Harefield (Northwood Road)

London Plan Fire Statement

For ISG

DRAFT
Revision 01

Date: *11 September 2023*

Doc ref: *27471-HYD-XX-XX-RP-FE-0001*

DOCUMENT CONTROL SHEET

Issued by	Hydrock Consultants Limited Over Court Barns Over Lane Almondsbury Bristol BS32 4DF Tel: 01454 619533 Fax: 01454 614125 www.hydrock.com	Client	ISG
		Project name	Harefield (Northwood Road)
		Title	London Plan Fire Statement
		Doc ref	27471-HYD-XX-XX-RP-FE-0001
		Project no.	27471
		Status	DRAFT
		Date	11 September 2023

Issue Number	Status	Date
P01	DRAFT	11 September 2023
Prepared By		
Jakelyne Rocha BSc PgDip AIFireE – Fire Engineer		
Checked By		
Bilal Ahad MEng (Hons) AIFireE – Principal Fire Engineer		

Hydrock Consultants Limited has prepared this report in accordance with the instructions of the above-named client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

Note: This report remains in draft until approved by a Chartered Engineer.

Additional Background Information of Authors

Jakelyne Rocha – With a background in Civil Engineering and experience on-site, Jakelyne decided to further her career studying fire engineering through a 2-year Postgraduate Diploma in Fire Engineering. In the early stages of her career, Jakelyne engaged mostly in industrial high-risk projects, such as large forges, pesticide factories, and mining. In July of 2022, Jakelyne moved to the UK to work in the British Fire Engineering Industry. She has been involved in schemes throughout the UK and the Middle East and is familiar with the fire engineering requirements for a wide range of building typologies, being involved from the concept stages through to construction, and has

Bilal Ahad – Bilal is a Principal Fire Engineer with over seven years of fire engineering experience. Bilal holds a Masters (MEng) degree in Chemical Engineering from the University of Bradford. Bilal has extensive experience in developing fire strategy safety reports for residential developments from low rise blocks to high rise blocks over 30m in height. Bilal is also is an Associate member (AIFireE) of the Institution of Fire Engineers (IFE).

CONTENTS

1. INTRODUCTION

Hydrock has been commissioned by ISG to provide a London Plan Fire Statement document for the refurbishment and extension works of Harefield (Northwood Road), sited in Northwood Way, Harefield, Uxbridge, UB9 6ET.

1.1 Fire Safety Guidance

This Fire Statement has been developed to satisfy the requirements of the London Plan [March 2021] Policy D12 (A and B). Building Bulletin 100:2007 [referred to as BB100:2007] will be used to demonstrate compliance with the Part B (Fire Safety) functional requirements of the Building Regulations 2010 (as amended).

It is noted that this guidance document does not set out statutory requirements; they are intended to provide guidance only for generic building designs. An alternative approach can be applied to achieve an acceptable level of safety commensurate with the functional requirements of the Building Regulations 2010 (as amended). Whilst alternative methods have been based on accepted codes of practice, they will be subject to the agreement of the approving authorities.

The Fire Statement demonstrates that the development will provide a sufficient level of fire safety in regard to the life safety of occupants and firefighters.

1.2 Fire Statement

The purpose of this Fire Statement is to outline the fire safety design of the development and to demonstrate that all structures, systems, and components related to the Harefield (Northwood Road) on Northwood Way, Harefield, Uxbridge are designed from an early stage to reduce the risk to life and the risk of serious injury in the event of a fire. Additionally, the Fire Statement will demonstrate that the fire safety design of the development will enable duty holders to consider and manage the risk of fire, as well as enabling suitable provisions for the Fire and Rescue Service and firefighting operations.

This Fire Statement sets out the following objectives:

- Demonstrate that the development at this early stage of design meets Part B (Fire Safety) functional requirements of the Building Regulations 2010 (as amended);
- Demonstrate that the fire safety of the development has been considered from the outset and satisfies the requirements of the London Plan Policy D12(A) and D12(B);
- Identify any fire safety risks of the development and to outline mitigatory measures in place;
- Identify any risks to Fire Service access and provisions for firefighting and to outline mitigatory measures in place;
- Present a clear, concise overview of the fire safety design of the development which provides sufficient information to the relevant authorities and duty holders.

Policy D12(B) of The London Plan states that "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". Policy D12(B) further specifies that the Fire 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;
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;
3. Features which reduce the risk to life: fire alarm systems, passive and active fire safety measures, and associated management and maintenance plans;
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;
5. How provision will be made within the curtilage of the site to enable fire appliances to gain access to the building; and
6. Ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures.

Each of the above points have been considered within this Fire Statement, however, this document outlines the 'strategy' for the development only and, therefore, some of the elements noted in Item 1 above (i.e., specific products, materials and manufacturers details) have not been provided within this document, as it is the responsibility of others producing/procuring such information/products to comply with the strategy set out within this Fire Statement and the supporting British Standards.

