FIRE SAFETY CERTIFICATE APPLICATION REPORT

FOR

Extension to side and rear and internal alterations and upgrade of existing group residence with related care facilities for accessible bedrooms and bathrooms

AT

22 HEATHERVIEW CLOSE,
DUBLIN 24,
D24 WKD0

WRITTEN SUBMISSION

CLIENT	Cheeverstown House CLG
BUILDING CONTROL AUTHORITY	South Dublin Co. Co.
PROJECT TITLE	Extension to side and rear and internal alterations and upgrade of existing group residence with related care facilities
PROJECT NO.	416/01-25
DATE	June 19th 2026

Note:
This submission should be read in conjunction with the drawings attached as part of the application documentation.

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0.1 Scope:

This report is submitted with accompanying drawings and other documentation in support of an application for a Fire Safety Certificate under Technical Guidance Document B 2024 (referred to as TGD B 2024 in this report) for a:

- Extension to side and rear and internal alterations and upgrade of existing group residence with related care facilities for accessible bedrooms and bathrooms

In this report it is demonstrated that the development, shall be in accordance with the drawings and design details submitted with this application together with performance requirements prescribed in this report, will comply with the requirements of TGD B 2024.

This report is subdivided into sections dealing with each of the specific requirements of TGD B 2024 and the drawings and other documentations submitted in support of this application shall be read in conjunction with this report. It is noted that this report is not to be regarded as a specification for the works.

The relevant Technical Guidance Documents (TGD), Codes of Practice (COP), Irish (IS) and British Standards (BS), Euro-codes (EN) and various published material referred to shall also be available as a reference when reading this report.

BRE 187: 2nd Edition External Fire Spread: Building separation and boundary distance 2014.

Note: Where the abbreviation TGD is referred to in this report and on accompanying drawings it has the meaning "Technical Guidance Document". It refers to the current Technical Guidance Documents as published by the Department of the Environment in relation to providing prima fascia evidence of compliance with the relevant parts of the Building Regulations.

Planning Permission Ref: SD26A/0044W South Dublin County Council

0.2 Description of Proposed Works

The proposed works involves alteration, extension, and upgrade of an existing residential care facility in to be a home for 4 residents that will blend with the neighbouring properties.

The total floor area of the proposal is **243.0 sq.m.** with ground floor having a total floor area of **139.0 sq.m.** as indicated on this report.

The premises is set in urban setting with a site area of 0.035 hec approx. All located at 22 Heatherview Close, Dublin 24, D24 WKD0.

The intended use of this property falls into:

- **Purpose Group 2(a) – Residential (Care Facility)**

as per Table 1 “Classification of buildings by purpose group” of TGD Part B 2024.

Accompanying Drawings:

This report shall be read in conjunction with the accompanying drawings as listed below:

PROJECT Ref: CD 416/01-25		
Drawing No.	**Title**	**Scale**
416/01-25 101F	Existing Floor & Roof Plans	1:100 on A3
416/01-25 102F	Existing Elevations	1:100 on A3
416/01-25 103F	Existing Side Elevation & Cross Section A-A	1:100 on A3
416/01-25 201AF	Proposed Floor Plans	1:100 on A3
416/01-25 201BF	Proposed Escape Route	1:100 on A3
416/01-25 201CF	Proposed Fire Detection and Alarm System	1:100 on A3
416/01-25 201DF	Proposed Fire Rated Elements	1:100 on A3
416/01-25 202F	Proposed Roof Plan	1:100 on A3
416/01-25 203F	Proposed Elevations	1:100 on A3
416/01-25 204F	Proposed Side Elevations	1:100 on A3
416/01-25 205F	Proposed Cross Sections	1:100 on A3
416/01-25 500F	Site Location Map	1:1000 on A3
416/01-25 501F	Existing Site Plan	1:250 on A3
416/01-25 502F	Proposed Site Plan	1:250 on A3

The accompanying drawings indicate the location of all fire alarms, fire / smoke detections devices, fire door locations, fire resistance construction of the walls etc., running man signs, directional arrows, fire alarm sounders, break glass units, location of fire extinguishers, and all fire escape routes (protected corridors are highlighted in light green and protected staircase are highlighted in pink).

The report is subdivided into sections dealing with each of the specific requirements of Part B as follows:

Section 1: B1 - Means of Warning and Escape in Case of Fire

Section 2: B2 - Internal Fire Spread (Linings)

Section 3: B3 - Internal Fire Spread (Structure)

Section 4: B4 - External Fire Spread

Section 5: B5 - Access and Facilities for the Fire Service

Section 6: Smoke control systems

Section 7: Existing Buildings

B12 – Provision of Information

Other guidance used in the design of the building include:

T.G.D. Part M 2022 refers to Technical Guidance Document M Access for People with Disabilities, Building Regulation 2022.

A separate application will be lodged for a Disability Access Certificate.

T.G.D. Part K 2014 refers to Technical Guidance Document (2014) Stairways, Ladder, Ramps.

0.3 Total Floor Area:

Ground Floor: 139.0 sqm		
Bedroom 1	Bedroom 2	Kitchen/Dining
Bathroom	Proposed Stairway	Protected Corridor
Accessible WC	Utility	Protected Hallway
Lift	Existing Stairway	Lift
Living Room		
First Floor: 104.0 sqm		
Bedroom 3	Bedroom 4	Bedroom 5
Existing Stairway	Proposed Stairway	Lift
TV Room	Shower Room	
Total Floor Area: 243.0 sqm		

SECTION 1: MEANS OF WARNING AND ESCAPE IN CASE OF FIRE

Basis for Compliance: Section 1 of Technical Guidance Document B:2024

1.1 Introduction to Provisions

The regulations of B1 are achieved by:

- **Alarm System:** Ensuring the alarm system provides adequate warning of fire.
- **Escape Routes:** Providing sufficient and suitably located escape routes.
- **Protection of Escape Routes:** Protecting escape routes from fire effects through appropriate enclosure and materials.
- **Safety Systems:** Implementing systems to enable safe use of escape routes.

1.2 Use of This Document for the Design of Means of Escape

Guidance on the provision of means of escape for the existing building is provided in the following:

- Subsection 1.4 Design for Horizontal Escape
- Subsection 1.5 Design for Vertical Escape
- Subsection 1.9 General Provisions for Means of Escape

1.3 Method of Measurement

The width of doors, escape routes, and stairways shall be determined based on the calculated occupant capacity of the building or specific parts of the building.

1.4 Design for Horizontal Escape

1.4.1 Introduction

This sub-section shall be read in conjunction with the general provisions for means of escape set out in sub-section 1.9 General Provisions for Means of Escape

1.4.2 Number of Escape Routes and Exits

1.4.2.1 Number of Occupants

The existing building shall be occupied solely by residents. Table 2 of TGD B 2024 shall be used.

Ground Floor			
Room	**Area (sq.m.)**	**Occupancy Load Factor**	**No. of Occupants**
Bedroom 1	Double Bed	2	2
Bedroom 2	Double Bed	2	2
First Floor			
Bedroom 3	Double Bed	2	2
Bedroom 4	Double Bed	2	2
Bedroom 5	Double Bed	2	2
		Total Occupants	**10**

1.4.2.2 Travel Distance

The travel distance from any point in a room or storey shall not exceed the appropriate values indicated in Table 3 of TGD B 2024 (illustrated in Diagram 2 of TGD B 2024)

The building has been provided with positions of all seating and obstructions so exact maximum travel can be calculated.

Table 3 of TGD B 2024 for Purpose Group 2(a) allow:

- One Direction = 10 m
- More than One Direction = 20 m

Location (Inside Max)	Recommended Max Distances (Direct Distances) (m)		Actual Distances (m)	
	One Direction	More than one	One Direction	More than one Direction
Ground Floor				
Kitchen/Dining	10	20	-	10.8
Living Room	10	20	4.8 (Within room)	-
Bedroom 1	10	20	6.1 (Within room)	-
Bedroom 2	10	20	6.7 (Within room)	-
First Floor				
TV Room	10	20	5.2 (Within room)	-
Bedroom 3	10	20	6.1 (Within room)	-
Bedroom 4	10	20	5.7 (Within room)	-
Bedroom 5	10	20	7.4 (Within room)	-

As can be seen on the accompanying drawing (Escape Route - 416/01-25 201BF), the maximum travel distance from any room in building is:

- Kitchen/Dining to Protected Stairway: 6.1m + 4.7m = 10.8 m (More than one direction)

1.4.2.3 Alternative Escape Routes

The escape route of the building towards shall be independent from each other.

1.4.2.4 Minimum Number of Escape Routes

The existing building shall have 3no. of escape routes.

The locations of the final exits are as follows:

1 – Existing East Entrance
2 – Proposed North fire exit
3 – Proposed West Entrance

1.4.2.5 Single Escape Route

The rooms with single escape route on the first floor shall not contain more than 20 persons (see para 1.4.2.1) and the limits on travel in one direction are satisfied. The first floor shall be provided with 2no. of escape stairway.

1.4.3 Planning of Escape Routes and Exits

All exits lead to a place of safety.

1.4.3.1 Width of Escape Routes and Exits
Table 5 of TGD B 2024 shall be used, where the exit doors of the existing building shall be a minimum of 900 mm (for up to 60 persons) except the existing front entrance door having a width of 750mm (See para 7.1.3). All are indicated on the accompanying drawing (Escape Route - 416/01-25 201BF).

All exit compensates the total number of occupants as calculated on Para 1.4.2.1 of this report.

1.4.3.2 Assembly and Recreation Buildings (Purpose Group 5(a)): N/A
1.4.3.3 Inner Rooms: N/A
1.4.3.4 Open Connections between floors: N/A
1.4.3.5 Planning of exits in a central core: N/A

1.4.3.6 Access to storey exits
The 2no. stairways (Existing and Proposed) that are accessed by the first floor are separated from each other with fire-resisting elements.

1.4.3.7 Separation of Circulation Routes from Stairways: N/A
1.4.3.8 Storeys divided into different occupancies: N/A
1.4.3.9 Escape Routes in Shops: N/A
1.4.3.10 Escape from Galleries in Shops, Offices and Industrial Buildings: N/A

1.4.4 Corridors

1.4.4.1 Provision of Protected Corridors
The ground floor hallway and the connected corridors shall be protected corridors.

1.4.4.2 Enclosure of Protected Corridors
The walls of the corridor shall be carried up to the underside of the structural floor above.

1.4.4.3 Enclosure of Corridors That Are Not Protected Corridors: N/A

1.4.4.4 Subdivision of Corridors
The connection between hallway and the protected corridor shall be separated by a self-closing E60Sa fire door.

1.4.4.5 Separation of Dead Ends: N/A

1.4.5 Evacuation Considerations for Residential (Care Facility) Buildings, (Purpose Group 2(a)(ii)):

1.4.5.1 General
The existing building shall provide a place of relative safety for the residents within a short distance under less pressure of time.

1.4.5.2 Compartmentation
The existing building shall be divided into two compartments, separating the existing stairway and the proposed stairway with lift.

1.4.5.3 Designing for Progressive Horizontal Evacuation
The existing building as divided into compartments for progressive horizontal evacuation shall observe the following:

- Each compartment is sufficient to accommodate the occupants from the adjoining compartment

- Each compartment shall have one escape route, independent of the route into the adjoining compartment.

1.4.5.4 Escape route widths in Residential (Care Facility) Buildings (Purpose Group 2(a)(ii))
The width of the escape routes along the hallway until the final exits and shall be at least 1150mm (except the existing front entrance door having a 750mm width as allowed in Table 30 of TGD B 2024) and the width of the exit from any room shall be at least 900mm.

1.4.5.5 Door-Closing Devices
The doors including the fire doors of the following locations shall be provided with hardware in accordance with IS EN 1155:

- Bedrooms: Free-Swing Door Closers
- Circulation spaces: Hold-open devices.

