



FIRNTEC
BUILDING COMPLIANCE

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

Document Version

1

Survey Date 13/08/2025

Suggested Review Date 13/08/2030

FIRE RISK APPRAISAL EXTERNAL WALLS

1-32 HORTON STREET

1-32 Horton Street
Tipton
DY4 7JW



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Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference

RB-BZX8YT

Assessed On, By

13/08/2025, James Major (Facade Manager)

Approved / Validated On, By

26/08/2025, Lea Morland

Recommended Review Date

13/08/2030

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.

Assessed Property

Property Name

1-32 Horton Street

Property Reference

RB-MSAA42

Address

1-32 Horton Street

Tipton

DY4 7JW

Assessing Organisation

Firntec Ltd

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

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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 through 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).

Supporting Documents

The following documentation was requested for review prior to our visit. Any provided documentation has been reviewed and considered as part of our findings. The range, quality and reliability of the information contained in the provided documents have been examined and deemed satisfactory for completing this FRAEW report:

Document	Received
Fire Risk Assessment Sandwell Metropolitan Borough Council Fire Risk Assessment	Received

Executive Summary

External Wall Systems and Attachments on the Building

19 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.

5 Items	Effect	Risk
Wall Construction Masonry (Brickwork) (HM89K7)	Positive	Low
Wall Construction Render (White and Grey) (54FGN9)	Positive	Low
Attachment Cantilever Balcony (1RDMCQ)	Positive	Low
External Window Top, Mid, Side Hung Casements (RNEQTF)	Neutral	Low
External Door Single Leaf Door (WEWW2B)	Neutral	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 **B593B6** which includes wall construction **HM89K7**.

Conclusion: This wall system is comprised of a double-leaf masonry system that was observed to contain a retrofitted blown wool-type insulation. The outer leaf of masonry was identified to be 102mm brickwork, and the inner leaf was observed to be a 100mm blockwork.

Masonry brickwork is generally considered fire-resistant and can provide significant protection against fire for structural and non-structural elements. Masonry bricks, typically made from clay or concrete, have very high melting points (above 1000°C for clay bricks), making them resistant to fire and heat. Bricks have low thermal conductivity. This helps prevent the spread of fire to adjacent areas and provides a thermal barrier that protects the underlying structure. Masonry walls provide effective fire containment, often preventing fire from spreading between compartments within a building. The thickness and density of the masonry wall determine its fire resistance rating.

Mineral wool, which includes materials like stone wool, is known for its excellent fire-resistant properties. Mineral wool has a very high melting point, typically around 1,000°C to 1,200°C. This makes it non-combustible, meaning it does not contribute to the spread of fire. In the event of a fire, mineral wool acts as a thermal barrier. Its fibrous structure traps air, reducing the transmission of heat to other parts of the structure and slowing the spread of fire. Mineral wool maintains its insulation properties and shape even at high temperatures, further protecting the structural components of buildings, like steel, from heat damage.

As set out in PAS9980, a building whose external walls are composed exclusively of this form of construction is not ordinarily expected to require an FRAEW. However, it is recognised 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

No dedicated cavity barriers were identified within the wall system; however, it was observed that the floor slab extends to the external surface, effectively disrupting the mechanism for vertical fire spread within the cavity.

This wall system forms the external wall system of the east and west elevations of the building and extends from the ground floor to the full height of the building. Structural openings in the facade include windows opening into the accommodation and the escape staircases. Given the non-combustibility of the materials used in this wall type, an externally venting fire from a compartment would not be expected to spread across this wall type, and the likelihood of an external fire igniting this wall type is also low.

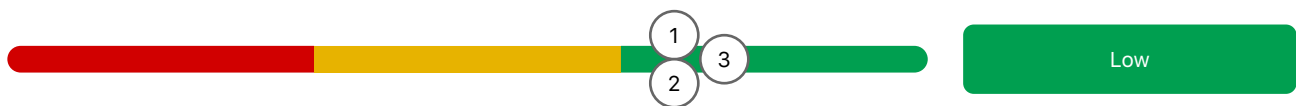
This building operates a 'Stay Put' evacuation policy. It is anticipated that, due to the nature of the building's

construction, a fire would be contained within the compartment of origin long enough for firefighter intervention to begin or for affected occupants to evacuate if necessary. The building has 2 escape staircases with lobby protection serving all floors. The stairs are provided with adequate ventilation (louvres to the front elevation, AOV to the rear) and manually opening windows for the control of smoke. There is no smoke ventilation provided to the central lobbies, which give access to the flats to prolong the tenability of the means of escape and to aid internal firefighter intervention. A dry riser is fitted to the building with an outlet on every floor. There is adequate access for the fire service to the front and rear of the building. The nearest fire station is approximately 1.3 miles away, and as such, the response to a call out would be expected to be swift.

In the event of a fire;

- a) fire spread is likely to be at a rate within expectations for a building of this height, given the circumstances at the building in question; and/or
- b) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping; and/or
- c) 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; and/or
- d) the fire and rescue service are likely to be able to intervene effectively to enable occupants to reach safety in time.

It is our professional opinion that there is no requirement for remediation of this wall type.



Risk Factor Analysis 2

This analysis looks at façade configuration **M61VRG** which includes wall construction **54FGN9**.

Conclusion: The wall system sited on the north and south elevations is comprised of a thin render coat adhesively fixed to a layer of mineral wool insulation. This, in turn, is affixed to the original double-leaf masonry system. The outer leaf of masonry was identified as 102mm brickwork.

The rendered wall system located at floor slab level on the east and west elevations was observed to be render directly applied to an uninsulated double leaf masonry system.

Cementitious renders are typically of limited combustibility or better and can withstand high temperatures without catching fire or releasing harmful gases. The fire resistance of cementitious render depends on its composition, thickness, and the type of reinforcement used. In general, thicker layers of render provide better fire resistance. Its insulating properties can contribute to how a building performs in a fire. In some cases, cementitious render can help protect the underlying structure (such as brick or wood) from high heat by providing a protective layer.

Mineral wool, which includes materials like stone wool, is known for its excellent fire-resistant properties. Mineral wool has a very high melting point, typically around 1,000°C to 1,200°C. This makes it non-combustible, meaning it does not contribute to the spread of fire. In the event of a fire, mineral wool acts as a thermal barrier. Its fibrous structure traps air, reducing the transmission of heat to other parts of the structure and slowing the spread of fire. Mineral wool maintains its insulation properties and shape even at high temperatures, further protecting the structural components of buildings, like steel, from heat damage.

Masonry brickwork is generally considered fire-resistant and can provide significant protection against fire for structural and non-structural elements. Masonry bricks, typically made from clay or concrete, have very high melting points (above 1000°C for clay bricks), making them resistant to fire and heat. Bricks have low thermal conductivity. This helps prevent the spread of fire to adjacent areas and provides a thermal barrier that protects the underlying structure. Masonry walls provide effective fire containment, often preventing fire from spreading between compartments within a building. The thickness and density of the masonry wall determine its fire resistance rating.

Due to the non-combustibility of the materials used to form this wall type and the absence of an air cavity within the external envelope of the system, dedicated cavity barriers would not be anticipated.

This wall system forms the external wall system of the north and south elevations of the building and extends from the ground floor to the full height of the building. Structural openings in the facade include service penetrations and

windows opening into the accommodation. Given the non-combustibility of the materials used in this wall type, an externally venting fire from a compartment would not be expected to spread across this wall type and the likelihood of an external fire igniting this wall type is also low.

This building operates a 'Stay Put' evacuation policy. It is anticipated that, due to the nature of the building's construction, a fire would be contained within the compartment of origin long enough for firefighter intervention to begin or for affected occupants to evacuate if necessary. The building has 2 escape staircases with lobby protection serving all floors. The stairs are provided with adequate ventilation (louvres to the front elevation, AOV to the rear) and manually opening windows for the control of smoke. There is no smoke ventilation provided to the central lobbies, which give access to the flats to prolong the tenability of the means of escape and to aid internal firefighter intervention. A dry riser is fitted to the building with an outlet on every floor. There is adequate access for the fire service to the front and rear of the building. The nearest fire station is approximately 1.3 miles away, and as such, the response to a call out would be expected to be swift.

- In the event of a fire;
- a) fire spread is likely to be at a rate within expectations for a building of this height, given the circumstances at the building in question; and/or
 - b) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping; and/or
 - c) 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; and/or
 - d) the fire and rescue service are likely to be able to intervene effectively to enable occupants to reach safety in time.

It is our professional opinion that there is no requirement for remediation of this wall type.



Overall Building Risk Rating



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.

Recommended Enhancements

No recommended enhancements 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

Positive

Photo Ref. 1

F.3 Escape Route Design

Access to more than one staircase for escape, where it is not possible for the same fire to affect all escape routes

Positive

F.4 Compartmentation

Adequate compartmentation in line with the expectations for a block of flats

Neutral

F.5 Smoke Control

Arrangements in which openable windows, AOVs or inlets and outlets of mechanical systems are of a satisfactory proximity away from combustible cladding; or that fire and smoke spread from the external envelope would be unlikely to compromise the effectiveness of the smoke control system or allow a route for fire spread back into the building

Positive

F.6 Fire Alarm & Detection

Domestic smoke and heat alarms within flats, Category LD2 or LD3

Neutral

F.7 Fire Suppression

Deluge system to bin store only, no domestic suppression

Neutral

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.