1.3 Basis of Report

This Fire Statement has been developed based on the following drawings provided by Squire and Partners, as outlined in Table 1.

Table 1 Information on which the Fire Statement is based.

Description	Drawing/Document No.	Revision	Date
GA Plan - CEM Ground Floor	TVC0024 NOV V1 00 DR A 0005	A1	19/07/2023
GA Plan - CEM First Floor	TVC0024 NOV V1 01 DR A 0006	A1	19/07/2023
Landscape Masterplan	2313-WWA-ZZ-ZZ-D-L-0101	P03	31/03/2023

1.4 Limitations

1.4.1 Information Provided by Others

This Fire Statement represents only the best judgement of the consultants involved in its preparation, and is based, in part, on information provided by others. Under no circumstances is liability accepted for the accuracy of such information provided by others.

1.4.2 Alternative Methods of Compliance

Where this statement, outlining the fire strategy of the development, proposes alternative methods of compliance, that have been based on accepted codes of practice, to satisfy the functional requirements of Part B (Fire Safety) of Schedule 1 to the Building Regulations 2010 (as amended), they will be subject to the agreement of the approving authorities and local Fire and Rescue Service.

Some architectural amendments are still required in order to comply with the outlined strategy within this document or alternative methods of compliance may be agreed with Building Control as the design progresses into the next stage. The design team are aware of the changes required and the design will be updated within the next RIBA stage. Fire safety comments issued by Hydrock can be found in Appendix A.

1.4.3 Minimum Requirements

This report outlines the minimum requirements to satisfy the functional requirements of Part B (Fire Safety) of Schedule 1 to the Building Regulation 2010 (as amended). However, whilst these satisfy the statutory imperatives, Hydrock advise consideration of additional fire safety measures.

2. PROJECT OVERVIEW

2.1 Building and Site Description

The proposed building comprises 2 storeys school building (Ground and First floor) with a range of rooms which will be primarily classrooms. Also included in the building are conference rooms, staff rooms, fitness rooms, changing rooms, dining areas, kitchen, reception areas, medical room and therapy rooms.

The site is located at Northwood Way, Harefield, Uxbridge, UB9 6ET is illustrated in Figure 1.

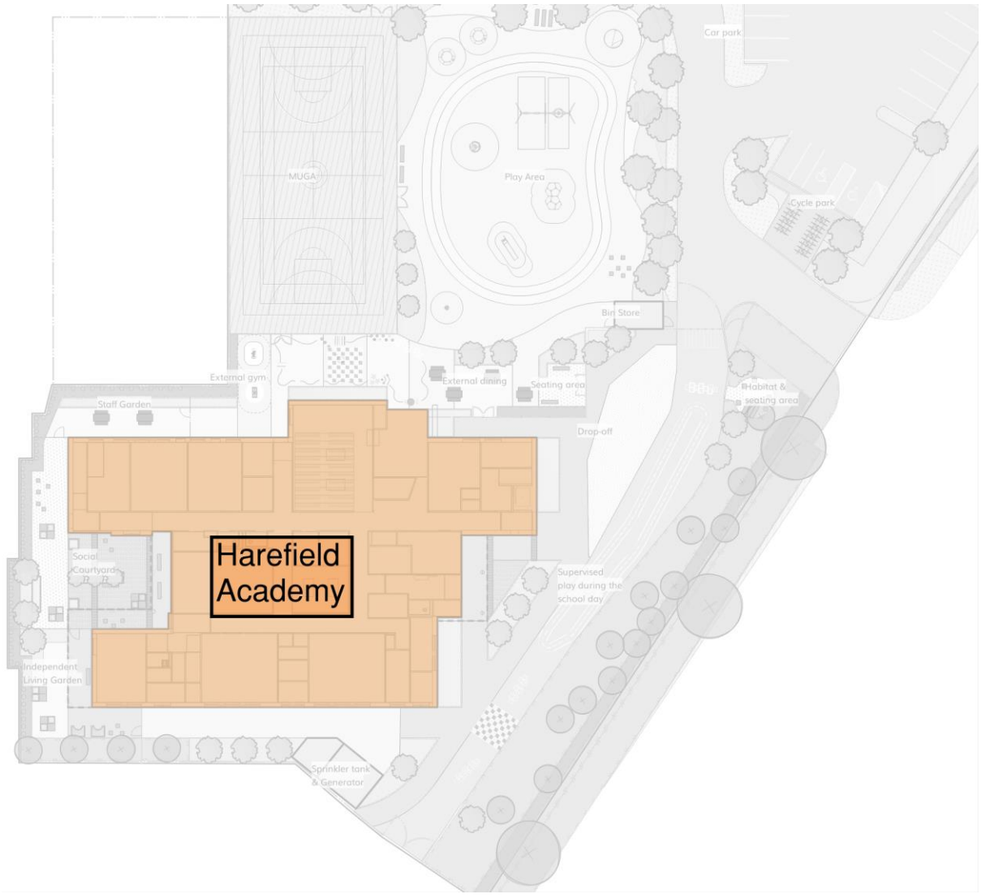

Figure 1 Site location.

