PLANNING FIRE STATEMENT

THE FIRE SURGERY

Project:	Saffron Hill	**Subject:**	Fire Statement
Project No.:	P23-090		
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Author:	Richard Sherwood	**Reviewer:**	Frances Radford

CONTENTS

1 INTRODUCTION

1.1 Project Description

This Fire Statement has been prepared by The Fire Surgery on behalf of Saffron Hill Investment Holdings Limited ('the Applicant') in support of an application for full planning permission for the redevelopment of 45-54 Saffron Hill and 3 Saffron Street (herein referred to as 'the Site'). The Site is located within the administrative boundary of the London Borough of Camden.

Full detailed planning permission is sought for (the 'Proposed Development'):

"Demolition of existing car park and offices, and erection of a new building providing Class E Commercial floorspace and flexible Class E café/restaurant space, along with associated landscaping and works."

1.2 London Plan Policy D12

London Plan Policy D12 requires development proposals to achieve the highest standards of fire safety, embedding these at the earliest possible stage. Policy D5 also requires specific consideration of the requirements for evacuation lifts, which form part of the fire safety features of the project.

Therefore, all development proposals should be submitted with a Fire Statement.

A Fire Statement is a standalone document which defines the fire safety objectives and performance requirements of a development, and the methods by which these objectives will be provided/ satisfied. This is based on the Draft Fire Safety Guidance provided by the GLA for the London Plan Policy D12 with regards to fire safety.

The Fire Statement is to evidence the provisions made for the safety of occupants and protection of property as well as the provision of suitable access and equipment for firefighting in light of the London Plan fire safety policy requirements and the justification for these measures.

The Fire Surgery Ltd are the Fire Consultant for the proposed development of 45-54 Saffron Hill and 3 Saffron Street in London. The building includes a basement plant room, lower ground floor office and end of trip facilities, ground floor office and café/restaurant, and eight other above ground floors which will contain further commercial office accommodation. The building height measured from the lowest ground level to the finish floor level of the upper most occupied storey will be 31.9m and the depth of the basement storey will be 8.3m below adjacent ground level.

The Fire Surgery Ltd confirm that the fire safety of the proposed development and the fire safety information satisfies the requirements of London Plan Policy D12 as laid out below:

Policy D12 Fire Safety:		
A	*In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they:* *1. identify suitably positioned unobstructed outside space:* *a. for fire appliances to be positioned on* *b. appropriate for use as an evacuation assembly point*	Section Ref. 9 6.2

	2. *are 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.*	7
	3. *are constructed in an appropriate way to minimise the risk of fire spread*	5
	4. *provide suitable and convenient means of escape, and associated evacuation strategy for all building users*	6
	5. *develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in*	6
	6. *provide suitable access and equipment for firefighting which is appropriate for the size and use of the development*	8
B	*All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of:*	
	1. *the building's construction: methods, products and materials used, including manufacturers' details*	5
	2. *the means of escape for all building users: suitably designed stair cores, escape for building users who are disabled or require level access, and associated evacuation strategy approach*	6
	3. *features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans*	7
	4. *access for fire service personnel and equipment: how this will be achieved in an evacuation situation, water supplies, provision and positioning of equipment, firefighting lifts, stairs and lobbies, any fire suppression and smoke ventilation systems proposed, and the ongoing maintenance and monitoring of these*	8
	5. *how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building*	9
	6. *ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures*	10
Policy D5 Inclusive Design		
B	5. *be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.*	6.1

1.3 Declaration

In accordance with the draft London Plan Guidance – Fire Safety, consultation version, February 2022, The Fire Surgery hereby confirm that the technical content produced for the planning application complies with all relevant legislation and requirements of London Plan Policy D12 and D5(B5).

2 COMPETENCY STATEMENT

Paragraph 3.12.9 of Policy D12 explains that Fire Statements should be produced by someone who is: "third-party independent and suitably-qualified". The Fire Surgery competence along with the fire engineers working on the scheme is provided below.

The Fire Surgery is an award-winning independent Fire Engineering design consultancy based in London. The company is a proud member of the Fire Engineering Council for the Fire Industry

Association by virtue of the Chartered Engineering status of its engineers and also its ISO 9001 accreditation for Quality Management.

The specialist fire and risk consultancy team come from a varied background including chartered engineers, physicists and management consultants who specialise in business continuity. Members of the Fire Surgery team also contribute regularly to the development and writing of fire safety standards and industry best practice guidance, including *BS7974; Application of fire safety engineering principles to the design of buildings – Code of practice (2019)*, in which competency plays a fundamental part.

