King's Cross Methodist Church

Fire Statement

Semper

Client: King's Cross Methodist Church

1. Introduction

1.1. General

1.1.1. King's Cross Methodist Church has appointed Semper to produce a Fire Statement to support the planning application of the King's Cross Methodist Church located at 58A Birkenhead Street, London WC1H 8BW.

1.1.2. The development entails part demolition, extension and reconfiguration of the existing building to provide a replacement church with ancillary café and student accommodation, together with associated plant, cycle and refuse storage. The existing building is comprised of a lower ground, ground and two upper storeys, with the intention to extend one floor above to form a development composed of a lower ground, ground and three upper storeys.

1.1.3. The lower ground will provide assembly accommodation through the church hall. Additional meeting rooms shall surround the church hall alongside ancillary accommodation which includes plant and storage rooms as well as amenity accommodation including a kitchen and cycle store. The ground floor accommodates the main church hall and entrance lobby, together with ancillary café and dedicated refuse and cycle storage. The western part of the first floor also provides church space in the form of a chapel/community room.

1.1.4. Student accommodation is provided from the first to the third floor. The student accommodation vary in arrangement, whereby students will reside in single studio bedrooms, twin studio bedrooms, single study bedrooms and twin study bedrooms (where studio bedrooms will have kitchens, unlike study bedrooms). The first, second and third floors provide 12, 17 and 4 student bedrooms, respectively. A laundry room is accessible on the first floor while a communal/living and dining room is provided on the third floor. The third floor will offer a student communal terrace and plant rooms.

1.1.5. This document serves as the Fire Statement, addressing the requirements of Policy D5 and D12 of the London Plan.

1.2. Purpose

1.2.1. The Fire Statement follows the template set by the London Plan Guidance published in February 2022 to satisfy Policy D12 and D5 of the London Plan and, in doing so, highlights that the project aims to deliver the highest standard of fire safety and inclusive design:

- London Plan Policy D5: in all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.
- London Plan Policy D12: as part of the planning application, a competent fire engineer should produce a Fire Statement which defines the fire safety objectives and performance requirements of a development, and the methods by which these objectives will be provided/ satisfied. This should be mirrored/reflected in all other planning application documentation.

1.2.2. This Fire Statement is submitted to the planning authority with the objective of transmitting the fire safety design principles that will be adopted. The Fire Statement has been prepared and reviewed by suitably qualified fire engineers, as detailed in section 3.

1.3. Principal Legislation and Guidance Documents

1.3.1. The Proposed Development considers the following legislation and guidance with regards to fire safety:

- BS 9999: 2017 Fire safety in the design, management and use of buildings – Code of practice.
- BS 7974: 2019 Application of fire safety engineering principles to the design of buildings – Code of practice.
- The London Plan 2021, including London Plan Guidance Policies D5 and D12.
- Regulation 38 of the Building Regulations, which requires that the fire safety information for the building shall be given to the Responsible Person at the completion of the project or when the buildings are first occupied.
- The Construction (Design and Management) Regulations 2015 (CDM), which are applicable for the design and construction stages of this project.

1.4. Summary Declaration

1.4.1. The Fire Statement sets down the following key fire safety items:

- The reaction-to-fire of materials used in the construction of the external walls will be in accordance with Regulation 7(2) of the Building Regulations. To this end, all materials (except those exempt under Regulation 7(3)) will achieve European Classification A2-s1, d0 or A1, classified in accordance with BS EN 13501-1.
- The means of escape provisions are considered to meet the functional requirements of the Building Regulations. A simultaneous evacuation strategy will be implemented where all occupants will escape upon fire alarm activation (including all residential, ancillary, amenity and public assembly areas).
- The accommodation will be provided with suitable active life safety systems, such as automatic fire detection and alarm system, and passive fire protection measures.
- The development shall include three independent protected stair cores, all of which shall connect the lower ground to the third floor. The southern protected stair forms a core with an adjacent combined passenger/evacuation lift. The combined passenger/evacuation lift serves the third floor to lower ground, whereby at lower ground and ground the combined passenger/evacuation lift becomes a dual entry lift.
- Each stair core is provided with a disabled refuge space, either within the enclosure of the stair or within a protected lobby. The disabled refuge is designed in accordance with Appendix G of BS 9999 and is to measure at least 900 x 1400 [mm].
- Suitable fire service access is provided, together with provisions including water supplies via external fire hydrants.