Positive

F.9 Rising Mains

Suitable rising main present

Neutral

F.10 Lifts Used By Firefighters

Single lift with firefighter override switch

Neutral

Photos



Fire Service Intervention

Event	Seconds	Minutes & Seconds
Initiation to fire detection	120 Seconds	2 Minutes
Actuation Of Fire Detector To Transmission Of Alarm	10 Seconds	10 Seconds
Processing By Central Monitoring Station	60 Seconds	1 Minute
Receipt of call by fire service mobilising control	10 Seconds	10 Seconds
Transmission To Fire Station And Response	60 Seconds	1 Minute
Travelling Time Of Fire Service	360 Seconds	6 Minutes
Arrival Protocol And Entry Preparation Time	180 Seconds	3 Minutes
Firefighting Travel In Firefighting Lift	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	935 Seconds	15 Minutes 35 Seconds

Nearest Fire Station

Tipton Fire Station, 1.3 miles, approximately 6 minutes in normal traffic conditions

Wall Constructions

Wall Construction	Build-up
Masonry (Brickwork) (HM89K7)	• Outer leaf • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf (Likely dense concrete block or brickwork (solid wall lining), plaster finish.)
Render (White and Grey) (54FGN9)	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Outer leaf

Wall Construction: Masonry (Brickwork)

Construction Reference
HM89K7

This wall construction was identified by wall inspections MY4FFL, EXI55R, 3MHBE4, U1KGXZ, ZFKRW4, H5PWJH, MTL1UD, 7AHY8Q, and IUFT8X. The build-up, cavity barrier, and floor slab information is taken directly from inspection MY4FFL. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Masonry (Brickwork) (HM89K7)	Positive	Low

Build-Up

4 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Outer leaf	100mm		A1 - Non-Combustible
Traditional facing brickwork, stretcher bond, cavity wall construction.			
Cavity	75mm		
Insulation	75mm	Mineral Wool Insulation	A1 - Non-Combustible
Depth of insulation suggests partial-fill or fully-filled cavity, installed post-construction.			
Inner Leaf	100mm	Likely dense concrete block or brickwork (solid wall lining), plaster finish.	A1 - Non-Combustible

Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

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

Low HRR

Positive

K.4 Panel Construction

Not Applicable

K.5 Cavities

Facings into the cavity at least Class A2.

Floor slabs extend to external surface, providing horizontal compartmentation.

Positive

K.6 Insulation

Mineral/glass insulation

Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

K.8 Sheathing Boards

Not Applicable

K.9 Insulated Core Panels

Not Applicable

K.10 ETICS

Not Applicable

K.11 Infill / Spandrel Panels

Not Applicable

K.12 Internal Finishes

Plasterboard
Note: The plasterboard can not be confirmed to be installed as per the manufacturers instructions or ensure its method of fixing

Neutral

PAS Standard Benchmark

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.

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. Therefore, a BR135 benchmark would not be applicable for this external wall type

Wall Construction: Render (White and Grey)

Construction Reference
54FGN9

This wall construction was identified by wall inspections 3RZ4AK, 3ST48B, and CTNZYE. The build-up, cavity barrier, and floor slab information is taken directly from inspection 3RZ4AK. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Render (White and Grey) (54FGN9)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
External Surface Material	6mm	Render	A2 - Limited Combustibility
Insulation	100mm	Mineral Wool Insulation	A1 - Non-Combustible
The insulation is attached mechanically to the original external outer leaf			
Outer leaf	100mm		A1 - Non-Combustible
Original brickwork			

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

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

Low HRR

Positive

Adhesive fixed

Negative

K.4 Panel Construction

Not Applicable

K.5 Cavities

No air cavity

Positive

K.6 Insulation

Mineral/glass insulation

Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

K.8 Sheathing Boards

Not Applicable

K.9 Insulated Core Panels

Not Applicable

K.10 ETICS

Thin organic render or inorganic render on Class A1/A2 insulation

Positive

K.11 Infill / Spandrel Panels

Not Applicable

K.12 Internal Finishes

Plasterboard
Note: The plasterboard can not be confirmed to be installed as per the manufacturers instructions or ensure its method of fixing

Neutral

PAS Standard Benchmark

L10 Benchmark

ETICS -

These systems are sometimes referred to as rendered systems, as they feature an externally applied render coat as their weatherproof surface.

The level of risk that might potentially be posed by these systems is generally dictated by the type of insulation they incorporate.

- Mineral wool-based systems are likely to be low-risk.
- Rigid thermoset foam-based systems can be low-risk if fire barriers and cavity barriers (if a cavity exists behind the insulation) are properly provided. If there are gaps or other deficiencies then the level of risk might increase to medium or, in extreme cases, high.
- Thermoplastic foam-based systems might be low-risk if fire barriers and cavity barriers (if a cavity exists behind the insulation) are properly provided and where there is a significant thickness of cement-based render applied to the insulation. If there are gaps or other deficiencies, a non-cement-based (i.e. polymeric organic) render has been used or an insufficient thickness of cement-based render has been applied, then the level of risk is high.

In particular regard to thermoplastic systems, there are historic systems which are known to have had approximately 20 mm thick slivers of EPS insulation passing across the front of fire barriers, providing a route for fire to rapidly circumvent the barriers. It needs to be confirmed by inspection whether or not this situation exists; if it does exist, such a system is high risk irrespective of the type of render provided.

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. Therefore, a BR135 benchmark would not be applicable for this external wall type

Façade Configuration: B593B6

Items in Façade

4 Items	Effect	Risk
Wall Construction Masonry (Brickwork) (HM89K7)	Positive	Low
Attachment Cantilever Balcony (1RDMCQ)	Positive	Low
External Door Single Leaf Door (WEWW2B)	Neutral	Low
External Window Top, Mid, Side Hung Casements (RNEQTF)	Neutral	Low

Façade Configuration Risk Factors

N.1 Building Height

18 m to 30 m	Negative
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N.2 Height of Base of Cladding (Above Ground)

<2 m NOTE At this height, the likelihood of a fire originating externally (e.g. involving a parked vehicle or waste skip started either accidentally or deliberately) igniting the cladding is highly likely.	Negative
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N.3 Extent of Cladding

Entire façade covered	Negative
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N.4 Cavities & Openings

Cavity not continuous, due to façade being only partially clad or broken by building features:

- projecting floor slabs that divide part of the wall and isolate sections of cavity from each other; and
- walls that project out or are set back, such as to limit the vertical extent of cavities)

Positive

N.5 Infill / Spandrel Panels

Not Applicable

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

Not Applicable

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

Horizontally adjacent to windows and openings, and 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 highly likely

Negative

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

Not Applicable

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

No combustible elements

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

Windows or other openings in adjacent or abutting neighbouring buildings are sufficiently distanced that direct flame impingement from a fire in the neighbouring building is unforeseeable

Neutral

Risk Factor Analysis

Conclusion: This wall system is comprised of a double-leaf masonry system that was observed to contain a retrofitted blown wool-type insulation. The outer leaf of masonry was identified to be 102mm brickwork, and the inner leaf was observed to be a 100mm blockwork.

Masonry brickwork is generally considered fire-resistant and can provide significant protection against fire for structural and non-structural elements. Masonry bricks, typically made from clay or concrete, have very high melting points (above 1000°C for clay bricks), making them resistant to fire and heat. Bricks have low thermal conductivity. This helps prevent the spread of fire to adjacent areas and provides a thermal barrier that protects the underlying structure. Masonry walls provide effective fire containment, often preventing fire from spreading between compartments within a building. The thickness and density of the masonry wall determine its fire resistance rating.

Mineral wool, which includes materials like stone wool, is known for its excellent fire-resistant properties. Mineral wool has a very high melting point, typically around 1,000°C to 1,200°C. This makes it non-combustible, meaning it does not contribute to the spread of fire. In the event of a fire, mineral wool acts as a thermal barrier. Its fibrous structure traps air, reducing the transmission of heat to other parts of the structure and slowing the spread of fire. Mineral wool maintains its insulation properties and shape even at high temperatures, further protecting the structural components of buildings, like steel, from heat damage.

As set out in PAS9980, a building whose external walls are composed exclusively of this form of construction is not ordinarily expected to require an FRAEW. However, it is recognised 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

No dedicated cavity barriers were identified within the wall system; however, it was observed that the floor slab extends to the external surface, effectively disrupting the mechanism for vertical fire spread within the cavity.

