FIRNTEC
BUILDING COMPLIANCE

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

Document Version 4
Valid From 18/08/2025
Suggested Review Date 18/08/2030

FIRE RISK APPRAISAL EXTERNAL WALLS

BOULTON HOUSE

Spon Lane
Tipton
B70 6BJ

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Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference
RB-JC1972

Assessed On, By
18/08/2025, James Major (Facade Manager)

Approved / Validated On, By
24/02/2026, Lea Morland

Recommended Review Date
18/08/2030

Produced For the Responsible Person
Sandwell

Specification Conforms To
Our own internal quality system.

Assessment Scope
Assessment applies only to the building specified.

Assessed Property

Property Name
Boulton House

Property Reference
RB-GVTEKJ

Address
Spon Lane
Tipton
B70 6BJ

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

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).

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

10 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.

6 Items	Effect	Risk
Wall Construction Masonry (Brickwork), Wool Insulation/No Insulation (UH4H1V)	Positive	Low
Wall Construction Masonry (Brickwork), PIR Insulation (1SIEIX)	Neutral	Low
Wall Construction Render (White) (MSNH1U)	Positive	Low
Attachment Cantilever Balcony (69XVKF)	Positive	Low
External Window Top, Mid, Side Hung Casements (WAHWXV)	Neutral	Low
External Door Single Leaf Door (YMYKKY)	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 **VHJUXH** which includes wall construction **UH4H1V**.

Conclusion: This wall system is primarily 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. In some locations, the cavity was observed to contain no insulation.

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.

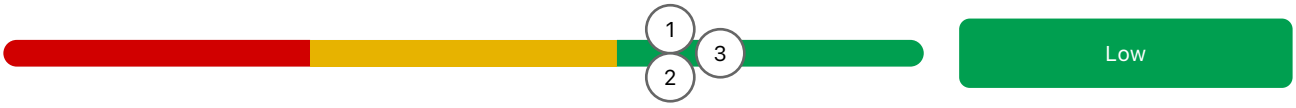
This wall system was observed to form the external wall system of the west elevation of the building and extends from the ground floor to the full height of the building. It is reasonably assumed this wall type is also present on the east elevation. Structural openings in the facade include windows opening into the accommodation and are adjacent to 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 1.9 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 **JAPXVW** which includes wall construction **1SIEIX**.

Conclusion: This wall system is comprised of a double-leaf masonry system that was observed to contain approximately 40mm PIR 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.

The PIR (Polyisocyanurate) is viewed as presenting a medium risk to the contribution to fire spread. PIR insulation is less combustible and has better fire performance compared to some other foam insulations. It ignites at temperatures typically around 300°C to 400°C, forms a protective char layer which helps to insulate and protect the underlying material, and generally produces less smoke and toxic gases. However, it can still contribute to fire growth and produce hazardous gases when it burns. It should be noted that the final fire performance of plastic foams such as PIR strongly depends on the chemical composition and manufacturing process. e.g., the content of isocyanate linkages and the type of isocyanate-reactive component for PIR.

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

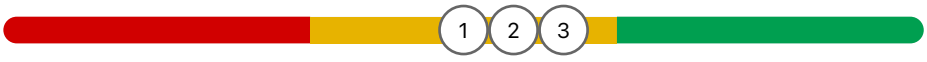
No dedicated cavity barriers were identified within the wall system; however, it was observed that the floor slab extends to the external surface, effectively disrupting the mechanism for vertical fire spread within the cavity.

This wall system was observed in sample areas on all elevations of the building and is assumed to extend 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 to form the outer and inner leaf of the system, 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. The PIR is encapsulated between the non-combustible leaves, and the cavity is disrupted at the floor slab level.

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.



Medium

Risk Factor Analysis 3

This analysis looks at façade configuration **J5NAPF** which includes wall construction **MSNH1U**.

Conclusion: This wall system is comprised of a rendered cement dash coat applied to a double-leaf masonry system that was observed to contain no insulation. The outer leaf of masonry was identified to be a rendered cement dash coat applied to 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.

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 escape staircases on the east and west elevations of the building and extends from the first floor to the full height of the building. Structural openings in the facade include windows opening into 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 wall type would not support, sustain, or contribute to fire spread or have a detrimental effect on occupants escaping the premises.

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 1.9 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.

Low

Overall Building Risk Rating

Medium

Our professional opinion is that overall this Building represents a Neutral 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

Photo Ref. 1, 2, 3

Neutral

F.3 Escape Route Design

Access to more than one staircase for escape

Photo Ref. 2, 4, 5, 6, 7

Positive

F.4 Compartmentation

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

Photo Ref. 8, 4, 9

Neutral

F.5 Smoke Control

Arrangements in which openable windows, AOVs or inlets and outlets of mechanical systems are of a satisfactory proximity aways 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

Photo Ref. 5, 10, 6, 11

Neutral

F.6 Fire Alarm & Detection

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

Neutral

F.7 Fire Suppression

Sprinkler system installed within bin rooms only

Photo Ref. 2

Neutral

F.8 - Firefighting Facilities

Adequate access for firefighting vehicles
NOTE This is where access is possible in line with 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.

Photo Ref. 12

Neutral

F.9 Rising Mains

Suitable rising main present

Photo Ref. 13, 14

Neutral

F.10 Lifts Used By Firefighters

Absence of dedicated firefighting lift in buildings above 18 m

Photo Ref. 15

Negative

Photos

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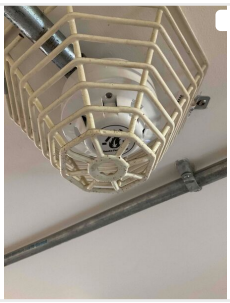

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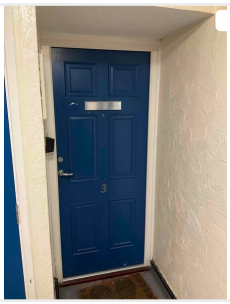

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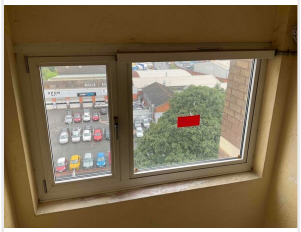

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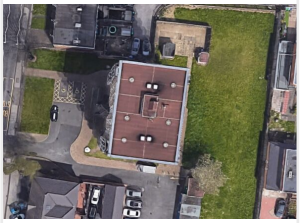

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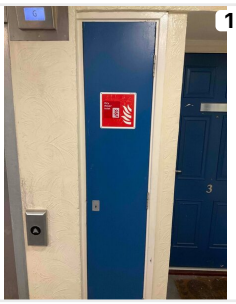

