Fire Risk Appraisal of External Walls

1-33 56 High Street, Manchester, M4 1ED

The Riverside Group Limited

06 September 2022

FRAEW REVIEW

0.0 Document Verification

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1.0 Summary

The building under review of this Fire Risk Assessment External Walling is 1-33, 56 High Street, Manchester, M4 1ED.

56 High Street is a block of residential apartments situated above commercial premises (shops) on the ground floor. It has a basement, ground and 7 upper levels maintaining 33 self-contained flats.

The building was given planning permission by Manchester City Council on 15 March 2001 application ref 060739/FO/City1/00.

The building recently applied to BSF [now declined] for the removal of windows and cladding and installation of replacement inc. aluminium window systems, metal cladding and other ancillary items including new cement particle board, insulation and fire barriers.

Previous investigations of the external facade have identified issues with combustible materials present in the wall build up and the lack of fire cavity barriers.

ORSA have been instructed to carry out an FRAEW assessment of the building to determine the current fire risk based on the existing construction and to propose suitable risk-based remediation measures.

For the purposes of EWS the building is rated as B2 due to the presence of combustible cladding, combustible insulation and the lack of fire cavity barriers on the external facades of the building. Refer to S1.4 for summary items.

1.1 This Fire Risk Appraisal of External Walls

This Fire Risk Appraisal of External Walls is written to align to PAS9980:2022 [Publicly Available Specification] whilst also aligning to RICS EWS Guidance issued 16 March 2022, as such this is an ORSA non-standard template.

This EWS1 forms [when issued] associated with report is a set way for a building owner to confirm to valuers and lenders that an external wall system (EWS) or attachments, such as a balcony, on buildings containing flats has been assessed by a suitable expert for likelihood of proportionate remediation to address fire safety risk.

Any EWS1 forms associated with this report is for the external wall system only. It is not a life safety certificate. It should not be taken as confirmation that other works relating to fire safety in other parts of the building are not required.

1.2 Key Point Summary

We set out below our key point summary which should be read and considered in conjunction with the body of this report and its appendices. For ease of reference, we have provided a high, medium and low priority status for general guidance and to aid focus against each key point item.

1.4 Summary of Findings Relating to this Building

The overview of the FRAEW findings are as follows; the full risk review table is included in appendix 1 and comments provided in the conclusion section in 4.3 of this report.

External wall system	Risk	Recommendation
EWS Type 1: Block and Brick	Low	Cavity closers to be installed around the openings in the façade [vent openings] Confirmation of detail around window reveal and if brickwork closes cavity with window frame
EWS Type 2: Stick built curtain walling	High	Recommend replacing the curtain walling system
EWS Type 3: Rainscreen cladding	Medium [intolerable]	Recommend installing cavity barriers at compartment wall and slab lines.
EWS Type 4: facing stone and block	Low	Cavity closers to be installed around the openings in the façade [vent openings] Confirmation of detail around window reveal and if brickwork closes cavity with window frame

Further to the external wall systems risk. It should be noted that balconies exist of the brickwork façade. As they exist on the brickwork, the FRAEW found that the risk of fire spread is low.

However, should an EWS1 form be sought for the building it is recommended that the HPL soffit and the timber decking be reviewed.

2.0 Things to Consider

2.1 Limitations

This Type 1 Fire Risk Appraisal of External Walls is intended primarily to inform the building's fire risk assessment, it cannot warrant absolute safety, as it will be risk-based and therefore reliant on professional judgement by competent persons.

This Type 1 Fire Risk Appraisal of External Walls is not specifically intended to address protection of firefighters; nor is intended to address property protection.

This Type 1 Fire Risk Appraisal of External Walls can only be based on available industry knowledge at the time of the FRAEW and, more definitive information on the fire performance of external wall construction might come to light subsequently.

2.2 Legislative context

In the case of existing buildings, the context in which the fire risk posed by external wall construction is to be considered is the ongoing legislative control applicable to occupied buildings.

Cognisance of the requirements of building regulations and the recommendations of supporting guidance, and the differences between what is applicable now to new buildings and what would have been applicable at the time of construction of the building under consideration, is also important.

The risk-based approach advocated in this Type 1 Fire Risk Appraisal of External Walls meets the fundamental underlying philosophy underpinning the Fire Safety Order.

Accordingly, this FRAEW is intended to support the building's fire risk assessment in establishing the level of risk and the preventive and protective measures needed to satisfy the Fire Safety Order.

2.3 Fire Risk Assessment

In the past, the external wall construction of blocks of flats was not routinely included in the fire risk assessments required under the Regulatory Reform [Fire Safety] Order 2005 [the "Fire Safety Order"]. The Fire Safety Act 2021 has now established that external walls fall within the scope of the Fire Safety Order.

It follows, therefore, that any fire risk assessment of a multistorey, multi-occupied residential building needs to include consideration of the potential for fire spread via the external walls of the building.

2.4 FRAEW

The purpose of a fire risk appraisal of external walls [FRAEW] is to assess the risk to occupants from a fire spreading over or within the external walls of the building, and to decide as to whether, in the specific circumstances of the building, remediation or other mitigating measures to address the risk are considered necessary.

It is applicable where the risk is known, or suspected, to arise from the form of construction used for the external wall build-up, such as the presence of combustible materials.

The outcome of an FRAEW is intended to inform fire risk assessments [FRAs] of multistorey, multi-occupied residential buildings.

2.5 Application

PAS applies predominantly to multistorey blocks of flats, but also includes the following types of buildings if, from the perspective of general fire strategy and means of escape design, and specifically evacuation strategy, they are similar in nature to a purpose-built block of flats:

- Student accommodation
- Sheltered and other specialized housing; and
- Buildings converted into flats.

2.6 Wall build-ups within the scope of PAS9980

- External walls incorporating a rainscreen cladding system, with or without insulation within any associated cavity.
- External thermal insulation composite systems [ETICS], particularly those comprising rendered insulation.
- Composite panels, including insulated core ["sandwich"] panels.
- Glazed façades with infill/spandrel panels.
- Substrates or backing walls, including concrete blockwork, brick, steel framing systems [SFSs], timber framing and structural insulated panels [SIPs]; and
- Curtain walling.
- Attachments to the external walls of buildings.

3.0 Building External Walling Key Data

3.1 Data Reviewed

- Planning Consent 060739/FO/CITY1/00 for mixed use development comprising café/bar [A1/A3 use] at basement and ground floor levels with 33 self-contained flats approved on 15 March 2001.
- Planning Consent 076649/FO/2005/C for elevational alterations to form new window opening to apartment 4, 56 High Street approved on 23 December 2005.
- Inspection of Cladding and Window Spandrel Construction Report by Sandberg, reference 57501/X/01 dated 2 July 2020.
- Philip Pank Partnership façade inspection report dated March 2020 (no reference).
- Fire Risk Assessment by Savills dated 15 September 2020 property reference 9404020930.
- Cladding Investigation Report Stick-built curtain wall by Fill UK [contractor] dated 9 March 2021.
- Cladding Investigation Report Investigation of rainscreen cladding by Fill UK [contractor] dated 10 March 2021.
- Cladding Investigation Report Elevation 1 (High Street), Elevations 2 & 5 (courtyard, bin store) Elevation 3 (William Fairburn Way) by Fill UK [contractor] dated 9 March 2021.
- Fire Risk Assessment by ORSA Projects Limited dated 2 August 2021.
- Elevation Drawings & GA Plans by Storm Tempest job rf 3957-11-20 dated January 2021.
- Performance Specification for the removal of windows and cladding and installation of replacements: aluminium window systems, metal cladding & other ancillary items including new cement particle board, insulation and fire barriers by Alan Brooks Consultants dated October 2020 ref 2119.02. These works have not been undertaken.

