

Fire statement form

Application information	
1. Site address line 1	Crown Street Phase 3
Site address line 2	Great Jackson Street
Site address line 3	
Town	Manchester
County	Lancashire
Site postcode (optional)	
2. Description of proposed development including any change of use (as stated on the application form):	Full planning permission for the demolition of existing structures and the phased construction of four residential buildings (two at 47 storeys and two at 51 storeys) to provide 1,746 homes (Use Class C3), flexible commercial, leisure, food and drink uses (all Use Class E) and / or drinking establishment (Sui Generis), basement car parking, cycle parking, landscaping and public realm, servicing and access arrangements, highways alterations and associated works
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	David McMahon – Principal Fire Engineer at Tenos BSc (Hons) MSc (Hons) CEng MIFireE Chartered Engineer, registered through the Institution of Fire Engineers. 10 years' experience in fire engineering consultancy.
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	A fire strategy design review meeting for the Crown Street Phase 3 development (and adjacent Plot D development) was undertaken with the Greater Manchester Fire Service high-rise team and Manchester City Council Building Control on 30/11/2022, in which the principals for the proposed fire strategy were agreed. The minutes from this meeting have been appended to the end of this Fire Statement Form. Following a substantive response from the Building Safety Regulator (BSR), the design of the refuse stores was changed in CS3 to fully separate retail and residential refuse areas to reflect comments from the BSR. Further consultations and design development will be implemented as the detailed design progresses prior to formal Building Regulations and Planning Gateway 2 submission.
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 Crown Street Phase 3 development site will provide four independent new-build residential towers (Buildings C7, C8, E1 and E2) that are located at each corner of the site and arranged around central landscaping/public realm space, as highlighted on the site plan below:



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
Building C7	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	residential flats, maisonettes, studios	Levels 03 to 50	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	none
Building C7	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including	flexible use	Ground floor, Level 01 & Level 02	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi

	basement floors.								
Building C7	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	shop	Ground floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building C7	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	car parking	Basement levels B1, B2 & B3	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building C8	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	residential flats, maisonettes, studios	Levels 03 to 50	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	none

Building C8	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	flexible use	Ground floor, Level 01 & Level 02	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building C8	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	shop	Ground floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building C8	145.7m to top finished floor level. 51 storeys (excluding basement). 54 storeys including basement floors.	car parking	Basement levels B1, B2 & B3	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building E1	134.3m to top finished floor level. 47 storeys (excluding basement).	residential flats, maisonettes, studios	Levels 02 to 46	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	none

	50 storeys including basement floors.								
Building E1	134.3m to top finished floor level. 47 storeys (excluding basement). 50 storeys including basement floors.	flexible use	Ground floor, Level 01 & Level 02	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building E1	134.3m to top finished floor level. 47 storeys (excluding basement). 50 storeys including basement floors.	shop	Ground floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building E1	134.3m to top finished floor level. 47 storeys (excluding basement). 50 storeys including basement floors.	car parking	Basement levels B1, B2 & B3	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building E2	134.3m to top finished floor level.	residential flats,	Levels 02 to 46	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential	none

	47 storeys (excluding basement). 50 storeys including basement floors.	maisonettes, studios						sprinklers, full	
Building E2	134.3m to top finished floor level. 47 storeys (excluding basement). 50 storeys including basement floors.	flexible use	Ground floor, Level 01 & Level 02	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building E2	134.3m to top finished floor level. 47 storeys (excluding basement). 50 storeys including basement floors.	shop	Ground floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Building E2	134.3m to top finished floor level. 47 storeys (excluding basement). 50 storeys including basement floors.	car parking	Basement levels B1, B2 & B3	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi

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

Each building will be arranged around two adjacent, but separated, stair and lift cores at the centre of the building footprint.

For Buildings C7 and C8, each stair/lift lobby will be ventilated by means of a single mechanical smoke extract shaft, activated by smoke detection within the associated common corridor and lobby (i.e. system in each half of floor activates independently). Each extract shaft system will incorporate pressure sensors and a fan inverter, so that extract rates can be ramped up and down to prevent excessive pressure differentials. As the common corridor travel distances within Buildings C7 and C8 will not exceed 7.5m, they will not be ventilated.

For Buildings E1 and E2, as common corridor travel distances will exceed 7.5m, common corridors will each be ventilated by means of a single mechanical smoke extract shaft provided at the end of common corridor remote from the stair. In addition, each stair/lift lobby will be provided with a single mechanical air inlet shaft, which will provide replacement air for the corridor extract shaft and maintain a net air flow away from stair core. Ventilation provisions will be activated by smoke detection within the associated common corridor and lobby (i.e. system in each half of floor activates independently).

