

Muswell Court, Hull

Type 4 Fire Risk Assessment



Prepared for:	Rebecca Franks, Programme Manager
Prepared by:	William Davidson, Director of Holistic Fire Safety
Date:	23/03/2023
Document Reference:	HFS.HCC.MuswellCourt.FRA.1.0



EXECUTIVE SUMMARY

- Significant findings identified in HFS.HCC.MuswellCourt.FRA.1.0 & HFS.HCC.MuswellCourt.AP.1.0: 24 actions
- Proposed next review date: 23/02/2024
- Assessment review type: T3
- Requirement for additional inspections prior to assessment review: It is advised that work streams are monitored by a competent person to ensure satisfactory performance/installation/levels of remediation.

OVERALL BUILDING RISK RATING					
Taking into account the fire prevention measures observed at the time of this assessment, it is considered that the hazard from fire (probability of ignition) at this building is:					
LOW		MEDIUM	X	HIGH	
Taking into account the nature of the building and the occupants, as well as the fire protection and procedural arrangements observed at the time of this assessment, it is considered that the consequences for life safety in the event of fire would be:					
SLIGHT HARM		MODERATE HARM	X	EXTREME HARM	
The overall risk rating for the building is considered to be:					
MODERATE RISK					



Fire Risk Assessment

18 Jan 2023 / William Davidson

Complete

Site conducted

Muswell Court, Hull City Council T4 FRA programme

Conducted on

2023-01-18 16:31 GMT

Prepared by

William Davidson

Location

Muswell Ct, Hull HU8 0RE, UK
(53.7757533, -0.2816856)



Photo 1



Photo 2



Photo 3

Inspection

Responsible person (e.g. employer) or person having control of the premises:

Hull City Council

Address of premises:

Muswell Court, Hull, East, Riding of Yorkshire, HU8 0RE

Person consulted:

Rebecca Franks

Assessor:

Will Davidson

Report validated by:

John Askew

Date of fire risk assessment:

10/02/2023

Date of previous fire risk assessment:

HCC to confirm.

Suggested date for review:

23/02/2024

1. General information

1.1. Dimensions/footprint:

575m² per floor / Total 9,775m²

1.2. In accordance with Regulation 3 Fire Safety (England) Regulations 2022, is the premises defined as a 'High-rise Residential' Building?

In accordance with Regulation 3 Fire Safety (England) Regulations 2022, Muswell Court is defined as a 'High-rise Residential Building'.

1.3. Number of floors at ground level and above:

Ground floor and x 16 upper floor levels.

1.4. Number of floors entirely below ground level:

None.

1.5. Floors on which car parking is provided:

None. External parking is provided for residents and visitors.

1.6 Age:

The building is believed to be constructed between 1968-1969, however comprehensive refurbishment was completed in 1991.



Photo 4

1.7. Number of flats:

There are 90 residential dwellings in total.

The split between general needs (GN) and specialised housing - retirement living (SH) is believed to be 27/63 (GN/SH).

Floors 1-13 have x6 flats per floor and floors 14-16 have x4 flats per floor.

1.8. General description external:

Comprehensive refurbishment was completed in 1991 which included the installation of an external cladding system and enclosure of balconies to form winter gardens.

The external wall at Muswell Court is made up of aluminium clad systems with a PPC or powder coating.

Refer to Section 16 for further details.



Photo 5

1.9. General description of basement:

None.

1.10. General description ground floor:

The ground floor comprises of external tenant storage and ancillary accommodation which is accessed from communal areas - See attachment:

Ancillary accommodation consists of staff office, store cupboard, cleaners cupboard, laundry and x2 service risers enclosures, mains electrical enclosure and dry riser inlet valve.



Photo 6

[22291-Muswell-Court-01-B-22291-MC-00.pdf](#)

1.11. General description of common areas:

Communal areas on floors 1-13 are generally consistent with x6 flats per floor, x4 self-contained riser cupboards and x2 refuse chute disposal points.

Floors 14-16 differ slightly as there are x4 flats per floor and a duplex community room which is located on the 14th & 15th floor. The community room enables residents of the support living scheme to gather and enjoy the benefits of living within a community.

