Unit 4a, Darklake View,
Estover
Plymouth
PL6 7TL

Document Version 5
Survey Date 09/11/2024
Suggested Review Date 09/11/2029

FIRE RISK APPRAISAL EXTERNAL WALLS

HARRY PRICE HOUSE

Hartlebury Road
Oldbury
B69 1EQ

Table of Contents

Table of Contents Continued

Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference
RB-9RSM3K

Assessed On, By
09/11/2024, Douglas Murray (Building Safety Consultant)
(BSc Building Surveying, ABBE DipFRA, AIFireE, AssocRICS, MFPA)

Produced For the Responsible Person
Sandwell Metropolitan Borough Council

Specification Conforms To
Our own internal quality system.

Assessment Scope
Assessment applies only to the building specified.

Recommended Review Date
09/11/2029

Assessed Property

Property Name
Harry Price House

Property Reference
RB-D4P5G2

Address
Hartlebury Road
Oldbury
B69 1EQ

Assessing Organisation
Firntec Ltd
4a Darklake View, Estover, Plymouth, Devon, PL6 7TL
0345 646 1566 — www.firntec.com

Assessor Remarks

The development of Lion Farm Phase 5 which included Harry Price House was commissioned by Oldbury Municipal Borough Council 1960, and building work was awarded to the contractors Wimpey who completed work on two similar buildings during this period. The building comprises of 12 floors including ground and houses 70 individual self contained flats. The present day authority is Sandwell Metropolitan Borough Council.

The structure is of reinforced concrete frame with reinforced staircores, lift core, floor slabs and foundations. The external walls are formed originally from a hand laid brick outer leaf and an internal leaf of concrete blockwork with projecting balconies on all occupied floors. Cladding systems and other improvement work has been undertaken and the work focused on external refurbishments including refurbishment and environmental works comprising of insulated cladding, replacement windows and balcony doors, glazed enclosure to balconies, new front entrance porches and landscaping works with additional parking areas.

External finishes now comprise of brick slips over mineral wool insulation at ground floor, Stonewall panels and render over mineral wool insulation elsewhere across upper floors.

This report has been prepared for Sandwell Metropolitan Borough Council by Firntec Ltd Building Compliance. This survey has included consideration of the following pieces of legislation and other guidance relevant at the time of reporting:
The RRO (FSO) 2005
The Fire Safety Act 2021
The Building Safety Act 2022
Approved Document B of building regulations 2010

This report was prepared by Douglas Murray (BSc Building Surveying, ABBE DipFRA, AIFireE, AssocRICS, MFPA) who is a Building Surveyor with 25 years of fire related and construction experience in both new build and refurbishment projects on behalf of Firntec Ltd. Douglas is a member of the Royal Institute of Chartered Surveyors, the Institute of Fire Engineers, the Fire Protection Association, and an ABBE qualified Fire Risk Assessor. Douglas has specialised within Fire Safety and cladding investigations for eight years and has held senior posts with London and nationally based Registered Social Landlords. Douglas advises on and produces Building Safety Case Reports and has taken the lead for various clients securing, quality checking and completing Type 1-4 Fire Risk Assessments, completing Fire Risk Assessments of External Walls (FRAEW), leading on Intrusive investigative surveys, and preparing fire strategy documents. Part of the work Douglas completes, supports and evidence claims brought forward under the Defective Premises Act in the context of non-compliance and fire safety defects within multi occupancy buildings.

Abbreviation/ Term Definition

- **ACM** Aluminium Composite Material
- **ADB** Approved Document B
- **AOV** Automatic Opening Vent
- **BSA** Building Safety Act 2022
- **Cavity Barrier** Product used to close or separate a concealed space to restrict fire and smoke
- **Close State Cavity Barrier** Cavity Barrier designed to be fitted under compression/friction between inner and outer surfaces of a cavity to seal it
- **Open State Cavity Barrier** Cavity Barrier that is open to allow ventilation/drainage of cavity in open state but closes when a developing fire occurs (e.g., intumescent strip)
- **Combustible** Not classified as A1 OR A2 in accordance with BS EN 13501-1: 2018, and not meeting definitions of non-combustible or limited combustibility
- **Compartmentation** Subdivision of building by fire resisting walls and/or floors for limiting fire spread
- **EPS** Expanded Polystyrene
- **EWS1** External Wall System Fire Valuation Form
- **FB** Fire Barrier - Separating element with fire integrity for a specific time
- **Fire Stop** Barrier seal to close an imperfect fit in design between elements of components to stop the spread of fire
- **FRAEW** Fire Risk Appraisal of External Walls
- **FRA** Fire Risk Assessment
- **FRS** Fire and Rescue Services
- **FSA** Fire Safety Act 2021
- **HPL** High Pressure Laminate
- **HRR** Heat Release Rate
- **MDF** Medium Density Fibre Board (a type of manufactured timber)
- **PIR** Polyisocyanurate Rigid Foam
- **PUR** Polyurethane Foam
- **RP** Responsible Person
- **RRFSO** Regulatory Reform (Fire Safety) Order 2005
- **SFS** Steel Framing System
- **SIB** Secure Information Box

Statement of Competency

Statement of Competency to Carry out a Fire Risk Appraisal of External Wall Construction

Within PAS 9980:2022 it requires that a person conducting the FRAEW are competent to do so in accordance with Annex H and to demonstrate the expected skill sets of competent external wall assessors.

This is our Statement of Competence to carry out a Fire Risk Appraisal of External Wall construction.

We confirm that they have:

a) Read and understood the commentary and provisions relating to the competence of external wall assessors set out in Section 8 and Annex H of PAS 9980:2022;

b) Adequate and relevant competence to undertake the FRAEW;

c) Sufficient knowledge, skills and experience in relation to fire safety of external walls to be able to complete an assessment at the level required;

d) The relevant skill, knowledge, and experience to manage and interpret the results of intrusive inspections; and

e) The competence to appraise and assess the nature of external wall construction in terms of fire performance and provide an opinion on the risk.

f) No conflicts of interest of any kind, other than any which are disclosed in the report.

g) The conclusions of the report are the author's independent assessment of the risks and remedial actions and have not been influenced in any way by the opinions or actions of others except where stated.

Terms of Reference

Particulars

This FRAEW report follows the guidance in accordance and reference to PAS9980:2022 Fire Risk Appraisal of External Walls construction and cladding of existing blocks of flats – Code of Practice.

Limitations

The FRAEW addresses life safety only in relation to the appraisal of the external walls of the building; and in considering risk, this is only in relation to the threat to the occupants in the building and not in terms of property damage or other potential objectives, such as safety of firefighters.

The FRAEW is not aimed at confirming compliance with building regulations, either at the time of construction, or currently.

The FRAEW cannot provide certainty and being risk-based report, it is, therefore, to a degree, reliant on professional judgement in its assessment and in the conclusions drawn within the report.

The FRAEW report is to be reviewed:

a) if significant changes/repairs have been made to the external wall; and/or

b) in the event of a fire incident, if the fire involved the external wall construction; and/or

c) if there are any circumstances, depending upon the nature of the construction, the extent of available knowledge in relation to the particular materials, components and systems used on the building or the degree of uncertainty over the findings, which suggest review is appropriate. In these cases, the report will include a clear explanation as to why periodic review is necessary and include a suggested review date."

If more definitive information becomes available subsequent to the FRAEW on how particular external wall materials, components and systems behave in fire, or there are changes in the fire performance data relied upon in an FRAEW, such information will be expected to take precedence.

Assumptions

It is understood that the absence of evidence, is not evidence of the absence; therefore, within the FRAEW report suitable caveats or assumptions may be applied in arriving at a risk rating, for example, in relation to:

a) the extent of sampling carried out.

b) the accuracy of information upon which it has been necessary to rely, especially where it has not been possible to verify the information though site survey and inspection.

c) the extent of the content and detail within the report; and

d) the limitations at the time of the FRAEW of available knowledge on the fire performance of the materials, products and systems forming the external walls of the building.

Any caveats or assumptions made within the report are based on the most onerous and worst-case scenarios.

Statement of Intent

The investigation and writing of this FRAEW report has been commissioned at the clients request in line with PAS9980: 2022, which covers residential buildings of all heights with 2 or more dwellings, including hotels, with the aim to make sure that residents of multi-occupancy buildings are safe.

The Fire Safety Act 2021 also puts a legal responsibility on the responsible person where a building contains two or more sets of domestic premises to identify the building's structure and external walls and any common parts including doors or windows in those walls, and anything attached to the exterior of those walls (including balconies).