3.2 Location

- 1-33, 56 High Street, Manchester, M4 1ED

3.3 Building height/height above ground

- The overall hight of the building, including plant room is believed to be 25.35m [Elevation drawing] which is [G+8] EWS height is 22.72m – the building is over 18m for the purposes of EWS evaluation.

3.4 Building size, including number of flats

The development has a gross internal floor area Gross Internal Area of 3,710 sq. m. including all ground floor plant and bin stores etc.

3.5 Type of occupancy

56 High Street is a block of residential apartments situated above commercial premises (shops) on the ground floor. It has a basement, ground and 7 upper levels maintaining 33 self-contained flats.

3.6 Type of construction

The building is steel framed with concrete floors. External facades comprise brick, curtain wall panels, rainscreen cladding and stone cladding.

There are several steel framed balconies with metal balustrading with clamped glass infill panels and timber decking.

The residential apartments are separated from the commercial premises by an imperforate compartment floor

The apartments are served by one internal protected stairway which discharges directly to a final exit at ground floor

3.7 Age and design code applied at the time of construction or renovation

- The Building Regulations 2000
- The Regulatory Reform [Fire Safety] Order 2005
- Planning Consent 060739/FO/CITY1/00 dated 15 March 2001.
- Planning Consent 076649/FO/2005/C dated 23 December 2005.

3.8 External wall construction build up

- The High Street elevation of the building is to be formed of a bluff grey natural faced stone at the ground and first floor with a red facing brick from floors two through to six.

  The seventh floor is a smooth flat cladding system, with a glazed window system running vertically through the centre of the elevation from first to seventh floors.
- The rear elevation is a bluff grey natural faced stone at ground and first floors with a light red facing brick through to level six.

  There is a vertical glazed panel to the left-hand side of the elevation running from first to sixth floor, with a smooth grey cladding to be applied to the left-hand half of the seventh floor, and right-hand half of the fifth and sixth floors of the elevation.
- The return elevations of both sides are to be blank.
- Glazing to the flats facing into the corridors is Pyran S 6mm glass. A/T/394.
- Uninsulated glass would have been considered acceptable due to its height above floor level and the well-ventilated nature of the corridor.

The building utilises 4 main wall types for its external walling:-

- External Block wall with facing Brick [green]: EWS Type 1
- Stick built Curtain wall Cladding [blue]: EWS Type 2
- Rainscreen Cladding [red] : EWS Type 3
- External Block wall with facing Stone [yellow]: EWS Type 4

The different external wall types have been marked up on the elevation drawings overleaf.

Elevation 1 with EWS marked up [brick-green, curtain wall-blue, rainscreen cladding- red & facing stone-yellow]

Elevation 2 with EWS marked up

The external wall construction of each of the EWS are as follows:

EWS Type 1: Brickwork

- Brickwork
- Cavity
- Insulation board
- Blockwork

EWS Type 2: Curtain walling

- Stick built curtain wall cladding (sandwich panel)
- Insulation board
- Packed roll wool insulation [soft insulation]
- Timber substructure
- Internal plasterboard

EWS Type 3: Rainscreen cladding

- Rainscreen cladding panel [sandwich panel consisting of galvanised sheet, polystyrene insulation and aluminium backing]
- SFS framing system
- Internal plasterboard system

EWS Type 4: Facing stone

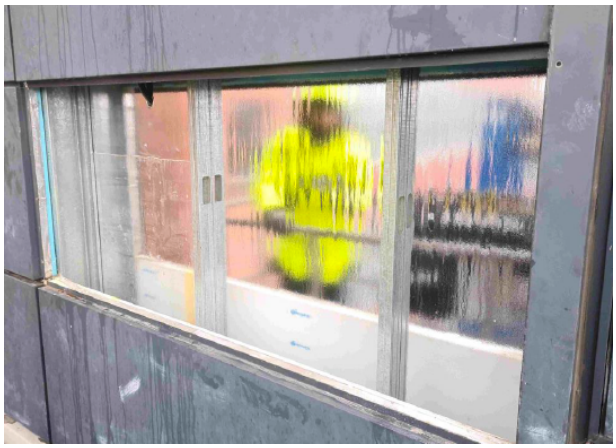
- Facing stone
- Cavity
- Insulation board
- blockwork

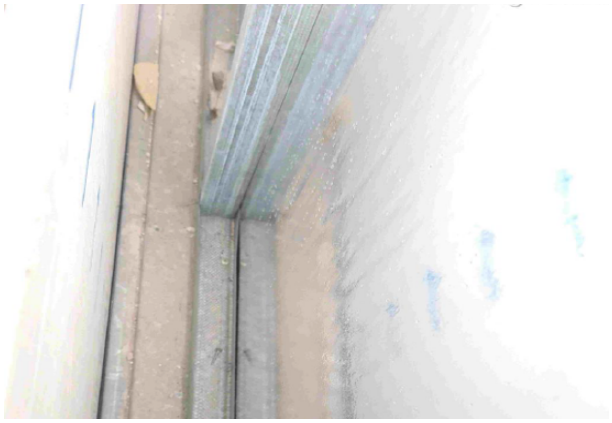
Pictures of the systems are shown below.

3.8.1 External Block wall with facing Brick

3.8.2 Stick built Curtain wall Cladding

3.8.3 Rainscreen Cladding





3.8.4 External Block Wall with facing Stone

The curtain wall and rainscreen cladding systems will not achieve a BR135 classification assessed in accordance with BS 8414 -1 : 2002 and BS 8414 -2 : 2005 in accordance with Approved Document B 2006 with 2013 Amendments Paragraph 12.5 due to the extent of combustible materials present in the overall wall build up.

Whilst the facing brick and stone external wall types have a blockwork inner leaf which is a non-combustible material the Kingspan insulation located in the cavity of the 2 wall types is combustible and has a Euroclass fire rating of Class C/D.

At both brick and stone facing locations no cavity barriers are currently located within the cavity of each wall type which if installed will limit fire spread inside the wall cavity in the event of a fire.

3.9 Cavity barrier fire performance and locations

Concealed spaces or cavities in construction are provided with cavity barriers or fire stops in accordance with BS 9991, Figure 26.

Any penetrations through compartmentation or areas of high fire risk should be fire stopped to the same period in which the penetration passes.

The site inspections carried out by Fill UK identified a significant lack of cavity barriers to all of the façade types which included the brick, stone, curtain walling and also the rainscreen cladding.

3.10 Fire strategy and fire safety design

There is no fire strategy report available for the building.

ORSA have assessed the internal fire protection to the common access corridors and stairwell which appear to be in accordance with the guidance for a block of flats with a single common access stair to ensure the safe escape of building occupants and to provide reasonable access for the fire service in the event of a fire which includes,

- A protected corridor between the flat entrance doors and the door to the common access stair.
- A protected stair serving all floors with a protected escape route to the final exit at ground floor level.
- Automatic opening vents actuated by smoke detectors provide ventilation to the corridors and the stair.
- A firefighting lift serves all floors.
- A dry riser located in the stair at every floor landing level.

The compartmentation between apartments inside the building appeared to be of a reasonable standard. The elements of structure in the building are believed to provide the required standard of fire resistance of 90 minutes for a building of this height.

The protected corridors of the flats are believed to provide 60 minutes compartmentation as recommended in ADB.

Flat entrance doors and the fire doors enclosing the stairway and risers are notional fire door-sets that provide 30 minutes fire resistance.

Cold smoke seals and intumescent strips are provided where necessary. The fire doors are fitted with self-closing devices where necessary or are kept locked shut.

Generally, the fire doors throughout the building appeared to be in good condition.

3.10.1 Fire safety management

For residential buildings management of the private parts of the building are not possible.

The property has a Stay Put evacuation strategy.

It was noted that some residents are using their private balconies for storage of combustible items. MHCLG have identified this as an area of risk in their 'Advice Note on Balconies on Residential Buildings'.

