

Fire Statement

Kenavon Drive

Kiwa Fire Safety Compliance Report FS/23901/01B

Berkeley Homes (Oxford & Chiltern) Ltd



**Partner
for
Progress**

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Kiwa Fire Safety Compliance

Kiwa Fire Safety Compliance (KFS) is part of the **Kiwa UK Group**. The company is a specialist engineering consultancy delivering independent, honest and practical fire safety solutions to professionals across the built environment. The sought after fire safety advice protects life, preserves property and safeguards business continuity.

Formerly International Fire Consultants, the company was established in 1985 to provide high quality and impartial technical expertise concerning fire safety. Since then the team of highly qualified Fire Engineers and Fire Safety Professionals have continued to deliver robust, innovative and cost-effective fire safety solutions, including Assessments, Designs and Inspections.

Kiwa Fire Safety Compliance lend their insight and practical expertise for: Fire Safety Engineering, Fire Risk Management, Product Evaluation, Fire Life Safety Systems, Expert Witness Testimony and Fire Protection Training, to developments of all sizes and complexities; from residential, education and healthcare structures to sporting venues, airports and iconic heritage buildings, such as historical royal palaces and stately homes.

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Report:	Fire Statement
Report Reference Number:	Kiwa Fire Safety Compliance Report FS/23901/01B
Prepared on behalf of:	Berkeley Homes (Oxford & Chiltern) Ltd
Project:	Kenavon Drive

Issue Record

REV	DATE	AUTHOR	REVIEW	SECTION	AMENDMENTS
-	31/01/2025	EC/AC	SW		
A	04/02/2025	EC/AC	SW	Section 2	Updated site address Updated accessible housing category
B	24/02/2025	EC/AC	SW	Section 1.2	Title amended

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1. Introduction

Kiwa Fire Safety Compliance (KFS) has been commissioned by Berkeley Homes (Oxford & Chiltern) Ltd to prepare a fire statement for Kenavon Drive located in Reading.

At the time of writing this report the original design for the building has been completed. However, Berkeley Homes have since decided to alter the original design which involves creation of a first-floor mezzanine to include additional dwellings to existing mid-block structure. These units will also connect with the existing residential corridors. The commercial unit will remain unaltered on the ground floor.

KFS note that the original building was designed in accordance with BS 9991:2015. KFS propose that the new design is also designed in accordance with this standard on the basis that the risk of the building has not been altered significantly by introducing the additional flats. KFS also propose that the flats connect to the existing automatic sprinkler system designed to BS 9251:2014.

This fire statement has been prepared in accordance with the Town and Country Planning (Development Management Procedure and Section 62A Applications) (England) (Amendment) Order 2021 (more commonly referred to as Planning Gateway One or PGO).

That legislation came into force on 1 August 2021 and introduced the new Article 9A to the Town and Country Planning (Development Management Procedure) (England) Order 2015 which requires a Fire Statement to be included within any Planning Applications for work that relates to residential or educational accommodation that are over 18m in height (or has 7 or more stories) and contain two or more dwellings or educational accommodation. This project meets that criteria and so this Fire Statement report has been produced to support that Planning Application.

Section 2 of this Fire Statement includes a table that is formatted in accordance with and addresses the matters contained in the government's standard template for Fire Statements¹, notably:

- address, use and description of the building(s) including whether there is any accessible housing;
- standards on which the fire safety design is based;
- materials used for the construction of the external walls and any balconies;
- evacuation strategy/strategies;
- provision of automatic fire suppression;
- specific technical complexities and identification of any issues which might affect the fire safety of the development;
- any local development policies which need to be taken into account and how they are met;
- access routes for and siting of fire appliances;
- identification of the water supplies and confirmation of their suitability, including confirmation that any hydrants are operable; and
- summary of any consultations undertaken with approvals authorities prior to the submission of the planning application.

¹ Fire statement form available via <https://www.gov.uk/government/publications/planning-application-forms-templates-for-local-planning-authorities>

The associated government guidance² recommends that fire statements be completed by qualified engineers or competent professionals who have demonstrable experience to address the complexity of the design being proposed in terms of fire safety, such as a chartered fire engineer.