1.4.5.6 Bedrooms
The walls of the bedroom shall have a 30min fire-resistance performance (See para 1.9.2.1 for wall build-up) and shall be extended to a non-fire-resisting ceiling, with cavity barriers on the line of bedroom walls in the void.

1.4.6 External Escape Routes: N/A
1.4.7 Audience and Spectator Facilities: N/A
1.4.8 Premises Provided with a Stage: N/A
1.4.9 Student Accommodation Unit (Purpose Group 2 (b)): N/A
1.4.7 Audience and Spectator Facilities: N/A
1.4.8 Premises Provided with a Stage: N/A
1.4.9 Student Accommodation Unit (Purpose Group 2 (b)): N/A

1.5 Design for Vertical Escape

1.5.1 Introduction
The existing building shall have escape stairways.

1.5.2 Number of Escape Stairways
There shall be 2no. escape stairways (existing and proposed) in the existing building.

1.5.2.1 Large Buildings: N/A
1.5.2.2 Buildings Containing Different Purpose Groups: N/A
1.5.3 Single Escape Stairways: N/A

1.5.4 Width of Escape Stairways
In accordance with para 7.1.4.2 of TGD B 2024, the 2no. stairways shall be allowed to have a width of at least 900mm.

1.5.4.1 Converging Flows at Final Exit: N/A

1.5.4.2 Landings in Residential (Care Facility) Buildings (Purpose Group 2(a)(ii))
A landing with 2.8m width and 1.95m depth cannot be achieved on this existing building as the major structural elements will be affected.

1.5.5 Calculation of Minimum Stairway Width

1.5.5.1 General
The 2no. protected stairways are wide enough to accommodate the number of persons calculated in para 1.4.2.1 needing to use it in an emergency.

1.5.5.2 Discounting of Stairways
Each stairways (Existing and Proposed) can accommodate a maximum of 100 pax according to Table 7 of TGD B 2024. Thus, it can accommodate the total first floor occupants when the stairway is discounted as required in par. 1.5.5.2.1 of TGD B 2024

1.5.5.3 Total evacuation
900mm stairways (serving 1 floor) can accommodate a maximum 100 people as per Table 7 of TGD B 2024 which is more than enough for the total occupants calculated in para 1.4.2.1

1.5.5.4 Phased evacuation: N/A

1.5.6 Protection of Escape Stairways

1.5.6.1 General
The stairways shall be separated by fire-resisting elements (see para 1.9.2.1 Fire Resistance of Enclosures).

1.5.6.2 Enclosure of escape stairways
The stairways are to be situated within a 60min. fire-resisting enclosure with self-closing E60Sa fire door on all rooms connected to it except bathroom and shower room. The performance requirements for the enclosure to the protected stairway are in accordance in Appendix A (see Table 31 and Table 32) and the doors to the enclosure are in accordance to Appendix B of TGD B 2024 (see Table 36)

1.5.6.3 Exits from protected stairways
The protected Stairways leads directly to a final exit.

1.5.6.4 Separation of adjoining stairways

1.5.6.5 Use of space within protected stairways
The protected stairways shall enclose:

- A refuge area (see para 1.9.14)
- Sanitary accommodation
- A lift (see para 1.9.9)

1.5.6.6 Fire resistance and openings in external walls of protected stairways: N/A

1.5.6.7 Gas service pipes in protected stairways
There shall be no pipes intended to carry gaseous or liquid fuels within the protected stairways.

1.5.6.8 Separation of special fire risk areas: N/A
1.5.7 Basement Stairways: N/A
1.5.8 Protected Lobbies and Corridors to Escape Stairways: N/A
1.5.9 External Escape Stairways: N/A
1.6 Means of Escape from Flats (Purpose Group 1 (c)): N/A
1.7 Means of Escape from Shopping Centres: N/A
1.8 Small Premises (Offices and Shops): N/A

1.9 General Provisions for Means of Escape

1.9.1 Introduction

This subsection shall be in conjunction with subsections.

1.9.2 Protection of Escape Routes

1.9.2.1 Fire Resistance of Enclosures

All walls, partitions, and other enclosures that must be fire-resistant have at least a 30-minute fire resistance, (see Appendix A, Table 31 and Table 32). However, when compartment walls or floors are part of the enclosures, the fire resistance shall be increased to 60 minutes.

Wall make – up:

Internal walls:

- **60min. FR:**
  - **Proposed Wall:** 1 layer of 15mm Gyproc FireLine with staggered joints tapped and filled on each side of 75mm x 38mm timber studs at 600mm centres to achieve the required fire resistance in accordance with BS EN 1364-1: 1999.
  - **Existing Wall**: 1 layer of 15mm Gyproc FireLine on existing stud partition.
  - 100mm solid blockwork walls
- **30min. FR:**
  - **Proposed Wall:** 1 layer of 12.5mm Gyproc Wallboard with staggered joints tapped and filled for fire resistance on timber 75mm x 38mm studs at 600mm centres. *See Product Substantiation Report reference – A026001 for full components included in this application.*

- All electrical back boxes to be fitted with intumescent acoustic putty pad or equal.

Floor:

Existing Ground Floor:

- **Existing:** Raised timber on joists on tassle walls
- **Proposed:** 50mm Screed, 150mm PIR Insulation, DPM high grade, 50mm sand blinding, 150mm Concrete Slab, compacted hardcore fill compared in 150mm layer max. with Altro or equivalent floor finish with proprietary skirting/upstand for infection control

First Floor Compartmentation

- **60min. FR:**
  - **Existing Floor:** Existing timber sheeting on existing 175mm x 44mm joists at 350mm centres on plasterboard and skim ceiling beneath to be upgraded with Altro or equivalent floor finish on 6mm plywood and 1 layer of 15mm Gyproc FireLine beneath.
  - **Proposed Floor:** Altro or equivalent floor finish on 6mm plywood over 175mm x 44mm timber joists at 350mm centres with 2no. 12.5mm FireLine in accordance with BS EN 1365-2:2000

Roof Space:

- **Proposed 30min. FR:** 2no. 12.5mm Gyproc WallBoard on 38mm (minimum) timber joists at 600mm centres with suitable timber noggins between joists to support edges and 150mm Isover Spacesaver Ready-Cut *to achieve the required fire resistance in*

accordance with BS 476: Part 22: 1987. See Product Substantiation Report reference – C106049 for full components included in this application.

1.9.2.2 Fire Resistance of Doors

All doors that must be fire-resistant will have the appropriate performance given in Table 36, Appendix B of TGD B 2024.

Table 36 Provisions for fire doors	
Positions of door	**Minimum fire resistance in terms of integrity (minutes)**
Door in a compartment wall used for horizontal evacuation in a residential (care facility) building	E* Sa
Forming part of the enclosures (which does not form a protected shaft) of:	
• a protected stairway	E30 Sa
Forming part of enclosure of a protected corridor	E30 Sa
•	
Any door:	
• forming part of the enclosures to a protected entrance hall or protected stairway in a flat, maisonette, or hall of residence	E30
Any door within a cavity barrier	E30

Notes

* Period of fire resistance (see Table 31 of Appendix A for the wall in which the door is situated)

Sa Unless pressurisation techniques complying with I.S. EN 12101-6 are used; these doors shall also meet the additional classification requirement of Sa when tested in accordance with I.S. EN 1634-3.

Fire doors are shown on the accompanying plans (Fire Rated Elements - 416/01-25 201DF).

1.9.2.3 Fire Resistance of Glazed Elements: N/A

1.9.2.4 Protection of Escape Stairways

See Para 1.5.6 for the Protection of escape stairways.

1.9.3 Doors on Escape Routes

1.9.3.1 Door fastenings

Doors on escape routes shall be fitted with simple fastenings readily operable without the use of a key and thumb turn locks.

1.9.3.2 Doors in Buildings with Large Numbers of People: N/A

1.9.3.3 Direction of Opening

The doors on escape routes along the hallway and corridor until the final exit shall be hung to open in the direction of escape except the living room, kitchen/ dining room, and bedrooms.

1.9.3.4 Amount of opening and effect on associated escape routes

The exit doors are hung to open not less than 90° with a swing that is clear of any change of floor level, other than a threshold on the line of the doorway, and does not reduce the required width of any escape route across a landing.

1.9.3.5 Vision panels

Doors towards the protected stairways and protected corridor shall contain vision panel with the specification according to Technical Guidance Document M (Access and Use) 2022.

1.9.3.6 Revolving and Automatic Doors: N/A

1.9.3.7 Self-closing Devices

B3.1 of TGD B 2024
All fire doors shall be fitted with an automatic self-closing device (tested to I.S. EN 1154), which is capable of closing the door from any angle and against any latch fitted to the door with additional hardware in accordance with I.S. EN 1155 on different locations:

- doors to rooms: free-swing door closers
- circulation spaces: hold-open devices

B5 Fire Door Hardware of TGD B 2024
Any hinge on which a fire door is hung should be made entirely from materials with a reaction-to-fire classification achieving A1, be tested to I.S. EN 1935 and having a melting point of at least 800°C

B6 Fire Safety Signs of TGD B 2024
The following applies to the provisions of fire safety signs on fire doors:

(a) Except for doors identified in (b) below, all fire doors shall be provided with an appropriate sign, permanently fixed between 1.6 m and 1.8 m measured vertically from the floor meeting the following:

- The sign colour shall be in accordance with the provisions for mandatory signs (blue) specified in ISO 3864-1.
- The signs shall be in accordance with Diagram 86 of TGD B 2024, as appropriate.

Fire doors to cupboards and to service ducts shall be marked on the outside; all other fire doors on both sides.

1.9.4 Construction of Escape Stairways

1.9.4.1 General

The stairways (existing and proposed) shall achieve at least Euroclass A2-s3, d2: Timber strings, treads and risers with 1no. 12.5mm Glasroc F multiboard underside soffit in accordance with BS EN 1364-1:1999

60 minutes fire resistance EN									
1	75	Glasroc F MULTIBOARD	1 x 12.5	2500	36	-	Severe	25	G106010

The elements of the stairway enclosure shall have 60min. fire-rating (see para 1.9.2.1 for build-up)

1.9.4.2 Helical and Spiral Stairways: N/A

1.9.4.3 Fixed Ladders: N/A

1.9.5 Height of Escape Routes

All escape routes shall have a clear headroom of at least 2 m with no obstructions below this height.

1.9.6 Floors of Escape Routes

The floors of all escape routes (including steps, ramps and landings) shall have non-slippery even surfaces.

1.9.7 Final Exits
The final exits of the existing building shall lead directly to an open space.

1.9.8 Lighting of Escape Routes
Adequate artificial lighting shall be provided to all internal and external escape routes. In the event of failure of the normal lighting, emergency escape lighting is required to ensure that lighting is provided promptly, automatically and for a suitable duration when the normal lighting fails.

Note: This can be provided by natural or artificial lighting fed from separate power source to the
building. However, where this is not provided, external emergency escape lighting will be installed.

- Points of emphasis as required by I.S. 3217:2023, examples of which are as follows:
- Near each emergency exit door;
- Near stairs so that each flight of stairs receives direct light;
- Near to each final exit and outside the building to a place of safety;
- Near each piece of firefighting equipment, fire alarm panel and call point;
- Near disabled refuges, disabled refuge panel and call point.

Note: This list is not exhaustive. Refer to Clause 5.7.2 of I.S. 3217:2023 for the full list.

Please note that the placement of the symbols for I.S. 3217:2023 on the accompanying drawings (Escape Route - 416/01-25 201BF) are for indicative layouts only.

The lux levels required along escape routes of various widths are outlined within Section 5.3 of I.S. 3217:2023.