Management should confirm/ensure that a policy is in place and communicated to residents which covers what can and cannot be stored and used on balconies. This should include policy/advice on combustible storage, smoking materials and barbecue use.

The building has Smoke Venting

3.10.2 Summary of fire safety system key points

Typical Flat

- Evacuation strategy – originally defend in place but now simultaneous evacuation. The FRAEW has been based upon simultaneous evacuation.
- Compartmentation – 60 mins. fire resistance between dwellings
- Protected entrance halls - 30 mins. fire resistance
- All cupboards within protected entrance halls - 30 mins. fire resistance
- All doors leading off protected entrance hall – FD30 fire doors
- Travel distances in protected entrance hall – max. 9m
- Smoke detection – a fire detection and fire alarm system in accordance with the relevant recommendations of BS 5839-6:2004 a Grade D Category LD2 standard

Typical Common Corridor/Lobby

- Manual call points are provided in common areas
- All doors from apartments to common corridor/lobby – FD30s fire doors with self-closers
- Cross corridor and stair doors– FD30s fire doors with self-closers and door hold open devices if required to improve access
- Protected common corridor/lobby - 60 mins. fire resistance
- Internal fire spread - Class 0 lining within protected lobby and common corridors
- All glazing panels and Visual Panels in fire enclosure - FR30 for integrity
- Protected corridors/lobbies with mechanical smoke control ventilation systems utilising smoke shafts subject to engineering detailed design by specialist ventilation consultants.
- Automatic Opening Vents located in stairwell and corridors

Site-wide Considerations

- Firefighting core for Block [over 18m].
- Fire appliances have access within 18 m of each dry riser inlet connection point.
- Dry riser outlet points are located within escape cores.
- A firefighting lift is in the single core of the building.

3.10.3 Means of Warning and Escape

Evacuation principle

The original evacuation principle for the building was “defend in place” so that only the apartment of fire origin evacuates whilst all other apartments can remain in place.

However, due to the extent of combustible materials present in the external facades together with combustible insulation present and the absence of fire cavity barriers it is understood that at the present time the evacuation strategy has been changed to simultaneous evacuation in the interim until remediation of the existing facades has been carried out.

According to ADB prevailing at the time, residential buildings with a top floor over 18m could be designed with a single escape stair core, so long as the travel distances within the common corridors are limited to 7.5m and the stair is protected by a ventilated lobby.

The lift opens into the common area and the stair is separated from the common area with an FD30 fire door on each level.

The lobby protection afforded to the stair also applies to any horizontal escape route which is used to reach a final exit.

Means of detection and warning

Fire alarm and detection within the apartments is self-contained. It is a BS 5839 part 6 2004 grade D category L2. This inc.

- interlinked mains operated detectors,
- stand-by power supply such as a battery back-up,
- smoke detectors placed in the flat circulation spaces [protected entrance hall]
- heat detector in the kitchen area,
- smoke detectors in the common residential corridors to activate the ventilation,
- no communal fire alarm sounders or break glass call points.

Cause and effect

The evacuation strategy use to be defend in place, however it has been amended to simultaneous evacuation.

Upon fire alarm activation in a protected common corridor:

- Passenger lift locates to ground floor with doors open.
- Hold open devices to all doors in the common area associated with the zone will release.

Upon fire alarm activation in the protected escape stair [or firefighting stair]:

- The 1 sq. m. AOV at the top of the stair will open [alternatively a remote fireman's switch located at the access point can operate the 1 sq. m. AOV].

Staircore Occupant Capacity

- The occupancy within each of the stair cores is not expected to be greater than 60 persons therefore the exit provisions will be designed to meet the minimum exit requirements.
- Fire doors therefore do not need to open in the direction of escape.

Stair and Exit widths

The exit width provided meets the minimum requirements of BS 9991 and ADB in place at the time of construction.

Travel distances

Protected stairway enclosures and protected corridor layouts incorporating fire subdivisions have been constructed so that no person would have to travel more than 7.5 m from their flat entrance door, along a corridor or lobby before reaching a fire door accessing either a protected stairway enclosure or another protected corridor zone.

Private balconies more than 4.5m above ground level

There are a limited number of steel frame projecting balconies on the rear elevation of the building which have timber decking.

The soffits of the balconies have been clad with what appears to be an HPL cladding board which needs to be confirmed.

Door opening direction

All blocks serve less than 60 people in an evacuation and in those cases, doors from the fire stairs may if desired swing in the opposite direction of travel.

Final exit

The protected stair for the block provides a final exit route which is through the entrance hall to the outside which is an acceptable layout.

Emergency lighting

Emergency lighting has been provided in the block in accordance with BS 5266-1:2005, which covers:-

- Basement and plantroom areas.
- Ground floor entrance lobbies
- Protected corridors and stairs

Emergency signage

Exit signage is placed along the escape routes in accordance with BS 5499-1:2002 Graphical symbols and signs. Safety signs, including fire safety signs. Part 4 –Code of practice for escape route signing.

3.10.5 Access and Facilities for the Fire Service

Vehicle Access

The nearest fire station to the site is London Road fire station located 2 miles away. The fire service will access the site via the normal road network on the High Street.

Access to the rear of the site is via Union Street and Edgehill Street that run behind the building.

The fire appliance will park adjacent to the main core entrance. Fire fighters can access the café basement from 2 staircores that are located between the basement and the ground floor exits.

There is a fire panel located within the lobby entrance of the stair core.

Firefighting shaft

The building is in excess of 18m high so there is a protected firefighting core in accordance with BS 9999:2008.

- 120 mins FR fire-fighting stair, 1100mm wide
- 120 mins FR fire lift [with back-up power]
- Dry riser [located within the stair enclosure]
- 1.5m^2 automatic openable vent at the top of the stair [with remote fire switch at the access level]

Fire Mains - Dry Risers

The key requirement is to get the fire service to the fire origin as quickly as possible. This means providing a simple layout with easy way finding and facilities in the building to allow the fire service to exert minimum effort.

- The site has vehicular access within proximity of the entrance to the building.
- There are outlets from the dry riser at each floor level within the stairs [excluding ground floor but including the roof level.]
- Dry riser inlets are located outside the entrance lobby on the ground floor of the stair core.
- The inlets are within direct sight and less than 18m from the access road to be used by the fire services.

Site Hydrants

No information is available as to the nearest fire hydrant to the building.

Smoke Exhaust

There is no mechanical smoke clearance system installed in the building and the head of the stairs and corridor locations have AOV's installed which open when smoke detectors detect a fire.

4.0 Comments & Conclusions

4.1 Factors relating to fire performance and how these factors influence risk

The reaction to fire for each of the components of the 4 external wall types are detailed in the table below. Where known, the classification to EN13501-1 has been detailed. Where unknown, a comment has been detailed on combustibility of the element.