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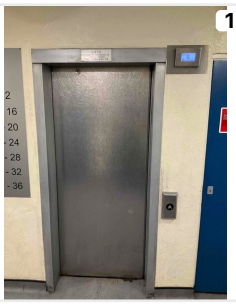


Fire Service Intervention

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	300 Seconds	5 Minutes
Arrival Protocol And Entry Preparation Time	180 Seconds	3 Minutes
Firefighter travel to operational bridgehead	270 Seconds	4 Minutes 30 Seconds
Firefighter Travel Walking Up Two Flights Of Stairs To Fire Floor (75 Seconds)	75 Seconds	1 Minute 15 Seconds
Total Time	**1,085 Seconds**	**18 Minutes 5 Seconds**

Nearest Fire Station

West Bromwich Fire Station, 1.9 miles, approximately 5 mins under normal traffic conditions

Wall Constructions

Wall Construction	Build-up
Masonry (Brickwork), Wool Insulation/No Insulation (UH4H1V)	• External Surface Material (Brickwork) • Insulation (Mineral Wool Insulation) • Substrate (Original blockwork)
Masonry (Brickwork), PIR Insulation (1SIEIX)	• External Surface Material (Brickwork) • Cavity • Insulation (PIR Insulation) • Substrate (Original blockwork)
Render (White) (MSNH1U)	• External Surface Material (Render) • Outer leaf • Outer leaf • Cavity • Substrate (Original blockwork)

Wall Construction: Masonry (Brickwork), Wool Insulation/No Insulation

Construction Reference
UH4H1V

This wall construction was identified by wall inspections T6AI81, B2QIPA, and Y4Z78X. The build-up, cavity barrier, and floor slab information is taken directly from inspection T6AI81. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Masonry (Brickwork), Wool Insulation/No Insulation (UH4H1V)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation	A1 - Non-Combustible
Loose fit, fully fills cavity			
Substrate		Original blockwork	A1 - Non-Combustible

Cavity Barriers

2 Cavity Barriers	Material
Vertical Cavity Barrier	Concrete column
Horizontal Cavity Barrier	Concrete

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

Low HRR — Positive

K.4 Panel Construction

Not Applicable

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

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: Masonry (Brickwork), PIR Insulation

Construction Reference
1SIEIX

This wall construction was identified by wall inspections HUI2SA, X4FKDR, and 5LCNJB. The build-up, cavity barrier, and floor slab information is taken directly from inspection HUI2SA. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Masonry (Brickwork), PIR Insulation (1SIEIX)	Neutral	Low

Build-Up

4 Elements	Thickness/Depth	Material	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	A1 - Non-Combustible
Cavity	40mm		
Insulation	40mm	PIR Insulation	F - Highly Combustible
Substrate	100mm	Original blockwork	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Window Aperture	Blockwork

Floor Slab

Reinforced concrete

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) >3 MJ/kg and ≤35 MJ/kg	Neutral

K.2 External Surfaces

Class A1/A2	Positive

K.3 Facings/Cladding Panels

Low HRR	Positive

K.4 Panel Construction

Not Applicable	Positive

K.5 Cavities

Cavities closed at least at compartment floors and walls but not: • around windows and other openings*; or • at ventilation ducts, grilles or other openings for services	Neutral

K.6 Insulation

Class F	Negative

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)

Construction Reference
MSNH1U

This wall construction was identified by wall inspection TJ6SMR. The build-up, cavity barrier, and floor slab information is taken directly from inspection TJ6SMR. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Render (White) (MSNH1U)	Positive	Low

Build-Up

5 Elements	Thickness/Depth	Material	Rating (BS EN13501)
External Surface Material	2mm	Render	A1 - Non-Combustible
Outer leaf	10mm		A1 - Non-Combustible
Cement dash coat			
Outer leaf	102mm		A1 - Non-Combustible
Original brickwork			
Cavity	50mm		
Substrate		Original blockwork	A1 - Non-Combustible

Cavity Barriers

No cavity barrier identified at this inspection location

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

Low HRR	Positive
Adhesive fixed	Negative

K.4 Panel Construction

Not Applicable

K.5 Cavities

Facings into the cavity at least Class A2	Positive

K.6 Insulation

No 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

Any other render system

Neutral

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.

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: VHJUXH

Items in Façade

4 Items	Effect	Risk
Wall Construction Masonry (Brickwork), Wool Insulation/No Insulation (UH4H1V)	Positive	Low
Attachment Cantilever Balcony (69XVKF)	Positive	Low
External Door Single Leaf Door (YMYKKY)	Neutral	Low
External Window Top, Mid, Side Hung Casements (WAHWXV)	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 accidently or deliberately) igniting the cladding is highly likely.

Although the masonry system present on this building begins on the ground floor, its non-combustible nature means that it is highly unlikely to become ignited.

Neutral

N.3 Extent of Cladding

Entire façade covered.

The external leaf of this facade is non-combustible and therefore not anticipated to support, sustain, or contribute to fire spread across the external surface of the building.

Neutral

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 the facade will be subject to direct flame impingement and smoke spread.

NOTE: Although this wall type encompasses windows into the accommodation, this wall type is formed of non-combustible materials that are not anticipated to support, sustain, or contribute to fire spread across the external surface of the building.

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

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 primarily 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. In some locations, the cavity was observed to contain no insulation.

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.

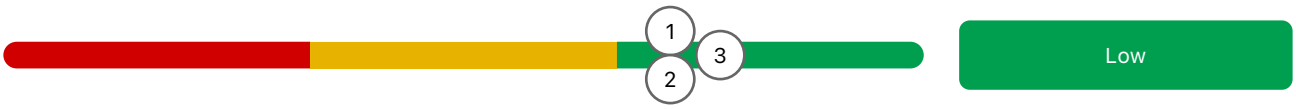
This wall system was observed to form the external wall system of the west elevation of the building and extends

from the ground floor to the full height of the building. It is reasonably assumed this wall type is also present on the east elevation. Structural openings in the facade include windows opening into the accommodation and are adjacent to 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 1.9 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: JAPXVW

Items in Façade

4 Items	Effect	Risk
Wall Construction Masonry (Brickwork), PIR Insulation (1SIEIX)	Neutral	Low
Attachment Cantilever Balcony (69XVKF)	Positive	Low
External Door Single Leaf Door (YMYKKY)	Neutral	Low
External Window Top, Mid, Side Hung Casements (WAHWXV)	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 accidently or deliberately) igniting the cladding is highly likely.

Although the masonry system present on this building begins on the ground floor, its non-combustible outer surface means that it is unlikely to become ignited due to a fire originating externally.