2.2 Alternative Guidance

While the fire safety strategy considers the recommendations of BB100:2007, it may also consider recommendations provided within BS9999:2017. BB100:2007 is deemed an appropriate guidance document due to specific consideration towards educational schools. Where more onerous requirements are referenced in BB100:2007 (when compared to BS9999:2017), Hydrock have referenced such recommendations appropriately. In accordance with BS9999:2017, the Harefield (Northwood Road) is considered to be of a risk profile A2 – where occupants are awake and familiar, with a medium growth rate. Although the students within the school may have severe cognitive impairments, to which the description of awake and familiar may not be suitable, due to 1:1 staffing, the A2 risk profile is considered appropriate.

3. MEANS OF WARNING AND ESCAPE PROPOSED

This section of the Fire Statement is aimed at providing information in regard to the means of escape for occupants. In accordance with the London Plan 2021, the means of escape satisfies the policy requirements as indicated in Table 2.

Table 2 Means of escape London Plan policy references

Policy Reference	Policy Requirement
Policy D12 – Clause A1	[Development proposals must ensure that they] identify suitably positioned and unobstructed outside space: • For fire appliances to be positioned on (See Section 6.1) • Appropriate for use as an evacuation assembly point
Policy D12 – Clause A4	[Development proposals must ensure that they] provide suitable and convenient means of escape, and associated evacuation strategy for all building users.
Policy D12 – Clause A5	[Development proposals must ensure that they] develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence.
Policy D12 – Clause B2	[The Fire Statement should detail how the development proposal will function in terms of] 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.
Policy D12 – Clause 3.12.5	Developments, their floor layouts and cores need to be planned around issues of fire safety and a robust strategy for evacuation from the outset, embedding and integrating a suitable strategy and relevant design features at the earliest possible stage, rather than features or products being applied to pre-determined developments which could result in less successful schemes which fail to achieve the highest standards of fire safety.
Policy D12 – Clause 3.12.7	The provision of stair cores which are suitably sized, provided in sufficient numbers and designed with appropriate features to allow simultaneous evacuation should also be explored at an early stage and provided wherever possible.
Policy D5 – Clause B5	[Development proposals should] 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.

3.1 Evacuation Strategy

The Harefield (Northwood Road), Northwood Road shall adopt an evacuation strategy based on a simultaneous, double knock system. Subsequently, where two detector heads activate simultaneously or if a Manual Call Point (MCP) is pressed, this will enact the evacuation of all occupants to a place of ultimate safety.

The following arrangement will reduce the number of false alarm incidents within the Harefield (Northwood Road). The principles of the evacuation strategy are as follows:

1. Acknowledgement

In the event of a fire within the school, the fire detection & alarm system will activate which instigates the evacuation of occupants, initially, from within the room of fire origin only. All other rooms will remain in place.

Upon initial fire alarm activation within a single room, a signal will be sent to the fire alarm panel and an acknowledgement timer will commence. If the timer expires before a member of staff acknowledges the detector activation, the building will start a simultaneous evacuation.

Note: an appropriate acknowledgement time must be agreed with Building Control and the operator, (usually 2 minutes). If a manual call point or a second detector is activated at any time throughout the process, the school will begin a full evacuation, and this is to override any acknowledgement period.

2. Investigation

Once the appropriate member of staff acknowledges the alarm on the fire alarm panel, an investigation timer will commence. The management team then have a specified period to investigate the location of the activated detector and determine if the alarm is false or legitimate.

Note: an appropriate investigation time must be agreed with Building Control and the operator, (usually 2 minutes).

3. Evacuation

If management do not reset the alarm before the investigation timer expires or they activate a manual call point upon confirmation of the legitimate fire, the school will start a simultaneous evacuation.

If preceding this, a second detector activates, the school will start a simultaneous evacuation.

3.2 Horizontal Means of Escape

As per Table 3 of BB100:2007, where the number of occupants exceeds 60, but is less than 600, a minimum of 2 exits are required. Each floor of the school is provided with at least 2 exits, both for the existing and the extension.

Horizontal escape for occupants summarised as follows:

- First Floor: The building will be provided with three exits, which lead to a final exit, either directly or by way of a protected escape route. Escape will also be provided via an evacuation lift located at the right area of the building. The evacuation lift will also discharge to a final exit, via a protected escape route. Travel to the final exits or protected escape route is limited to 18m, when escape is only available in a single direction, or 45m when available in multiple directions, as per Table 1 of BB100:2007.

- Ground Floor: Occupants from any spaces not provided with final exits will be provided with alternative means of escape after leaving the room itself. Travel to the final exits or protected escape route is limited to 18m, when escape is only available in a single direction, or 45m when available in multiple directions, as per Table 1 of BB100:2007.