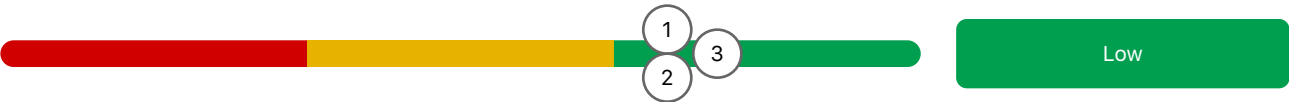
This wall system forms the external wall system of the east and west elevations of the building and extends from the ground floor to the full height of the building. Structural openings in the facade include windows opening into

the accommodation and the escape staircases. Given the non-combustibility of the materials used in this wall type, an externally venting fire from a compartment would not be expected to spread across this wall type, and the likelihood of an external fire igniting this wall type is also low.

This building operates a 'Stay Put' evacuation policy. It is anticipated that, due to the nature of the building's construction, a fire would be contained within the compartment of origin long enough for firefighter intervention to begin or for affected occupants to evacuate if necessary. The building has 2 escape staircases with lobby protection serving all floors. The stairs are provided with adequate ventilation (louvres to the front elevation, AOV to the rear) and manually opening windows for the control of smoke. There is no smoke ventilation provided to the central lobbies, which give access to the flats to prolong the tenability of the means of escape and to aid internal firefighter intervention. A dry riser is fitted to the building with an outlet on every floor. There is adequate access for the fire service to the front and rear of the building. The nearest fire station is approximately 1.3 miles away, and as such, the response to a call out would be expected to be swift.

- In the event of a fire;
- a) fire spread is likely to be at a rate within expectations for a building of this height, given the circumstances at the building in question; and/or
 - b) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping; and/or
 - c) 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; and/or
 - d) the fire and rescue service are likely to be able to intervene effectively to enable occupants to reach safety in time.

It is our professional opinion that there is no requirement for remediation of this wall type.



Façade Configuration: M61VRG

Items in Façade

2 Items	Effect	Risk
Wall Construction Render (White and Grey) (54FGN9)	Positive	Low
External Window Top, Mid, Side Hung Casements (RNEQTF)	Neutral	Low

Façade Configuration Risk Factors

N.1 Building Height

18 m to 30 m	Negative
--------------	----------

N.2 Height of Base of Cladding (Above Ground)

<2 m NOTE At this height, the likelihood of a fire originating externally (e.g. involving a parked vehicle or waste skip started either accidentally or deliberately) igniting the cladding is highly likely.	Negative
--	----------

N.3 Extent of Cladding

Entire façade covered	Negative
-----------------------	----------

N.4 Cavities & Openings

No cavity	Positive
-----------	----------

N.5 Infill / Spandrel Panels

Not Applicable	
----------------	--

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

Not Applicable

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

Horizontally adjacent to windows and openings, and 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 highly likely

Negative

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

Not Applicable

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

Windows or other openings in adjacent or abutting neighbouring buildings are sufficiently distanced that direct flame impingement from a fire in the neighbouring building is unforeseeable

Neutral

Risk Factor Analysis

Conclusion: The wall system sited on the north and south elevations is comprised of a thin render coat adhesively fixed to a layer of mineral wool insulation. This, in turn, is affixed to the original double-leaf masonry system. The outer leaf of masonry was identified as 102mm brickwork.

The rendered wall system located at floor slab level on the east and west elevations was observed to be render directly applied to an uninsulated double leaf masonry system.

Cementitious renders are typically of limited combustibility or better and can withstand high temperatures without catching fire or releasing harmful gases. The fire resistance of cementitious render depends on its composition, thickness, and the type of reinforcement used. In general, thicker layers of render provide better fire resistance. Its insulating properties can contribute to how a building performs in a fire. In some cases, cementitious render can help protect the underlying structure (such as brick or wood) from high heat by providing a protective layer.

Mineral wool, which includes materials like stone wool, is known for its excellent fire-resistant properties. Mineral wool has a very high melting point, typically around 1,000°C to 1,200°C. This makes it non-combustible, meaning it does not contribute to the spread of fire. In the event of a fire, mineral wool acts as a thermal barrier. Its fibrous structure traps air, reducing the transmission of heat to other parts of the structure and slowing the spread of fire. Mineral wool maintains its insulation properties and shape even at high temperatures, further protecting the structural components of buildings, like steel, from heat damage.

Masonry brickwork is generally considered fire-resistant and can provide significant protection against fire for structural and non-structural elements. Masonry bricks, typically made from clay or concrete, have very high melting points (above 1000°C for clay bricks), making them resistant to fire and heat. Bricks have low thermal conductivity. This helps prevent the spread of fire to adjacent areas and provides a thermal barrier that protects the underlying structure. Masonry walls provide effective fire containment, often preventing fire from spreading between compartments within a building. The thickness and density of the masonry wall determine its fire resistance rating.

Due to the non-combustibility of the materials used to form this wall type and the absence of an air cavity within the external envelope of the system, dedicated cavity barriers would not be anticipated.

This wall system forms the external wall system of the north and south elevations of the building and extends from the ground floor to the full height of the building. Structural openings in the facade include service penetrations and windows opening into the accommodation. Given the non-combustibility of the materials used in this wall type, an externally venting fire from a compartment would not be expected to spread across this wall type and the likelihood of an external fire igniting this wall type is also low.

This building operates a 'Stay Put' evacuation policy. It is anticipated that, due to the nature of the building's construction, a fire would be contained within the compartment of origin long enough for firefighter intervention to begin or for affected occupants to evacuate if necessary. The building has 2 escape staircases with lobby protection serving all floors. The stairs are provided with adequate ventilation (louvres to the front elevation, AOV to the rear) and manually opening windows for the control of smoke. There is no smoke ventilation provided to the central lobbies, which give access to the flats to prolong the tenability of the means of escape and to aid internal firefighter intervention. A dry riser is fitted to the building with an outlet on every floor. There is adequate access for the fire service to the front and rear of the building. The nearest fire station is approximately 1.3 miles away, and as such, the response to a call out would be expected to be swift.

In the event of a fire;

- a) fire spread is likely to be at a rate within expectations for a building of this height, given the circumstances at the building in question; and/or
- b) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping; and/or
- c) 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; and/or
- d) the fire and rescue service are likely to be able to intervene effectively to enable occupants to reach safety in time.

It is our professional opinion that there is no requirement for remediation of this wall type.



APPENDIX

Asset Information

Client Name

Sandwell Metropolitan Borough Council

Client Address

Sandwell Council House, Freeth Street, Oldbury B69 3DE

Responsible Person

Sandwell Metropolitan Borough Council

Safety Assistance

Not Required

Contact Details

As Provided by Client

Fire Alarm System

Early warning is limited to hard wire or battery smoke alarms within each of the resident's flats. The equipment is subjected to a cyclical test. Based on the sample of properties accessed during the fire risk assessment the smoke alarms within resident's flats are installed to a combination of LD2 & LD3 standard. There is no effective means for detecting an outbreak of fire to communal areas.

Emergency Lighting

Installed in communal parts

Emergency Lighting

Sufficient; monthly tested and maintained .

Portable Fire Fighting Equipment

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

Portable Fire Fighting Equipment

CO₂ extinguisher in lift motor room; annually serviced

Smoke Control

Natural smoke control, Smoke control installed

Smoke Control

AOV at 7th floor rear stair; louvre vents at front .

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

Bin store protected by deluge system; biannual servicing .

Fire Fighting Facilities

Dry Riser

Fire Fighting Facilities

Dry riser outlets were located on each floor within the firefighting lobby area, ensuring accessible water supply for firefighting operations. This placement allows for efficient connection of firefighting hoses, providing vital water access to emergency services during fire incidents across all floor levels.

Access for fire-fighting vehicles

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.

Fire Hydrant Location/ Water Supply

Public fire hydrants are available. There is a fire hydrant adjacent to the front main entrance as detailed in the on arrival information.

Public fire hydrants can be located: <https://dataservices.riscauthority.co.uk/map/index>

Housekeeping

Good standard. Means of escape clear. Refuse stored appropriately

Housekeeping

Clean; daily checks and bulk item removal in place .

Secure Information Boxes

Gerda PIB at rear GF lobby; white box at front door .

Secure Information Boxes

Secure information box (SIB) installed

Signage

Appropriate signage installed throughout premises

Signage

Generally adequate throughout

Property Type

Apartment Block, Residential Purpose-built

Building Era / Age

Known Build Date

Known Build Date

Wates system-built concrete/brick structure (c.1960). Refurbished 2009.

Guidance Applicable At Time Of Construction

Byelaws of Local Authorities (pre-Building Regs): likely Sandwell/Tipton area-specific fire precautions and structural standards.

Building Height

Overall Building Height Approximately 24m
Highest Occupied Floor Level 21m
(calculated at 3m per floor as per PAS 9980-2022 section 3.1.22)

Approx Floor Area Per Floor

Based on typical floor layouts for 4 flats per level across 8 storeys and observed scale from plans (pages 26–28), the approximate floor area per floor is estimated at: $\approx 200\text{--}220\text{ m}^2$ per floor

This estimation assumes:
Each flat averages $\sim 50\text{--}55\text{ m}^2$
Communal circulation (stairs, lobby, lift) adds $\sim 20\text{--}30\text{ m}^2$

External Dimensions

the approximate external dimensions for 1–32 Horton Street are:
Length: $\sim 22\text{--}24$ metres
Width: $\sim 9\text{--}10$ metres
Height: ~ 21.6 metres (8 storeys including ground floor at approx. 2.7 m/storey)
These dimensions align with standard footprints for 4-flat-per-floor Wates blocks of the 1960s.

