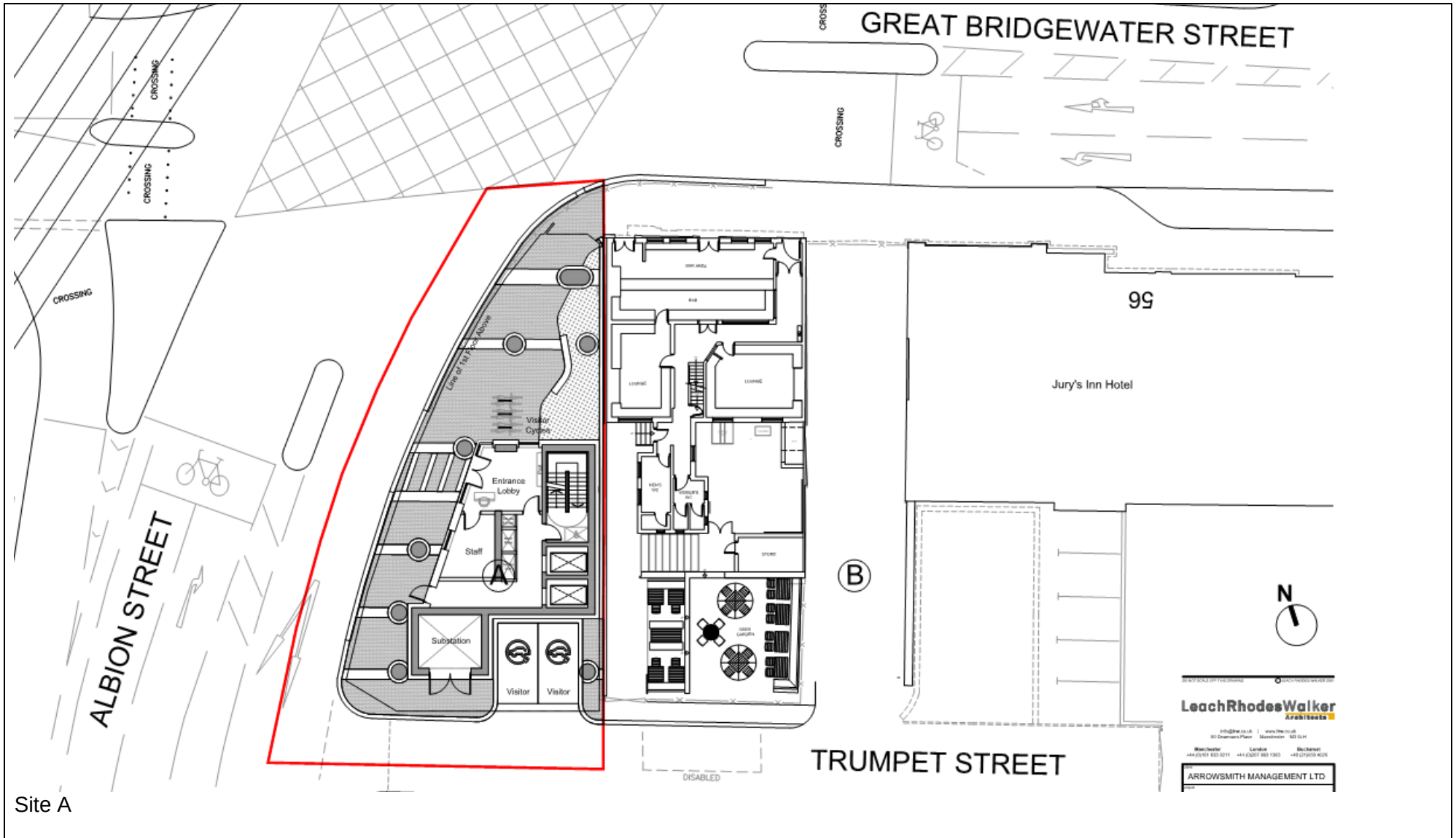
