

Abbey Road, London borough of Camden, London

## 1 BACKGROUND AND DOCUMENT PURPOSE

OFR Consultants have been appointed by Wates Residential, to provide fire engineering input and to provide a Fire Statement in support of the full planning permission for Abbey Road in the borough of Camden, London. Demolition and redevelopment of Emminster and Hinstock blocks including Belsize Priory Health Centre, Abbey Community Centre, public house and commercial units to provide new residential accommodation (Use Class C3) and ground floor commercial space (Use Class E/Sui Generis) to be used as flexible commercial units, across three buildings ranging from 4 to 11 storeys, along with car and bicycle parking, landscaping and all necessary ancillary and enabling works. The site is located on a triangular piece of land formed by the intersection of Abbey Road, Belsize Road and residential houses along Priory Terrace. The development includes 3 mid-rise residential blocks and a 1-storey block including a substation, a LV main switch room and a cycle store. Block A is accessible from Abbey Road whilst Block B and C are accessible from Belsize Road.

Abbey Road is located in the London Borough of Camden, therefore the development is subject to the London Plan 2021 [1]; that is the statutory Spatial Development Strategy for Greater London prepared by the Mayor of London ("the Mayor") in accordance with the Greater London Authority Act 1999 (as amended) ("the GLA Act") and associated regulations.

The New London Plan was published in March 2021 and is now readily available. The Plan is part of the statutory development for London, meaning that the policies in the Plan should inform decisions on planning applications across London. In support of the New London Plan, three draft guidance documents outlining the details required to adhere to Policies D5 and D12 have been released under the reference, 'Draft Fire Safety Guidance (pre-consultation, for information)', these can be referred to for specific guidance on these points as listed below:

- London Plan Guidance – Fire Safety Policy D12(A) [2]
- Greater London Authority, London Plan Guidance Sheet, Policy D12(B) [3]
- Greater London Authority, London Plan Guidance Sheet, Policy D5(B5) [4]

The aim of this document is therefore to demonstrate that the relevant fire safety aspects of the design to date and the approach / methodology that OFR Consultants (OFR) as the fire consultants are adopting with regards to the Building Regulations are appropriate.

As the design develops through the remaining design stages there will be engagement with the appointed Building Control Officer, who will have the opportunity to comment, and their feedback be incorporated into the design. This will then be followed by consultation with the London Fire Brigade and their comments and feedback also sought.

This document does not constitute the detailed fire strategy developed under the Building Regulations, which is being developed separately within the design process. However, this fire statement evidences the provisions made for the safety of occupants as well as the provision of suitable access and provisions for fire-fighting in light of the London Plan's fire safety policy requirements and the rationale for these measures.

This fire statement covers the development of Abbey Road. The exhaustiveness and definitiveness of the statement is commensurate with the nature of the planning application submitted.

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## 2 COMPETENCY AND QUALITY ASSURANCE RECORD

The London Plan Policy D12 notes that the fire statement should be produced by someone who is third-party independent and suitably qualified. This should be a qualified engineer with relevant experience in fire safety, such as a chartered engineer registered with the Engineering Council by the Institution of Fire Engineers.

In line with Policy D12 of the London Plan, a suitably qualified Chartered Engineer has been involved in the production of this document. Where the relevant below approver is a Chartered Engineer with the Engineering Council UK and have the post-nominals CEng (Chartered Engineer) after their name. All who have been involved are also registered with the Institute of Fire Engineers with the post nominals AIFireE after their names.

Author	Reviewed By	Approved By
Christina Tam BEng (Hons) AIFireE	Steven Ferreira BEng AIFireE	Jack Wilshaw BSc (Hons) MSt(Cantab) MCIBSE MIFireE CEng

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### 3 DESCRIPTION OF THE BUILDING

Abbey Road consists of 3 residential blocks, which is located on a triangular piece of land formed by the intersection of Abbey Road, Belsize Road and residential houses along Priory Terrace, as shown in Figure 1. No basement has been proposed to this development. The site is approximately 10-minute walk away from South Hampstead overground station. Block A is accessible from Abbey Road whilst Block B and C are accessible from Belsize Road.

The 3 residential blocks are split into Block A, Block B and Block C. In addition, there is a 1-storey block adjacent to Block C, which includes a substation, a LV main switch room and a cycle store. The height and ground floor accommodation of each block is listed in Table 1. Residential flats can be found on all the floors and ancillary accommodation can be found on ground floor in all the blocks, whilst no communal space has been proposed on the upper floors. All of the blocks are each served by a single stair functioning as both the evacuation stair and firefighters' access stair.

Fire-fighting related provisions on a typical floor are shown on Figure 2.

*Table 1: Block Heights and Ground Floor Spaces*

Block	Stories	Topmost Occupied Floor Height [m]	Ground Floor Spaces
A	9 (G+8)	26.4	2 no. cycle stores; 1 no. bulky & waste store; 1 no. bin store; 1 no. cleaner's store; 2 no. residential flats; 1 no. commercial cycle store; 1 no. commercial unit including a commercial store; and The fire-fighting lobby to residential accommodation.
B	11 (G+10)	33.3	1 no. cycle store; 1 no. bin store and bulky & waste store; 2 no. commercial units with an individual commercial store; 1 no. cleaner's store; 2 no. residential flats; and The fire-fighting lobby to the residential accommodation.
C	6 (G+5)	19.8	1 no. cycle store; 4 no. residential flats; 1 no. bin store and bulky & waste store; 1 no. cleaner's store; 1 no. backup generator & essential switch room; and The fire-fighting lobby to the residential accommodation.