Number of Storeys (Ground and above)

8 storeys total, including the ground floor.
This comprises:
Ground Floor (Level 0)
Floors 1 to 7 above (Levels 1–7)

Number of Basement Levels

Not applicable

Number of Flats

32 self-contained residential flats.

Flat Types

Single Storey

Structural Wall Material

Traditional build with concrete floor slab

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)

EWI (External Wall Insulation) retrofit onto a masonry/brick original outer leaf. The render system appears to be a polymer-modified or sand-cement render, with signs of long-term weather exposure and thermal stress-induced

cracking.

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

Day staff

~ Number of Employees on duty

1

Employees (Extended)

No staff on site (Occasional staff attendance expected - low numbers anticipated)

Residents

Yes

Approx number of Residents

64

Residents (Extended)

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

Visitors

Not Known

People With Reduced Mobility

Not Known

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

Two protected staircases serve all floors, located at front and rear of the building.

Number Of Final Exits

Front entrance (main door, fob + firefighter override access)

Rear entrance (secured, with internal access to rear lobby and firefighter switch)

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger + Fireman's Control

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?

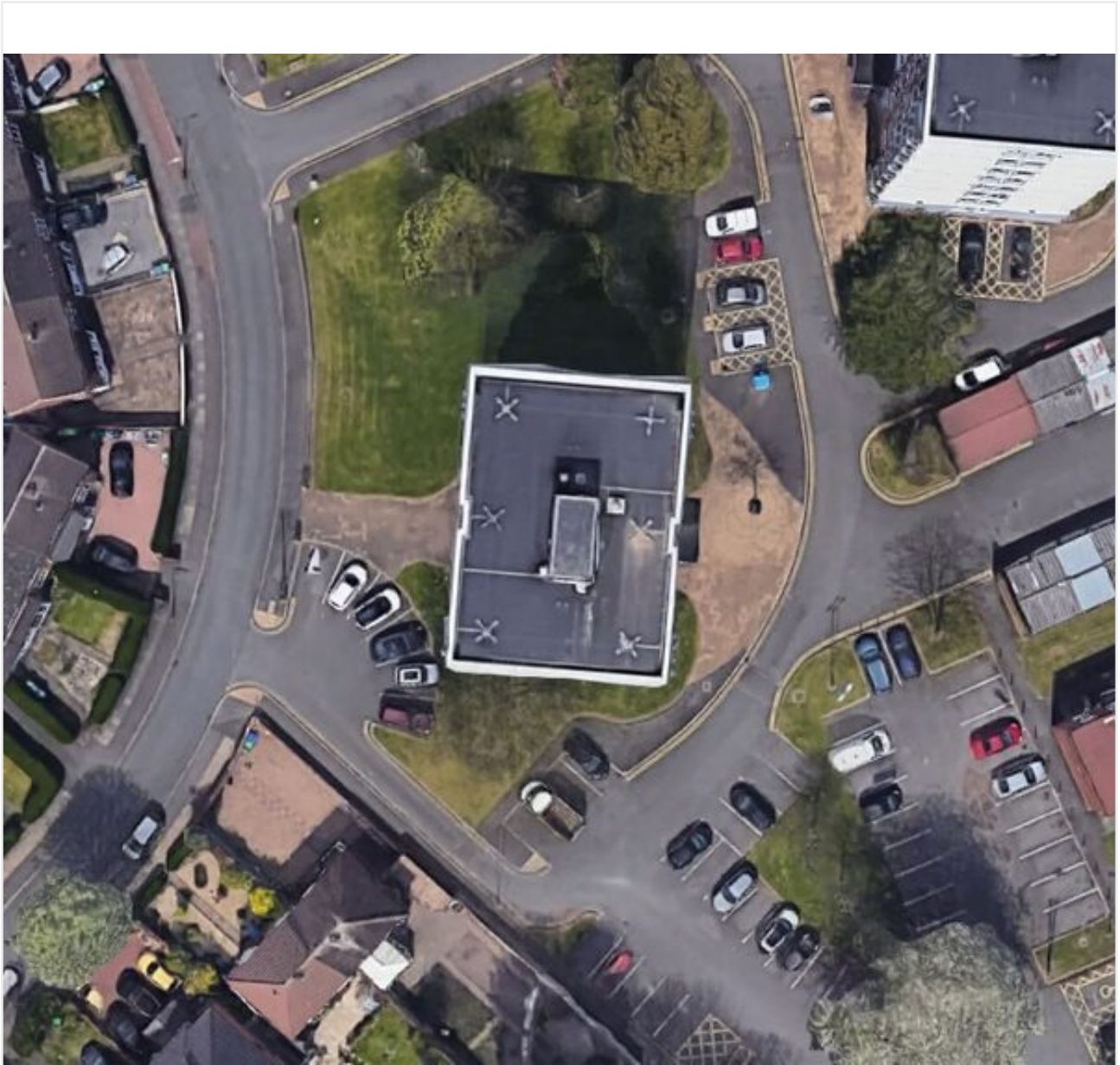
Yes

What is the recommended evacuation strategy for the property?

Stay Put

Aerial Perspective: 1-32 Horton Street

Aerial Perspective (picture sourced from Google Earth)



Elevations

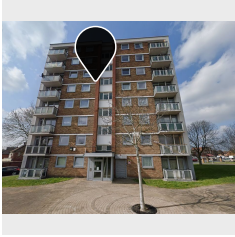
Photo	Name	No. of Storeys
	North Elevation	8 Storeys
	South Elevation	8 Storeys
	West Elevation	8 Storeys
	East Elevation	8 Storeys

Inspections

Elevation Location

Inspection

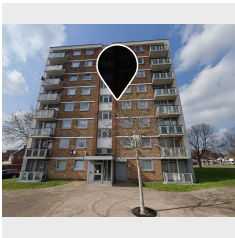
Elements



Inspection: MY4FFL

East Elevation
Compartment Floor and Wall Junction
Interface

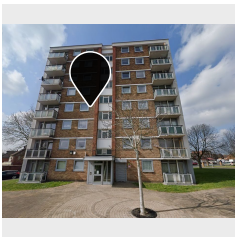
- Outer leaf
- Cavity
- Insulation (Mineral Wool Insulation)
- Inner Leaf (Likely dense concrete block or brickwork (solid wall lining), plaster finish.)



Inspection: EXI55R

East Elevation
Compartment Floor and Wall Junction
Interface

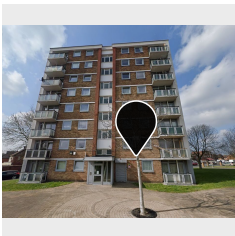
No elements identified



Inspection: 3MHBE4

East Elevation
Aperture Opening

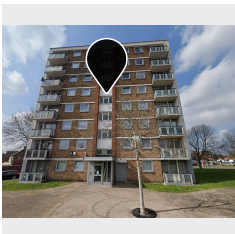
No elements identified



Inspection: U1KGXZ

East Elevation
Compartment Floor Junction

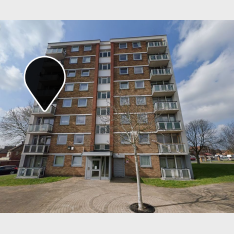
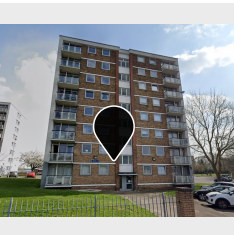
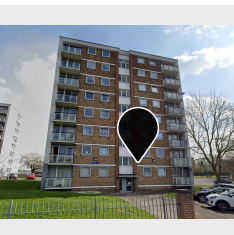
No elements identified

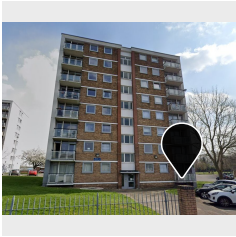


Inspection: DMQDBK

East Elevation
Compartment Floor Junction

No elements identified

Elevation Location	Inspection	Elements
	Inspection: 19FFWK East Elevation Stacked Balcony	• External Surface Material (Concrete) • Waterproof Membrane
	Inspection: 3RZ4AK South Elevation Compartment Floor Junction	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Outer leaf
	Inspection: K5KC1H South Elevation Aperture Opening	No elements identified
	Inspection: HRFD1L South Elevation Compartment Floor and Wall Junction Interface	No elements identified
	Inspection: ZFKRW4 West Elevation Compartment Floor and Wall Junction Interface	No elements identified
	Inspection: H5PWJH West Elevation Compartment Floor and Wall Junction Interface	No elements identified

Elevation Location	Inspection	Elements
	Inspection: WJFAYC West Elevation Stacked Balcony	No elements identified
	Inspection: ZMN5VG West Elevation Stacked Balcony	• External Surface Material (Concrete) • Waterproof Membrane
	Inspection: MTL1UD Compartment Floor and Wall Junction Interface	• Outer leaf • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf (Likely dense concrete block or brickwork (solid wall lining), plaster finish.)
	Inspection: 7AHY8Q Aperture Opening	• Outer leaf • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf (Likely dense concrete block or brickwork (solid wall lining), plaster finish.)
	Inspection: 3ST48B Compartment Floor Junction	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Outer leaf
	Inspection: CTNZE Aperture Opening	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Outer leaf
	Inspection: IUFT8X Compartment Floor and Wall Junction Interface	• Outer leaf • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf (Likely dense concrete block or brickwork (solid wall lining), plaster finish.)
	Inspection: M3MYW7 Vertical section external to staircore	• Outer leaf • Cavity • Inner Leaf (Likely dense concrete block or brickwork (solid wall lining), plaster finish.)