The Fire Surgery specialises in the development of fire strategies for innovative buildings, particularly commercial and entertainment venues in London. The Fire Surgery has a proven track record for securing Building Regulations approvals on a number of high profile projects in London, and having a strong working relationship with Local Authority Building Control and London Fire Brigade Fire Engineering Team.

2.1 The Fire Engineers

Frances Radford MEng, CEng, MIFireE graduated from the University of Edinburgh in 2012 with a Master's degree in Structural and Fire Safety Engineering. Frances has since worked as a fire engineer on large scale projects in the UK and the Middle East, gaining chartership with the Institution of Fire Engineers in 2018. As a Senior Engineer with The Fire Surgery, Frances has led fire engineering input on a variety of projects, including major new office developments, performance venues and heritage buildings.

Richard Sherwood BEng, AIFireE has 19+ years' experience of providing fire engineering consultancy services and developing performance-based design solutions. He enjoys engaging with design teams to deliver practical fire strategies which balance fire safety needs against other commercial and business protection considerations. Richard's experience covers a wide range of building sectors including high profile public and heritage buildings, transport hubs, research laboratories and high rise commercial and residential developments. Career highlights include working for The British Museum, The National Theatre and the major redevelopment of Birmingham New Street Station.

3 BUILDING DESCRIPTION

3.1 Building Description

The Saffron Hill project is located in the London Borough of Camden and will consist of the demolition of an existing NCP car park and offices, and erection of a new building providing Class E Commercial floorspace and flexible Class E café/restaurant space on the site. The building height measured from the lowest ground level to the finish floor level of the upper most occupied storey will be 31.9m and the depth of the basement storey will be 8.3m below adjacent ground level.

