

Fire Statement – FS 002.0

Project: Renaissance, Residential Building
Subject: The Town and Country Planning Order - Fire Statement
Date: 13 September 2024
Author: Agboola Ogunleye
Checked: Adam Monaghan



1 Introduction

This Fire Statement has been prepared by Design Fire Consultants (DFC) and is submitted in support of the revised planning application made by Property Alliance Group (PAG) for the Renaissance Residential Building located in Deansgate, Manchester.

The purpose of this Fire Statement is to evidence that fire safety matters, as they relate to planning, have been considered at an early stage of the project.

This Fire Statement includes a concise summary of the approach to the fire safety design, site layout, access and facilities for firefighting, and details of any consultation undertaken on fire safety and consideration of local development documents.

This Fire Statement forms part of the planning application information only. It is not intended for formal Building Regulations submission and should not be used as such.

1.1 Town and Country Planning Order

The requirement for a Fire Statement is requested under The Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended)¹.

The regulatory regime also establishes the Health and Safety Executive as a statutory consultee.

A Fire Statement is required to be submitted as part of a full planning application (or with the reserved matters planning application) for:

- A development which involves the provision of one or more relevant buildings;
- A development of an existing relevant building; or
- A development within the curtilage of a relevant building.

A relevant building is currently defined as:

- A building that contains two or more dwellings; and is 18m or more in height, or contains 7 or more storeys.
- A building that constitutes educational accommodation; and is 18m or more in height, or contains 7 or more storeys.

¹ UK Government, 'The Town and Country Planning (Development Management Procedure and Section 62A Application (England) (Amendment) Order 2021', July 2021

Educational accommodation is defined as:

- Residential accommodation for the use of students who are boarders at school in connection with them attending a school; or
- Residential accommodation for use of students attending higher education courses, further education courses, or course at 16 to 19 Academies.

The height of a building is measured from ground level to the top floor surface of the top storey of the building (ignoring any storey which is a roof-top machinery or plant area or consists exclusively of machinery or plant rooms).

When determining the number of storeys a building has: any storey which is below ground level is to be ignored; and any mezzanine floor is a storey if its internal area is at least 50% of the internal floor area of the largest storey in the building which is not below ground level.

A storey is treated as below ground level if any part of the finished surface of the ceiling of the storey is below the ground level immediately adjacent to the part of the building.

1.2 Relevant Documents

Table 1: Relevant documents used to inform the Fire Statement

Name	Reference
Renaissance Block 2 Residential Building, Proposed Level -02 GA Plan	150_JMA_B2_02_2298
Renaissance Block 2 Residential Building, Proposed Level -01 GA Plan	150_JMA_B2_02_2299
Renaissance Block 2 Residential Building, Proposed Level 00 GA Plan	150_JMA_B2_02_2200
Renaissance Block 2 Residential Building, Proposed Level 01 GA Plan	150_JMA_B2_02_2201
Renaissance Block 2 Residential Building, Proposed Level 02 GA Plan	150_JMA_B2_02_2202
Renaissance Block 2 Residential Building, Proposed Level 03 GA Plan	150_JMA_B2_02_2203
Renaissance Block 2 Residential Building, Proposed Level 04-08 GA Plan	150_JMA_B2_02_2204
Renaissance Block 2 Residential Building, Proposed Level 09-13 GA Plan	150_JMA_B2_02_2209
Renaissance Block 2 Residential Building, Proposed Level 14 GA Plan	150_JMA_B2_02_2214
Renaissance Block 2 Residential Building, Proposed Level 15 GA Plan	150_JMA_B2_02_2215