Neutral

N.3 Extent of Cladding

Entire façade covered.

The external leaf of this facade is non-combustible and therefore not anticipated to support, sustain, or contribute to fire spread across the external surface of the building.

Neutral

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 the facade will be subject to direct flame impingement and smoke spread.

NOTE: Although this wall type encompasses windows into the accommodation, this wall type has a non-combustible outer leaf that is not anticipated to support, sustain, or contribute to fire spread across the external surface of the building.

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

Adjacent to windows and openings onto escape routes, but the same fire could not spread to affect more than one escape route

Neutral

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 approximately 40mm PIR 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.

The PIR (Polyisocyanurate) is viewed as presenting a medium risk to the contribution to fire spread. PIR insulation is less combustible and has better fire performance compared to some other foam insulations. It ignites at temperatures typically around 300°C to 400°C, forms a protective char layer which helps to insulate and protect the underlying material, and generally produces less smoke and toxic gases. However, it can still contribute to fire growth and produce hazardous gases when it burns. It should be noted that the final fire performance of plastic foams such as PIR strongly depends on the chemical composition and manufacturing process. e.g., the content of isocyanate linkages and the type of isocyanate-reactive component for PIR.

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 was observed in sample areas on all elevations of the building and is assumed to extend 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 to form the outer and inner leaf of the system, 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. The PIR is encapsulated between the non-combustible leaves, and the cavity is disrupted at the floor slab level.

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.

Medium

Façade Configuration: J5NAPF

Items in Façade

2 Items	Effect	Risk
Wall Construction Render (White) (MSNH1U)	Positive	Low
External Window Top, Mid, Side Hung Casements (WAHWXV)	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 to 5 m
NOTE At this height, the scope for a fire originating externally (e.g. involving a parked vehicle or waste skip started either accidently or deliberately) igniting the cladding is considered possible, but not likely at an early stage in the development of the fire. — Neutral

N.3 Extent of Cladding

Limited in extent such as to delay fire spread over the external walls — Neutral

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

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

Positive

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

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: This wall system is comprised of a rendered cement dash coat applied to a double-leaf masonry system that was observed to contain no insulation. The outer leaf of masonry was identified to be a rendered cement dash coat applied to 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.

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 escape staircases on the east and west elevations of the building and extends from the first floor to the full height of the building. Structural openings in the facade include windows opening into 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 wall type would not support, sustain, or contribute to fire spread or have a detrimental effect on occupants escaping the premises.

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 1.9 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.

Low

APPENDIX

Asset Information

Client Name

Sandwell

Client Address

Sandwell Council House, Freeth Street, Oldbury B69 3DE

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

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

Portable fire extinguisher (CO2) is provided to the lift motor room.

Smoke Control

Natural smoke control, Smoke control installed

Smoke Control

The stairs and/or lobbies are provided with adequate permanent or manually operated ventilation openings for the control of smoke. Manual openable windows within the stairwell and the stairs and lobbies are provided with an automatic smoke ventilation system

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

Sprinkler system installed within bin rooms only

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

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

Public fire hydrant are available. Located by the front entrance door. Approximately 1m from the building 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

Secure Information Boxes

Secure information box (SIB) installed

Signage

Appropriate signage installed throughout premises

Property Type

Residential

Building Era / Age

Known Build Date

Known Build Date

1964

Guidance Applicable At Time Of Construction

Model Byelaws 1953

Building Height

Overall Building Height Approximately 27m
Highest Occupied Floor Level 24m
(calculated at 3m per floor as per PAS 9980-2022 section 3.1.22)

Number of Storeys (Ground and above)