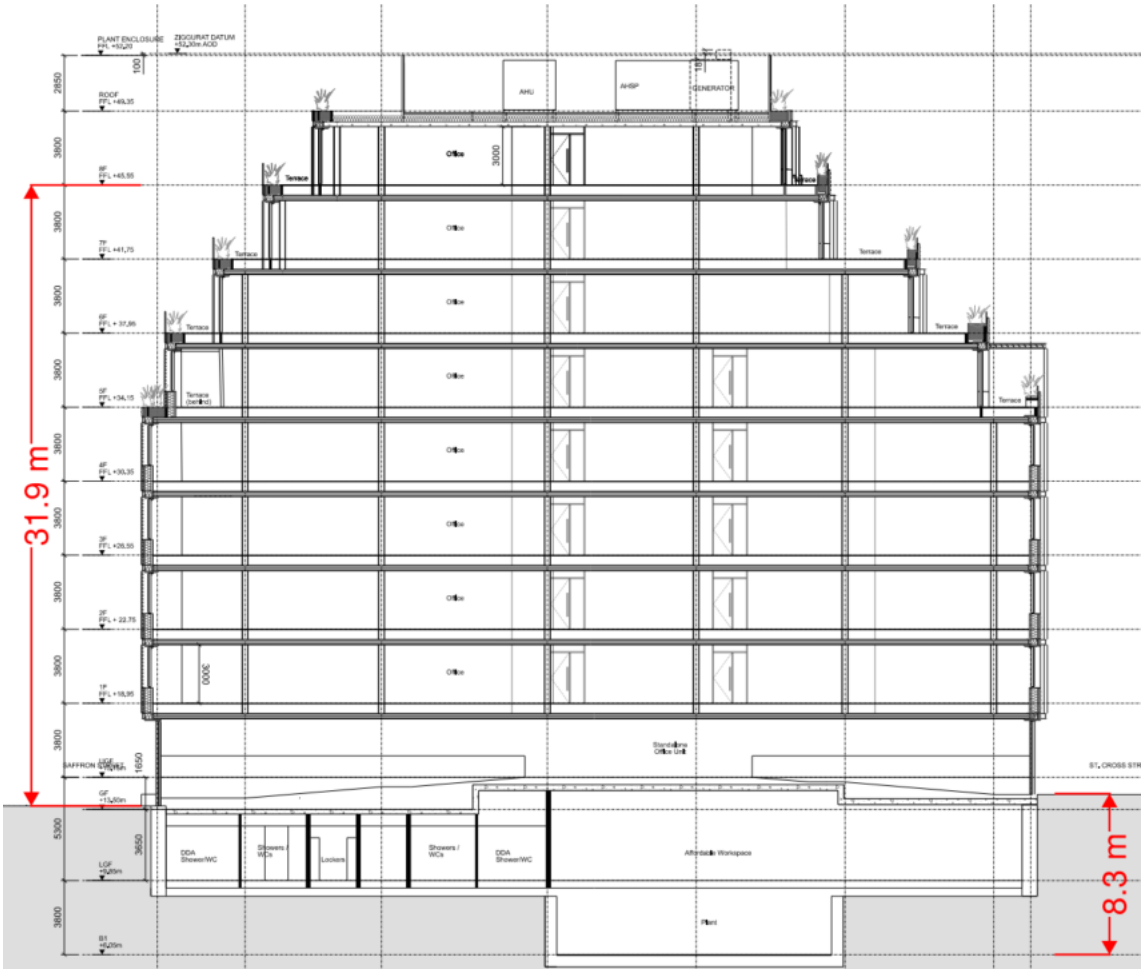

Figure 1 – Section showing building height

4 GUIDANCE DOCUMENTS AND BUILDING REGULATIONS APPROVAL

BS 9999: 2017 has been applied as the principal fire safety design guidance benchmark for this project.

Reference has also been made to the draft London Plan Guidance – Fire Safety, consultation version, February 2022, in the preparation of this Fire Statement.

5 THE BUILDING'S CONSTRUCTION METHOD AND PRODUCTS AND MATERIALS USED

5.1 Structure

The structure will be comprised of cross laminated timber (CLT), steel and concrete. CLT floor slabs will be supported on a steel structural frame with concrete cores. The below ground structure up to and including the ground floor slab is also currently proposed to be of concrete construction.

Fire protection through encapsulation or intumescent paint will be used for all steel elements. There is an aspiration to use exposed CLT elements in the scheme, so this will be analysed using the auto-extinction method, as recommended in the guidance issued by the Structural Timber Association

"Structural timber buildings fire safety in use guidance, Volume 6 – Mass timber structures; Building Regulation compliance B3(1), Version 2" published in April 2023.

All elements of structure will be designed to achieve a minimum load bearing fire resistance of 120 minutes in accordance with BS 9999 guidance.

5.2 External walls

Where required due to proximity of the site boundary, portions of the external wall will be required to be fire rated. The percentage area of glazed and other unprotected (non-fire rated) areas of the external walls will be limited in line with Building Regulations requirements to minimise the risk of fire spread between buildings.

The building façades will have a Class B-s3,d2 or better reaction to fire rating to comply with BS 9999 guidance for buildings of this height.

In line with BS 9999 guidance, and the updated requirements in the 2019 revision of Approved Document B, any insulation product, filler material (not including gaskets, sealants and similar), etc. used in the external wall construction will be of European Class A2-s3,d2 or better. The building does not include any sleeping accommodation so is not a relevant building under Regulation 7(2).

6 MEANS OF ESCAPE FOR ALL BUILDING USERS AND EVACUATION STRATEGY

The building is provided with four stair cores as summarised below and shown in Figure 2.

- Stair 1: Firefighting shaft serving ground to eighth floor,
- Stair 2: Firefighting shaft serving all ground to roof,
- Stair 2a: Escape stair serving basement to ground,
- Stair 3: Cycle entrance stair serving the lower ground floor end of trip facilities only,
- Stair 4: Accommodation stair serving the lower ground floor office unit only.

The evacuation of the building will be simultaneous, with all parts of the building evacuating at the same time, once the alarm has been activated.

Stairs 1 and 2 are designed as firefighting shafts and will be approached via protected lobbies at all floors served.

All stairs discharge to outside at ground floor. The escape capacity of all stairs is summarised in Table 1.

Figure 2 – Stair numbering (Ground floor shown)

Table 1: Escape Stair Capacity Summary

Stair No.	Levels Served	Clear Width (mm)	Escape Capacity (no. people)
Above Ground			
Stair 1	Ground to 8th	1200	827
Stair 2	Ground to Roof	1200	827
		Total	**1654**
Below Ground			
Stair 2a	Basement to Ground	1200	415
Stair 3	Lower Ground to Ground	1800	0*
Stair 4	Lower Ground to Ground	1200	361
		Total	**776**

* Stair 3 discounted from escape capacity as not all stairs are lobbied.