Renaissance, Residential Building

Name	Reference
Renaissance Block 2 Residential Building, Proposed Level 16-17 GA Plan	150_JMA_B2_02_2216
Renaissance Block 2 Residential Building, Proposed Level 18-19 GA Plan	150_JMA_B2_02_2218
Renaissance Block 2 Residential Building, Proposed Level 20 GA Plan	150_JMA_B2_02_2220
Renaissance Block 2 Residential Building, Proposed Level 21 GA Plan	150_JMA_B2_02_2221
Renaissance Block 2 Residential Building, Proposed Level 22-23 GA Plan	150_JMA_B2_02_2222
Renaissance Block 2 Residential Building, Proposed Level 24-25 GA Plan	150_JMA_B2_02_2224
Renaissance Block 2 Residential Building, Proposed Level 26 GA Plan	150_JMA_B2_02_2226
Renaissance Block 2 Residential Building, Proposed Level 27 GA Plan	150_JMA_B2_02_2227
Renaissance Block 2 Residential Building, Proposed Roof GA Plan	150_JMA_B2_02_2228
Renaissance Building - Block 2, Proposed East Elevation	B2_04_2200
Renaissance Building - Block 2, Proposed North & South Elevation	B2_04_2201
Renaissance Building - Block 2, Proposed North & South Elevation	B2_04_2202
Renaissance Building - Block 2, Proposed Section AA & BB	B2_05_2200
Renaissance Building - Block 2, Bay Study 03	B2_10_4202
Renaissance Masterplan Ground Floor Plan	MP_00_2200

2 Fire Statement Form

The Fire Statement form includes a concise summary of the approach to fire safety taken, the site layout, access and facilities for firefighting, details of consultation undertaken on fire safety and consideration of local development documents.

Table 2: Application information

Application information		
1.	Site Address line 1	Land to the North of Renaissance Hotel
	Site Address Line 2	Blackfriars Street
	Site Address Line 3	
	Town/City	Manchester
	County	Greater Manchester
	Site Postcode (Optional)	M3 2EQ
2.	Description of proposed development including any change of use (as stated on the application form)	Erection of a part ground and 26 storey, part ground and 13 storey building to form 300 no. residential apartments (Class C3) and ground floor retail/ leisure floorspace (Class E/ Sui Generis (drinking establishments), together with private amenity space for residents (gym, cinema room and external terraces), new public realm to include riverside walkway and leisure/ food and beverage space (Class E/ Sui Generis (drinking establishments/ drinking establishments with food provision/ hot food takeaways), new landscaping, parking (36 spaces level -1), 300 cycle parking spaces, servicing, supporting infrastructure and associated works.
3.	Name of person completing the Fire Statement (as Section 15), relevant qualifications and experience.	<i>No more than 200 words</i> Author's Name: Agboola Ogunleye Post-Nominals: MEng (Hons), AIFireE Relevant Qualifications and Experience: Agboola graduated with a MEng in Structural and Fire Safety Engineering in 2021. He has over 3 years of experience working as a fire engineer in the UK, including building design and construction of purpose-built residential developments. Checker's Name: Adam Monaghan Post-Nominals: BSc, CEng, FIFireE, MSFPE Relevant Qualifications and Experience: A Chartered Engineer and an active fellow of the Institution of Fire Engineers, 25 years of consulting experience, specialising in residential, commercial offices, heritage, developments.

Application information		
4.	State what, if any, consultation has been undertaken on issues relating to the fire safety of the development; and what account has been taken of this.	<i>No more than 200 words</i> The previous scheme was developed up to RIBA Stage 4. The fire statement for the original scheme² was issued on 8th October 2021 with updates incorporated in the next issue dated from 21st October 2021³. The consultation response from HSE was received on 30th November 2021 and residual comments were addressed in the updated fire statement issued⁴ on 9th December 2021. The Stage 4 fire strategy report⁵ was issued to Ball & Berry (now Sweco) Building Control on 16th November 2021, and received approval in principle. Formal response from GMFRS⁶ was received on 9th February 2022 stating that the scheme satisfies the requirements of the Fire Safety Order; no objections comments raised. The established fire strategy principles for the agreed scheme will be adopted for the revised scheme. Formal consultations with relevant stakeholders for the revised scheme are to be conducted at the relevant approval stages, such as GMFRS, and the Building Safety Regulator.

² Design Fire Consultants, 'Renaissance Residential Building – Fire Statement', Ref: 1716_FS001.0, Revision 00, issued 08 October 2021.

³ Design Fire Consultants, 'Renaissance Residential Building – Fire Statement', Ref: 1716_FS001.1, Revision 01, issued 21 October 2021.