9

Number of Flats

36

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

Exterior Cladding

No Exterior Cladding

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

None

Residents

Yes

Approx number of Residents

72

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

2

Number Of Final Exits

2

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

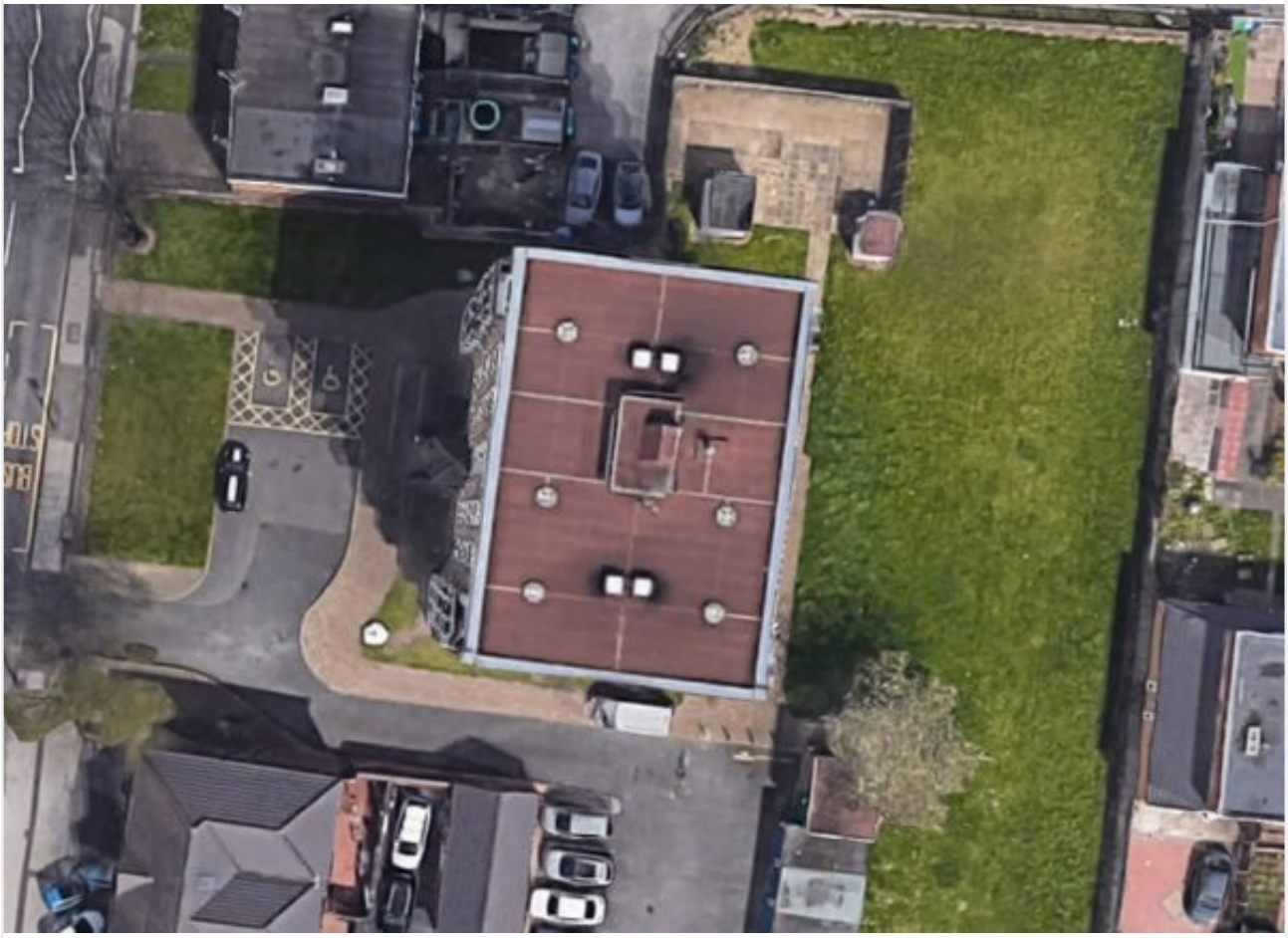
Stay Put

Current Stay Put Strategy Description

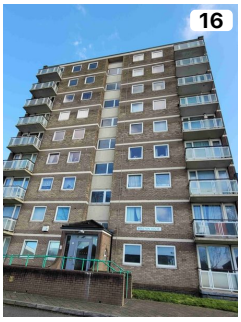
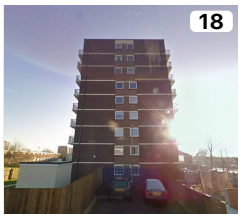
The current evacuation strategy is Stay Put as denoted by the fire action notices displayed in the common area.

Aerial Perspective: Boulton House

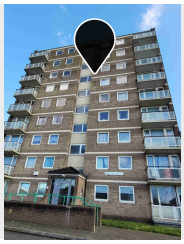
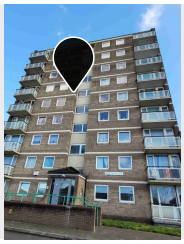
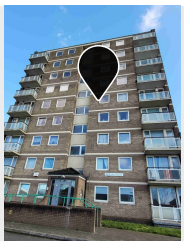
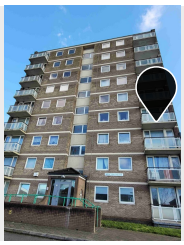
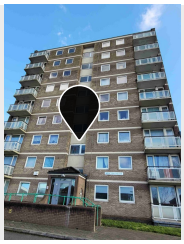
Aerial Perspective (picture sourced from Google Earth)

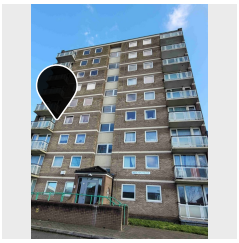
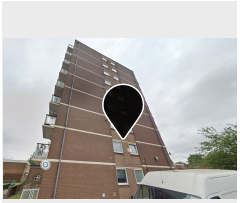
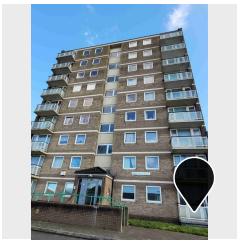
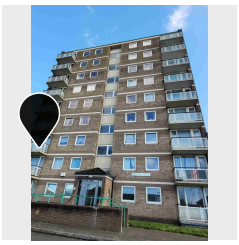


Elevations

Photo	Name	No. of Storeys	Features
	West Elevation	9 Storeys	• Escape Route Exit • Private Balconies Stacked
	South Elevation	9 Storeys	
	North Elevation	9 Storeys	
	East Elevation	9 Storeys	

Inspections

Elevation Location	Inspection	Elements
	**Inspection: T6AI81** West Elevation Compartment Floor and Wall Junction Interface	• External Surface Material (Brickwork) • Insulation (Mineral Wool Insulation) • Substrate (Original blockwork)
	**Inspection: B2QIPA** West Elevation Compartment Floor and Wall Junction Interface	• External Surface Material (Brickwork) • Insulation (Mineral Wool Insulation) • Substrate (Original blockwork)
	**Inspection: HUI2SA** West Elevation Aperture Opening	• External Surface Material (Brickwork) • Cavity • Insulation (PIR Insulation) • Substrate (Original blockwork)
	**Inspection: VMI8VA** West Elevation Balcony Inspection	No elements identified
	**Inspection: TJ6SMR** West Elevation Compartment Floor Junction	• External Surface Material (Render) • Outer leaf • Outer leaf • Cavity • Substrate (Original blockwork)

Elevation Location	Inspection	Elements
	**Inspection: Y4Z78X** West Elevation Aperture Opening	• External Surface Material (Brickwork) • Cavity • Substrate (Reinforced concrete column)
	**Inspection: X4FKDR** South Elevation Compartment Floor and Wall Junction Interface	• External Surface Material (Brickwork) • Cavity • Insulation (PIR Insulation) • Substrate (Original blockwork)
	**Inspection: 5LCNJB** South Elevation Penetration	• External Surface Material (Brickwork) • Cavity • Insulation (PIR Insulation) • Substrate (Original blockwork)
	**Inspection: 9L8E66** West Elevation Confirm presence of infill panel below glazing. If confirmed to be an Infill panel, carry out an intrusive inspection	No elements identified
	**Inspection: D58KXV** West Elevation Balcony below glazing	No elements identified

Inspection: T6AI81

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.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	20, 21	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation	22, 23	A1 - Non-Combustible
Loose fit, fully fills cavity				
Substrate		Original blockwork	24	A1 - Non-Combustible

Cavity Barriers

2 Cavity Barriers	Material	Photo Ref.
Vertical Cavity Barrier	Concrete column	25
Cavity closed at compartmentation wall		
Horizontal Cavity Barrier	Concrete	26
Cavity closed horizontally by the concrete floor slab		

Floor Slab

Reinforced concrete

Build-up Photos

20

21

22

23

24

Cavity Barrier Photos

25

26

Inspection Photos

27

28

Inspection: B2QIPA

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.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	29, 30	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation	31, 32	A1 - Non-Combustible
Loose fit, fully fills cavity				
Substrate	100mm	Original blockwork	33	A1 - Non-Combustible

Cavity Barriers

2 Cavity Barriers	Material	Photo Ref.
Vertical Cavity Barrier	Concrete	34, 35
Cavity closed at compartmentation wall		
Horizontal Cavity Barrier	Concrete	36
Cavity closed horizontally by the concrete floor slab		