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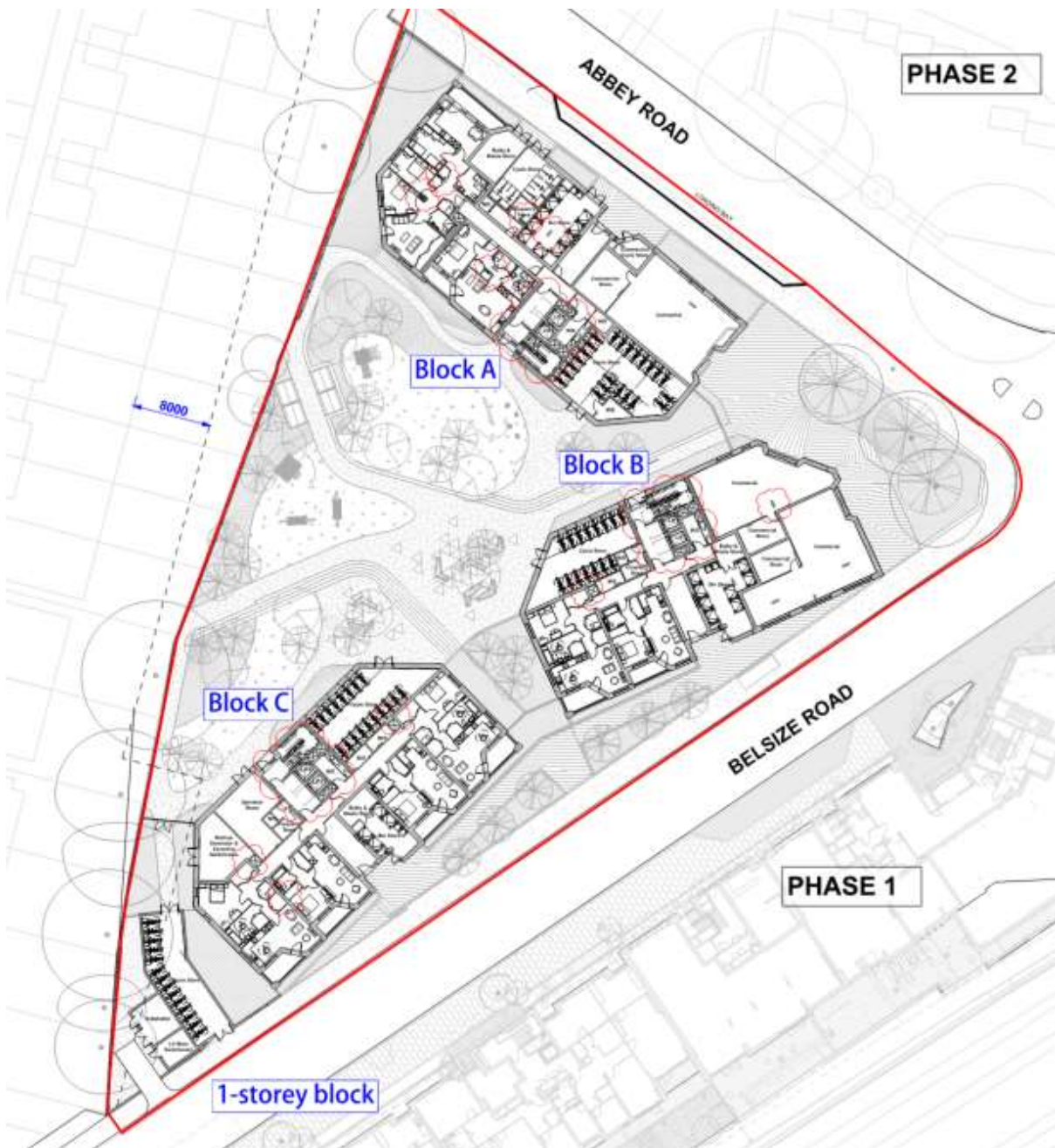


Figure 1: Site Location

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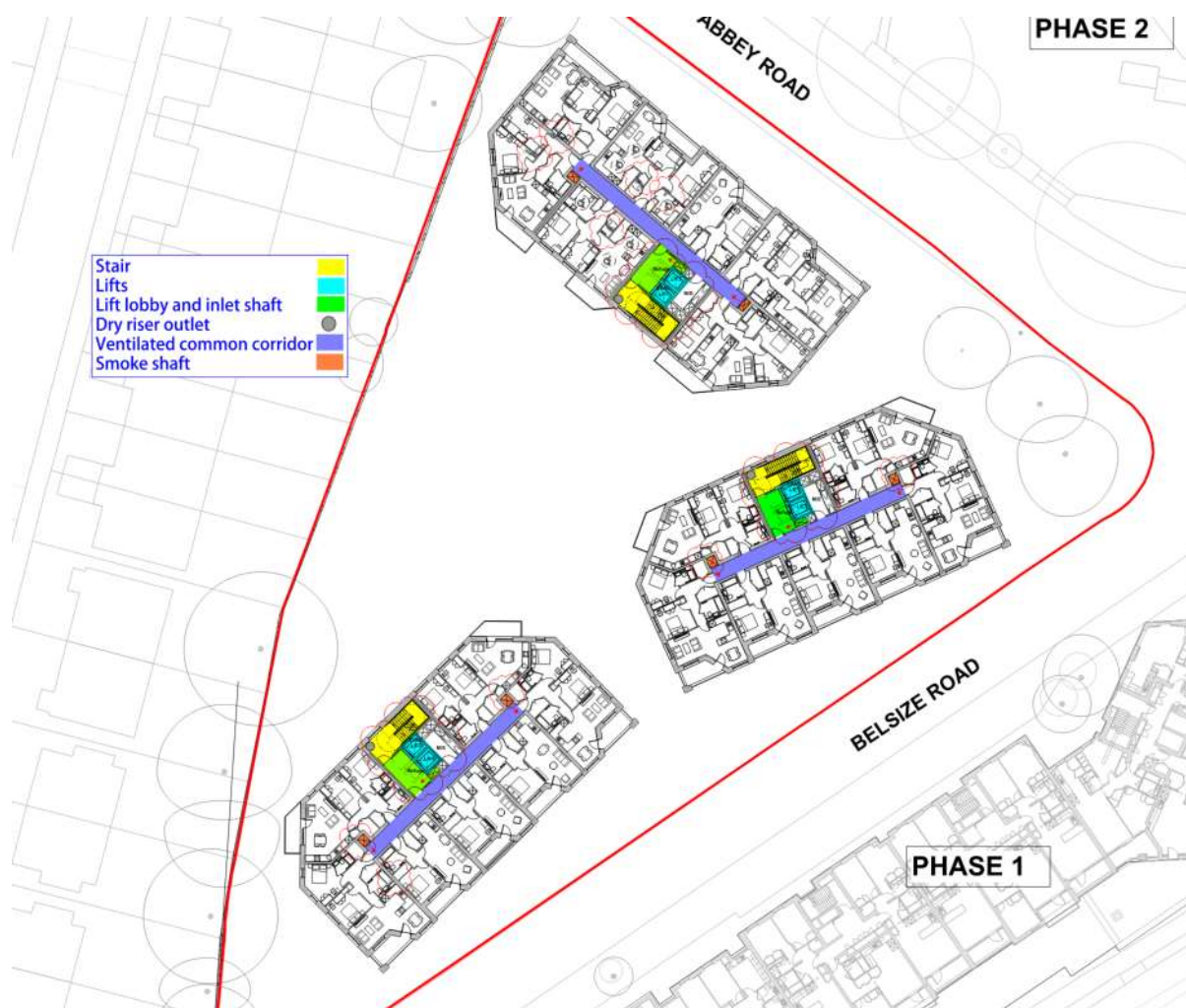


