

An architectural rendering of a modern urban development. On the left is a multi-story building with a facade of vertical blue and white stripes. To its right is a taller, more uniform building with a grid of windows. The foreground shows some greenery and a paved area with small figures of people. The entire image has a blue color overlay.

June 2023

Fire Statement - Planning Gateway One

Upper Brook Street Masterplan (McLaren / Kadans)

Upper Brook Street PBSA

**Fire Statement – Planning Gateway
One**

McLaren Developments

Job No: 1031234
Doc ref: 6601-CDL-XX-XX-RP-FE-55200
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Project title	Upper Brook Street PBSA	Job number
Report title	Fire Statement – Planning Gateway One	1031234

Document revision history

Revision ref	Issue date	Purpose of issue / description of revision
P01	21 April 2023	First issue
P02	28 April 2023	Minor revisions
P03	31 May 2023	Site address change. Removed Wiring Regs comments due to latest amendment to the British Standard.

Document validation (latest issue)

31/05/2023	31/05/2023	31/05/2023
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Principal author	Checked by	Verified by
Signed by: Sofroniev, Teodor	Signed by: Yau, Mark	Signed by: Yau, Mark

Introduction

Cundall are appointed on the project by McLaren Developments to provide fire engineering services for the Student Accommodation building as part of the Upper Brook Street Masterplan- McLaren/ Kadans development in Manchester.

The planning submission for this development is a joint submission for two separate proposed buildings on adjacent sites – the student accommodation this form addresses and a science and technology building. As the sci-tech building is not a relevant building for the purpose of Planning Gateway One and is developed as an independent site, only provisions to that building pertaining to land use around the entire site will be addressed in this Statement.

This Fire Statement aims to provide an abridged version of a Fire Strategy, and follows the process as outlined within the UK Government Guidance that came into effect in August 2021 which requests submission via a form published by the Secretary of State. The purpose of the fire statement is to demonstrate the consideration of information on fire safety matters as they relate to land use planning matters. It is not intended or required to demonstrate compliance with the Building Regulations or Fire Safety Order requirements. These aspects are addressed in more detail in the Stage 2 Fire Safety Strategy report for the building (ref. 6601-CDL-XX-XX-RP-FE-55201).

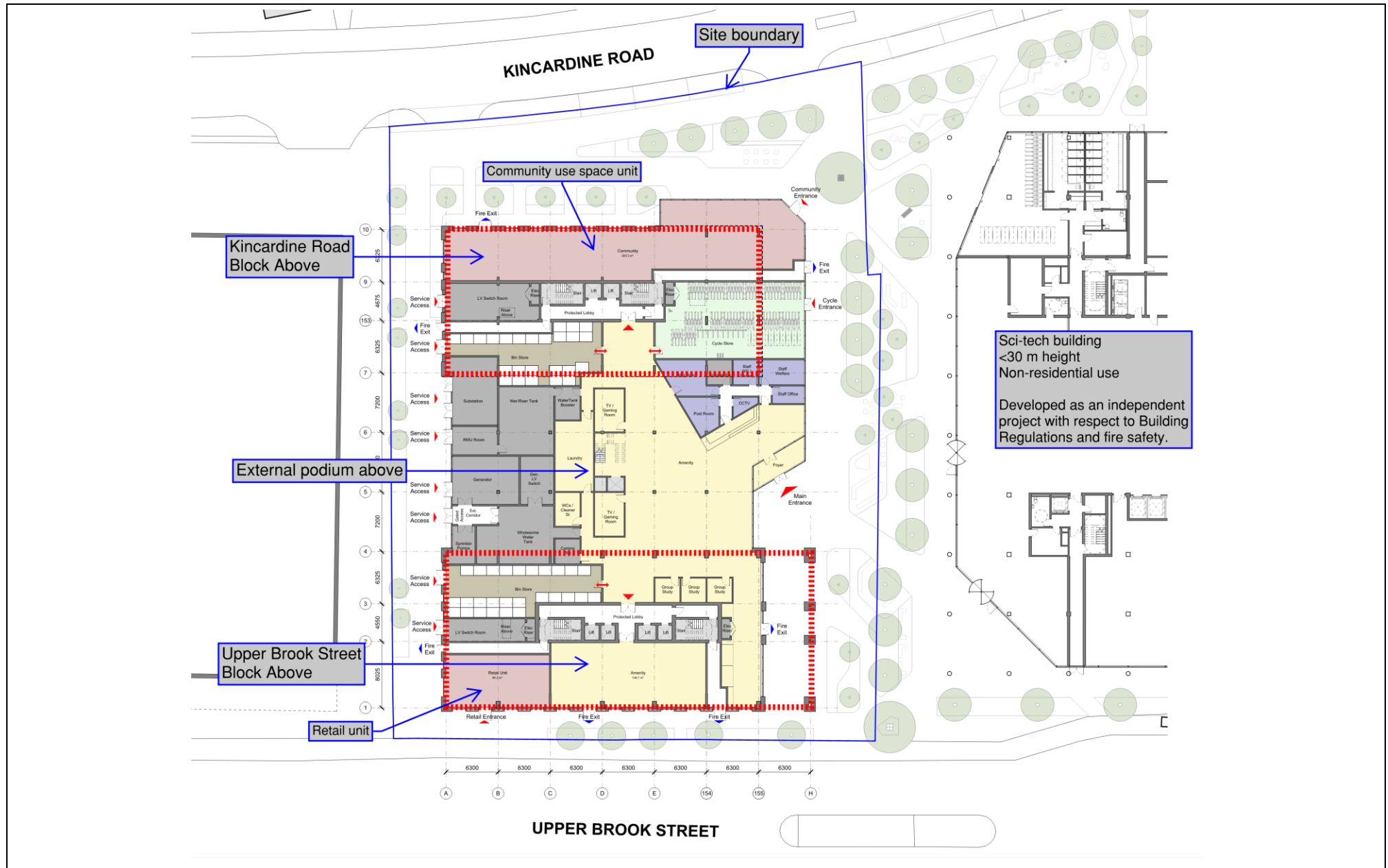
The Planning Gateway One Fire Statement form is provided below in the format required by the Secretary of State.