Based upon the current proposed area schedule for the project and applicable floor space factors the estimated maximum design occupancy for the building is 156 people below ground and 1213

people above ground. Therefore, the escape capacity of the stairs provides more than sufficient escape capacity for the expected maximum design occupancy.

6.1 Evacuation for people with disabilities and the use of evacuation lifts

Policy D5 of the London Plan requires the highest standards of accessible and inclusive design to be met.

Policy D5(B5) asks for development proposals to be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.

In line with guidance, lifts suitable for evacuation will be provided to stair cores 1 and 2 for use for escape. Evacuation lifts will be designed in accordance with the requirements of BS 9999, which includes:

- Backup power supplies to ensure the lift is available if the main power fails,
- Controls to allow staff to drive the lift to pick up occupants from other levels during evacuation,
- Enclosure with 60 minute fire rated construction,
- The evacuation lift serves every floor it passes through,
- Lobby protection at all floors to protect the lift from the effects of fire and smoke.

It is noted that at levels 7 and 8 the lifts associated with stair core 1 will stop due to the set back of the building at these levels, however; both levels 7 and 8 will still have access to at least one dedicated evacuation lift and in addition one fire fighters lift which may also be used for evacuation prior to the attendance of the fire service.

In addition to the evacuation lifts serving stair cores 1 and 2, the lift provided within stair 3 to serve the basement level affordable office unit will also be provided with controls and backup power supplies to allow its use in an evacuation. In this way there are a minimum of two alternative routes for escape for mobility impaired occupants from all parts of the building.

In accordance with BS 9999:2017 guidance, disabled refuges will be provided in each escape stair / stair lobby at each level. Disabled refuges will be 900 mm x 1400 mm in area and provided with an Emergency Voice Communication (EVC) system to BS5839-9 (2011).

The proposed design and provision of evacuation lifts is in compliance with the principles of London Plan Policy D5(B5).

6.2 Evacuation assembly point

A suitably sized evacuation assembly point will be identified in an area that can accommodate the building's occupancy, open public spaces in the area can be used for this purpose. An assembly point location will be chosen in coordination with the management and security requirements for the building, so that a safe, efficient method can be developed to manage a full scale evacuation. This will form part of the Fire Safety Management procedures for the building and an Emergency Evacuation Plan will be developed with the building management team and responsible person as defined under the Regulatory Reform (Fire Safety) Order.

7 PASSIVE AND ACTIVE FIRE SAFETY MEASURES

The fire safety strategy for Saffron Hill relies on a combination of active and passive measures. These are recommended by the guidance documents, with additional measures included as part of a package of fire engineered solutions where necessary or determined as part of the qualitative design review (QDR) process.

The following outlines the principal fire safety provisions imbedded in the design of the proposed development:

- A Category L2 automatic fire detection and alarm system to BS 5839-1:2017.
- Automatic wet sprinkler system provided in compliance with BS EN 12845.
- Emergency lighting to be provided to BS 5266-1:2016.
- Escape signage provided to escape routes in line with BS 5499-4:2013.
- Portable fire extinguishers installed in accordance with BS 5306-3.
- A two-way emergency voice communication system complying with BS 5839-9:2021 will be installed in the disabled refuges at each level.
- Lifts to be used for evacuation are identified and provided with facilities and controls to be used in case of an emergency, in accordance with the guidance given in BS 9999.
- Protected stairs to be enclosed in 120 minutes fire rated construction and provided with lobbies.
- Loadbearing elements of structure protected to a minimum 120 minutes fire resistance.
- Compartmentation provided throughout the building to enclose significant fire risks, protect means of escape and prevent unseen fire spread.
- Two protected firefighting shafts serving the building complete with mechanically ventilated firefighting lobbies, firefighters lift installations and dry rising fire mains.
- Smoke clearance to assist with firefighting to be provided to Basement Level which will consist of mechanical ventilation achieving a minimum of ten air changes per hour exhaust rate from the largest compartment served.
- Dry fire mains designed to BS 9990:2015 to provide water for firefighting in stair 1 at all above ground floors.
- Secondary power supply to life safety systems, in line with BS 8519: 2010.

8 ACCESS AND FACILITIES FOR THE FIRE AND RESCUE SERVICE

Appropriate firefighting provisions and means of access to and within the proposed building for firefighting personnel will be provided.

Primary access to the building for fighting will be provided by two firefighting shafts complete with protected ventilated lobbies at all floors, dry rising fire mains and firefighters lift installations.