Table 11 Provision of Emergency Escape Lighting		
Use of building or part use of building	**Purpose Group**	**Part requiring emergency escape lighting**
Residential (care facility)	2(a)	Defined escape routes, wards, treatment rooms, communal rooms, bathrooms and toilet areas, kitchens, other rooms over 30 m^2 in area

i. Un-defined escape routes: open area in a building where the escape routes are not fixed or defined by the elements of construction.
ii. Defined escape routes: routes, such as exits, escape corridors and escape stairways, through which or along which, persons may be required to travel to reach a final exit from a building

1.9.9 Lifts

1.9.9.1 Introduction
The proposed lift shall comply with the Lift Directive 2014/33/EU

1.9.9.2 Fire Protection of Lifts
The lift well shall form a protected shaft with 60min-fire resisting construction (see para 1.9.2.1) with a E60 lift door.

1.9.9.3 Provision of Lobbies to Lifts: N/A
The lift shall be located inside the ventilated (see para 6.2.2) protected stairway

1.9.9.4 Lifts in Buildings > 20m: N/A
1.9.9.5 Lifts Serving Basements: N/A

1.9.9.6 Lift Machine Rooms
The lift machine room shall be sited within the protected lift well.

1.9.9.7 Feature Lifts: N/A

1.9.9.8 Evacuation Lifts
The lift shall be designed and installed in accordance with BS EN 81-76:2025 to facilitate evacuation of persons with disabilities.

1.9.10 Electrical Installations and Protected Circuits
All electrical installations comprising of wiring, sockets, switches, fuse boards, distribution boards, circuit breakers, etc., shall be installed in accordance with relevant recommendations of Electro Technical Council of Ireland "National Rules for Electrical Installations" I.S. 10101:2020+AC2:2025 and in accordance with 1.9.10 of TGD B 2024.

Any distribution boards housed in stairway shall be housed in lockable fire-resisting enclosures.

1.9.11 Refuse Chutes and Storage: N/A

1.9.12 Fire Safety Signs:
Signs shall be provided to indicate escape routes, doorways, and exits which provide access to the means of escape. These signs shall be illuminated by emergency escape lighting so that they are clearly visible by the occupants of the existing building. In addition, signs shall be provided to indicate the position of all first aid fire-fighting equipment and fire alarm call points. In accordance with Annex A, A19 of I.S. EN 1125, signs shall be provided on fire doors (except those held open by electric magnetic devices) to indicate that these doors shall be kept shut.

All emergency signs and emergency lighting shall also be in accordance "I.S. 3217:2023".
Please note that the placement of the symbols for I.S. 3217:2023 on the accompanying drawings (Escape Route - 416/01-25 201BF) are for indicative layouts only.

1.9.13 Fire Detection and Alarm Systems

1.9.13.1 Introduction
Considering the layout and occupancy of the existing building, a fire detection and alarm system shall be provided to warn the occupants of the existence of fire and to enable them to escape safely. This automatic fire detection and alarm system shall be designed, installed and located in accordance with I.S. 3218:2024.

Table 12 Provision of Fire Detection and Alarm System Para 1.9.13

Purpose Group	System Coverage Area	System Classification
2a	Coverage to all areas	L1

The system shall be installed and certified by nominated specialist contractor. Location of devices and types are generally as per drawing but the exact no. of devices, types, and locations are all subject to the decision and certification of the specialist contractor. Manual call points shall be located close to exits and along escape routes as part of the system. The features discussed elsewhere in this report shall be incorporated into the system.

In accordance with para 6.6.2 of I.S. 3218:2024 the audibility of the fire alarm sounders shall comply with the following:

- sound levels shall be such that a fire alarm signal is immediately audible above any ambient noise, but the sound level should not exceed 118 dB(A) at any point where people are likely to be present;
- sound used for fire alarm purposes shall be the same in all parts of a building;
- fire alarm sounds shall have a minimum level of either 65 dB(A), or 5 dB(A) above any other noise likely to persist for a period longer than 30 s, whichever is greater;
- minimum sound level of audible alarms installed within the bedrooms of residential (institutional) shall be 75 dB(A).

Please note that the placement of the symbols for I.S. 3218:2024 on the accompanying drawings (Fire Detection and Alarm System – 416/01-25 201CF) are for indicative layouts only.

1.9.13.2 Mixed-Use Buildings or Buildings with Multiple Occupancies: N/A

1.9.13.3 Buildings containing flats or maisonettes: N/A

1.9.13.4 Buildings Containing Atria: N/A

1.9.14 Provision of Refuge Areas in Buildings

The refuge area shall be separated by fire-resisting construction and provided with a safe route to a storey exit.

1.9.14.1 Provision of Refuge Areas

Refuge area shall be located in:

- protected hallway of the ground floor
- within the enclosure of the first-floor existing protected stairway

1.9.14.2 General Requirements for Refuge Areas

The refuge areas shall conform to each of the following:

(a) Be provided with a permanently marked zone of at least 0.9 m x 1.4 m; and

(b) Be clearly identified by appropriate fire safety signs (Where a refuge is in a lobby or stairway the sign shall be accompanied by a blue sign worded “Refuge Area – Keep clear”); and

(c) Be provided with an emergency voice communication (EVC) system (see Para 1.9.14.5); and

(d) Be enclosed in an area of fire resisting construction; and

(e) Not reduce the effective width of the required escape route, whether located in a stairway, in a lobby or on an external escape route.

1.9.14.3 Refuge Areas in Buildings Containing Flats: N/A

1.9.14.4 Escape in Places of Assembly: N/A

1.9.14.5 Communications

The emergency voice communication (EVC) system provided on the refuge areas shall comply with BS 5839-9 and consist of Type B outstations which communicate with a master station

located in the building control room (where one exists) / control point, adjacent to the fire alarm panel, or at fire-service access level.

1.9.15 Fixed Hose Reels: N/A

1.9.16 Heat Producing Appliances

All heat producing appliances proposed within the building shall meet the requirements of TGD 'J' of the current building regulations. The heating system shall consist of an air source heat pump.

SECTION 2: INTERNAL FIRE SPREAD (LININGS)

Basis for Compliance: Section 2 of Technical Guidance Document B:2024

2.1 Introduction to Provisions

The existing building shall comply with Part B of the Second Schedule to the Building Regulations, particularly Regulation B2. It also shall consider limiting fire spread on surfaces (Section 1), in unseen spaces (Section 3), and ensuring adequate protection for firefighting (Section 5).

2.1.1 Fire Spread and Lining Materials

The existing building shall consider the choice of materials for wall and ceiling linings to control fire spread and growth, particularly in circulation spaces. It shall adhere to European fire tests and classification systems to ensure restricted heat release and low rates of surface spread of flame, contributing to fire safety based on the location of the linings.

2.1.2 Floors in Firefighting Shafts: N/A

2.1.3 Classification of Performance

In accordance with Appendix A of TGD B 2024, wall and ceiling lining materials, including thermoplastics (TP[a] and TP[b]), shall be classified to I.S. EN 13501-1. This classification is based on standardised reaction-to-fire tests: I.S. EN ISO 1182, ISO 1716, EN 13823, and ISO 11925-2. European classifications shall be used unless no accepted EU test exists, in which case alternative proven methods may be adopted until an appropriate European classification becomes available.

2.2 General Provisions

All surface finishes of walls and ceilings will satisfy the following classification specified in Table 13 of TGD B 2024 when tested under either the national classifications, in accordance with BS 476-6 and -7 or under the European classification in accordance with I.S. EN 13501-1. These are summarised in Table below:

British Standard	Transposition to Euro Class
Non-combustible	A1
Limited Combustibility	A2–s3,d2 (or better)
Class 0	B-s3,d2 (or better)
Class 1	C-s3,d2 (or better)
Class 3	D-s3,d2 (or better)

Note 1:

When classification includes ‘s3,d2’ this means that there is no limit on the production of smoke or flaming droplets / particles;
Note 2:
A product achieving a classification ‘A’ achieves a higher standard than the minimum classification set out in the above table.

2.2.1 Surfaces Excluded from the General Provisions

The existing building excludes certain surfaces from the general fire performance provisions, including doors and door frames; window frames and glazing frames; architraves, skirtings, facings, and similar narrow members; fireplace surrounds and mantle shelves; electrical switches, outlets, and similar small discontinuous areas; pipes and cables for power or services; ceiling hatches and their frames; and frames of rooflights containing glazing.

2.2.2 Variations and Special Provisions

2.2.2.1 Walls

Table 13 Reaction-to-fire Classifications (Wall)		
Area	Material	I.S. EN 13501-1 Classification
External Walls	215mm hollow block work with 100mm thermal board insulation, external render and dash finish	A1
Protected Stairway	100mm solid blockwork and 15.0mm Gyproc FireLine	A2-s1, d0
Toilets and wet rooms	Whiterock wall finish	B – s3, d0
All other rooms	12.5mm Gyproc Wallboard	A2-s3, d2

The following shall be constructed as fire resisting compartment walls and floors:

- Walls enclosing escape routes (protected stairs and lobbies/corridors)
- Wall/Floor/ceiling separation for different occupants.

2.2.2.2 Suspended Ceiling with a Fire Resistance

Suspended Ceilings shall meet the criteria outlined in Table 33 of TGD B 2024.

Table 33 Limitations on Fire-protecting Suspended Ceilings			
Height of building or of separated part (m)	**Type of floor**	**Provisions of fire resistance of floor (minutes)**	**Reaction to fire classification of Surface of ceiling exposed to the cavity**
Less than 15	Compartment	Less than 60	Class C-s3, d2 or better

Table 13 Reaction-to-fire Classifications (Ceiling)		
Area	Material	I.S. EN 13501-1 Classification
Protected Hallway (Ground Floor)	15mm Gyproc FireLine	A2-s1, d0
Protected Stairway	2no. 12.5mm Gyproc WallBoard	A2-s3, d2

All other rooms	12.5 mm plasterboard ceiling	A2-s3, d2

2.2.2.3 Special Applications

Any flexible membrane covering a structure shall comply with the recommendations given in Appendix A of BS 7157:1989 Method of test for ignitability of fabrics used in the construction of large tented structures.

2.3 Thermoplastic Materials: N/A

SECTION 3: INTERNAL FIRE SPREAD (STRUCTURE)

Basis for Compliance: Section 3 of Technical Guidance Document B:2024

3.1 General

The requirements of B3 shall be considered met if:

a) the structural elements of the building are capable of withstanding the effects of fire for an appropriate period without loss of stability
b) the building is sub-divided by elements of fire-resisting construction into compartments
c) any openings in fire separating elements are suitably protected in order to maintain the fire integrity of the element, and
d) any hidden voids in the construction are sealed and subdivided to inhibit the unseen spread of fire and products of combustion, in order to reduce the risk of structural failure and the spread of fire, in so far as they pose a threat to the safety of people in and around the building.

3.2 Introduction to Provisions

The guidance for the building in this section is divided into subsections related to the following

- Subsection 3.3 - Provisions for Load-Bearing Elements of Structure
- Subsection 3.4 - Provisions for the Subdivision of a Building into Compartments
- Subsection 3.5 - Provisions for the Construction of Compartment Walls and Floors
- Subsection 3.6 - Provisions for Concealed Spaces (or Cavities)
- Subsection 3.7 - Protection of Openings and Fire Stopping

3.3 Load-Bearing Elements of Structure

3.3.1 Fire Resistance of Structural Elements

Structural Elements shall have at least the fire resistance given in Appendix A, Table 31.

Description	Materials to be used	Fire Resistance
External Load-bearing wall	215mm hollow block work with 100mm thermal board insulation, external render and dash finish	60min
Internal Load-bearing wall	Concrete blockwork with sand and cement render/ Gypsum board with skim coat	60min

3.3.2 Application of the Fire Resistance Standards for Loadbearing Elements

The existing building shall be designed so that any supporting structural element provides a fire resistance period at least equal to that of the element it supports, whether or not the supported element is load-bearing.

3.3.3 Exclusions from the Provisions for Fire Resistance

Only the roof structure supporting the weathering system (unless serving as a floor, means of escape, or supporting a fire-rated external wall) and the lowest floor are excluded from fire resistance requirements.