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Fire statement form

Application information	
1. Site address line 1	Upper Brook Street Masterplan- McLaren/ Kadans
Site address line 2	Plot C
Site address line 3	
Town	Manchester
County	
Site postcode (optional)	M13 9TF
2. Description of proposed development including any change of use (as stated on the application form):	Upper Brook Street is a proposed new-build student accommodation scheme in Manchester. The building comprises two high-rise blocks with a shared ground floor and first floor external podium. The student accommodation will comprise a mix of clusters and studio flats on the upper floors of the building. The ground floor will comprise ancillary plant accommodation and independent small commercial unit and community use space whose use is not yet defined. Amenity areas for the residents will be provided primarily at ground floor, at the podium level between the two blocks and a small resident lounge at the top floor of the taller block. The Upper Brook Street block will have ground and 22 upper floors. All accommodation in the block will be served by two staircases that discharge to outside. The Kincardine block will have ground and 8 upper floors. It will also be served by two stairs at all levels.

3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	Mark Yau BEng (Hons) PhD CEng MIFireE Mark is Cundall Fire Engineering's lead with over 20 years of experience in the UK and internationally. Mark is particularly interested in using fire-engineered solutions to resolve fire safety issues for non-standard projects. Mark was involved in projects including the British Broadcasting Corporation Headquarters in Central London, KMPG London, and two offices in Birmingham, Bankside 123 offices fire strategy and fit-out, Luton airport refurbishment and extension, Gatwick Duty-free refurbishment, and Alexander McQueen shop in Old Bond Street London.
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. Guide: no more than 200 words	There is currently no Building Control appointed on the project and there have not been consultations carried out with the local fire and rescue service. A request has been issued to Greater Manchester Fire and Rescue and their dedicated high rise team for a preliminary consultation and discussion but that has not occurred. A formal consultation will be carried out once Building Control is appointed.
5. Site layout plan with block numbering as per building schedule referred to in 6. (consistent with other plans drawings and information submitted in connection with the application) <i>Site layout plan is: inserted in the form</i>	



The principles, concepts and approach relating to fire safety that have been applied to the development

6. Building schedule

Site information				Building information			Resident safety information		
a) <i>block no. as per site layout plan above</i>	b) <i>• block height (m) • number of storeys excluding those below ground level • number of storeys including those below ground level</i>	c) <i>proposed use (one per line)</i>	d) <i>location of use within block by storey</i>	e) <i>standards relating to fire safety/ approach applied</i>	f) <i>balconies</i>	g) <i>external wall systems</i>	h) <i>approach to evacuation</i>	i) <i>automatic suppression</i>	j) <i>accessible housing provided</i>
Upper Brook Street	67.6 m 23 (Ground to Level 22) 23 (Ground to Level 22)	Commercial	Level 00	BS 9999:2017	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
		Amenity Plant	Level 00, 01 and 22	BS 9999:2017	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi

		Student accommodation	Level 01 to Level 22	BS 9991:2015	no balconies	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	none
Kincardine Road	25.2 m 9 (Ground to Level 08) 9 (Ground to Level 08)	community use, childcare (not school)	Level 00	BS 9999:2017	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
		Amenity Plant	Level 00, 01 and 08	BS 9999:2017	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
		Student accommodation	Level 01 to Level 08	BS 9991:2015	no balconies	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	none

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

The taller Upper Brook Street Block is considered a complex building due to its height being over 50 m as per BS 9991:2015. As such a Qualitative Design Review is required to demonstrate that the proposed fire safety strategy based on BS 9991:2015 recommendations and additional improvements based on fire engineering solutions and current best practice are adequate to maintain the risk at an acceptable level.

