

Upper Brook Street Masterplan Williams / Alliance UBS Limited

The Town and Country Planning Order – Fire Statement

Fire Statement – FS 001.1

Project: Upper Brook Street Masterplan (Williams Motor Co (Holdings)/Alliance UBS Limited)

Subject: The Town and Country Planning Order - Fire Statement

Date: 25 October 2023

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Checked: Adam Monaghan



1 Introduction

This Fire Statement has been prepared by Design Fire Consultants (DFC) on behalf of Williams Motor Co (Holdings) and Alliance UBS Ltd. It supports a full planning application for the full planning application for the demolition of existing buildings and erection of three ground floor +12/14/29 storey buildings to be used for Purpose Built Student Accommodation (Use Sui Generis), comprising 983 bedrooms in total and 506 sqm of ground floor ancillary uses (café/commercial and convenience store – Use Classes E(a)/(b)/(c)), three buildings comprising ground floor + 5/7/9 storeys for Science and Innovation use (Use Class E (g)(i) & (ii)) and 834sqm ground floor community uses (retail/cafes and medical facility (Use Classes E (a)/(b) and (e)), and the provision of new public realm, two new public squares, new access and parking, and associated works.

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:

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

- 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:

- 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
Building A1/A2 – General Arrangement Plan Basement	10450-SHP-ZZ-A-B5D8-G200-PL-B1-001 Rev P02
Building A1/A2 – General Arrangement Plan Level 00	10450-SHP-ZZ-A-B5D8-G200-PL-00-001 Rev P02
Building A1/A2 – General Arrangement Plan Mezzanine Level	10450-SHP-ZZ-A-B5D8-G200-PL-M0-001 Rev P01
Building A1/A2 – General Arrangement Plan Level 01-13	10450-SHP-ZZ-A-B5D8-G200-PL-TY-001 Rev P02
Building A1/A2 – General Arrangement Plan Level 14	10450-SHP-ZZ-A-B5D8-G200-PL-25-001 Rev P02
Building A1/A2 – General Arrangement Plan Level 15-18	10450-SHP-ZZ-A-B5D8-G200-PL-TY-002 Rev P02
Building A1/A2 – General Arrangement Plan Levels 19-22	10450-SHP-ZZ-A-B5D8-G200-PL-TY-003 Rev P02
Building A1/A2 – General Arrangement Plan Levels 23-24	10450-SHP-ZZ-A-B5D8-G200-PL-TY-004 Rev P02

Name	Reference
Building A1/A2 – General Arrangement Plan Level 25	10450-SHP-ZZ-A-B5D8-G200-PL-25-001 Rev P01
Building A1/A2 – General Arrangement Plan Level 26	10450-SHP-ZZ-A-B5D8-G200-PL-26-001 Rev P02
Building A1/A2 – General Arrangement Plan Level 27	10450-SHP-ZZ-A-B5D8-G200-PL-27-001 Rev P02
Building A1/A2 – General Arrangement Plan Level 28	10450-SHP-ZZ-A-B5D8-G200-PL-28-001 Rev P02
Building A1/A2 – General Arrangement Plan Levels 29	10450-SHP-ZZ-A-B5D8-G200-PL-29-001 Rev P01
Building A1/A2 – General Arrangement Plan Roof	10450-SHP-ZZ-A-B5D8-G200-PL-RF-001 Rev P02
Building A3 – General Arrangement Plan Level 00	10450-SHP-A3-A-B5D8-G200-PL-00-001 Rev P02
Building A3 – General Arrangement Plan Level 01	10450-SHP-A3-A-B5D8-G200-PL-00-001 Rev P02
Building A3 – General Arrangement Plan Level 02-11	10450-SHP-A3-A- B5D8-G200-PL-TY-001 Rev P02
Building A3 – General Arrangement Plan Roof	10450-SHP-A3-A-B5D8-G200-PL-RF-001 Rev P02
Building A1/A2/A3 General Arrangement Site Section AA	10450-SHP-ZZ-A- B5D8-G200-SE-AA-001 Rev P02

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	Upper Brook Street Masterplan
	Site Address Line 2	19-21 Upper Brook Street
	Site Address Line 3	
	Town/City	Manchester
	County	Greater Manchester
	Site Postcode (Optional)	M13 9XH