Wall Type	Wall Composition	Material Classification
EWS Type 1: External Block wall with facing Brick	▪ Facing Brick – estimated BBA Cert 07/4403	A1 as per 96/603/EC
	▪ Cavity	-
	▪ Kingspan - EPS extruded polystyrene insulation BS EN 13501-1 : 2007 + A1 : 2009	Assumed Class F
	▪ Block - BS EN 13501-1:2002	A1 as per 96/603/EC
	▪ Plasterboard - EN 520:2004+A1:2009, Type A	A2-s1, d0
EWS Type 2: Stick built Curtain wall Cladding	▪ ACM Cladding Panels with foam core	Assumed C-s2, d0
	▪ Kingspan - EPS extruded polystyrene insulation BS EN 13501-1 : 2007 + A1 : 2009	Assumed Class F
	▪ Timber frame	combustible
	▪ Plasterboard - EN 520:2004+A1:2009, Type A.	A2-s1, d0
EWS Type 3: Rainscreen Cladding	▪ Metal faced Sandwich Panels with Polystyrene core and Aluminium backing tray	Assumed Class F core with Class A2 facing.
	▪ Cavity	-
	▪ SFS Metal Framing System	A1 to 96/603/EC
	▪ Plasterboard - EN 520:2004+A1:2009, Type A	A2-s1, d0
EWS Type 4: External Block Wall with facing Stone	▪ Facing Stone	A1 to 96/603/EC
	▪ Cavity	-
	▪ Kingspan - EPS extruded polystyrene insulation BS EN 13501-1 : 2007 + A1 : 2009	Assumed Class F
	▪ Block - BS EN 13501-1:2002	A1 to 96/603/EC
Balconies	▪ Metal frame balcony	A1 to 96/603/EC
	▪ Metal frame balustrading	A1 to 96/603/EC
	▪ Clamped glass infill panels	Assumed laminated so likely Class B
	▪ Timber decking	combustible

External wall Type 1: Brick and block

The. Brickwork and blockwork are both considered non combustible and achieve a classification of A1 as denoted in the European Commission directive 96/603/EC. The blockwork is the substrate of the external wall.

The insulation within the cavity of the wall is a Kingspan insulation which is considered combustible.

However, relevant design guidance at the time of construction (ADV 2000+2002 amendments) section 13.7 notes that "in a building with a storey 18m or above ground level, insulation material used in ventilated cavities in the external wall construction should be of limited combustibility. This restriction does not apply to masonry cavity wall construction which complies with Diagram 32 in section 10."

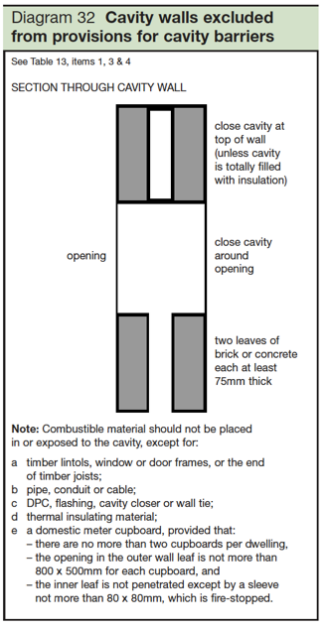


Diagram 32 notes that the cavity of double skin masonry should be closed around openings and closed at the head of the wall [unless fully filled with insulation].

Site inspections of the double skin masonry external wall noted that openings were not closed.

External Wall Type 2: Stick built curtain wall cladding

The external surface of this wall system is ACM rainscreen cladding. This product is considered combustible.

The insulation within the system is Kingspan, which is also combustible. The support system and substructure for the cladding is timber stud, which is also combustible. There was no substrate sheathing board or similar, the internal plasterboard was fixed to the internal of the timber stud box-out.

External Wall Type 3: Rainscreen cladding

The external surface of the cladding is noted within the site inspection as painted galvanised sheet.

However, the panels are a sandwich panel with a polystyrene insulation and a backing aluminium tray. The insulated panel is likely to be combustible.

The system is supported with a steel framing system. There was no substrate sheathing board or similar present. The SFS backed directly onto the internal linings.

External wall Type 4: Blockwork and facing stone

The final external wall type is a facing stone. The stone is non-combustible as per 96/603/EC. The substrate for the system is blockwork, which is also non combustible.

There is Kingspan insulation within the cavity of the wall system, which is combustible. As external wall type 1, design guidance at the time of construction would allow combustible insulation within the cavity provided requirements of Diagram 32 were met.

As noted in the site inspection reports provided, cavity closers were not observed around openings, such as vent openings passing through the external wall system.

4.2 Factors relating to façade configuration, external walling materials and how these factors influence risk

External Wall type 1: Brick and Block

No cavity barriers were observed at the junction of compartment walls and floors within the brick and block façade. However, as noted within ADB cavity barriers are not required so long as the requirements of Diagram 32 are met. However, the requirements were not met; there were no closers observed around service openings within the cavity.

The brickwork façade on elevation 2 has some balconies. Although confirmation is required of the actual decking material present on the balconies as well as the possible HPL laminates to balcony soffits it is considered that the balconies do not pose a high risk as they are installed on the brickwork façade [which is non combustible]. Furthermore, there are so few balconies, and although they are stacked, they do not extend up the façade of the building.

External Wall type 2: Stick built Curtain wall cladding

The curtain wall cladding extended up the entire height of the façade, in a stacked orientation.

However, the curtain wall cladding was not present at ground level. On both elevation 1 and elevation 2, the cladding starts at L1 and extends upwards. On elevation 2, the external wall system beneath the curtain wall cladding is the facing stone; which is non-combustible. On elevation 1, the GF level façade is glazing at the entrance, however on the L1 slab line, there is a projection on the building, this could act as a break between the curtain wall system and the GF glazing.

There are windows situated within the curtain walling system. No cavity barriers were observed on the inspections of the curtain wall system on elevation 2.

External Wall Type 3: Rainscreen cladding

The rainscreen cladding is situated on the top storeys of each elevation. On elevation 1, the cladding is situated only on the uppermost storey and the overrun. However, it does tie into the EWS type 2 stick curtain wall system.

On Elevation 2 the rainscreen cladding is situated across three levels [although it is only entirely across the façade on the topmost level with the overrun].

There are windows situated within the cladding system. No cavity barriers were observed on the rain screen cladding at all within the Fill UK inspections.

External Wall Type 4: Blockwork and stone

Similarly to the brickwork external wall. No cavity barriers were observed at compartment lines.

Furthermore, there were no cavity closers observed around openings. It was possible to see into the cavity of the wall system when service vents were removed.

4.3 Fire safety design and fire strategy for the building, including fire hazards and fire and rescue service response, and how these factors influence risk

The building consists of residential occupants. There is no specialist housing within the building which ORSA are aware of [specialist care or retirement care]. Furthermore, the building has a simultaneous evacuation strategy present, as such the evacuation of residents will be short.

The block has a single stair but there are no extended travel distances within the building.

The Fire Risk Assessment carried out by ORSA did not identify any significant issues with details or materials used in the internal walls, ceilings or compartmentation between communal circulation areas and habitable apartments.

Overall, it was considered that the wall and ceiling linings would not promote rapid fire spread in the event of a fire and compartmentation appeared to be of a reasonable standard.

Protected corridors inside the apartments will provide 60 minutes compartmentation in accordance with ADB guidance.

There is an AOV at the head of the stair.

The building has been fitted with a dry riser and has outlets on each floor level from L1 upwards [except the roof].

Tender parking for FRS appliances is available at the entrance of the building

4.3 Conclusion on overall assessment of risk and the determination of the need for remedial action

ORSA advise that it is unlikely that the building has been constructed in accordance with the Building Regulations at the time of construction based on the lack of fire cavity barriers present in the overall wall construction and the combustibility of the insulation present inside the cavity and also sandwich panels.

A review of each of the external wall types is detailed below. The risk factor analysis has been undertaken for each external wall system on the building. However, the building has been reviewed holistically and the wall types are not considered independent. The risk factor analysis has been undertaken by external wall types to determine if there are any EWS which would provide an intolerable risk.

Each of the wall types has been assigned a risk rating [low, medium or high]. Where medium has been provided it is noted if it is tolerable or not. Justification has been provided for the allocation of the risk and recommendations provided to remediate and reduce the risk. The justification and remediation proposals are included within the table in Appendix 1, overleaf.