Inspection: MY4FFL

Elevation • Location
East Elevation • Compartment Floor and Wall Junction Interface



Name/Summary

Masonry (Brickwork)

Description

Masonry construction appears original and robust but lacks modern cavity fire barrier provision. Localised brick removal (as seen in investigative openings) confirms presence of mineral wool-type insulation, but continuity and integrity not fully verified. Surface spalling and mortar degradation observed in some areas, particularly under balconies and near service penetrations. No cladding, rainscreen systems or panelised façades present.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible
Traditional facing brickwork, stretcher bond, cavity wall construction.				
Cavity	75mm			
Insulation	75mm	Mineral Wool Insulation		A1 - Non-Combustible
Depth of insulation suggests partial-fill or fully-filled cavity, installed post-construction.				
Inner Leaf	100mm	Likely dense concrete block or brickwork (solid wall lining), plaster finish.		A1 - Non-Combustible

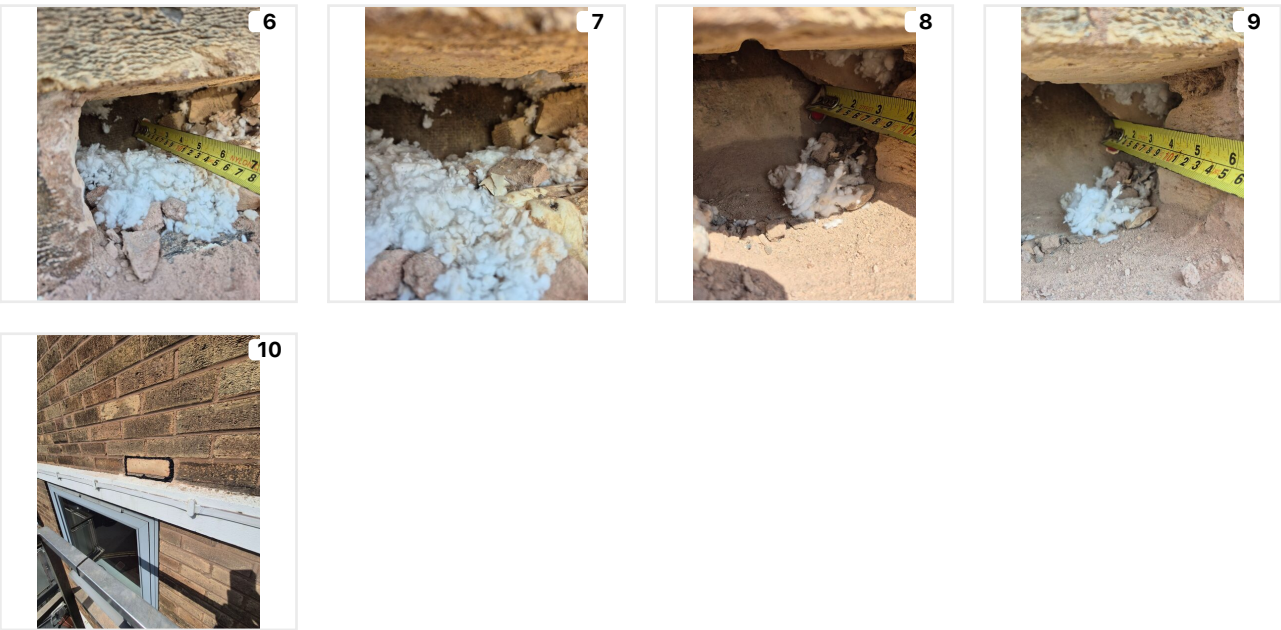
Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: EXI55R

Elevation • Location

East Elevation • Compartment Floor and Wall Junction Interface



Name/Summary

Masonry (Brickwork)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: 3MHBE4

Elevation • Location
East Elevation • Aperture Opening



Name/Summary

Masonry (Brickwork)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: U1KGXZ

Elevation • Location
East Elevation • Compartment Floor Junction



Name/Summary

Masonry (Brickwork)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: DMQDBK

Elevation • Location

East Elevation • Compartment Floor Junction



Name/Summary

Render (White)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: I9FFWK

Elevation • Location
East Elevation • Stacked Balcony



Name/Summary

Balcony Inspection

Description

The balconies are constructed from solid, predominantly non-combustible materials and do not incorporate combustible cladding or screening. Current condition is aged but does not significantly increase external fire spread risk.

Build-Up

2 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	200mm	Concrete		A1 - Non-Combustible
Waterproof Membrane		Void: Coated concrete (possibly bituminous or painted waterproof layer); aged/worn.		B - Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos



Inspection: 3RZ4AK

Elevation • Location
South Elevation • Compartment Floor Junction



Name/Summary

Render (White)

Description

Substrate
The render is applied directly to a solid masonry wall—specifically blockwork inner leaf with brick outer leaf and cavity insulation.
No evidence of any carrier board, EPS insulation, or framing behind the render was observed.

2. Render Type and Build-Up
The render is a cementitious or acrylic-based system, likely composed of the following layers:
Base coat: A thick, grey cementitious layer providing mechanical adhesion.
Mesh-reinforced scratch coat: Not exposed, but presumed typical for crack resistance.
Finish coat: A coarse-textured acrylic or polymer-modified topcoat, cream/grey in colour.

3. Fire Performance
The render system appears to be direct-to-substrate with no combustible backing.
Combined with mineral wool cavity insulation and masonry substrate, this system is non-combustible (Euroclass A1–A2-s1,d0).
No combustible detailing, intumescent trims, or polymeric expansion joints were observed.

4. Condition
Localised weathering and surface staining observed, but no visible detachment or cracking indicative of structural failure.
The drilled inspection confirmed continuous mineral wool insulation behind render.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	6mm	Render		A2 - Limited Combustibility
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible

The insulation is attached mechanically to the original external outer leaf

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible

Original brickwork

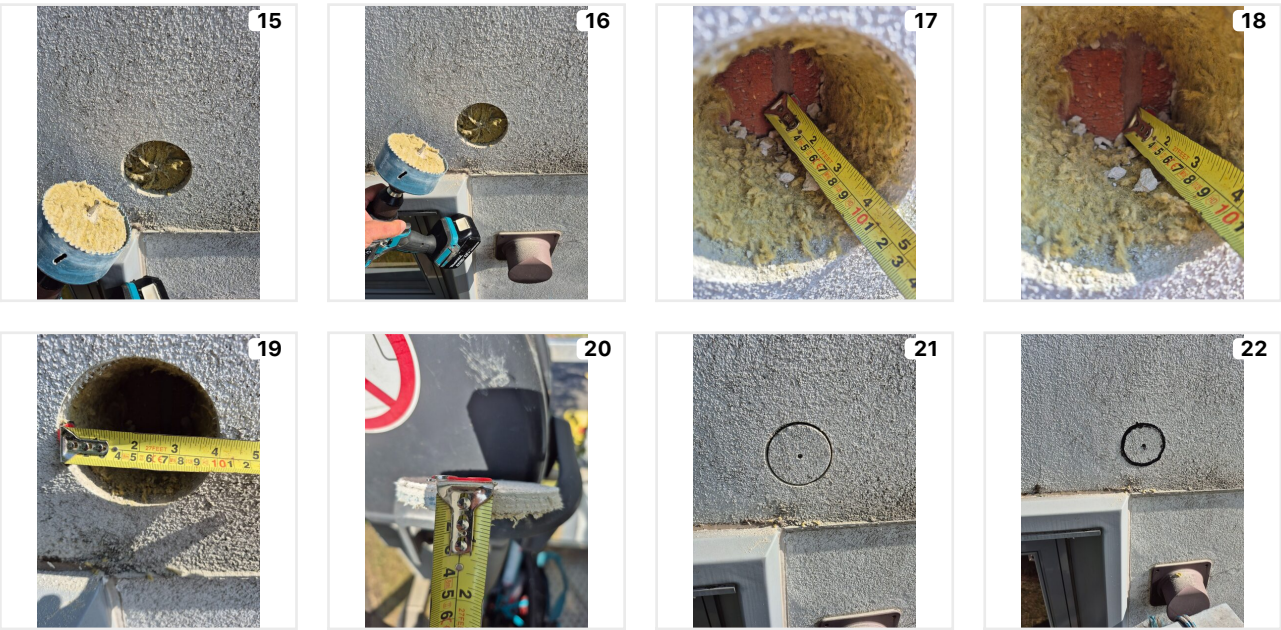
Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: K5KC1H

Elevation • Location
South Elevation • Aperture Opening



Name/Summary

Render (Grey)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: HRFD1L



Elevation • Location

South Elevation • Compartment Floor and Wall Junction Interface

Name/Summary

Render (White)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: ZFKRW4

Elevation • Location

West Elevation • Compartment Floor and Wall Junction Interface



Name/Summary

Masonry (Brickwork)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: H5PWJH

Elevation • Location

West Elevation • Compartment Floor and Wall Junction Interface



Name/Summary

Masonry (Brickwork)

Proposed Inspection

The purpose of the intrusive survey will consist of the visual and intrusive inspections of the identified systems and attachments to determine the through wall construction.