The proposed provision of evacuation lifts to both blocks may add complexity due to lack of current guidance for the use of evacuation lifts with a stay-put evacuation strategy. However, this is largely addressed by the availability of on-site 24/7 management which would address the need for staff intervention when using evacuation lifts.

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

The taller Upper Brook Street Block is considered a complex building due to having a height over 50 m as per BS 9991:2015. As such a Qualitative Design Review is required to demonstrate that the proposed fire safety strategy based on BS 9991:2015 recommendations and additional improvements based on fire engineering solutions and current best practice are adequate to maintain the risk at an acceptable level.

Due to the height of the blocks, the more recent recommendations in Approved Document B (2020 amendments) will be followed with respect to sprinkler protection, as these are more onerous than the current guidance in BS 9991:2015. As a result, the building will be sprinklered throughout, providing protection to both residential, ancillary and commercial spaces, including common corridors. Where within the scope of BS 9251:2021, the residential sprinkler system and standard will be applied. For areas that are outside the scope of the standard, i.e. non-residential spaces larger than 100 m², a commercial sprinkler system designed to BS EN 12845:2015 + A1:2019 will be provided, including additional measures for resilience and reliability.

Both blocks are proposed to be served by two stairs throughout their height despite their small floor area of less than 900 m² each. This reflects the proposals in the latest formal consultation on proposed changes to Approved Document B to introduce a requirement to have two stairs for buildings over 30 m. This is applied to the shorter block with a height under 30 m as well. The availability of two stairs will ensure that evacuation of residents can occur at later stages of a potential fire incident without impacting fire-fighting activities.

An additional lift lobby will be provided to both blocks in between a stair and common corridor. This lobby will be afforded the same level of protection as the stair. It will allow safer use of the evacuation lifts in a space not affected by smoke, whereas normally that would be the common corridor. It will also provide additional space as a mustering point for the fire service. This arrangement reflects the latest proposals in the draft version of BS 9991 (2021 version for consultation), as well as current practice in Scotland and is considered to provide additional resilience in the escape and fire-fighting provisions.

Small size studios can often result in issues with the location of the cooking facilities in the space. To address this, the studio layouts will be developed with the kitchen area away from the studio entrance such that the route from the bed moves away from the kitchen rather than towards it.

Despite fire-fighting facilities for buildings of this height being internal, landscaping and access is developed to allow 100% perimeter access around the building to allow efficient external fire-fighting where it may be more appropriate.

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 500 words

The fire strategy for the development is premised on satisfying the Building Regulations requirements, including all updates applicable at the time of preparation of this statement.

There are currently no local guidance documents or regulations specific to the project location.

Emergency road vehicle access and water supplies for firefighting purposes

10. Fire service site plan

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?

Guide: no more than 200 words

The fire service access and facilities requirements have been based on BS 9991 and BS 9999.

Both blocks are required to be served by a single fire-fighting core comprising a fire-fighting stair, fire-fighting lift, and a fire main.

Smoke ventilation for escape and fire-fighting purposes to the corridors will be provided by mechanical smoke extract shafts. There will be two in each block.

Due to the height of the taller block, it will be served by a wet rising main designed to BS 9990. The shorter block has a height of only 25.2 m and therefore the provision of a dry riser is considered sufficient.

Fire service access to all stairs is made possible from Kincardine Road and Upper Brook Street, however, fire tender access will be made possible to 100% of the building perimeter.

Due to the provision of a wet rising main and sprinkler systems with dedicated water storage, there is reduced reliance on external water supplies. The development will be served by two existing public hydrants located on Upper Brook Street and Kincardine Road within appropriate distances.

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

Vehicle access provisions to satisfy guidance are achieved by the available access to the exits from the public roads Upper Brook Street and Kincardine Road. Additional fire tender vehicle access is provided to ensure the entire perimeter is accessible.

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

yes

12. Siting of fire appliances

Guide: no more than 200 words

The Upper Brook Street block will be provided with a wet fire main. Access for a fire appliance will be provided to within 18 m of both entrances giving direct access to the stairs, as well as within 18 m of the inlet for emergency replenishment of the wet riser tank. The exact position of the inlet has not been determined.