There are two lifts which serve the building; one serving all even floor numbers and the other serving all odd floor numbers.

Example of draft plans attached - Sixth Floor showing layout.

[22291-Muswell-Court-01-B-22291-MC-06.pdf](#)

1.12. General description of flats:

Residential flats are a mix of single and two bed occupancies whereby all habitable rooms discharge onto the internal hallway. There are both single and two bed flats on all floors within the building. Travel distances and associated hazards are covered within the main body of the report.

1.13. General description of means of escape:

The structure is based around a central reinforced concrete core which is made up of a ventilated single escape stair, which discharges into a central lobby before ultimate safety is achieved via alternative exits on the ground floor.

Every flat is separated from the common escape stairway by an initial and secondary containment lobby; both areas are unventilated. All doors which form part of the escape routes are self-closing, notional FD30s fire doorsets.

[22291-Muswell-Court-01-B-22291-MC-09.pdf](#)

1.14. General description of service risers:

Risers are a mix of larger and smaller enclosures which can be described as single & double risers. (850x2500 single risers & 1150x2800 double risers).

All services which serve flats discharge into flats meaning that flats are effectively self-contained compartmented boxes. Double risers serve two flats per floor and single risers service one flat per floor.

Risers are continuous and extend the full height of the building. Risers contain electrical service cables, soil pipes, non-combustible pipework and combustible pipework. Risers are generally a sterile environment, however, there are several breaches which are to be addressed and are highlighted in the compartmentation survey.

Risers are separated from escape routes by fire resisting construction providing 30 minutes, although fire resisting doorsets are displaying evidence of significant deterioration; as a result, it was confirmed they are to be replaced as part of a larger programme of works. There is a single ignition source with electrical breakers, however, there are no other combustible items within the area; therefore fire is highly unlikely to spread to adjacent areas.

1.15. General description of ventilation risers:

There are no ventilation risers within the building, however bathroom extraction provided within flats discharge into service risers which are located adjacent to each property. Extraction is continuous and is operated by fans which are positioned on the roof. Effluent exits each flat via a louvred vent which travels into service risers before travelling within metal ducting vertically to open air.

Fire dampers are installed within service risers at the point flats meet service risers and they are activated via fusible link.

Following an incident within another of HCC's HRRB, it was identified that residual smoke was identified on upper floor levels following a fire. Efforts have been made to seal around all ductwork using pink polyurethane expanding foam, however it is advised that smoke testing is carried out to confirm that all ductwork is sealed and enclosed throughout its height.



Photo 7



Photo 8



Photo 9

1.16. General description of chute system:

There are x2 refuse chutes provided at Muswell Court, both are located in permanently ventilated areas and separated from escape routes by fire resisting construction providing 30 minutes. The refuse chute has recently undergone refurbishment and now provides adequate protection at all floor levels with a self-closing, intumescent lined hopper disposal points and an automatic isolation shutter which is activated by means of fusible link at the base of the chute. The base of the chute is accessed externally.



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14

2. Floor plans and building plan

In relation to Regulation 6 of the Fire Safety Regulations 2022, the responsible person in relation to a high-rise residential building must prepare a plan for each floor of the high-rise residential building. The floor plans must, together, identify the location of all lifts and identify if the lift is one for use by firefighters or an evacuation lift, and the key fire-fighting equipment in the whole building. Plans must include the following:

- Surrounding area of building detailing points of access, emergency response routes/appliance positioning
- Building dimensions
- Confirmation of number of storeys – basement/parking, ancillary, residential floors, roof
- Location of different accommodation types in building – single bed/two bed/maisonette
- Inlets for dry riser/wet riser
- Isolation valves for active systems
- Firefighting access points – firefighting shaft
- Location of secure information box
- Location of smoke control systems
- Key points of building – stairway, risers, lobbies (smoke containment locations)
- Evacuation alert system location

2.1. Has the responsible person prepared a plan for each floor of the high-rise residential building and do plans meet the requirements of Regulation 6 of the Fire Safety Regulations 2022?

HCC are currently reviewing building and floor plans to ensure they are adequate to assist emergency response and meet the requirements of Regulation 6 of the Fire Safety Regulations 2022. HCC are working with Holistic Fire Safety to prepare a plan for each floor of Muswell Court. The floor plans identify the location of all lifts and the key fire-fighting equipment in the whole building.