Figure 2: Typical upper floor showing all the fire-fighting related provisions



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## 4 DESIGN APPROACH AND METHODOLOGY

The design and construction of the building will seek to satisfy the functional requirements of Part B of Schedule 1 to the Building Regulations 2010 (as amended, 2020) [5], the Construction Design and Management Regulations 2015 (CDM) [6] and the operational fire safety requirements of the Regulatory Reform (Fire Safety) Order 2005 (RRO) [7].

### 4.1 Relevant Stakeholders

Relevant stakeholders in the building and preparation of fire safety information are:

- The Client – Wates;
- The appointed Building Control Body – TBC;
- London Fire Brigade (LFB);
- The Architect – Pollard Thomas Edwards;
- Planning Consultant – CBRE;
- The Building's Insurers – TBC.

### 4.2 Basis of Design

The fire strategy is based upon the guidance given in British Standard 9991:2015 – 'Fire safety in the design, management and use of residential buildings' [8], as well as the standards referenced therein. Commercial units that are located on Ground Floor in Block A and Block B should be designed in accordance with BS 9999:2017. Furthermore, fire engineering principles have been undertaken to support alternative solutions where strict adherence to BS 9991:2015 would conflict with the wider aspirations for the scheme. Where not specifically stated, fire safety provisions will be specified and installed according to the current edition of relevant published guidance.

All fire precautions are determined on the basis of there being one seat of fire.

Although the main purpose of the fire strategy for Abbey Road has been developed to address life safety, it should be acknowledged that the features that are included for life safety, as required by the Building Regulations, will contribute to some extent to property protection. Since all buildings are over 11m from ground floor to topmost occupied floor, sprinklers will be provided throughout in accordance with BS 9251:2021.

As part of the Regulatory Approvals process, the fire strategy and detailed fire safety information and specifications will be the subject of milestone reviews and regular meetings which will be held with representatives from the appointed Building Control Body. As the regulatory approver, they will in turn lead the consultation process with London Fire Brigade. Advice and feedback from these authorities will therefore inform the building design and the fire strategy being developed in support of the Building Regulations application.

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## 5 THE BUILDING'S CONSTRUCTION

All the buildings fall under the category of a 'relevant building' as defined in Regulation 7(4), and therefore fall within the scope of Regulation 7(2) (of the Building Regulations) i.e. a building with a storey (not including roof-top plant areas or any storey consisting exclusively of plant rooms) at least 18m above ground level and which (i) contains one or more dwellings; (ii) contains an institution; or (iii) contains a room for residential purposes (excluding any room in a hostel, hotel, or boarding house). It is mandatory that the external walls be constructed in accordance with Regulations 7(2), which states that only Class A1 or A2-s1, d0 materials will be permitted to form part of the external wall (or specified attachment), subject to a number of exceptions as noted in Regulation 7(3). At this stage OFR are not aware of anything that could undermine the construction methodology.

The external wall details are to be progressed throughout the remaining design stages, however in any case will adhere to the recommendations within BS 9991:2015 and the requirements of Regulation 7 above.

The blocks will have areas of green roof which will be designed in accordance with the Department for Communities and Local Government guidance document on the Fire Performance of Green Roofs and Walls [9] and The GRO Green Roof Code [10].

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## 6 MEANS OF ESCAPE

A high-level summary of means of escape provisions at the current stage of the design is presented below. As the project progresses, Section 6 will be updated and reviewed to reflect the latest design and in cognisance with the Regulatory Approvals process.

### 6.1 Evacuation Strategy

All residential accommodation units are to have a 'stay put' evacuation strategy. This is characterised as follows:

- Occupants in the apartment of fire origin are alerted and this should evacuate.
- Occupants outside the apartment of fire origin should be safe to stay within their apartments.
- Means of escape are, however, designed such that occupants of all flats are able to evacuate safely should they become aware of a fire.
- Further evacuation of apartments will not take place automatically and relies on the Fire Service, management or the independent action of occupants.

Residential apartments and ancillary areas which are not affected by the fire should remain unalerted unless the Fire Service chooses to initiate further evacuation.

Ancillary space is to have a simultaneous evacuation strategy, where all occupants leave that area upon being alerted of a fire in that area. Activation of the fire alarm in a flat will not cause the evacuation of the ancillary space.

