



FIRNTEC
BUILDING COMPLIANCE

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

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FIRE RISK APPRAISAL EXTERNAL WALLS

WYNDMILL CRESCENT

51-121 Wyndmill Crescent
West Brom
West Midlands
B71 3QZ

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Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference

RB-9NELGA

Assessed On, By

24/03/2025, Dean Partridge MIFireE

Recommended Review Date

24/03/2030

Produced For the Responsible Person

Sandwell Metropolitan Council

Specification Conforms To

Our own internal quality system.

Assessment Scope

Assessment applies only to the building specified.

Assessed Property

Property Name

Wyndmill Crescent

Property Reference

RB-TC2H4W

Address

51-121 Wyndmill Crescent

West Brom

West Midlands

B71 3QZ

Assessing Organisation

Firntec Ltd

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Abbreviation/ Term Definition

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

Statement of Competency

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

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

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

We confirm that they have:

- a) Read and understood the commentary and provisions relating to the competence of external wall assessors set out in Section 8 and Annex H of PAS 9980:2022;
- b) Adequate and relevant competence to undertake the FRAEW;
- c) Sufficient knowledge, skills and experience in relation to fire safety of external walls to be able to complete an assessment at the level required;
- d) The relevant skill, knowledge, and experience to manage and interpret the results of intrusive inspections; and
- e) The competence to appraise and assess the nature of external wall construction in terms of fire performance and provide an opinion on the risk.
- f) No conflicts of interest of any kind, other than any which are disclosed in the report.
- g) The conclusions of the report are the author's independent assessment of the risks and remedial actions and have not been influenced in any way by the opinions or actions of others except where stated.

Terms of Reference

Particulars

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

Limitations

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

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

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

The FRAEW report is to be reviewed:

- a) if significant changes/repairs have been made to the external wall; and/or
- b) in the event of a fire incident, if the fire involved the external wall construction; and/or
- c) if there are any circumstances, depending upon the nature of the construction, the extent of available knowledge in relation to the particular materials, components and systems used on the building or the degree of uncertainty over the findings, which suggest review is appropriate. In these cases, the report will include a clear explanation as to why periodic review is necessary and include a suggested review date."

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

Assumptions

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

- a) the extent of sampling carried out.
- b) the accuracy of information upon which it has been necessary to rely, especially where it has not been possible to verify the information through site survey and inspection.
- c) the extent of the content and detail within the report; and
- d) the limitations at the time of the FRAEW of available knowledge on the fire performance of the materials, products and systems forming the external walls of the building.

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

Statement of Intent

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

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

Supporting Documents

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

Document	Received
External wall survey (20/02/2025)	
Firntec	Received
Intrusive PAS 9980 step 1 survey	

Executive Summary

External Wall Systems and Attachments on the Building

7 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 Brick masonry (RMYEGV)	Neutral	Low
Wall Construction Render (5KB4EA)	Neutral	Low
Wall Construction Stone tile (7HFAQ3)	Neutral	Low
Attachment Inset Balcony (YEQ99G)	Neutral	Low
External Window Top, Mid, Side Hung Casements (MXNFMK)	Neutral	Low
External Door Single Leaf Entrance Doors (TKL2MD)	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 **9IAQWG** which includes wall construction **RMYEGV**.

Conclusion: The 100mm masonry brickwork in external walls offers strong fire resistance due to its non-combustible properties

and high thermal mass. Bricks are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for containing flames and preventing fire spread.

During a fire, brickwork reacts by absorbing and gradually dissipating heat, though intense, prolonged heat may cause cracking or spalling (surface breakage) due to thermal expansion. Despite these effects, the overall structure of brick masonry generally remains intact, ensuring the wall continues to act as a robust barrier against fire, heat, and smoke, which enhances its reliability in fire protection.

Beyond the external surface is an open cavity circa 120mm in depth to the outer face of the insulating layer.

The insulation was identified as 90mm mineral wool insulating slab board. The Mineral wool is viewed as A1 fire classification presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The substrate for the building is the original construction -Wates Precast reinforced concrete. These walls are supported with reinforced concrete floor slab. This presents a non-combustible element that will not aid or support the contribution to fire spread.

The wall type is a non-combustible system to first floor level, which would not contribute to significant fire spread through vertical and horizontal compartments.

The inner leaf plasterboard is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Within the inspection location on the façade no cavity barriers were identified horizontally or vertically.

It was noted that the masonry external surface material formed a return within the cavity where window apertures were located which would assist in preventing any fire spread breaching apertures into the cavity as well as preventing the free flow of air to assist in pyrolysis.

We have considered this external wall type against benchmark L7.

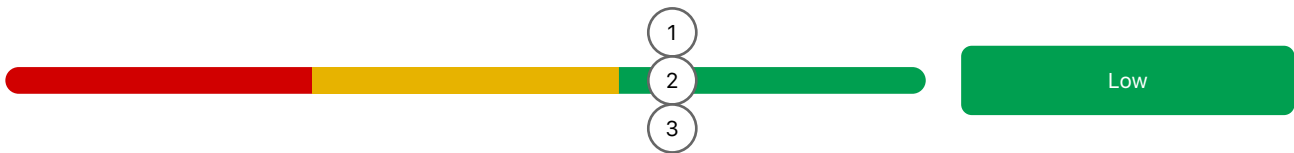
This external wall type extends across the ground floor to first floor level areas of the buildings envelope and given the sample locations.

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

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.

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

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Risk Factor Analysis 2

This analysis looks at façade configuration **7IBXQE** which includes wall construction **5KB4EA**.

Conclusion: A Structherm insulated mineral wool render ETICs system has been applied to sections of elevations. The applied render is 9mm thick with A2 fire classification. Cavity is full filled with the insulation was identified as 90mm mineral wool insulating slab board. The Mineral wool is viewed as A1 fire classification presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

System is affixed to the A1 non-combustible substrate. Possibly using a sheathing board which has been included within this wall type.

The substrate for the building is the original construction -Wates Precast reinforced concrete. These walls are supported with reinforced concrete floor slab. This presents a non-combustible element that will not aid or support the contribution to fire spread.

The inner leaf plasterboard is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Within the inspection location the cavities were fully filled, tightly packed with the mineral wool slab board.

It was noted that the masonry external surface material formed a return within the cavity where window apertures were located which would assist in preventing any fire spread breaching apertures into the cavity as well as preventing the free flow of air to assist in pyrolysis.

The attached balconies are reinforced concrete framework extension of the floor slab.

The slabs surface decking material is concrete which is non-combustible in there nature and are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for preventing fire spread. Handrail and balustrade materials are non-combustible.

Whilst the open balconies are stacked, they are open with a concrete soffit that is imperforate and will allow for smoke and fire to be contained to reduce rapid fire spread vertically up the building.

The glazing to the balconies likely incorporates a combustible polyvinyl butyral (PVB) interlayer, this is not considered to be a significant risk when taken in context of the large amount of glazing within the building façade however it is recommended that the balconies are managed to reduce the fire load and avoid higher risk activities such as BBQ's where possible.

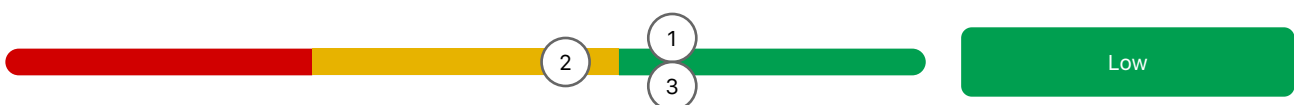
We have considered this external wall type against benchmark L10.