2. Fire Statement Form

Application Information

1. Site address line 1 Town Site postcode	King's Cross Methodist Church 58A Birkenhead Street London WC1H 8BW
2. Description of proposed development including any change of use (as stated on the application form):	The proposed development will see the part demolition, extension and reconfiguration of the existing building to provide a replacement church (Use Class F1) with ancillary café and student accommodation (Sui Generis), together with associated plant, cycle and refuse storage. The proposed plans seek to extend the existing building to provide a development comprised of lower ground, ground and three upper storeys. The lower ground will predominantly provide assembly accommodation via the church hall as well as meeting rooms. Ancillary spaces such as plant and storage rooms will also be accessible at the lower ground alongside a kitchen. The ground floor accesses the main church hall and a reception/café, while the western part of the first floor also provides church space in the form of a chapel/community room. The first to third floors continue to offer student accommodation and communal living spaces. The building is served by three escape stairs, two of which face the northern elevation onto Birkenhead Street while the other faces the southern elevation onto Crestfield Street. All escape stairs extend from the lower ground to the third floor, although fire-rated subdivision of the stairs is provided at ground level. Each escape stair has a final exit onto Birkenhead or Crestfield Street. The building site is bounded to the east by neighbouring buildings, 58B Birkenhead Street and 5 Crestfield Street. To the west of the site, the building is also bounded via neighbouring sites, 59 Birkenhead Street and 1 Crestfield Street. To the north and south of the site is Birkenhead Street and Crestfield Street, respectively.
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience.	Eugenio Garcia holds a Master of Science in Fire Safety Engineering, a Master's in Architecture and is an Associate Member of the Institution of Fire Engineers. Eugenio has developed, led, and delivered fire engineering designs across three continents. Mark Davison has a BEng (Hons) degree in Fire Engineering and is a Member of the Institution of Fire Engineers with more than 20 years' relevant experience in the development of fire strategies for residential and mixed-use buildings.
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.	At this stage of design, no consultation has been carried out with a Building Control representative; however, the proposals generally align with the prescriptive recommendations of BS 9999 and supporting documentation. Consultation will be carried out as part of the normal design development and Building Regulations process in due course.

5. Site layout plan

(consistent with other plans, drawings and information submitted in connection with the application)

Figure 1: Site Layout

6. Building schedule

Site information				Building information			Resident safety information		
a) building name.	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
Kings Cross Methodist Church	• 11.5 [m] • 3 Storeys Above ground • 1 Storey Below Ground	Student Accommodation	First Floor to Third Floor	BS 9999	No	Class A2-s1, d0 or better	Simultaneous	None	None
		Assembly Accommodation (Church)	Lower Ground to First Floor	BS 9999			Simultaneous		
		Amenity and Communal Spaces	Lower Ground and Third Floor	BS 9999			Simultaneous		

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.

The design provides student accommodation in the form of student study rooms sharing communal facilities as well as studios. This occupancy type offers the choice of following residential design (BS 9991) or managed occupancy design (BS 9999). However, a simultaneous evacuation strategy was agreed upon therefore a managed occupancy design (BS 9999) is applied whereby the occupancy type falls under 'Cii'. The design generally complies with the guidance outlined under BS 9999 and is not considered particularly complex from a fire safety standpoint.

Further development will take place as the scheme progresses through spatial planning and technical design. The provisions will be captured in a detailed fire strategy document, which will support the design and will ultimately form the basis of the handover information to the responsible person, once the project is complete. The fire strategy will set down the key fire safety principles and the supporting package of fire safety measures. It will emphasise the need to review the fire safety information before any modifications are made to the scheme.

8. Issues which might affect the fire safety of the development

Explain how any issues which might affect the fire safety of the development has been addressed.

The proposed development has been reviewed against the prescriptive recommendations set out within BS 9999. The general layouts have been tailored to reflect the guidance, with no excessive travel distances. Moreover, a comprehensive package of fire protection measures is proposed, including an automatic fire detection and alarm system, and smoke control measures.

As stated in section 6, all materials forming part of the external walls, notwithstanding permitted exceptions, are expected to achieve at least European Class 'A2-s1, d0'.

The risk of external fire spread can be assessed under BRE 187, highlighting whether fire resisting construction is required to mitigate the risks associated with external fire spread to opposing buildings. This will be considered as the design progresses, and will be included in the fire strategy.

9. Local development document policies relating to fire safety

Explain how any policies relating to fire safety in relevant local development documents have been considered.

The design, structure and package of measures have been tailored to align or exceed the recommendations that have been set out in the prescriptive guidance outlined within BS 9999. As a result, a high standard of fire safety will be embedded within the design.

Policy D12 and Policy D5 of the London Plan have been considered in the development of the scheme. These policies set out guidelines to ensure the requirements necessary for the evacuation of occupants are incorporated in the design. A combined passenger/evacuation lift has been provided in the building and should be designed in accordance with BS EN 81-70, BS EN 81-20 and BS 9999 Annex G.

10. Fire service site plan

A plan illustrating the fire service vehicle access is shown in Item 14.

The building will be provided with dry risers within the southern core and the northernmost escape stair, providing adequate hose coverage. Public hydrants will also be available within 90 [m] of the building in accordance with BS 9990.

A combined passenger/evacuation lift will be provided, accessible from an independent protected lobby on all upper floors, to facilitate a managed escape for occupants requiring assistance. The passenger/evacuation lift will be designed in accordance with BS EN 81-20, BS EN 81-70 and BS 9999 Annex G.

Each stair core is provided with a disabled refuge space, either within the enclosure of the stair or within a protected lobby. The disabled refuge is designed in accordance with Appendix G of BS 9999 and is to measure at least 900 x 1400 [mm].