Each of the commercial units on the ground floor will form a separate evacuation zone such that each unit will evacuate only when the fire detection and alarm system is activated in that unit. The fire detection and alarm systems within these units will be separate to the fire detection and alarm system in the main part of the building to support this evacuation strategy. However, a facility will be provided in order to facilitate the interface between the detection and alarm systems so that an activation is known to the management team if there is one for the development.

### 6.2 Means of Escape Provisions

The residential part will be designed with appropriate escape provisions as per the recommendations of BS 9991:2015 and the commercial part will be designed as per BS 9999:2017.

#### 6.2.1 Internal Planning of Flats

All flats will be provided with an entrance hall, however these entrance halls do not need to be fire protected. In recognition of the LD1 detection coverage and sprinkler provision throughout the building, the total travel distance from any point of the flat (including balconies) to the entrance doors of the flat will be limited to 20 m as per BS 9991:2015.

#### 6.2.2 Residential Common Areas

Travel distances within the residential common corridors will be limited to 15 m in a single direction of escape in accordance with BS 9991:2015 where sprinkler protection to flats is provided (measured from the furthest flat entrance door to the nearest final exit or storey exit).

All the residential common corridors are within the 15 m travel distance limit. However, Block B has a topmost storey height greater than 30m.



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The travel distances in the common corridors of Block A and Block C are within the 15 m travel distance limit and both have a topmost storey height less than 30m. Therefore, either a natural smoke extract system or a mechanical smoke extract system can be proposed to the common corridors of Block A and Block C. The smoke ventilation strategy for the residential corridors will be further described in Section 7.3.

### 6.2.3 Ancillary Accommodation and Commercial space

All ancillary areas at ground floor will exit directly to outside, or via protected lobbies to the main entrances. The design will be developed cognisant of the travel distance limitations as set out in Table 14 of BS 9991:2015 and summarised for the relevant plant/ancillary areas in Table 2.

Table 2: Travel Distances for Plant Rooms and Ancillary Spaces

Area	Travel Distance Limits	
	Escape in One Direction [m]	Escape in More than One Direction [m]
Bin Store/ Bulky waste store	18 (12)	45 (30)
Cleaner's store		
Cycle Store		
Plant	9 (6)	18 (12)
Sprinkler room		
Backup generator & essential switch room		
Substation		
LV main switch room		
Commercial space/ store	13 (20)	33 (50)

Note:

Distances in between brackets are actual distances (i.e., where internal layouts are known).

All commercial units will be provided with sufficient exits and escape routes to achieve the minimum required exit widths and travel distances in accordance with BS 9999:2017. The travel distance limits can be increased by 15% due to the provision of an automatic fire detection and alarm system, proposed to be an L1 standard fire alarm and detection system in accordance with BS 5839-1. The above enhancement can be applied to the scheme as the design develops and internal layout is shown. This is deemed an improvement on the minimum recommended manual fire alarm system, 'M', under BS 9999:2017 for the associated risk profile – B2. This extension allowance is permitted under BS 9999:2017 in recognition of the enhancement in comparison to the baseline provisions.

Currently, the occupancy of each individual commercial unit will be limited to 60 people due to the provision of a single exit. Subject to tenant's preference, the occupancy can be increased beyond 60 if 2 or more exits are provided. All doors should discharge to outside directly without a change in level and are to be at least 850mm wide to accommodate unassisted wheelchair access.

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### 6.2.4 Vertical Egress

Each of the above ground level flats is provided with access to a single fire-fighting stair leading to outside directly without a change in level on ground floor via fire-fighting lobbies while the flats on ground floor are provided with access to the fire-fighting lobbies leading to outside. Ancillary accommodation, service risers etc. will not open into the final exit routes of the fire-fighting stairs.

### 6.2.5 Provisions for Mobility Impaired Persons (MIPs)

To address Policy D5 'Inclusive Design' of the London Plan, an evacuation lift will be provided in each of the Blocks. These evacuation lifts will be provided with a primary and secondary power supply. The evacuation lifts will be accessed from the lift lobby on upper levels which is accessed from the common corridor, providing a disabled refuge space which will be suitably protected and the standard of protection is to be validated by CFD. Residents may also choose to stay in the stair cores should this be necessary. However, based on the 'stay put' strategy being adopted, those that have mobility impairment can choose to self-evacuate from a non-fire affected apartment out of choice, or to use these lifts. In such a case, these occupants also have the alternative choice to 'stay put'.

## 6.3 Risk Profile

Commercial units are located on Ground Floor in Block A and Block B, and they should be designed in accordance with BS 9999:2017, setting out fire safety measures as a function of risk profile. The risk profile is formed of two components: occupant characteristics and fire growth rate. Risk profiles are allocated to the commercial units according to the potential nature of occupants and hazards to the space. The proposed risk profile for the commercial units, which is noted in .

The design includes for an automatic sprinkler system, which provides an efficient means of fire control within a building compartment. Such provision restricts fire growth, prevents fire spread, limits heat and smoke generation and can extinguish the fire. Therefore, as allowed for under BS 9999:2017, the risk profiles have been adjusted to account for the provision of an automatic fire suppression system.

Table 3: Building Risk Profiles

Area(s)	Occupant Characteristics	Fire Growth Rate	Risk Profile
Commercial Units	B – awake & unfamiliar	2 – medium	B2

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## 7 PASSIVE AND ACTIVE FIRE SAFETY SYSTEMS

Within the building, passive and active fire safety systems will be provided to support and enable the life safety objectives required by the Building Regulations.

### 7.1 Means of Detection and Warning

All flats will be provided with an LD1 grade D1 level of fire detection and alarm, designed and installed in accordance with BS 5839-6:2019 [11]. The fire detection and alarm system will be installed throughout the apartments but not fire sterile rooms like toilets and bathrooms etc.