This external wall type extends vertically from the ground floor to first floor at two elevations on the buildings envelope and given the sample locations, the wall type is flanked either side be other non combustible wall types. In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.

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

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Risk Factor Analysis 3

This analysis looks at façade configuration **ATVIYY** which includes wall construction **7HFAQ3**.

Conclusion: The external surface material is formed with a 20mm Moedling lockclad stone tile. The tile is viewed as presenting an A1 non-combustible product, This means this product will not ignite as such this poses a low risk to the

contribution of fire and external fire spread.

The tile construction is formed using a natural and organic material that has been shaped and kiln baked, this process is in excess of 1000°C. As such this façade material is considered not to contribute or aid in the development of fire spread across the envelop of the building.

The tiles are mechanically fixed to the building on a non combustible steel framing system.

Behind the tile is a 1mm breather membrane.

The membrane has been considered to be highly combustible within the external wall types construction (Class E), but due to the thickness and location within the system in the event of any ignition, it is assumed this would shrink when in contact with heat and fire and not have enough kinetic energy to ignite other combustible elements within the system.

Beyond the framing system and beyond the surface is a filled 120mm cavity. Insulation is provided by 100mm rockwool/rockwool slab ahead of the support backing wall which is affixed to the substrate.

The Mineral wool insulating layer is viewed as presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The substrate for the building is the original construction - reinforced concrete. These walls are supported with reinforced concrete floor slab. This presents a non-combustible element that will not aid or support the contribution to fire spread.

The inner leaf plasterboard is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Within the inspection location the cavities were fully filled, tightly packed with the mineral wool slab board.

We have considered this external wall type against benchmark L9.

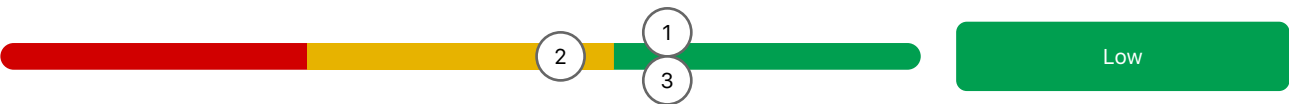
This external wall type is present on all elevations in sections with non-combustible spandrel sections present below windows on the east elevation.

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

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.

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

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Overall Building Risk Rating



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

Recommended Remediations

No recommended remediations identified.

Recommended Interim Measures

No recommended interim measures identified.

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

Neutral

F.3 Escape Route Design

Extended travel distances ≤ 15 m (with supporting smoke control)

Neutral

F.4 Compartmentation

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

Neutral

F.5 Smoke Control

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

Neutral

F.6 Fire Alarm & Detection

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

Neutral

F.7 Fire Suppression

A suppression system is installed in high risk areas such as the refuse/bin store.

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.

Neutral

F.9 Rising Mains

Suitable rising main present

Neutral

F.10 Lifts Used By Firefighters

Absence of firefighting lift in buildings above 18 m

Negative

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	480 Seconds	8 Minutes
Arrival Protocol And Entry Preparation Time	180 Seconds	3 Minutes
Firefighting Travel In Firefighting Lift	270 Seconds	4 Minutes 30 Seconds
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	1,535 Seconds	25 Minutes 35 Seconds

Nearest Fire Station

West Bromwich Fire Station which is 2 miles away

Wall Constructions

Wall Construction	Build-up
Brick masonry (RMYEGV)	• Surface Finish (Brick masonry) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Concrete brickwork)
Render (5KB4EA)	• Surface Finish (Sto render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Concrete wall)
Stone tile (7HFAQ3)	• Surface Finish (Stone tile) • Breather Membrane • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Concrete wall)

Wall Construction: Brick masonry

Construction Reference
RMYEGV

This wall construction was identified by wall inspection L9V1L6. The build-up, cavity barrier, and floor slab information is taken directly from inspection L9V1L6. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Brick masonry (RMYEGV)	Neutral	Low

Build-Up

4 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	100mm	Brick masonry	A1 - Non-Combustible
Cavity	30mm		
Insulation	90mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete brickwork	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Solid State Mineral Wool

Floor Slab

Backing Wall Sits On The Floor Slab

Fire Performance

K.1 General

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

Positive

K.2 External Surfaces

Class A1

Positive

K.3 Facings/Cladding Panels

Low HRR

Positive

K.4 Panel Construction

Not Applicable

K.5 Cavities

Cavities closed by barriers/fire stopping located in line with all of the following:

- compartment floors;
- compartment walls;
- around openings, e.g. windows, doors; and
- ventilation ducts, grilles and other openings for services

Neutral

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 find a cladding system with the configuration and components that would constitute an exact match to what our inspections found installed on the Property.

Wall Construction: Render

Construction Reference
5KB4EA

This wall construction was identified by wall inspections XQ1WFL and TJ8BWH. The build-up, cavity barrier, and floor slab information is taken directly from inspection XQ1WFL. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Render (5KB4EA)	Neutral	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	9mm	Sto render	A1 - Non-Combustible
Insulation	90mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Solid State Mineral Wool

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

Positive

K.3 Facings/Cladding Panels

Low HRR

Positive

K.4 Panel Construction

Not Applicable

K.5 Cavities

Cavities closed by barriers/fire stopping located in line with all of the following:

- compartment floors;
- compartment walls;
- around openings, e.g. windows, doors; and
- ventilation ducts, grilles and other openings for services

Positive

K.6 Insulation

Mineral/glass insulation

Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

K.8 Sheathing Boards

Not Applicable

K.9 Insulated Core Panels

Not Applicable

K.10 ETICS

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

Positive

K.11 Infill / Spandrel Panels

Not Applicable

K.12 Internal Finishes

Plasterboard

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

Neutral

PAS Standard Benchmark

L10 Benchmark

ETICS -

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

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

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

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

BR135 Benchmark

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

Wall Construction: Stone tile

Construction Reference
7HFAQ3

This wall construction was identified by wall inspections PIAD94, QYRD3D, and HTH9JA. The build-up, cavity barrier, and floor slab information is taken directly from inspection PIAD94. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Stone tile (7HFAQ3)	Neutral	Low

Build-Up

5 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	20mm	Stone tile	A1 - Non-Combustible
Breather Membrane	1mm		E - Highly Combustible
Cavity	30mm		
Insulation	90mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Solid State Mineral Wool

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

Positive

K.3 Facings/Cladding Panels

Low HRR

Positive

Mechanically fixed

Positive

K.4 Panel Construction

Limited size of gaps between panels (Typically < 10 mm)

Neutral

K.5 Cavities

Cavities closed by barriers/fire stopping located in line with all of the following:

- compartment floors;
- compartment walls;
- around openings, e.g. windows, doors; and
- ventilation ducts, grilles and other openings for services

Neutral

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

Stone faced, with Class A1/A2 core

Positive

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

L9 Benchmark

NON-COMBUSTIBLE and LIMITED COMBUSTIBILITY MATERIALS -

These materials can be subdivided into two categories; those which retain their shape when exposed to fire and those which do not.

