

Fire Statement – FS 001.0

Project: Victoria House
Subject: The Town and Country Planning Order - Fire Statement
Date: 17 February 2022
Author: Agboola Ogunleye & Merl Forrer
Checked: Adam Monaghan



1 Introduction

This Fire Statement has been prepared by Design Fire Consultants (DFC) and is submitted in support of the planning application made by Turley Associates Ltd. for the Victoria House development located in Manchester.

The purpose of this Fire Statement is to evidence that fire safety arrangements, 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.

Educational accommodation is defined as:

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

- 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
General Arrangement Basement Plan	10122-A-B5D9-G200-P-B1-003
General Arrangement Ground Floor Plan	10122-A-B5D9-G200-P-00-003
General Arrangement Mezzanine Level	10122-A-B5D9-G200-P-MZ-003
General Arrangement First Floor Plan	10122-A-B5D9-G200-P-01-003
General Arrangement Second Floor Plan	10122-A-B5D9-G200-P-02-003
General Arrangement Level 03-08 Plan	10122-A-B5D9-G200-P-03-003
General Arrangement Level 09-18 Plan	10122-A-B5D9-G200-P-09-003
General Arrangement Level 19-22 Plan	10122-A-B5D9-G200-P-19-003
General Arrangement Level 23 Plan	10122-A-B5D9-G200-P-23-003
General Arrangement Level 24 Plan	10122-A-B5D9-G200-P-24-003
Roof Plan	10122-A-B5D9-G200-P-RF-003
North East Elevation	10122-A-B5D9-G200-E-NE-003
North West Elevation	10122-A-B5D9-G200-E-NW-003
South East Elevation	10122-A-B5D9-G200-E-SE-003

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	Victoria House
	Site Address Line 2	Great Ancoats Street
	Site Address Line 3	
	Town/City	Manchester
	County	Greater Manchester
	Site Postcode (Optional)	M4 7DB

Application information		
2.	Description of proposed development including any change of use (as stated on the application form)	The application site which measures 0.1565 hectares (0.3867 acres) is broadly rectangular in plan. It is bound by Great Ancoats Street to the northeast, Epworth Street to the southeast and Longacre Street to the northwest. Beyond Longacre Street, the Metrolink line runs between Piccadilly and New Islington. The site is currently occupied by a single storey industrial unit which was used as a safety deposit centre. This will be demolished as part of the proposals. The consented proposed development (ref: 122000/FO/2018) is: Erection of a part 25 part 3 storey residential tower (Use Class C3) for 177 apartments comprising 59 x 1 bed (34 x 1 bed 1 person and 25 1 bed 2 person), 113 x 2 bed (44 x 2 bed 3 person and 69 x 2 bed 4 person) and 5 x 3 bed (3 bed 5 person) with ground floor commercial space (Use Class A1, A2, A3, A4 and D1) above partial basement level associated shared amenity spaces at 3rd floor level, realm enhancements following demolition of existing buildings. A previous fire statement for the consented proposed development was issued and agreed; this fire statement documents accounts for the amendments to the consented development. The amendments to the proposal is now: Erection of a part 25 part 3 storey residential tower (Use Class C3) for 177 apartments comprising 57 x 1 bed (34 x 1 bed 1 person and 23 1 bed 2 person), 115 x 2 bed (36 x 2 bed 3 person and 79 x 2 bed 4 person) and 5 x 3 bed (3 bed 5 person) with ground floor commercial space (Use Class A1, A2, A3, A4 and D1) above partial basement level associated shared amenity spaces at 3rd floor level, realm enhancements following demolition of existing buildings. Residential areas: 14,764sqm (158,918sqft) – 177 apartments. Commercial: 304sqm (3,272sqft) Cycles: 178 spaces
3.	Name of person completing the Fire Statement (as Section 15), relevant qualifications and experience.	Author's Name: Merl Forrer Post-Nominals: MEng (Hons), FIFireE, MSFPE Relevant Qualifications and Experience: A fire engineer and an active member of the Institution of Fire Engineers, 22 years' experience working in the fire and rescue service and consulting experience, specialising in residential, commercial and heritage developments. Checker's Name: Adam Monaghan Post-Nominals: BSc, CEng, FIFireE Relevant Qualifications and Experience: A Chartered Engineer and an active fellow of the Institution of Fire Engineers, 22 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.	RIBA Stage 3 fire safety reports have been issued and in principle agreement has been reached with Building Control and Greater Manchester Fire and Rescue Authority. Comments and consultation received with Building Control in regard to Part B compliance have been incorporated into the developed design.
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 shown below: 