All travel distances within Harefield (Northwood Road) satisfy the requirements set out in BB100:2007, for actual permissible travel.

The fire detection and alarm system (covered in Section 0 – Active Fire Safety Measures) will have interfaces and links as necessary to operate equipment/devices so as to not impede on the safe escape of occupants.

3.3 Vertical Means of Escape

The proposed development is provided within 3 designated escape stairs serving first floor. Where two or more stairways are provided it should be assumed that one of them may be unavailable for escape because of fire/smoke. Therefore, a stair is to be discounted for the purposes of vertical means of escape analysis. The stairs within the building will either discharge directly to the outside or into a protected corridor, from which alternative exits will be available. The cores will be enclosed in a 60-minute fire rated enclosure (designed as a protected shaft, for a building over 5m and under 18m, as per Table A2 of BB100:2007).

In accordance with Clause 4.4.4 of BB100:2007, the absolute minimum width of a stair is required to be 1100mm. The building is provided with two 1500mm stairs and one 1650mm stair, all serving a total of one floor, which, discounting one stair, allows for a capacity of 600 persons, in accordance with Table 6 of BB100:2007. Each stair is to be constructed in accordance with BS5385-1:2010 and have flights and landings constructed of limited combustibility (European Class A2-s3, d2 or better).

3.4 Provisions for Disabled Occupants

The proposed extension of Harefield (Northwood Road), Northwood Road site shall be provided with one evacuation lift, designed, installed, and commissioned in accordance with BS EN 81-76. The London Plan –Policy D5 (Inclusive Design) requests the highest level of accessibility and recommends that at least one lift should be a suitably sized fire evacuation lift.

The building must align with the recommendations for means of escape for disabled occupants given within Clause 45 of BS 9999:2017. The 'Fire safety management plan' should consider the full range of people who might use the premises, paying attention to the needs of disabled occupants. It is the responsibility of the premises management to ensure that all people can make a safe evacuation; the evacuation plan should not rely on the assistance of the Fire & Rescue Service.

A member of staff or student who has specific access requirements should have a Personal Emergency Evacuation Plan (PEEP) that sets out the details of how they will evacuate the building. PEEPs need to be updated if changes are made to the building or an individual's needs change. In addition, General Emergency Evacuation Plans (GEEPs) should be developed for anyone who may visit the school and require assistance. All procedures for evacuation require suitable numbers of trained staff to be available at any given time.

Refuges are places of relative safety. People whose abilities or impairments might result in a delayed evacuation can await assistance from building management and then begin the next part of their movement to a place of ultimate safety. Disabled refuges should be provided at all storey exits within a protected stair or evacuation lift lobby.

A system of two-way communication between those waiting in each refuge and the team who are organizing the evacuation of the building must be provided. This system must be designed, installed, and commissioned in accordance with BS 5839-9:2011. A disabled evacuation management procedure will be required to be incorporated into the Fire Safety Management Plan for the building.

For reference, where disabled refuge areas are to be provided, in accordance with BB100:2007, each refuge is to provide an area accessible to a wheelchair of at least 900mm x 1400mm in which a wheelchair user can wait for assistance, which should not impede escape from the stairs, as below.

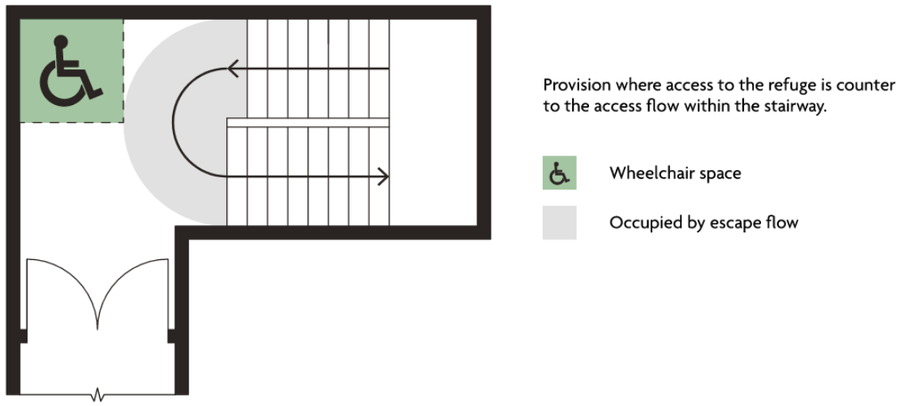

Figure 2 Disabled Refuge Layout

3.5 Evacuation Assembly Points

The final assembly point for occupants in the event of an evacuation will be provided within school grounds for safeguarding reasons and is expected to be provided within the Multi Use Games Area (MUGA) by the school (to be confirmed by the school). This is to ensure occupants can assemble a safe distance away from the building in an evacuation incident as well as not to impede on the Fire Service access to the site. The potential location of an assembly point for occupants in the event of an evacuation is shown in Figure 3.