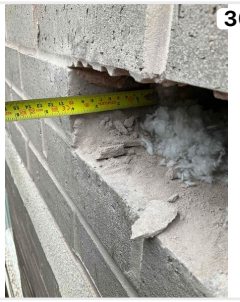
Floor Slab

Reinforced concrete

Build-up Photos

29

30



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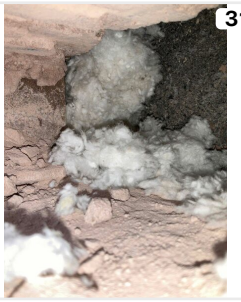


32

33

Cavity Barrier Photos

34

35

36

Inspection Photos

37

38

Inspection: HUI2SA

Elevation • Location
West 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.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	39, 40	A1 - Non-Combustible
Cavity	40mm		41	
Insulation	40mm	PIR Insulation	42, 43	F - Highly Combustible
Substrate	100mm	Original blockwork	44	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Window Aperture	Blockwork	45

Cavity closed at the window opening

Floor Slab

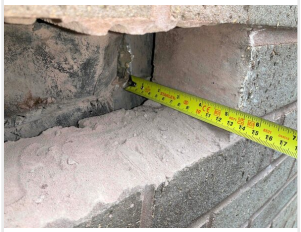
Reinforced concrete

Build-up Photos

39

40

41



42

43

44

Cavity Barrier Photos

45

Inspection Photos

46

47

Inspection: VMI8VA

Elevation • Location
West Elevation • Balcony Inspection

Name/Summary

Balcony

Description

Refer to balconies section

Inspection Photos

Inspection: TJ6SMR

Elevation • Location
West 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.

Build-Up

5 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	2mm	Render	49	A1 - Non-Combustible
Outer leaf	10mm		50	A1 - Non-Combustible

Cement dash coat

5 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	102mm		51, 52	A1 - Non-Combustible
Original brickwork				
Cavity	50mm		53	
Substrate		Original blockwork	54	A1 - Non-Combustible

Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Reinforced concrete

Build-up Photos

Inspection Photos

Inspection: Y4Z78X

Elevation • Location
West 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.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	57, 58	A1 - Non-Combustible
Cavity	20mm		59	
Substrate		Reinforced concrete column	60	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Window Aperture	Concrete	61

Cavity closed at the window opening

Floor Slab

Reinforced concrete

Build-up Photos

57

58

59

60

Cavity Barrier Photos

61

Inspection Photos

Inspection: X4FKDR

Elevation • Location
South 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.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	64	A1 - Non-Combustible
Cavity	30mm		65, 66, 67	
Insulation	30mm	PIR Insulation	68, 69	F - Highly Combustible
Substrate	100mm	Original blockwork	70	A1 - Non-Combustible

Cavity Barriers

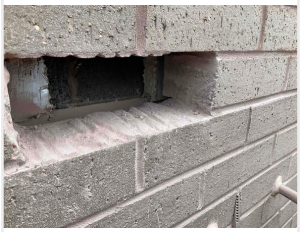
No cavity barrier identified at this inspection location

Floor Slab

Reinforced concrete

Build-up Photos

64



65

66

67

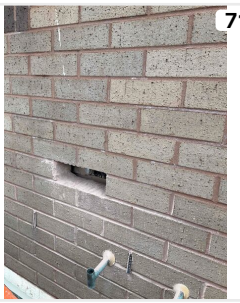
68

69

70

Inspection Photos

71



72

Inspection: 5LCNJB

Elevation • Location
South Elevation • Penetration

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.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	102mm	Brickwork	73	A1 - Non-Combustible
Cavity	150mm		74	
Insulation	40mm	PIR Insulation	75	F - Highly Combustible
Substrate		Original blockwork	76	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Concrete column	77

Cavity closed horizontally by the concrete floor slab

Floor Slab

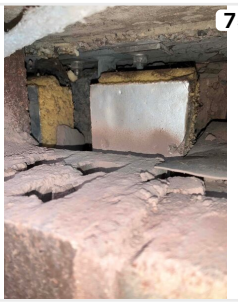
Reinforced concrete

Build-up Photos

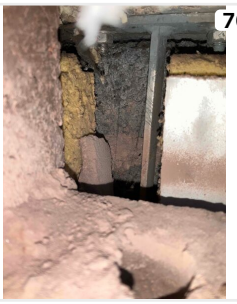
73

74

75



76



Cavity Barrier Photos

77

Inspection Photos

78

79

Inspection: 9L8E66

Elevation • Location
West Elevation • Confirm presence of infill panel below glazing.

If confirmed to be an Infill panel, carry out an intrusive inspection

Name/Summary

Infill Panel

Description

Refer to balconies section

Inspection Photos

Inspection: D58KXV

Elevation • Location
West Elevation • Balcony below glazing

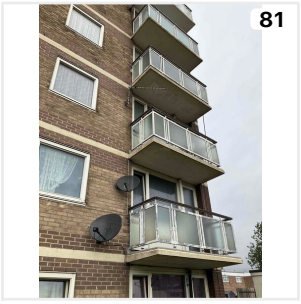
Name/Summary

Infill Panel

Description

Refer to balconies section

Inspection Photos



Attachments & Balconies

Photo	Attachment
	**Cantilever Balcony (69XVKF)** Configuration: Stacked, Single Unit Size: Private balcony spanning only a single compartment

Attachment: Cantilever Balcony

Attachment Reference
69XVKF

Details

Configuration

Stacked, Single Unit

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

Georgian wired glass

Details

Visual observations only no access to private balconies

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.