Executive Summary

External Wall Systems and Attachments on the Building

9 areas were inspected to gain data about the building's wall constructions. See the Inspections section of this report for full inspection details.

The table below outlines the ratings of the various wall systems and constructions to the property. Each element is explained in more detail further within this report.

10 Items	Effect	Risk
Wall Construction Wall Type 1 - rainscreen cladding (ABBW5U)	Positive	Low
Wall Construction Wall Type 2 - Brick slip system over mineral wool (SM48ZJ)	Positive	Low
Wall Construction Wall Type 3 - Render over mineral wool (T7LITM)	Positive	Low
Attachment Cantilever Balcony (XWGPMR)	Positive	Low
Penetration Flue (9F6V4R)		Low
External Window Top, Mid, Side Hung Casements (SV3KFG)		Low
External Door French Doors (77GTJI)		Low
External Door Single Leaf Entrance Doors (9N36XN)		Low
External Door Single Leaf Entrance Doors (I1WFBA)		Low
External Door Single Leaf Door (E4L55S)		Low

In accordance with the PAS 9980 Guidance, any items of construction which are considered as “Medium Risk” should be subject to periodic review, to ensure that conditions do not change, such that the risk may be upgraded to high, prompting the requirement for remediation.

Risk Factor Analysis

The risk factor analysis is a three-stage process; rating the wall construction fire performance **(1)**, façade configuration **(2)**, and fire strategy/fire hazards **(3)** on a sliding risk scale. The risk scale is expressed as "high", "medium" and "low" in a continuum, left to right, from "high" risk to "low" risk. At the furthest left end of the "high" risk band, the risk is deemed to be the highest, reducing as the risk is positioned to the right of this.

Starting with high as a base line, **Stage 1** rates the fire performance risk factors of the wall construction.

Once fire performance factors have been taken into account, **Stage 2** overlays the risk factors of the façade configuration to determine the effect this has on where the risk now lies on the scale.

The final **Stage 3** overlays the risk factors arising from consideration of the fire strategy and fire hazards (including limitations of fire and rescue service intervention).

Risk Factor Analysis 1

This analysis looks at façade configuration **XJT3NA** which includes wall construction **ABBW5U**.

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Risk Factor Analysis 2

This analysis looks at façade configuration **5C31B4** which includes wall construction **SM48ZJ**.

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Risk Factor Analysis 3

This analysis looks at façade configuration **KQ4ZI6** which includes wall construction **T7LITM**.

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed

or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Low

Overall Building Risk Rating

Low

Our professional opinion is that overall this Building represents a Positive PAS9980:2022 Outcome.

Recommended Remediations

No recommended remediations identified.

Recommended Interim Measures

No recommended interim measures identified.

Fire Strategy

Fire Strategy & Hazard Risk Factors

F.1 Occupancy

General needs housing

Neutral

F.2 Evacuation

Stay put
A ‘stay put’ policy is adopted for the flats. That is, in the event of a fire in a flat, the occupants of that dwelling will evacuate, having been alerted by their own domestic fire detection and alarm system, and request fire service attendance. All other occupants will remain in their flat unless they are threatened by fire and smoke or are advised to evacuate by the fire service. The ‘stay put’ evacuation policy relies heavily on adequate compartmentation being provided; fire should not spread from one dwelling to another, including by means of the external fabric of the building

Photo Ref. 1

Neutral

F.3 Escape Route Design

Single staircase, with lobby approach

Photo Ref. 2, 3

Negative

F.4 Compartmentation

Adequate compartmentation in line with the expectations for a block of flats. Sandwell Council have implemented an ongoing regime of internal checks to ensure a satisfactory standard of fire stopping and compartmentation

Positive

F.5 Smoke Control

AOVs are present on all floors above aground floor.

Photo Ref. 4, 5, 6

Neutral

F.6 Fire Alarm & Detection

Within Flats:

Smoke detection is installed to LD2 standard (smoke alarms in escape routes and high-risk rooms such as kitchens and living rooms).
Alarms are either hardwired or battery-powered, and tested on a cyclical maintenance regime.
Flats sampled during the FRA: 39, 57, 74 & 77.
Communal Areas:

No communal fire alarm system is installed.

Positive

F.7 Fire Suppression

Refuse Chute Bin Store:
Protected by a deluge suppression system.
Control panel located in the basement, behind the bin store.

Positive

F.8 - Firefighting Facilities

Good access for firefighting vehicles
NOTE This is where access exceeds benchmark guidance on access for firefighting vehicles, taking into account the size of the building (floor area), height of the building and whether fire mains are present in the building. This might be the case where access is possible to all elevations of the building.

Photo Ref. 7

Positive

F.9 Rising Mains

Dry Riser:

Inlet location: Main entrance lobby, secured with a budget lock.
Outlets: Located in cupboards on each floor, adjacent to chute rooms. Also secured with budget locks.
Maintenance:
Biannual servicing (April and October).
Annual hydraulic testing (October), per BS 9990.
Routine caretaker checks.
Fire Hydrant:

Present on site.
Exact location and service isolation points (e.g. gas) are recorded in the Firefighter's White Box at the front elevation.

Photo Ref. 8, 9

Positive

F.10 Lifts Used By Firefighters

Absence of firefighting lift in buildings above 18 m

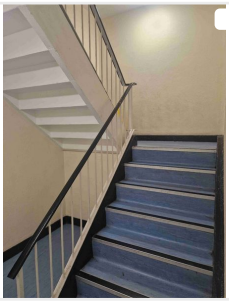
Photo Ref. 10, 11, 12

Neutral

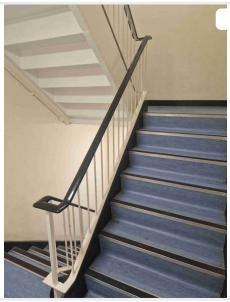
Photos

1

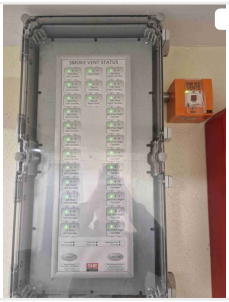
2



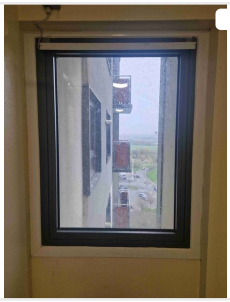
3



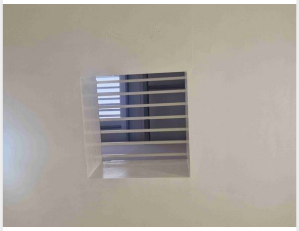
4



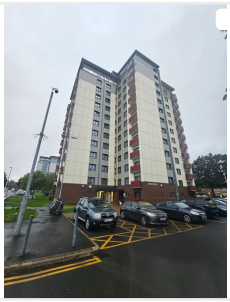
5



6

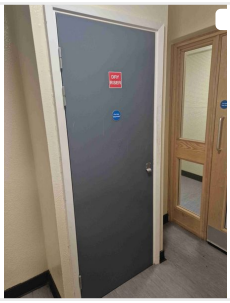


7



8

9



10

11

12

Fire Service Intervention

Event	Seconds	Minutes & Seconds
Initiation to fire detection	30 Seconds	30 Seconds
Actuation Of Fire Detector To Transmission Of Alarm	10 Seconds	10 Seconds
Processing By Central Monitoring Station	30 Seconds	30 Seconds
Receipt of call by fire service mobilising control	30 Seconds	30 Seconds
Transmission To Fire Station And Response	90 Seconds	1 Minute 30 Seconds
Travelling Time Of Fire Service	360 Seconds	6 Minutes
Arrival Protocol And Entry Preparation Time	480 Seconds	8 Minutes
Firefighting Travel In Firefighting Lift	120 Seconds	2 Minutes
Firefighter travel to operational bridgehead	60 Seconds	1 Minute
Firefighter Travel Walking Up Two Flights Of Stairs To Fire Floor (75 Seconds)	75 Seconds	1 Minute 15 Seconds
Total Time	**1,285 Seconds**	**21 Minutes 25 Seconds**

Nearest Fire Station

Oldbury Fire Station, Old Park Ln, Oldbury B69 4PU which is 1.3 miles or 6 minutes in peak hours traffic
Fire Strategy