This Fire Statement has been based on drawings and documents that are to be included as part of the Planning Application as listed in Table A. 1.

It should be noted that further design development will be required at later stages. Those later design stages will include a Building Regulations application which will ensure that the detailed design is compliant with the Building Regulations. The content of this report is therefore intended to describe the general principles that are being used for the development and will be subject to more detailed design in later design stages.

1.1 Site Overview

Block M consists of five cores (M1, M2, M3, M4 and M5) as shown in Figure 1. Details regarding the top occupied floor height of the block are shown in Table 1. The building includes residential units, commercial premises, cycle store, plant room and car park.

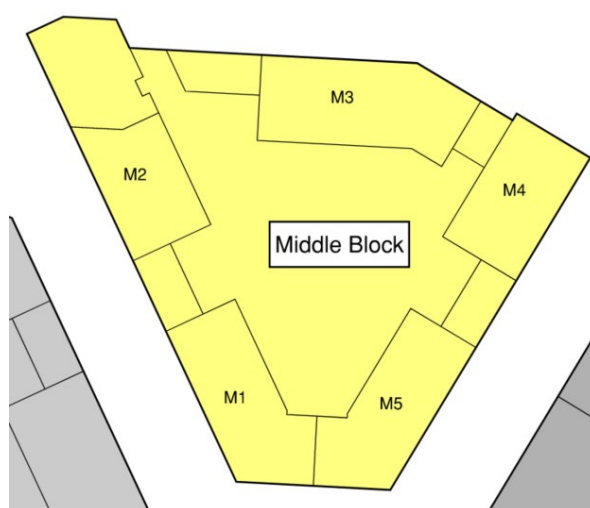


Figure 1 Site plan

Table 1 Height of the top occupied floor for Middle Block

Core	Top Occupied Floor Height (m)
M1	19.5
M2	33
M3	19.7
M4	23.7
M5	19.5

² Guidance: fire statement available via <https://www.gov.uk/government/publications/planning-application-forms-templates-for-local-planning-authorities>

1.2 Alterations

The design alteration involves creation of first floor mezzanine to include additional dwellings to existing mid-block (located between cores M1 and M5). The commercial unit on the ground floor and will not connect with the residential parts of the building and separated from fire resisting construction. The proposed layout is illustrated in Figure 2. No other changes are proposed to other parts of the building.

KFS notes that the original building was designed in accordance with BS 9991:2015. It is proposed that the new design also adheres to this standard for consistency, as the introduction of additional flats does not significantly alter the risk within the building as original building already has apartments on the first floor level and fire separation between the commercial unit and residential area will be maintained. Additionally, KFS recommends that the new flats be connected to the existing automatic sprinkler system, which was designed and installed to BS 9251:2014 in line with the other flats within the development.