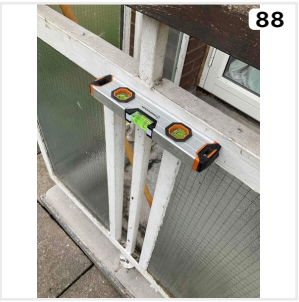
Fire Engineer Comments

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



External Windows

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

External Window: Top, Mid, Side Hung Casements

External Window Reference
WAHWXV

Details

Surface Material

uPVC

Frame Material

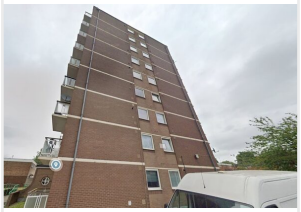
uPVC

Infill / Panel Material

Glazing

Photos

17



10

89

External Doors

Photo	External Door
	**Single Leaf Door (YMYKKY)**

External Door: Single Leaf Door

External Door Reference
YMYKKY

Details

Surface Material

Aluminium

Frame Material

Aluminium

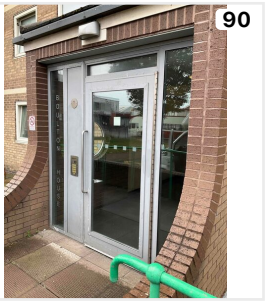
Infill / Panel Material

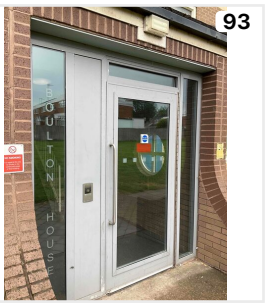
Glazing

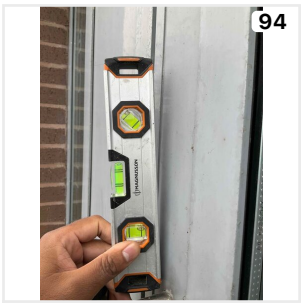
Details