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[22291-Muswell-Court-01-B-22291-MC-14.pdf](#)

[22291-Muswell-Court-01-B-22291-MC-15.pdf](#)

[22291-Muswell-Court-01-B-22291-MC-16.pdf](#)

[22291-Muswell-Court-01-B-22291-MC-OP.pdf](#)

[22291-Muswell-Court-01-B-22291-MC-VS.pdf](#)

3. Construction

3.1. Describe the standard and methods of construction which make up the premises:

Due to its construction being between 1968-1969, it is likely that Muswell Court was constructed to British Standard Code of Practice `CP3 Chapter IV, Precautions against fire – Fire precautions in flats of 80 feet or above`.

Bryant Bison 340: The industrialised building system consisted of load-bearing precast concrete wall and floor units, jointed on site with in-situ concrete and dry packed mortar after erection. In tower blocks over 12 storeys in height, all of the walls were load-bearing - external and internal.

Wimpey-No Fines: Constructed from cast in-situ concrete, No-Fines was one of the most successful system built houses. The wall construction contains no sand fraction using 1/2" to 3/4" stone aggregate mixed with cement. This creates a honeycomb type structure within the concrete. The construction of the system is similar to that of traditional solid walled masonry properties and offers a high level of robustness.

Whether or not the building was constructed to `CP3 Chapter IV`, Muswell Court focuses upon the principle of compartmentation of both the central core, ancillary accommodation and flats. Flats were designed on having an internal `protected` hallway to create a place of relative safety before the flat could be evacuated.

Subsequently, this would support a `stay put` strategy based on the level of compartmentation together with additional features, including the external fabric. As a result, it was predicted that the block would withhold and minimise any fire situation to a relatively small area.

4. Occupancy

4.1. In relation to Approved Document B Volume 1. 2019, the purpose group is:

1(a) Flats / 2(a) Residential (Institutional)

4.2. In relation to BS 9991:2015 (BS 9999:2017) Fire safety in the design, management and use of (residential) buildings, the risk profile is:

The risk profile for General Needs occupants is considered to be: 'Ci' (long term managed occupancy of mainstream housing of general needs with no special features with `low/medium` fire growth of 0. 012 kJ/s³ by evenly distributed low to mid level fire loading compromising a mix of combustible materials).

Elsewhere, the risk profile is considered to be Specialised Housing - Retirement Housing whereby the block facilitates independent living in self contained accommodation as residents are provided with their own front door. In addition, the block is provided with several facilities which are managed by HCC staff and support services for residents who need them.

4.3. Estimated total occupancy on a normal day to day basis:

Circa 190

4.4. Max number of employees:

<5

4.5. Max number of residents and visitors at any one time:

180

4.6. Vulnerable groups - contractors, lone workers, care workers:

It is possible residents will receive treatment from care and social workers on a periodic basis. All care provided is independent to HCC. Numbers should not exceed 5 at any one time, however it is likely that people providing care are unfamiliar with the premises.

Fire action notices are displayed prominently to instruct those who are unfamiliar with the building of actions to be taken in the event of an incident.

HCC members of staff enter the premises on a regular basis to carry out routine testing and maintenance. Lone working is avoided where possible, however due to the nature of some activities, lone working is inevitable; therefore staff operate and adhere to the corporate lone working policy.

All contractors adhere to a strict 'control of contractors' policy which includes selection process, the receipt of RAMS & Insurance, site induction and a permit system. It is advised that an induction is carried out by all contractors used by HCC. A generic safety pack should be provided to contractors which ensures they are familiar with emergency procedures and actions to be taken in the event of fire. Contractors should read and sign the document; this will ensure HCC are controlling contractors appropriately and meeting the requirements of Article 5(4a).