- Natural stone, terracotta and non-combustible boards all generally remain in situ for a significant period of time when exposed to a fire plume emitting from a building (though they might eventually shatter), thus affording some protection to the underlying construction.
- Metals, depending upon their softening/melting temperature, might remain in situ or might soften, melt, or even rapidly oxidize, exposing the underlying construction to fire.

BR135 Benchmark

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

Façade Configuration: 9IAQWG

Items in Façade

3 Items	Effect	Risk
Wall Construction Brick masonry (RMYEGV)	Neutral	Low
External Door Single Leaf Entrance Doors (TKL2MD)	Neutral	Low
External Window Top, Mid, Side Hung Casements (MXNFMK)	Neutral	Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

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

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

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

N.3 Extent of Cladding

Limited in extent and not vertically aligned, such as to delay significantly fire spread to windows and other openings on upper levels	Positive
--	----------

N.4 Cavities & Openings

Cavity limited in extent and running horizontally only	Neutral
--	---------

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

Neutral

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

Not Applicable

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

No combustible elements

Neutral

N.11 Attachments

Not Applicable

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

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

Neutral

Risk Factor Analysis

Conclusion: The 100mm masonry brickwork in external walls offers strong fire resistance due to its non-combustible properties

and high thermal mass. Bricks are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for containing flames and preventing fire spread.

During a fire, brickwork reacts by absorbing and gradually dissipating heat, though intense, prolonged heat may cause cracking or spalling (surface breakage) due to thermal expansion. Despite these effects, the overall structure of brick masonry generally remains intact, ensuring the wall continues to act as a robust barrier against fire, heat, and smoke, which enhances its reliability in fire protection.

Beyond the external surface is an open cavity circa 120mm in depth to the outer face of the insulating layer.

The insulation was identified as 90mm mineral wool insulating slab board. The Mineral wool is viewed as A1 fire classification presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The substrate for the building is the original construction -Wates Precast reinforced concrete. These walls are supported with reinforced concrete floor slab. This presents a non-combustible element that will not aid or support the contribution to fire spread.

The wall type is a non-combustible system to first floor level, which would not contribute to significant fire spread through vertical and horizontal compartments.

The inner leaf plasterboard is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Within the inspection location on the façade no cavity barriers were identified horizontally or vertically.

It was noted that the masonry external surface material formed a return within the cavity where window apertures were located which would assist in preventing any fire spread breaching apertures into the cavity as well as preventing the free flow of air to assist in pyrolysis.

We have considered this external wall type against benchmark L7.

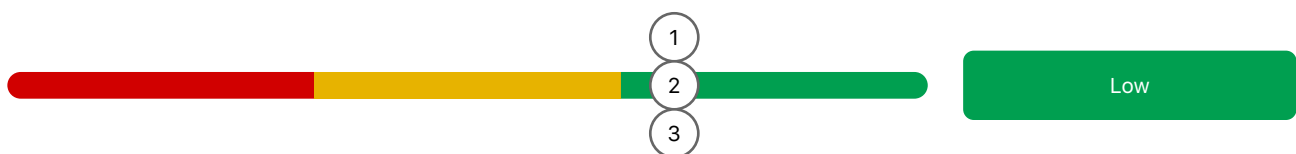
This external wall type extends across the ground floor to first floor level areas of the buildings envelope and given the sample locations.

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

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.

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

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Façade Configuration: 7IBXQE

Items in Façade

4 Items

	Effect	Risk
Wall Construction Render (5KB4EA)	Neutral	Low
Attachment Inset Balcony (YEQ99G)	Neutral	Low
External Door Single Leaf Entrance Doors (TKL2MD)	Neutral	Low
External Window Top, Mid, Side Hung Casements (MXNFMK)	Neutral	Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding 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 accidentally 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 limited in extent and running vertically, closed by construction.

Neutral

N.5 Infill / Spandrel Panels

Not Applicable

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

Not Applicable

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

Horizontally adjacent to windows and openings, and vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is highly likely

Negative

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

Not Applicable

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

No combustible elements

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: A Structherm insulated mineral wool render ETICs system has been applied to sections of elevations. The applied render is 9mm thick with A2 fire classification. Cavity is full filled with the insulation was identified as 90mm mineral wool insulating slab board. The Mineral wool is viewed as A1 fire classification presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

System is affixed to the A1 non-combustible substrate. Possibly using a sheathing board which has been included within this wall type.

The substrate for the building is the original construction -Wates Precast reinforced concrete. These walls are supported with reinforced concrete floor slab. This presents a non-combustible element that will not aid or support the contribution to fire spread.

The inner leaf plasterboard is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Within the inspection location the cavities were fully filled, tightly packed with the mineral wool slab board.

It was noted that the masonry external surface material formed a return within the cavity where window apertures were located which would assist in preventing any fire spread breaching apertures into the cavity as well as preventing the free flow of air to assist in pyrolysis.

The attached balconies are reinforced concrete framework extension of the floor slab.

The slabs surface decking material is concrete which is non-combustible in there nature and are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for preventing fire spread. Handrail and balustrade materials are non-combustible.

Whilst the open balconies are stacked, they are open with a concrete soffit that is imperforate and will allow for smoke and fire to be contained to reduce rapid fire spread vertically up the building.

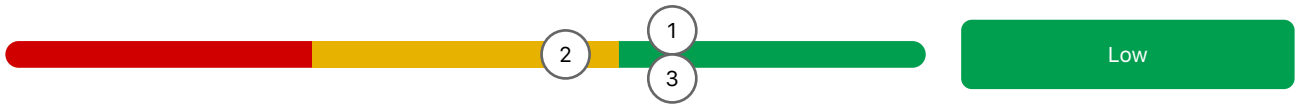
The glazing to the balconies likely incorporates a combustible polyvinyl butyral (PVB) interlayer, this is not considered to be a significant risk when taken in context of the large amount of glazing within the building façade however it is recommended that the balconies are managed to reduce the fire load and avoid higher risk activities such as BBQ's where possible.

We have considered this external wall type against benchmark L10.

This external wall type extends vertically from the ground floor to first floor at two elevations on the buildings envelope and given the sample locations, the wall type is flanked either side be other non combustible wall types. In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

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

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Façade Configuration: ATVIYY

Items in Façade

2 Items	Effect	Risk
Wall Construction Stone tile (7HFAQ3)	Neutral	Low
External Window Top, Mid, Side Hung Casements (MXNFMK)	Neutral	Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding 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 accidentally 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 limited in extent and running vertically, closed by construction.	Neutral
--	---------

N.5 Infill / Spandrel Panels

In a vertical continuous line with windows such as to increase the likelihood of secondary fires

Negative

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

Not Applicable

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

Horizontally adjacent to windows and openings, and vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is highly likely

Negative

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

Not Applicable

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

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

Positive

N.11 Attachments

Not Applicable

Risk Factor Analysis

Conclusion: The external surface material is formed with a 20mm Moedling lockclad stone tile. The tile is viewed as presenting an A1 non-combustible product, This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The tile construction is formed using a natural and organic material that has been shaped and kiln baked,

this process is in excess of 1000°C. As such this façade material is considered not to contribute or aid in the development of fire spread across the envelope of the building.
The tiles are mechanically fixed to the building on a non-combustible steel framing system.
Behind the tile is a 1mm breather membrane.
The membrane has been considered to be highly combustible within the external wall types construction (Class E), but due to the thickness and location within the system in the event of any ignition, it is assumed this would shrink when in contact with heat and fire and not have enough kinetic energy to ignite other combustible elements within the system.