The common areas of the buildings will be provided with a L5 system in accordance with BS 5839-1:2017 [12]. The L5 system will perform the function of activating the proposed ventilation systems for the building, which are further elaborated in Section 7.3.

The highest level of automatic fire detection and alarm system, Category L1, is to be provided to the ancillary space and the retail units, in accordance with BS 5839-1:2017. The fire detection and alarm system of the retail units will be interfaced to provide notification to the management of one space if a fire breaks in the other space.

### 7.2 Automatic Fire Suppression System

As the buildings exceed 11 m in height, sprinkler protection is required throughout. The buildings will be provided with a sprinkler system in accordance with BS 9251:2021 [13]. Sprinklers will aid in establishing control of the fire by limiting its growth and spread and in the case of small fire it could lead to extinction. This should allow sufficient time for the fire-fighters to arrive and extinguish the fire.

All three blocks will be protected by the same sprinkler system. The sprinkler room in Block C will provide the water supply for this system.

### 7.3 Mechanical Smoke Ventilation Systems

#### 7.3.1 Protection to core

A lift lobby has been introduced in each building between the common corridor and the escape stair. the lift lobby will be adequately sized to accommodate a waiting area for MIP waiting for the evacuation lift. This lobby will be adequately protected from potential smoke ingress and the method by which will be coordinated with the design team as the project moves through the design stages.

#### 7.3.2 Block B

##### 7.3.2.1 Common Corridors

Although travel distances in the common corridors of Block B are within 15m limit, the topmost storey height is over 30m and hence a mechanical smoke extract system will be provided within the common corridors in accordance BS 9991. To aid the movement of smoke out of the common corridor and to limit the potential for smoke movement into the lift lobby, it is proposed that an additional inlet air shaft is provided. This creates an air flow path from lift lobby to the mechanical extract system when the lift lobby door opens.

At the floors between ground floor and sixth floor of Block B, the system will be a push-pull system with reversible fans and will consist of two shafts, at opposing ends of the corridors. This system is intended to support means of escape by returning the corridor to tenable conditions with a reasonable timeframe following smoke contamination during the initial escape of occupants. The system is also

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intended to support firefighting by maintaining tenable conditions within the stair during fire and rescue service operations.

The mechanical smoke extract shafts at the end of the common corridors will be utilised on all the floors. Since there are 2 flats on ground floor and the furthest flat from the fire-fighting shaft has direct external access, therefore the provision of make-up air for the common corridor on ground floor can be justified by holding open the corridor doors. However, the design is being coordinated and the final solution for smoke vent will be coordinated as the design is updated.

The performance of the mechanical ventilation system will be demonstrated through Computational Fluid Dynamics (CFD) analysis at a later stage in the design.

### 7.3.2.2 Cleaner's Store Lobby

The cleaner's store in Block B communicates with the common corridors on the ground floor. Therefore, a protected lobby will be provided in each block with a 0.4 m<sup>2</sup> permanent natural or mechanical smoke ventilation system.

### 7.3.3 Block A and C

#### 7.3.3.1 Common Corridors

The common corridors within Block A and Block C will be provided with mechanical ventilation even though travel distances are within 15m in the common corridors and its topmost storey height is less than 30m. The design will be subject to the verification by CFD models at a later stage when the project moves on. Both systems will be activated upon the smoke detection within the common corridor. To aid the movement of smoke out of the common corridor and to limit the potential for smoke movement into the lift lobby, it is proposed that an additional inlet air shaft is provided. This creates an air flow path from lift lobby to the mechanical extract system when the lift lobby door opens.

At ground floor of Block A and Block C, the mechanical smoke extract shaft at the end of the common corridor will be utilised as per the upper levels. Since there are 2 flats on ground floor and the furthest flat from the fire-fighting shaft has direct external access, therefore the provision of make-up air for the residential corridor can be justified by holding open the corridor doors.

The performance of the mechanical ventilation system will be demonstrated through Computational Fluid Dynamics (CFD) analysis at a later stage in the design.

#### 7.3.3.2 Cleaner's Store Lobby

The cleaner's store in Block A and Block C communicate with the common corridor on the ground floor. Therefore, a protected lobby will be provided with 0.4 m<sup>2</sup> permanent natural ventilation or mechanical smoke ventilation system.

## 7.4 Structural Fire Resistance

As the topmost storey height of Block A and C are to be over 18m but less than 30m, all elements of structure should achieve a minimum period of fire resistance of **90 minutes**.

As the topmost storey height of Block B is over 30m, all elements of structure should achieve a minimum period of fire resistance of **120 minutes**.

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## 7.5 Compartmentation

The spread of fire within a building can be restricted by subdividing the building into compartments, separated from one another by walls and / or floors of fire-resisting construction. Compartmentation, horizontal or vertical, can also be used as part of an escape strategy to create areas of relative safety.

Within the development, internal fire spread will be restricted by compartmentation, the strategy for which will be in accordance with BS 9991:2015, where R – Loadbearing Capacity, E – Integrity and I – Insulation, and can be summarised in a non-exhaustive list within Table 4.

*Table 4: Compartmentation and Fire Resistance Recommendations*

Area of the Building	Required Period of Fire Resistance (REI) [min]
Compartment floors	Block A and C: 90 Block B: 120
Compartment walls between flats	60
Compartment walls between commercial units/ and rest of the building	Block A and C: 90 Block B: 120
Residential common corridors	60
Fire-fighting shafts	120
Cycle stores	60
Plant rooms	60
Sprinkler room	120
Backup generator & essential switch room	120
Bin stores/ Bulky & waste stores	60
Cleaner's stores	30
Lift shafts and service risers	Block A and C: 90 Block C: 120
Substation	240

Across the building, fire stopping is to be suitable for the locations at which it is provided, including being accompanied by appropriate test evidence, with all installers to be third-party accredited.

The maintenance of all the associated fire safety features within the building are to be in line with the relevant sections of BS 9991:2015, the manufacturer's recommendations, and other requirements of the Building Regulations.