Wall Constructions

Wall Construction	Build-up
Wall Type 1 - rainscreen cladding (ABBW5U)	• Surface Finish (A1 rated rainscreen mineral based panel) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
Wall Type 2 - Brick slip system over mineral wool (SM48ZJ)	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
Wall Type 3 - Render over mineral wool (T7LITM)	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)

Wall Construction: Wall Type 1 - rainscreen cladding

Construction Reference
ABBW5U

This wall construction was identified by wall inspections QJXDDE, 5YJH1A, and B5RJSR. The build-up, cavity barrier, and floor slab information is taken directly from inspection QJXDDE. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 1 - rainscreen cladding (ABBW5U)	Positive	Low

Build-Up

4 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	10mm	A1 rated rainscreen mineral based panel Material Brand: Rockwool	A1 - Non-Combustible
Cavity	90mm		
Insulation	100mm	Mineral Wool Insulation Material Brand: Rockwool	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Open State Cavity Barrier

Floor Slab

Reinforced concrete

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) of ≤3 MJ/kg — Positive

K.2 External Surfaces

Class A1/A2 — Positive

K.3 Facings/Cladding Panels

Mechanically fixed — Positive

K.4 Panel Construction

Gaps between panels of 10 mm to 20 mm — Positive

K.5 Cavities

Cavity barriers present with no more than minor workmanship defects — Positive

K.6 Insulation

Class A1/A2 — Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

PAS Standard Benchmark

L1 Benchmark

The Construction benchmark is outlined in section L1 of the PAS 9980 Guidance Document -

Masonry (brickwork, blockwork, reinforced concrete)

Loadbearing masonry, provided it is in good condition, can generally be regarded as providing a substrate which is both non-combustible and fire-resisting to a standard of at least 30 min (60 min if 100 mm thick or more). Non-loadbearing masonry might, or might not, have the same properties.

L3 Benchmark

Insulation materials previously classified as non-combustible/ limited combustibility (now Class A1 or Class A2)
- Stone wool
- Ceramic fibre
- Glass fibre
- Foamed glass
- Exfoliated vermiculite

Class A1 or Class A2 (non-combustible and limited combustibility) insulators pose negligible risk in external wall construction. Where such insulators fully fill wall construction then this might indicate that they are being relied upon as contributing to a period of fire resistance. However, if fire resistance is required or being relied upon as part of the assessment, it is important that these insulators fully fill the space they are in or are sufficiently rigid or otherwise mechanically retained/supported to provide a continuous barrier through the space (e.g. batts will retain their shape
whereas quilt can slump in a cavity).

L4 Benchmark

Cavity Barriers -

Cavity barriers are generally needed where cavities pass across compartment lines (so as to avoid the cavity providing a route for fire to circumvent the compartment line), to the extent needed to limit extensive cavities, and around openings including doors, windows and penetrations through cavity construction. Cavities do not, in and of
themselves, need their entire envelopes to be fire-resisting (e.g. the inner face of an external wall cavity can be formed of OSB, provided there are cavity barriers where the cavity passes across a compartment line and to the extent set out previously).

Services passing through cavity external wall construction need either to be surrounded by cavity barriers or to be provided with fire stopping where they pass through the inner leaf of the external wall construction, as would be the case for services passing through 30 min fire-resisting construction.

There are various types of cavity barrier that are commonly encountered in external wall construction.

Full fill cavity barriers can be made of any of the “deemed to satisfy” materials. Mechanical fixing of such cavity barriers is the most reliable approach, but they can be compression fitted if formed of a compressible material such as stone wool.

Open state cavity barriers are commonly used to solve the competing needs of fire separation and ventilation/ drainage. There are various forms of open state cavity barrier, ranging from stone wool batt with intumescent edge strips through to multifoil cavity barriers. These cavity barriers are generally only proven to perform in particular arrangements between solid substrates forming the faces of the cavity. Where the cavity barrier only needs to be fixed to one of the two faces and expands onto the other, only the face onto which it is fixed needs to be representative; the other need not be, particularly if it is the inside face of the rainscreen and therefore likely to fall away prior to failure of the cavity barrier. Where the cavity barrier requires fixing into both faces of the cavity (e.g. certain multifoil cavity barriers are designed to be set into mortar in cavities formed of two leaves of brickwork) then both faces and the method of fixing need to be representative of the certification of the cavity barrier.

Open state cavity barriers take time to close, so caution is necessary if they are combined with cavity linings that could spread particularly rapidly, such as EPS.

Proprietary cavity barriers might only be suitable for installation in a particular orientation:
• vertical cavity barriers might not be suitable for use as horizontal cavity barriers;
• horizontal cavity barriers (particularly those which are open state) are unlikely to be suitable for use as vertical cavity barriers, and also need to be installed both the right way up and the right way round.

L5 Benchmark

FRAMES -

The frames of windows and doors can, subject to the materials used in their construction, provide the function of cavity barriers or cavity closers around these openings. Typically, timber and steel frame windows offer the cavity barrier function whereas aluminium and uPVC do not. However, it is advisable to check uPVC frames with a magnet, as steel can be incorporated within the frame, particularly where the doors are required to provide a level of security.

L6 Benchmark

BALCONIES -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a "winter garden"). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.
Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

L7 Benchmark

DOUBLE SKIN MASONRY

As set out previously in this PAS, a building whose external walls are composed exclusively of this form of construction is not ordinarily expected to require an FRAEW. However, it is recognized that this form of wall construction might be mixed with other forms of wall construction.
This form of construction constitutes the lowest risk form of construction that might be used for external walls, for the following reasons.
• Each leaf of the wall, provided it is formed of masonry/concrete at least 75 mm thick and is generally well constructed, is likely to provide at least 30 min fire resistance.
• The masonry/concrete is likely to be of limited combustibility or better.

Given the above, this form of construction is invariably accepted as:
• not requiring cavity barriers generally, except that cavity closers are needed so that there is no free flow of air through the cavity; and
• being able to accommodate combustible materials within the cavity irrespective of building height.

This is illustrated in Diagram 8.2 in ADB Volume 1:2019 [8]. The equivalent diagram in Volume 2:2019 [9] is Diagram 9.2.

L8 Benchmark

Rainscreen systems come in various forms, generally defined by the cold cavity arrangement they incorporate (see Table L.4):
• ventilated and drained; or
• pressure equalized.

Rainscreen systems are invariably supported on some form of framing or bracketing system. In the majority of cases, framing and bracketry transmit the load of the rainscreen to the back wall, and in turn to the building structure at each floor level.

However, consideration needs to be given to the possibility that the rainscreen load is transmitted down to the base of the system and only provides lateral restraint at floor levels. In this instance, the extent to which the frame might be exposed to fire needs to be taken into account, particularly if a material is used which offers no fire
resistance, such as aluminium.

Framing and bracketry are likely to interact with cavity barriers; where these cross over the cavity barriers then the detailing of the cavity barrier needs to be appropriate (including additional fire stopping as necessary) to achieve fire separation of cavities.

Table L.3 gives information on the various insulation materials that might be incorporated into a rainscreen system. It is unlikely that thermoplastic insulation will be acceptable in a rainscreen system, particularly if it is exposed in a cavity.

BR135 Benchmark

We have compared this external wall type to the cladding systems found on the BR135 database and we did not find a cladding system with the configuration and components that would constitute an exact match to what our inspections found on the Property.

Wall Construction: Wall Type 2 - Brick slip system over mineral wool

Construction Reference
SM48ZJ

This wall construction was identified by wall inspections J6VJXA, MQNKEA, and JVR1TE. The build-up, cavity barrier, and floor slab information is taken directly from inspection J6VJXA. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 2 - Brick slip system over mineral wool (SM48ZJ)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building	A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) of ≤3 MJ/kg — Positive

K.2 External Surfaces

Class A1/A2 — Positive

K.3 Facings/Cladding Panels

Adhesive fixed — Neutral

K.4 Panel Construction

No gaps between panels — Positive

K.5 Cavities

Cavities closed by barriers/fire stopping located in line with all of the following:
- compartment floors;
- compartment walls;
- around openings, e.g. windows, doors; and
- ventilation ducts, grilles and other openings for services

Positive

K.6 Insulation

Mineral/glass insulation — Positive

K.7 Substrate

Masonry, >75 mm thick — Positive

PAS Standard Benchmark

L1 Benchmark

The Construction benchmark is outlined in section L1 of the PAS 9980 Guidance Document -

Masonry (brickwork, blockwork, reinforced concrete)

Loadbearing masonry, provided it is in good condition, can generally be regarded as providing a substrate which is both non-combustible and fire-resisting to a standard of at least 30 min (60 min if 100 mm thick or more). Non-loadbearing masonry might, or might not, have the same properties.