The Engineer will be looking to determine the:

- a) External Leaf (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify the material and Euroclass)
- d) Sheathing Board (the presence of any Sheathing Board)
- e) Membranes (identify their presence and where possible manufacturer)
- f) Substrates (the means in which the façade is attached to the building)
- g) Cavity Barriers (Horizontally, Vertically, Around Openings)

The external inspection is undertaken by either using an approximate 25mm – 150mm bore in a discreet location or the removal of the external surface material. The engineer will then gather the external walls construction from external to internal.

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion the removed material is placed back into the opening and sealed to a fire safe condition but will not conduct any decorative repairs.

Inspection: WJFAYC

Elevation • Location

West Elevation • Stacked Balcony



Name/Summary

Balcony Inspection

Proposed Inspection

The purpose of the balcony inspection will consist of visual and intrusive inspections to identify the attachment types material configuration.

The Engineer will be looking to determine the:

- a) Surface material (Identify the material and Euroclass)
- b) Cavities (if a cavity is present and if so the depth and extent)
- c) Insulation (identify any material and Euroclass)
- d) Membranes (identify their presence and where possible manufacturer)
- e) Substrates (the means in which the façade is attached to the building)
- f) Cavity Barriers (Horizontally, Vertically, Around Openings)

The materials are then measured and observed in there construction along with photographic evidence.

Upon completion any removed material is placed back.

Inspection: ZMN5VG

Elevation • Location
West Elevation • Stacked Balcony



Name/Summary

Balcony Inspection

Description

The balconies are constructed from solid, predominantly non-combustible materials and do not incorporate combustible cladding or screening. Current condition is aged but does not significantly increase external fire spread risk.

Build-Up

2 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	200mm	Concrete		A1 - Non-Combustible
Waterproof Membrane		Void: Coated concrete (possibly bituminous or painted waterproof layer); aged/worn.		B - Combustible

Cavity Barriers

No external cavity

Floor Slab

Reinforced concrete

Inspection Photos



Inspection: MTL1UD

Location
Compartment Floor and Wall Junction Interface

Name/Summary

Masonry (Brickwork)

Description

Masonry construction appears original and robust but lacks modern cavity fire barrier provision. Localised brick removal (as seen in investigative openings) confirms presence of mineral wool-type insulation, but continuity and integrity not fully verified. Surface spalling and mortar degradation observed in some areas, particularly under balconies and near service penetrations. No cladding, rainscreen systems or panelised façades present.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible
Traditional facing brickwork, stretcher bond, cavity wall construction.				
Cavity	75mm			
Insulation	75mm	Mineral Wool Insulation		A1 - Non-Combustible
Depth of insulation suggests partial-fill or fully-filled cavity, installed post-construction.				
Inner Leaf	100mm	Likely dense concrete block or brickwork (solid wall lining), plaster finish.		A1 - Non-Combustible

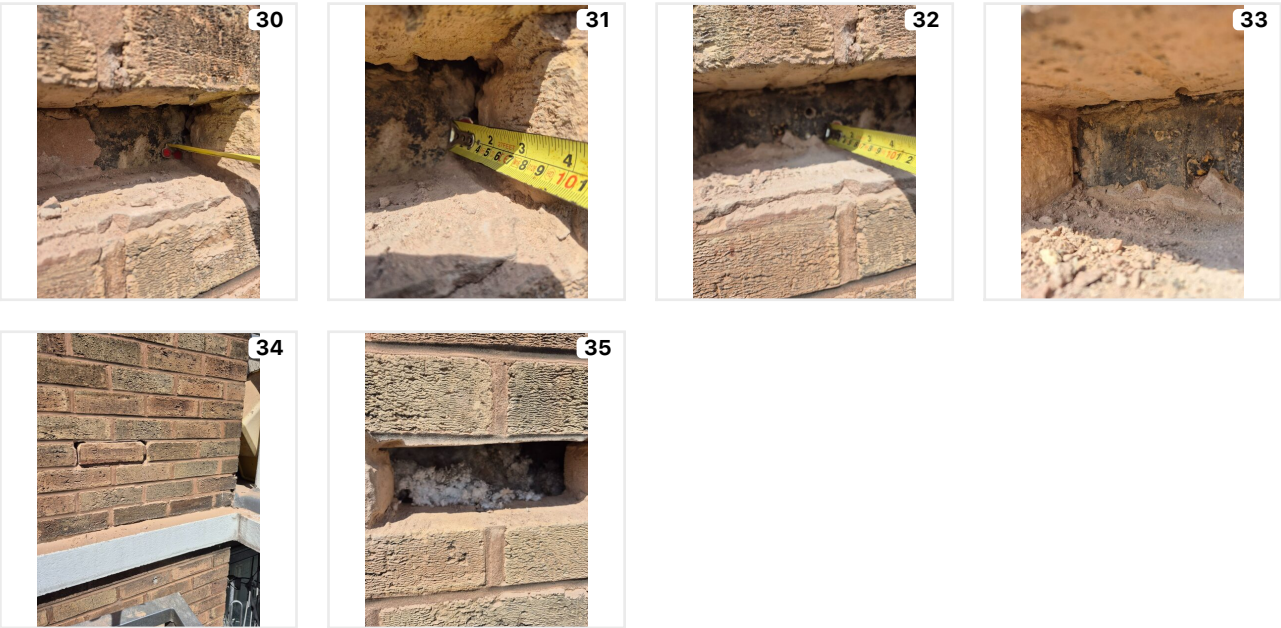
Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: 7AHY8Q

Location
Aperture Opening

Name/Summary

Masonry (Brickwork)

Description

Masonry construction appears original and robust but lacks modern cavity fire barrier provision. Localised brick removal (as seen in investigative openings) confirms presence of mineral wool-type insulation, but continuity and integrity not fully verified. Surface spalling and mortar degradation observed in some areas, particularly under balconies and near service penetrations. No cladding, rainscreen systems or panelised façades present.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible
Traditional facing brickwork, stretcher bond, cavity wall construction.				
Cavity	75mm			
Insulation	75mm	Mineral Wool Insulation		A1 - Non-Combustible
Depth of insulation suggests partial-fill or fully-filled cavity, installed post-construction.				
Inner Leaf	100mm	Likely dense concrete block or brickwork (solid wall lining), plaster finish.		A1 - Non-Combustible

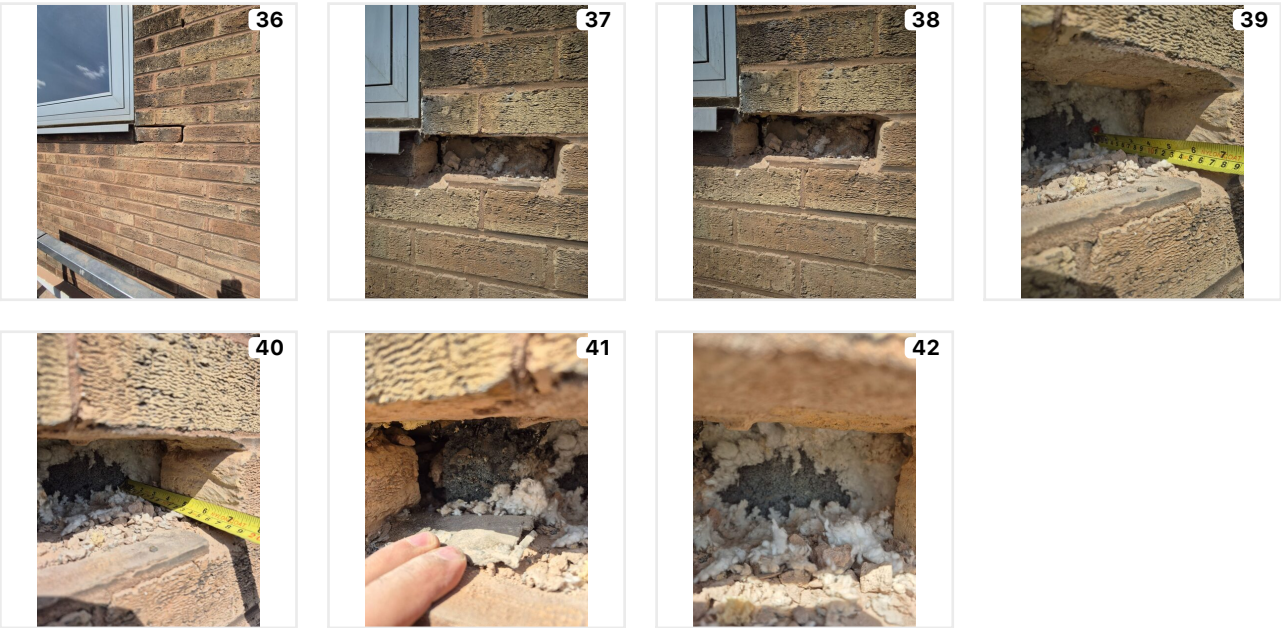
Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: 3ST48B

Location
Compartment Floor Junction

Name/Summary

Render (White)

Description

Substrate
The render is applied directly to a solid masonry wall—specifically blockwork inner leaf with brick outer leaf and cavity insulation.
No evidence of any carrier board, EPS insulation, or framing behind the render was observed.

