

Wales Gateway 1 Fire Statement

For

Ty Cambria, Newport Road, Cardiff

Helios Reference: FSE2641

Issue No: 01

5 August 2026

Revision History

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Initial issue for planning submission			
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Client Details

Client	Elite Real Escape Services UK Ltd
Client Address	16 Berkeley Street, London, W1J 8DZ, United Kingdom
Project	Ty Cambria, Newport Road, Cardiff

Validity

This report is produced on the basis of the information and experience available at the time of preparation. It is applicable to the above-mentioned project only in accordance with the client's instructions. It is only valid provided no other modifications are made other than those for which a formal opinion has been sought from and given by Helios Fire & Construction Consultancy UK.

The report outlines the principal opinion of Helios Fire & Construction Consultancy and is prepared based on information issued by other parties, this report should not be viewed as an approval of that information and no liability is accepted for its accuracy.

All legislation quoted is primarily concerned with life safety and property protection is not specifically considered although the fire protection provisions to be provided for the building will offer some degree of property protection.

Furthermore, other issues such as insurers' requirements, cultural heritage, environmental, or continuity issues have not been specifically addressed or included within the development of the fire safety strategy.

Transmission and receipt of Information used in the preparation of the Gateway 1 planning statement is agreed on the basis outlined in the fee proposal as issued by Helios Fire & Construction Consultancy. Should a web-based document management system be used, information that is specifically to be assessed and reviewed by Helios Fire & Construction Consultancy should be issued directly to the representative of Helios Fire & Construction Consultancy. The acceptance of access onto any web-based system by Helios Fire & Construction Consultancy does not constitute an acknowledgement that all information on the specific portal will have been assessed and reviewed. For Helios Fire & Construction Consultancy Ltd Disclaimers and IT Policy please see www.heliosconsultancy.com.

In preparing this Gateway 1 report the design and construction will, unless stated otherwise in this report, be in accordance with the design principles of BS 9991:2024 incorporating Corrigendum No.1, BS 9999:2017, Approved Document B (Wales), applicable British Standards and relevant codes of practice.

The terms 'will' and 'will be' in this report represent Helios Fire & Construction Consultancy's recommendations and understanding regarding the proposed design, construction, or management of the development. The validity of this report depends on these items being implemented as outlined.

This report relates to a project that is subject to third party approval. It must be ensured that the contents of this report are agreed with all relevant approval bodies prior to implementation.

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1 Application Information

Site Address Line 1	Ty Cambria House
Site Address Line 2	29 Newport Road
Town	Cardiff
County	City and County of Cardiff
Site Postcode (optional)	Design team to confirm site postcode.
Description of Development	Ty Cambria is a new 24 storey (ground and 23 upper floors) purpose-built student accommodation (PBSA) scheme situated at 29 Newport Road, Cardiff. The height to the top occupied storey is circa 69.5m and there is no basement. The accommodation comprises a mix of studio flats and cluster flats, each cluster flat providing a shared living / kitchen / dining space (LDK) and four study bedrooms accessed off an internal protected corridor. The ground floor comprises a commercial unit, the main residential entrance lobby, a gym / wellness suite, a cycle store with an internal mezzanine level, a bin store and back of house ancillary accommodation including plant, the sprinkler tank and pump room, an LV room, a substation, comms and management accommodation. Levels 01 to 22 comprise student accommodation. Communal amenity accommodation and an external terrace are provided at Level 07, and further communal amenity accommodation, an external terrace and external plant are provided at Level 23. There is no occupant access to the main roof. The building is served by two stairs, both designed as firefighting stairways, each with its own firefighting / evacuation lift and firefighting / evacuation lift lobby.
Further Information	FSE2641 – Helios SK – Ty Cambria – Revision 01 FSE2641 – Helios Fire Safety Strategy – Ty Cambria – Issue 01 Fletcher Joseph (Edinburgh) Ltd architectural drawing series 25835-FJA, Revision P01
Details of consultations undertaken relating to the fire safety of the development.	Formal pre-application consultation with Cardiff Building Control and South Wales Fire and Rescue Service (SWFRS) has not yet been undertaken for this development. Helios have had previous discussions with SWFRS on other projects on regarding the preferred location of wet rising main outlets within firefighting / evacuation lift lobbies rather than within the stair enclosure, and this preference has been reflected in the proposals. Formal consultation with Cardiff Building Control and SWFRS will be undertaken as the design develops, including agreement of the items identified for approval by the Authorities Having Jurisdiction within the fire safety strategy.
Author's Details:	Kieran Cooper - BEng (Hons) APAEWE MIFSM AIFireE Kieran is a Member of the Institute of Fire Safety Managers and an Associate with the Institution of Fire Engineers, with 13 years postgraduate experience in the field of fire safety engineering, encompassing; design consultancy, risk assessment, CFD modelling and expert witness. Following a BEng Honours degree in Fire Safety Engineering Kieran obtained the Advanced Professional Award in Expert Witness Evidence in 2022 in order to become a shadow expert within fire safety disputes. Kieran has significant experience in Fire Safety Engineering having worked within multiple sectors, including; residential (including HRRB), commercial, industrial, educational, retail, MOD, Hospitals at all design/construction stages from feasibility through to handover.