L3 Benchmark

Insulation materials previously classified as non-combustible/ limited combustibility (now Class A1 or Class A2)
- Stone wool
- Ceramic fibre
- Glass fibre
- Foamed glass
- Exfoliated vermiculite

Class A1 or Class A2 (non-combustible and limited combustibility) insulators pose negligible risk in external wall construction. Where such insulators fully fill wall construction then this might indicate that they are being relied upon as contributing to a period of fire resistance. However, if fire resistance is required or being relied upon as part of the assessment, it is important that these insulators fully fill the space they are in or are sufficiently rigid or otherwise mechanically retained/supported to provide a continuous barrier through the space (e.g. batts will retain their shape
whereas quilt can slump in a cavity).

L4 Benchmark

Cavity Barriers -

Cavity barriers are generally needed where cavities pass across compartment lines (so as to avoid the cavity providing a route for fire to circumvent the compartment line), to the extent needed to limit extensive cavities, and around openings including doors, windows and penetrations through cavity construction. Cavities do not, in and of
themselves, need their entire envelopes to be fire-resisting (e.g. the inner face of an external wall cavity can be formed of OSB, provided there are cavity barriers where the cavity passes across a compartment line and to the extent set out previously).

Services passing through cavity external wall construction need either to be surrounded by cavity barriers or to be provided with fire stopping where they pass through the inner leaf of the external wall construction, as would be the case for services passing through 30 min fire-resisting construction.

There are various types of cavity barrier that are commonly encountered in external wall construction.

Full fill cavity barriers can be made of any of the “deemed to satisfy” materials. Mechanical fixing of such cavity barriers is the most reliable approach, but they can be compression fitted if formed of a compressible material such as stone wool.

Open state cavity barriers are commonly used to solve the competing needs of fire separation and ventilation/ drainage. There are various forms of open state cavity barrier, ranging from stone wool batt with intumescent edge strips through to multifoil cavity barriers. These cavity barriers are generally only proven to perform in particular arrangements between solid substrates forming the faces of the cavity. Where the cavity barrier only needs to be fixed to one of the two faces and expands onto the other, only the face onto which it is fixed needs to be representative; the other need not be, particularly if it is the inside face of the rainscreen and therefore likely to fall away prior to failure of the cavity barrier. Where the cavity barrier requires fixing into both faces of the cavity (e.g. certain multifoil cavity barriers are designed to be set into mortar in cavities formed of two leaves of brickwork) then both faces and the method of fixing need to be representative of the certification of the cavity barrier.

Open state cavity barriers take time to close, so caution is necessary if they are combined with cavity linings that could spread particularly rapidly, such as EPS.

Proprietary cavity barriers might only be suitable for installation in a particular orientation:
• vertical cavity barriers might not be suitable for use as horizontal cavity barriers;
• horizontal cavity barriers (particularly those which are open state) are unlikely to be suitable for use as vertical cavity barriers, and also need to be installed both the right way up and the right way round.

L5 Benchmark

FRAMES -

The frames of windows and doors can, subject to the materials used in their construction, provide the function of cavity barriers or cavity closers around these openings. Typically, timber and steel frame windows offer the cavity barrier function whereas aluminium and uPVC do not. However, it is advisable to check uPVC frames with a magnet, as steel can be incorporated within the frame, particularly where the doors are required to provide a level of security.

L6 Benchmark

BALCONIES -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a "winter garden"). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.
Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

L7 Benchmark

DOUBLE SKIN MASONRY

As set out previously in this PAS, a building whose external walls are composed exclusively of this form of construction is not ordinarily expected to require an FRAEW. However, it is recognized that this form of wall construction might be mixed with other forms of wall construction.
This form of construction constitutes the lowest risk form of construction that might be used for external walls, for the following reasons.
• Each leaf of the wall, provided it is formed of masonry/concrete at least 75 mm thick and is generally well constructed, is likely to provide at least 30 min fire resistance.
• The masonry/concrete is likely to be of limited combustibility or better.

Given the above, this form of construction is invariably accepted as:
• not requiring cavity barriers generally, except that cavity closers are needed so that there is no free flow of air through the cavity; and
• being able to accommodate combustible materials within the cavity irrespective of building height.

This is illustrated in Diagram 8.2 in ADB Volume 1:2019 [8]. The equivalent diagram in Volume 2:2019 [9] is Diagram 9.2.

L8 Benchmark

Rainscreen systems come in various forms, generally defined by the cold cavity arrangement they incorporate (see Table L.4):
• ventilated and drained; or
• pressure equalized.

Rainscreen systems are invariably supported on some form of framing or bracketing system. In the majority of cases, framing and bracketry transmit the load of the rainscreen to the back wall, and in turn to the building structure at each floor level.

However, consideration needs to be given to the possibility that the rainscreen load is transmitted down to the base of the system and only provides lateral restraint at floor levels. In this instance, the extent to which the frame might be exposed to fire needs to be taken into account, particularly if a material is used which offers no fire
resistance, such as aluminium.

Framing and bracketry are likely to interact with cavity barriers; where these cross over the cavity barriers then the detailing of the cavity barrier needs to be appropriate (including additional fire stopping as necessary) to achieve fire separation of cavities.

Table L.3 gives information on the various insulation materials that might be incorporated into a rainscreen system. It is unlikely that thermoplastic insulation will be acceptable in a rainscreen system, particularly if it is exposed in a cavity.

BR135 Benchmark

We have compared this external wall type to the cladding systems found on the BR135 database and we did not find a cladding system with the configuration and components that would constitute an exact match to what our inspections found on the Property.

Wall Construction: Wall Type 3 - Render over mineral wool

Construction Reference
T7LITM

This wall construction was identified by wall inspections 6D865D, ZFTNFQ, and VNF833. The build-up, cavity barrier, and floor slab information is taken directly from inspection 6D865D. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 3 - Render over mineral wool (T7LITM)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation	A1 - Non-Combustible
The insulation has the appearance of Rockwool Duo Slab			
Inner Leaf Support (Backing Wall)	102mm	Original brickwork	A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) of ≤3 MJ/kg	Positive

K.2 External Surfaces

Class A1/A2	Positive

K.3 Facings/Cladding Panels

Mechanically fixed	Positive

K.4 Panel Construction

No gaps between panels	Positive

K.5 Cavities

Facings into the cavity at least Class A2	Positive

K.6 Insulation

Mineral/glass insulation	Positive

K.7 Substrate

Masonry, >75 mm thick	Positive

PAS Standard Benchmark

L1 Benchmark

The Construction benchmark is outlined in section L1 of the PAS 9980 Guidance Document -

Masonry (brickwork, blockwork, reinforced concrete)

Loadbearing masonry, provided it is in good condition, can generally be regarded as providing a substrate which is both non-combustible and fire-resisting to a standard of at least 30 min (60 min if 100 mm thick or more). Non-loadbearing masonry might, or might not, have the same properties.

L3 Benchmark

Insulation materials previously classified as non-combustible/ limited combustibility (now Class A1 or Class A2)
- Stone wool
- Ceramic fibre
- Glass fibre
- Foamed glass
- Exfoliated vermiculite

Class A1 or Class A2 (non-combustible and limited combustibility) insulators pose negligible risk in external wall construction. Where such insulators fully fill wall construction then this might indicate that they are being relied upon as contributing to a period of fire resistance. However, if fire resistance is required or being relied upon as part of the assessment, it is important that these insulators fully fill the space they are in or are sufficiently rigid or otherwise mechanically retained/supported to provide a continuous barrier through the space (e.g. batts will retain their shape
whereas quilt can slump in a cavity).

L4 Benchmark

Cavity Barriers -

Cavity barriers are generally needed where cavities pass across compartment lines (so as to avoid the cavity providing a route for fire to circumvent the compartment line), to the extent needed to limit extensive cavities, and around openings including doors, windows and penetrations through cavity construction. Cavities do not, in and of
themselves, need their entire envelopes to be fire-resisting (e.g. the inner face of an external wall cavity can be formed of OSB, provided there are cavity barriers where the cavity passes across a compartment line and to the extent set out previously).

Services passing through cavity external wall construction need either to be surrounded by cavity barriers or to be provided with fire stopping where they pass through the inner leaf of the external wall construction, as would be the case for services passing through 30 min fire-resisting construction.