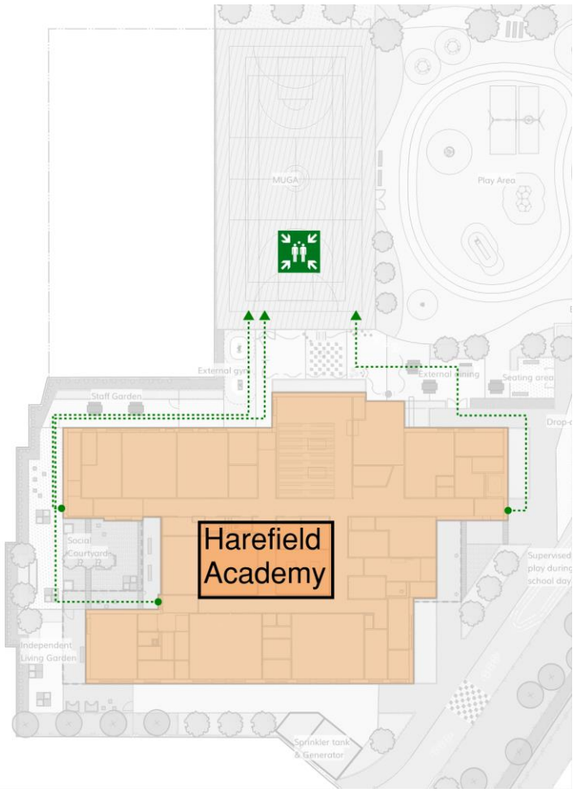

Figure 3 Illustrative assembly points.

It should be noted that the illustrated assembly points are for indicative purposes. The designation of assembly points is the responsibility of the client and will require confirmation at a later stage.

4. ACTIVE FIRE SAFETY MEASURES

This section of the Fire Statement is aimed at providing information in regard to the active fire safety measures recommended for the development. In accordance with the London Plan 2021, the proposed active fire safety measures satisfy the policy references as indicated in Table 3.

Table 3 Active fire safety measures London Plan policy references

Policy Reference	Policy Requirement
Policy D12 – Clause A2	*[Development proposals must ensure that they] 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.*
Policy D12 – Clause B3	*[The Fire Statement should detail how the development proposal will function in terms of] features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans.*

4.1 Fire Detection and Alarm Systems

The Harefield (Northwood Road) development shall be provided with Category L2 fire detection and alarm system throughout, designed, installed & commissioned in accordance with BS 5839-1:2017 - Fire detection and fire alarm systems in non-domestic premises – Code of Practice.

Category L2: a system installed throughout the premises, incorporating detectors in all rooms which open onto an escape route, including specified areas of high fire risk.

The greatest benefit to life safety given by the Category L2 system is providing a warning of fire at an early stage to enable all occupants to escape safety before the escape routes are impassable owing to the presence of fire, smoke, and toxic gases.

The fire alarm panel should be located at an appropriate location for both staff and firefighters. They should normally be in an area on the ground floor level close to the entrance of the building for Fire Service responding to a fire signal, such that the controls can be readily operated, and indications clearly visible.

4.2 Smoke Ventilation

There are no smoke ventilation systems within the development. In accordance with BB100:2007, there are no requirements for smoke ventilation, and due to the size, use, and layout of the building, this is not considered to adversely impact on life safety or serious harm to occupants.

4.3 Emergency Signage

Escape signage is to be provided throughout the building designed and installed in accordance with BS5499:2013. Signage utilised throughout the building is to be consistent and in accordance with BS ISO 3864-1:2011.

4.4 Emergency Lighting

Emergency lighting is to be provided throughout the development designed, installed and commissioned in accordance with BS5266-1:2016.

4.5 Automatic Water Fire Suppression Systems (AWFSS)

In accordance with Clause 1.6 and 2.5.7 of BB100:2007, it is recommended that sprinklers are provided within all new schools as a way to mitigate the damage caused by fire and ensure business continuity with the least amount of disruption. In this section, it is also pointed out that the provision of sprinklers is not a requirement to comply with the life safety requirements of Building Regulations. Additionally, in accordance with Clause 30.2.2 of BS9999:2017, buildings having an occupied storey over 30m should be sprinkler-protected throughout in accordance with BS EN 12845:2015 - Fire safety in the design, management, and use of residential buildings - Code of practice. Subsequently, this recommendation is not applicable to the Harefield (Northwood Road) development given the proposed building does not exceed 30m in height.

Therefore, for the purposes of life safety, the addition of sprinkler protection is not considered necessary for the Harefield (Northwood Road) development. The expected number of occupants in conjunction with the number of exits, access to an evacuation lift, an enhanced fire detection & alarm system and enhanced compartmentation to support a simulations evacuation strategy and associated management procedures does not warrant to need for sprinklers within the two storey blocks.

The Client is to confirm if there are requirements for sprinklers for insurance purposes.