Application information		
2	Description of proposed development including any change of use (as stated on the application form)	The erection of six new build buildings. There are three new build buildings comprising purpose-built student accommodation with associated amenity space, back of house accommodation and flexible commercial units at Ground floor. These three buildings are all relevant buildings and are called Plot A1, A2 and A3. There will also be three new build buildings providing life science laboratory/office accommodation. These are Plots B1, B2 and B3. These are not relevant buildings and do not impact on the relevant buildings as they relate to fire safety planning aspects. Key site information: Building Height - Plot A1 – 87.4m (to top occupied storey). - Plot A2– 44.3m (to top occupied storey). - Plot A3– 35.1m (to top occupied storey). Note the Basement and Level 00 are shared between Plot A1 and A2. Number of storeys - Plot A1 – Ground plus 29 storeys and one basement level. - Plot A2 – Ground plus 14 storeys and one basement level. - Plot A3 – Ground plus 12 storeys. Number of stairs - Plot A1 – 2 stairs. - Plot A2 – 2 stairs. - Plot A3 – 2 stairs. Number of student rooms - Plot A1 – 529 (333 beds in Studios and 196 beds in Clusters). - Plot A2 – 234 (104 beds in Studios and 130 beds in Clusters). - Plot A3 – 220 (220 beds in Clusters).

Application information		
3	Name of person completing the Fire Statement (as Section 15), relevant qualifications and experience.	Author's Name: Gareth Ainley Post-Nominals: BEng, CEng, MIFireE Relevant Qualifications and Experience: Chartered Engineer with the Engineering Council, 19 years of consulting experience in fire safety consultancy. Checker's Name: Adam Monaghan Post-Nominals: BSc, CEng, FIFireE, MSFPPE Relevant Qualifications and Experience: Chartered Engineer with the Engineer Council. Adam has over 24 years of experience in the fire safety consultancy business.
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.	No meetings have taken place with Building Control or the Fire Service. Pre-application information was issued by DFC to the HSE on 07 May 2023. Awaiting a response. Pre-application advice was received on the 12 July (file name: pgo-3209-01 (HSE Pre-app Advice Note) 9-21 Upper Brook Street) A substantive response was received from the HSE on 18 September 2023 (file name: pgo-3723 (HSE Substantive Response) LPA REF 137401_FO_2023. The design has been amended to address these responses such that all the raised concerns have been designed out. The roof terrace at Level 1 of Building A3 is provided with further supporting justification to explain the rationale behind why the design is considered to meet the functional requirements of the Building Regulations.

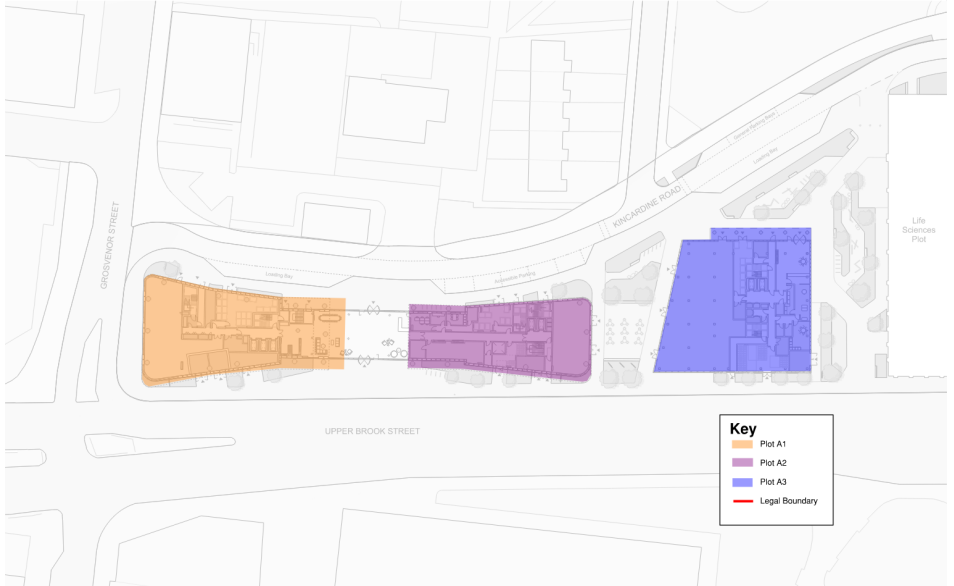
Application information		
5	Site layout plan with block numbering as per building schedule referred to in 6. <i>(consistent with other plans drawings and information submitted in connection with the application)</i>	The proposed PBSA site is bounded by Grosvenor Street to the North, Kincardine Road to the East and Upper Brook Street to the West. To the South is the Life Sciences buildings that are also part of this development. This will be formed by three buildings that will provide Life Science office/laboratory accommodation with a small commercial offering at the Ground floor. A site plan of the PBSA site with Block numbering 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)	Plot A1	Plot A2	Plot A3
Block no. as per site layout plan above			
b)			
Block height (m) (to top occupied storey)	Circa 87.4m	Circa 44.3m	Circa 35.1m
Number of storeys excluding those below ground level	30 storeys	15 storeys	13 storeys
Number of storeys including those below ground level	31 storeys	16 storeys	13 storeys