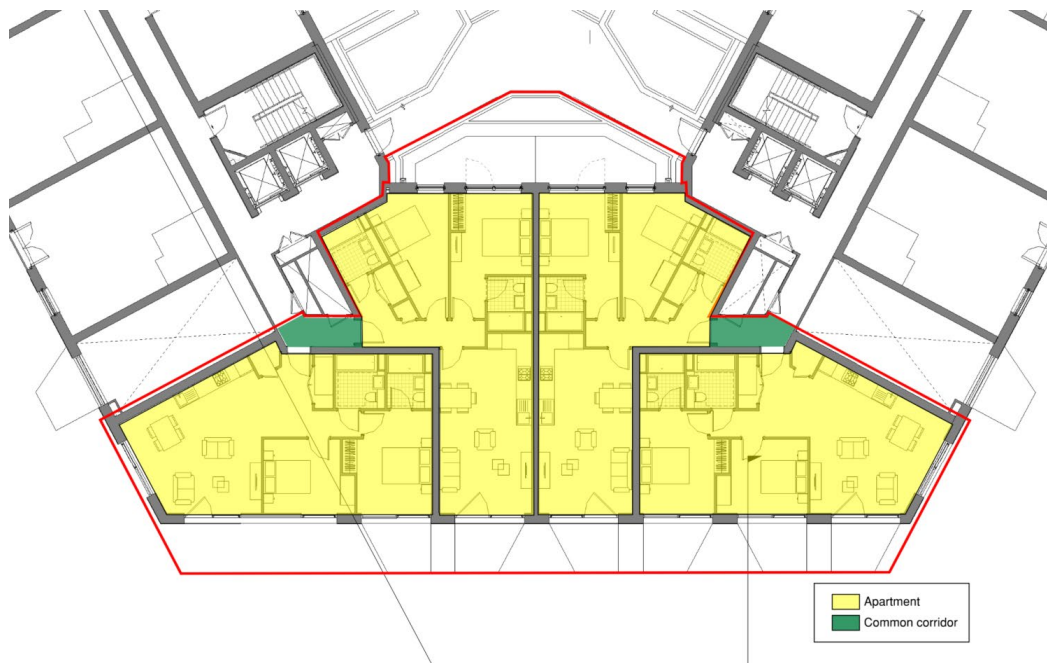
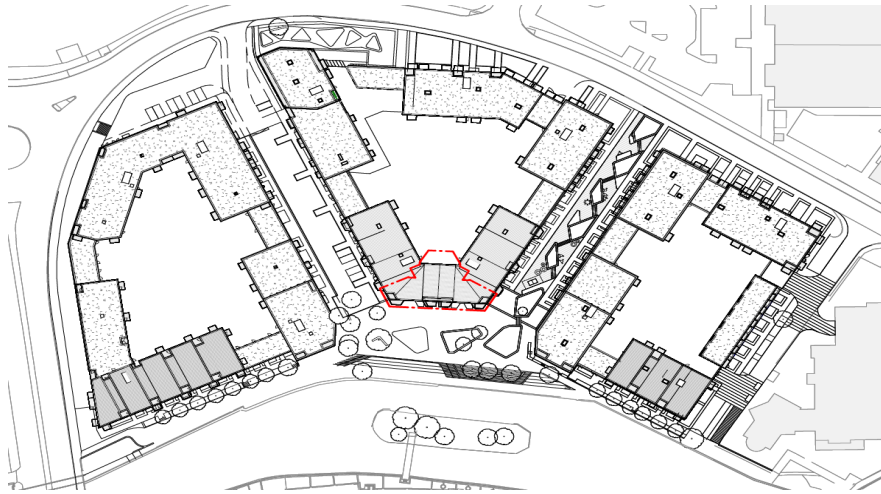


Figure 2 Proposed alterations to the first floor

2. Planning Gateway One Fire Statement (layout and content based on government template)

Note: in the following table the blue text is from the government prescribed template. Kiwa Fire's response to those items is in black.

APPLICATION INFORMATION		
1.	Site address line 1 Site address line 2 Town County Site postcode (optional)	Land bound by Carraway Street and Palmers Street Reading, Berkshire
2.	Description of proposed development including any change of use (as stated on the application form):	Creation of a first-floor mezzanine to include additional dwellings to existing mid-block structure. The commercial space will remain on the ground floor and separated from residential space with fire resisting construction. Other areas of the building will not be altered.
3.	Name of person completing the fire statement, relevant qualifications and experience.	<u>Author</u> Angus Cameron, BEng (hons), MSc, AIFireE, Angus is a Senior Fire Safety Engineer who joined Kiwa Fire Safety since 2020 after graduating from the University of Dundee with an upper second-class honours degree in Mechanical Engineering. Angus also has a master's degree in Fire Safety Engineering with distinction and has presented research at the 2025 European Conference & SFPE Fire Safety Engineering conference in Edinburgh. Angus holds AIFireE status in the UK and is a full member of the Institution of Fire Engineers (IFE). Since joining KFS (formerly IFC) Angus has worked on a wide array of building including heritage, commercial and residential buildings. <u>Reviewer</u> Stewart Wong, BEng, MSc, CEng, MIFireE, MHKIE Stewart is an associate director in Kiwa Fire Safety who has 20-year experience in the field. He gained his Bachelor's degree in Building Services Engineer in 2005 from The University of Hong Kong and later his Master's degree in Fire Safety Engineering