Front/rear entrance/exit door

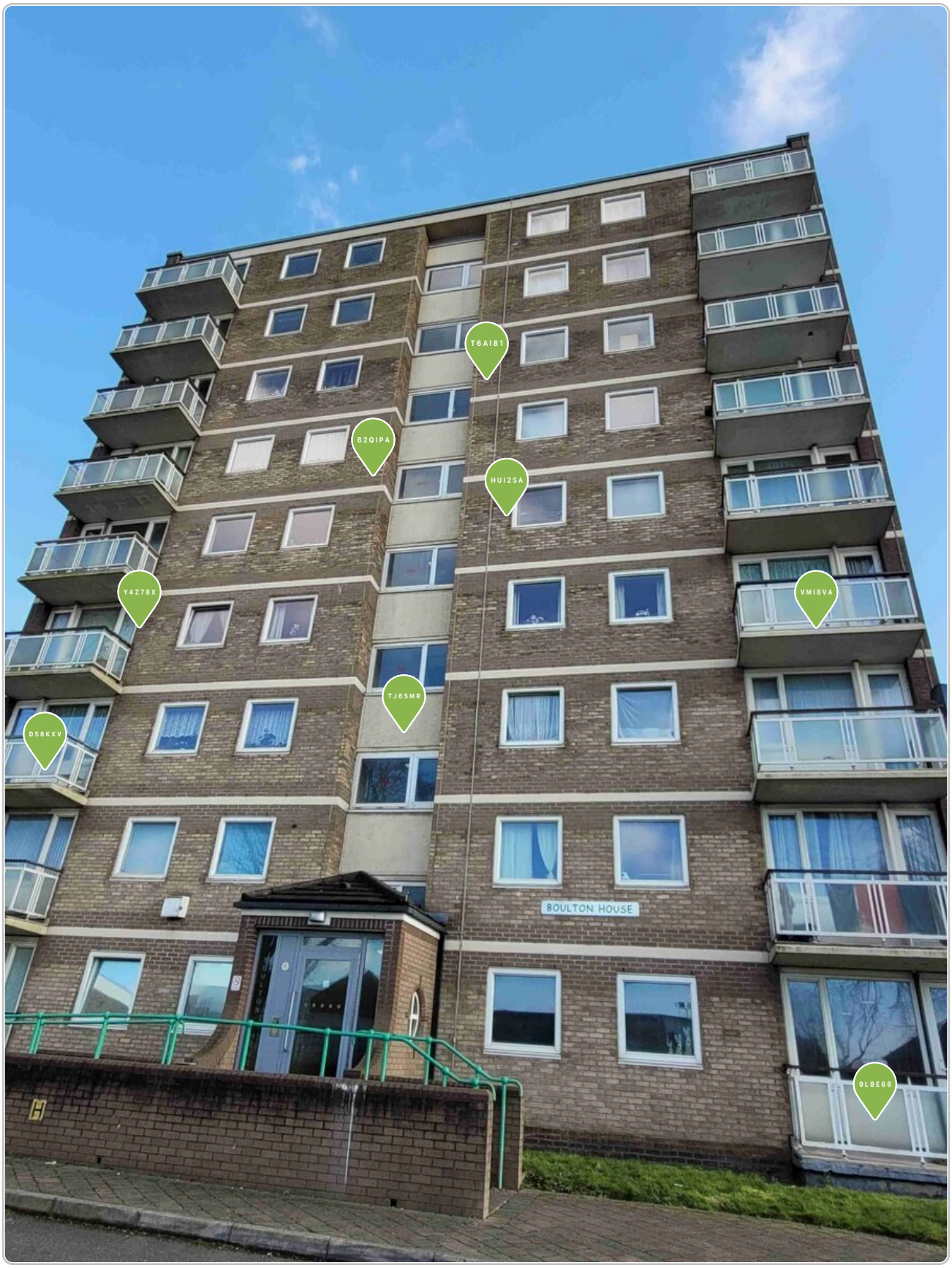
Photos



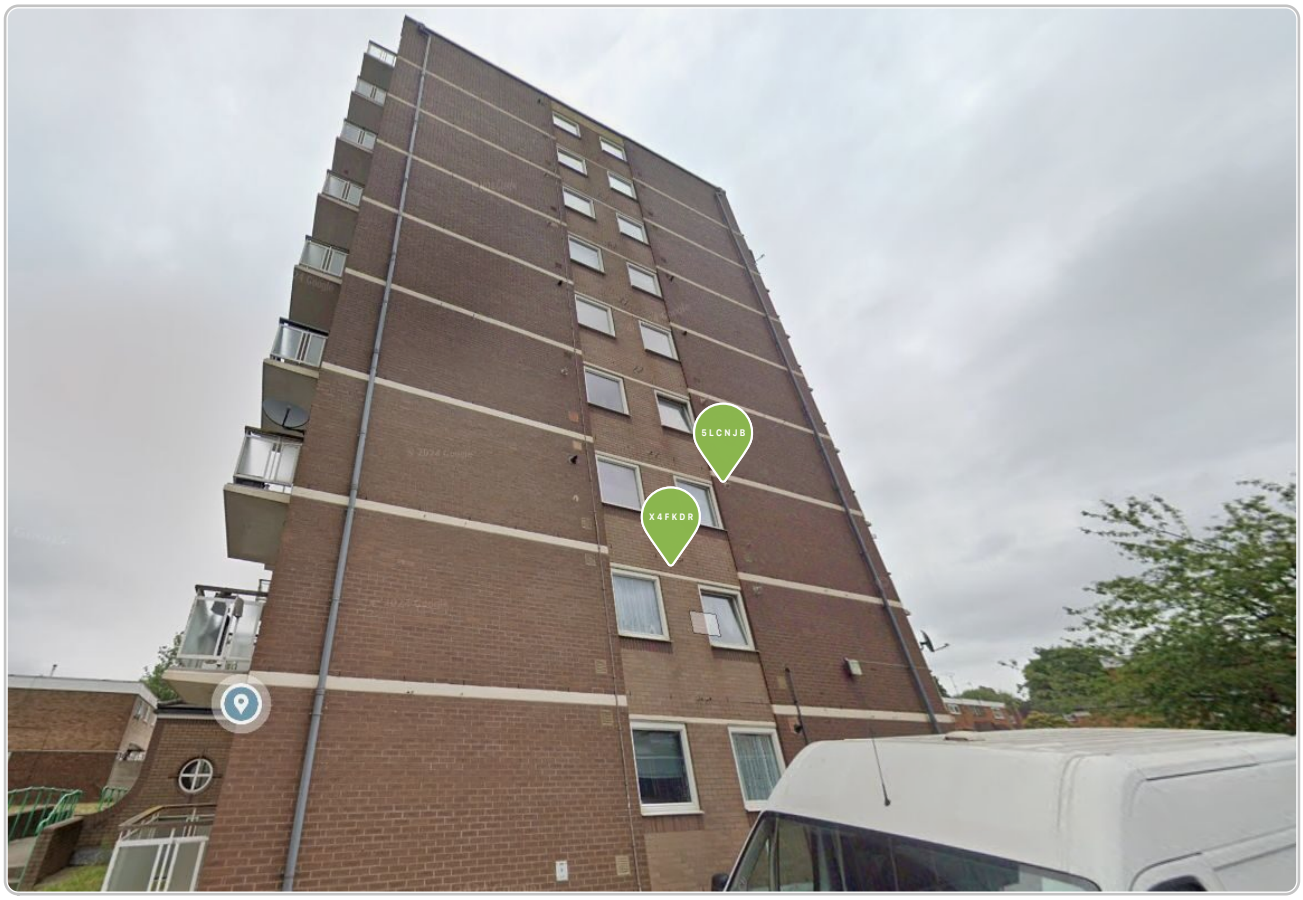




Plan: West Elevation



Plan: South Elevation



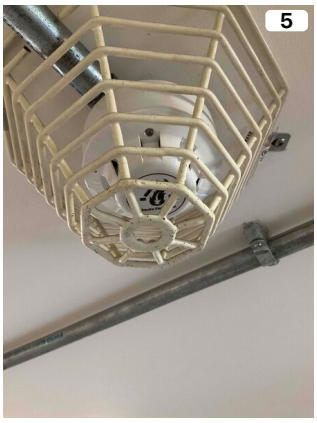
Photos


1
FIRE NOTICE
In case of fire dial:
999 or 112
Do not use lifts
Use stairs


2
BUILDING SAFETY INFORMATION
Sandwell
BOULTON HOUSE
FIRE SAFETY INFORMATION


3
FIRE NOTICE
In case of fire dial:
999 or 112
Do not use lifts
Use stairs


4
Fire exit
Fire escape


5

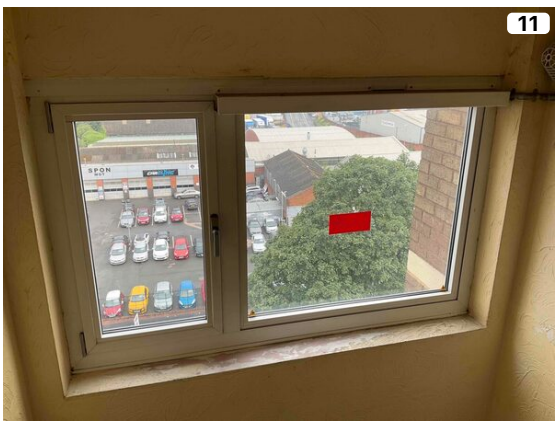

6


7


8
Exit


9


10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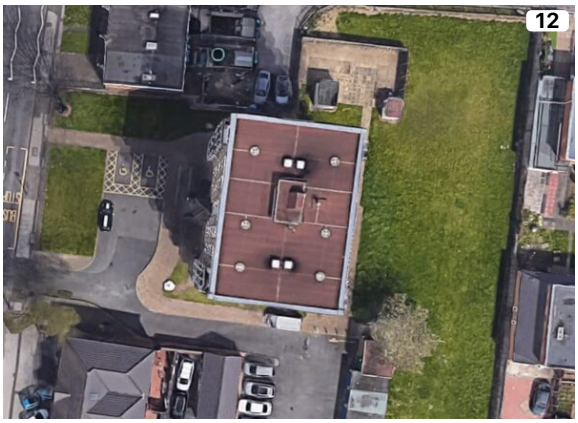
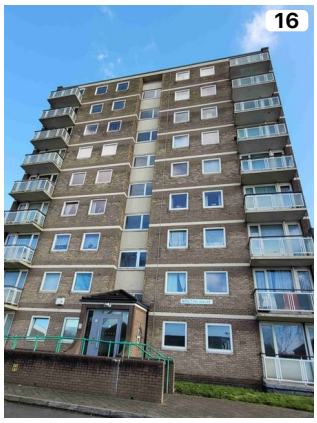
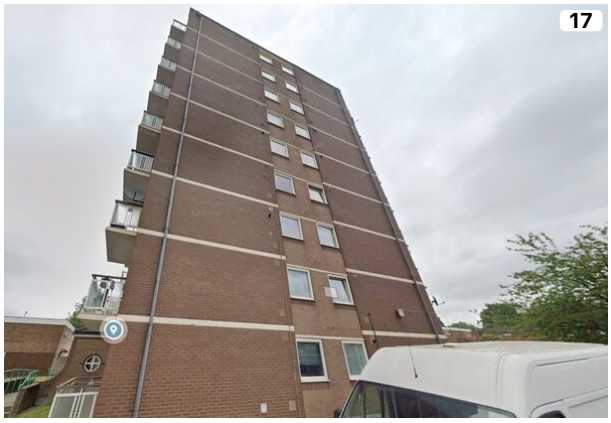
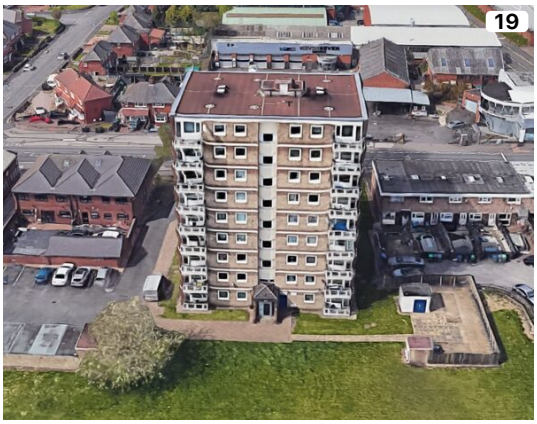
Photos Continued...