	Kieran has experience with various types of fire engineering analysis required for justifying proposals that do not meet the requirements of the relevant codes of practice which includes; Computational Fluid Dynamics analysis (CFD), radiant heat calculations, smoke control calculations, structural fire protection analysis and analysis of heat transfer and external fire spread.
Signature:	
Date:	05/08/2026
Reviewed by:	John Preston BEng(Hons), AIFireE
Approved by:	Richard Jones BA(Hons), Grad.Dip, AIFireE, MCABE CBuildE

2 Introduction

This report presents the Gateway 1 Planning Submission Fire Statement for Ty Cambria, 29 Newport Road, Cardiff. It should be read in conjunction with the Helios Fire Safety Strategy for the development (FSE2641, Issue 01) and the Helios fire safety sketches (FSE2641 Helios SK, Revision 01).

Ty Cambria is a new 24 storey (ground and 23 upper floors) purpose-built student accommodation (PBSA) scheme situated at 29 Newport Road, Cardiff. The accommodation comprises a mix of studio flats and cluster flats, each cluster flat providing a shared living / kitchen / dining space (LDK) and four study bedrooms accessed off an internal protected corridor. There is no basement.

The ground floor comprises a commercial unit, the main residential entrance lobby, a gym / wellness suite, a cycle store with an internal mezzanine level, a bin store and back of house ancillary accommodation. Levels 01 to 22 comprise student accommodation, with communal amenity accommodation and an external terrace at Level 07 and further communal amenity accommodation, an external terrace and external plant at Level 23. The building is served by two stairs located adjacent to one another towards the centre of the floor plate, each with its own firefighting / evacuation lift and firefighting / evacuation lift lobby.

2.1 Typical Floors

The figures below show the ground floor and the typical residential floor plans for the scheme. The approximate floor areas are circa 820m² at ground floor, circa 745m² at Level 01, circa 740m² at Levels 02 to 06, circa 525m² at Level 07 excluding the terrace, circa 535m² at Levels 08 to 14 and circa 440m² at Levels 15 to 23. All storeys are less than 900m².

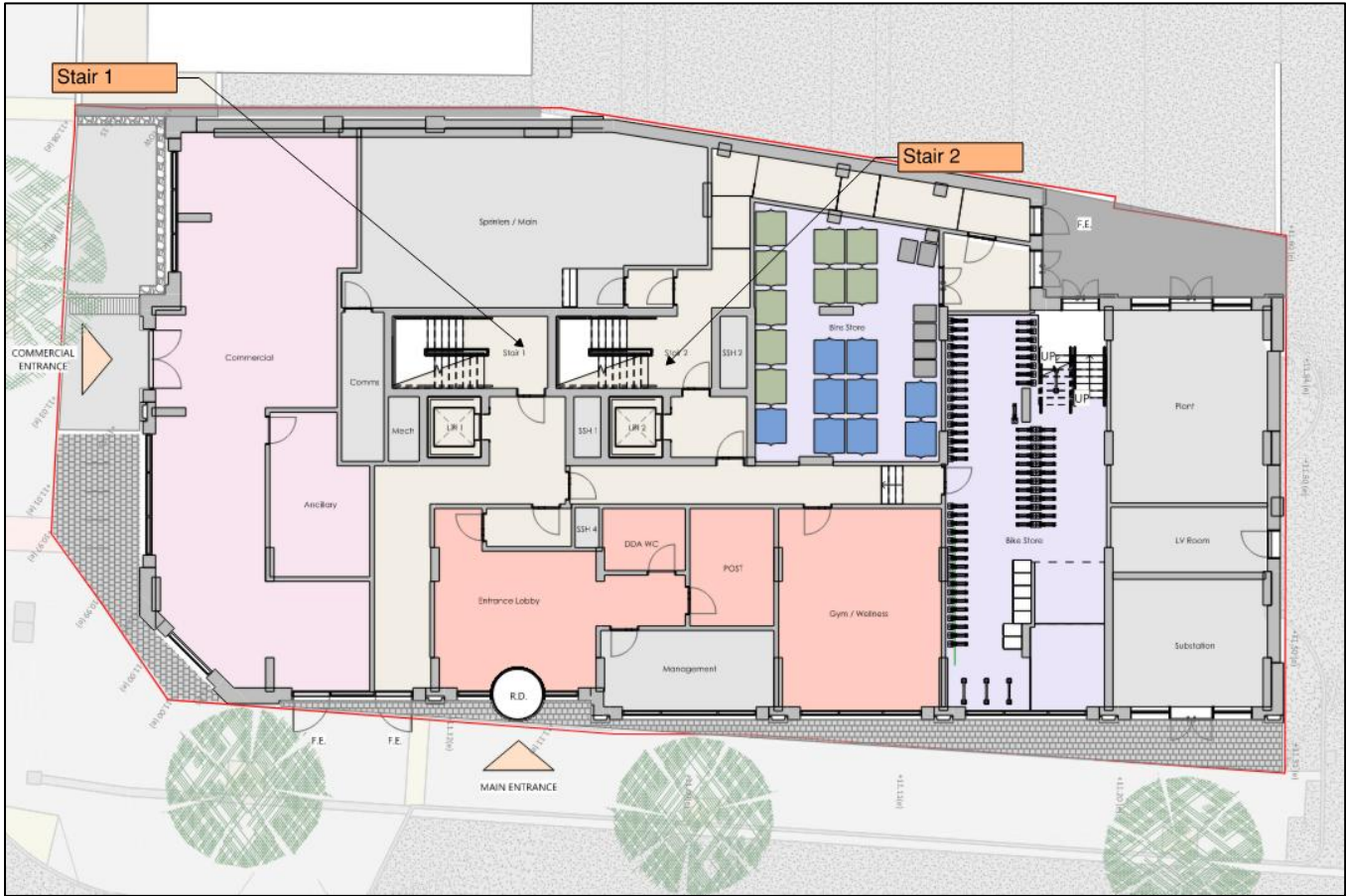


Figure 1: Ground Floor Plan



Figure 2: Typical Residential Floor Plan (Levels 02 – 06)