The principles, concepts and approach relating to fire safety			
c) Proposed use (one per line)	Student accommodation	Student accommodation	Student accommodation
d) Location of use within block by storey	Basement: Plant. Level 00: Gym, Refuse Store, Laundry, Amenity Space and Main Entrance and Plant rooms. Mezzanine Level: Plant rooms and Amenity Space. Level 01-13: Student residential accommodation. Level 14-28: Student residential accommodation. Level 29: Amenity Space.	Basement: Plant. Level 00: Commercial Unit, Amenity Space and Main entrance, Refuse Store, Cycle Store, Plant rooms, Parcel Room and Support Offices. Mezzanine Level: Plant rooms, Cycle Store and Laundry. Level 01-13: Student residential accommodation. Level 14: Plant, Event BOH and Roof Terrace.	Level 00: Commercial Unit, Main Entrance and Amenity Space, Refuse Store, Plant, rooms, Cycle Store and Support Offices. Level 01: Amenity Space with Roof Terrace, Laundry and a plant room. Level 02-11: Student residential accommodation.
Building Information			
e) Standards relating to fire safety/ approach applied	BS 9991, 'Fire safety design, management and use of residential buildings', 2015 BS 9999, 'Code of practice for fire safety in the design, management and use of buildings', 2017.		
f) Balconies	Balconies are not included in the development.		
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	The evacuation strategy for the three PBSA buildings in the development allows those most at risk to evacuate first. Each building shall evacuate separately. All shared amenities and ancillary areas (i.e. plant rooms) within each building shall evacuate simultaneously on activation of the fire alarm system if a fire is detected in any one of those spaces. The associated terraces shall also evacuate should a fire be detected in these areas. The commercial units in A2 and A3 shall only evacuate for a fire within the specific unit. A defend in place evacuation strategy shall be adopted in the residential areas, whereby, upon alarm activation, only the occupants of the dwelling of fire origin will need to evacuate initially. All other residential occupants should be safe to remain within their dwelling unless directly affected by heat and smoke or directed to evacuate by building management or the Fire and Rescue Service. For the above each cluster flat will be considered a single dwelling.
i) Automatic suppression	Automatic sprinkler protection in accordance with BS EN 12845 will be provided throughout the development.
j) Accessible housing provided	The scheme would not fall under any of the M4(1), M4(2) or M4 (3) classifications since it is purpose-built student accommodation. Accessible accommodation will be provided to 5% of the scheme.

The principles, concepts and approach relating to fire safety

7. Specific technical complexities

Compliance with guidance is not mandatory for compliance with Part B to Schedule 1 of the Building Regulations, and alternative solutions can be acceptable. There are several elements of the fire safety design requiring alternative solutions due to the constraints of the building, and the adequacy of the solutions will be demonstrated during detailed design.

The building height of A1 exceeds 50m therefore a qualitative design review will be required to determine whether the recommendations of BS 9991 are appropriate. Initial considerations of this have included a second stair to serve all floors, a wet rising main for fire service use within the second stair and mechanical ventilation to common corridors as opposed to natural ventilation.