An overview of the risk rating is denoted below:

EWS 1: Brick and block	Low risk but remediation works proposed to achieve EWS1 option	
EWS 2: Stick built curtain walling	High risk	
EWS 3: Rainscreen cladding	Medium risk [intolerable]	
EWS 4: Blockwork and facing stone	Low risk but remediation works proposed to achieve EWS1 option	

5.0 Limitations and clarifications

5.1 Limitations

- The data obtained in the investigation is limited to the findings in each precise location of inspection and cannot be used to confirm absolute consistency of the façade in its entirety.
- Where the product information is absent, or where sampling could not be undertaken, ORSA states the expected combustibility rating based on the known characteristics of the materials in use.
- Where product branding is absent or ambiguous, ORSA will refer to as built drawings and specification contained in the O&M manuals [where available], but this does not constitute confirmation of the brand and certification of the products used in construction.
- The supporting evidence provided in this report has been selected to substantiate the statements made within its content. Additional photographs and endoscope video footage is available upon request.

5.2 Clarification

Note the FRAEW should be reviewed if:

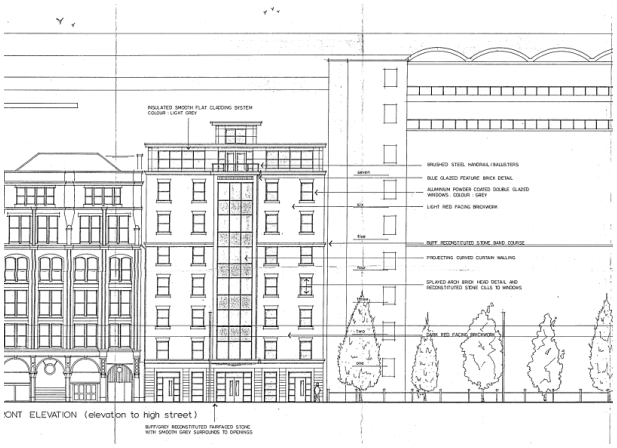
- if significant changes/repairs have been made to the external wall; and/or
- in the event of a fire incident, if the fire involved the external wall construction; and/or
- if there are any circumstances, depending upon the nature of the construction, the extent of available knowledge in relation to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

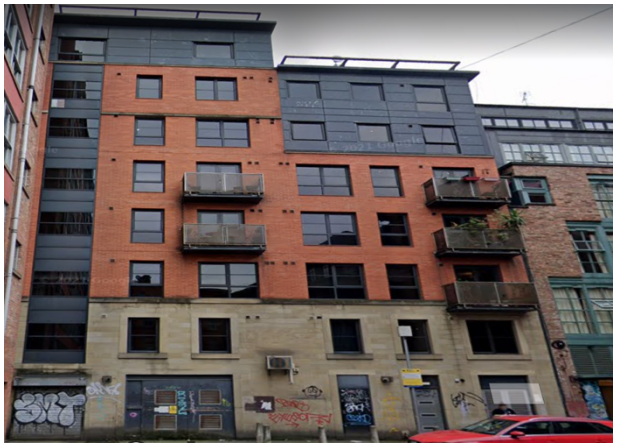
Appendix 1: Risk rating review table

External wall system	Perceived risk	Comment	Remediation proposal
EWS 1: Brick and block	Low but remediation works are proposed to achieve EWS1 form	As the brickwork and blockwork are both non-combustible elements, the likelihood of a fire spreading across the façade is low. However, there is combustible insulation within the cavity and no closers around service openings. As such, there is potential for unseen spread of smoke and fire within the external wall. As the detail around window openings is unknown, there is a potential for breaching across dwellings.	Confirm the closer detail around windows. Confirm cavity closers at the top and bottom of the system. Install cavity closers to service vent openings
EWS 2: Stick built curtain walling with cladding panels	High	The majority of the elements of the external wall system are combustible [with the exception of the soft roll insulation- believed to be ISOVER/ similar]. . The system is stacked vertically up the building and no cavity barriers were observed, as such there is a high chance for fire to spread up the building. As there was no sheathing board/ similar present within the build-up, should the fire spread up the curtain wall cladding and the insulation combust, which ignited the timber frame, the only layer of protection to the flats is a layer of plasterboard.	The system should be remediated. The glazing of the system may remain but it is proposed that the remainder of the system; timber stud, cladding panels and the Kingspan insulation is remediated.
EWS 3: Rainscreen cladding	Medium [intolerable and remediation is required]	The rainscreen cladding system is located on the upper floors of the building. On Elevation 1, the rainscreen cladding is only present on the uppermost floor. On Elevation 2, the cladding system is present on the uppermost 3 floors of the building with brickwork on the levels below and adjacent.	Should the stick-built curtain walling be replaced, the likelihood of a fire spreading via the rainscreen cladding is low as it is primarily situated on the top floors. As the system includes combustible materials, there is an option of betterment to the system, however, due to the localised nature of the system on the top floor, if EWS 2 is remediated, the betterment to EWS3 system is not considered critical. If a EWS B1 rating is aimed to be achieved, cavity barriers should be installed within the curtain walling system at compartment lines and around openings.
EWS 4: Blockwork and facing stone	Low but remediation works are proposed to achieve EWS1 form	As the stone and blockwork are both non-combustible elements, the likelihood of a fire spreading across the façade is low. However, there is combustible insulation within the cavity and no closers around service openings. As such, there is potential for unseen spread of smoke and fire within the external wall. As the detail around window openings is unknown, there is a potential for fire to breach across dwellings.	Confirm the closer detail around windows. Confirm cavity closers at the top and bottom of the system. Install cavity closers to service vent openings

Appendix 2 Sample Project Data & Information

Plans and Elevation Drawings





Appendix 2 Report Terms & Definitions

- **Aluminium composite material** [ACM] two thin aluminium skins bonded together to a polyethylene or polyethylene/mineral core material
  - Category 1 ACM is one in which in screening tests based on BS EN ISO 1716, the calorific value is ⩽3 MJ/kg.
  - Category 2 ACM is one in which in screening tests based on BS EN ISO 1716, the calorific value is >3 MJ/kg and ⩽35 MJ/kg.
  - Category 3 ACM is one in which in screening tests based on BS EN ISO 1716, the calorific value is >35 MJ/kg.
- **Automatic opening vent** [AOV] is part of a smoke control system, which opens automatically when smoke is detected by smoke detectors
- **Cavity barriers** product used to close or separate a concealed space, the purpose of which is to restrict the spread of smoke and/or fire non-loadbearing element designed to provide fire separation within or at the edges of a concealed space [cavity] by forming a tight seal [possibly under compression] between the inner and outer surfaces of the cavity
- **Open state cavity barrier** Non-loadbearing element designed to provide fire separation in a concealed space [cavity], which is open to allow ventilation and drainage in the cold state, but which closes when exposed to a developing fire
- **Cladding** system of one or more components that are attached to, and might form part of the weatherproof covering of, the exterior of a building

  Such systems are normally attached to the primary structure of a building to form non-structural, non-loadbearing external surfaces and can comprise a range of facing materials/cladding panels, including metal composite panels or non-loadbearing masonry, along with insulating materials, rendered insulation systems [ETICS] and insulated core sandwich panels, which are attached to a substrate.

  The cladding system also encompasses the supporting rails and bracketry, as applicable, to attach the cladding to the building, and cavity barriers where applicable.