5. PASSIVE FIRE SAFETY MEASURES AND CONSTRUCTION DETAILS

This section of the Fire Statement is aimed at providing information in regard to the passive fire safety measures recommended for the development. In accordance with the London Plan 2021, the proposed passive fire safety measures satisfy the policy references as indicated in Table 4, with details subject to development by others.

Table 4 Passive fire safety measures London Plan policy references

Policy Reference	Policy Requirement
Policy D12 – Clause A2	*[Development proposals must ensure that they] 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.*
Policy D12 – Clause A3	*[Development proposals must ensure that they] are constructed in an appropriate way to minimise the risk of fire spread.*
Policy D12 – Clause B1	*[The Fire Statement should detail how the development proposal will function in terms of] the building's construction: methods, products and materials used, including manufacturers' details.*
Policy D12 – Clause B3	*[The Fire Statement should detail how the development proposal will function in terms of] features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans.*

5.1 Elements of Structure

The building height to inform the requirement for elements of structure is measured from the lowest outside ground level to the top occupied storey. The Harefield School, Northwood Road, contains a top occupied storey of not more than 5m above access level.

Therefore, in accordance with BB 100:2007, all elements of structure including the structural frame, beams, columns, loadbearing walls (internal & external) and floor structures must achieve a fire resistance for a specified period of 60-minutes.

5.2 Compartmentation

All compartment walls and compartment floors should form a complete barrier against fire spread between the compartment they separate and have the appropriate level fire resistance. Effective compartmentation relies on having; a continuous fire resistance at the join between elements forming a compartment and, any opening between two compartments should not reduce the fire resistance. In accordance with Table 9 of BB 100:2007, the maximum dimension of any one storey in a compartment for schools without sprinkler protection should not exceed 800m^2. This compartment separation will be provided as a 60-minute wall (REI 60) with 60-minute floors (REI 60).

Each stair and evacuation lift shaft will be designed as enclosure and enclosed within 60-minute fire rated construction (REI 60).

5.2.1 Additional Fire Resistance Requirements

Storerooms are to be enclosed in 30-minute fire rated construction (REI 30). Additionally, plant rooms and refuse storage will be provided with a 60-minute fire resisting enclosure (REI 60).

5.3 Fire Doors

Fire doors are to meet the requirements outlined within Appendix C and Table C1 of BB100:2007.

5.4 Internal Linings

The surface linings are to be in accordance with Table 5 throughout the development.

Table 5 Internal lining requirements

Location	National Performance (British Standard) Class	European Performance Class
Rooms having an area of not more than 30m^2	3	D-s3, d2
All other rooms	1	C-s3, d2
Circulation spaces	0	B-s3, d2

The surface linings of the walls and ceilings should generally conform to the classifications outlined in Table 5. Parts of walls in rooms may be of a lower class but not lower than Class 3 (national class) or Class D-s3, d2 (European class) provided that the total of those parts in any one room does not exceed 50% of the floor area of the room (subject to a maximum of 60m^2).

5.5 Fire Stopping

Fire stopping elements are to be implemented in order to maintain the level of fire resisting construction in all walls and ceilings. In every joint, imperfection of fit, and opening to allow services to pass through the walls, fire stopping elements should achieve the same level of fire-resisting construction as required for the floor/ wall it replaces.

5.6 External Walls Construction

In accordance with BB100:2007, external surfaces of walls are to achieve:

- at least Class C-s3, d2 up to 10m above ground level, where the wall is more than 1000mm away from the relevant boundary;
- at least Class B-s3, d2 where the wall is within 1000mm of the relevant boundary.

However, European Classification of A2-s1, d0 or Class A1 is recommended to achieve highest standard of fire safety.

5.7 Roof Coverings

The roof coverings are to achieve European Class BROOF(t4) based on the proximity to relevant boundaries.

5.8 Cavity Barriers

Cavity barriers are to be installed throughout the development in accordance with BB100:2007. Cavity barriers are to be provided in the cavity of:

- an external wall at all cavity edges and around all openings in the external wall (i.e. windows);
- an external wall in line with a compartment wall/floor where it meets the external wall;
- an internal cavity wall at the junction with a fire rated wall/floor.

Cavity barriers should also be provided in cavities to prevent the excessive spread of unseen fire and smoke. Cavity barriers are to be provided to ensure the maximum dimensions of undivided concealed spaces do not exceed the requirements outlined in Table 6.

Table 6: Extensive cavity division requirements

Location of Cavity	Class of Surface/Product Exposed in Cavity		Maximum Distance in Any Direction
	Nation Class	European Class	
Between Roof and Ceiling	Any	Any	20m
Any Other Cavity	Class 0 or Class 1	Class A1; Class A2, Class B or Class C	20m
	Any Other Class	Any Other Class	10m

6. ACCESS AND FACILITIES FOR THE FIRE AND RESCUE SERVICE

This section of the Fire Statement is aimed at providing information in regard to firefighting accessibility and facilities provided for Fire Service. In accordance with the London Plan 2021, the proposed access and facilities for the Fire Service satisfies the policy references as indicated in Table 7.