Studio flat layout: The proposed studio rooms will be designed in accordance with the recommendations in BS 9991 for open plan flat design. Guidance notes that the cooking appliances in an open plan apartment should not be adjacent to the entrance of the flat. Careful planning and protection (power cut-off devices) will ensure that a hob fire will not impede occupant egress. Where required, an assessment into the effectiveness of power cut-off devices in conjunction with sprinkler system protection in protecting means of escape will be fully quantified during detailed design.

Cluster flat layout: The proposed cluster rooms will be designed in accordance with the recommendations in BS 9991 for open plan flat design with the exception that in some of the clusters the kitchen is not at the most remote end of the flat. Careful planning and protection (power cut-off devices, free swing self-closing devices) will aim to ensure that a kitchen fire will not impede occupant egress. Where required, an assessment into the effectiveness of power cut-off devices in conjunction with sprinkler system protection in protecting means of escape will be fully quantified during detailed design. Should the layout not be agreed upon later approvals discussions, then the internal arrangements could be amended without impact on land use and planning.

Duplex flat layout: The proposed duplex rooms are proposed to have an open stair connecting the two levels. This is considered reasonable given the level of detection and suppression in these flats and the sleeping accommodation being on the lower level. This is however a departure from BS 9991 and as such will need further assessment to support the design proposals at the next design stage. Should the layout not be agreed upon later approvals discussions, then the stair could be fully enclosed without impact on land use and planning.

Corridor/Lobby Ventilation: Corridor ventilation strategy comprised of mechanical extract smoke shafts. Subject to further design team input, computational fluid dynamics (CFD) assessment and stakeholder approval (e.g., approvals authorities).

Evacuation from roof terraces through amenity spaces: The roof terrace at Level 1 of building A3 escapes through an Amenity space. This has been reviewed against the guidance of BS 9999 and separate justification is provided in a supplementary design note (ref: 2226.1_DN001.2 Upper Brook Street Masterplan_231023).

Mezzanine amenity space: There is an amenity space at the Mezzanine that overlooks the Ground floor Amenity space. This area is considered to meet the recommendations of BS 9999 in that the risk profile for this specific area would be 'A' or 'B'. The void does not connect more than two levels and escape at the mezzanine level is away from the void edge and within compliant travel distances. Should the layout not be agreed upon later approvals discussions a partition could be provided between the two areas.

The principles, concepts and approach relating to fire safety
8. Issues which might affect the fire safety of the development The main variations to guidance detailed in Section 7 above, these are to be developed further and fully assessed at the next stage of design.
9. Local development document policies relating to fire safety Not applicable. No local policies have been identified.

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 Fire Service access to the site is based on the guidance contained within BS 9991 and associated references to BS 9999. A single firefighting shaft will be provided to each of the three blocks. This is considered reasonable since the floors that are over 18m are all less than 900m ² . Each firefighting shaft shall include the following provisions: • A firefighting stair that is at least 1100mm wide, designed in accordance with BS 5395-1. • An AOV located at the head of the firefighting stair. This vent shall have a free area of 1.0m². • A firefighting lift designed and installed in accordance with BS 9999, BS EN 81-72 and BS EN 81-1, as appropriate. This lift shall be within 7.5m of the entry point to the stair. • Plot A1 will contain a wet fire main and Plots A2 and A3 will contain a dry fire main. Outlets will be located within the stairs as is recommended with student residential accommodation. • A smoke ventilated lift lobby, in accordance with BS 9991, performing the function of a firefighting lobby.
11. Emergency road vehicle access The main fire vehicle access routes shall be provided via Kincardine Road and Upper Brook Street. These are public roads and are sufficiently sized for fire vehicle access. Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed? Yes, access to the site is via main public roads.
12. Siting of Fire Appliances The main fire vehicle access routes shall be provided via Kincardine Road and Upper Brook Street. Fire vehicle access is provided for a pump appliance to within 18m and in sight of the inlets for the replenishment of the wet fire main tank and the dry fire mains. See Clause 14 for the proposed fire vehicle access.

Emergency road vehicle access and water supplies for firefighting purposes
13. Suitability of water supply for the scale of development proposed

The development will be provided with sprinkler protection throughout the buildings in accordance with BS EN 12845. The sprinkler system is to be supported by suitably sized tanks which can accommodate the proposed design density and duration of supply.