		in 2010 from The Polytechnic University of Hong Kong. Originally based in Hong Kong and he is now based in the UK for the last 5 years. He holds the Chartered Engineer (CEng) status in the UK and full Member of IFE (MIFireE). He is also a member of Hong Kong Institution of Engineers (MHKIE) with profession in fire safety. Stewart has been working on various construction types including infrastructures, commercial and residential buildings ranging from low-rise to high-rise buildings across different countries as the designing engineer. Recently he involves heavily on high-rise residential developments located across UK.
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.	KFS understands formal consultation with the approving authorities (building control) relating to fire safety matters has begun. Berkeley Homes have not provided KFS with written confirmation of this at the time of writing this report. However, KFS understands these initial conversations have been positive and supportive for the area described above. Formal consultation will continue as the design develops. KFS has been appointed to provide an initial high-level review of the proposed design which includes the fire safety systems within the building.
5.	Site layout plan with block numbering as per building schedule referred to in paragraph 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)		b)	c)	d)	e)	f)	g)	h)	i)	j)
Block no. as per site layout plan above		• block height (m) • number of storeys excluding those below ground level • number of storeys including those below ground level	Proposed use (one per line)	Location of use within block by storey	Standards relating to fire safety/approach applied	Balconies	External wall systems	Approach to evacuation	Automatic fire suppression	Accessible housing
Middle Block	M1	19.5 m 7 storeys 0 storey	residential flats, maisonettes, studios	Level 0 – Level 06	BS9991	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	M4(1)
			commercial unit	Level 0	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial	N/A non resi

									sprinklers, full	
			service area	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			car parking	Level 0	BS 9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
	M2	32.8m 11 storeys 0 storey	residential flats, maisonettes, studios	Level 0 – Level 10	BS9991	class A2- s1, d0 or better	class A2- s1, d0 or better	stay put	yes- residential sprinklers, full	M4(1)
			community use, childcare	Level 0	Approved document B vol 2	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			commercial unit	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			service area	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi

	M3	19.7m 7 storeys 0 storey	residential flats, maisonettes, studios	Level 0 – Level 06	BS9991	class A2- s1, d0 or better	class A2- s1, d0 or better	stay put	yes- residential sprinklers, full	M4(1) & M4(3)
			service area	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			car parking	Level 0	BS 9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
	M4	22.7m 8 storeys 0 storey	residential flats, maisonettes, studios	Level 0 – Level 07	BS9991	class A2- s1, d0 or better	class A2- s1, d0 or better	stay put	yes- residential sprinklers, full	M4(1)
			service area	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			car parking	Level 0	BS 9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
	M5	19.5m 7 storeys	residential flats, maisonettes, studios	Level 0 – Level 06	BS9991	class A2- s1, d0 or better	class A2- s1, d0 or better	stay put	yes- residential	M4(1)