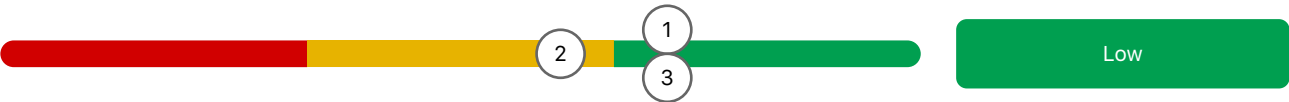
Beyond the framing system and beyond the surface is a filled 120mm cavity. Insulation is provided by 100mm rockwool/rockwool slab ahead of the support backing wall which is affixed to the substrate.
The Mineral wool insulating layer is viewed as presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The substrate for the building is the original construction - reinforced concrete. These walls are supported with reinforced concrete floor slab. This presents a non-combustible element that will not aid or support the contribution to fire spread.

The inner leaf plasterboard is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.
Within the inspection location the cavities were fully filled, tightly packed with the mineral wool slab board.
We have considered this external wall type against benchmark L9.
This external wall type is present on all elevations in sections with non-combustible spandrel sections present below windows on the east elevation.

In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or
a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



APPENDIX

Asset Information

Client Name

Sandwell Metropolitan Council

Responsible Person

Sandwell Metropolitan Council

Contact Details

0121 569 0162 - Lisa Ellis

Fire Alarm System

There is no BS5839 (Part 6 or Part 1) Fire detection/alarm system provided in the common areas of the building. The smoke detection provided is part of the smoke ventilation system. Smoke vents have their own control panels located within the riser cupboards.

Emergency Lighting

Installed in communal parts

Emergency Lighting

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

Portable Fire Fighting Equipment

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

Portable Fire Fighting Equipment

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

Smoke Control

Natural smoke control, Smoke control 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

A suppression system is installed in high risk areas such as the refuse/bin store.

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

Hydrant is located next to approach road opposite the main entrance/main access point. Information for services is in the PIB.

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

1963

Guidance Applicable At Time Of Construction

CP3: Chapter IV: Part 1 (1962)

Building Height

Approximately 24m to the highest occupied floor level. (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

Structural Floor Material

Reinforced Concrete

Structural Stairs Material

Concrete

Construction (Details)

Traditional concrete frame and brick construction

Exterior Cladding

FRAEW Completed on Exterior Cladding

Exterior Cladding (Details)

Structherm insulated mineral wool render (A2), Moedling tiles (A1), Brick

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

Day staff

Employees (Extended)

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

Residents

Yes

Approx number of Residents

72

Residents (Extended)

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

Visitors

Day

Visitors (Extended)

Residential block - low number of visitors expected at any one time

People With Reduced Mobility

None

People with Reduced Mobility (Extended)

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

Lone Workers

None

Young Persons Employed in the Premises

None

Escapes & Exits

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

Number Of Internal Escape Stairs

2

Number Of Final Exits

2

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger

Evacuation Chairs Installed

No

Stairwells Protected / Lobbied

Yes

Flat Doors Open Onto Stairs

No

Current Evacuation Strategy

Stay Put

Current Stay Put Strategy Description

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

Current Evacuation Strategy for the property considered appropriate?

Yes

Description

The premises is purpose-built with an adequate standard of compartmentation. The current Stay Put evacuation strategy is considered appropriate.

What is the recommended evacuation strategy for the property?

Stay Put

Aerial Perspective: WYNDMILL CRESCENT

Aerial Perspective (picture sourced from Google Earth)



Elevations

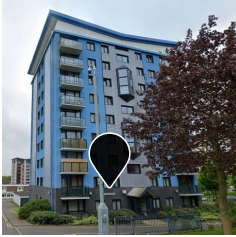
Photo	Name	No. of Storeys	Features
	NORTH	10 Storeys	
	SOUTH	10 Storeys	
	EAST	10 Storeys	• Private Balconies Stacked
	WEST	10 Storeys	• Private Balconies Stacked

Inspections

Elevation Location

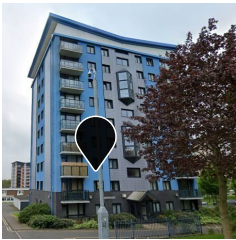
Inspection

Elements



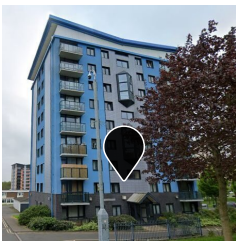
Inspection: L9V1L6
EAST
FLOOR SLAB TO FIRST FLOOR

- Surface Finish (Brick masonry)
- Cavity
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete brickwork)



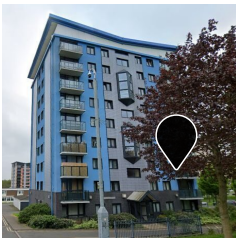
Inspection: XQ1WFL
EAST
JUNCTION WITH OTHER FACADE TYPES

- Surface Finish (Sto render)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete wall)



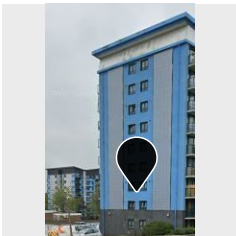
Inspection: PIAD94
EAST
JUNCTION WITH OTHER FACADE TYPES

- Surface Finish (Stone tile)
- Breather Membrane
- Cavity
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete wall)



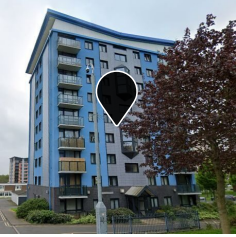
Inspection: QYRD3D
EAST
SECTION TO STAIRWELL

- Surface Finish (Stone tile)
- Breather Membrane
- Cavity
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Brickwork masonry)



Inspection: TJ8BWH
NORTH
JUNCTION - VERTICAL AND HORIZONTAL
COMPARTMENT

- Surface Finish (Sto render)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete wall)

Elevation Location	Inspection	Elements
	Inspection: HTH9JA EAST JUNCTION WITH OTHER FACADE TYPES	• Surface Finish (Stone tile) • Breather Membrane • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original blockwork)
	Inspection: LBJM3B Concrete wall	• Surface Finish (Plasterboard) • Other (Plywood board) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Concrete wall)

Inspection: L9V1L6

Elevation • Location
EAST • FLOOR SLAB TO FIRST FLOOR



Name/Summary

BRICKWORK - EAST ELEVATION

Proposed Inspection

Cut out 3/4 bricks to expose construction behind.
Inspect the construction, cavity, insulation, junction with compartment floor slab, junction at compartment wall and window opening.
Replace any insulation removed with new.
Replace bricks with existing or new as required and mortar. We will match existing bricks and mortar as best as possible but cannot guarantee a perfect match. Access provided by lorry mounted cherry picker 21m height capacity by Firntec.