There are various types of cavity barrier that are commonly encountered in external wall construction.

Full fill cavity barriers can be made of any of the “deemed to satisfy” materials. Mechanical fixing of such cavity barriers is the most reliable approach, but they can be compression fitted if formed of a compressible material such as stone wool.

Open state cavity barriers are commonly used to solve the competing needs of fire separation and ventilation/ drainage. There are various forms of open state cavity barrier, ranging from stone wool batt with intumescent edge strips through to multifoil cavity barriers. These cavity barriers are generally only proven to perform in particular arrangements between solid substrates forming the faces of the cavity. Where the cavity barrier only needs to be fixed to one of the two faces and expands onto the other, only the face onto which it is fixed needs to be representative; the other need not be, particularly if it is the inside face of the rainscreen and therefore likely to fall away prior to failure of the cavity barrier. Where the cavity barrier requires fixing into both faces of the cavity (e.g. certain multifoil cavity barriers are designed to be set into mortar in cavities formed of two leaves of brickwork) then both faces and the method of fixing need to be representative of the certification of the cavity barrier.

Open state cavity barriers take time to close, so caution is necessary if they are combined with cavity linings that could spread particularly rapidly, such as EPS.

Proprietary cavity barriers might only be suitable for installation in a particular orientation:
• vertical cavity barriers might not be suitable for use as horizontal cavity barriers;
• horizontal cavity barriers (particularly those which are open state) are unlikely to be suitable for use as vertical cavity barriers, and also need to be installed both the right way up and the right way round.

L5 Benchmark

FRAMES -

The frames of windows and doors can, subject to the materials used in their construction, provide the function of cavity barriers or cavity closers around these openings. Typically, timber and steel frame windows offer the cavity barrier function whereas aluminium and uPVC do not. However, it is advisable to check uPVC frames with a magnet, as steel can be incorporated within the frame, particularly where the doors are required to provide a level of security.

L6 Benchmark

BALCONIES -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a "winter garden"). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.
Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

L7 Benchmark

DOUBLE SKIN MASONRY

As set out previously in this PAS, a building whose external walls are composed exclusively of this form of construction is not ordinarily expected to require an FRAEW. However, it is recognized that this form of wall construction might be mixed with other forms of wall construction.
This form of construction constitutes the lowest risk form of construction that might be used for external walls, for the following reasons.
• Each leaf of the wall, provided it is formed of masonry/concrete at least 75 mm thick and is generally well constructed, is likely to provide at least 30 min fire resistance.
• The masonry/concrete is likely to be of limited combustibility or better.

Given the above, this form of construction is invariably accepted as:
• not requiring cavity barriers generally, except that cavity closers are needed so that there is no free flow of air through the cavity; and
• being able to accommodate combustible materials within the cavity irrespective of building height.

This is illustrated in Diagram 8.2 in ADB Volume 1:2019 [8]. The equivalent diagram in Volume 2:2019 [9] is Diagram 9.2.

L8 Benchmark

Rainscreen systems come in various forms, generally defined by the cold cavity arrangement they incorporate (see Table L.4):
• ventilated and drained; or
• pressure equalized.

Rainscreen systems are invariably supported on some form of framing or bracketing system. In the majority of cases, framing and bracketry transmit the load of the rainscreen to the back wall, and in turn to the building structure at each floor level.

However, consideration needs to be given to the possibility that the rainscreen load is transmitted down to the base of the system and only provides lateral restraint at floor levels. In this instance, the extent to which the frame might be exposed to fire needs to be taken into account, particularly if a material is used which offers no fire
resistance, such as aluminium.

Framing and bracketry are likely to interact with cavity barriers; where these cross over the cavity barriers then the detailing of the cavity barrier needs to be appropriate (including additional fire stopping as necessary) to achieve fire separation of cavities.

Table L.3 gives information on the various insulation materials that might be incorporated into a rainscreen system. It is unlikely that thermoplastic insulation will be acceptable in a rainscreen system, particularly if it is exposed in a cavity.

BR135 Benchmark

We have compared this external wall type to the cladding systems found on the BR135 database and we did find a cladding system with the configuration and components that would constitute an exact match to what our inspections found installed on the Property.

Façade Configuration: XJT3NA

Items in Façade

7 Items	Effect	Risk
Wall Construction Wall Type 1 - rainscreen cladding (ABBW5U)	Positive	Low
Attachment Cantilever Balcony (XWGPMR)	Positive	Low
External Door French Doors (77GTJI)		Low
External Door Single Leaf Entrance Doors (9N36XN)		Low
External Door Single Leaf Entrance Doors (I1WFBA)		Low
External Door Single Leaf Door (E4L55S)		Low
External Window Top, Mid, Side Hung Casements (SV3KFG)		Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

18 m to 30 m — Positive

N.3 Extent of Cladding

Entire façade covered — Positive

N.4 Cavities & Openings

Cavity limited in extent and running horizontally only — Positive

N.7 Overhangs & Projections

Projecting floor slabs that divide combustible cladding such as to divert flames away from the walls and protect the cladding above or slow the rate of fire spread

Positive

N.8 Proximity to Windows and Other Openings to the Accommodation

Horizontally adjacent to windows and openings, but not vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is possible,
but only under adverse wind conditions

Neutral

N.9 Presence of vents or other openings for services in the Façade

Where vents pass through a cavity, either:
• the cavity does not include combustible materials; or
• the cavity is faced on either side by brick or concrete at least 75 mm thick and any combustible insulation in the cavity is not thermoplastic

Positive

N10. Proximity of Combustible Elements of a Façade to Escape Route Windows & Other Openings

Remote from windows and openings, such that fire and smoke spread into the escape routes to give rise to untenable conditions is not possible

Positive

N.11 Attachments

Non-combustible open balconies

(Where these extend along a façade, they have the potential both to:
• interrupt a cavity; and
• deflect flames away from the building and away from the façade)

Positive

N.12 Proximity of Combustible Elements of a Façade to a Neighbouring Building

The building is isolated from other structures on all side by at least 10 metres

Risk Factor Analysis

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Low

Façade Configuration: 5C31B4

Items in Façade

7 Items	Effect	Risk
Wall Construction Wall Type 2 - Brick slip system over mineral wool (SM48ZJ)	Positive	Low
Attachment Cantilever Balcony (XWGPMR)	Positive	Low
External Door French Doors (77GTJI)		Low
External Door Single Leaf Entrance Doors (9N36XN)		Low
External Door Single Leaf Entrance Doors (I1WFBA)		Low
External Door Single Leaf Door (E4L55S)		Low
External Window Top, Mid, Side Hung Casements (SV3KFG)		Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

Wall Type 2 - brick slip over mineral wool is attached to the ground floor only	Positive

N.3 Extent of Cladding

No scope for a cladding fire to breach compartment wall and floor boundaries	Positive

N.4 Cavities & Openings

No cavity	Positive

N.7 Overhangs & Projections

Projecting floor slabs that divide combustible cladding such as to divert flames away from the walls and protect the cladding above or slow the rate of fire spread

Positive

N.8 Proximity to Windows and Other Openings to the Accommodation

Remote from windows and openings, such that fire and smoke spread into the building, causing secondary fires, is not possible

Positive

N10. Proximity of Combustible Elements of a Façade to Escape Route Windows & Other Openings

Remote from windows and openings, such that fire spread into the escape routes to give rise to untenable conditions is remote

Positive

N.11 Attachments

Non-combustible open balconies

(Where these extend along a façade, they have the potential both to:
• interrupt a cavity; and
• deflect flames away from the building and away from the façade)

Positive

N.12 Proximity of Combustible Elements of a Façade to a Neighbouring Building

The building is isolated from other structures on all side by at least 10 metres

Risk Factor Analysis

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Low

Façade Configuration: KQ4ZI6

Items in Façade

7 Items	Effect	Risk
Wall Construction Wall Type 3 - Render over mineral wool (T7LITM)	Positive	Low
Attachment Cantilever Balcony (XWGPMR)	Positive	Low
External Door French Doors (77GTJI)		Low
External Door Single Leaf Entrance Doors (9N36XN)		Low
External Door Single Leaf Entrance Doors (I1WFBA)		Low
External Door Single Leaf Door (E4L55S)		Low
External Window Top, Mid, Side Hung Casements (SV3KFG)		Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