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	Victoria House

The principles, concepts and approach relating to fire safety	
b) Block height (m) Number of storeys excluding those below ground level Number of storeys including those below ground level	27 storeys including basement level, ground floor, mezzanine, Level 01 to 24. The proposed building height is approximately 75m to the topmost occupied storey. The basement level is located approximately 3.1m beneath the ground floor.
c) Proposed use (one per line)	Residential flats, maisonettes, studios Ancillary Areas (refuse areas, store rooms, bicycle store, switch rooms, and plant areas) Amenity Areas (residential reception/entrance, welfare, gymnasium, and roof garden) Commercial/Retail Areas
d) Location of use within block by storey	Basement Level: Ancillary areas (store rooms, and plant areas) Ground Floor: Ancillary areas (refuse store, post room, and switch rooms), Amenity, and Commercial/Retail areas. Mezzanine Level: Ancillary areas (cycle store). First and Second Floors: Residential flats, Ancillary (refuse), and Amenity areas. 3 rd to 24 th Floors: Residential flats, and Ancillary areas
Building Information	
e) Standards relating to fire safety/ approach applied	Approved Document B (ADB:2019 edition including 2020 amendments) BS 9991:2017 BS 9999:2015 The Building Regulations 2010 (as amended) including updates to Regulation 7. Construction (Design and Management) Regulations 2015
f) Balconies	Class A2-s1, d0 or better
g) External wall systems	Class A2-s1, d0 or better
Residential Safety Information	

The principles, concepts and approach relating to fire safety	
h) Approach to evacuation	Simultaneous evacuation strategy for retail, and amenity areas. Stay Put evacuation strategy for residential apartments.
i) Automatic suppression	Yes – Residential Sprinklers (category 4 to BS 9251).
j) Accessible housing provided	In accordance with Manchester's planning policy guidance, it is proposed that 10% of the residential units are 'Adaptable units' and are designed to meet the requirements of Building Regulation Part M4(2). This equates to a total of 17 units which will be proportionally split between 1 bed and 2 bed units.
7. Specific technical complexities Open plan apartments are permitted in BS 9991. There are however unenclosed kitchens which may necessitate analysis of cooking facility locations to ensure that a cooking fire will not impede occupant egress. Such analysis may require alternative cooker locations, or the implementation of power cut off devices. There is adequate flexibility in all kitchen layouts to either amend or include power cut off devices which will be fully quantified during detailed design. Changes to design standards: BS 9991 is currently under review with a draft for public comment issued in 08/2021. The revised BS 9991 is envisioned to include the following two changes to fire safety design guidance, these changes are considered the most likely to occur upon publication. The first change in guidance is the recommendation for a sprinkler system to cover all building areas including stairs and corridors. The second change in guidance is the upgrading the structural fire resistance to 90 minutes for buildings between 18m and 30m. At the time of writing, a time frame for any such changes is not yet known, nonetheless, the overall design can facilitate both changes as required. The building has a height greater than 30m therefore, the structural fire resistance will be 120 minutes. Travel distances: Travel distance on the common residential corridor at Level 01 (only) exceeds 15m for single direction of travel. This corridor area requires further analysis in accordance with a BS 9991 assessment method (reference is made here to Guidance on Smoke Control to Common Escape Routes in Apartment Buildings²). Due to the extended travel distance and the need for further assessment, enhanced smoke ventilation systems are included in the design, for cost and space planning purposes. The proposed smoke ventilation solutions are familiar to the project team, Building Control Authority, and Greater Manchester Fire and Rescue Service.	
8. Issues which might affect the fire safety of the development Where future building works are exempt from the Building Regulations they would need to be managed under the Regulatory Reform (Fire Safety) Order 2005. 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.	