5. Evacuation strategy

5.1. The evacuation strategy for the building is:

As detailed within the 'Fire safety in Flats' booklet provided by HCC to residents; flats are designed to delay the spread of fire, therefore occupants should be 'relatively' safe to remain within their flats. HCC currently advise residents to:

- Evacuate the building in the event of a fire in a resident's flat
- Evacuate the building if a resident is aware of a fire in a nearby flat

The simultaneous evacuation of multiple flats/floors could potentially hinder the responding Fire & Rescue Service operational crews as evacuating residents could compromise the means of escape delaying firefighting operations; it is therefore essential that levels of compartmentation meet the necessary requirements to support a 'stay safe, stay put' strategy. The reliance of such a strategy is emphasised given the occupancy and greater likelihood of those requiring assistance to evacuate and reach ultimate safety.

5.2. Have Person Centred Fire Risk Assessments (PCFRA's) been completed on all vulnerable residents?

Sue Houlton & the Housing team have recently completed a significant exercise to establish those residing within the building who required assistance with evacuation. Where necessary, person centred fire risk assessments (PCFRA) and personal emergency evacuation plans are to be created.

5.3. Are Personal Emergency Evacuation Plans (PEEPS's) in place for vulnerable residents?

There are currently no known PEEPS in place at Muswell Court; however, should any resident's complete an 'Emergency Evacuation Support Request Form', this will trigger a PCFRA and subsequent PEEP.

5.4. Are PEEP's readily available to responding Emergency Services in the Secure Information Box?

Discussions are to be held with Humberside Fire & Rescue Service (HFRS) to confirm how they prefer to receive information. Although traditionally PEEPS are stored on site within the Secure Information Box, it has been highlighted that HFRS may in fact prefer to receive information electronically so that it can be accessed via the appliance mobile data terminal.

5.5. Is the building provided with an 'Assembly Point' / 'Muster Point'. Where applicable, is its location suitable in design and location?

The assembly point at Muswell Court is located within the carpark which is defined as a suitable location.

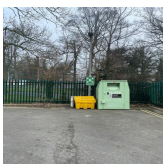


Photo 15

The assembly point should be located far enough away from the building to afford protection from heat and smoke in a fire situation but not so far away as to discourage people from using it. Fire

assembly points should be in positions that do not put staff, visitors and users of the building at risk from emergency vehicles responding to the incident, or from general/other traffic in the vicinity. Therefore, the assembly point should be located away from and off the vehicle access routes leading to the building. Ideally the assembly points should be located so as not to require the crossing of a road or movement through trafficked areas. The assembly points should be a temporary gathering area where it can be immediately determined if everyone is out of the building. Appropriate decisions should be made with regard to continuance of use for longer durations. This is particularly useful in the event of a 'partial' or 'full evacuation' of the residential areas by the Fire Service using the evacuation and alert system

6. Fire loss experience

6.1. Has there been any incidents involving fire which has resulted in loss/ damage/affected resident safety?

Following discussions with HCC representatives, it was confirmed that incidents involving fire have occurred within the block, however, fires have remained local to the flat of origin with smoke damage created within communal areas as a result of fire service intervention.

It was however brought to the attention of HCC representatives that there appears to have been a fire within the riser which is located between Flat 14-15. It is important all risers remain sterile with restricted access to prevent malicious behaviour.



Photo 16



Photo 17

7. Relevant fire safety legislation

Regulatory Reform (Fire Safety) Order 2005
The Fire Safety Act 2021
The Fire Safety (England) Regulations 2022
Health and Safety at Work etc Act 1974 (Sections 2,3 & 4)
Housing Act 2004 & Housing and Planning Act 2016

References and supporting guidance is detailed at the end of the report.

7.1. The above legislation is enforced by:

The Local Authority Fire & Rescue Service - HFRS.

7.2. Are there any notices in force applicable to the building - Alterations / Enforcement / Prohibition?

None.

8. Electrical sources of ignition

Communal Areas

8.1. Are fixed installations periodically inspected and tested?

Electrical testing and maintenance of the hard wiring of the building has recently been completed by Kingstown Works Limited (KWL), it was confirmed that all EICR reports for the building are held electronically by nominated HCC representatives. It was also confirmed that there is an EICR programme in place and legal action procedure implemented for any customers who are not providing access. Samples taken within communal areas (expiry 07/2023) gave satisfactory test frequencies.

8.2. Are Electrical Installation Condition Report (EICR) labels displayed to indicate the date of the most recent periodic inspection and the date of the next 5-year periodic inspection?