18 m to 30 m — Positive

N.3 Extent of Cladding

Entire façade covered — Positive

N.4 Cavities & Openings

No cavity — Positive

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Combustible cladding is set back from the wall edge, such that direct flame impingement on the cladding from a fire on a lower level is highly unlikely

Positive

N.7 Overhangs & Projections

Projecting floor slabs that divide combustible cladding such as to divert flames away from the walls and protect the cladding above or slow the rate of fire spread

Positive

N.8 Proximity to Windows and Other Openings to the Accommodation

Horizontally adjacent to windows and openings, but not vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is possible,
but only under adverse wind conditions

Neutral

N.9 Presence of vents or other openings for services in the Façade

Where vents pass through a cavity, either:
• the cavity does not include combustible materials; or
• the cavity is faced on either side by brick or concrete at least 75 mm thick and any combustible insulation in the cavity is not thermoplastic

Positive

N10. Proximity of Combustible Elements of a Façade to Escape Route Windows & Other Openings

Remote from windows and openings, such that fire and smoke spread into the escape routes to give rise to untenable conditions is not possible

Positive

N.11 Attachments

Non-combustible open balconies

(Where these extend along a façade, they have the potential both to:
• interrupt a cavity; and
• deflect flames away from the building and away from the façade)

Positive

N.12 Proximity of Combustible Elements of a Façade to a Neighbouring Building

The building is isolated from other structures on all side by at least 10 metres

Risk Factor Analysis

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Low

APPENDIX

Asset Information

Client Name

Sandwell Metropolitan Borough Council

Client Address

Freeth Street PO Box 2374
Oldbury
B69 3DE

Responsible Person

Sandwell Metropolitan Borough Council

Safety Assistance

Not required

Contact Details

As provided by client

Fire Alarm System

Within Flats:
Smoke detection is installed to LD2 standard (smoke alarms in escape routes and high-risk rooms such as kitchens and living rooms).
Alarms are either hardwired or battery-powered, and tested on a cyclical maintenance regime.
Flats sampled during the FRA: 39, 57, 74 & 77.
Communal Areas:

No communal fire alarm system is installed.

Emergency Lighting

Installed in communal parts

Emergency Lighting

Emergency lighting appears to conform to the requirements of BS5266-1 design standard. The system appears to provide adequate coverage and be in good working order (indicator lights active on luminaires). Luminaires appear to be correctly sited and appear to provide adequate lighting.

Portable Fire Fighting Equipment

Portable Fire Fighting Equipment installed within staff only / Restricted areas of the building

Portable Fire Fighting Equipment

Extinguisher equipment is installed within staff only / Restricted access areas of the building.

Smoke Control

Natural smoke control

Smoke Control

AOVs are present on all floors above aground
floor.

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

Refuse Chute Bin Store:
Protected by a deluge suppression system.
Control panel located in the basement, behind the bin store.

Fire Fighting Facilities

Dry Riser

Fire Fighting Facilities

Dry Riser:

Inlet location: Main entrance lobby, secured with a budget lock.
Outlets: Located in cupboards on each floor, adjacent to chute rooms. Also secured with budget locks.
Maintenance:
Biannual servicing (April and October).
Annual hydraulic testing (October), per BS 9990.
Routine caretaker checks.
Fire Hydrant:
Present on site.
Exact location and service isolation points (e.g. gas) are recorded in the Firefighter's White Box at the front elevation.

Access for fire-fighting vehicles

Adequate access for firefighting vehicles
NOTE This is where access is possible in line with benchmark guidance on access for firefighting vehicles from Approved Document B, taking into account the size of the building (floor area), height of the building and whether fire mains are present in the building.

Fire Hydrant Location/ Water Supply

A fire hydrant is located within 15 metres of Harry Price House Fire Hydrant:
Present on site.
Exact location and service isolation points (e.g. gas) are recorded in the Firefighter's White Box at the front elevation.

Housekeeping

Good standard. Means of escape clear. Refuse stored appropriately

Secure Information Boxes

Secure information box (SIB) installed

Secure Information Boxes

A proprietary steel SIB is fitted within the main entrance lobby

Signage

Appropriate signage installed throughout premises

Signage

Good standard of signs was found for wayfinding, fire door, floor level, lift and advisory notices

Property Type

Apartment Block, Residential Purpose-built

Building Era / Age

Known Build Date

Known Build Date

Harry Price House was built 1963

Building Height

Harry Price House is approximately 30 metres tall. Calculated from lowest point at ground to the upper most enclosed habitable floor level.

Number of Storeys (Ground and above)

There are 12 storeys

Number of Basement Levels

None

Number of Flats

70

Flat Types

Single Storey

Structural Wall Material

Concrete / Brick / Render

Structural Floor Material

Reinforced Concrete

Structural Stairs Material

Concrete

Construction (Details)

Traditional concrete frame and brick construction which has had refurbishment works including UPVC windows, insulation and render facade over the existing facade.

Exterior Cladding

FRAEW Completed on Exterior Cladding

Exterior Cladding (Details)

Cladding comprises of three non combustible rainscreen systems which are attached to the original structure by metal support rails.

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

None

Residents

Yes

Approx number of Residents

140

Residents (Extended)

Assumed to be two residents per flat (Exact numbers not known)

Visitors

None

People With Reduced Mobility

Other

People with Reduced Mobility (Extended)

General Needs - No information however, General Needs premises so occupants are typical of the general population

Lone Workers

None

Young Persons Employed in the Premises

None

Escapes & Exits

There are sufficient fire exits from the premises of suitable width and within acceptable travel distances. These will allow all persons in the premises to evacuate safely in the event of fire. Emergency exits open outwards in escape direction.

Number Of Internal Escape Stairs

The building is provided with a single escape stair

Number Of Final Exits

The building is provided with two individual escape exits

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger

Evacuation Chairs Installed

No

Refuge Points Present

No

Stairwells Protected / Lobbied

Yes

Flat Doors Open Onto Stairs

No

Current Evacuation Strategy

Stay Put

Current Stay Put Strategy Description

The current evacuation strategy is Stay Put as denoted by the fire action notices displayed in the common area.

Current Evacuation Strategy for the property considered appropriate?