Figure 3: Typical Upper Residential Floor Plan (Levels 16 – 22)

2.2 Height to Top Occupied Storey

The height to the top occupied storey has been taken from the lowest surrounding ground level. Based on the architect's elevations, ground floor level is set at +11.000 and the finished floor level of Level 23, the top occupied storey, is +80.525. The height to the top occupied storey is therefore circa 69.5m. Roof level is +83.825 and the parapet level is +85.825.



Figure 4: Height to Top Occupied Storey

Site Layout Plan With Block Numbering as Per Building Schedule Referred to Below.

[Plan to be consistent with other plans, drawings submitted in connection with the application]

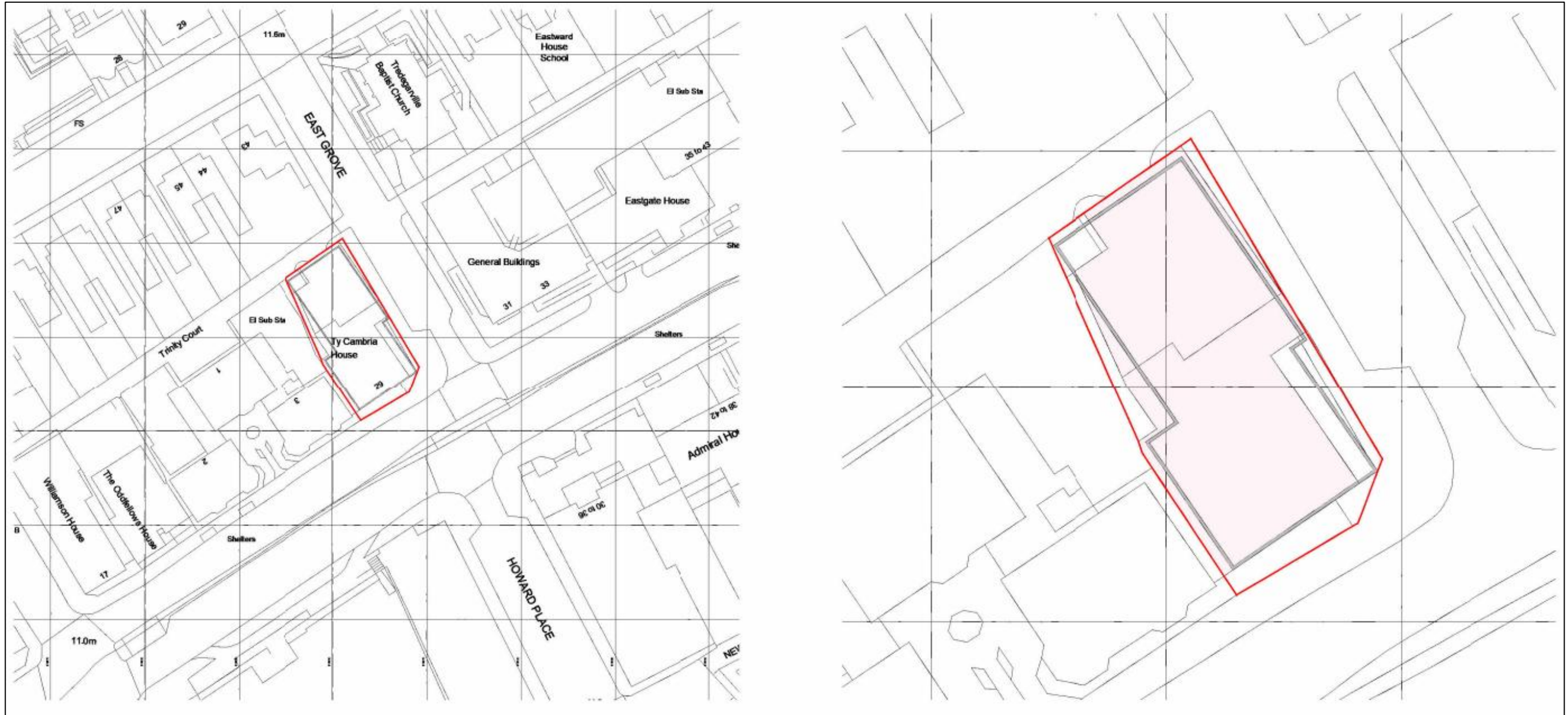


Figure 5: Site Plan

The Principles, Concepts and Approach Relating to Fire Safety That Have Been Applied to the Development