3.3.4 Additional Provisions for Load-Bearing Elements
Additional provisions will be required on the loadbearing wall because it serves as:

- Compartment wall (see 3.4 Compartmentation)
- protecting a means of escape (see 1.9.2 Protection of Escape Routes)
- An external wall (see 4.3 External Walls and 4.4 Space separation)

3.3.5 Raised Storage Areas in Industrial or Storage Buildings: N/A

3.4 Compartmentation

3.4.1 Introduction
The existing building shall be subdivided into compartments by walls of fire-resisting construction.

3.4.2 Forms of Compartmentation
Subdivision is achieved using compartment walls.

3.4.3 Compartment Junctions
There shall be continuity at the junctions of the fire-resisting elements enclosing a compartment in which any of its opening shall not present a weakness.

3.4.4 Provision of Compartment Walls and Compartment Floors
See 3.4.4.1 All Purpose Groups and 3.4.4.3 Residential (Care facility) Buildings.

3.4.4.1 All Purpose Groups
The following guidance applies to the existing building:

- The wall common to the existing building and the neighbouring building (separating wall) shall be constructed as a compartment wall.

3.4.4.2 Flats and Maisonettes: N/A

3.4.4.3 Residential (Care facility) Buildings
The following shall be constructed as compartment walls or compartment floors:

- First floor;
- The wall that subdivides a storey into at least two compartments for the purpose of progressive horizontal evacuation (see Para 1.4.5);
- Enclosure to the kitchen.

Table 15 Maximum Area and Cubic Capacity of a Building or Compartment Para 3.4.4

Purpose Group	Building Form	Maximum floor area of any one storey in the building or of any one storey in a compartment (m^2)	Maximum Allowable Volume of Each Compartment (m^3)	Actual Floor Area of any one Storey in the Building or or of any one storey in a compartment (m^2)	Actual Volume of each Compartment (m^3)	Status
2(a)	More than one storey	1500	No limit	139	366.80	Ok

3.4.4.4 Other Residential Buildings: N/A
3.4.4.5 Non-Residential Buildings: N/A
3.4.4.6 Shopping Centres (Purpose Group 4(b)): N/A

3.4.4.7 Provision of Fire-Resisting Walls
The utility room shall be separated from kitchen/dining by a 30min. fire-resisting walls with E30Sa door (See 1.9.2.1 for build-up)

3.5 Construction of Compartment Floors and Compartment Walls

3.5.1 Performance Requirements for Compartment Walls and Compartment Floors

Every compartment wall and floor shall:

- Form a complete barrier to fire between each compartment (see para 7.3.4 for the existing floor)
- Have the appropriate fire resistance as indicated in Appendix A, Table 31
- Be constructed in accordance with the relevant guidance in 3.5.2 to 3.5.17

3.5.2 Compartment Floors in Residential (Care Facility) Buildings

The compartment floor of the extension shall be constructed of materials having a reaction-to-fire classification of at least A2 – S3, d2 (See para 1.9.2.1 for build-up). An exception shall be made for the existing first-floor in accordance with para 7.3.2.

3.5.3 Compartment Floors in Shopping Centres: N/A
3.5.4 Compartment Floors in Buildings > 11 m

3.5.5 Compartment Walls

The compartment walls shall be constructed of materials having a reaction-to-fire classification of at least A2-s1, d0 (See para 1.9.2.1 for build-up).

3.5.6 Separating Walls

The existing separating wall shall be continuous, run the full height of the building in a continuous vertical plane, and are constructed of Solid Masonry wall having a reaction-to-fire classification Class A1.

3.5.7 Accommodation of Services in Compartment Walls / Floors

Services passing through the compartment walls and floor shall be contained in fire resistant ducts and the opening shall be protected and fire-stopped (See 3.7 Protection of Openings and Fire Stopping).

3.5.8 Separated Parts: N/A

3.5.9 Compartment Junctions

The existing building shall maintain the required fire resistance at all junctions where compartment walls or floors meet each other or the external wall. The compartmentation shall extend fully to the inside surface of the outermost element, including any external render or cladding, with cavity barriers or fire stops extending across the entire width of the compartmentation. Compartment walls shall be carried to the underside of the compartment floor above or, at the topmost level, extended through any ceiling void to the underside of the roof structure. Cavity barriers shall not substitute for compartment walls in roof voids.

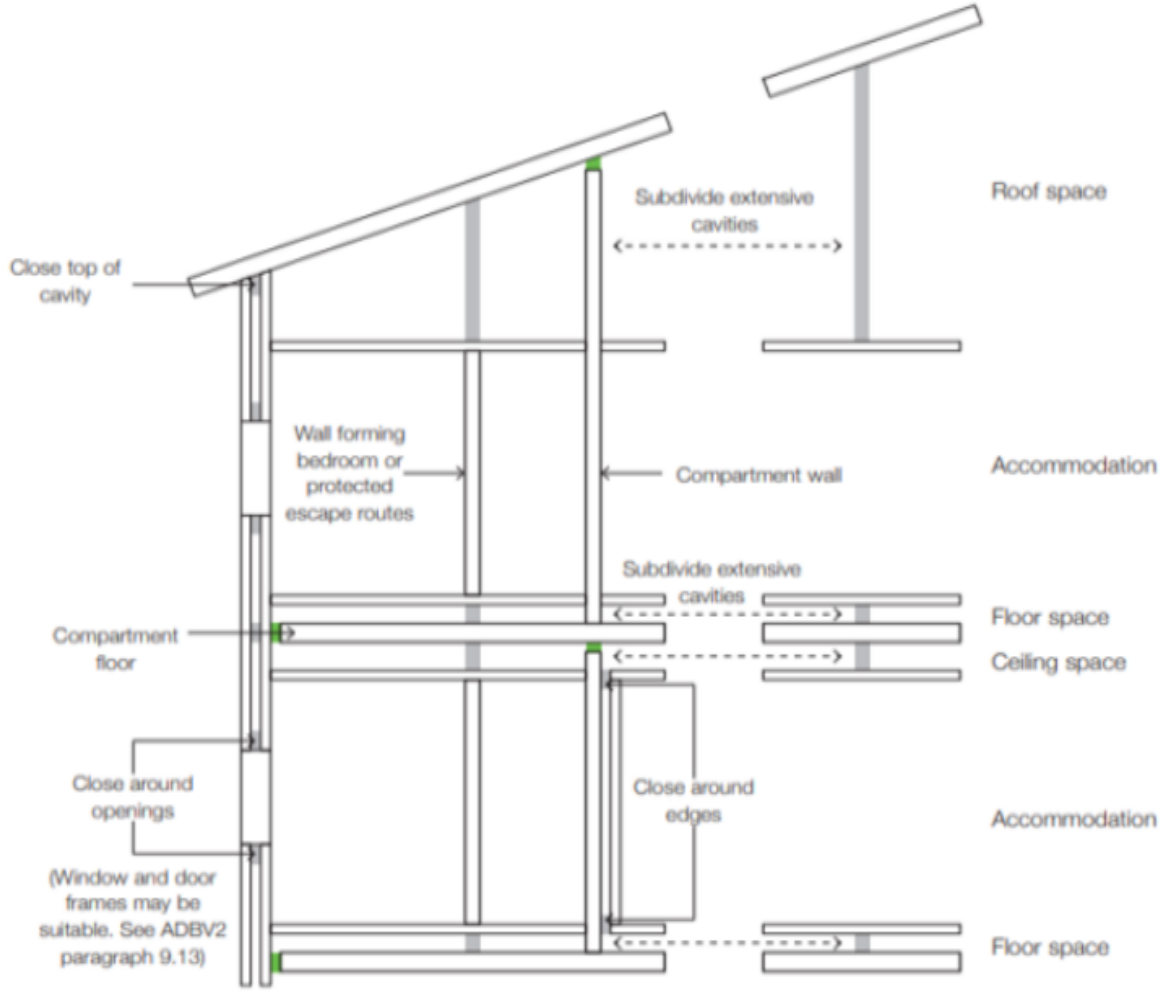


Figure 2 illustrates the requirements for cavity barriers

Cavity Barrier
Cavity barriers subdivide concealed voids in the construction to prevent the spread of fire and smoke

Fire-Stopping (same fire resistance as compartment)
Fire-stopping seals the junction of compartment walls and floors to maintain the integrity of the construction. Fire-stopping also seals around penetrations and services



Standards & approvals

Product	CE marking	Reaction to fire	Fire resistance	3rd party certification
High Performance Partial Fill	✓	Euroclass A1	-	BBA Approved (Certificate 93/2884)
*TCB & PWCB**	-	-	Integrity: 60mins Insulation: 30-60mins	LPCB (Certificate 022b(3))
**ROCKCLOSE®	-	-	Integrity: 60mins Insulation: 30mins-	-

*Meets the criteria of Approved Document E, Section 2 – Separating walls and associated flanking constructions for new buildings
**Meets the criteria of Approved Document L, Section 3 – Thermal Bridges
*** Meets the criteria of Approved Document B, Section 5 – Internal Fire Spread

Product specification

Product	NBS Clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
HP Partial Fill	F30-155	1200	455	50-250
TCB	F30-180, K10-530, P10-420	1200	65-210	65-160
PWCB	F30-180, K10-530, P10-420	1200	200	65-160
ROCKCLOSE®	F30-180	1200	100	20-100

*Thickness options may be subject to a minimum production volume. For further information on our standard thickness range please visit www.rockwool.com/uk

3.5.10 Junction of a Compartment Floor with an External Wall: N/A
The building has a topmost floor of less than 15 m

3.5.11 Junction of a Compartment Wall with an External Wall

The compartment wall shall maintain the fire resistance of the compartmentation as it meets an external wall.

3.5.11.1 Buildings other than Residential (Care Facility) buildings: N/A

3.5.11.2 Residential (care facility) buildings

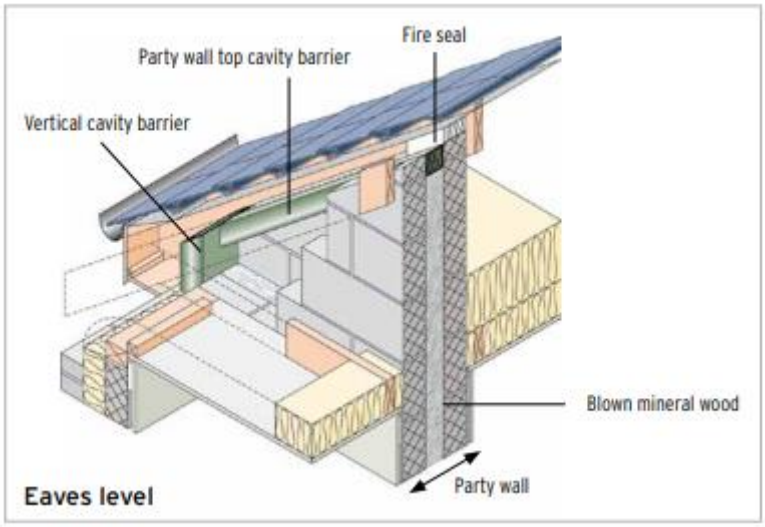
The external wall shall have a fire resistance equal to that of the compartment wall for a distance of 1.0m, where the internal angle is between 90° or 135°.