  Systems that constitute the entire thickness of the external wall, by definition, cease to be cladding systems and are the external wall, e.g. curtain walling.
- **Combustible** not classed as A1 or A2 in accordance with BS EN 13501-1:2018, and not meeting the definitions for material of limited combustibility
- **Combustion modified** performance of a material modified or specifically formulated to improve performance in fire
- **Compartmentation** subdivision of a building by fire-resisting walls and/or floors for the purpose of limiting fire spread within the building.
- **Competent person** suitably trained and qualified by knowledge and practical experience, and provided with the necessary instructions, to enable the required task[s] to be carried out correctly
- **Evacuation alert system for use by the fire and rescue service** system intended for installation in a building containing flats or maisonettes to enable the fire and rescue service to initiate an evacuation alert signal by means of evacuation alert devices within the flats or maisonettes, using manual controls incorporated within the control and indicating equipment
- **External wall construction** range of different forms of construction used for the entirety of the external walls of a building, from inside to outside, including both internal and external finishes
- **Fire barrier** Separating element that exhibits fire integrity or fire stability or thermal insulation, or a combination thereof, for a period under specified conditions

  Fire engineering Application of scientific and engineering principles to the protection of people, property and the **environment** from fire hazard OR source, situation, or act with potential to result in a fire.
- **Fire load** quantity of heat that could be released by the complete combustion of all the combustible materials in a volume, including the facings of all bounding surfaces
- **Fire resistance** ability of an item to fulfil for a stated period the required loadbearing capacity and/or integrity and/or thermal insulation, and/or other expected duty specified in a standard fire resistance test
- **Fire risk** combination of the likelihood of the occurrence of fire and likely consequence[s] of a fire
- **Fire risk assessment [FRA]** process of identifying fire hazards and evaluating the risks to people arising from them, considering the adequacy of existing fire precautions, and deciding whether the fire risk is acceptable without further fire precautions
- **Fire stop** seal provided to close an imperfection of fit or design tolerance between elements or components to restrict the spread of fire and smoke
- **Fire stopping** provision of a fire stop. In the context of external wall construction, anything that connects compartment floors and walls onto the inside face of the external walls is fire stopping and would be expected to provide the same fire resistance as the floor/wall.
- **Fire strategy** set of fire safety objectives and the measures to be taken to meet those objectives
- **General needs** <of housing> intended for occupation by members of the public and not solely or predominantly for occupation by a specific demographic
- **High-rise building** with any storey with a floor located at not less than 18 m above ground level, or at least seven storeys [i.e. more than a ground plus five upper storeys], whichever is the lower. In this context, the height of the top storey is measured

from the upper floor surface of the top floor [excluding roof-top plant areas and any uppermost storeys consisting exclusively of plant rooms] to ground level on the lowest side of the building.

- **Infill panel** forming part of a curtain wall or window assembly system, excluding vision glazing
- **Insulation** any material or product that is intended as, or capable of, significantly reducing the transfer of heat Insulants which do not provide this function for the building as a result of the manner in which they have been installed [e.g. discrete sections of insulation which would fail to insulate as heat might pass through gaps between them] still fall within this definition of insulation, as they contribute to fire safety in the manner of an insulant in any event.
- **Interim measure** Temporary measure that is put in place to address an unacceptable risk to occupants of a building
- **Material** substance, or mixture of substances, that is entirely homogenous
- **Material of limited combustibility** either a non-combustible material or product; or any material or homogenous product of density 300 kg/m3 or more, which, when tested in accordance with BS 476-11, does not flame and the rise in temperature on the furnace thermocouple is not more than 20 °C; or any product with a non-combustible core of 8 mm thick or more, having combustible facings [on one or both sides] not more than 0.5 mm thick; or a material or product classified as Class A2-s3, d2 in accordance with BS EN 13501-1:2018, when tested in accordance with BS EN ISO 1182 or BS EN ISO 1716 and BS EN 13823
- **Mitigation measures** to reduce an identified risk until significant issues relating to the fire risk posed by the external wall construction and cladding are resolved
- **Multistorey** <of blocks of flats> comprising at least a ground floor and one upper floor, with one or more separate dwellings on each storey
- **Non-combustible** either any material classified as Class A1 in accordance with BS EN 13501-1:2018; or products classified as non-combustible under BS 476-4:1970; or any material which when tested in accordance with BS 476-11, does not flame nor cause any rise in temperature on either the centre [specimen] or furnace thermocouples; or totally inorganic materials such as concrete, fired clay, ceramics, metals, plaster and masonry containing not more than 1% by weight or volume of organic material; or concrete bricks or blocks meeting BS EN 771-3:2003
- **Pre-occupation fire safety assessment** process of identifying fire precautions in a newly constructed or refurbished building, considering the approved fire strategy, and deciding whether the new or refurbished premises are likely to be fit for occupation
- **Product item** that is formed of one or more materials
- **Simultaneous evacuation** system of evacuation in which an entire building is evacuated immediately on receiving an evacuation signal [e.g. from a fire detection and fire alarm system] or an evacuation alert signal from an evacuation alert system for use by the fire and rescue service, or an instruction to evacuate [e.g. given verbally to the residents of each dwelling by firefighters]
- **Spandrel panel** infill panel that is located between the sill of a window and the head of the window below, or that spans the floor slab area in a curtain wall system

  A spandrel panel commonly spans a compartment floor boundary and, therefore, is significant in terms of the scope for the fire to bypass fire barriers between floors.
- **Stay put strategy** normally adopted in blocks of flats and maisonettes whereby, when a fire occurs in a flat or maisonette, the occupants of that dwelling evacuate, but occupants of all other dwellings can safely remain in their dwellings unless directly affected by heat and smoke or otherwise directed to leave by the fire and rescue service

  In a building with a stay put strategy, residents can leave their flats at any time if they wish and are able to do so [e.g. if they feel unsafe], but to do so might, under some circumstances, place them at greater risk than remaining within their flats.

  "Stay put" is sometimes referred to as "defend in place" or "stay safe".
- **Substrate** construction onto which other materials or products are attached or applied NOTE In the case of a cladding system, its substrates typically include masonry and lightweight framing systems, such as an SFS.
- **Surface** outside part or uppermost layer
- **Thermoplastic material** polymer that can be melted and recast almost indefinitely
- **Waking watch** system whereby suitably trained persons continually patrol all floors and the exterior perimeter of the building to detect a fire, raise the alarm, and carry out the role of evacuation management

Abbreviated terms

- ACM aluminium composite material
- ADB The Building Regulations 2010 – Approved Document B: Fire safety

  The abbreviation "ADB" is used for all editions of Approved Document B; the bibliographic references indicate which edition is relevant at any given point.
- AOV automatic opening vent
- CCM copper composite material
- CLT cross-laminated timber
- CP cement particle
- DPC damp-proof course
- EPS expanded polystyrene

- ETICS external thermal insulation composite system FRA fire risk assessment
- FRAEW fire risk appraisal of external walls
- HPL high pressure laminate
- HRR heat release rate
- IRMP integrated risk management plan
- MCM metal composite material
- OSB oriented strand board
- PIR polyisocyanurate
- PUR polyurethane
- SIP structural insulated panel
- SFS steel framing system
- XPS extruded polystyrene
- ZCM zinc composite material

Appendix 3 About ORSA

- ORSA is a specialist compliance consultancy whose fire related services are led by Phil Barry and Adrian Brown.
- Phil Barry is a BSc in Fire Engineering and is a Member of the Institute of Fire Engineers [membership no. 18506] Phil is a highly experienced fire safety professional with 30 years' experience as a fire safety officer in UK local authority fire services.

  Phil has specialised in fire safety since 1999 developing and delivering the highest standard of fire safety training for The Fire Service College & Fire Protection Association.

  He completed three secondments as a senior instructor in fire safety at the UK Fire Service College between 1999 & 2010.

  Phil is an associate tutor for The Fire Service College, The Fire Protection Association and The Chartered Institute of Environmental Health continuing to develop and deliver the highest standard of fire safety training.

  Phil advises clients on a wide variety of fire safety projects, new build consultations, risk assessments and reviews for a diverse range of buildings and is a technical consultant for The Fire Protection Association carrying out fire risk assessments and fire safety related projects on their behalf.
- ORSA's Adrian Brown is the former Global Director Fire Performance Engineering for Meinhardt and has worked for Ministry of Housing, Communities and Local Government [UK].

  Adrian's key skills include Leadership, Strategic Management, Technical Expertise, and Communication.

  Adrian is a Sr MIES, Senior Member of Engineers Singapore, GIFireE, Member of the Institution of Fire Engineers. MEI – Member of the Energy Institute, Member of Canadian Association of Fire Investigators and CIBSE – Associate Chartered Institute of Building Services Engineers.