The Kincardine Road block will be served by dry rising mains. Access for a fire appliance will be provided to within 18 m of each fire main inlet connection point and the entrances to the stair cores. The exact position of the inlet has not been determined but will be located adjacent to the stair entrances.

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

Guide: no more than 200 words

The public hydrants available adjacent to the development serve existing industrial and residential developments. The locations of the nearest two hydrants on Upper Brook Street and Kincardine Road are considered suitable for the fire access strategy for the building. The known locations are indicated on the site plan.

Information regarding the performance of these hydrants is to be determined. It is expected that they are operable as they currently serve a number of existing developments.

The suitability of the available supplies will be reviewed in consultation with the fire and water authorities once they are involved.

Nature of water supply:

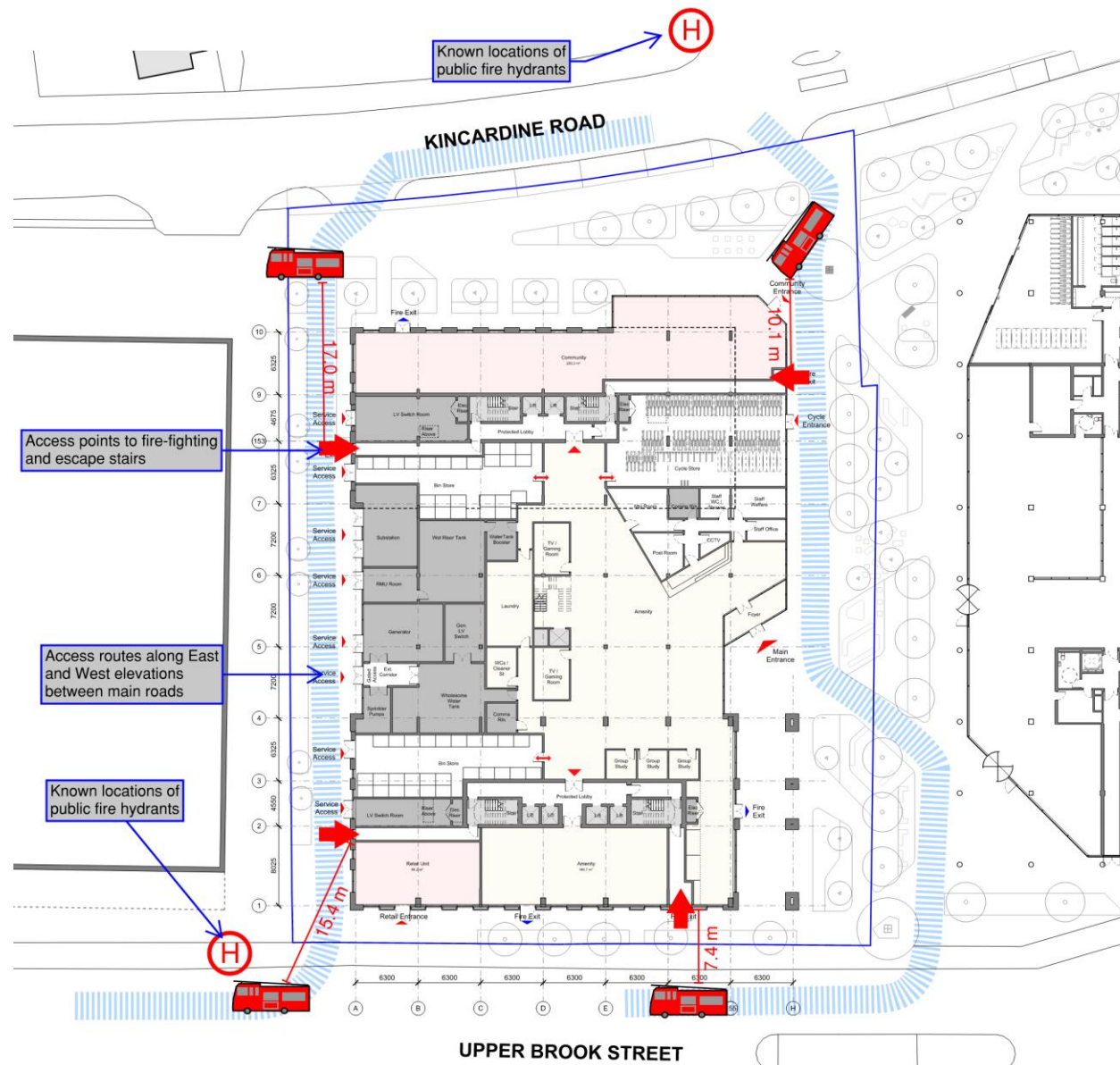
hydrant- public

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

don't know

14. Fire service site plan

Fire service site plan is:
inserted in the form



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