Building Schedule									
Site Information				Building Information			Resident Safety Information		
Block Number	Block Height (m) No Storeys Above Ground No of storeys including below ground level	Proposed Use	Location of Separate uses Within Block	Standards Relating to Fire Strategy	Balconies	External Wall Systems	Evacuation Approach	Automatic Water Fire Suppression System (AWFSS)	Accessible Housing Provided
Ty Cambria	Circa 69.5m to the top occupied storey. Ground plus 23 storeys above ground. No basement storeys.	Student accommodation (studio flats and cluster flats) with a commercial unit at ground floor. Communal amenity areas will be used by residents only.	Commercial unit, entrance lobby, gym / wellness suite, cycle store, bin store and back of house ancillary accommodation at ground floor. Water / plant rooms at Level 01. Student accommodation from Level 01 to Level 22. Communal amenity with external terrace at Level 07 and at Level 23, with external plant at Level 23.	BS 9991:2024 incorporating Corrigendum No.1. BS 9999:2017 for the commercial unit where appropriate. Approved Document B (Wales) if necessary.	No private balconies. Communal external terraces at Level 07 (circa 105m²) and Level 23 (circa 32m²).	A2-s1, d0 or better. The building is a relevant building under Regulation 7.	Student accommodation – stay put policy (defend in place), with an emergency evacuation alert system to BS 8629 to allow a fire and rescue service managed evacuation. Commercial unit – simultaneous evacuation. Communal amenity and back of house – simultaneous evacuation within the affected compartment.	BS 9251:2021 Category 4 throughout. BS EN 12845:2015+A1 will be provided to any communal or ancillary compartment that exceeds 100m². All such compartments are currently below 100m².	Design team to confirm accessible accommodation provision.

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development

The building has a top occupied storey at circa 69.5m, that is in excess of 50m but below 100m. The scope of BS 9991:2024 extends to buildings with a top storey less than 100m, so BS 9991 is applicable to this development. On this basis a qualitative design review (QDR) is not required to meet Building Regulations. The exception to this is where the building departs from BS 9991, independent quantitative assessments will be undertaken to demonstrate that the functional requirements of the Building Regulations are met.

For buildings with a storey over 50m, BS 9991 and other applicable standards contain additional recommendations for the technical complexities of tall buildings. A summary of these items is noted below but are not exhaustive.

- Fire Service Access
 - Wet rising mains
 - All lifts to be evacuation lifts and firefighting lifts
 - Fire and rescue service communications by radiating cable (leaky feeder), distributed antennae system (DAS) or fire telephones
 - Low mounted way guidance system within the stairways, and stair enclosures constructed of materials achieving Class A1 or A2-s1, d0
- AWFSS
 - Duration of supply beyond minimum durations
 - Hydraulic calculations
 - Additional resilience to be considered to improve system reliability and availability
- Smoke Control
 - Mechanical smoke ventilation to the common corridors and lobbies
 - CFD analysis to demonstrate system performance, including the effects of stack effect
- Means of Escape
 - A separate emergency evacuation alert system to BS 8629 for use by the fire and rescue service
 - An evacuation lift to each stair, with a temporary waiting space within each evacuation lift lobby
- Construction
 - 120 minutes fire resistance to the elements of structure and to all protected shafts
 - External wall construction of Class A2-s1, d0 or better as a relevant building under Regulation 7

Evacuation Approach

Residential BS9991: Stay Put

The base code compliant evacuation process is a stay put evacuation strategy for the student accommodation. This means that the only occupants who evacuate are those directly affected by the effects of fire. The remaining occupants remain within their studio or cluster flat unless asked to evacuate by the fire service. As the building is proposed to be provided with an emergency evacuation alert system to evacuate floor by floor, the capacity of the stairs has been reviewed to confirm that they are sufficient in the event of a managed evacuation by the fire service.

The standard evacuation approach for the commercial unit is a single stage simultaneous evacuation of the entire unit. This means that on activation of detection, or a manual call point, the whole unit will be put into alarm and all occupants of the unit will evacuate.

A BS 5839-1 Category L1 fire detection and alarm system is proposed throughout the building, with manual call points and sounders omitted from the residential common corridors and stairs so that the stay put strategy is not undermined. Detection within the residential common corridors activates the smoke control system and signals to the 24/7 on-site management team and to a remote monitoring centre for early warning of a fire.

The building will be designed as flats in accordance with BS 9991 and will operate a stay put policy. Each studio flat is treated as a flat in accordance with Clause 8.4 and each cluster flat is designed in accordance with Clause 8.7. BS 9991 Clause 0.5 recognises that the fire risk in student accommodation is particularly dependent on occupant age, characteristics and behaviours, including an increased likelihood of cooking fires, misuse of appliances and complacency towards fire alarms; the design responds to this through building-wide suppression, a high standard of compartmentation and 24/7 on-site management.

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development

The building is served by two stairs, Stair 1 and Stair 2, located adjacent to one another towards the centre of the floor plate. Both stairs are designed and constructed as firefighting stairways, each enclosed within 120 minutes fire resistance and each served by a firefighting / evacuation lift, a firefighting / evacuation lift lobby and a wet rising main. As the stairs are adjoining they will be separated by imperforate construction having at least the same period of fire resistance as the stair enclosures, with no openings in the elements common to both stair enclosures. Stair 1 discharges into the evacuation lobby at ground floor which is affording the same fire resistance as the stair. Stair 2 discharges direct to outside.

Commercial Unit: BS 9999 Simultaneous

The commercial unit at ground floor circa 130m² and is served by one inward opening exit and one outward opening exit, therefore limited to 60 persons. The unit will operate an independent single stage simultaneous evacuation and will be provided with automatic detection linked to the residential common system to give early warning to the building management team and the remote monitoring centre. Suppression will be provided in accordance with BS EN 12845:2015+A1.