A wet fire main will be included in Plot A1. It will be designed and installed in accordance with BS 9990 with outlets in the stairs. Plot A2 and A3 will be provided with dry fire mains designed and installed in accordance with BS 9990 with outlets in the stairs.

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?

Fire hydrants are to be located within 90m of the dry fire main inlets and the inlet to replenish the wet fire main tank.

There appears to be existing fire hydrants in the following locations:

- Corner of Inchley Road and Kincardine Road.
- Corner of Grosvenor Street and Groom Street.
- Upper Brook Street across from the Henry Royce Institute.
- Corner of Kincardine Road and Whitekirk Close.

The existing fire hydrant locations and their suitability shall be confirmed by the Design Team at the next design stage. If the above fire hydrants are suitable and are retained as part of the works, then it is considered that only a single additional fire hydrant will be required. This should be located to the North of the site in the region outlined in the clouded area in Clause 14. The final location is to be agreed as the design develops.

Emergency road vehicle access and water supplies for firefighting purposes

14. Fire service site plan

Fire service site plan is as follows:

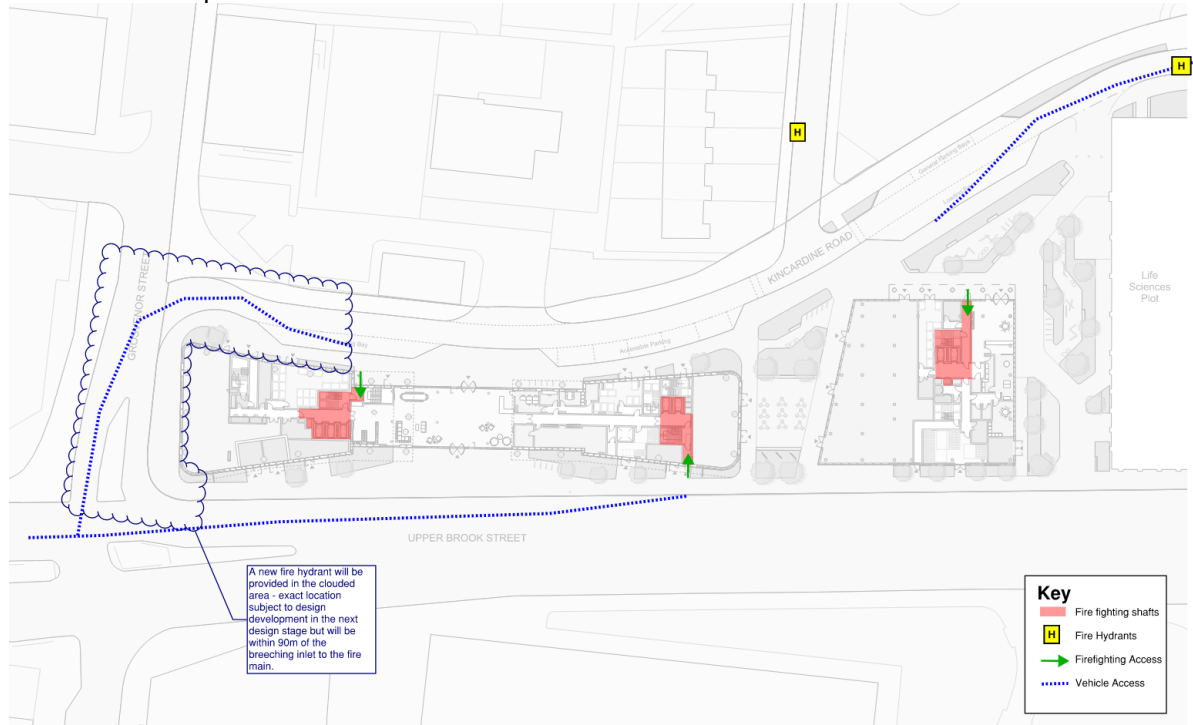


Table 5: Fire Statement completed by

Fire Statement completed by	
15. Signature	Author: [Gareth Ainley]  Checker: [Adam Monaghan] 
16. Date	25 October 2023