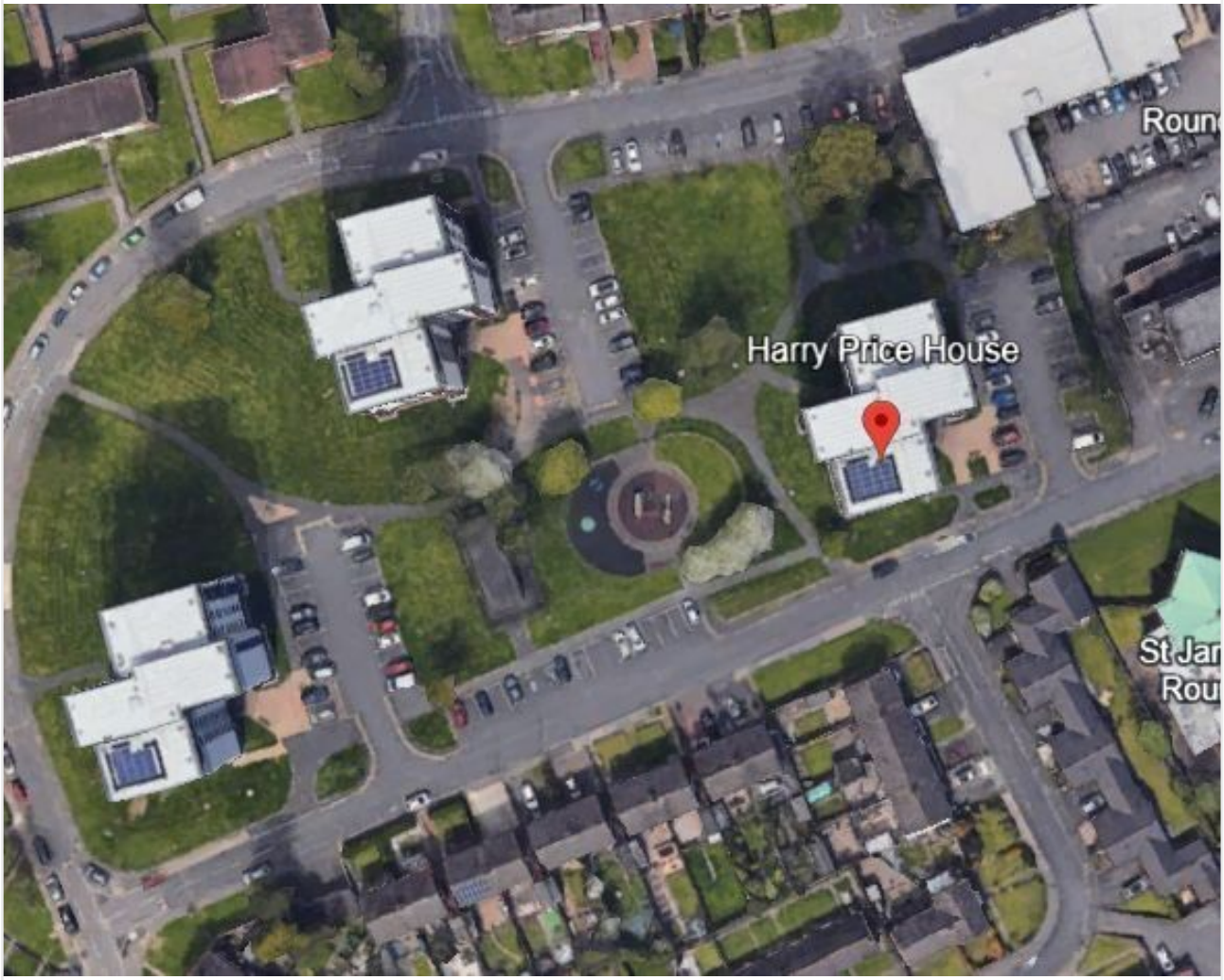
Yes

What is the recommended evacuation strategy for the property?

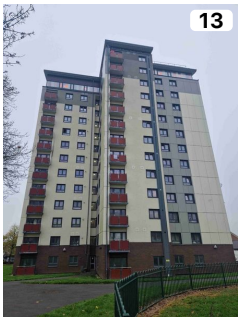
Stay Put

Aerial Perspective: Harry Price House

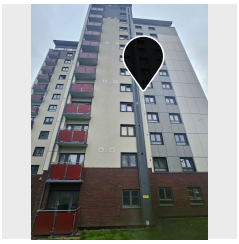
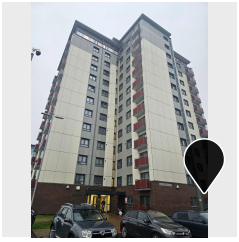
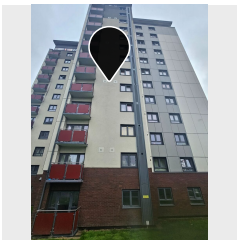
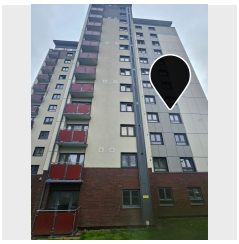
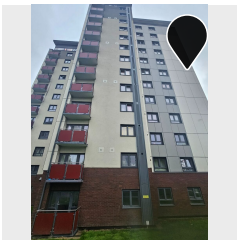
Ariel image of Harry Price House and the surrounding area

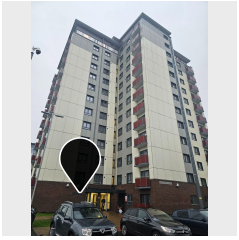
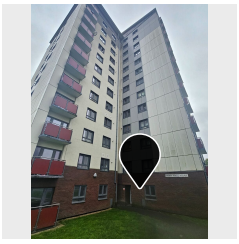
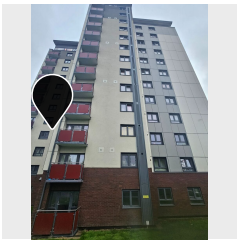
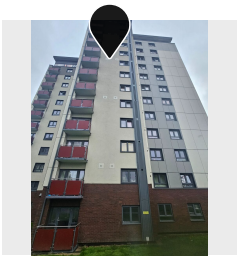


Elevations

Photo	Name	No. of Storeys
	North Elevation	12 Storeys
	South Elevation	12 Storeys
	East Elevation	12 Storeys
	West Elevation	12 Storeys

Inspections

Elevation Location	Inspection	Elements
	**Inspection: QJXDDE** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (A1 rated rainscreen mineral based panel) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
	**Inspection: J6VJXA** Wall Type 2 - Brick slip system over mineral wool Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
	**Inspection: 6D865D** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	**Inspection: 5YJH1A** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (A1 rated rainscreen mineral based panel) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
	**Inspection: B5RJSR** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (A1 rated rainscreen mineral based panel) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)

Elevation Location	Inspection	Elements
	**Inspection: MQNKEA** Wall Type 2 - Brick slip system over mineral wool Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
	**Inspection: JVR1TE** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall)
	**Inspection: ZFTNFQ** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	**Inspection: VNF833** Wall Type 2 - Brick slip over mineral wool Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)

Inspection: QJXDDE

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 1 - Rainscreen Cladding

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	10mm	A1 rated rainscreen mineral based panel Material Brand: Rockwool		A1 - Non-Combustible
Cavity	90mm			
Insulation	100mm	Mineral Wool Insulation Material Brand: Rockwool		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building		A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Open State Cavity Barrier	

Floor Slab

Reinforced concrete

Inspection Photos

Inspection: J6VJXA

Elevation • Location
Wall Type 2 - Brick slip system over mineral wool • Accessible wall

Name/Summary

Wall Type 2 - Brick slip system over mineral wool insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos

Inspection: 6D865D

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 3 - Render over mineral wool insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
The insulation has the appearance of Rockwool Duo Slab				
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

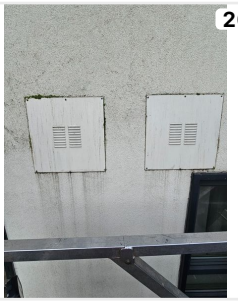
Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos



Inspection: 5YJH1A

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 1 - Rainscreen Cladding

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	10mm	A1 rated rainscreen mineral based panel Material Brand: Rockwool		A1 - Non-Combustible
Cavity	90mm			
Insulation	100mm	Mineral Wool Insulation Material Brand: Rockwool		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building		A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Open State Cavity Barrier	

Floor Slab

Reinforced concrete

Inspection Photos

Inspection: B5RJSR

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 1 - Rainscreen Cladding

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	10mm	A1 rated rainscreen mineral based panel Material Brand: Rockwool		A1 - Non-Combustible
Cavity	90mm			
Insulation	100mm	Mineral Wool Insulation Material Brand: Rockwool		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building		A1 - Non-Combustible

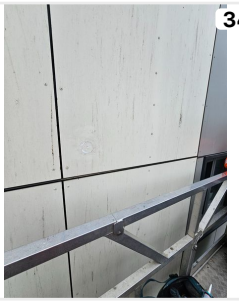
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Open State Cavity Barrier	

Floor Slab

Reinforced concrete

Inspection Photos



Inspection: MQNKEA

Elevation • Location
Wall Type 2 - Brick slip system over mineral wool • Accessible wall

Name/Summary

Wall Type 2 - Brick slip system over mineral wool insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos

Inspection: JVR1TE

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 2 - Brick slip system over mineral wool insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Material Brand: The cladding system has been attached to external walls of the original building		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos

Inspection: ZFTNFQ

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 3 - Render over mineral wool insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
The insulation has the appearance of Rockwool Duo Slab				
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

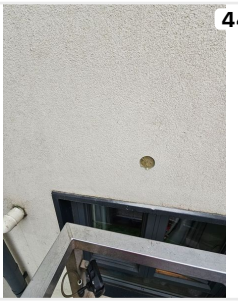
Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos



Inspection: VNF833

Elevation • Location
Wall Type 2 - Brick slip over mineral wool • Accessible wall

Name/Summary

Wall Type 3 - Render over mineral wool insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
The insulation has the appearance of Rockwool Duo Slab				
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

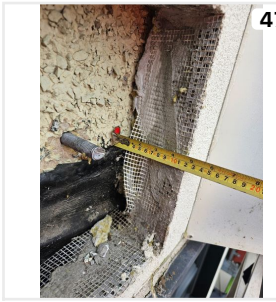
Cavity Barriers

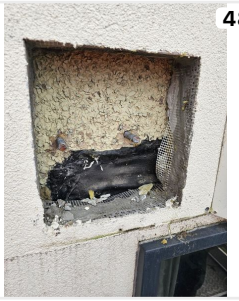
No external cavity

Floor Slab

Reinforced concrete

Inspection Photos





Attachments & Balconies

Photo	Attachment
	**Cantilever Balcony (XWGPMR)** Configuration: Stacked Size: Private balcony spanning only a single compartment