2. Render Type and Build-Up
The render is a cementitious or acrylic-based system, likely composed of the following layers:
Base coat: A thick, grey cementitious layer providing mechanical adhesion.
Mesh-reinforced scratch coat: Not exposed, but presumed typical for crack resistance.
Finish coat: A coarse-textured acrylic or polymer-modified topcoat, cream/grey in colour.

3. Fire Performance
The render system appears to be direct-to-substrate with no combustible backing.
Combined with mineral wool cavity insulation and masonry substrate, this system is non-combustible (Euroclass A1-A2-s1,d0).
No combustible detailing, intumescent trims, or polymeric expansion joints were observed.

4. Condition
Localised weathering and surface staining observed, but no visible detachment or cracking indicative of structural failure.
The drilled inspection confirmed continuous mineral wool insulation behind render.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	6mm	Render		A2 - Limited Combustibility
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible

The insulation is attached mechanically to the original external outer leaf

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible

Original brickwork

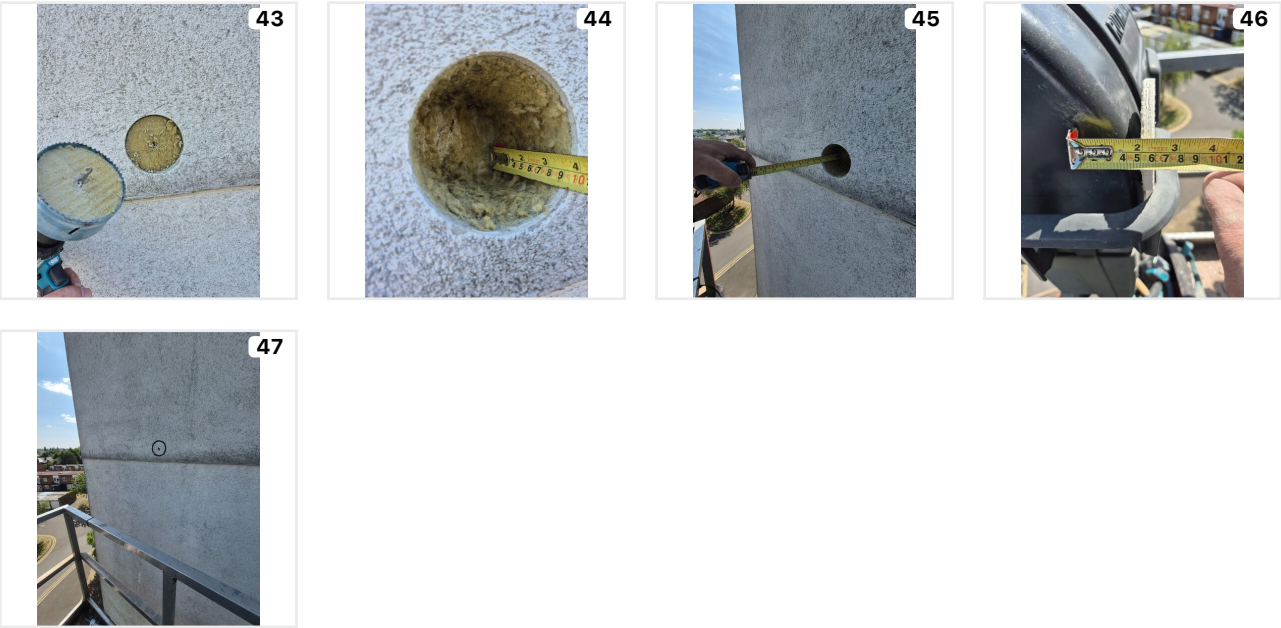
Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: CTNZYE

Location
Aperture Opening

Name/Summary

Render (White)

Description

Substrate
The render is applied directly to a solid masonry wall—specifically blockwork inner leaf with brick outer leaf and cavity insulation.
No evidence of any carrier board, EPS insulation, or framing behind the render was observed.

2. Render Type and Build-Up
The render is a cementitious or acrylic-based system, likely composed of the following layers:
Base coat: A thick, grey cementitious layer providing mechanical adhesion.
Mesh-reinforced scratch coat: Not exposed, but presumed typical for crack resistance.
Finish coat: A coarse-textured acrylic or polymer-modified topcoat, cream/grey in colour.

3. Fire Performance
The render system appears to be direct-to-substrate with no combustible backing.
Combined with mineral wool cavity insulation and masonry substrate, this system is non-combustible (Euroclass A1-A2-s1,d0).
No combustible detailing, intumescent trims, or polymeric expansion joints were observed.

4. Condition
Localised weathering and surface staining observed, but no visible detachment or cracking indicative of structural failure.
The drilled inspection confirmed continuous mineral wool insulation behind render.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	6mm	Render		A2 - Limited Combustibility
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible

The insulation is attached mechanically to the original external outer leaf

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible

Original brickwork

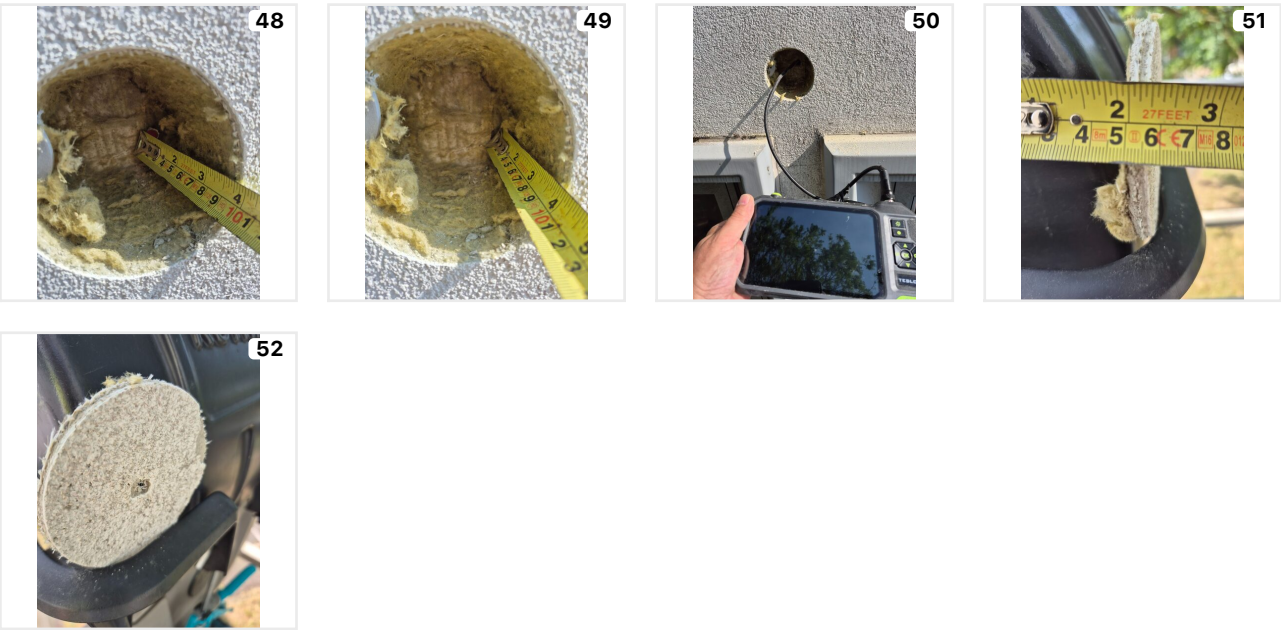
Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: IUFT8X

Location
Compartment Floor and Wall Junction Interface

Name/Summary

Masonry (Brickwork)