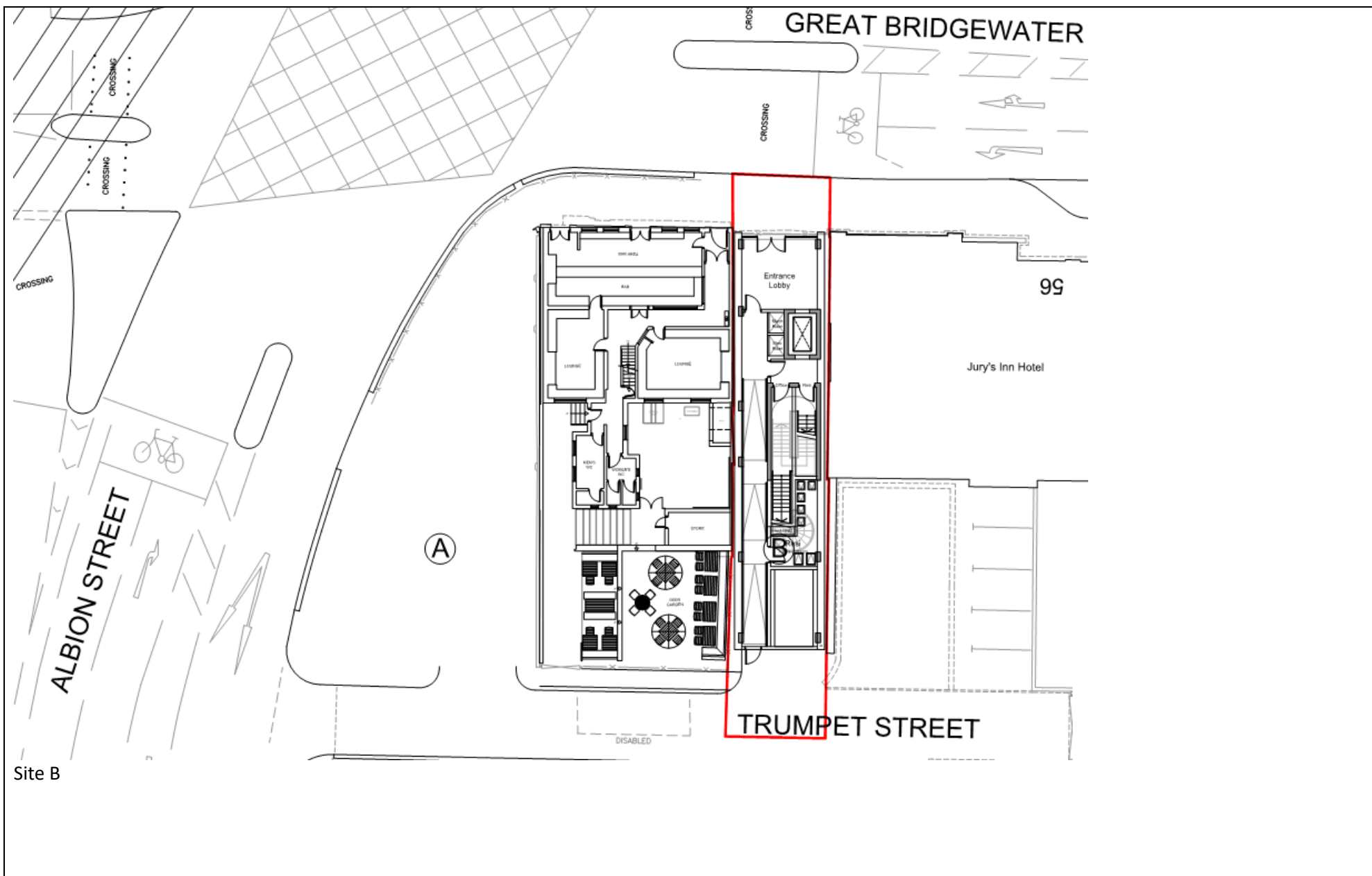