Attachment: Cantilever Balcony

Attachment Reference
XWGPMR

Details

Configuration

Stacked

Size

Private balcony spanning only a single compartment

Framework/Structure

Reinforced concrete framework extension of the floor slab

Decking & Supports

Concrete

Handrail

Stainless Steel

Soffit

Concrete

Photos

Penetrations

Photo	Penetration
No Image	**Flue (9F6V4R)** Inspection Type: Visual

Penetration: Flue

Penetration Reference
9F6V4R

Details

Photo

1 Image

Inspection Type

Visual

Duct Pipework Material

PVC

External Windows

Photo	External Window
	Top, Mid, Side Hung Casements (SV3KFG)

External Window: Top, Mid, Side Hung Casements

External Window Reference
SV3KFG

Details

Surface Material

Aluminium

Frame Material

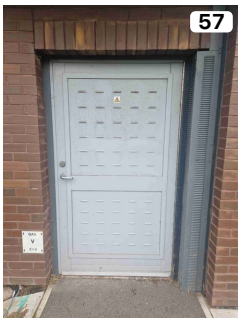
Timber

Infill / Panel Material

Toughened Glass

Photos

External Doors

Photo	External Door
	**French Doors (77GTJI)**
	**Single Leaf Entrance Doors (9N36XN)**
	**Single Leaf Entrance Doors (I1WFBA)**
	**Single Leaf Door (E4L55S)**

External Door: French Doors

External Door Reference
77GTJI

Details

Surface Material

Aluminium

Frame Material

Timber

Infill / Panel Material

Toughened Glass

Photos

External Door: Single Leaf Entrance Doors

External Door Reference
9N36XN

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Photos

External Door: Single Leaf Entrance Doors

External Door Reference
I1WFBA

Details

Surface Material

Aluminium

Frame Material

Aluminium

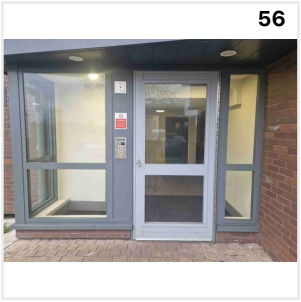
Infill / Panel Material

Toughened Glass

Details

Kite marking indicates laminated glass EN 14449

Photos



External Door: Single Leaf Door

External Door Reference
E4L55S

Details

Surface Material

Aluminium

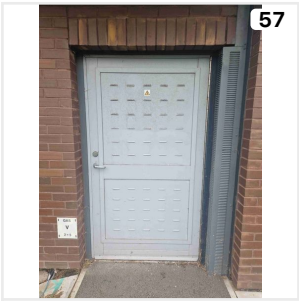
Frame Material

Aluminium

Infill / Panel Material

Aluminium

Photos



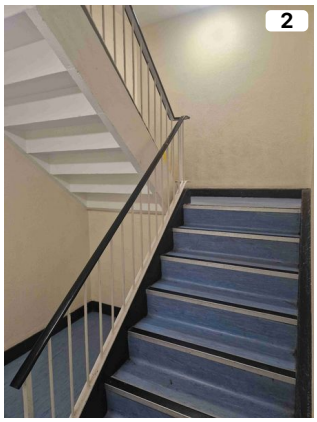
Plan: Wall Type 2 - Brick slip system over mineral wool

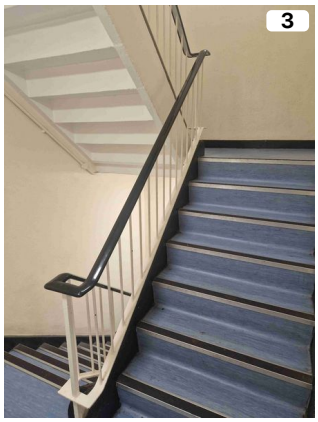
Plan: Wall Type 2 - Brick slip over mineral wool

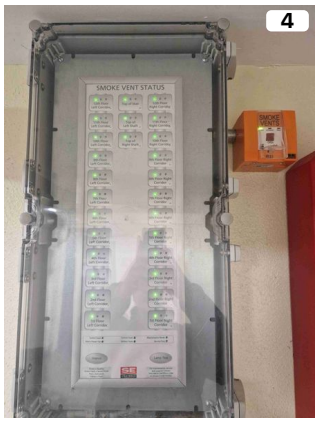
Plan: Wall Type 2 - Brick slip over mineral wool

Photos

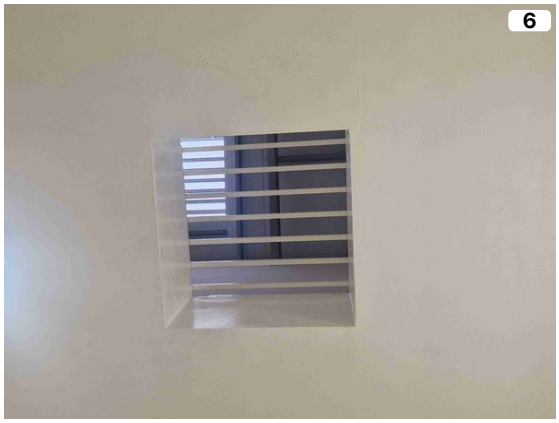

1
FIRE NOTICE
In case of fire dial:
999 or 112
IF A FIRE OCCURS IN A NEARBY FLAT STAY INDOORS.
DO NOT OBSTRUCT THE STAIRS.
YOU WILL BE TOLD BY THE POLICE OR FIRE SERVICE IF YOU ARE REQUIRED TO LEAVE.
IF A FIRE OCCURS IN YOUR FLAT CLOSE ALL DOORS AND WINDOWS AND EVACUATE OCCUPANTS AT ONCE USING THE STAIRS.
Do not use lifts
Use stairs
For further information please contact your neighbourhood office


2


3


4
SMOKE VENT STATUS


5


6


7


8
Dry riser


9


10


11
ON
OFF
FIRE
CONTROL


12
FEATURES OF LIFT FOR FIRE SERVICE OPERATIONS
Secondary power supply
Communication system
Water management and protection
Fire-fighting recall switch
Fire-fighting car and door controls
Car emergency trapdoor


13


14

Photos Continued...


15


16


17


18


19


20


21


22


23


24


25

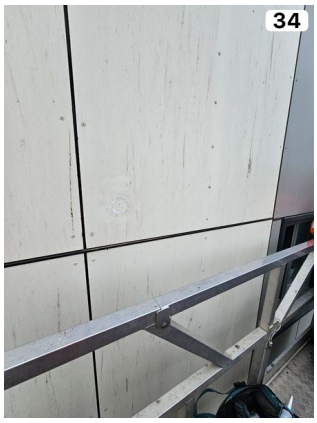

26

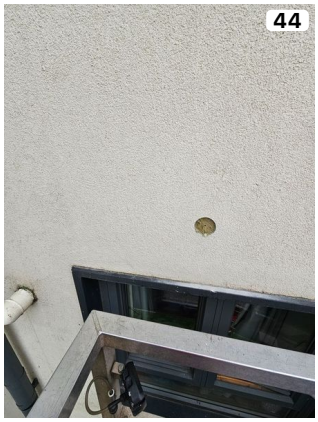

27


28

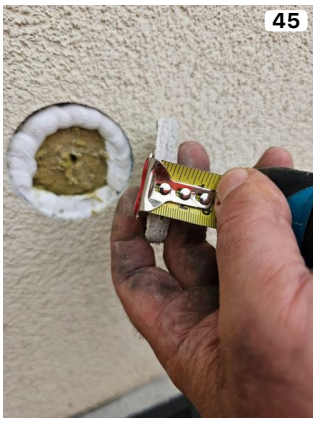

29

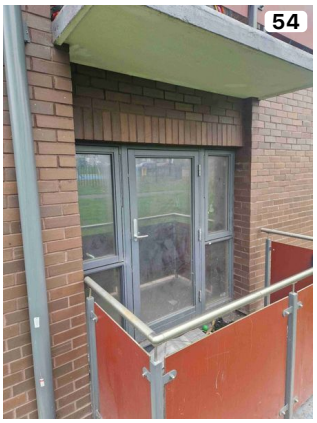
Photos Continued...





Photos Continued...





FIRNTEC

BUILDING COMPLIANCE

0345 646 1566 | info@firntec.com | www.firntec.com