⁴ Design Fire Consultants, 'Renaissance Residential Building – Fire Statement', Ref: 1716_FS001.2, Revision 02, issued 09 December 2021

⁵ Design Fire Consultants, 'Renaissance Residential – Stage 4 Fire Strategy', Ref: 1716.1_R007.0, Revision 00, issued 16 November 2021

⁶ Response from Greater Manchester Fire and Rescue Service dated 9th February 2022. Ref: BRT/AH/PR1025023.

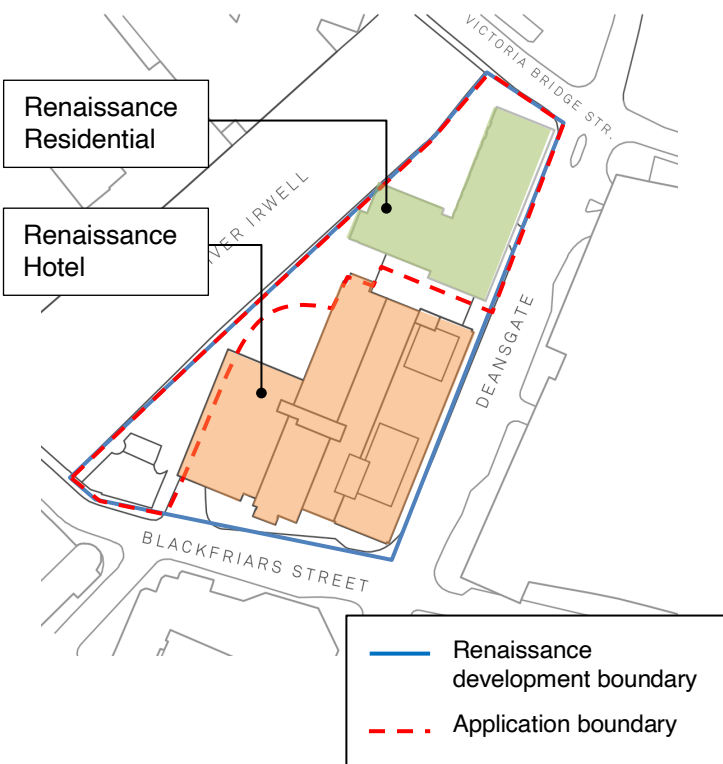
Application information		
5.	Site layout plan with block numbering as per building schedule referred to in 6. <i>(consistent with other plans drawings and information submitted in connection with the application)</i>	Site layout is:  This Fire Statement is relevant to Renaissance Residential only.

Table 3: The principles, concepts and approach relating to fire safety

The principles, concepts and approach relating to fire safety	
6. Building Schedule	
Site Information	
a) Block no. as per site layout plan above	Renaissance Residential.
b) Block height (m) Number of storeys excluding those below ground level Number of storeys including those below ground level	Proposed building height is approximately 94m to the topmost occupied storey (Level 27) from adjacent ground level. This building consists of 29 storeys above ground (namely, Ground Floor, First Floor, Second Floor, Levels 03-27, Roof). This building consists of 31 storeys (with 2 levels below ground, namely, Basement Car Park or Level B2, and Lower Ground Level or Level B1).
c) Proposed use (one per line)	Residential apartments (open plan apartments). Ancillary areas (plant rooms, bin store, BoH areas, staff welfare). Amenity areas (residential reception, gym, cinema room, amenity spaces). Commercial unit.
d) Location of use within block by storey	Basement Car Park: car park, cycle store, plant rooms. Lower Ground Level: residential apartments, BoH areas, staff welfare, amenity areas, cinema room, cycle store, switch room. Ground Floor: residential apartments, amenity areas, residential reception, commercial unit. First Floor: residential apartments, gym. Levels 02 to 25: residential apartments. Levels 26-27: duplex apartments. Roof: external area.