² Smoke Control Association, 'Guidance on Smoke Control to Common Escape Routes in Apartment Buildings (flats and maisonettes)', 2020

The principles, concepts and approach relating to fire safety
9. Local development document policies relating to fire safety Not applicable.

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 Victoria House has a floor greater than 50m, therefore, firefighting operations will be conducted internally. As firefighting operations will be conducted internally, a firefighting shaft will be provided with the residential common corridors performing the function of the firefighting lobby in accordance with the guidance in Section 15 of ADB and BS9991. The firefighting shaft includes the following provisions: • A firefighting stair with minimum width of 1100mm, designed in accordance with BS 5395-1³. • The firefighting stair is to be provided with an AOV providing a minimum 0.7m² aerodynamic area or 1.0m² geometric free area, located at the head of the stair. The vent is to open in the event of smoke detection in any common corridor. An override switch is required at the base of each firefighting stair for fire service control. • A firefighting lift designed and installed in accordance with BS 9999, BS EN 81-72⁴ and BS EN 81-1⁵, as appropriate. The firefighting lift serves all levels (i.e. Basement level to level 24 – upper most level). • A mechanically smoke ventilated residential common corridor on all levels excluding level 24. Level 23 and level 24 provide accommodation to duplex apartments with alternative means of escape via either level 23 or 24 via an internal protected stair in the duplex apartment. An AOV 1.5m² (geometric free area) will be installed in the common corridor to ensure the corridor is provided with smoke ventilation. This has been discussed with both the Building Control Authority and Greater Manchester Fire and Rescue Authority to ensure any comments are incorporated into the developed design. • The firefighting shaft is provided with wet fire mains in accordance with BS 9990⁶ – including tanks, pumps, and secondary power supply. • Water storage tanks are to be provided for the wet risers in accordance with BS9990. Numerous public and operational hydrants are provided with 90m, see Section 13 for further details. Fire service vehicle access is provided to the base of the wet riser inlet (7m from the front elevation of the building on Great Ancoats Street) The front elevation also provides secondary access into the firefighting core and shaft (total travel distance into the protected shaft is 16m). Primary access to the firefighting shaft, (see figure in Section 11 below) is off Longacre Street to the side and rear elevation. Access from the Longacre Street is 17m into the protected firefighting corridors and firefighting shaft. There is fire service vehicle access to the base of the firefighting shaft off Longacre Street and within 18m of the firefighting shaft.

³ BS 5395: Part 1, 'Stairs. Code of practice for the design of stairs with straight flights and winders,' 2010

⁴ BS EN 81-72, 'Safety rules for the construction and installation of lifts. Particular applications for passenger and goods lifts. Firefighting lifts,' 2015

⁵ BS EN 81-1 + A3, 'Safety rules for the construction and installation of lifts, Electric lifts' 1998, 2009