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	100mm	Brick masonry	5, 6	A1 - Non-Combustible
Cavity	30mm		7, 8	
Insulation	90mm	Mineral Wool Insulation	9, 10	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete brickwork	11, 12	A1 - Non-Combustible

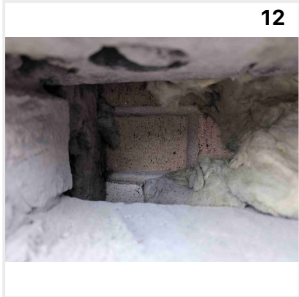
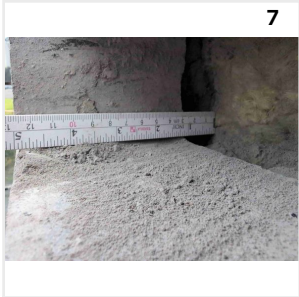
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Backing Wall Sits On The Floor Slab

Build-up Photos



Inspection: XQ1WFL

Elevation • Location
EAST • JUNCTION WITH OTHER FACADE TYPES



Name/Summary

RENDER SYSTEM - EAST ELEVATION

Proposed Inspection

- Panel Inspection options
1. Remove panel if possible or conduct a core hole removal of external surface material
Assess material making up the wall type
Reinstate to a weathertight condition
 2. If panel cannot be removed. Cut a 250mm core hole
Assess material making up the wall type
Reinstate to a weathertight condition
 3. If access is restricted externally-From internal-
Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.
Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening
Replace any insulation removed with new
Replace plasterboard with existing / new as required fixing to a timber batten
Redecoration by the Building Management

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Sto render	13, 14	A1 - Non-Combustible
Insulation	90mm	Mineral Wool Insulation	15, 16	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	17, 18	A1 - Non-Combustible

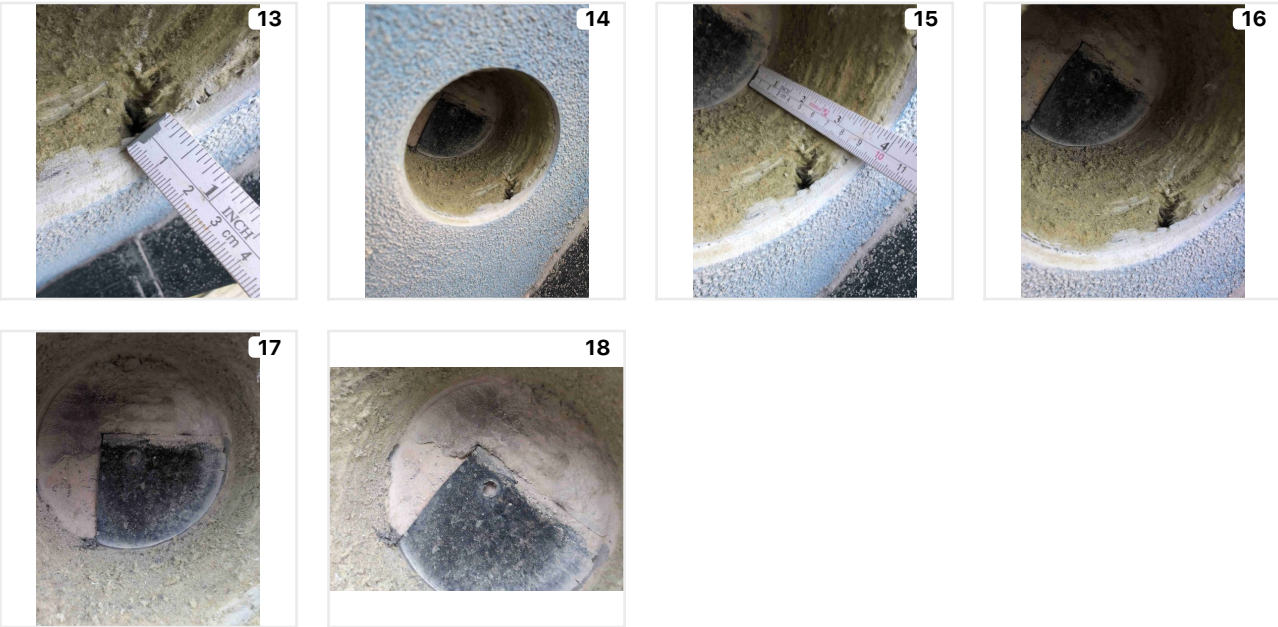
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



Inspection: PIAD94

Elevation • Location
EAST • JUNCTION WITH OTHER FACADE TYPES



Name/Summary

PANEL SYSTEM - EAST ELEVATION

Proposed Inspection

- Panel Inspection options
1. Remove panel if possible or conduct a core hole removal of external surface material
Assess material making up the wall type
Reinstate to a weathertight condition
 2. If panel cannot be removed. Cut a 250mm core hole
Assess material making up the wall type
Reinstate to a weathertight condition
 3. If access is restricted externally-From internal-
Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.
Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening
Replace any insulation removed with new
Replace plasterboard with existing / new as required fixing to a timber batten
Redecoration by the Building Management

Build-Up

5 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	20mm	Stone tile	19, 20	A1 - Non-Combustible
Breather Membrane	1mm		21, 22	E - Highly Combustible
Cavity	30mm		23, 24, 25	
Insulation	90mm	Mineral Wool Insulation	26, 27	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	28, 29	A1 - Non-Combustible

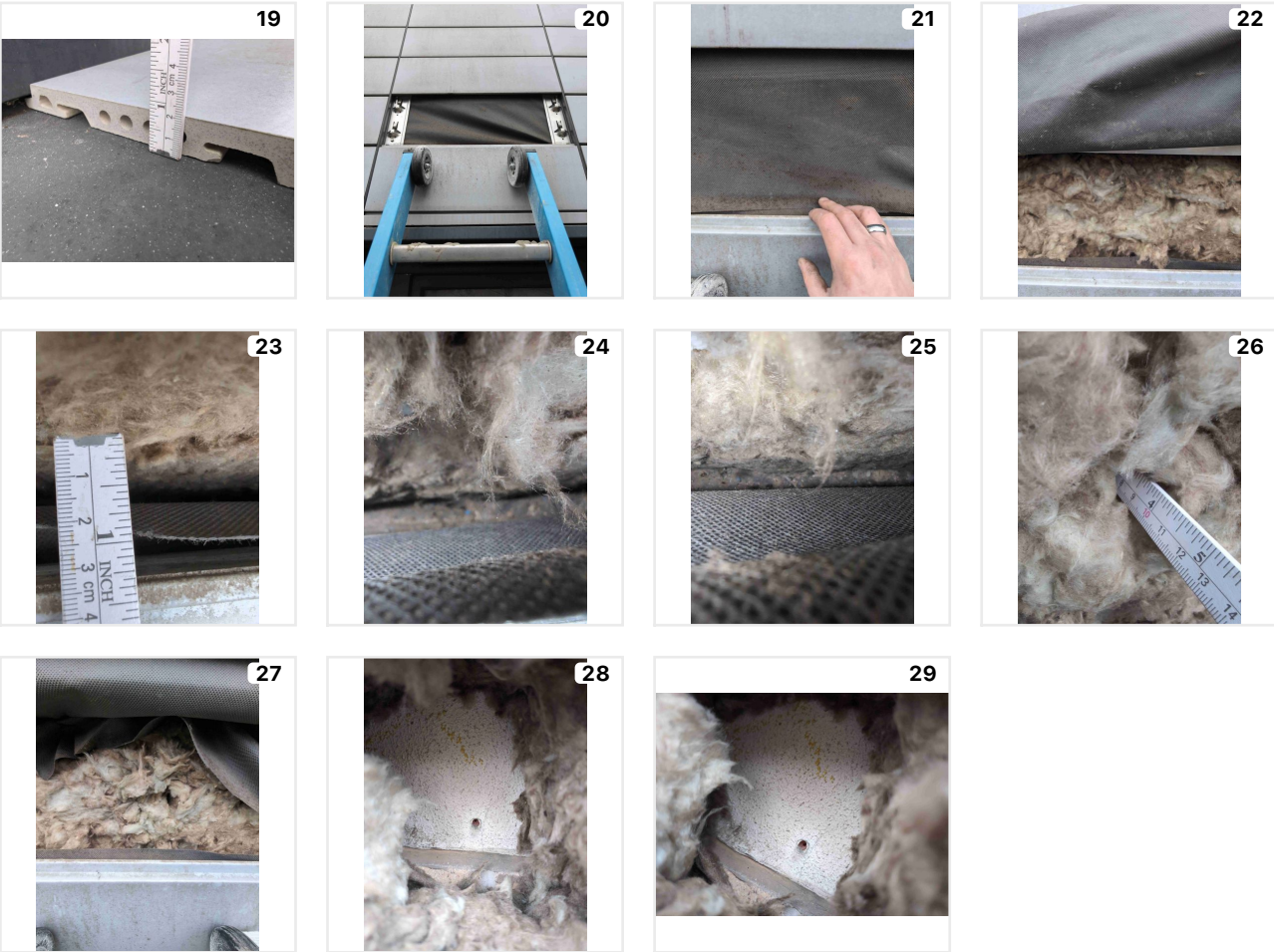
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