The principles, concepts and approach relating to fire safety	
Building Information	
e) Standards relating to fire safety/ approach applied	BS 9991 ⁷ – Residential Areas. Approved Document B Volume 2 ⁸ – Non-residential areas. The Building Regulations 2010 (as amended) ⁹ .
f) Balconies	Class A2-s1, d0 or better.
g) External wall systems	Class A2-s1, d0 or better.
Residential Safety Information	
h) Approach to evacuation	Stay Put evacuation approach for the apartments. Simultaneous evacuation approach for residential amenity and ancillary areas. Simultaneous evacuation approach for the commercial unit.
i) Automatic suppression	Yes – residential sprinkler system (Category 4 to BS 9251 ¹⁰ throughout the areas of the building with areas less than 100m ²). Yes – commercial sprinkler system (BS EN 12845 ¹¹ throughout the car park, the commercial unit, and the areas of the building with areas more than 100m ²).
j) Accessible housing provided	M4(1).

⁷ BS 9991: 'Fire safety design, management and use of residential buildings', 2015

⁸ HM Government, The Building Regulations 2010, Approved Document B (Fire Safety), Volume 2 – Buildings other than dwellings, 2019 edition (for use in England).

⁹ Statutory Instruments, '2018 No. 1230 Building and Buildings, England, The Building (Amendment) Regulations 2018'.

¹⁰ BS 9251, 'Fire sprinkler systems for domestic and residential occupancies – Code of practice', 2021.

¹¹ BS EN 12845:2015 + A1, 'Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance', 2019.

The principles, concepts and approach relating to fire safety

7. Specific technical complexities

Explain any specific technical complexities in terms of fire safety (for example green walls) and/or departures from information in building schedule above

Guide: no more than 500 words

Design Review: Numerous stakeholder consultations were held for the agreed scheme, involving discussions with DFC, Building Control, GMFRS, the project architect, site, and service yard operator¹²¹³. The fire strategy items covered: the proposed common corridor ventilation strategy, the service yard operation, and the protection of the protected stair from smoke ingress.

Open plan apartment layout: The proposed layouts exceed 8m x 4m in area and feature open kitchen design which may necessitate analysis of cooking facility locations to ensure that a cooking fire will not impede occupant egress. To address risk posed by cooking-related fires on means of escape, internal design will be based on positioning cooking facilities away from the apartment entrance, and/or the implementation of power cut off devices.

Extended travel distances: Single-directional travel distances within the common corridors exceed guidance limit of 15m. To demonstrate the common corridor mechanical ventilation strategy can maintain tenable conditions for means of escape, and firefighting, Computational Fluid Dynamics (CFD) analysis will be conducted in accordance with BS 9991. Reference is made here to Guidance on Smoke Control to Common Escape Routes in Apartment Buildings¹⁵. The agreed scheme implemented such CFD analysis¹⁷ which gained agreement from Building Control and GMFRS; the revised scheme will adopt, and maintain this strategy.

Protected stair vent: Automatically openable vents ('AOVs') are typically provided at the head of stairs as a source of inlet air for the common corridor ventilation, to protect the stair from smoke ingress, and to clear smoke from the stair during firefighting operations. The head of the protected stair is landlocked within the building (at Level 14), i.e., surrounded by flats, and therefore has no direct access to ventilation to open air, e.g., via an AOV.

In the proposed corridor arrangement, inlet air is provided by mechanical smoke shafts along the corridor, and in the protected evacuation lobby adjacent to the protected stair. Therefore, extract shafts in the corridor are not reliant on supply air from the head of this stair, when clearing smoke from the common corridors from Levels -1 to 13.

During firefighting operations, the stair is protected from smoke ingress via the smoke shaft ventilation configurations. Should smoke did enter the stair, smoke clearance is provided via extract shafts at Level 13, and low-level vent is provided in the stair at ground level to provide inlet air. On each residential level served by the protected stair (Levels -1 to 13), access to two BS 9991 firefighting stairs is provided.

¹² Design Fire Consultants 'Renaissance: Premier House, Fire Strategy Meeting, 25th March 2021' Meeting Notes 001', Ref: 1716.1_MN001.0, Revision 00, issued: 26.03.2021.

¹³ Design Fire Consultants, 'Renaissance: Car Park, Premier House and Residential Building, Fire Strategy Meeting with Building Control, 17th June 2021' Meeting Notes 002', Ref: 1716.1_MN002.0, Revision 00, issued: 18.06.2021.

¹⁵ Smoke Control Association, 'Guidance on Smoke Control to Common Escape Routes in Apartment Buildings (flats and maisonettes)', 2020

¹⁷ Design Fire Consultants, 'Renaissance Residential Building – CFD Analysis Results Report', Ref: 1716.1_R004.0, Revision 00, issued 22 October 2021.