⁶ BS 9990: 'Non automatic fire-fighting systems in buildings', 2015

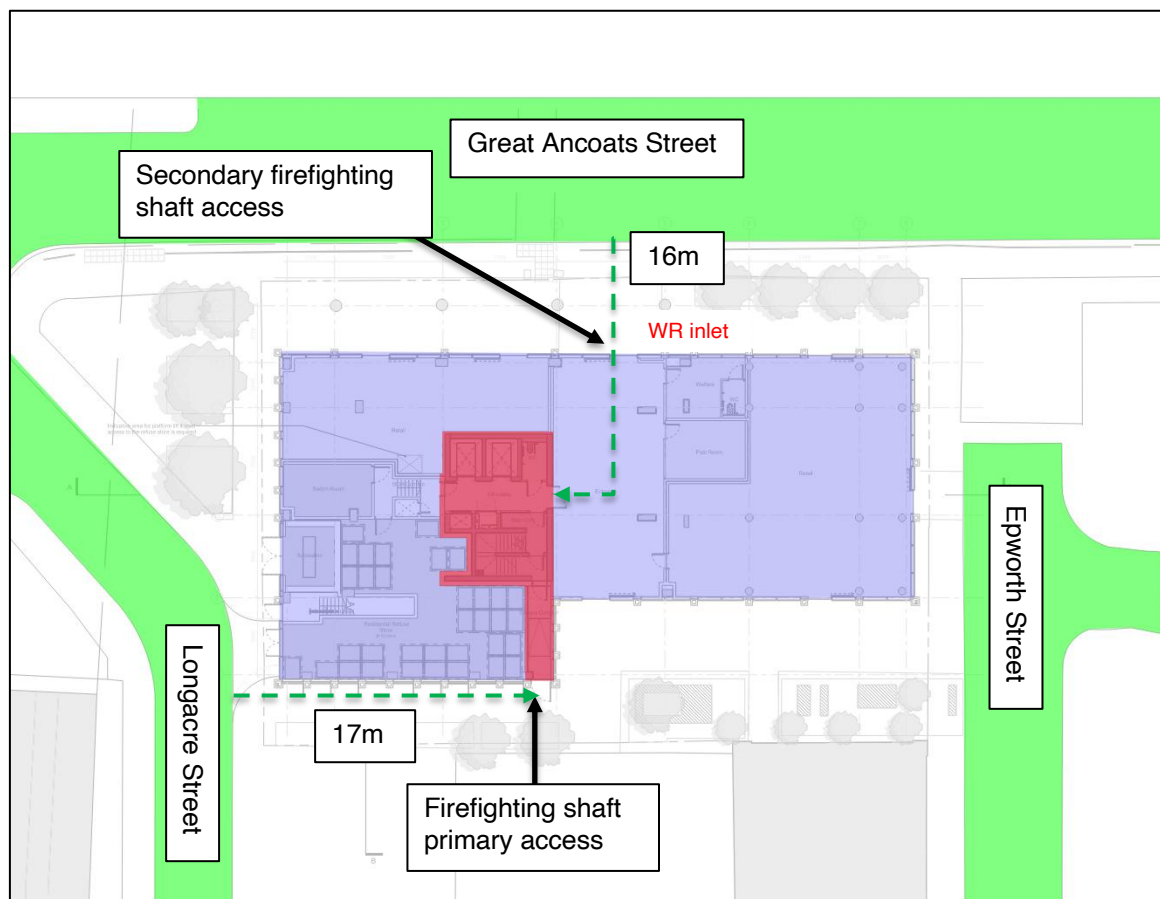
Emergency road vehicle access and water supplies for firefighting purposes**11. Emergency road vehicle access**

The access routes (Great Ancoats Street, Epworth Street, and Longacre Road) are existing highways and will typically provide the following access requirements for a pump appliance (in accordance with Section 13 of ADB):

- 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.

The aforementioned routes are through roads (existing); therefore, it is assumed that turning circles and dead-end reversing limitations will not apply.

See below for wet riser inlet location, and firefighting entry points into the firefighting shaft from Longacre Street, and Great Ancoats Street.



Emergency road vehicle access and water supplies for firefighting purposes

A swept path analysis has been conducted by the design team to demonstrate the feasibility of vehicle access (as per Section 14).

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

Yes

12. Siting of Fire Appliances

Victoria House is fitted with wet fire mains and as such they the fire appliance have access:

- Within 17m of, and within sight of, the primary firefighting shaft and within 16m of the secondary entrance giving access to the wet fire main; and
- Within 7m of the inlet for the emergency replenishment of the suction tank for the wet fire mains.