  Adrian has sat on the committees for FSH_14 BS999, FSH_14 BS9999 – Editorial board and Committee member and FSH_24 PD7974 where he was a Part 8 Committee member
- ORSA as a business is owned by Christian A. Bucknall. Chris has a BSc [Hons] Construction and MSc Energy in Built Environment and is a Member of the Chartered Institute of Building [membership no. 1179233] and a Member of the Royal Institution of Chartered Surveyors [membership no. 1167233].
- ORSA is a RICS registered company.
- ORSA is a business accredited toISO9001:2015 [CertNo CN/16051IQ], ISO 14001:2015, [Cert No CN/16051IE], OHSAS 18001:2007 [Cert No CN/16051IHS], and ISO 45001:2018 [Cert No CI/16051IHS] by SOCOTEC.

Appendix 4 External Walling Systems

After the Grenfell Tower fire in June 2017 there was a focus on removing aluminium composite material [ACM] from buildings over 18 metres.

Over time, focus broadened to take in other types of combustible cladding. In December 2018 the Government issued Advice Note 14 containing guidance for building owners on the steps to take to tackle non-ACM materials on the external walls of high-rise buildings.

Recently this Guidance was revoked and replaced with the more comprehensive and holistic guidance included in Publicly Available Specification PAS9980.

What is the EWS1 process/form?

- The EWS1 form is designed to be used for residential properties such as blocks of flats [including those owned by housing associations and social housing providers as well as privately owned], student accommodation, dormitories, assisted living, care homes and Houses in Multiple Occupation.
- The EWS1 form is not specifically designed for use of short-term accommodation such as hotels.
- EWS1 does, however, apply to an entire building or block so where required, may also be relevant to mixed use.
- The EWS process, and resulting form, is a set way for a building owner to confirm that an external wall system on residential buildings has been assessed for safety by a suitable expert, in line with Government guidance.
- The EWS1 process delivers assurance for lenders, valuers, residents, buyers, and sellers.
- The process was developed through extensive consultation with a wide range of stakeholders including fire engineers, lenders, insurers, valuers, and other cross industry representatives.
- The process itself involves a "qualified professional" conducting a fire-risk assessment on the external wall system, before signing an EWS1 form, which is valid for the entire building for five years.

Update @ January 2022

The document 'Building safety advice for building owners, including fire doors' [also known as the Consolidated Advice Note] brought these documents together.

The Consolidated Advice Note provided guidance on how to assess a building's external walls, smoke control systems and identified the types of short-term interim measures that could be put in place if significant risks to life safety were identified.

The Consolidated Advice Note and all subsequent documents here [including the Supplementary note to building safety advice for building owners] are now withdrawn and should be treated as historical reference documents.

Why is the Consolidated Advice Note withdrawn?

The Consolidated Advice Note has been wrongly interpreted and has driven a cautious approach to building safety that goes beyond what we consider necessary.

The Consolidated Advice Note is therefore being withdrawn to ensure that it is not used to justify disproportionate assessments.

Additional guidance with regards to other aspects of the CAN including fire doors and smoke control systems will be published later this year by the Home Office.

Where a detailed assessment of external walls of existing multi-storey, multi-occupied residential building is deemed necessary it should now be carried out in accordance with the more comprehensive and holistic guidance included in Publicly Available Specification PAS9980.

Which blocks does EWS apply to?

Requesting an EWS1 for buildings where there is no visible cladding or a low risk of remediation work creates long and unnecessary delays to the buying, selling, or re-mortgaging of such properties.

It also prevents the limited pool of competent experts from focussing their assessments on properties where there is a significant risk to the safety of occupants.

A valuer should always have a rationale to justify the request for an EWS1 form.

This relates to consolidated Government guidance issued in January 2020: Advice for Building Owners of Multi-storey, Multi-occupied Residential Buildings which says, "The need to assess and manage the risk of external fire spread applies to buildings of any height."

On 21 November 2020 an agreement between RICS, UK Finance, the Building Societies Association and Government was announced such that an EWS1 form will no longer be needed for sales or re-mortgages on flats in blocks with no cladding. Supplementary guidance on fire risk assessments was issued on 21 November.

On 8 March 2021, RICS published a new guidance note which provides further guidance on the criteria where an EWS1 form should be required.

This guidance note is not intended to be, nor should it ever be used as, a substitute for or part of a professional life safety fire risk assessment of any building.

This updated guidance is purely to help valuers understand when an EWS1 form is required due to visible cladding and it is likely, under current government guidance, that remedial works affecting the value of the property would be needed to remedy any defects with that cladding.

The EWS1 form is not a safety certificate and the fact that an EWS1 form is not required for a particular building does not mean that the building may not require some form of remediation in the future.

What happens after the EWS1 is completed?

There are five possible results from an EWS assessment.

Category A applies where buildings have external wall primary materials that are of limited combustibility or better [i.e. Euroclass A1 or A2 only], and when cavity barriers are installed to an appropriate standard in relevant locations [i.e. in accordance with Approved Document B]. Under this category, it is the attachments to the external wall that are decisive.

- RICS states that A1 and A2 findings "are not likely to lead to any further action."
- An A3 finding means that remedial work may be needed on attachments to the external wall, such as balconies.
- Category B applies where combustible primary materials within the external wall build-up are clearly present.
- A B1 rating means the engineer has decided that the fire risk is low, and no remedial work is required.
- A B2 finding means that there isn't an adequate standard of fire safety and remedial work/interim measures are required.

Does the publication of the revised EWS1 form render any existing completed EWS1 forms obsolete?

- No, they remain valid until such time as a new EWS1 form is completed.
- Please note that EWS1 forms completed before the above version was made available will remain valid until such time that a new EWS1 form is completed.

Does each flat/ apartment have to get an individual EWS1 form for selling, buying, or re-mortgaging?

- No. Each EWS1 form is valid for an entire block/ building. It is valid for five years.

How does the EWS1 form factor into the buying, selling or re-mortgaging of a flat/ apartment?

- The EWS [external wall system] process, is agreed by representatives for developers, managing agents, fire engineers, lawyers, lenders, insurers, and valuers, and has been adopted across the industry.
- Its purpose is to ensure that a valuation can be provided for a mortgage or re-mortgage on a property which features an external wall cladding system of uncertain make up, something that has both safety implications, and which may affect value if remediation is required due to the fire risk associated.
- The process results in a signed EWS1 form per building, with two options/ outcomes:
    - [A] external wall materials are unlikely to support combustion
    - [B] Combustible materials are present in an external wall with sub options of either, fire risk is sufficiently low that no remedial works are required, or fire risk is high enough that remedial works are required.
- The EWS1 form itself certifies that the external wall cladding system has been assessed by someone who is suitably qualified to do so.
- While the form applies to residential buildings, changes in Government advice introduced in January 2020, mean that all residential buildings of any height with a wall system may need to be risk assessed.
- There is guidance to help valuers decide when an EWS1 form should be required.

The EWS Certificate

- A completed EWS Certificate is not a life safety certificate. It is only for the use of a valuer and lender in determining if remediation costs affect value.
- Where a building is found to need remedial works, this will need to be carried out by the building owner, to ensure safety of the building, before a mortgage can proceed unless the lender agrees otherwise.
- ORSA welcomed the Secretary of State announcement in February 2021, on the additional funding for the removal of dangerous cladding in all qualifying residential properties over 18m.
- Government funding is something ORSA has long called for, and whilst we recognise the complexity of the funding mechanisms, it is critical that any loan scheme for sub-18m blocks should be affordable and viable.

If the building owner will not undertake the required assessment, what can the owner/lender/ valuer do?