The hose coverage from the available fire main outlets at each floor will be well within the maximum 60m permitted in accordance with BS 9999 guidance for a sprinklered building. Please refer to Figure 3 for layout of firefighting access and facilities on a typical floor.

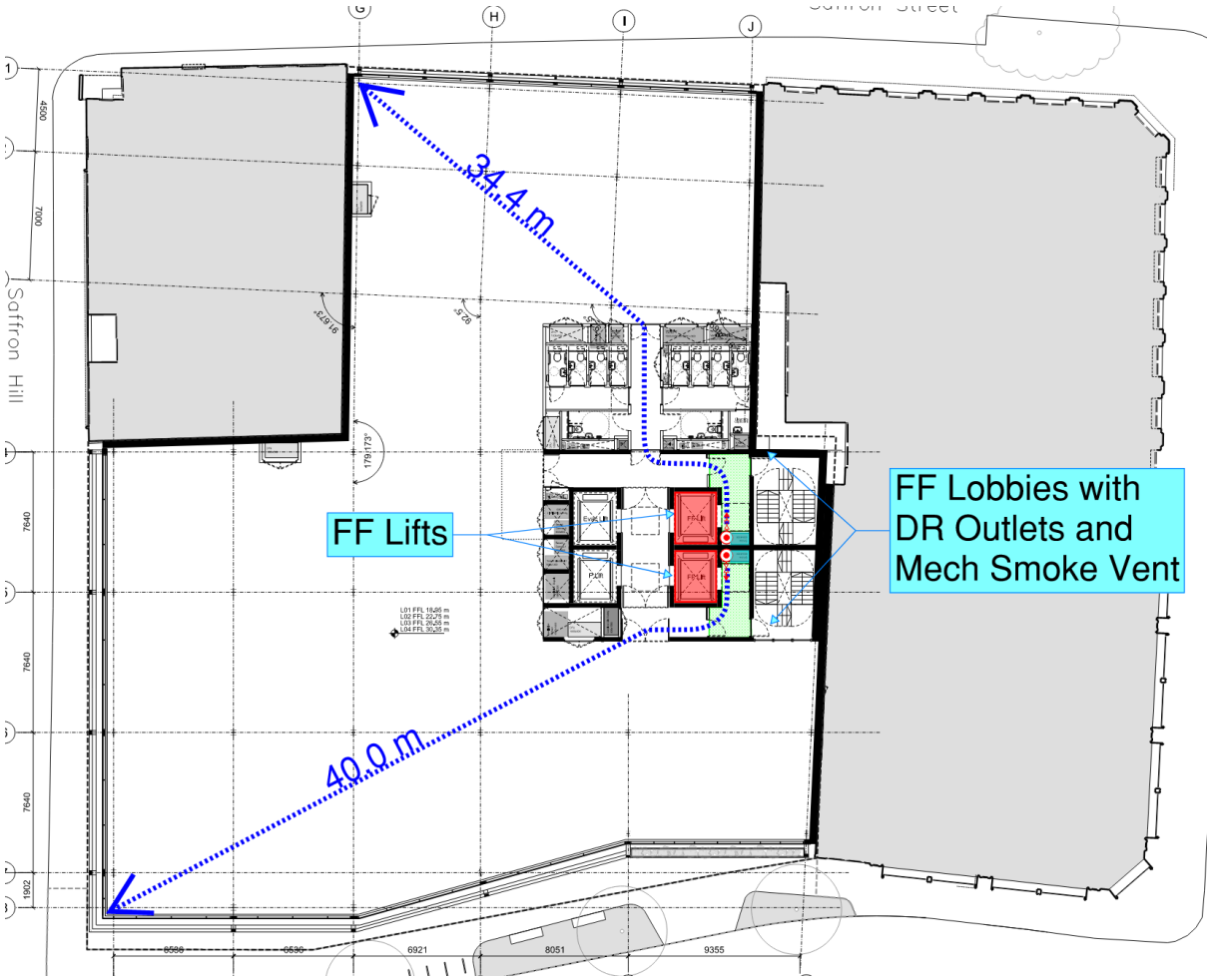

Figure 3 – Firefighting facilities and hose coverage (Level 1 shown)

9 SITE ACCESS FOR THE FIRE AND RESCUE SERVICE

Vehicle appliance access is provided to three of the building elevations along Saffron Hill, Saffron Street and St Cross Street (Figure 4).