Table 7 Firefighting provisions London Plan policy references

Policy Reference	Policy Requirement
Policy D12 – Clause A6	*[Development proposals must ensure that they] provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.*
Policy D12 – Clause B4	*[The Fire Statement should detail how the development proposal will function in terms of] 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.*
Policy D12 – Clause B5	*[The Fire Statement should detail how the development proposal will function in terms of] how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building.*

6.1 Site Accessibility

The nearest fire station to the Harefield School is the Ruislip Fire Station located approximately 3.0 miles away from the site at Northwood Way, Harefield, Uxbridge, UB9 6ET. Figure 4 illustrates on possible access route from the fire station to the building site, via Breakspear Road. Hydrock are currently not aware of any restrictions to site access for fire appliances.

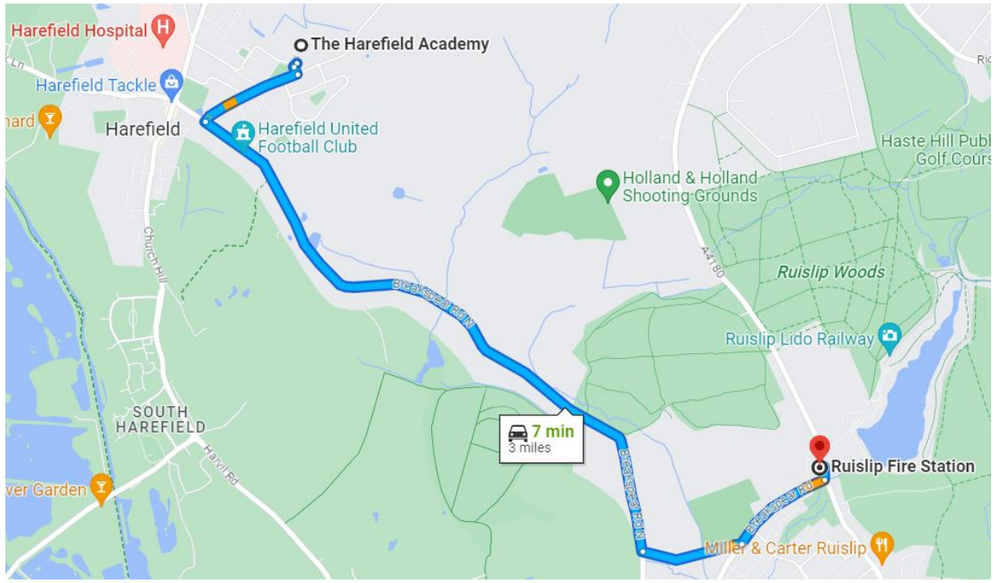

Figure 4 Fire and rescue service site access – nearest fire station

Fire tender access to the building is to be provided in accordance with BB 100:2007. Tender access roadways are to meet the following requirements for a pumping appliance. The new / existing infrastructure around the Hareford Academy School development will be in accordance with Table 9.

Table 8: Extensive cavity division requirements

Type	Min. width of road between kerbs (m)	Min. width of gateways (m)	Min turning circle between kerbs (m)	Min. turning circle between walls (m)	Min. clearance height (m)	Min. carrying capacity (t)
Pump	3.7	3.1	16.8	19.2	3.7	12.5

In accordance with BB 100:2007, buildings not provided with fire mains that are less than 11 m in height and with area (aggregate between all floors) between 2000m^2 and 8000m^2, require perimeter access for a pumping appliance to 15% of all exposed perimeter walls.

The building has a 187 m perimeter. Access is provided to 53m of the façade (i.e. 28%). By providing access to the East facade (area highlighted in blue), the proposed arrangement meets the recommendations set out within BB100:2007. The site's firefighting access is shown in Figure 10. No dead ends are present within the design.