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### 7.6 External Fire Spread – Space Separation

The risk of external fire spread must be assessed and mitigated to ensure that fire spread from the development to adjacent premises is adequately restricted. This can be done by following the methods in BRE Report BR 187 [14] to determine the required minimum boundary distance without the need to provide fire resisting elevations or to calculate the required areas of the facades that need fire protection.

The relevant boundaries (i.e. the boundaries used when assessing the potential for external fire spread) for Block A are as follows:

- North Elevation – the mid-point of Abbey Road (boundary distance of 11.0m);
- East Elevation – the mid-point of Abbey Road (boundary distance of 16.5m);
- South Elevation – the façade of Block B (boundary distance of 6.8m);
- West Elevation – the site boundary (boundary distance of 3.0m).

The relevant boundaries (i.e. the boundaries used when assessing the potential for external fire spread) for Block B are as follows:

- North Elevation – the facade of Block A (boundary distance of 6.8m);
- East Elevation – the mid-point of Belsize Road (boundary distance of 11.9m);
- South Elevation – the mid-point of Belsize Road (boundary distance of 8.9m);
- West Elevation – the façade of Block C (boundary distance of 5.6m).

The relevant boundaries (i.e. the boundaries used when assessing the potential for external fire spread) for Block C are as follows:

- North Elevation – the site boundary (boundary distance of 6.6m);
- East Elevation – the façade of Block B (boundary distance of 5.6m);
- South Elevation – the mid-point of Belsize Road (boundary distance of 8.5m);
- West Elevation – the façade of the adjacent cycle store (boundary distance of 1.1m).

A preliminary external fire spread assessment has determined that a fire in the cycle store could spread to Block C due to the proximity. Therefore, the external wall of the cycle store should achieve 60-minute fire resistance in terms of integrity and 15-minute in terms of insulation (from the inside). The bike store is considered as unoccupied and hence the façade of Block C does not require to be fire resisting.

### 7.7 Emergency Power Supplies

Emergency power supplies are to be provided for all active fire safety systems, including the following:

- Automatic fire detection and alarm system;
- Sprinkler pumps;
- Emergency lighting and signage;
- Fire-fighting lifts;
- Evacuation lifts; and
- Smoke ventilation systems.



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Power supplies will be provided via two separate in-takes into the building from the same external substation or via a single intake and a standby generator (as per BS 8519:2020 [15]). Battery back-up will also be an option that can be provided where considered suitable.

### 7.8 Maintenance

All fire safety systems need to be inspected and maintained based on maintenance recommendations in BS 9991:2015 and the relevant system-specific standards, which is to be covered by the management plan for the building.

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## 8 ACCESS AND FACILITIES FOR FIRE-FIGHTING

### 8.1 Vehicle Access

Vehicle access is available to Block A via Abbey Road while access to Block B and Block C is available via Belsize Road as shown in Figure 3. Hose laying distances from the fire tender parking positions will be within 18 m to all dry riser inlets as indicated in Figure 4.

As per BS 9991:2015, the inlets for the dry fire mains should be sited such that they are clearly visible from, and within 18m of, the fire service vehicle parking positions. This is achieved for all blocks, as shown in Figure 4.