The principles, concepts and approach relating to fire safety
8. Issues which might affect the fire safety of the development

Explain how any issues which might affect the fire safety of the development have been addressed.

Guide: no more than 500 words

Based on the scale of the scheme, the design and construction process is likely to span multiple years; during which, the referenced guidance documents herein may change. When this occurs, a review of the new guidance and any implications on the developed fire strategy will be conducted to determine any risks that requires addressing. The approach being adopted would be documented for submission to the approving authorities (Building Safety Regulator) for review. The current fire strategy design has considered, and incorporated fire safety design guidance from draft BS 9991¹⁸ to minimise the impact upon its publication; e.g., additional firefighting stair, additional evacuation lifts, and ventilated protected evacuation lobbies.

The fire strategy is limited to the base build design. Where future building works (e.g. fit-out or changes post-handover) are exempt from the Building Regulations they would need to be managed under the Regulatory Reform (Fire Safety) Order 2005¹⁹. However, if the proposed works are to carry out 'building work' as defined in Regulation 3 of the Building Regulations, then the works must meet the relevant technical requirements in the Building Regulations at the time, and they must not make other fabric, services, and fittings less compliant than they were before – or dangerous.

9. Local development document policies relating to fire safety

Explain how any policies relating to fire safety in relevant local development documents have been taken into account.

Guide: no more than 200 words

Not applicable. No local policies have been identified.

¹⁸ BS 9991 (Draft), 'Fire safety design, management and use of residential buildings', 2021.

¹⁹ Statutory Instruments, '2005 No. 1541 Regulatory Reform, England and Wales, The Regulatory Reform (Fire Safety) Order 2005', 2005.

Table 4: **Emergency road vehicle access and water supplies for firefighting purposes**

Emergency road vehicle access and water supplies for firefighting purposes
10. Fire service site plan <i>Explanation of fire service site plan(s) provided in 14. including what guidance documents have informed the proposed arrangements for fire service access and facilities?</i> <i>Guide: no more than 200 words</i> The building exceeds 18m in height and the internal floor area is circa 1,200m², and is served by two firefighting shafts, and one protected stair (appropriate for firefighting). The two firefighting shafts serving all residential levels (i.e., Levels -1 to 27); one firefighting shaft extends to Level -2. The protected escape stair serves Levels -2 to Level 13. Each firefighting shaft consists of: • A firefighting stair with a minimum width of 1100mm, design in accordance with BS 5395-1²⁰. • An AOV providing a minimum of 1.0m² geometric free area (or 0.7m² aerodynamic free area), in accordance with BS EN 12101-2²¹, at the head of the stair. • A firefighting lift in accordance with BS 9999²², and BS EN 81-72²³. • The firefighting stair and lift will be accessed via a protected lobby provided with smoke ventilation. • A wet fire main to be provided in accordance with BS 9990²⁴ in the stair. The protected escape stair includes the above provisions with the exception of an AOV at the head of the stair; refer to Section 7 for information. Vehicle access to the site will be possible as shown in Section 12 to 14.

²⁰ BS 5395-1, 'Stairs. Code of practice for the design of stairs with straight flights and winders,' 2010.

²¹ BS EN 12101-2, 'Smoke and heat control systems. Specification for natural smoke heat and exhaust smoke ventilators,' 2017.

²² BS 9991, 'Fire safety design, management and use of residential buildings', 2015.

²³ BS EN 81-72, 'Safety rules for the construction and installation of lifts. Particular applications for passenger and goods lifts. Fire fighting lifts,' 2020.

²⁴ BS 9990, 'Non automatic fire-fighting systems in buildings', 2015.

Emergency road vehicle access and water supplies for firefighting purposes**11. Emergency road vehicle access**

Specify emergency road vehicle access to the site entrances indicated on the site plan

Guide: no more than 200 words

Fire Service Vehicle will approach via Deansgate. This is an existing road expected to meet the following requirements for a pump appliance:

- Min. width of road between kerbs = 3.7m.
- Min. width of gateways = 3.1m.
- Min. clearance height = 3.7m.
- Min. carrying capacity = 12.5 tonnes.
- Max. reversing distance = 20m.