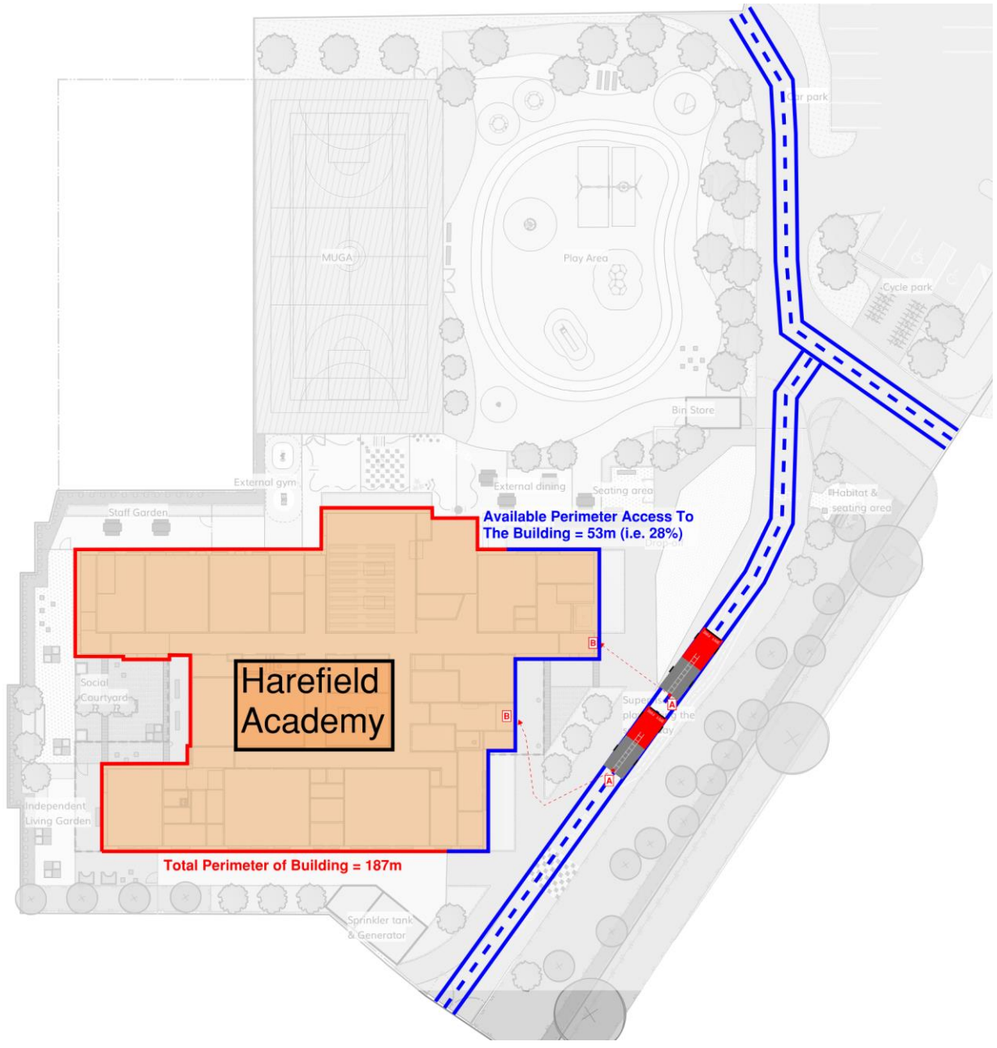

Figure 5 Fire and rescue service site access – fire appliance site access

6.2 Fire Hydrants

Fire hydrants are to be provided to within 90m of an entry point to the building and not more than 90m apart. The Harefield (Northwood Road) development is located on an existing site with neighbouring operational buildings. An assessment should be made with the public services engineer on the existing position of hydrants within the vicinity.

7. FIRE SAFETY MANAGEMENT AND FUTURE DEVELOPMENT

This section of the Fire Statement is aimed at providing information in regard to the management of fire safety within the Harefield (Northwood Road). In accordance with the London Plan 2021, the proposed fire safety management plan satisfies the policy references as indicated in Table 9.

Table 9 Fire safety management and 'golden thread' London Plan policy references

Policy Reference	Policy Requirement
Policy D12 – Clause B4	*[The Fire Statement should detail how the development proposal will function in terms of] 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.*
Policy D12 – Clause B6	*[The Fire Statement should detail how the development proposal will function in terms of] ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures.*

The ongoing management of the building and its fire safety provisions is vital in ensuring a safe and usable building. Maintenance procedures will be developed to ensure that all equipment and services are able to operate effectively and that the building's systems perform as intended.

Reference is to be made to Clause 4 of BS9999:2017 for the relevant information on the management of fire risk.

7.1 The Regulatory Reform (Fire Safety) Order 2005

The Regulatory Reform (Fire Safety) Order (RRFSO) regulations shall apply to this development and are the responsibility of the Responsible Person. The RRFSO applies to all workplaces and other non-domestic areas and premises, requiring the 'Responsible Person' to undertake an assessment of the fire risk in their premises and to keep this assessment under review.

7.2 Regulation 38

In conjunction with the RRFSO, Regulation 38 requires that information relating to the fire safety provisions within a building is provided to the 'Responsible Person' so that they (or an appointed 'Competent Person') can undertake the Fire Risk Assessment required under the RRFSO. The Fire Safety Strategy of the building will form part of the information provided to the 'Responsible Person' in order for them to undertake and maintain the Fire Risk Assessment for the development.

7.3 Future Development

The Fire Safety Strategy for the development will outline the proposed design and operation for the building. Where there are any proposed changes in the future, reference is to be made to the Fire Safety Strategy to ensure any changes meet the requirements of the Fire Safety Strategy and do not have an adverse effect on the safety of occupants.

Where there is an alteration to the design of the building, it is strongly recommended that the Responsible Person commissions the update and development of a new Fire Safety Strategy in order to reflect the proposed changes and fire safety design.