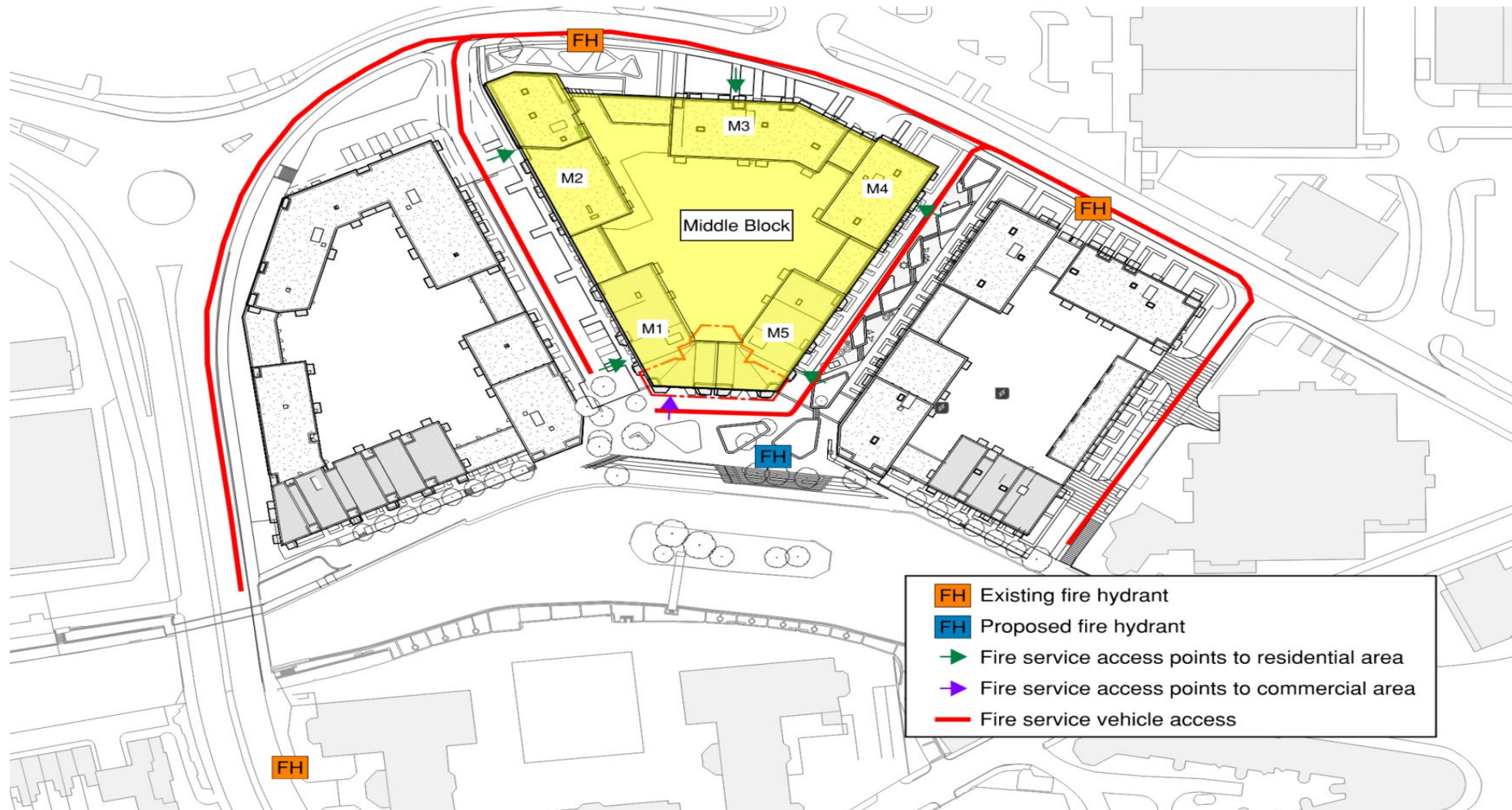
		0 storeys							sprinklers, full	
			commercial unit	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			service area	Level 0	BS9999	no balconies	class A2- s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
			car parking	Level 0	BS 9999	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 It is intended that the design of the building will be largely in accordance with the relevant guidance document recommendations at the time of construction. Areas in which the design varies from the guidance these areas will be addressed by well-established solutions. Any deviations from standard design guidance will be identified at design development stage, justified and discussed with the stakeholders for agreement. Noting that the building is now occupied, the new residential area on first floor will follow the principles applicable to other residential areas within the same building which are stipulated in agreed fire safety strategy.									
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									

	KFS has produced a Fire Strategy Report for Block M in Kenavon Drive project which details the fire precautions that are to be provided. It is intended that the design will be largely code-compliant to the standards in place at the time of construction and there are no apparent issues that might affect the fire safety of the building. The Block M is more than 18m in height and so would be classified as a “relevant building” under Regulation 7(2) of the Building Regulations and therefore all materials (other than a specific list of exceptions) which become part of an external wall or specified attachment of the building must be of European Class ‘A2-s1,d0’ or Class ‘A1’. This is achieved for the existing building. A significant focus on the new elements that form part of the external walls will remain. The selection of appropriate materials in order to ensure compliance with that regulation will follow as the design develops. KFS also note as the building is currently occupied. Additional consideration will need to be given to fire safety during the construction of the new residential units. KFS have suggested that these proposals are reviewed prior to commencing works in site.
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. The Block M is located outside London which does not need to comply with the London Plan. KFS are not aware of any other local development 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? No change to the fire service access and fire safety provisions are expected due to the proposed work. All roadways leading to the block would be designed to accommodate pump appliances. This requires a minimum width of 3.7 m between the kerbs, a minimum width of 3.1 m for gateways, and a minimum weight capacity of 16 tonnes. Block M has vehicle access for a fire appliance within 18 m along a route suitable for laying hoses to all dry riser inlets. This access is available via the roads to the north, east and west of the block. The east side of the road has turning facilities at the end and the west side is a loop that connects to the main road to the north. Each individual core will be equipped with fire mains that feature a dry fire riser inlet located at ground level, positioned within 18 m from the pump appliance parking location. Additionally, each core will provide a firefighting shaft that consists of a firefighting stair with a dry riser and a firefighting lift. The firefighting stair will be clearly visible from the FRS vehicle access point. The area is served by two existing fire hydrants, along with one proposed fire hydrant. This condition will not be altered as part of the works.