Communal Amenity, Gym / Wellness and External Terraces

The gym / wellness suite at ground floor (circa 63m²) and the communal amenity spaces at Level 07 (circa 93m²) and Level 23 (circa 30m² and circa 55m²) will operate a simultaneous evacuation within the affected compartment. Each space is limited to a maximum of 60 occupants based on the available exits and door swings, and each is lobby protected from the common escape routes.

The Level 07 communal terrace (circa 105m²) is accessed via the Level 07 communal amenity space and the Level 23 terrace (circa 32m²) via the Level 23 communal amenity space. Escape from the Level 07 terrace is via the amenity space rather than directly into a protected corridor or protected stairway as recommended by Annex E.5 of BS 9991. The measured travel distance from the terrace to the protected common corridor is circa 16.3m, which is within the 18m single direction limit for a communal terrace, and sounders and beacons will be provided to the terrace so that occupants receive early warning of a fire within the amenity space. **This arrangement is to be agreed with the Authorities Having Jurisdiction.**

Cooking

It is recommended that the cooking appliances within the cluster flat LDKs, the studio flats and the communal amenity spaces are provided with a Category B preventative cut-off device to BS EN 50615, with audible warning, in addition to the suppression.

AWFSS

The building will be provided with an Automatic Water Fire Suppression System to BS 9251:2021 (Category 4) throughout, covering the student accommodation, common corridors, communal amenity, commercial and ancillary areas. Based on the areas measured from the architect's plans the largest communal or ancillary compartments are the Level 07 communal amenity (circa 93m²), the commercial unit (circa 130m²), the cycle store (circa 73m²) and the sprinkler tank and pump room (circa 71m²).

As the commercial unit exceeds 100m² both BS 9251 and BS EN 12845 sprinklers systems are required. If the commercial is divided by a compartment wall, BS9251 can be provided.

The system will provide coverage to all areas of the building other than permitted exceptions in accordance with the British Standard. Additional resilience measures will be considered by the specialist due to the height of the building.

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development

Fire Service Access

BS 9991 Clause 10 recommends that in buildings with a storey 18m or more above fire and rescue service access level, one or more of the common stairs should be designed as a firefighting stairway containing a firefighters' lift. Clause 7.4.1 further recommends that in buildings with a storey 50m or more above ground level and designed with a stay put strategy, every lift should be designed as a firefighters' lift programmed to function as an evacuation lift until recalled using the firefighters' lift switch.

BS 9991 Clause 46.2.2 recommends that, where the building is fitted throughout with a sprinkler system in accordance with BS 9251:2021 or BS EN 12845, sufficient firefighting shafts should be provided such that every part of every storey is not more than 60m from a fire main outlet in a firefighting shaft, measured on a route suitable for laying hose. It is noted that BS 9991:2024 does not include the 900m² storey area criterion for the number of firefighting shafts that appears in Approved Document B Wales; the number of shafts is therefore driven by hose laying distance. In any event all storeys are less than 900m² in area.

The proposals have been based on the actual hose laying distances, where all parts of all floors can be accessed within the 60m hose distance stipulated in BS 9991. On this basis a single firefighting shaft would be sufficient. Notwithstanding this, as the stairs are required to be enclosed within REI120 both stairs are proposed as firefighting shafts, which is an enhancement over the guidance and provides resilience should one shaft be compromised.

BS 9991 Clause 47.1 recommends that fire mains are located within the stair enclosure but expressly permits any other position as agreed with the appropriate authority. Based on previous discussions with South Wales Fire and Rescue Service the wet rising main outlets are preferred within the firefighting / evacuation lift lobbies, with one wet rising main provided in each core for resilience. As the top occupied storey exceeds 50m above fire and rescue service access level, wet rising mains are required. **The outlet locations and the need for outlets in both cores for resilience are to be confirmed by SWFRS.**

Smoke Ventilation

Ventilation is required to the residential common corridors, the firefighting / evacuation lift lobbies and the stairs, for both means of escape and firefighting, in order to maintain the stairs and the lift lobbies free of smoke.

BS 9991 Table 3 confirms that natural automatic opening vents discharging directly to outside may only be used for smoke exhaust from lobbies and corridors in buildings with no storey at 18m or more above ground level, and that natural smoke shafts may only be used where there is no storey at 30m or more above ground level. A mechanical shaft system with a performance based design, or a pressure differential system, is suitable for all building heights. For buildings over 60m stack effect should be considered. Given the height of Ty Cambria the communal corridors and lobbies are therefore required to be ventilated by a mechanical system.

A mechanical smoke ventilation system extracting from the common corridor via the shafts identified as SSH 3 and SSH 4 within the common corridors, with make-up air drawn into each firefighting / evacuation lift lobby via the natural inlet shafts identified as SSH 1 and SSH 2, together with an automatic opening vent at the head of each stair having an aerodynamic free area of not less than 0.7m². The inlet shafts should be equivalent to the stair protection (0.7m² aerodynamic free area/ 1m² geometric free area). **However, the inlet shaft and stair AOV is subject to CFD and stack effect.**

In accordance with BS 9991 Clause 13.2 and Table 1, the protected lobbies serving the ancillary and communal accommodation on the ground floor require 1m² of ventilation, reduced to 0.4m² on the basis that sprinkler protection to BS 9251:2021 is provided throughout the building. The ventilation may be permanent or provided by an automatic opening vent with free area of not less than 0.4m². Permanent ventilation exhausts are to be located at least 1800mm from any final exit.