Inspection: QYRD3D

Elevation • Location
EAST • SECTION TO STAIRWELL



Name/Summary

PANEL SYSTEM - EAST ELEVATION

Proposed Inspection

- Panel Inspection options
1. Remove panel if possible or conduct a core hole removal of external surface material
Assess material making up the wall type
Reinstate to a weathertight condition
 2. If panel cannot be removed. Cut a 250mm core hole
Assess material making up the wall type
Reinstate to a weathertight condition
 3. If access is restricted externally-From internal-
Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.
Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening
Replace any insulation removed with new
Replace plasterboard with existing / new as required fixing to a timber batten
Redecoration by the Building Management

Build-Up

5 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	20mm	Stone tile	30, 31	A1 - Non-Combustible
Breather Membrane	1mm		32, 33	E - Highly Combustible
Cavity	60mm		34, 35, 36	
Insulation	90mm	Mineral Wool Insulation	37, 38	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Brickwork masonry	39, 40	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Backing Wall Sits On The Floor Slab

Build-up Photos



Inspection: TJ8BWH

Elevation • Location
NORTH • JUNCTION - VERTICAL AND HORIZONTAL COMPARTMENT



Name/Summary

RENDER SYSTEM - NORTH ELEVATION

Proposed Inspection

- Panel Inspection options
1. Remove panel if possible or conduct a core hole removal of external surface material
Assess material making up the wall type
Reinstate to a weathertight condition
 2. If panel cannot be removed. Cut a 250mm core hole
Assess material making up the wall type
Reinstate to a weathertight condition
 3. If access is restricted externally-From internal-
Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.
Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening
Replace any insulation removed with new
Replace plasterboard with existing / new as required fixing to a timber batten
Redecoration by the Building Management

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Sto render	41, 42	A1 - Non-Combustible
Insulation	90mm	Mineral Wool Insulation	43, 44	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	45, 46	A1 - Non-Combustible

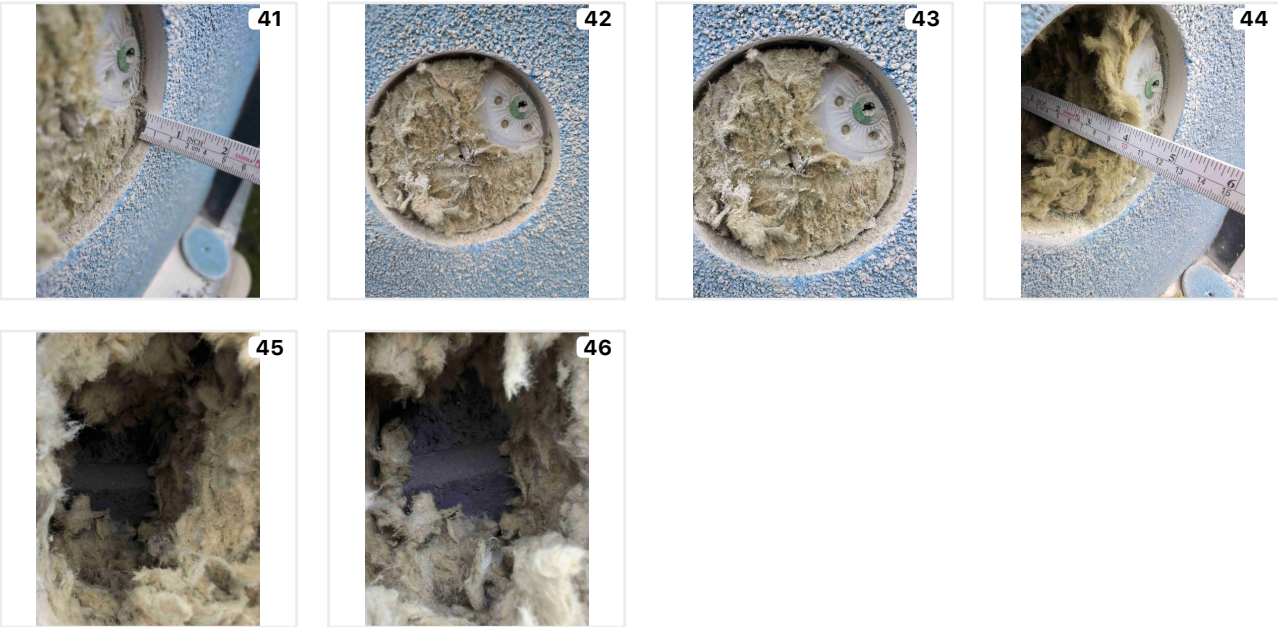
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



Inspection: HTH9JA

Elevation • Location
EAST • JUNCTION WITH OTHER FACADE TYPES



Name/Summary

PANEL SYSTEM - NORTH ELEVATION

Proposed Inspection

- Panel Inspection options
1. Remove panel if possible or conduct a core hole removal of external surface material
Assess material making up the wall type
Reinstate to a weathertight condition
 2. If panel cannot be removed. Cut a 250mm core hole
Assess material making up the wall type
Reinstate to a weathertight condition
 3. If access is restricted externally-From internal-
Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.
Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening
Replace any insulation removed with new
Replace plasterboard with existing / new as required fixing to a timber batten
Redecoration by the Building Management

Build-Up

5 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	20mm	Stone tile	47, 48	A1 - Non-Combustible
Breather Membrane	1mm		49, 50	E - Highly Combustible
Cavity	30mm		51, 52	
Insulation	90mm	Mineral Wool Insulation	53, 54	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Original blockwork	55, 56, 57	A1 - Non-Combustible