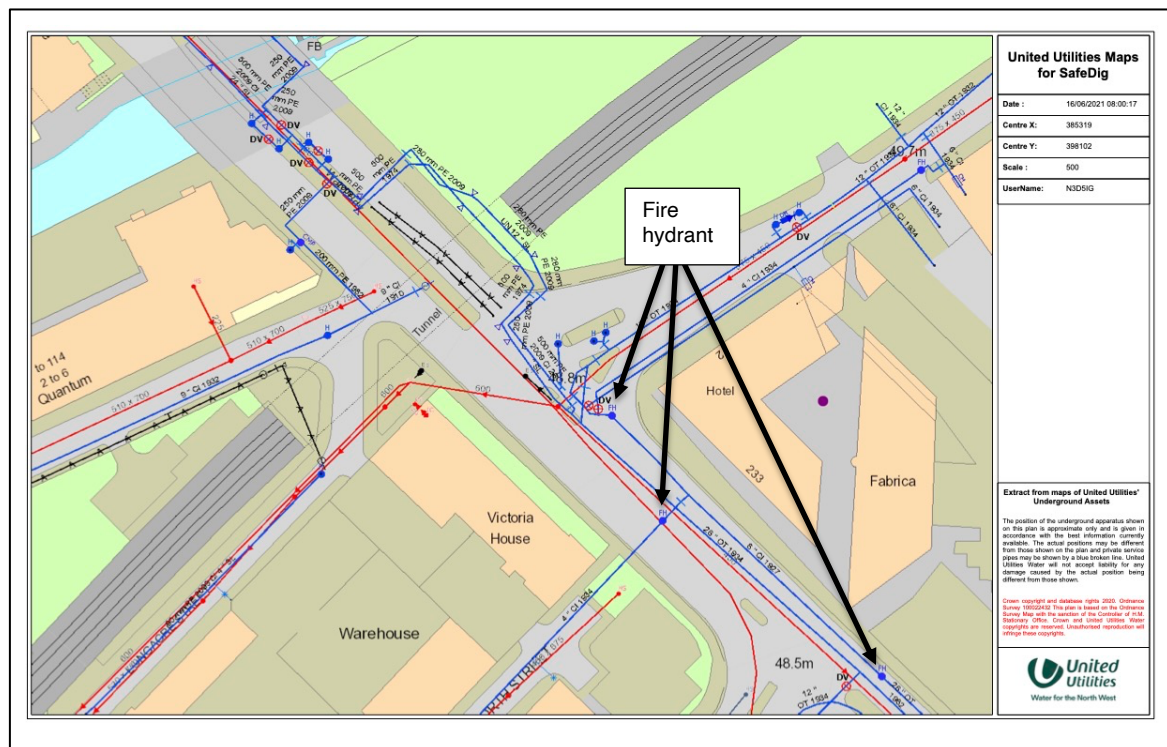
As such fire appliance siting is in accordance with the guidance set out in ADB and BS9991.

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

Water storage tanks are to be provided for the wet risers in accordance with BS9990.

Numerous public and operational hydrants are provided with 90m (the closest hydrant to the wet riser inlet is approx. 20m from the wet riser inlet) of the wet riser inlets to each inlet for the emergency replenishment of the suction tank for the wet fire mains, not more than 90m apart, and not closer than 6m of Victoria House.

The provision of operational hydrants are as follows:



Yes – It has been confirmed by the MEP engineer (via United Utilities) that the nearby hydrants are currently usable and operable.

Project: VICTORIA HOUSE - GREAT ANCOATS ST				Status: PRELIMINARY			
Drg Title: PROPOSED LOADING BAY LARGE REFUSE VEHICLE SWEEP PATH ANALYSIS				Designed By: JM		Checked By: AT	
				Drawn By: JM		Date: 26/09/18	
				Scale: 1:500			
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
68957	- CUR	- 00	- XX	- DR	- TP	05001	- P01

Table 5: Fire Statement completed by

Fire Statement completed by		
15. Signature	Authors: Agboola Ogunleye	Merl Forrer
	 Checker: Adam Monaghan	 
16. Date	17 February 2022	