Fire statement form

Application information	
1. Site address line 1	Application No.: 133172/FO/2022 Description: Erection of a 26 storey residential tower for 72 apartments (Use Class C3) with associated car parking, cycle parking, servicing, and associated landscaping works Location: Land Bounded By Trumpet Street, Albion Street & Great Bridgewater Street, Manchester, M1 5LE Application No.: 133176/FO/2022 Description: Erection of a 7-storey building with commercial floorspace (Use Class E/Sui Generis) to first and second floors and residential use to floors three to six containing 4 no. apartments (Use Class C3) with associated parking and servicing. Location: 50-56 Great Bridgewater Street, Manchester, M1 5LE
Site address line 2	
Site address line 3	
Town	
County	
Site postcode (optional)	
2. Description of proposed development including any change of use (as stated on the application form):	The development consists of two residential blocks of flats which are not attached two each other as illustrated in the two figures above. Block A (Site A) consists of basement, ground, first, lower mezzanine, upper mezzanine and twenty-four upper floor levels (80.7m in height above ground). Ground, first and the two mezzanine floor levels (lower and upper) comprise of ancillary areas such as cycle store, staff room, refuse store, life safety room, switch room, parcel room and elect room whilst all the other upper floor levels are provided with residential apartments. All upper floors levels will be served by a single protected stair and two lifts. Due to the height of the building all floor levels must be served by a firefighting shaft (fire-fighting stair and fire-fighting lift) and a wet riser main. Block B (Site B) consists of ground and six upper floor levels (21.7m in height). Ground floor level comprises of some ancillary area such as refuse stores, entrance lobby whilst first and second floor level are provided with office areas. From the third to top floor level, the block is provided with residential apartments. All upper floors levels will be

	served by a single protected stair and one lift. Due to the height of the building all floor levels must be served by a firefighting shaft (fire-fighting stair and fire-fighting lift) and a dry riser main.
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	Athanasios Melandinos is a professionally qualified engineer with 18 years of research and practical experience in the field of fire engineering and structural fire engineering. During his professional career Athanasios has provided fire strategies, fire risk assessments, fire safety management plans, external wall assessments, construction reviews, due diligence reports, structural fire engineering assessments and smoke modelling designs for over 300 projects in the UK and abroad. Athanasios holds the following Academic and Professional qualifications: • MEng(Hons) Civil and Structural Engineering – University of Bradford UK (2002); • MSc Structural Engineering – University of Surrey UK (2003); • PhD Civil Engineering – University of Manchester UK (2007); • CEng Engineering Council UK (Registration Number: 605283) – Year of Award 2013; • MIFireE (Registration Number: 051017) – Year of Award 2013; • MCIBSE (Registration Number: 043678) – Year of Award 2013; • MIMechE (Registration Number: 80258636) – Year of Award 2015. Athanasios is also keeping up to date with his Continuous Professional Development as part of his commitment to the UK Engineering Council.
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	An initial assessment of the fire safety features of the building has been undertaken by a qualified fire engineer in order to satisfy all B1 to B5 functional requirements of the Building Regulations.
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)	
Site layout plan is: inserted in the form	





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) block no. as per site layout plan above	b) • block height (m) • number of storeys excluding those below ground level • number of storeys including those below ground level	c) proposed use (one per line)	d) location of use within block by storey	e) standards relating to fire safety/ approach applied	f) balconies	g) external wall systems	h) approach to evacuation	i) automatic suppression	j) accessible housing provided
A	Height: 80.7m, number of storeys above ground: 28 (G, 1, 2x Mezz & 24 uppers storeys). Number of storeys (including below ground): 29.	residential flats, maisonettes, studios	Upper floor levels	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	none

B	Height: 21.7m, number of storeys above ground: 7 (G, 2 office floors, 4 residential floors).	residential flats, maisonettes, studios	Upper floor levels	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	none
B	Block B: 2 office floors	office, research and development	1 upper floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-residential sprinklers, full	none
		Choose an item.		Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
		Choose an item.		Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

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 height of the tower (block A) presents a challenge to fire safety but all the features of the building will be provided to satisfy B1 to B5 functional requirements of the Building Regulations. The fire strategy for the development will aim to comply with the guidance of BS 9991 and also take into account the forthcoming changes in the recently drafted BS 9991: 2021.

