% of the vertical section of each common balcony / deck should be permanently opened. The opening should be at least from the top of the balustrade at 1.1m above the balcony / deck to the soffit of the balcony above.
14. Where escape is possible in one direction only along a common balcony / deck, the adjoining building façade should be protected up to 1.1m above the finished floor level of the balcony / deck, including 60 minutes fire resistance and FD30 fire doors. Windows should not extend below 1.1m above the finished floor level of the balcony / deck. Radiation analysis should also be undertaken where glazed areas from some rooms are at a 90° angle to the balconies, in order to ensure the escape routes are protected.
15. The staircase should include smoke ventilation provided by a 1.0m² AOV.
16. The ancillary areas should not connect directly to the staircase, lift or the discharge route from the staircase. Therefore, significant design adjustment is expected to have the bike store, bin store and basement staircase accessed directly from the outside, without connecting to the residential staircase serving flats.
17. At the basement and ground level, the lift and staircase should be approached only via a protected lobby, enclosed in 60 minutes fire resisting construction and FD30S fire doors. It is proposed to include a 60-minute fire and smoke curtain in the lift aperture at basement level in order to limit the risk of smoke ingress into the lift shaft, compromising the use of the evacuation lift and spreading smoke into the staircase above.
18. A lift and staircase lobby should be provided on the basement and should include 0.4m² permanent ventilation in order to mitigate any residual smoke ingress.

19. Basement smoke ventilation is proposed via natural smoke outlets, achieving not less than 1/40 of the floor area of each compartment. The vents should be sited as high as practicable and be evenly distributed along the perimeter of that compartment onto Bedford Road.
20. Mechanical smoke ventilation in accordance with Section 14.2.4 of BS 9991 is also a possible design solution, if the basement ancillary areas would also be fitted with a BS EN 12845 sprinkler system.
21. The residential bike store and refuse store should be accessed directly from the outside.
22. All service risers should be separated from the staircase and lift (including any discharge route from the staircase) by a permanently ventilated balcony.
23. At the ground floor, the staircase should discharge directly to the outside.
24. Only fire resisting letter boxes achieving 30 minutes and constructed of materials achieving Class A2-s3, d2 or better are permitted in the main entrance lobby at ground floor level. Furniture or combustibles are not permitted.
25. Travel distances are not restricted within common balcony / deck approach designs, but the hose laying distances should still be met.
26. Travel within most ancillary areas (plantroom, bike stores, bin stores) should be limited to 18m in a single direction of escape.
27. Travel within commercial areas (i.e., where members of the public are expected) such as the commercial units should be limited to 20m in a single direction of escape.
28. Escape doors should not be fitted with a lock, latch or bolt fastening. These should always be easily openable from the inside by occupants making their escape. Any security devices should release the door upon activation of the fire alarm.
29. The minimum clear exit width of any door should be 850mm in support of independent disabled evacuation.
30. The maximum occupancy numbers for each commercial unit should be limited to 60 people, considering each commercial unit includes a single direction of escape.
31. Exit doors opening against the direction of escape are limited to an occupancy of 60 people. Escape doors serving more than 60 people should open in the direction of escape.

3.5. Strategy for Evacuation

Develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence.

1. All residential units should employ a 'defend-in-place strategy', whereby only the residential unit of fire origin should evacuate immediately upon activation of the fire detection and alarm system therein.
2. All residential ancillary areas (bike stores, bin stores, plantroom) should employ a simultaneous evacuation strategy, whereby all residential ancillary areas should evacuate immediately upon activation of the fire alarm anywhere in the communal parts of the building.

3. Commercial units should employ a simultaneous evacuation strategy, separately, whereby only the commercial unit of fire origin evacuates immediately upon activation of the fire detection and alarm system therein.
4. A fire Evacuation Plan to be developed as part of the Regulatory Reform (Fire Safety) Order 2005 detailing escape routes and muster points.
5. London Plan 2021 contains a number of policies which indicate fire safety to be considered. The development should consider the guidance notes from LFB in design development including vehicle access requirements.
6. In support of London Plan Policy D5, the lift should be designed as an evacuation lift. All ground floor areas are expected to be provided with step-free egress to the outside, via all the existing escape routes.

3.6. Equipment for Firefighting

Provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.

1. Pump appliance access is expected to be provided via Bedford Road, which represents an existing public road. This is an existing public road, expected to meet the requirements of GN 29.
2. Vehicle access to the commercial units and ancillary areas should be immediately in front of the building on Bedford Road. This should also be within 18m and line of sight of the entrance to the staircase and associated dry rising main inlet valve.
3. This results in the pump appliance parking within 45m measured along a route suitable for laying hose from any point in any commercial unit or ancillary area on the basement and ground floors.
4. A dry rising main in accordance with BS 9990 should be provided in the staircase in order for all above ground floor areas in the building to be within 45m along a route suitable for laying hose.
5. A site survey and/or consultation with the London Fire Brigade should be carried out to confirm whether an existing operational public hydrant is located within 90m of the entrance to the staircase as well as the dry rising main inlet valve. Otherwise, a new private hydrant should be provided in accordance with BS 9990. This is expected to be achieved, considering the urban location.
6. The building should be provided with special wayfinding signage in accordance with Sections 15.13 to 15.16 of ADB Volume 1 in support of firefighting operations, as the block exceeds 11m in height.
7. The building should be provided with a secure information box in accordance with Sections 15.18 to 15.21 of ADB Volume 1 in support of firefighting operations, as the block exceeds 11m in height.
8. PV panels could represent a risk for firefighters. Therefore, a suitable sign should be included at ground floor level in each staircase, adjacent to the fire alarm panel to inform firefighters of this risk. Additionally, an isolation switch for the DC side of the PV panels

should be provided adjacent to the main fire alarm panels, in support of firefighting operations.

4. Summary

The PFS is outlined as required by the New London Plan Policy D12A, which requires development proposals to achieve the highest standards of fire safety, embedding these at the earliest possible stage.

The PFS has evidenced the provisions made for the safety of occupants as well as the provision of suitable access and equipment for firefighting in light of London Plan fire safety policy requirements and the justification for these measures.

This PFS meets the requirements of the London Plan Policy D12A. This should be ensured with the development of the RIBA Stage 3 Fire Strategy, where each part of the policy is addressed in more detail within Part B Functional Requirements. The Fire Strategy should be developed further during the detailed design and other relevant guidance documents should be agreed with the approving authority ahead of submission to the fire service.