The site is well provided for by existing street hydrants located on the surrounding road network, with the closest existing hydrants located directly immediately adjacent to the building on Saffron Hill and St Cross Street, and on the corner of Saffron Street and Farringdon Road.

THE FIRE SURGERY

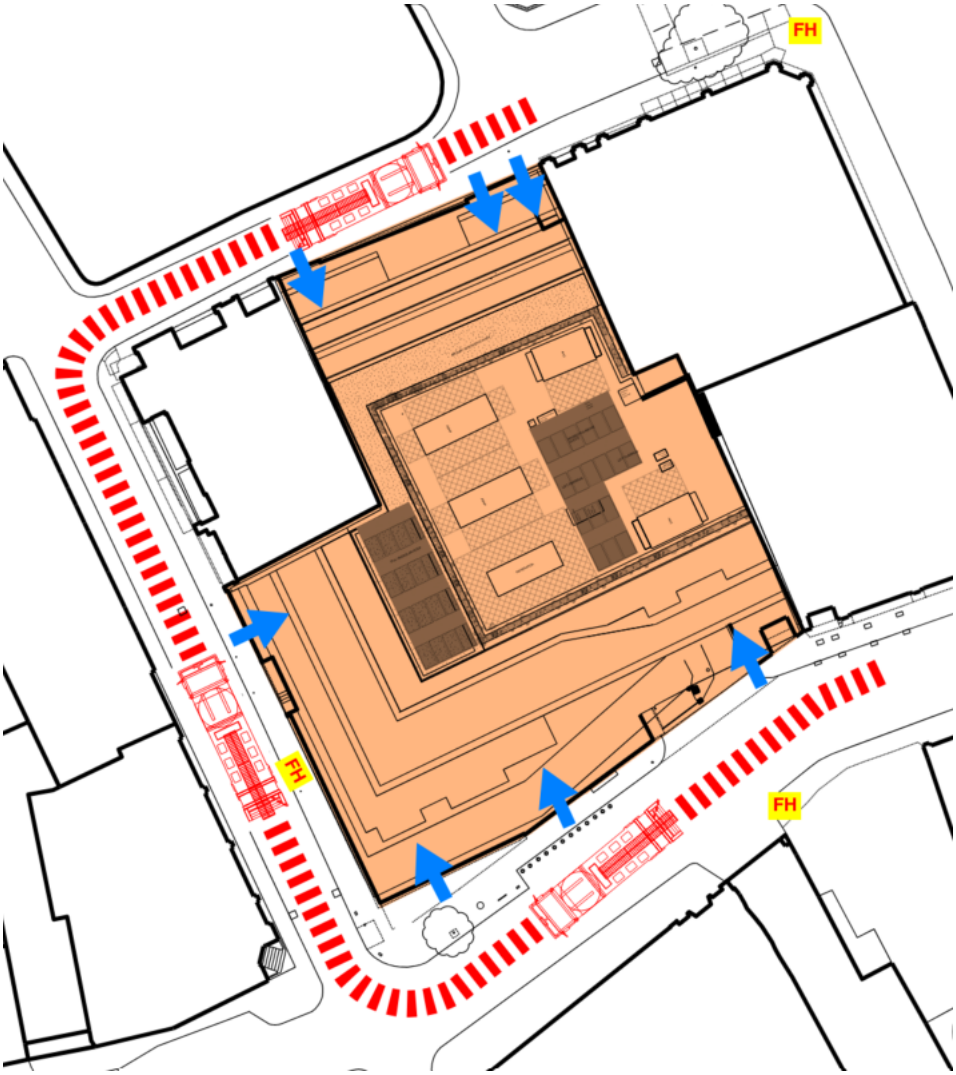

Figure 4 – Fire Service access into the building

10 FUTURE DEVELOPMENT OF THE ASSET AND THE 'GOLDEN THREAD' OF INFORMATION

The Independent Review of Building Regulations and Fire Safety was commissioned by government following the Grenfell Tower fire to make recommendations on the future regulatory system. The report, chaired by Dame Judith Hackitt, is entitled *Building a Safer Future (2019)* and provides recommendations in section 5 on the competency of those operating within the fire safety framework and requires overall consistency in fire safety from initial design through to occupation and future management. This is commonly referred to as the "Golden Thread"

Whilst this report is primarily written in the context of high rise residential and complex buildings, there are common recommendations which are applicable throughout the fire safety and construction industries.