- If the building owner does not acknowledge their responsibility and refuses to undertake the necessary assessment, the local council can provide further advice, or it should be referred to the Fire and Rescue Service.
- No one should be living in a building which is unsafe, and the building owners are the only ones who can progress this.
- Building owners have a clear responsibility reinforced by MHCLG advice to arrange for the wall system to be checked and therefore have a route to remediation where needed.
- Leaseholders should continue to engage with the building owner or their managing agent to ensure this happens.
- The Fire Safety Bill, which is due to gain Royal Assent in 2021 will go further in dealing with this.

Who carries out the EWS assessment, and what is their expertise?

- The EWS1 form must be completed by a fully qualified member of a relevant professional body within the construction industry with sufficient expertise to identify the relevant materials within the external wall cladding and attachments, including whether fire resisting cavity barriers and fire stopping have been installed correctly.
- Buildings over 18m or those which are high risk and require specialist testing require a qualified fire safety engineer.
- UK banks and building societies have robust measures in place to protect people against fraud, which would pick up any EWS1 form that is suspicious, but ORSA encourage everyone to check

the signatory on a form with the profession's institution or with ourselves at fire@orsa.uk

- If an RICS member is completing your EWS1 form, you can check their membership with us on our website.
- There is a list of suggested bodies to contact to source fire experts. This list is not exhaustive, nor does it constitute an endorsement or approval from RICS, UKF or BSA, and other bodies with relevant expertise may be able to assist.
- Anybody instructing an EWS1 form must be satisfied that the signatory meets the requirements as described above.

How is an assessment carried out?

- This is up to the expert undertaking the assessment, but it must include evidence of the fire performance of materials used in the cladding.
- While paperwork submitted by the building's original developer and/or owner can form part of the evidence, it cannot be solely relied upon. Photo evidence of the cladding will be required, or a physical inspection where this is not available or inconclusive.
- In some cases - even where all attempts to establish the cladding system have been taken – the make-up and composition of the external wall system may still be unclear. In such instances intrusive tests may be required, alongside a more detailed review by a professional of a higher level of expertise.
- Such tests may involve a hole being drilled into the wall or a section of cladding to identify the external wall system materials and their composition. It is crucially important to identify the whole make-up of an external wall system and how it has been installed.
- ORSA follow a simple 6 stage process:-
    - **Stage 1 Desktop Review** - Initial review of the building, inspection requirements and subject to receipt of any O&M documentation, expected construction arrangements.
    - **Stage 2 Site Visit & Enabling Works** - Determine basic construction arrangements, apparent product substitution and to prepare for any intrusive and semi-intrusive investigations.
    - **Stage 3 Site Investigation** - Intrusive investigations to determine the 'as-built' construction, to determine any product substitution and consider any fire stopping and condition issues. 2 samples per property and or elevation as necessary – if there is a material difference in the form of construction.
    - **Stage 4 Assessment & Analysis** - Assessment of Attachments – Inspect a Sample number of attachments and check that there is a suitable risk assessment.
    - **Stage 5 Report & Recommendations** - Completion of EWS1 certificate and report, albeit the report is for our records. De-brief of the findings and guidance regarding any required next steps.
    - **Stage 6 Issue EWS Certificate**

Why is an EWS assessment required every five years?

- An EWS assessment is required every five years for each building or block.
- This means multiple sellers located in one block can use the same assessment to assist with the sale of their property.
- Five years is intended to capture any renovation or adaptation work done to the building, as well as maintenance over that period.
- However, a new EWS assessment may be required within the five-year period if substantial works have been completed to a property, affecting the original conclusions.

What happens if the EWS assessment identifies that remedial works are required?

- If an external wall system requires remedial work, then we would expect the valuer to take this into consideration in their valuation.
- A valuation will only be possible if there is clarity on cost of the work and a timeline for works to be completed. Lenders are unlikely to lend until remedial work has been completed, but some may choose to do so with retentions and the like based on their own risk appetite.
- The EWS assessment is for the building owner to oversee, but the resulting form should be available on request to all occupants in that block in the interests of transparency.

Does the EWS assessment cover general fire safety measures?

- The EWS1 form assessment is carried out for valuation purposes only.
- It captures the details of the safety of different types of external wall systems used in residential buildings and will determine whether remedial works are required.
- It is not designed to assess other fire safety features or risks and should never be used to determine the overall risk of fire to a building. It is not a life safety certificate.
- The person responsible for the building [Responsible Person under the Regulatory Reform [Fire Safety] Order 2005] should have a fire risk assessment [FRA] for the building as this is an independent legal requirement that is already in place and does not commonly incorporate assessment of external wall materials.
- Note this will change with the Fire Safety Bill coming into force in England and FRA will then need to cover the external cladding.

Does a nil valuation mean a flat is worthless?

- No.
- 'Nil valuations' are used in the process of valuing a property for mortgage lending purposes, where a valuer is unable to provide a value at that moment in time i.e. when the valuers' inspection takes place due to insufficient information being available.

- Often a nil valuation signals that the lender requires further information before a valuation can be made, rather than a property being unsellable.

Why are lenders asking for EWS1 forms below 18m?

- Changes in Government advice in January 2020, bringing all residential buildings into scope, mean some residential buildings below 18m may now require an EWS1 form.
- For buildings of five or six storeys, there could be a significant amount of cladding on the building, or a check could be due to the types of panels on the building.
- For buildings of four storeys or fewer, there may be present the most dangerous types of cladding present.
- The guidance note for Valuers provides information on criteria where an EWS1 should be required.
- A valuer should always have a rationale to justify the request for the EWS1 form.

Appendix 5 What is PAS 9980?

The PAS 9980 has been developed by the British Standards Institution drawing on expert advice from professionals across industry and followed a rigorous development process, including a public consultation.

PAS 9980 provides new guidance on how to assess the risk of fire via an external wall of an existing multi-storey, multi-occupied residential building.

PAS 9980 sets out steps that can be taken to identify and assess risk factors as well as mitigation steps that might improve the risk rating of a building via a holistic and fact-based assessment of a building's construction.

Where it is determined that a detailed assessment of an external wall is required, PAS 9980 should now be used for these assessments.

It does not contain 'off the peg' solutions to specific wall types and materials but is intended to enable a consistent approach to evaluating the fire risk when considering the external walls of buildings.

PAS 9980 frequently asked questions

Will PAS 9980 require additional surveys to take place?

Whole building fire risk assessments are already required in England for residential premises including common parts under the Regulatory Reform Fire Safety Order 2005 [FSO].

PAS 79 [which has been in existence for several years] sets out how to do a standard whole building fire risk assessment, which would apply to all blocks of flats.

Buildings with cladding materials which could pose a fire risk should do a more detailed assessment of their external wall system, and PAS 9980 sets out how to do that and will complement best practice guidance for these whole building fire risk assessment [which are already covered by PAS 79].

Will every building require PAS 9980?

PAS 9980 is a methodology to carry out fire risk appraisals of the external wall of multi-storey, multi-occupied residential buildings.

Of buildings that do require fire risk assessments, not all will require a detailed review of their external walls.

In many cases it will be manifestly obvious to a competent fire risk assessor that the risk to life from external fire spread is not such as to warrant a PAS 9980 assessment.

This is particularly true in buildings with brick or masonry external walls or low risk buildings which do not present any significant risk of fire spread.

In these cases, the fire risk assessor will normally address compliance of external wall construction with the Fire Safety Order as part of the routine Fire Risk Assessment process.

Therefore, many buildings will not require a PAS 9980 appraisal.

Will PAS 9980 lead to expensive remediations?

Where a PAS 9980 assessment is needed the guidance will enable more proportionate assessments rather than the binary ones that have become prevalent since the Grenfell Tower tragedy in which any presence of combustible wall materials is thought to automatically need expensive replacement/remediation.

PAS 9980 is clear that some combustible materials can be retained and managed safely in the external walls of existing buildings.

Owners were advised to check "general fire precautions" and ensure that external wall systems were "safe".

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