Yes.

8.3. Have all 'C' deficiencies been completed within allocated time frames?

It was confirmed that all 'C' deficiencies are allocated to KWL for completion.

8.4. Is portable appliance testing carried out:

HCC provide residential flats unfurnished, therefore no electrical appliances are included within the tenancy agreement. There is no control over the use of residents' own electrical equipment within the flats themselves, however, residents are provided with a tenants' handbook which covers electrical safety.

Portable appliances within ground floor ancillary accommodation and the communal lounge are subject to PAT.

There is a laundry situated on the ground floor with a number of electrical washing machines and dryers; all of which were confirmed to be periodically inspected.

The scheme has implemented a policy within the laundry which includes the removal of lint build-up from tumble driers; at the time of inspection, filters were clean. The laundry is also provided with automatic fire detection & warning and is enclosed in fire resisting construction.



Photo 18

Whilst portable appliance testing (PAT) is not a legislative requirement, it is a requirement of Health and Safety at Work legislation under the Electrical at Works Regulations 1989, to periodically check electrical equipment for safe use. Any item which is connected to the main supply falls under Regulation 3 & 5 which places a legal responsibility on the owner, as the duty holder, to ensure that all supplied electrical equipment used within the property is safe and not in a position where they may cause danger to staff or residents.

8.5. Is there a suitable limitation of trailing leads & adapters; and without evidence of overloading?



8.6. Are electrical service cables adequately supported?

Services run extensively within communal areas, however all cabling is encased within conduit and secured by metal connections preventing them from drooping or falling in the event of fire.

All cabling and conduit should be either encased and/or supported by metal connections preventing them to droop or fall. (BS 7671:2018 18th Edition IET regulations), Chapter 52 reg 521-10-202 18th edition).

8.7. Are photovoltaic panels (PV) installed?

None.

Is suitable maintenance is carried out on PV system in line with manufacturers instructions. Is the location of inverters indicated on plans and are there are adequate provisions in place to

mitigate the risk of ignition. Is information on PV systems held within the Secure Information Box and accessible to the Fire Service in the event of an incident.

8.8. General comments/defects:

The mains electrical feed is located at the foot of the stair in a partially compartmented enclosure. Boards are mounted on MDF (combustible substrate), services penetrate MDF which could lead to uncontrolled fire spread and there are defects related to fire doors which enclose the area. Given its location at the foot of the single escape stair, it's strongly advised that a complete review of how the area is controlled is undertaken.

Remedial action is detailed within the compartmentation survey. It is advised that MDF is overboarded in gypsum based plasterboard to enclose timber and reduce surface flame spread.

At the point services breach the enclosure, it is advised they are addressed through the installation of an ablative coated fire batt and acrylic mastic system.

In addition, it is advised that doors to the enclosure are reviewed as they display multiple defects and contain air transfer grills which would allow the passage of products of combustion into the primary escape route.

Flats

8.9. Are distribution boards non-combustible to BS EN 61439-3 as per BS 7671:2018 (18th Edition IET Regulations) Chapter 42 Regulation 421.1.201(i)?

Yes.

8.10. Are fixed installations periodically inspected and tested?

Samples taken within Flat 20 (expiry 09/27) gave satisfactory test frequencies

8.11. Are Electrical Installation Condition Report (EICR) labels displayed to indicate the date of the most recent periodic inspection and the date of the next 5-year periodic inspection?

Inline with BS 7671:2018 IET Wiring Regulations (18th Edition) rented accommodation (flats) with short term leases are periodically inspected every 5 years and upon change of occupancy.

8.12. General comments/defects:

All satisfactory.

9. Smoking

9.1. Are there suitable arrangements for those who wish to smoke?

Given the general needs / independent living arrangement within the block, there is little HCC can do on a daily basis to control/prevent smoking within residents' dwellings other than raising awareness and highlighting consequences of inappropriate discarding of materials.

There are no smoking receptacles provided externally to the premises, therefore there are no provisions for disposal.

9.2. Are "No smoking" signs provided within the common areas?

The building complies with current no-smoking legislation with signage displayed prominently throughout the building at all levels. Signage displayed is clearly visible and complies with the Smoke free (signs) Regulations 2012.