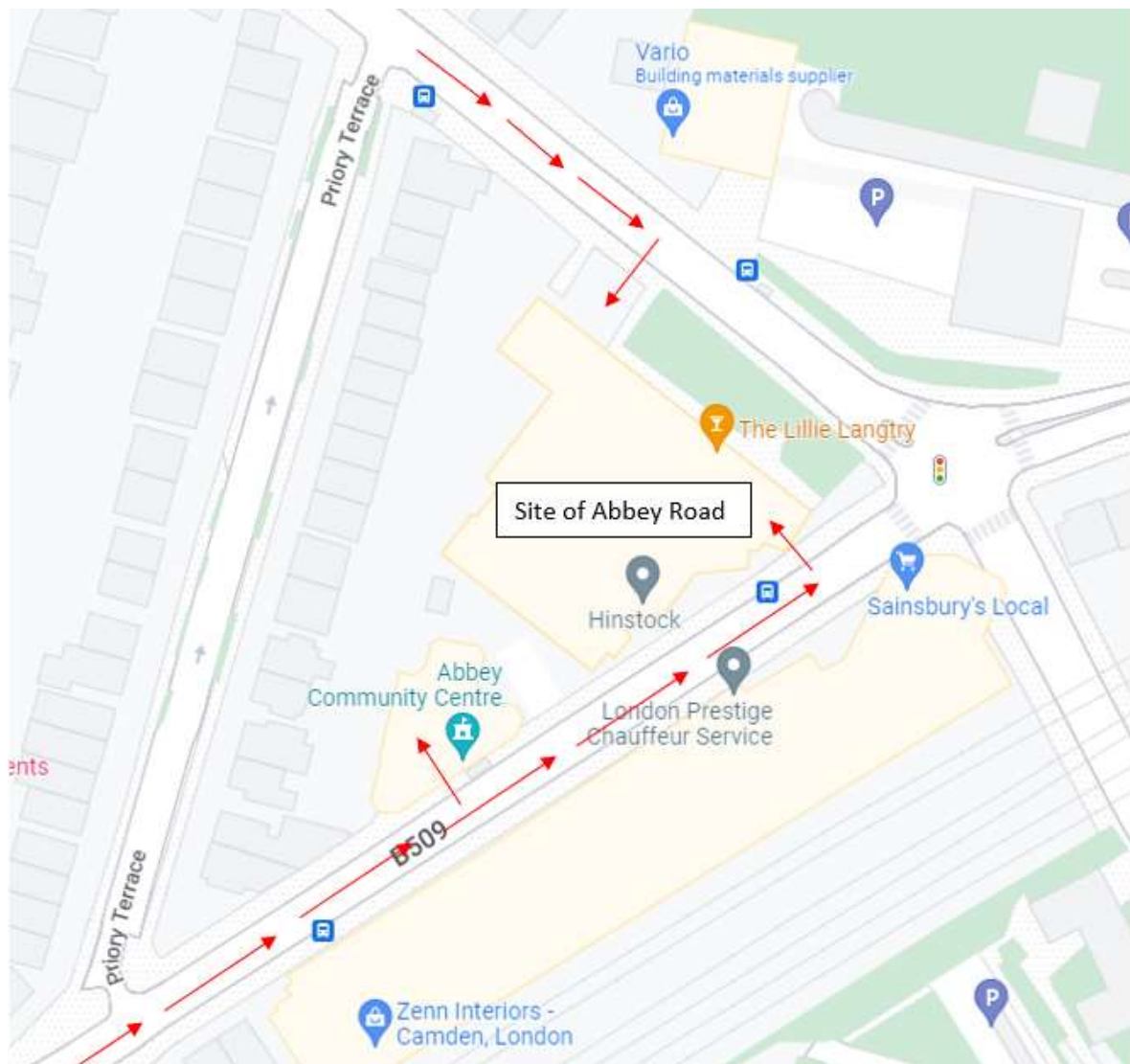


Figure 3: Map showing the fire service access to the site of Abbey Road (reference from Google Map)

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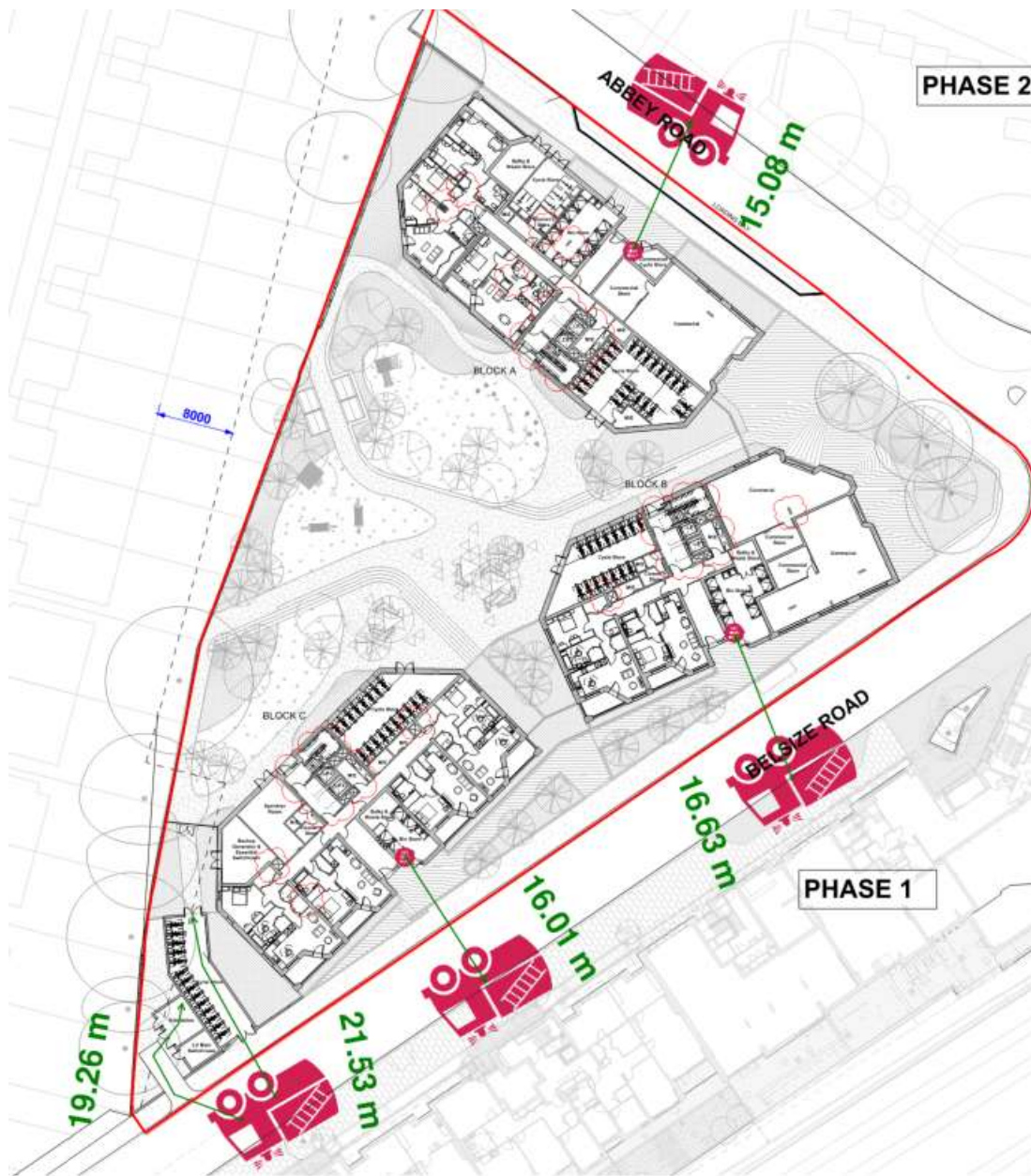


Figure 4: Fire Service Vehicle Access

The 1-storey block and the ground floor spaces, including the commercial units, will be accessed by the Fire Service directly from external. Therefore, hose coverage will be achieved to all parts of these areas within 45 m or there will be at least 15% perimeter access from a suitable parking position for a fire pump appliance as per BS 9999:2017.

### 8.2 Fire-fighting Provisions

A dry rising fire main, designed and installed to BS 9990:2015 [16], will be provided within the full landing of the each of the fire-fighting stairs and not prejudiced by the stair door openings, in addition this will be accessible at every floor in each building. This will bring every point in each flat within 60m of the dry riser outlet on each floor, as recommended in BS 9991:2015 for sprinklered buildings.