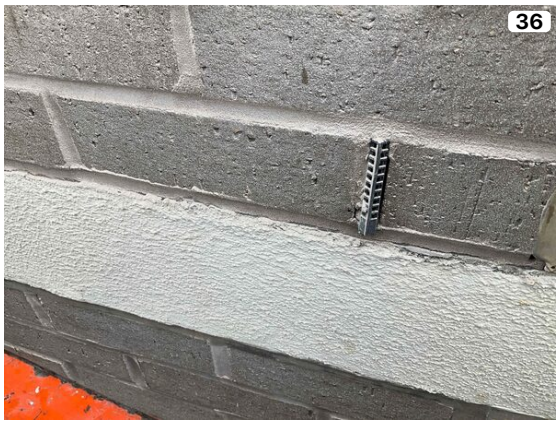






Photos Continued...

Photos Continued...



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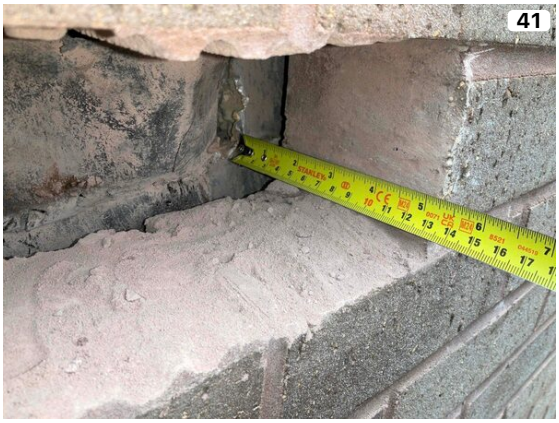

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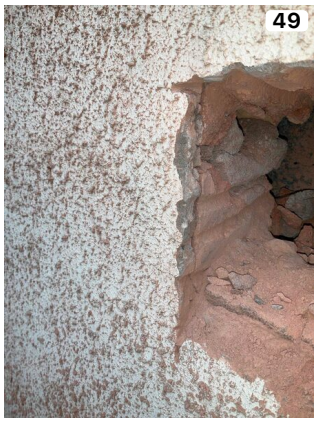

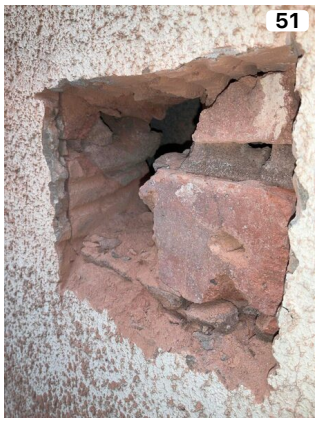

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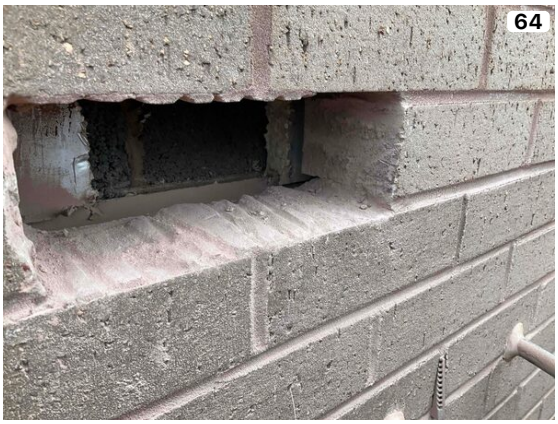

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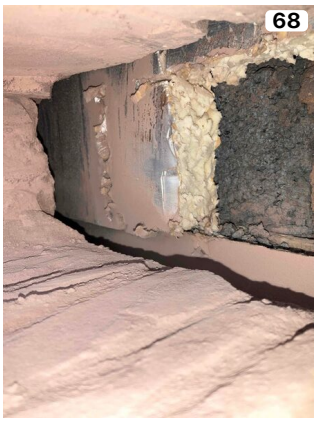

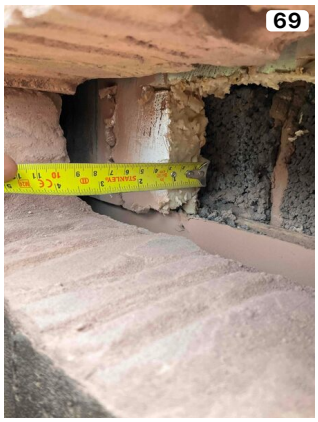

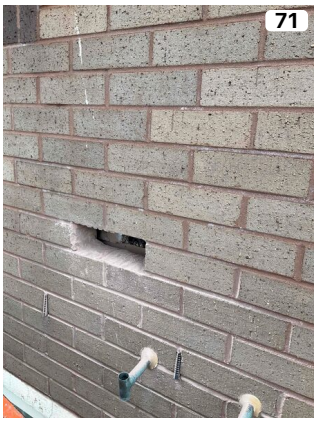

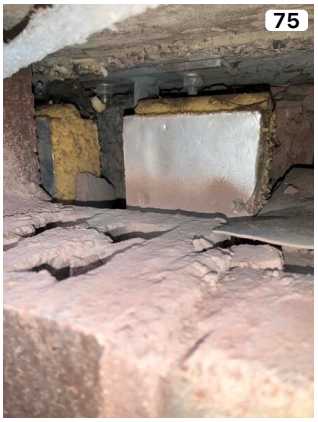

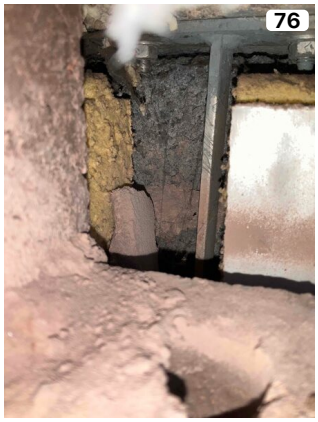

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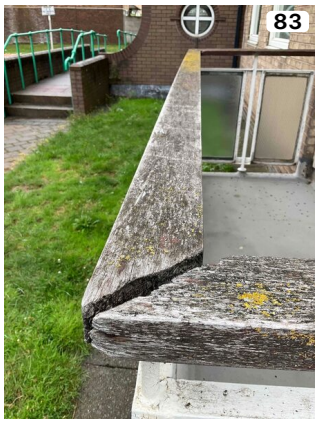

Photos Continued...

FIRNTEC

BUILDING COMPLIANCE

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