The basement will be provided with a small area of less than 100m² and it will house the tanks for the sprinkler and wet riser systems. A mechanical ventilation system will also be provided in this area to provide further mitigation of any fire spreading beyond the basement level.

The mezzanine levels will be provided with rooms (less than 15m²) which will be approximately a third of the typical apartment fire size. Furthermore, these rooms will be covered by lobby ventilation (0.4m²) and a sprinkler system. They will also be accessible via the firefighting ventilated lobby. The external wall systems and façade arrangements for both the tower (Block A) and Block B will be carefully considered as part of the QDR exercise and an appropriate design and construction method will be chosen to achieve the necessary fire resistance (120minutes for the tower and 90minutes for Block B).

Block B has now been updated to include a separate staircase and access point which will satisfy the BS 9991 and AD B recommendations.

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 development will be provided with fire safety systems that will reduce the risk in case of fire emergency. A category 4 sprinkler system will be provided throughout residential areas (both Blocks) in accordance with BS 9251 (2021 edition). All non-residential areas will also require to be covered by a suppression system to a BS EN 12845 standard.

For all the residential apartments a category LD1 (Grade D1) fire alarm and detection system in accordance with BS 5839: Part 6 will be installed and maintained. For the common areas of the residential parts of the building a category L2 system (BS 5839: Part 1) will be provided. All non-residential areas such as ancillary and office areas will also be provided with an L2 system (BS 5839: Part 1).

Any roof or terrace areas that residents may be able to access will also need to be provided with an appropriate alarm system which will alert any maintenance personnel and other occupants in case of emergency.

The staircase of the tower (Block A) will be provided with a pressurisation system in line with the guidance of BS 9991 and AD B.

Also, emergency lighting will be provided to ensure safe passages to all building users in case of emergency. Every escape route will be distinctively and conspicuously marked by emergency exit signage complying with recommendations of BS 5499: Part 1. In addition, the design and installation of the emergency escape lighting will be in accordance with BS 5266: Part 1.

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

No local development policies that may affect the fire safety. The design of the building will be based on BS 9991 and associated British Standards.