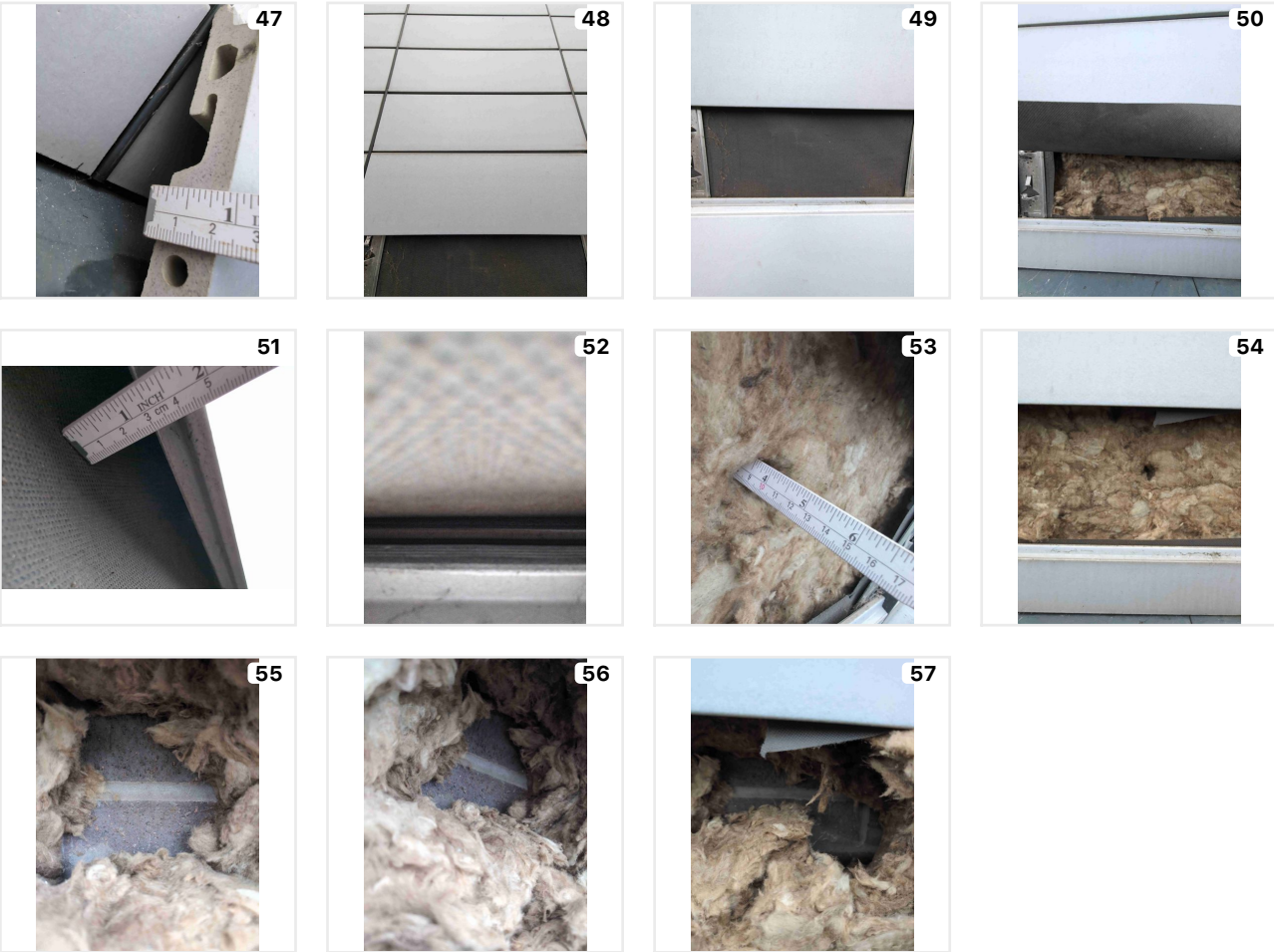
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Backing Wall Sits On The Floor Slab

Build-up Photos



Inspection: LBJM3B

Location
Concrete wall

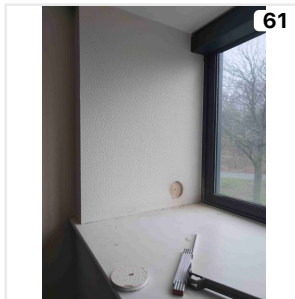
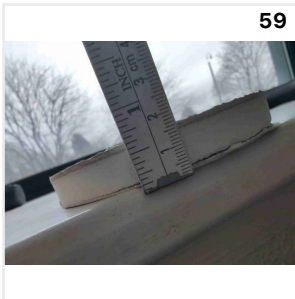
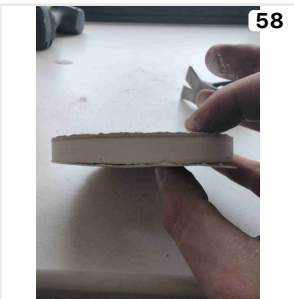
Name/Summary

Internal window 5th floor

Build-Up

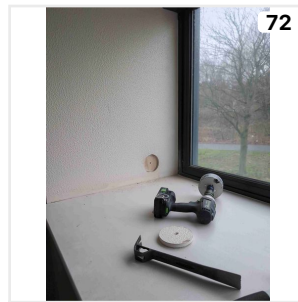
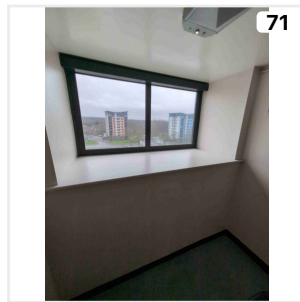
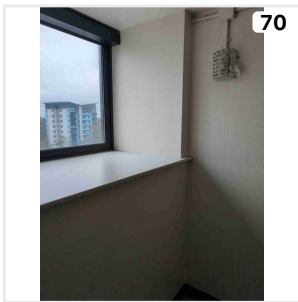
5 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Plasterboard	58, 59	A2 - Limited Combustibility
Other		Plywood board	60, 61, 62	C - Combustible
Cavity	50mm		63, 64	
Insulation	50mm	Mineral Wool Insulation	65, 66	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	67, 68, 69	A1 - Non-Combustible

Build-up Photos





Inspection Photos



Attachments & Balconies

Photo

Attachment



Inset Balcony (YEQ99G)

Configuration: Stacked, Inset

Size: Private balcony spanning only a single compartment

Attachment: Inset Balcony

Attachment Reference
YEQ99G

Details

Configuration

Stacked, Inset

Size

Private balcony spanning only a single compartment

Framework/Structure

Reinforced concrete framework extension of the floor slab

Handrail

Steel

Balustrade

Steel

Soffit

Concrete

Infill

Toughened Safety Glass

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

The balconies are reinforced concrete framework extension of the floor slab.
The slabs surface decking material is concrete which is non-combustible in there nature and are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for preventing fire spread.
Handrail and balustrade materials are non-combustible.

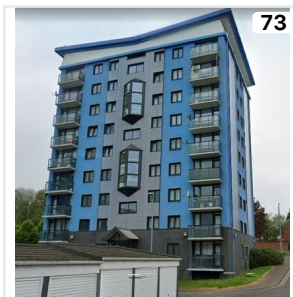
Whilst the open balconies are stacked, they are open with a concrete soffit that is imperforate and will allow for smoke and fire to be contained to reduce rapid fire spread vertically up the building.