9.3. Are reasonable measures taken to prevent fires as a result of smoking?

Residents are permitted to smoke within residential flats, however information relating to smoking is contained within tenants' handbooks.

9.4. General comments/defects:

During the assessment, a comprehensive inspection was carried out in all areas; there was a limited number of discarded cigarettes on the floor externally and all internal areas were sterile.

10. Arson, security & housekeeping

10.1. Does basic security against arson by outsiders appear reasonable?

The premises has the following arrangements in place:

- Access doors are provided with resident access controls
- External floodlighting is provided
- The caretaker is a visual presence and carries out daily inspections on the premises
- The premises has a neighborhood watch scheme in place and following liaison with staff; on the whole there appears to be a strong community spirit amongst residents.
- There is a steel security fence which runs along a large percentage of the perimeter. Although gates are not locked they create a physical barrier between the block and surrounding area.
- Hull City council employees require key fobs for access and all contractors require permission before access is authorised
- CCTV installed internally and external to the building, although it only covers the ground floor, lifts and surrounding areas to the building



Photo 19



Photo 20



Photo 21



Photo 22

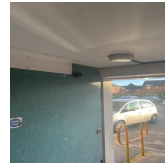


Photo 23

10.2. Is there history of / signs of anti social behaviour?

Historically blocks of flats are often subject to damage and arson due to the volume of people (general needs/mixed use) within the building, therefore arson/anti social behaviour will always be a credible threat; however, as Muswell Court is largely occupied by those over the age of 55, the likelihood of this is reduce.

Following liaison with HCC representatives and knowledge of the local area, many of the high rise blocks within the city have been subjected to anti social behaviour, however there doesn't appear to be any concerns at Muswell Court.

10.3. Is there an absence of unnecessary fire load in close proximity to the premises or available for ignition by outsiders?

The immediate area around the building was sterile; waste bins were contained within the refuse chute area which is enclosed in a roller shutter and walkways around residents sheds were sterile. Additional waste bins were visible, however they were located clear of the main building.

10.4. Are escape routes sterile and free from excessive fire loading?

There is no specific housekeeping policy assigned to the block, however it appears a zero tolerance approach has been implemented throughout communal areas. The caretaker continuously monitors areas and should be commended for the standard of housekeeping both internally and externally.

10.5. Is the standard of housekeeping within ancillary accommodation acceptable?

Yes. All enclosures are sterile and only used for their intended purpose.

10.6. Describe arrangements for the handling and storage of waste:

It is understood that the main bins are emptied through local authority contact on a regular and continual basis. Any additional build up of waste is removed on an ad-hoc contractual basis via HCC waste management. All large waste items collected by the caretaker are stored in the waste compound and where possible out of site from passers by.

10.7. General comments / defects:

All satisfactory.

11. Heating system

11.1. Description of heating for communal areas:

There are no heaters within communal areas/means of escape.

The communal lounge is provided with electric wall mounted panel heaters.

11.2. Description of heating for flats:

Heating within flats is provided with electric wall mounted panel heaters which are fixed via a fused spur.

12. Cooking arrangements

12.1. Description of kitchen layout and arrangements:

There are no cooking facilities within common areas or in ground floor areas where Hull City council employees operate.

As stated previously, residential flats are provided unfurnished. As a result, HCC are not liable for routine test, inspection and maintenance of appliances. Fire safety information relating to kitchen safety and electrical safety is included within tenants' handbooks.

Kitchens are provided with notional FD20 doorsets, heat detection and cooking facilities are remote from the entrance door and do not prejudice the escape route from any point in the flat other than the lounge



Photo 24



Photo 25

12.2. Are reasonable measures taken to prevent fires as a result of cooking?

It is considered that HCC are doing all that is reasonable to prevent incidents involving fire from occurring within flats; however, it is advised that the electric oven & hob within the communal lounge is removed as any resident occupying the building could maliciously use the appliance. There was also no evidence of a fire blanket present.

13. Lightning

13.1. Does the building have a lightning protection system?

Muswell Court is the tallest structure in the immediate vicinity and with the projected climate change and increased likelihood of more frequent thunderstorms, the protection of the building as a business and community asset is essential.