The following information outlines how The Fire Surgery will consider the Golden Thread in the context of fire safety for the development of 45-54 Saffron Hill and 3 Saffron Street.

10.1 RIBA design stages

The Fire Surgery were appointed at RIBA Stage 2 to provide fire safety input into the concept design and develop an outline fire strategy was produced to highlight the main concerns and coordinate the design with the team. During Stage 2, this design is being developed to a level that can be used to inform the ongoing design.

The Fire Surgery have a continued appointment through RIBA Stage 3 and 4 to further develop and maintain the agreed principles of the fire strategy. Should the project be successful through planning, then The Fire Surgery are likely to be retained for the remainder of RIBA Stage 3 and 4 to complete the design.

10.2 Construction Monitoring & Practical Completion

For fire safety design in buildings, it is important to monitor the procurement and construction of the fire strategy to ensure that the approved fire strategy is designed and actually constructed as intended.

The detailed design of active fire systems will be important, including the commissioning and testing of the systems.

Locations of passive fire protection and the active system specifications sometimes change. Therefore, having the project fire engineer appointed during the tender, contractor lead designs and construction can ensure a smoother route to practical completion. The contractor has an obligation under Regulation 38 (formerly 16B) of the Building Regulations 2010 to hand over all fire related information for the project to the client, in order to allow them to manage the building successfully under the Regulatory Reform (Fire Safety) Order 2005.

This will require an as built fire strategy report that reflects the actual building constructed. It will be necessary for the contractor to update the design fire strategy as this stage.

The Fire Surgery is expected to undertake a monitoring role on behalf of the client during the construction period and will work with the contractor to ensure any changes to the design comply with the established fire strategy principles.

10.3 Fire Safety Management

Management procedures will play a critical function in both the prevention and associated containment of fires and the evacuation of occupants in an emergency situation. The fire safety strategy has been developed on the assumption that the building will be properly managed. This includes pre-planning, training, maintenance and ongoing risk assessment in order to meet the requirements of the Regulatory Reform (Fire Safety) Order 2005.

Managing fire safety is a process that lasts throughout the life of a building, starting with the initial design, which is intended both to minimize the incidence of fire and to ensure that if a fire does occur, appropriate fire safety systems (including active, passive and procedural systems) are in place and are fully functional.

Effective management of fire safety can contribute to the protection of the building occupants in many ways:

- By working to prevent fires occurring in the first place,
- By monitoring the fire risk on an on-going basis and taking appropriate action to eliminate or reduce risk,
- By being aware of the types of people in the building (such as disabled people, elderly people, children, pregnant women, etc.) and any special risks or needs associated with particular events,
- By ensuring that all the fire safety measures in the building are kept in working order and that the means of escape are always available,
- By training staff and organizing the evacuation plan, to ensure that occupants leave quickly if a fire occurs,
- By taking command in the event of a fire until the Fire Service arrives.

Upon completion, the building owners or managers (including tenants) will need to undertake fire risk assessments as required under the Regulatory Reform (Fire Safety) Order 2005, and have these available for inspection by the Fire Service at any time. This should typically be undertaken annually by a competent person or when there are significant changes in the building and is carried out to ensure that the fire strategy is upheld throughout the life of the building and that the risk of fire is kept low.

For this specific building, management areas that are of particular importance for the longevity of the proposed fire safety design solution include:

- The staffing level provided is to be appropriate to the building, the nature of the occupants, the management systems in place, and the active and passive systems provided.
- Staff should be trained in the implementation of emergency procedures, with those having particular responsibilities for assisting with evacuation receiving special training for these duties. A sufficient number of trained staff should be available to provide full coverage of the building, with provision for contingencies, sickness or holiday absences.
- The fire strategy assumes that the fire safety manager will be sufficiently empowered to ensure that the legislative requirements are met, initiate testing, maintenance or repair, and where necessary have direct control of staff responsible for these tasks. Such powers are to be supported by the necessary resources including funding.
- Disabled person evacuation procedures. The management procedures for assisting in their egress should include a means of identifying, prioritising and then assisting mobility impaired

persons in effecting their escape to the final place of safety, using the refuge communication systems and evacuation lifts.