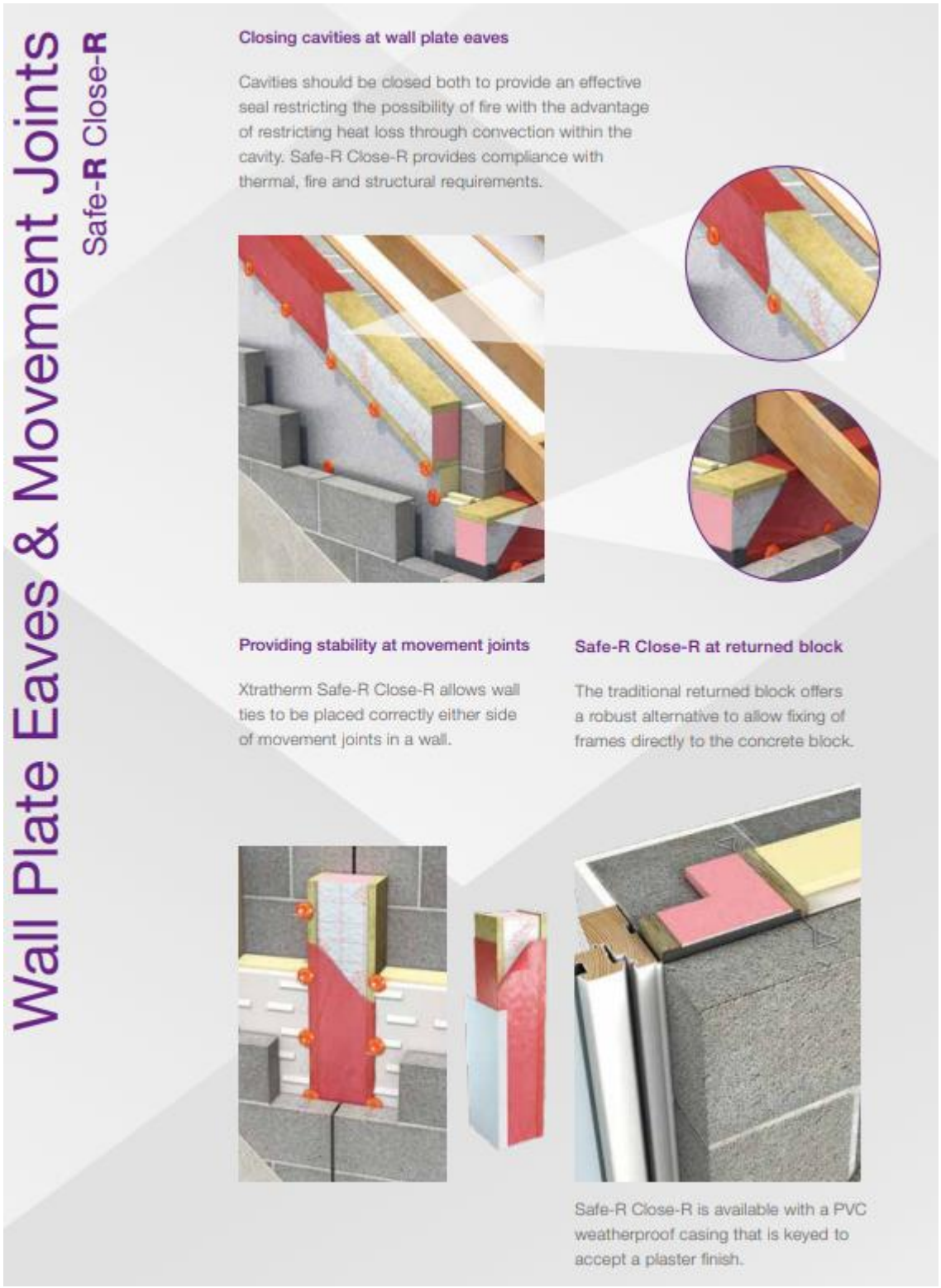
3.5.12 Opposite Elevations of the Same Building

See Part B4 – Distances from Unprotected Areas to Relevant Boundaries for external fire-spread calculations.

3.5.13 Junction of Compartment Wall and Roof

The existing building shall ensure that all compartment walls extend continuously through ceiling voids to the underside of the roof covering or deck. All gaps at the wall/roof junction shall be kept as small as practicable (generally not exceeding 50mm) and fully fire stopped using suitable non-combustible materials over the full width of the wall. Structural roof members, including purlins and rafters, shall not cross separating or compartment walls unless essential; where this is unavoidable, penetrations shall be minimized and protected on both sides of the wall and fully fire stopped to maintain the fire resistance. Cavity barriers shall not be used in place of compartment walls in roof voids.





Equal or similar products:

- Unilin Safe R- Close-R

3.5.14 Roof Characteristics at Compartment Wall Junction

3.5.14.1 All purpose groups
The roof with a 1.5m wide zone on either side shall be selected natural slates on timber battens, airtightness membrane, and quilt insulation having a class of $B_{ROOF}(t4)$ with a fire stopping on the junction.

3.5.14.2 Flats, Residential (Other), Office, or Assembly Buildings < 16.5m
Any timber tiling battens or boarding materials lower than Class A2-s3, d2 shall be carried over the compartment wall, fully bedded in mortar or other suitable fire-stopping materials.

3.5.14.3 Parapet Wall: N/A

3.5.14.4 Other proven systems: N/A

3.5.15 Openings between Compartments

3.5.15.1 Openings in Compartment Walls
The door opening in compartment walls shall be self-closing E60Sa fire door (See B3.1 for additional. Openings for the passage of pipes, ducts, and other services shall be protected in accordance with the provisions outlined in 3.7 Protection of Openings and Fire Stopping.

3.5.15.2 Openings in Separating Walls
There shall be no openings in the separating walls.

3.5.15.3 Openings in Compartment Floors
The openings in compartment floors shall be limited for:

- Passage of pipes and ventilation ducts

3.5.16 Protected Shafts
The protected shaft shall enclose the protected stairway and the lift.

3.5.16.1 Construction of Protected Shafts
The protected shaft shall form a complete barrier constructed of solid masonry wall and 15.0mm Gyproc FireLine on timber studs.

3.5.16.2 Use for Protected Shafts
The protected shaft shall only be used for stairways and lift.

3.5.16.3 Protected Shafts Containing a Stairway
3.5.16.3.1 Glazed Screens: N/A

3.5.16.3.2 Pipes for Oil or Gas
There shall be no pipe conveying oil or gas and a ventilating duct that is not used for stairway and lift.

3.5.16.3.3 External Openings: N/A

3.5.16.4 Internal Openings into all Protected Shafts
Openings in enclosures shall only be permitted for:

- fire-rated doors
- compliant service penetrations such as pipes, power, and communication lines
- ventilation ductwork

3.5.16.5 Ventilation of Protected Shafts Conveying Gas
Any conveyed piped flammable gas shall be adequately ventilated direct to the outside of the building.

3.6 Concealed Spaces (Cavities)

3.6.1 Introduction
Cavity barriers shall be provided throughout the existing building to restrict the spread of smoke and flame through concealed spaces.

3.6.2 Provision of Cavity Barriers
Cavity barriers shall be installed in accordance with Table 16 of TGD B 2024 in specified locations for the different purpose groups.

Table 16 Provision of cavity barriers	
Cavity Barriers to be provided	Purpose Group in which the provision applies
At the top of an external cavity wall and at the junction of any such wall with a separating wall.	2(a)
At the junction between an external cavity wall, and every compartment floor and compartment wall.	
At the junction between an internal cavity wall and every compartment floor, compartment wall, or other wall or door assembly which forms a fire-resisting barrier.	
At the junction between any internal cavity compartment wall or cavity compartment floor and any other internal cavity compartment wall or cavity compartment floor.	
In a protected escape route, above or below any fire-resisting construction which is not carried full storey height, or (in the case of a top storey) to the underside of the roof covering.	
Above or below any bedroom partitions which are not carried full storey height, or (in the case of a top storey) to the underside of the roof covering.	
Where a corridor (which is not a protected corridor) should be subdivided to prevent fire or smoke from affecting the routes to two exits simultaneously (see Section 1, Subsection 1.4 and Diagram 9), above any corridor enclosures which are not carried full storey height, or (in the case of a top storey) to the underside of the roof covering	
Any cavity void, including any roof space that needs to be subdivided so that the distance between cavity barriers does not exceed the dimensions given in Table 17	

3.6.3 Maximum Dimensions of Concealed Spaces

The existing building shall comply with cavity size limits set out in Table 17 of TGD B 2024 "maximum dimensions of cavities."

Table 17 Maximum Dimensions of Cavities		
Location of cavity	**Class of surface exposed in cavity (excluding surface of any pipe cable or conduit, or insulation to any pipe)**	**Maximum dimension in any direction (m)**
Between a roof and a ceiling, or in a raised access floor	Any class	20
Any other cavity	Class C – s3, d2 (European) or better	20
	Any lower class	10

3.6.4 Performance of Cavity Barriers

3.6.4.1 Performance Requirements for Cavity Barriers

Every cavity barrier shall be constructed to provide at least 30 minutes' integrity (E 30) and 15 minutes' insulation (I 15).

3.6.4.2 Cavity Barriers in Stud Walls or Partitions

Any cavity barrier required in a partition shall be formed of:

- 1no. 15mm Gyproc WallBoard on 63mm x 38mm timber stud framework with studs and 25mm Isover Acoustic Roll in the cavity at 600mm centres fixed using Gyproc Drywall Screws at 300mm centres.
- Proprietary cavity barriers

3.6.4.3 Construction and Fixing of Cavity Barriers

Cavity barriers shall be tightly fitted to rigid construction and mechanically fixed in position. In the case of a junction with slates, tiles, corrugated sheeting or similar materials, the junction shall be fire-stopped.

3.6.5 Openings in Cavity Barriers

Except for the fire-resistant ceiling and ventilation ducts that pass through it, no other components shall be installed without fire dampers and 30-minute fire seals for fire stopping.

3.7 Protection of Openings and Fire Stopping

3.7.1 Introduction

The existing building shall ensure that any element intended to provide fire separation—having required fire resistance in terms of integrity and insulation—maintains its effectiveness by adequately protecting all joints, imperfections of fit, and any openings for the passage of services. Such protection shall be achieved through appropriate measures, including sealing or fire-stopping, to ensure that the fire resistance of the separating element is not compromised.

3.7.2 Openings for Pipes

Where uPVC pipes penetrating the horizontal and vertical fire barriers occurs these pipes shall be fitted with intumescent collars set in fire barrier material / fire damper to seal the remainder of any opening. In some cases, smaller uPVC pipes and electrical services shall also penetrate compartment walls and floors all pipework over 40mm shall be fitted with intumescent collars

and all openings under 40mm will be sealed with fire barrier material so as to close any openings in designated fire barriers.

Pipes which pass through a compartment wall, compartment floor, protected corridor or cavity barrier shall meet the appropriate provisions as specified in A or B below.

A: Proprietary Seals (Any Pipe Diameter)
A proprietary sealing system (Rockwool Firestop Compound, Hilti CP 670 or equivalent) shall be provided.

B: Pipes with a Restricted Diameter
Where a proprietary sealing system is not used, fire-stopping shall be used around the pipe, keeping the opening as small as possible. The nominal internal diameter of the pipe shall not be more than the dimension given in Table 18 of TGD B 2024 for the relevant pipe material.

Table 18 Maximum Nominal Internal Diameter of Pipes			**Para 3.7.2(B)**
Purpose	**(a)**	**(b)**	**(c)**
	Material achieving RtF of A1 (mm) (1)	**Lead, aluminium or aluminium alloy, fibre-cement or PVC-u (mm) (2)**	**Any other material (mm)**
Structure (not a separating wall) enclosing a protected shaft which is not a stairway or lift shaft	**160**	**110**	**40**
Any other situation	**160**	**40**	**40**

Notes:
(1) A material with a reaction-to-fire classification achieving A1 (such as cast iron or steel) which, if exposed to a temperature of 800°C will neither soften nor fracture to the extent that flame or hot gases will pass through the wall of the pipe.
(2) PVC-u pipes complying with BS 4514: 2001, BS 5255: 1989, or I.S. EN 1329-1.

C: Pipe Sleeving
Where a pipe of lead, aluminium, aluminium alloy or PVC-u, with a maximum nominal internal diameter of 160mm, is used, pipe sleeving of non-combustible or intumescent sleeves (Rockwool Fire Sleeve, Hilti CFS-C P, or equivalent) with a reaction-to-fire classification achieving A1 shall be provided. Specifications for pipes composed of materials with a reaction-to-fire classification of A1, as well as PVC-u pipes, shall be in accordance with the provisions set out in Table 18.