Deansgate is a through-road, and no turning facilities are required.

Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?

Yes.

A gate is provided between Deansgate and the second stair entry point. The gate will be provided with Fire Service key access to provide firefighting access (refer to Section 12).

The entire Renaissance development site is under the control of the same Joint Venture ownership.

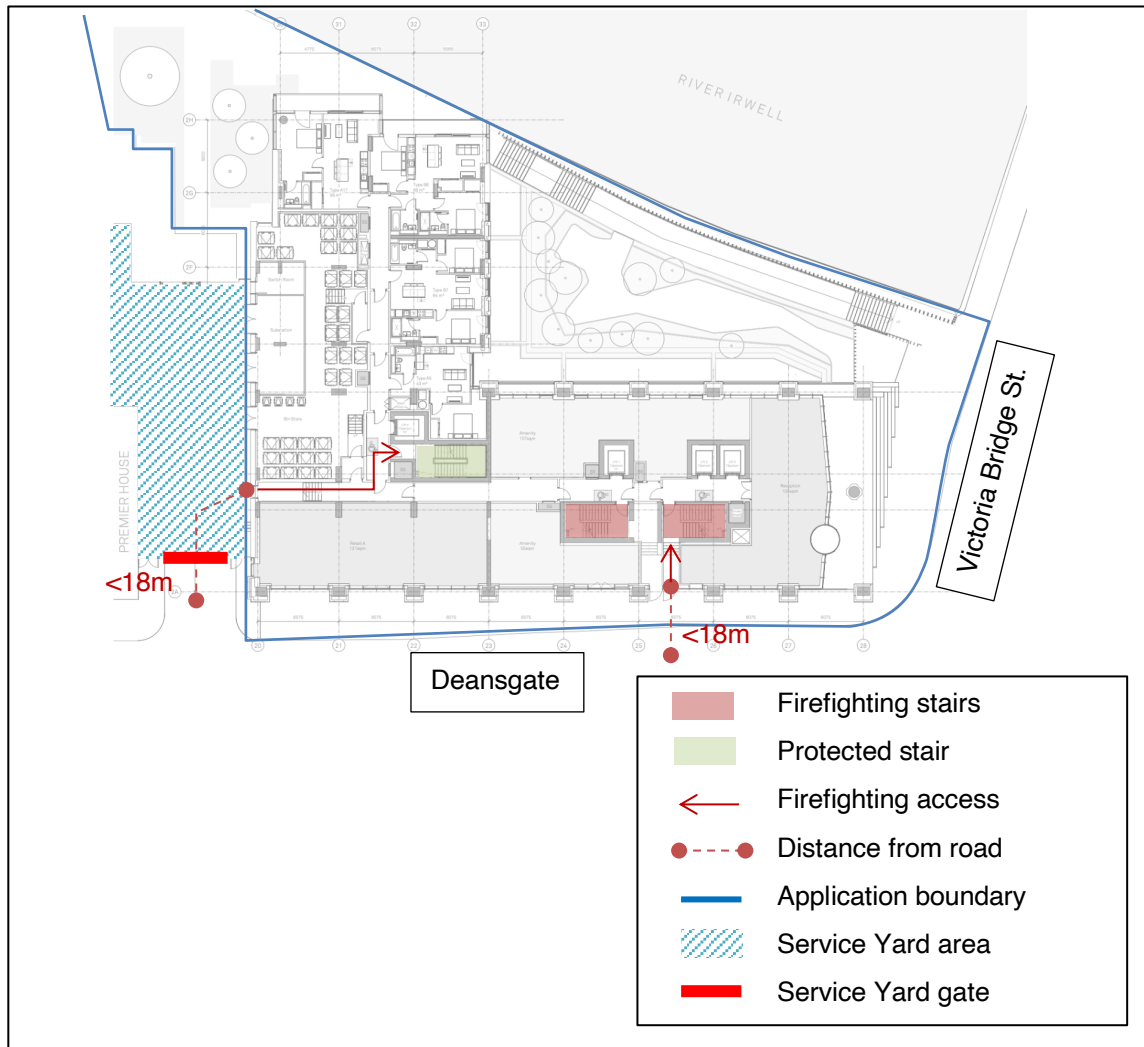
Whilst the end use service yard is under the control of the Renaissance Hotel management there is an agreement that the service yard must be used by residential and office building management. This strategy has been discussed and agreed with all project stakeholders including the Greater Manchester Fire and Rescue Service for the previous scheme; the revised scheme maintains the agreed control and access strategy.