Due to the reduction in floorplate at Level 02 of Buildings E1 and E2, the common corridor mechanical smoke extract shafts will terminate at Level 03. Therefore, the core ventilation arrangement at Levels 02 down to B3 will be configured to work as per Buildings C7 and C8.

For each building, mechanical shaft systems serving the stair/lift lobbies at the above Ground floors will continue down to serve the lobbies at the three basement floors. The basement car parking in each building will be provided with sprinklers and an impulse jet fan and mechanical extract smoke ventilation system (providing 10ACH). It is proposed that basement plant rooms and ancillary rooms will not be provided with dedicated smoke ventilation provisions, but will be provided with access doors directly from the ventilated car parking, such that smoke within these rooms may be ventilated via the car parking smoke ventilation system.

The external wall construction for each of the buildings will meet the requirements of Regulation 7(2) with regards to the external wall construction. Each of the buildings will include an external terrace accessed from the residents' amenity accommodation at Level 02. The furniture, finishes and materials of the terraces are subject to further development and consideration, but, in line with initial discussions with Greater Manchester Fire Service high-rise team and Manchester City Council Building Control on 30/11/2022 (see appended minutes), it is proposed that greening/trees/etc on the terraces will be provided at least 4m away from the façade of the towers.

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

Each building will be fully sprinklered and will be of reinforced concrete construction, providing a minimum of 120 minutes structural fire resistance. Within each building, all residential apartments will implement a ‘stay put’ evacuation strategy, whilst the residents’ amenity and ancillary accommodation at Levels 02, 01 and Ground and the three basement car parking levels will implement simultaneous evacuation strategies. Although the provision of more than one stair to serve the upper apartment floors of each building is not a requirement of the current BS 9991, it is proposed that the central core of each building will be provided with two protected escape stairs that are accessed from separate mechanically ventilated lift lobbies; namely, a main firefighting stair and a secondary escape stair. The secondary stair in each building will terminate at Ground floor, whilst the firefighting stair will continue down to serve the basement floors but will be sub-divided at Ground floor. Within each building, the residents’ amenity accommodation at Level 01 (i.e. workspaces, gym, etc) will be provided with escape via the central main core and an additional dedicated escape stair. Evacuation lifts will be provided to serve the upper floors, which will terminate at Ground floor. As noted above, for each building, the mechanical shaft systems serving the stair/lift lobbies at the above Ground floors will continue down to serve the lobbies at the three basement floors. Secondary power for life safety systems in each building will be provided by means of a dedicated standby generator per building.
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 specific local development documents relevant to fire safety are applicable. Therefore, the design will follow latest Building Regulations guidance documents.
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 As indicated by means of the red dashed lines on the Fire Service site plan in 14 below, Fire Service vehicle access to the buildings will be provided via the surrounding public highways (Crown Street, Great Jackson Street, Silvercroft Street, Melbourne Street, and Owen Street), in accordance with the recommendations of BS 9991 and BS 9999. Fire Service vehicle parking will be available directly adjacent to each building on the surrounding public highways and from these parking locations access into the building will be possible via the main building entrances (see green arrows on the

Fire Service site plan in 14 below), the two access points into the firefighting shaft of each building (see red arrows on the Fire Service site plan in 14 below), and the wet fire main inlet valve for each building (located adjacent to the firefighting shaft access door).

The basement smoke extract outlet point for each building is highlighted in blue on the Fire Service site plan in 14 below, in order to demonstrate separation between smoke outlet and the building main entrance and primary firefighting stair entry/discharge door.

Existing fire hydrants are located in proximity to each building, as indicated on the Fire Service site plan in 14 below – the exact flow rates are subject to confirmation.

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

As indicated in the Fire Service site plan in 14 below, Fire Service vehicle access will be provided to the buildings via the surrounding public highways (Crown Street, Great Jackson Street, Silvercroft Street, Melbourne Street, and Owen Street). From these parking locations, access will be possible via the main building entrances (see green arrows on the Fire Service site plan in 14 below), the two access points into the firefighting shaft of each building (see red arrows on the Fire Service site plan in 14 below), and the wet fire main inlet valve for each building (located adjacent to the firefighting shaft access door).

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

As described above and in the Fire Service site plan in 14 below, Fire Service vehicle parking will be provided adjacent to each building on the surrounding public highways.