3.7.3 Ventilation Systems

3.7.3.1 Ventilation Ductwork
Installation of Mechanical ventilation and air conditioning plant shall be in accordance with I.S. EN 15423.

3.7.3.2 General Provisions
Any mechanical ventilation system shall be designed to ensure that, in a fire, the air movement is directed away from protected escape routes and exits.

3.7.3.2.1 Recirculating air Systems
The existing building shall comply with the requirement that, in any air recirculation system, smoke detectors are installed in the extract ductwork at locations prior to both the point where recirculated air is separated from air to be discharged externally and before any filters or other air-cleaning equipment. Upon detection of smoke, the fire detection and alarm system shall be designed to either immediately shut down the ventilation system or switch it from recirculation mode to extraction mode, thereby diverting smoke to the exterior of the building.

3.7.3.3 Buildings Containing Flats: N/A

3.7.3.4 Residential (care facility) Buildings and Residential (Other) Buildings
Any ductwork passing through compartment walls or compartment floors of existing building shall be protected in accordance with Method 2 (see Para 3.7.3.7.2).

3.7.3.5 Ventilation Ducts Passing Between Compartments in Buildings Other Than Residential Buildings or Buildings Containing Flats: N/A

3.7.3.6 Ventilation Ducts Passing Through Protected Escape Routes
Ventilation and air conditioning ducts which pass through protected escape routes shall be protected in accordance with method 2 (see 3.7.3.7 Methods of Protecting Ventilation Systems Passing Through Fire-Resisting Elements)

3.7.3.7 Methods of Protecting Ventilation Systems Passing Through Fire-Resisting Elements
Method 2: Protection using fire and smoke activated dampers shall be applied.

3.7.3.7.2 Method 2: Protection Using Fire and Smoke Activated Fire Dampers
The fire and smoke dampers shall conform to I.S. EN 15650 having ES classification equal to the integrity rating of the fire-resisting elements they are passing through.

3.7.4 Flue Walls, Ducts Containing Flues, Appliance Ventilation Ducts: N/A

3.7.5 Fire-Stopping
Fire stopping shall be provided in the following circumstances throughout the premises.

a) Any joints between elements, which served as a barrier to the passage of fire will be fire stopped.
b) All openings for pipes, ducts, conduits or cables to pass through any part of an element which serves as a barrier to the passage of fire shall be:
    - Kept as few in number as possible, and
    - Kept as small as practicable, and
    - Fire-stopped (which in the case of a pipe or ducts, shall allow thermal movement).

3.7.5.1 Displacement
To prevent displacement, materials used for fire stopping shall be reinforced with materials with a reaction-to-fire classification achieving Class A2 - s3 in the following circumstances:
- In all cases where the unsupported span is greater than 100mm, and
- In all other cases where non-rigid materials are used.

3.7.5.2 Fire-Stopping Materials
Proprietary sealing systems which are test validated to maintain the fire resistance of the wall or other element shall be made available.

Other suitable fire-stopping materials shall be any of the following:

- cement or lime mortar
- gypsum based plaster
- cement of gypsum-based vermiculite/perlite mixes
- glass, crushed rock, blast furnace slag, or ceramic based products (with or without resin binders),
- Intumescent mastic

3.8 Special Provisions: N/A

SECTION 4: EXTERNAL FIRE SPREAD

Basis for Compliance: Section 4 of Technical Guidance Document B:2024

4.1 General

The existing building shall be designed and constructed to apply the measures outlined for limiting external fire spread, including protection of external walls, roofs, and unprotected areas, taking into account building use, height, and distance to boundaries.

4.2 Introduction to Provisions

The existing building shall apply measures to prevent external fire spread by ensuring appropriate separation distances and external wall construction, taking into account fire size and intensity, wall fire resistance, and the reaction-to-fire properties of materials used.

4.3 External Walls

The existing building shall be designed and constructed to apply the measures outlined for limiting external fire spread in compliance with Regulation B4, including protection of external walls, roofs, and unprotected areas, taking into account building use, height, and distance to boundaries.

4.3.1 Introduction

Under Section 3, provisions are made in Subsection 3.3 Load-Bearing Elements of Structure for internal and external loadbearing walls to maintain their loadbearing function in the event of fire.

4.3.2 Fire Resistance of External Walls

The external walls of the existing building shall have the appropriate fire resistance given in Appendix A, Table 31.

External walls:

- 215mm hollow block work with 100mm thermal board insulation, external render and dash finish

4.3.3 Restriction of Fire Spread on External Walls

The existing building shall ensure that materials and systems used in external walls or attached elements are selected to prevent fire spread, with combustible materials avoided and compliance demonstrated, where required, by full-scale testing to BS 8414 in accordance with BR 135.

4.3.3.1 Buildings with a Topmost Floor Height of less than 15 m

The reaction to fire performance of the external surface of the walls shall meet the provisions specified in Table 19 of TGD B 2024.

Table 19 Reaction-to-fire Classification for External Walls			
Purpose Group	**Height of topmost storey**	**Less than 1m to relevant boundary**	**More than 1m to relevant boundary**
2a	More than one storey, < 15m	Class B-s3, d2	Class B-s3, d2[(2)]

[(2)] Applicable only to the outermost wall element

4.3.3.2 Buildings with a Topmost Floor Height of more than 15m: N/A

4.3.4 Roofs with a pitch at 70° or more to the horizontal: N/A
4.3.5 Portal Frames: N/A

4.4 Space separation

4.4.1 Introduction

The existing building shall limit unprotected areas in external walls to prevent fire spread, based on compartmentation size, building use, and separation distance.

4.4.2 Boundaries

The existing building shall determine the relevant boundary based on site conditions, including actual, notional, or centre-line boundaries, and shall measure separation distances from the wall in accordance with defined criteria where the wall faces a boundary at an angle of 80° or less.

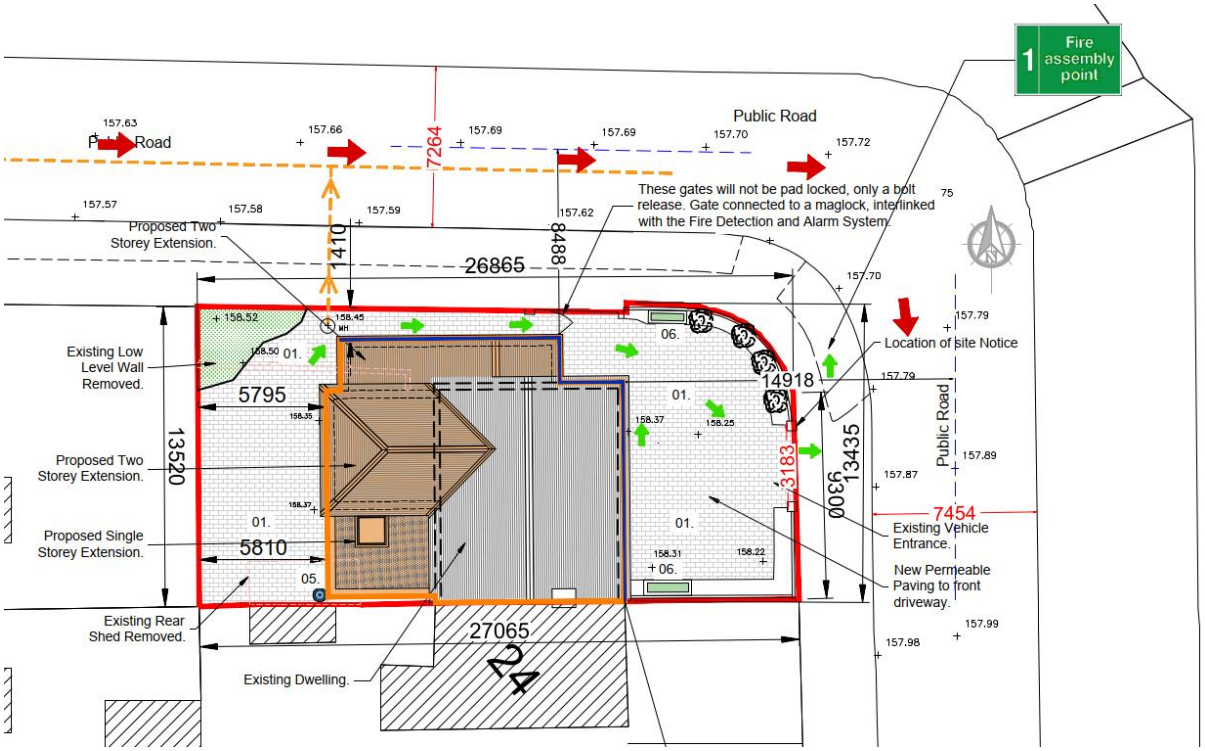


Figure 1 – *Site Layout Map indicating the relevant boundaries to surrounding properties.*

Elevation	Distance from Relevant Boundary (m)	Fire Performance Requirement
East	14.9 (Centerline of Road)	None
West	5.8 (Site Boundary Line)	None
North	8.5 (Centerline of Road)	None
South	0.0 (Adjoining Dwelling)	60min

4.4.3 Unprotected Areas and Fire Resistance

Any part of an external wall which has less fire resistance than the appropriate amount indicated in Table 31 and Table 32 is considered to be an unprotected area.

4.4.4 External Walls Within 0.5 m of a Boundary: N/A

4.4.5 External Walls between 0.5 m and 1 m of the Relevant Boundary: N/A

4.4.6 External Walls 1 m or more from the Relevant Boundary

All walls situated with at least 1m from any point on the relevant boundary shall meet the provisions for space separation as the rest of the wall is fire-resisting.

4.4.7 Buildings Containing Atria: N/A

4.5 Roof Coverings

4.5.1 Introduction

The roof of the building shall achieve a $B_{ROOF}(t4)$ designation in compliance with Table 35 of TGD B 2024.

Roof:

- Slate roof tiles on timber battens, airtightness membrane, and quilt insulation on timber trusses.

4.5.2 Other Controls on Roofs

The existing building shall comply with the provisions for roof construction by ensuring that roofs passing over compartment or separating walls meet the requirements of Subsection 3.5.

4.5.3 Classification of Performance

The performance of roof coverings shall be determined in accordance with I.S. EN 13501-5. The notional performance of some common roof coverings is given in Table 35 of TGD B 2024.

Table 35: Notional Designation of Roof Coverings		
Part II: Pitched roofs covered with pre-formed self-supporting sheets		
Material	**Supporting Structure**	**Designation**
Natural slates	Timber rafters with or without underfelt, sarking, boarding, wood wool slabs, plywood, wood chipboard, or fibre insulating board	$B_{ROOF}(t4)$

4.5.4 Separation Distances

There are no restrictions on the use of roof coverings designated class $B_{ROOF}(t4)$.

4.5.5 Plastic Rooflights: N/A

4.5.6 Glass in Rooflights

The Rooflights and AOV shall be selected double-glazed 4mm toughened glass Velux rooflight.

4.5.7 Solar Panels on Roofs: N/A

SECTION 5: ACCESS AND FACILITIES FOR THE FIRE SERVICE

Basis for Compliance: Section 5 of Technical Guidance Document B:2024

5.1 General

The existing building shall provide adequate external access, internal routes, and firefighting facilities in accordance with Section 5, with reference to Sections 1, 3, and 6, based on its size and use.

5.2 Introduction to Provisions

The existing building shall provide access and facilities for the fire service within and around the site to support firefighting and life safety, including vehicle access, firefighter entry, and other relevant systems.

5.3 Fire Mains

5.3.1 Introduction

External Fire mains and hydrants shall be used in this building.

5.3.2 Internal Fire Mains: N/A

5.3.3 External Fire Mains and Hydrants

The building shall be supplied with hydrants on public or private mains based on its size, and shall be supplied with an alternative water source where public mains are not available, to ensure effective firefighting operations in accordance with I.S. 391.

As the existing building has 139.0 m^2 ground floor area, external hydrant is not required but there are existing ones and the nearest is located in Southeast, 41m away from the corner of the building.