The smoke control system will be designed by a specialist and CFD analysis will be required to demonstrate that the system protects the stair enclosures from smoke ingress. Given the height of the building the modelling will need to consider stack effect and the potential need for additional low level ventilation into the stairs. At roof level the stair automatic opening vents and the lobby inlet shafts are to be at least 5m from the mechanical extract shaft discharges. **CFD parameters and acceptance criteria to be agreed with the Authorities Having Jurisdiction.**

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development

For a summary of smoke ventilation see Table 7 of the fire strategy report.

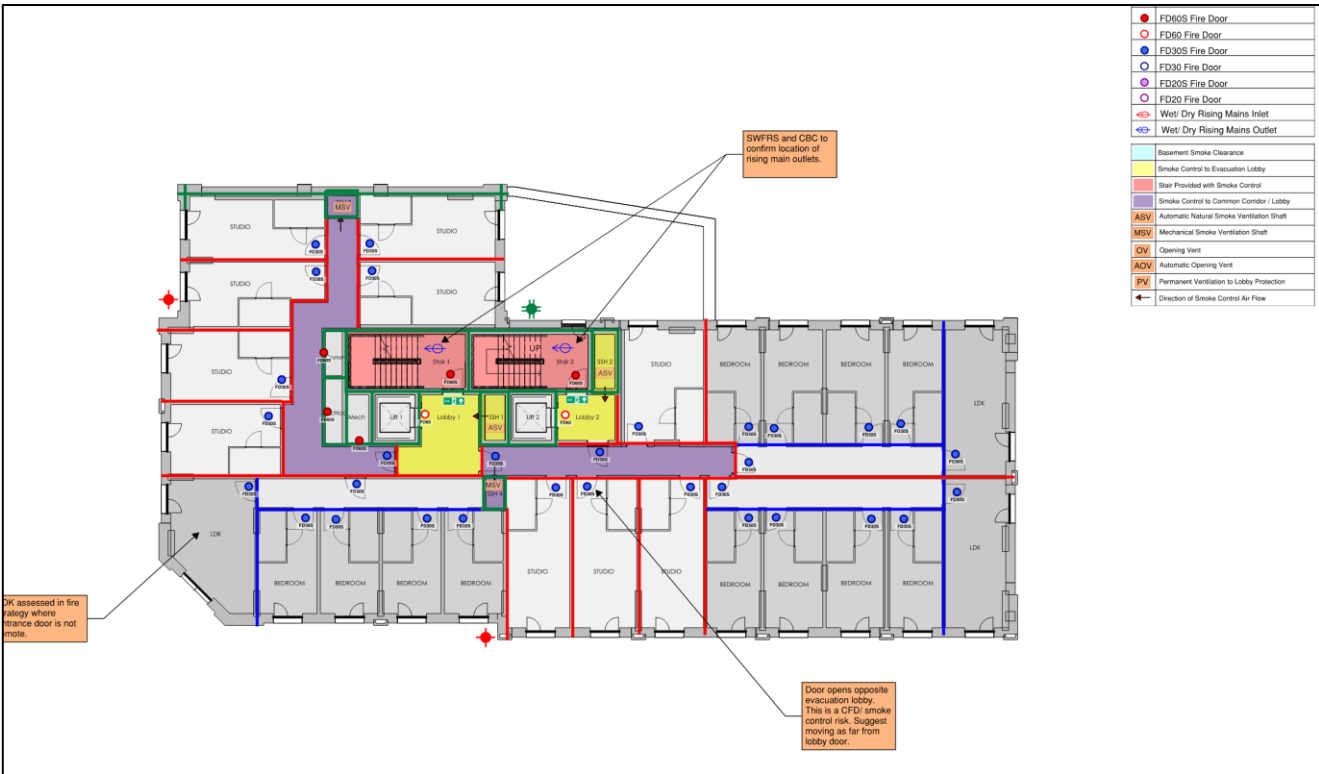


Figure 6: Typical Smoke Control Layout – Levels 02 to 06

Travel Distances

The residential travel distances are within the allowable limits with the inclusion of AWFSS, Category L1 detection and smoke control, as indicated below.

Area	Single Direction of Travel	Multiple Directions of Travel
Studio flats	9m (20m with AWFSS and a Category L1 fire detection and alarm system)	NA
Cluster accommodation – internal corridor	9m (15m with sprinklers to BS 9251:2021 throughout the cluster)	35m
Common corridor	7.5m (15m with smoke control and AWFSS)	30m (45m with smoke control and AWFSS)
Evacuation lift lobby	7.5m	No maximum limit

The ancillary and communal area travel distances are in accordance with the BS 9991 limits as shown below.

Area	Single Direction of Travel	Multiple Directions of Travel
Plant and engineering service installation rooms	9m in room 18m to nearest storey exit	18m in room 45m to nearest storey exit
Bin store	9m in room 18m to nearest storey exit	18m in room 45m to nearest storey exit
Cycle store	9m	45m
Communal amenity	18m	45m

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development

The commercial unit has been assessed against a B1 risk profile in accordance with BS 9999, as shown below.

Area	Single Direction of Travel	Multiple Directions of Travel
Commercial Unit (B1)	24m	60m

Vertical Clear Widths

There are two firefighting stairs serving all storeys. The minimum required clear width for a firefighting stair is 1100mm, and this width is to be kept clear for a vertical distance of 2000mm.

Both stairs will achieve a minimum clear width of 1100mm, and the final exit routes and doors from the stairs are to be at least as wide as the minimum required clear stair width.