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

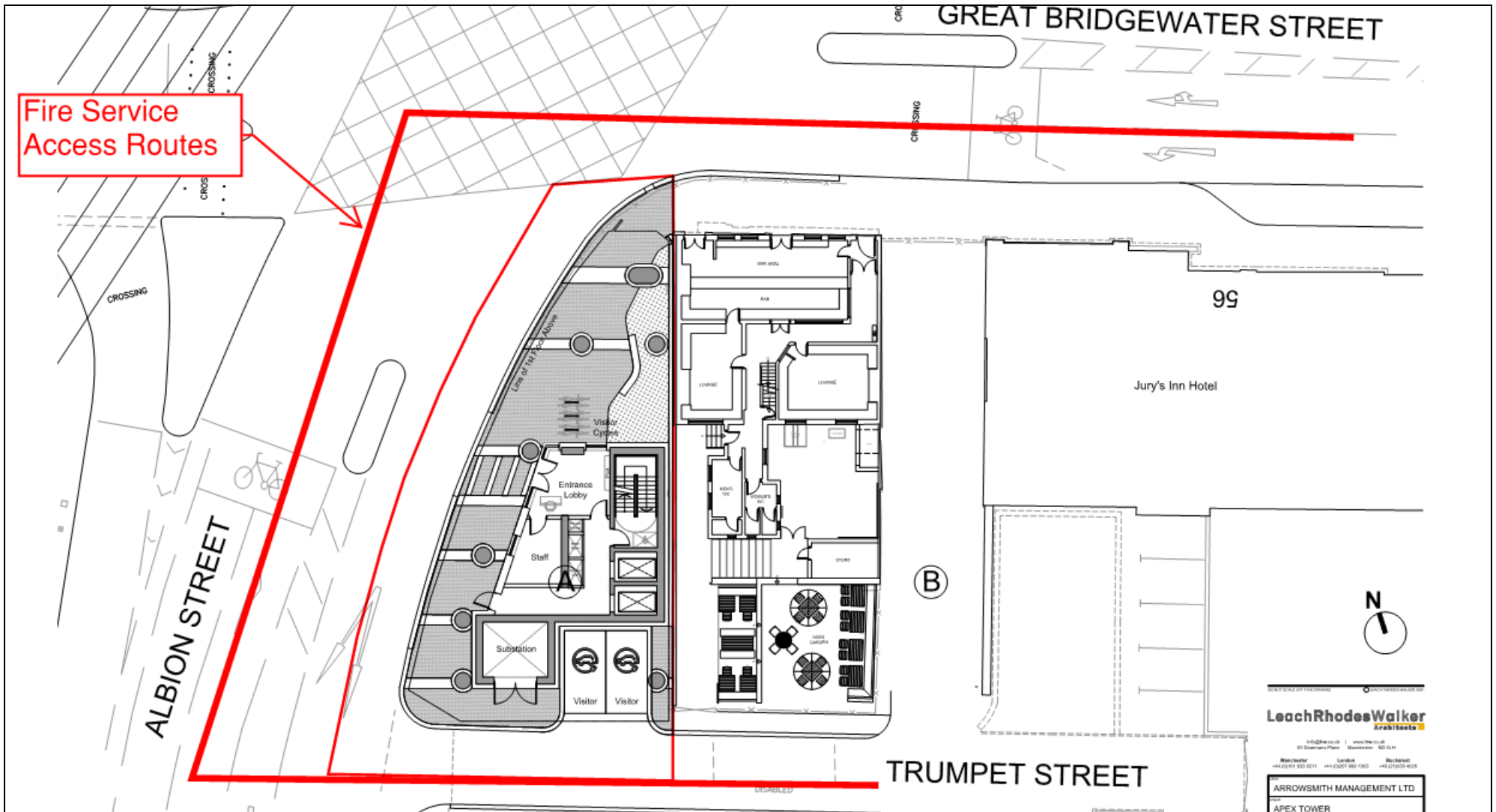
In case of emergency, fire service personnel will be able to access the development (both Blocks) via Great Bridgewater Street and Albion Street and internally they will be able to use the firefighting shafts to access all levels of the building. The firefighting shafts will comprise of a firefighting stair, firefighting lift, dry riser (only block B), an AOV at the head of the stair and an AOV at the firefighting lobby. The firefighting shaft will also be enclosed in 120 minutes fire resistance. Provisions will be made for a firefighting appliance to be able to park within 18m from a dry riser / wet riser inlet. A public hydrant should be within 90m from a dry riser inlet at ground floor level. If this is not achieved then a private hydrant will need to be provided within 90m.

Please note that due to the height of Block A (over 50m) a wet riser, instead of dry riser should be provided, because of the pressures required to provide adequate water supplies at the landing valves at upper floors and also to ensure that water is immediately available at all floor levels.

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 appliances can access both block A and B via Albion Street and Great Bridgewater Street

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

Fire appliances can access both Block A and B via Albion Street and Great Bridgwater Street. There are sufficient places for the fire appliances to park around the site on public roads - unobstructed

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

Guide: no more than 200 words

The surrounding roads are provided with public hydrants therefore there is sufficient water supply to deal with any fire incident. Furthermore, due to the height of Block A, it will be provided with a wet riser (over 50m).

Nature of water supply:

hydrant- public

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

yes

14. Fire service site plan

Fire service site plan is:

inserted in the form



15. Signature	 Dr. Athanasios Melandinos MEng(Hons) MSc PhD CEng MCIBSE MIFireE MIMEchE Fire Engineer Director – AM Pyro LTD
16. Date	09/05/2022