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

Guide: no more than 200 words

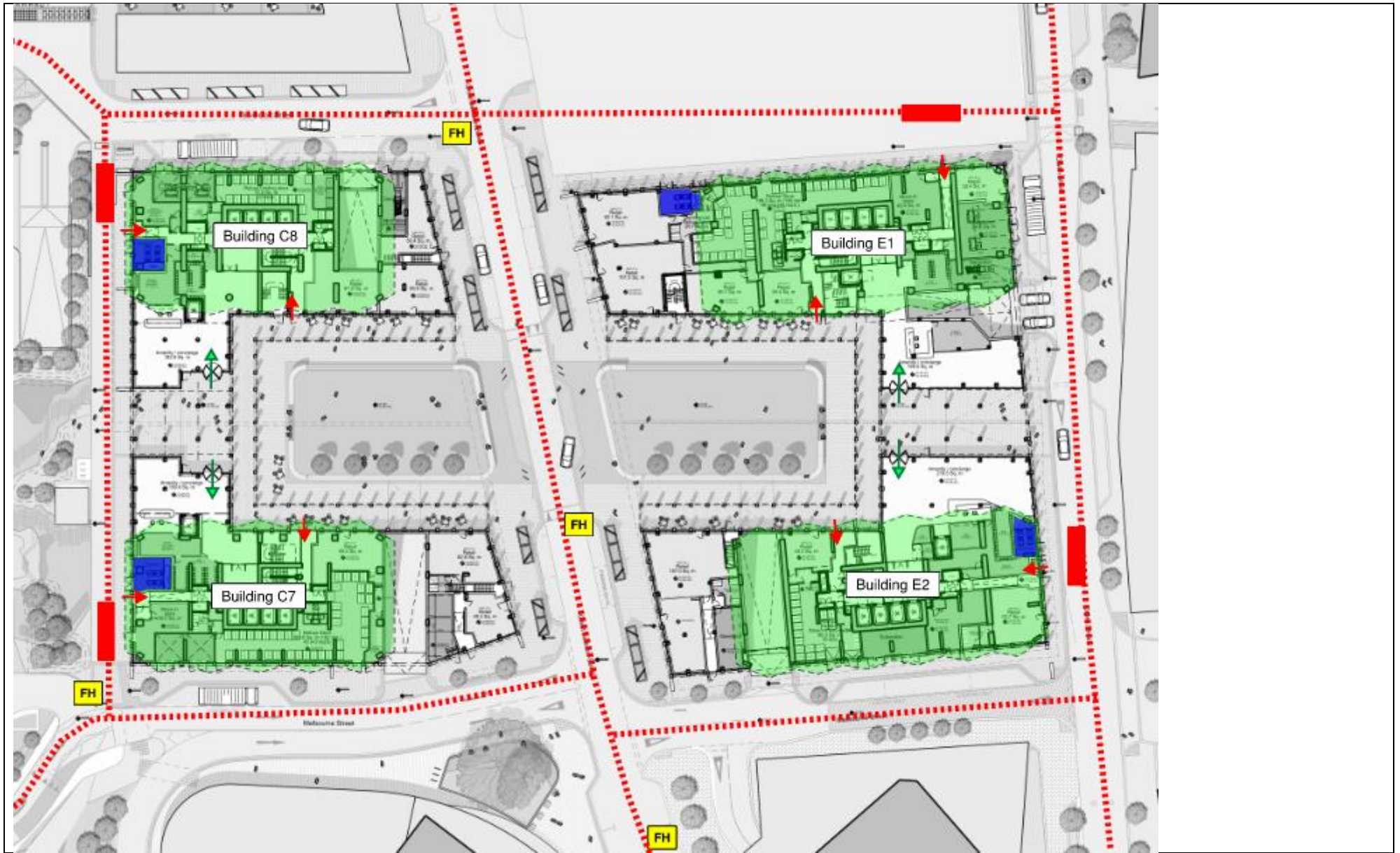
Existing fire hydrants are located in proximity to the site, as indicated via the yellow 'FH' symbols on the Fire Service site plan in 14 below – the exact flow rates are subject to confirmation of suitability.

Nature of water supply:
hydrant- public

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

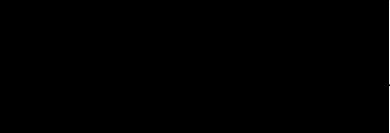
14. Fire service site plan

Fire service site plan is:
inserted in the form



Fire statement completed by

15. Signature



16. Date