Residential Stair Escape Capacity

BS 9991 Clause 5.1.2, Note 5 gives a formula for calculating stair capacity. Applying the recognised form of that expression, $P = 200w + 50(w - 0.3)(n - 1)$, where w is the stair width in metres and n is the number of floors served, a 1100mm stair serving 23 floors above the final exit has a capacity of circa 1100 persons. As both stairs are served by protected corridors and lobbies with smoke control, discounting a stair is not necessary, giving a total capacity of circa 2200 persons. Based on the measured unit mix the maximum predicted occupancy of the worst-case residential floor is in the order of 25 bedspaces, so the stairs can comfortably accommodate a fire and rescue service managed evacuation, which would be undertaken on a floor by floor basis.

Accessible Means of Escape
Residential

Temporary waiting spaces associated with the evacuation lifts are provided within each firefighting / evacuation lift lobby at each level above ground, as the primary evacuation strategy is stay put. Each temporary waiting space will be provided with an Emergency Voice Communication system in accordance with BS 5839-9.

Both lifts are designed as firefighters' lifts programmed to function as evacuation lifts until recalled using the firefighters' lift switch. An evacuation lift is therefore provided to each stair and accessible escape can be made from either of the two cores.

It is assumed 24/7 management will be provided and therefore staff can assist with the evacuation lifts.

Commercial and Ground Floor Amenity

The commercial unit, the gym / wellness suite and the entrance lobby are all at ground floor level with level access to final exits, so evacuation lifts and refuges are not required for these areas.

Compartmentation

Compartment floors are provided at all floors and are rated at the same fire resistance as the elements of structure, REI120.

All shafts should be considered as protected shafts within the building and will require the same fire resistance as the elements of structure REI120.

Each studio flat and each cluster flat is considered an individual compartment and will be separated from adjoining compartments by 60 minutes fire resistance. Within each cluster flat has an internal protected entrance hall achieving 30 minutes REI30 fire resistance to each room off the corridor, with self-closing E 30 Sa4 or FD30S doors to the bedrooms and the LDK.

A 120 minute compartment wall is provided between the ground floor commercial unit and the residential parts of the building. The evacuation lift lobbies at ground floor are also enclosed within 120 minutes fire resistance as a Helios recommendation, to provide robust protection to a place of ultimate safety.

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development
Residential Structure:

Part of the Building	Minimum Provisions When Tested To The Relevant Parts Of BS 476 Or Relevant European Standard (Minutes)			Method of Exposure
	Load-Bearing Capacity [R]	Integrity [E]	Insulation [I]	
Structural Frame, Beam or Column	120	N/A	N/A	Exposed Faces
Load-Bearing Wall	120	N/A	N/A	Each Side Separately
Compartment Floors	120	120	120	From Underside
Floors	120	120	120	From Underside
Compartment Wall	120	120	120	Each Side Separately
Compartment Wall Separating Commercial From Residential	120	120	120	Each Side Separately
Compartment Walls Enclosing Flats	60	60	60	Each Side Separately
Cluster Flat Internal Corridor (to each room off the corridor)	30	30	30	Each Side Separately
Enclosure to Ancillary Accommodation	See the Ty Cambria Fire Safety Strategy (FSE2641) for ancillary enclosure periods			Each Side Separately / From Underside
Roofs	120	120	120	From Underside
External Fire Spread				
Any part less than 1000mm from a point in the relevant boundary	120	120	120	Each Side Separately
Any part more than 1000mm from the relevant boundary ^{Note 1}	120	120	15	From Inside the Building
Any part adjacent to an external escape route	30	30	N/A	From Inside the Building
Re-entrant corners/ Maintaining Compartmentation	Same as the compartment wall it serves			Each Side Separately
Firefighting Stair	120	120	120	Each Side Separately
Firefighting Lift	120	120	120	Each Side Separately
Firefighting / Evacuation Lift Lobby (Ground Floor)	120	120	120	Each Side Separately
Firefighting / Evacuation Lift Lobby (Upper Floors)	60	60	60	Each Side Separately
Protected Shafts (Stairs, lifts, risers)	120	120	120	Each Side Separately
Cross Corridor Doors	30	30	30	Each Side Separately
Cavity Barriers	N/A	30	15	Each Side Separately
Fire Barriers	Same as the compartment wall it serves			Each Side Separately

Specific Technical Complexities & Issues Which Might Affect the Fire Safety of the Development

Commercial Unit Structure:

The commercial unit is located within the footprint of the residential building. The elements of structure serving it are therefore those of the residential building above, and the 120 minute periods set out in the table above apply throughout. A lower period of fire resistance has not been adopted for the commercial unit. The compartment wall separating the commercial unit from the residential accommodation achieves 120 minutes.

3 Emergency Road Vehicle Access and Water Supplies for Firefighting Purposes

Fire Service Site Plan, Emergency Road Vehicle Access and Siting of Fire Appliances

Fire service access will be via existing main roads, Newport Road and East Grove. There is also a smaller road via Trinity Court Lane.



Figure 7: Fire and Rescue Service Access

Fire service access road specifications noted below. As the roads are existing, they are assumed to meet requirements. Any works to the roads will need to follow requirements below.