Emergency road vehicle access and water supplies for firefighting purposes

12. Siting of Fire Appliances

Guide: no more than 200 words

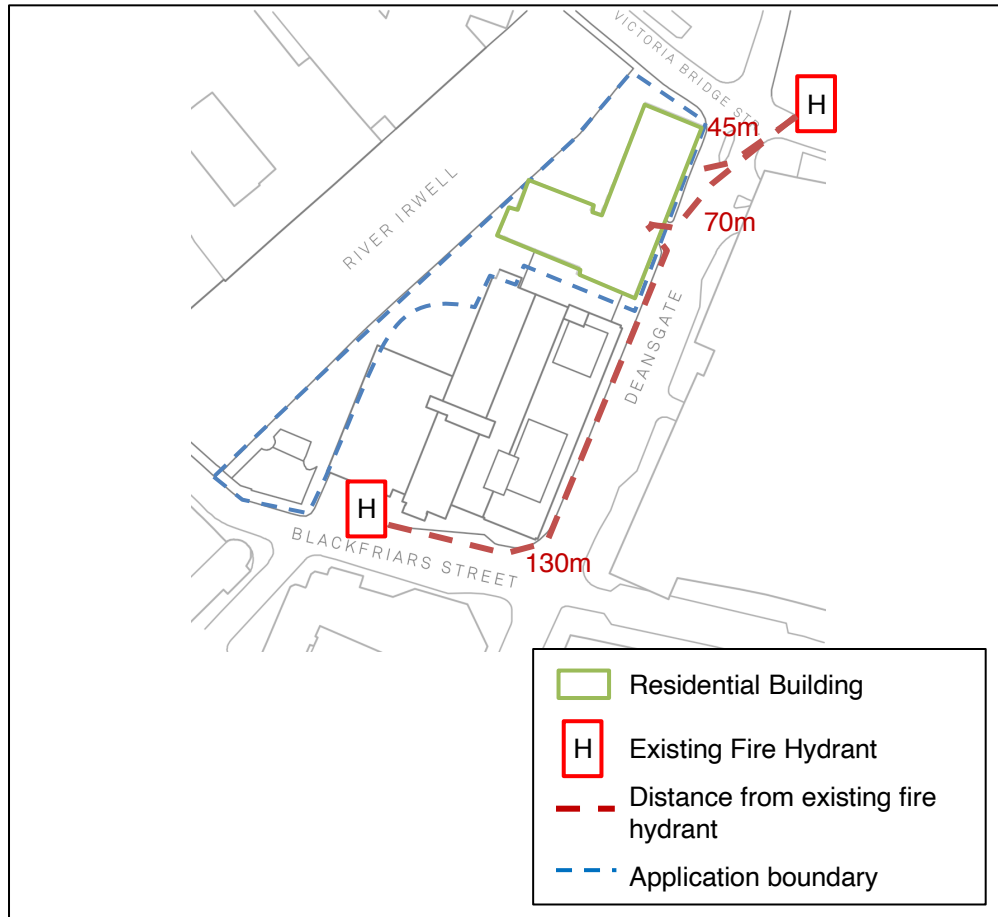
The building is provided with wet fire mains. Fire services vehicles will park on Deansgate, giving access to the firefighting stairs, and protected stair. Parking is provided within 18m of, and within sight of, a suitable entrance giving access to the wet fire main; and access is also provided within sight of the inlet for the emergency replenishment of the suction tank for the wet fire main.



Emergency road vehicle access and water supplies for firefighting purposes

13. Suitability of water supply for the scale of development proposed

Guide: no more than 200 words



Nature of water supply (Choose one below):

Hydrant – Public.

Does the proposed development rely on existing hydrants and if so, are they currently usable / operable?