The glazing to the balconies likely incorporates a combustible polyvinyl butyral (PVB) interlayer, this is not considered to be a significant risk when taken in context of the large amount of glazing within the building façade however it is recommended that the balconies are managed to reduce the fire load and avoid higher risk activities such as BBQ's where possible.

Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Neutral

Photos



External Windows

Photo

External Window



Top, Mid, Side Hung Casements (MXNFMK)

External Window: Top, Mid, Side Hung Casements

External Window Reference
MXNFMK

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Details

Powder Coated Aluminium

Fire Engineer Comments

Windows are A1 aluminium framework, aluminium is a soft metal that has a low melting point. As such this material is able to perform in temperatures between 400°C and 600°C, after which the metal will start to melt. Although it will not combust it will form molten droplets which may fall and ignite combustible materials below to cause secondary fires.

Within the aluminium framework is an infill of glazing. The glazing has been identified as thermal glazing for its strength and ability to comply with Approved Document K. As such the glass is able with stand temperature differentials up to 200°C (plus ambient).

This means that there is a lower risk to thermal fracturing and will aid in preventing fire penetration through the external wall internally; and as such would allow the occupants to turn their back on fire to escape from the effects of the fires effluents.

Furthermore, these systems are mechanically secured into the building and will afford a period of mechanical support.

The position of some of these systems within the buildings envelope are in areas of communal means of escape and should legally be kept sterile at all times as to present a lower risk to ignition.

Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Neutral

Photos



External Doors

Photo

External Door

No Image

Single Leaf Entrance Doors (TKL2MD)

External Door: Single Leaf Entrance Doors

External Door Reference
TKL2MD

Details

Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Details

Powder Coated Aluminium

Fire Engineer Comments

Doors are A1 aluminium framework, aluminium is a soft metal that has a low melting point. As such this material is able to perform in temperatures between 400°C and 600°C, after which the metal will start to melt. Although it will not combust it will form molten droplets which may fall and ignite combustible materials below to cause secondary fires.

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Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Neutral

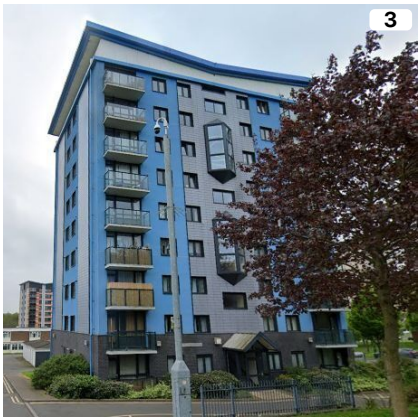
Plan: EAST



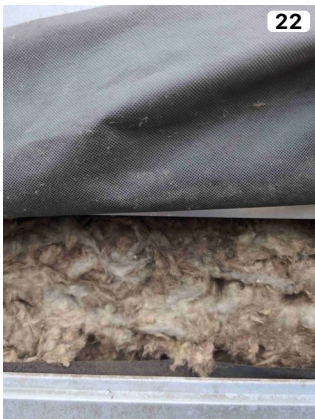
Plan: NORTH



Photos



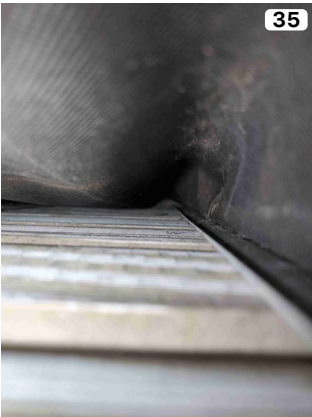
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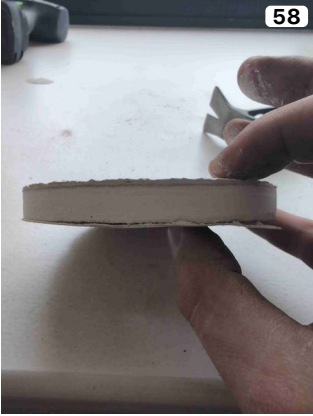
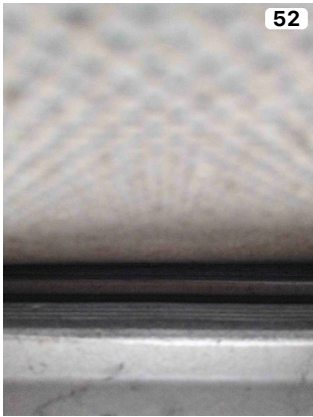
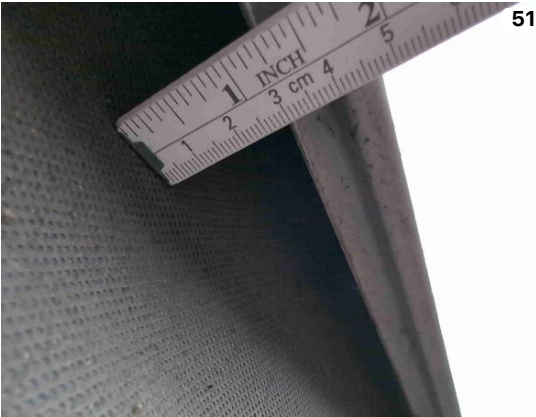
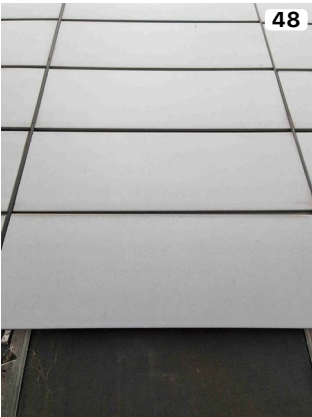
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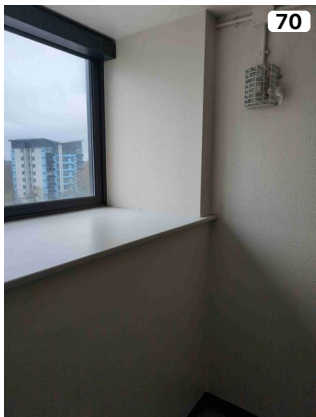
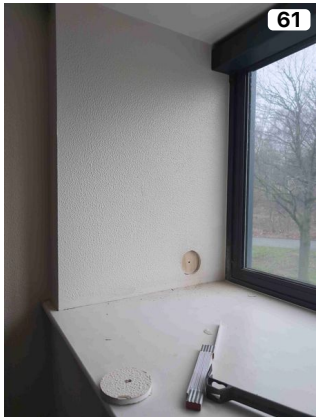
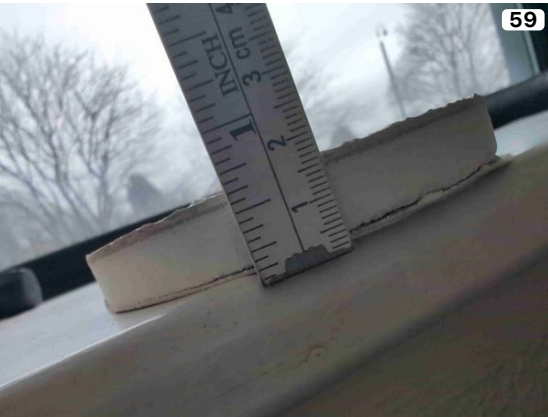
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Photos Continued...



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