Source: 3d Warehouse. Sketchup Image

Appliance	Width of Road between Kerbs	Gateway Width	Clearance Height	Carrying Capacity	Turning Circle	
					Kerb to Kerb	Wall to Wall
Pump	3.7m	3.1m	3.7m	12.5 – 15 tonnes	16.8m	19.2m
Combined Aerial Platform	3.7m	3.1 - 6m	4.0m	17 – 26 tonnes	26.0m	29.0m

Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?	☒ Yes	No
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Suitability of Water Supply for the Scale of Development Proposed			
Nature of Water Supply:	Open Water - Limited	Open Water - Unlimited	Tanked Supply
	☒ Hydrant – Public	Hydrant - Private	
Does the proposed development rely on existing hydrants?	☒ Yes		No
			
	There appears to be existing hydrants located on Newport road, hydrant Plack shown south of Ty Cambria House. Actual locations to be confirmed. Email issued (30.07.26) to South Wales Fire & Rescue Service to request location of existing hydrants.		
If so, are they currently usable / operable?	Yes	No	☒ Don't know
Additional Comments:	As the top occupied storey exceeds 50m above fire and rescue service access level, wet rising mains will be provided in accordance with BS 9990 and BS 9991 Clause 47.1, with one main in each core. The fire and rescue service requires access to within 18m of, and in sight of, the wet rising main inlets, and two inlet connection points are to be considered for resilience. Indicative wet rising refill inlet locations noted on plan below, however these will be developed at the next stage. Wet riser outlets to be located on every floor including ground floor. In accordance with BS 9991 Clause 47.2, for a building fitted with a wet fire main, hydrants should be provided within 90m of an entry point to the building and not more than 90m apart.		

Fire Service Site Plan

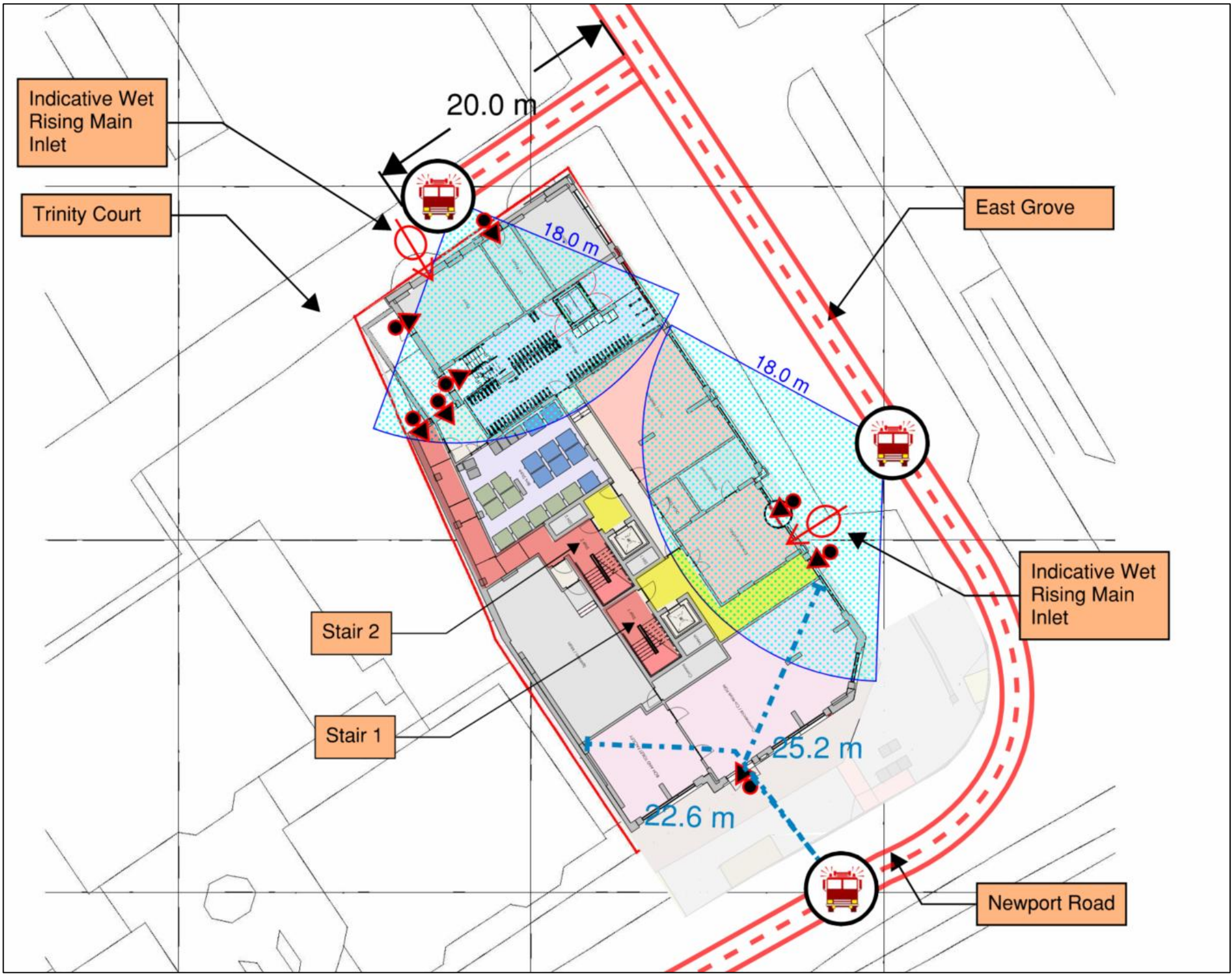


Figure 8: Fire and Rescue Service Access