Yes, hydrant is existing and appears to be accessible. Details are to be confirmed as the project progresses.

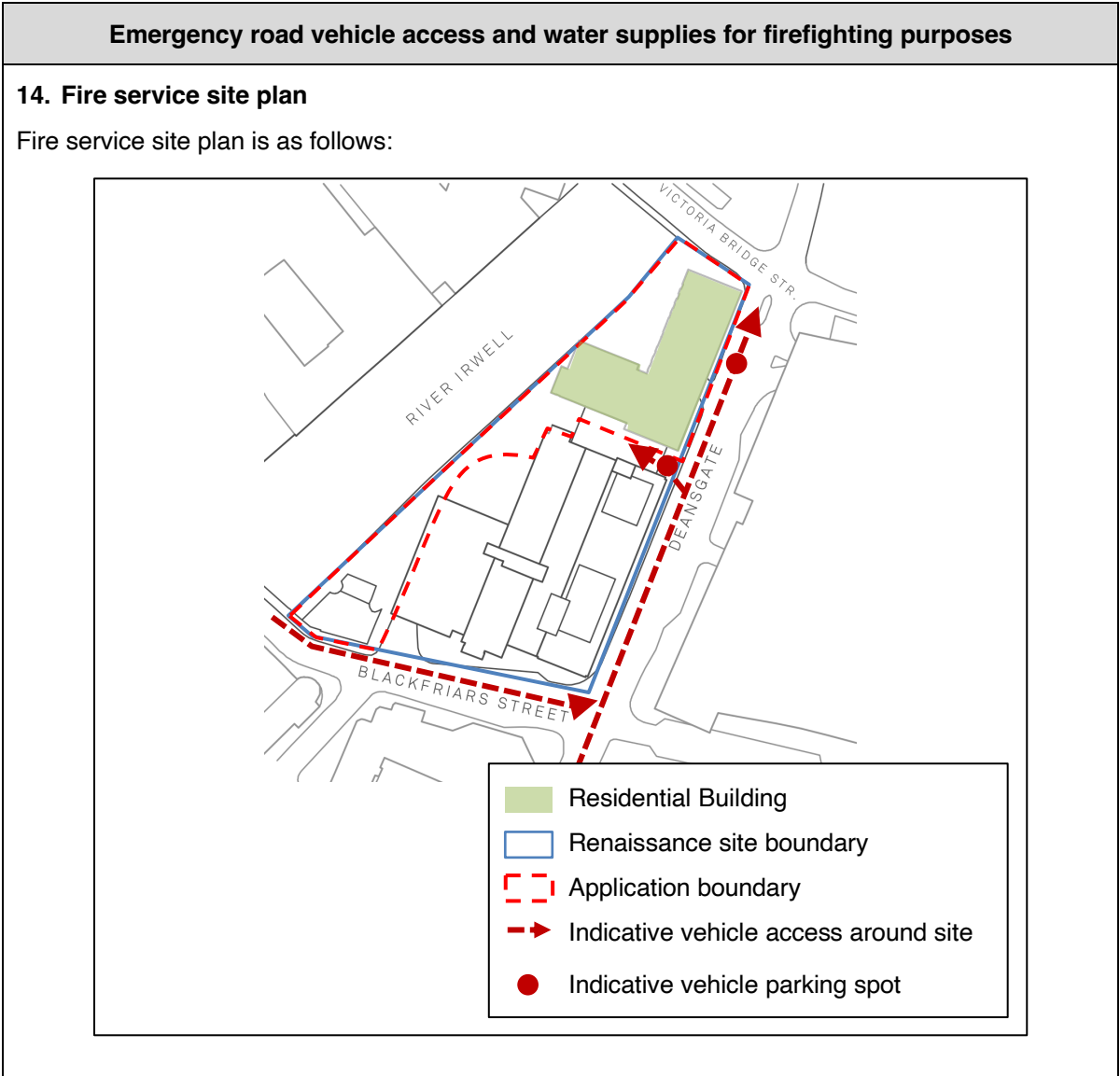


Table 5: Fire Statement completed by

Fire Statement completed by	
15. Signature	Author: Agboola Ogunleye  Checker: Adam Monaghan 
16. Date	13 September 2024