5.4 Vehicle Access

5.4.1 Introduction

The existing building, not being fitted with an internal fire main, shall provide fire brigade vehicle access in accordance with Para 5.4.2, and ensure access routes meet the requirements of Para 5.4.4 to support firefighting operations.

5.4.2 Buildings not Fitted with an Internal Fire Main

As per table 24 of TGD B 2024, Fire Brigade Access for pump appliances shall be sufficient to comply as the highest storey of the building is not greater than 10m and the total floor area volume of the building is below 7,000m^3.

Building Volume: (which relates to this application)	904.6 m^3
Height of top storey above ground:	2.83m (less than 10m)
Required extent of perimeter access:	139.0 m^2 /90m^2 * 2.4m= 3.71 m

24.6m of the perimeter is accessible.

Type of appliance:	Pump

Therefore, is acceptable under Table 24 of TGD B 2024.

Height restrictions: None

5.4.3 Buildings Fitted with Fire Mains: N/A

5.4.4 Design of Access Routes and Hardstandings

Access route to the building shall meet the standards in accordance to Table 25 of TGD B 2024 for pump appliances. Access to the site is by public road.

Minimum width of roadway between kerbs (m):

- 7.26 m (North Main Road)
- 3.18 m (East Access Gate)

Minimum turning circle:
There is an acceptable turning circle for vehicle access route for pump appliance on the northeast of the premises (See Site Location Map - 416/01-25 500F)

5.5 Personnel Access to Buildings for Firefighting

5.5.1 Introduction

Access for firefighting personnel is required for all buildings. In low- and medium-rise buildings or those with shallow basements, evacuation is assumed to be complete before firefighting begins. In high-rise buildings and deep basements, firefighting may occur during evacuation. Fire service facilities shall be accessible from the fire service access level.

5.5.2 Basements: N/A

5.5.3 Buildings with a Topmost Floor < 11 m

The existing building, having a topmost floor level of less than 11 m, shall comply with fire service personnel access requirements through the provision of normal means of escape, including protected stairs with at least 30 minutes' fire resistance, and vehicle access in accordance with Para 5.4.2 to facilitate appliance and ladder access.

5.5.4 Buildings with a Topmost Floor > 11 m but < 20m: N/A

5.5.5 Buildings with a Topmost Floor > 20 m: N/A

5.5.6 Provision and Number of Firefighting Shafts: N/A

5.6 Areas Requiring Special Consideration: N/A

5.6.1 Boiler Rooms and Fuel Stores: N/A

5.6.2 Isolation of Electrical Supply for Firefighting: N/A

SECTION 6: SMOKE CONTROL SYSTEMS

Basis for Compliance: Section 6 of Technical Guidance Document B:2024

6.1 Introduction

6.1.1 Use of this Section

For buildings with a protected stairway, this application shall deal with subsection 6.2.

6.1.2 Location of Wall-Mounted Vents

A wall-mounted vent shall be at least 1.0m from a relevant boundary.

6.1.3 Mechanical Vents: N/A

6.1.4 Measurement of Natural Vents

Vents shall conform to I.S. EN 12101-2

6.1.5 Natural Vent to a Smoke Shaft: N/A

6.2 Protected Stairways

6.2.1 Ventilation of Common Protected Stairway Enclosures

The existing building shall be provided with:

- Roof-mounted vent at the top of the existing stairway
- Wall-mounted side-hinged vent on the proposed stairway,

positioned as close as practicable to the ceiling and at least as high as the top of the stair door. The vent shall have a free area of not less than 1 m², open automatically upon smoke detection in the stairway, and include a clearly signed manual override at the fire service entrance for fire brigade use only.

6.2.2 Ventilation of Lobbies to Protected Stairways or lifts: N/A
6.3 Ventilation of Firefighting lobbies: N/A
6.4 Buildings Containing Atria: N/A
6.5 Basements: N/A
6.6 Buildings Containing Flats
6.7 Large Undivided or Windowless Spaces in Industrial or Storage Buildings: N/A
6.8 Car Parks: N/A
6.9 Assembly and Recreation Buildings: N/A
6.10 Enclosed Shopping Centres: N/A

SECTION 7: EXISTING BUILDINGS

Basis for Compliance: Section 7 of Technical Guidance Document B:2024

The proposed building shall comply with the provisions set out in Sections 1 to 6 of TGD B 2024 except for the following paragraph:

7.1.3 Horizontal Escape
The width of the existing main front door shall be allowed to be 750mm in accordance with Table 30 of TGD B 2024

7.1.4.2 Width of Escape Stairways
The stairways in residential (care facility) buildings (Purpose Group 2(a)) shall be allowed to have a stairway width of 0.9m.

7.3.2 Compartment Floors in Existing Residential (care facility) Buildings

Exception to the requirement of para 3.5.2 shall be made for the existing floor build-up of the existing building. The extension to the existing building shall follow the requirements of para 3.5.2.

7.3.4 Fire Resistance of Timber Floors in Existing Buildings

The existing floor joists shall be provided beneath with 1no. 15mm Gyproc FireLine attached on existing first floor build-up as an upgrade *to achieve the required fire resistance in accordance with BS EN 1365-2: 2000. See Declaration of Performance included in this application.*

B12 – PROVISION OF INFORMATION

All sufficient and appropriate information relating to all fire safety systems installed within the building shall be provided to the building owner. This information must enable the owner to operate, manage, and maintain the building in a manner that ensures the continued protection of the health and safety of its occupants. The following information shall be supplied:

- System operating manuals
- Maintenance requirements
- Manufacturer Data Sheets
- Warranty Information
- Commission Records
- Schematic Layout drawings
- Instructions for routine checks
- Details of system limitations
- Contact info for servicing providers

PART B4 – Distances from Unprotected Areas to Relevant Boundaries for Residential (Care Facility)

As per BR 187 – 2nd Edition "External fire spread: building separation and boundary distances" (2014):

The unprotected areas of the building have been taken in relation to the sections of the premises that relates to this fire safety certificate application only.

Front (East) Elevation

Distance to Relevant Boundary- 14.9m to the nearest notional boundary (Centerline of Road)

Unprotected Area

2	2.41 m^2=	**4.82** m^2
1	2.64 m^2=	**2.64** m^2
2	2.76 m^2=	**5.52** m^2
1	3.41 m^2=	**3.41** m^2
	Total Area =	**16.39** m^2

Enclosing Rectangle = 9m wide x 6m high = 54m^2 (no limit sized rectangle)

% Unprotected = 30%

Percentage Allowable = 100% @ 14.9m for 9m x 6m enclosing rectangle ∴ok
Therefore, we can assume the compartment will be ok because it is a smaller compartment with less unprotected areas.

Rear (West) Elevation

Distance to Relevant Boundary- 5.8m to the nearest notional boundary (Site Boundary Line)

Unprotected Area

2	1.95 m^2=	**3.9** m^2
1	2.38 m^2=	**2.38** m^2
1	3.39 m^2=	**3.39** m^2
1	7.77 m^2=	**7.77** m^2
	Total Area =	**17.44** m^2

Enclosing Rectangle = 12m wide x 6m high = 72m^2 (no limit sized rectangle)

% Unprotected = 24%

Percentage Allowable = 100% @ 5.8m for 12m x 6m enclosing rectangle ∴ok
Therefore, we can assume the compartment will be ok because it is a smaller compartment with less unprotected areas.

Right Side (North) Elevation

Distance to Relevant Boundary- 8.5m to the nearest notional boundary (Centerline of Road)

Unprotected Area

1	0.55 m^2=	**0.55** m^2
1	1.08 m^2=	**1.08** m^2
1	1.1 m^2=	**1.1** m^2
1	2.47 m^2=	**2.47** m^2
	Total Area =	**5.20** m^2

Enclosing Rectangle = 9m wide x 6m high = 54m^2 (no limit sized rectangle)
% Unprotected = 10%
Percentage Allowable = 100% @ 8.5m for 9m x 6m enclosing rectangle ∴ ok
Therefore, we can assume the compartment will be ok because it is a smaller compartment with less unprotected areas.

Left Side (South) Elevation

The building subject to this application does not have a left side elevation

Appendix A

Fire Performance Ratings for Materials / Structure / Door Sets

Where a fire performance rating for materials, structures, or door sets is referred to in this report, it shall be taken to mean (unless otherwise noted) that such elements satisfy the performance criteria outlined in Appendices A and B of TGD B 2024.

Table 31: Minimum provisions of Fire Resistance Performance			
Part of Building	**Loadbearing Capacity**	**Integrity**	**Insulation**
Structural frame, beam, or column	*	No Provision	No Provision
Loadbearing wall	*	No Provision	No Provision
Floors			
• Any other floor including compartment floors	*	*	*
External Walls			
• Any part less than 1 m from any point on relevant boundary	*	*	*
• Any part 1 m or more from the relevant boundary	*	*	*
Separating Wall	* (min 60)	* (min 60)	* (min 60)
Compartment Wall	*	*	*
Fire-resisting wall described under Para 3.4.4.7	30	30	30
Protected Shafts	*	*	*
Enclosure (which does not form part of a compartment wall or a protected shaft) to a:			
• Any protected stairway	30	30	30[(8)]
• Electrical distribution board in a protected stairway	No Provision	30	No Provision
Enclosure (which is not a compartment wall or protected shaft) to a:			
• Protected corridor	30	30	30[(8)]
Walls between bedrooms in nursing homes	30	30	30
Cavity barrier	No Provision	30	15

Notes

*Denotes the minimum period of fire resistance set out in Table 32

[(8)] Except for any limitations on glazed elements given in Table 34 of TGD B 2024.

Table 32 Minimum Periods of fire resistance for elements of structure		
Use (Purpose Group) of Building		Minimum Periods of fire resistance for elements of structure
		Not more than 5
2(a)	Residential (care facility)	60

All fire doors shall achieve the appropriate performance as set out in Table 36, and shall be:

a) Classified in accordance with I.S. EN 13501-2, *Fire classification of construction products and building elements – Part 2: Classification using data from fire resistance tests*, using test data from:

I.S. EN 1634-1 – Fire resistance tests for doors and shutters

I.S. EN 1634-2 – Fire door hardware

I.S. EN 1634-3 – Smoke control performance

Performance is expressed in terms of integrity (E) for a period in minutes. Where restricted smoke leakage is required, doors shall additionally achieve classification Sa, as defined in I.S. EN 13501-2 and tested under I.S. EN 1634-3.

b) Alternatively, doors may be referenced by their performance under I.S. EN 1634-1, with integrity ratings such as E30Sa, provided they are fitted with smoke seals and drop seals, tested for leakage at ambient temperature not exceeding 3 m^3/m/hour at 25 Pa, achieving classification Sa.

Fire doors shall be tested for exposure from both sides, except lift doors, which are tested from the landing side only.

All fire resisting door sets shall be fitted with approved self-closing devices capable of closing the door against any latches, except:

Doors to service ducts or cupboards that are normally kept locked shut, and

Any other doors specifically noted as exempt in this report.

Appendix B
Fire Detection and Alarm System

General:
The fire detection and alarm system will be designed, installed and commissioned in accordance with the guidance set out in I.S. 3218: 2024 “Fire Detection and Alarm Systems – System Planning, Design, Installation, Commissioning, Servicing, and Maintenance”.

Audibility of Alarms
The alarm sounders will give a minimum sound level of 65dB(A) or a sound level 5dB(A) above other persistent noise levels (whichever is greater).

The alarm sound will be distinct from the background noise and any other sounders in the building. The frequency will in the 500Hz to 1100Hz range.

System Type
The systems will be:

- category L1 System for Residential (care facility)

in accordance with 5.2.2 of I.S. 3218: 2024. Integrated with the fire alarm system that will provide coverage to escape routes and rooms leading onto escape routes in the building. Detectors will be located generally in accordance with 5.2.4 and 5.2.6 of I.S. 3218: 2024 Code of Practice for Fire Detection and Alarm Systems for Buildings, System Design, Installation and Servicing.