11. Emergency Road vehicle access

Primary access for the Fire Service is via Birkenhead Street and Crestfield Street, which has the appropriate width and capacity to support fire service vehicles (see Item 14).

Fire vehicle access roads will have clear dimensions and carrying capacities in accordance with BS 9999.

12. Siting of fire appliances

Fire hydrants will be provided within 90 [m] of any entry point to the building in accordance with BS 9990. An existing fire hydrant is located outside of the neighbouring development 59B Birkenhead Street.

Fire service vehicle parking will be provided within 18 [m] of the building entrance, and within sight of and within 18 [m] of the dry riser inlets of the building.

The building will be provided with dry rising mains located within the enclosure of the southern escape stair and the northernmost escape stair. Therefore, two dry rising mains will be accessible on all floors throughout the development.

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

At the time of writing, no specific testing has been carried out to confirm whether the existing fire hydrants are operational. Testing of hydrants will need to be carried out in the next stage of design. A new private hydrant may be required depending on the results of the site survey.

14. Fire service site plan

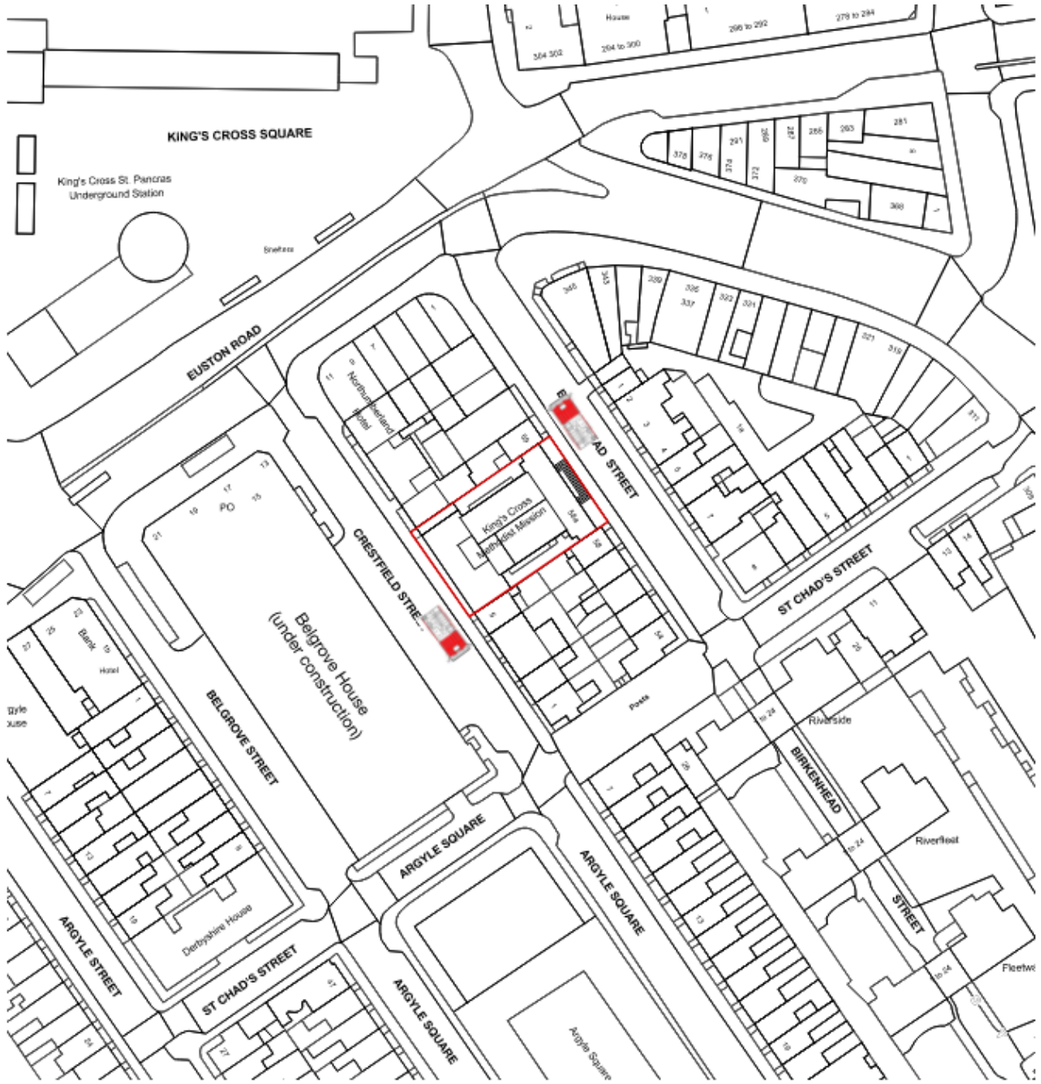

Figure 2: Fire Service Access

Fire statement completed by		
15. Signature		
	Eugenio Garcia Senior Fire Engineer Semper	Mark Davison Director Semper
16. Date		24/10/2024

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