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Fire-fighting shaft is a protected enclosure provided for attending firefighters containing a fire-fighting stair and a fire-fighting lift, which provides a safe area for them to undertake firefighting operations. As all the residential buildings are taller than 18m, a fire-fighting shaft with the following items will be provided to each residential block:

- A fire-fighting stair with a clear width greater than 1200mm;
- A fire-fighting lift designed and installed in accordance with BS EN 81-72:2015 [10];
- A dry fire main with outlets at every level within the fire-fighting lobby, designed and installed in accordance with BS 9990:2015; and
- Lift lobbies provided with an inlet air shaft on each floor.



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## 9 WATER SUPPLIES

The location and condition of the fire hydrants near Abbey Area have been confirmed by the London Fire Brigade Water Office via email on 8/4/2022, where the details are shown in Figure 5. OFR can therefore confirm that the satisfactory fire hydrants are within 90m from all the fire main inlets. Fire hydrants are located along Belsize Road, which provide a means to reach all the blocks and to undertake effective firefighting.

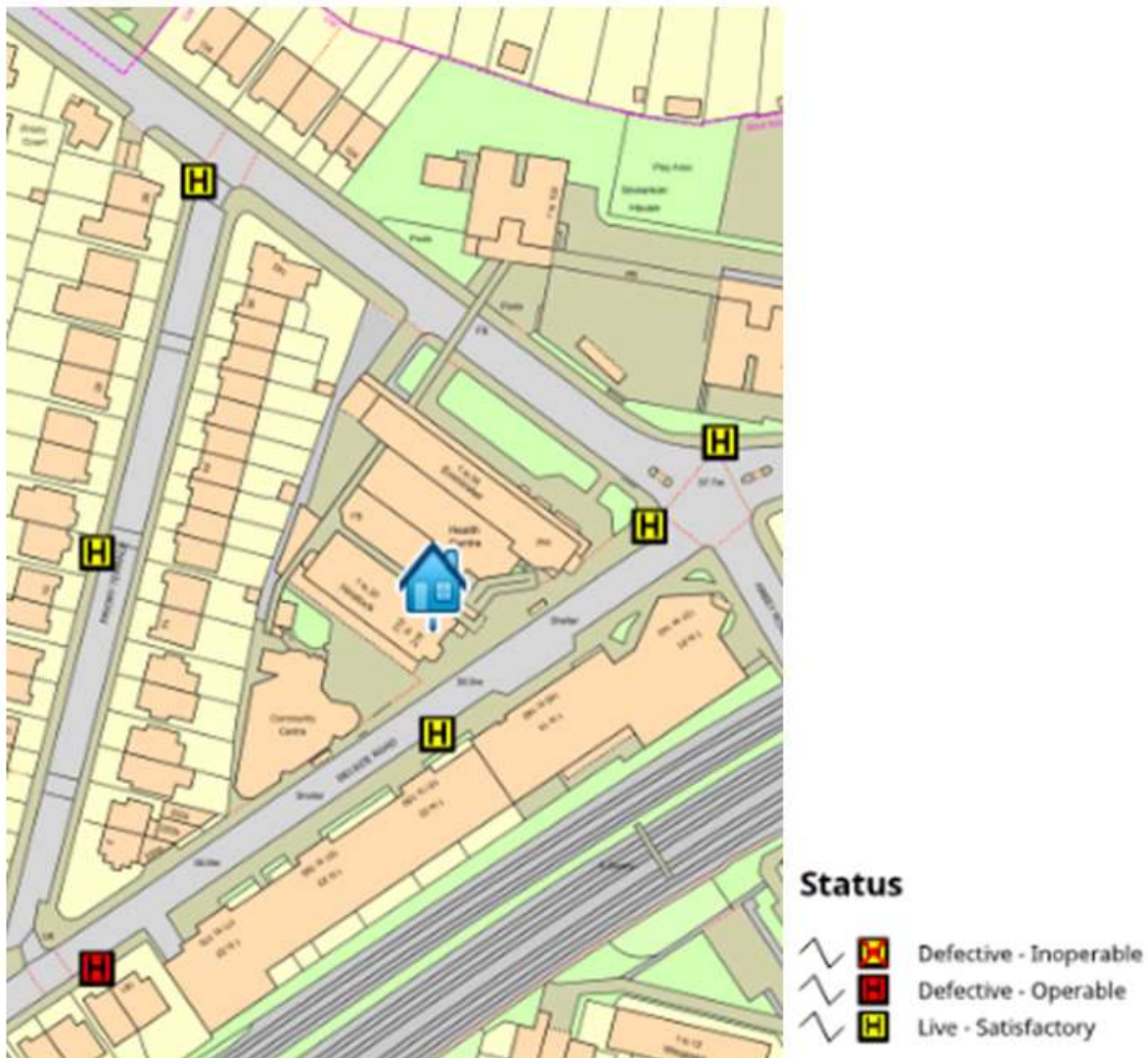


Figure 5: Location and condition of fire hydrants near Abbey Area

## 10 FUTURE MODIFICATIONS

This fire statement documents the main fire safety design principles for the purpose of the planning submission. The proposals herein will be subject to further specification and changes as the design progresses. As the design progresses, a detailed fire strategy will be produced with a level of information suitable for Building Regulations approval. At the relevant stage, the detailed fire strategy will also form part of the information pack handed over to the building operator(s) under Regulation

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38 to assist the responsible person to carry out the necessary fire safety risk assessment(s) and implement other relevant duties in accordance with the Regulatory Reform (Fire Safety) Order 2005.

## 11 CONCLUDING STATEMENT

To conclude this fire statement, the current proposals provide a design which is suitable for the purposes outlined in this document. It provides adequacies in line with Policy D12 and Policy D5 of the London Plan 2021 and provides a design which has the potential to comply with the functional requirements of Part B of the Building Regulations as required.



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## 12 References

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