11.	Emergency road vehicle access Specify emergency road vehicle access to the site entrances indicated on the site plan Q14 provides the fire appliance access strategy. For all blocks, fire appliance access route is provided via public roadway, which comply with relevant guidance such as BS 9999 and BS 9991. This condition will not be altered as part of the works. Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed? Yes
12.	Siting of fire appliances Fire appliance access will be made available such that each fire main inlet will be visible and within 18 m of a suitable fire appliance parking location. This condition will not be altered as part of the works.
13.	Suitability of water supply for the scale of development proposed Separate water storage tanks will be provided for each fire safety system, i.e. separate independent tank for: the commercial sprinkler system, and the residential sprinkler system.. The commercial sprinklers system is fed from a common sprinkler tank and pump set located in the Middle block. This condition will not be altered as part of the works. Nature of water supplies: Hydrant - public Does the proposed development rely on existing hydrants and if so are they currently useable / operable? Yes

14. Fire service site plan

Indicative fire service site plan is inserted in the form.



3. Limitations

Our advice is strictly limited to the scope of our current brief, i.e. to provide a Planning Gateway One Fire Statement to support the Planning Application for the Kenavon Drive project in Reading.

Kiwa Fire Safety Compliance have not reviewed any other issues within the project other than those identified in our report. We offer no comment on the adequacy or otherwise of any other aspects of the development (whether related to fire safety or any other issue) and any absence of comment on such issues should not be regarded as any form of approval. If future evidence is to become available KFS reserve the right to edit and review this report. The advice should not be used for buildings other than that named in the title.

Prepared by:



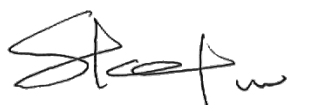
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Reviewed by:



Stewart Wong

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Associate Director of FSE

Kiwa Fire Safety Compliance
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Appendix A List of Documents

Table A. 1 Key documents

DRAWING NUMBER	REVISION	ORGANISATION	DRAWING DESCRIPTION
KD-PRP-MID-01-DG-A-2101	P00 - Preliminary	PRP	Middle Block Proposed Block Plan - First Floor
KD-PRP-MID-01-DG-A-2111	P00 - Preliminary	PRP	Middle Block Proposed GA Plan – First Floor
KD-PRP-MID-ZZ-DG-A-2211	P00 - Preliminary	PRP	Middle Block Proposed South & North Elevation
KD-PRP-MID-ZZ-DG-A-2202	P00 - Preliminary	PRP	Middle Block Proposed East Elevation
KD-PRP-MID-ZZ-DG-A-2203	P00 - Preliminary	PRP	Middle Block Proposed West Elevation
KD-PRP-MID-ZZ-DG-A-2301	P00 - Preliminary	PRP	Middle Block Proposed Section D-D
KD-PRP-MID-XX-RP-A-0001	P1	PRP	Design & Access Statement – Middle Block 4 Dwellings
KD-PRP-MID-ZZ-DG-A-2001	P00 - Preliminary	PRP	Site Location Plan
KD-PRP-MID-01-DG-A-2100	P00 - Preliminary	PRP	Middle Block Proposed Block Plan - Ground Floor
FSS_19315_03B	B*	International Fire Consultants Ltd	Fire Strategy Report Block M
TN_23901/01	-	Kiwa Fire Safety Compliance	Fire Strategy Addendum (Planning Application)

*KFS have provided a supplementary technical note (TN_23901/01) which outlines the key fire safety provisions for the purposes of this planning application.