Wiring
Wiring of the system to conform with current ETCI rules for electrical Installations and I.S. 10101:2020+AC2:2025. The following components which are required to continue operating in Fire Conditions with 1 hour fire resisting cable.

- Alarm sounders
- Control and indicating equipment
- Power supplies

Other cables used in the system will possess inherently high resistance to physical damage, be enclosed in suitable conduit, trunking or channels.

Confirmation Documents
On completion of the works, the design, installation and commissioning of the system will be confirmed by a suitably qualified person.

Fire detection and alarm system – Confirmation of design to I.S. 3218:2024

Document number: .....

New System: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box)

Name of building owner and/or occupier: .....

Address of building: .....

Description of works: .....

System category: .....

Issuing organisation details: .....

Design documentation: .....

Justifiable variations from I.S. 3218:2024: No ☐ Yes ☐ (listed as attached)

Areas excluded from this document: No ☐ Yes ☐ (listed as attached)

I/We hereby confirm that the fire detection and alarm system at the above building, and as set out in the listed design documentation, has been designed by me/us in conformance with the requirements of I.S. 3218:2024, except as stated in the attached justifiable variations or areas excluded (if any).

Comment: .....

.....

Details and signature of competent person responsible for the design of the system:

Name (Print): ..... Position: .....

Signed: ..... Date: ..... /..... /.....

For and on behalf of (organisation): .....

Figure B.1 — Model confirmation of design

Fire detection and alarm system – Confirmation of installation to I.S. 3218:2024

Document number: .....

New system: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box)

Name of building owner and/or occupier: .....

Address of building: .....

Description of works: .....

System category: .....

Issuing organisation details: .....

Design documentation: .....

.....

Areas excluded from this document: No ☐ Yes ☐ (listed as attached)

I/We hereby confirm that the fire detection and alarm system at the above building has been installed by me/us in conformance with the requirements of I.S. 3218:2024, except as stated in the attached areas excluded (if any).

As installed drawings: .....

.....

Comment: .....

Details and signature of competent person responsible for the installation of the system:

Name (Print): ..... Position:

.....

Signed: ..... Date: ..... / ...../.....

For and on behalf of (organisation): .....

Figure B.2 — Model confirmation of installation

Fire detection and alarm system – Confirmation of commissioning to I.S. 3218:2024

Document number: .....

Name of building owner and/or occupier : .....

Address of building:.....

Description of works:.....

.....

System category:.....

Issuing organisation details: .....

Reference documentation:.....

Justifiable variations from I.S. 3218:2024: No ☐ Yes ☐ (listed as attached)

Areas excluded from this document: No ☐ Yes ☐ (listed as attached)

I/We hereby confirm that the fire detection and alarm system at the above building and as set out in the listed documentation, has been commissioned by me/us in conformance with the requirements of I.S. 3218:2024, except as stated in the attached justifiable variations or areas excluded (if any).

Comment:.....

.....

Details and signature of competent person responsible for the commissioning of the system:

Name (Print): ..... Position: .....

Signed: ..... Date: ...../...../.....

For and on behalf of (organisation): .....

Figure B.3 — Model confirmation of commissioning

Fire detection and alarm system – Confirmation of acceptance

Document number: .....

New System: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box)

Name of building owner/occupier : .....

Address of building: .....

Extent of system covered by this document: .....

.....

The following information has been received by the person	**Y/N/NA***	**Initials**
Confirmation that the system is capable of giving a fire alarm		
Confirmation that the facility for remote transmission of alarms to an alarm receiving centre operates correctly		
Records of any agreed justifiable variations or specific system requirements		
Confirmation of design to I.S. 3218:2024		
Confirmation of installation to I.S. 3218:2024		
Confirmation of commissioning to I.S. 3218:2024		
Operation and maintenance manuals specific to the installed		
As-installed drawings of the system indicating the positions and locations of all parts of the system		
Cause and effect configuration for the system		
Detection zone listing and address information for the installed		
Proposal for a service contract agreement for the system		
System logbook		
All relevant tests, defined in the purchasing specification, have been witnessed		
The person having control has been instructed in the use of the system including, all means of triggering fire signals, silencing, resetting, and the avoidance of false alarms as set out in Annex A.		

* **N** is No **Y** is Yes **N/A** is Not applicable

NOTE All fields to be completed

Fire detection and alarm system – Confirmation of acceptance

I/We being the person(s) responsible for the acceptance of the fire detection and alarm system, confirm receipt of the handover documentation as detailed above, and accept the system.

Comment: .....

.....

Name (Print): ..... Position: .....

Signed: ..... Date: ...../...../.....

For and on behalf of owner/occupier: .....

Figure B.4 — Model confirmation of acceptance

Fire detection and alarm system – Confirmation of commissioning to I.S. 3218:2024 for modification, extension, or alterations to a system

Document number: .....

Name of building owner and/or occupier: .....

Address of building: .....

Description of works: .....

.....

System category: .....

Issuing organisation details: .....

Reference documentation: .....

.....

Justifiable variation from I.S. 3218:2024: No☐ Yes ☐ (listed as attached)

Areas excluded from this document: No☐ Yes ☐ (listed as attached)

I/We hereby confirm that the modifications to the fire detection and alarm system at the above building and as set out in the listed documentation, has been commissioned by me/us in conformance with the requirements of I.S. 3218:2024, except as stated in the attached justifiable variations or areas excluded (if any).

Comment: .....

.....

Details and signature of competent person responsible for the commissioning of the system:

Name (Print): ..... Position: .....

Signed: ..... Date: ..... /...../.....

For and on behalf of (organisation): .....

Figure B.5 — Model confirmation of commissioning for modification, extension, or alterations to a system

Appendix C
Lighting

General
Adequate artificial lighting shall be provided to all internal and external escape routes. In the event of failure of the normal lighting, emergency escape lighting is required to ensure that lighting is provided promptly, automatically and for a suitable duration when the normal lighting fails.

Note: This can be provided by natural or artificial lighting fed from separate power source to the building. However, where this is not provided, external emergency escape lighting will be installed.

- Points of emphasis as required by I.S. 3217:2023, examples of which are as follows:
- Near each emergency exit door;
- Near stairs so that each flight of stairs receives direct light;
- Near to each final exit and outside the building to a place of safety;
- Near each piece of firefighting equipment, fire alarm panel and call point;
- Near disabled refuges, disabled refuge panel and call point.

Note: This list is not exhaustive. Refer to Clause 5.7.2 of I.S. 3217:2023 for the full list.

The lux levels required along escape routes of various widths are outlined within Section 5.3 of I.S. 3217:2023.

Exit Signs
Exit signage will be provided in accordance with I.S. 3217:2023 and SI 299 Safety, Health and Welfare at Work (General Applications) Regulations 2007. All signage must comply with either IS EN 1838:2013 or ISO 7010. All exit signage shall be of a consistent type throughout the building to avoid any confusion.

Exit signage shall be mounted between 2 m and 3 m above finished floor level in accordance with Section 5.8.5 of I.S. 3217:2023. The exit signage size and viewing distance shall be in accordance with Section 5.8.4 of I.S. 3217:2023 to ensure it is legible to all occupants at varying distances.

In all areas where the normal lighting may be required to be dimmed, under no circumstances shall the emergency exit signage be dimmed or occluded below the minimum levels required in Section 5.3, 5.4, and 5.7 of I.S. 3217:2023.

All fire safety signs including Exit signs and markings shall comply with Chapter 1 of Part 7 of Statutory Instrument No. 299 of 2007 (SI No. 299 of 2007) “Safety Signs at Places of Work” as amended by the Safety, Health and Welfare at Work (General Application Amendments) Regulations 2012 (SI No. 455 of 2012) relating to safety signs at places of work.

Signs will be provided and located so that the escape routes from any part will be re-organized and followed in the event of an emergency.

System Type
Luminaires generally will be non-maintained with three-hour duration. Luminaires over exits to be maintained with three-hour duration requirement.

Illumination Level
The lux levels required along escape routes of various widths are outlined within Section 5.3 of I.S. 3217:2023.

For escape routes up to 2 m in width, the horizontal illuminance on the floor along the centre line of an escape route shall be not less than 1 lux and the central band consisting of not less than half of the width of the route shall be illuminated to a minimum of 50 % of that value.

Certification
On completion of the works, the design, installation and commissioning of the system will be certified by a suitably qualified electrical engineer or a member of the E.C.A or the A.E.C.I.

I.S. 3217:2023 Annexes:

Annex C2
(normative)

Emergency lighting system - Confirmation of design to I.S. 3217:2023

Document number: .....

New system: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box)

Name of building owner and/or occupier: .....

Address of building: .....

Description of works: .....

Issuing organisation details: .....

Design documentation: .....

Justifiable variations from I.S. 3217:2023: No ☐ Yes ☐ (listed as attached)

Areas excluded from this document: No ☐ Yes ☐ (listed as attached)

I/We hereby confirm that the emergency lighting system at the above building as set out in the listed design documentation has been designed by me/us in conformance with the requirements of I.S. 3217:2023, except as stated in the attached justifiable variations or areas excluded (if any).

Comment: .....

.....

Details and signature of competent person responsible for the design of the system:

Name: ..... Position: .....

Signed: ..... Date: ...../...../.....

For and on behalf of (organisation): .....

Annex C3
(normative)

Emergency lighting system – Confirmation of installation to I.S. 3217:2023

Document number: .....

New system: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box):

Name of building owner and/or occupier: .....

Address of Building: .....

Description of works: .....

Issuing organisation details: .....

Design documentation: .....

Areas excluded from this document: No ☐ Yes ☐ (listed as attached)

I/We hereby confirm that the emergency lighting system at the above building and as set out in the listed documentation has been installed by me/us in conformance with the requirements of I.S. 3217:2023, except as stated in the attached areas excluded (if any).

As-installed drawing(s): .....

.....

Comment: .....

Details and signature of competent person responsible for the installation of the system:

Name: ..... Position: .....

Signed: ..... Date: ...../...../.....

For and on behalf of (organisation): .....

Annex C4
(normative)

Emergency lighting system - Confirmation of commissioning to I.S. 3217:2023

Document number: .....

New system: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box)

Name of building owner and/or occupier: .....

Address of building: .....

.....

Description of works: .....

.....

Issuing organisation details: .....

Design documentation: .....

Justifiable variations to I.S. 3217:2023: No ☐ Yes ☐ (listed as attached)

Areas excluded from this document: No☐ Yes ☐ (listed as attached)

I/We hereby confirm that the emergency lighting system at the above building and as set out in the listed documentation has been commissioned by me/us and is in conformance with the requirements of I.S. 3217:2023, except as stated in the attached justifiable variations or areas excluded (if any).

Comment: .....

.....

Details and signature of competent person responsible for the commissioning of the system:

Name: ..... Position: .....

Signed: ..... Date: ...../...../.....

For and on behalf of (organisation): .....

Annex C5
(normative)

Emergency lighting system - Confirmation of handover

Document number: .....

New system: ☐ Modification, extension, or alteration to existing system: ☐ (tick appropriate box)

Name of building owner and/or occupier: .....

Address of building: .....

Extent of system covered by this document:

.....

.....

Issuing organisation details: .....

The following information has been received by the owner/occupier	**Y/N**	**Initials**
Confirmation of design		
Confirmation of installation		
Confirmation of commissioning		
Operation and maintenance manuals specific to the installed system		
As-installed drawings of the system indicating the positions and locations of all parts of the system		
Proposal for a service contract agreement for the system		
System logbook (refer to 10.1)		

I/We being the person(s) responsible for the acceptance of the Emergency lighting system, confirm receipt of the handover documentation as detailed above, and accept the system.

Comment: .....

.....

Name: ..... Position: .....

Signed: ..... Date: ...../...../.....

For and on behalf of (owner/ occupier): .....

Photographic Survey of the premises:



Aerial View (Apple Maps ©2026)



Existing Front Elevation (May 2022, © 2026 Google)