Description

Masonry construction appears original and robust but lacks modern cavity fire barrier provision. Localised brick removal (as seen in investigative openings) confirms presence of mineral wool-type insulation, but continuity and integrity not fully verified. Surface spalling and mortar degradation observed in some areas, particularly under balconies and near service penetrations. No cladding, rainscreen systems or panelised façades present.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible
Traditional facing brickwork, stretcher bond, cavity wall construction.				
Cavity	75mm			
Insulation	75mm	Mineral Wool Insulation		A1 - Non-Combustible
Depth of insulation suggests partial-fill or fully-filled cavity, installed post-construction.				
Inner Leaf	100mm	Likely dense concrete block or brickwork (solid wall lining), plaster finish.		A1 - Non-Combustible

Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: M3MYW7

Location
Vertical section external to staircore

Name/Summary

Brickwork and Render over Brickwork (Vertical section external to staircore)

Description

Masonry construction appears original and robust but lacks modern cavity fire barrier provision.
Localised borescope confirms no insulation within cavity at survey location
Surface spalling and mortar degradation observed in some areas, particularly under windows.
No cladding, rainscreen systems or panelised façades present.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm			A1 - Non-Combustible
Traditional facing brickwork, stretcher bond, cavity wall construction.				
Cavity	75mm	Void: no cavity fill was found		
Inner Leaf	100mm	Likely dense concrete block or brickwork (solid wall lining), plaster finish.		A1 - Non-Combustible

Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Attachments & Balconies

Photo

Attachment



Cantilever Balcony (1RDMCQ)

Configuration: Stacked

Size: Private balcony spanning only a single compartment

Attachment: Cantilever Balcony

Attachment Reference
1RDMCQ

Details

Configuration

Stacked

Size

Private balcony spanning only a single compartment

Framework/Structure

Reinforced concrete framework extension of the floor slab

Handrail

Timber

Balustrade

Steel

Soffit

Concrete

Infill

Wired glazing

Details

General Configuration

All flats are served by projecting private balconies to front and rear elevations.

Balconies are typically provided to the living room elevation via double-glazed doors.

Structural Components

Balcony slabs are constructed from cast in-situ reinforced concrete, integrally tied into the floor slab.

Soffits and top surfaces exhibit signs of localised weathering but remain functionally intact.

There is no evidence of balcony boxing, voids, or underside cladding.

Balustrade System

Balustrades comprise:

Galvanised steel frame uprights with a welded tubular steel top rail.

Opaque textured infill panels, likely wired glass or fibre-reinforced polycarbonate, mounted in steel channels.

No timber, aluminium composite material (ACM), high-pressure laminate (HPL), or uPVC components observed.

Fixings and Penetrations

Steel balustrades are mechanically fixed through the slab edges using baseplates.

There is no evidence of combustible packers, gaskets, or untreated sealants at fixing locations.

Balustrade connections appear continuous and non-combustible in composition and finish.

Combustibility Assessment (PAS 9980:2022 Criteria)

No combustible materials identified within balcony construction.

No applied finishes, decking, or screens were present that would contribute to vertical or horizontal fire spread.

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.

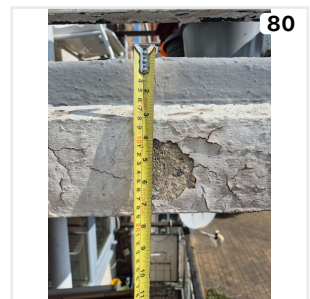
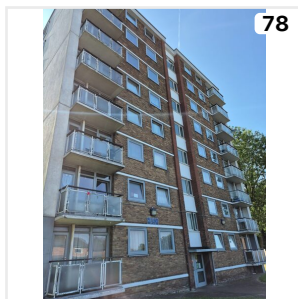
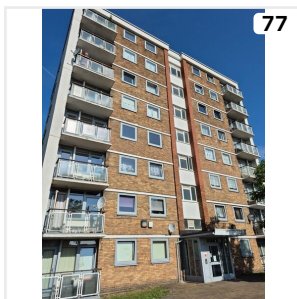
Fire Engineer Comments

These cantilever balconies are configured in a vertically stacked configuration on the east and west elevations of the building. They extend from the ground floor to the uppermost floor and each spans a single compartment.

They are primarily formed of non-combustible materials, with a limited timber handrail and Georgian wired glazing panels. The steel frame, glazing, and concrete decking/soffit will not support, sustain, or contribute to the spread of fire across the external surface of the building.

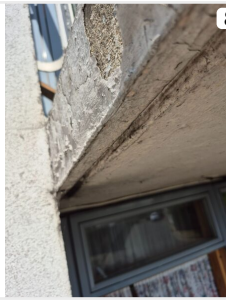
The soffit will also act to disrupt the mechanism for vertical fire spread between the balconies. The adjacent wall system is a non-combustible double leaf masonry system filled with mineral wool and as such will not be negatively impacted by a fire occurring on a balcony.

Photos





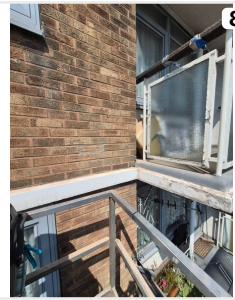
81



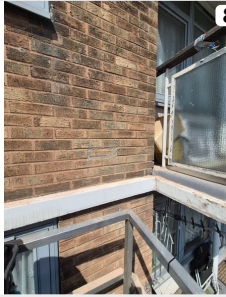
82



83



84



85

External Windows

Photo

External Window



Top, Mid, Side Hung Casements (RNEQTF)

External Window: Top, Mid, Side Hung Casements

External Window Reference
RNEQTF

Details

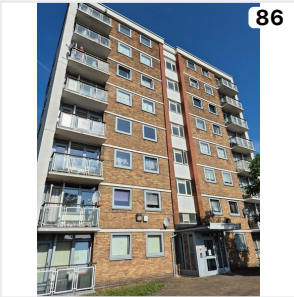
Surface Material

Aluminium

Frame Material

Timber

Photos



External Doors

Photo

External Door



Single Leaf Door (WEWW2B)

External Door: Single Leaf Door

External Door Reference
WEWW2B

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Glazing

Details

Door Set Construction

The entrance is formed of a double leaf aluminium framed door set, part of a full-height aluminium and glazed access screen.

Door and side panel glazing appear to be laminated safety glass within metal rebates.

The system includes a polycarbonate or aluminium canopy fixed overhead for weather protection.

Security System

The door is fitted with:

A functional coded keypad entry system.

Audio-based intercom unit with integrated call buttons.

Magnetic strike plate and solenoid for electronic access release.

Emergency Fire Brigade override switch positioned adjacent to the entry system.

This provides secure access control to communal areas in line with residential risk expectations.

Condition and Integrity

The door set is in a generally fair condition.

Cosmetic surface rust is visible around the override switch plate and panel screws, suggesting minor age-related weathering but no evident compromise to structure or security.

Doors self-close and latch effectively.

Fire Safety and Access Provisions

While the system provides secure access, no internal fire door set is visible immediately beyond the lobby area from external review.

No evidence of fire-rated glazing or intumescent seals on the entrance screen itself—further internal review may be warranted if the screen forms part of a protected route.

Photos



Plan: East Elevation



Plan: South Elevation



Plan: West Elevation



Photos



Photos Continued...



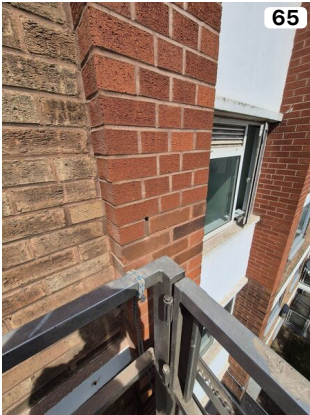
Photos Continued...



Photos Continued...



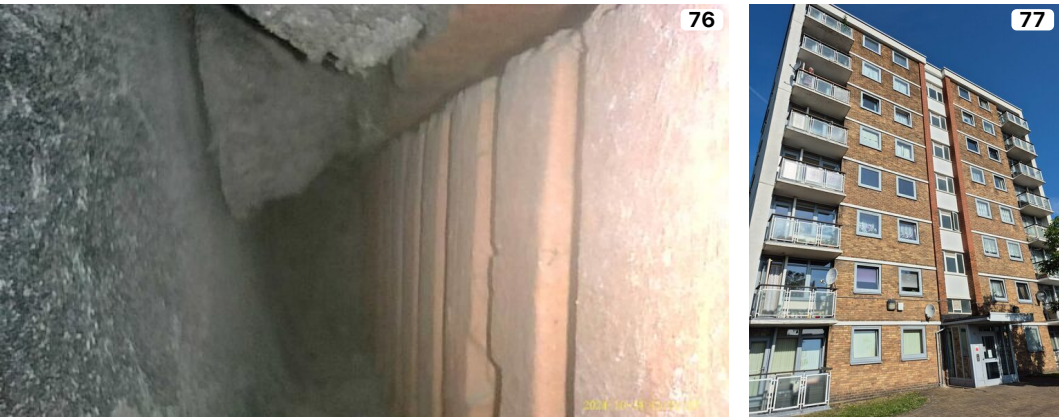
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Photos Continued...



Photos Continued...



Photos Continued...





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