- Allocation of appropriate assembly points and management of occupants leaving the building during an evacuation, including navigating busy roads.
- Management, monitoring, and maintenance of all fire safety systems, and in particular the automatic fire detection and alarm systems, active fire and smoke curtains, and the firefighting systems.
- Provision of appropriate premises information for the fire service and facilities required in the fire command centre.
- Co-operation and co-ordination between the responsible persons for the building (landlord/ tenants) in regard to fire safety matters relevant to the building, including ensuring that emergency plans are co-ordinated and consistent with one another.

11 SUMMARY

This report has been produced to support the planning application for 45-54 Saffron Hill and 3 Saffron Street. The report is a Fire Statement as required by the London Plan Policy D12 which requires development proposals to achieve the highest standards of fire safety, embedding these at the earliest possible stage.

This Fire Statement is a standalone document which defines the fire safety objectives and performance requirements of a development, and the methods by which these objectives will be provided/ satisfied.

The Fire Statement has evidenced the provisions made for the safety of occupants and protection of property 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 as described below:

- The fire statement and subsequent fire strategy for 45-54 Saffron Hill and 3 Saffron Street has been developed by competent and experienced fire engineers, including an engineer Chartered with The Institution of Fire Engineers.
- The key fire safety objective of satisfying the Building Regulations performance requirements has been determined.
- The fire safety guidance documents used have been identified as BS 9999:2017.
- The building materials have been identified which include mass timber, concrete and steel structure, with cladding formed from curtain walling with glazed panels. The materials will

have a reaction to fire rating of B-s3,d2 or better and insulation and filler materials will be of A2-s1,d0 or better fire performance.

- The safe means of escape has been documented. Sufficient stair capacity is available for all occupants to escape via the available escape routes.
- The means of escape for mobility impaired occupants will be available via the use of lifts for evacuation. This will include any occupants that are unable to use the stairs for escape, and the capacity of the lifts will be designed to accommodate escape within an appropriate period, to satisfy the London Plan Policy D5(B5).
- Passive and active systems have been identified for the building, including compartmentation to separate fire risks and protect escape routes, sprinkler protection throughout, and systems to support firefighting, such as basement smoke ventilation and pressurisation.
- The access and facilities for the fire service has been established including vehicle access to the building and access to the building via protected firefighting shafts. Existing fire hydrants are available on the surrounding streets, including the nearest hydrant directly adjacent to the building. Dry fire mains are provided serving all levels of the building, providing hose coverage throughout.
- The consistency in fire safety has been demonstrated to meet the Golden Thread by virtue of The Fire Surgery's involvement in the development of the fire strategy and the expected future appointments through construction to support Regulation 38 of the building regulations and allow the users of the building to execute their responsibilities for fire safety under the Regulatory Reform (Fire Safety) Order 2005 which is the legislation for fire safety in occupied buildings.

This fire statement meets the requirements of the London Plan Policy D12 and outlines how the project will meet the requirements of the relevant Building Regulations.

12 SCHEDULE OF RELEVANT DRAWINGS

A list of the relevant plan titles and reference numbers used in the production of this Fire Statement is provided in the schedule below.

Drawing No.	Title	Revision No.
22068-AHMM-ZZ-B-DR-A-PL10B	Proposed Basement Floor Plan	P02
22068-AHMM-ZZ-LG-DR-A-PL10L	Proposed Lower Ground Floor Plan	P02
22068-AHMM-ZZ-GF-DR-A-PL100	Proposed Ground Floor Plan	P02
22068-AHMM-ZZ-01-DR-A-PL101	Proposed Typical Plan, Levels 01-04	P02
22068-AHMM-ZZ-05-DR-A-PL105	Proposed Plan, Level 05	P02
22068-AHMM-ZZ-06-DR-A-PL106	Proposed Plan, Level 06	P02
22068-AHMM-ZZ-06-DR-A-PL107	Proposed Plan, Level 07	P02
22068-AHMM-ZZ-08-DR-A-PL108	Proposed Plan, Level 08	P02
22068-AHMM-ZZ-09-DR-A-PL109	Proposed Roof Plant, Level 09	P02
22068-AHMM-ZZ-XX-DR-A-PL201	Proposed South Elevation	P02
22068-AHMM-ZZ-XX-DR-A-PL202	Proposed West Elevation	P02
22068-AHMM-ZZ-XX-DR-A-PL203	Proposed North Elevation	P02
22068-AHMM-ZZ-XX-DR-A-PL301	Section 1 (East – West)	P02
22068-AHMM-ZZ-XX-DR-A-PL302	Section 1 (North – South)	P02