Risk against lightning strikes should also include the potential for loss of life and cognisance should also be given regarding the property as sleeping accommodation for circa 200+ individual residents.

It was confirmed verbally and via physical inspection that a lightning protection system (LPS) is in place.



Photo 26

13.2. Has a suitable and sufficient risk assessment (RA) in accordance with BS EN 62305-2:2012 been carried out?

Without any specification to observe, HCC should confirm whether an appropriate assessment of lightning protection has been completed.

The RA would determine if protection is required, the RA should be accurate and site specific. The RA would be measured against:

Sources of Damage:

Lightning current is the primary source of damage, the following sources are distinguished by the strike attachment point:

- S1: Flashes to a Structure
- S2: Flashes near a structure
- S3: Flashes to a line
- S4: Flashes 'near' to a line

Types of Damage

Types of damage which may occur as a result of lightning strikes:

- D1: Injury to living beings, due to touch and step voltage - electric shock
- D2: Physical damage (fire, explosion, mechanical destruction, release of chemicals) due to lightning effects including sparking
- D3: Failure of electrical and electronic systems due to LEMP

BSEN 6235-2:2012

- R₁ Risk of loss of human life
- R₂ Risk of service to the public
- R₃ Risk of loss to cultural heritage
- R₄ Risk of loss of economic value

13.3. General comments / defects:

None.

14. Hazards introduced by outside contractors and building works

14.1. Is there satisfactory control over works carried out in the building by contractors?

Yes

HCC has its own maintenance personnel which are generally used for basic and low risk maintenance activities. However where required, (specialist projects) HCC use approved contractors which have completed a comprehensive due diligence process.

As the building requires maintenance during the lifecycle of its use, it is likely to be subject to external maintenance by contractors requiring the use of hot works. Such activities should be subject to specific control measures such as a 'Permit to Work' (PTW) system. The PTW system allows effective control and supervision of externally introduced ignition sources.

PTW's should be the responsibility of an appointed person from HCC and accountable to the works, content of the PTW should include:

- Scope of hot works
 - Time and duration of works
 - Area of works
 - Competence of contractors
 - Correct and maintained equipment
 - Pre and post fire sweeps
-

15. Hazardous substances

15.1. Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises?

Following this assessment, there were no process risks or situations identified which required any assessment under the dangerous substances and explosive atmospheres regulations (DSEAR) 2002.

Residents are prohibited to use portable paraffin or gas cylinder heaters.

Information relating to dangerous substances and materials should be included within the tenants' handbooks.

15.2. Other significant fire hazards that warrant consideration?

Yes

There was no evidence of mobility scooters within communal areas, however it was confirmed that residents store and charge scooters within residents individual dwellings. There are currently no alternative arrangements in place for the storage and charging of scooters, however, this should be monitored and attempts made to provide a dedicated facility rather than allowing their use on upper floor levels.

The use, storage and charging of mobility scooters should be discussed as part of follow up meetings. Refer to NFCC Mobility_Scooter Guidance Final

[NFCC Mobility Scooter Guidance Final.pdf](#)

16. Cladding & wall coverings (spread of flames and fire)

Design and materials of external walls

Regulation 5 Fire Safety (England) Regulations 2022: The responsible person in relation to a high-rise residential building must prepare a record of the design of the external walls of the building, including details of the materials from which they are constructed.

The record prepared must include details of the level of risk identified in the risk assessment required under article 9 of the Regulatory Reform (Fire Safety) Order 2005 that the design and materials of the external walls give rise to and any mitigating steps that have been taken in respect of that risk.

The responsible person must prepare a revised record if there are any significant changes to the external walls of the building.

16.1. Do the external walls of the building adequately resist the spread of fire over the walls and from one building to another, having regard to the height, use and location of the building?

Comprehensive refurbishment was completed in 1991 which included the installation of an external cladding system and enclosure of balconies to form winter gardens.

On 8/08/2017 an initial External Facade and Cladding report and was completed by Fire Guidance UK LLP - See attached. Significant findings from the report identified the presence of 50mm urethane insulation board with a bonded 2mm outer aluminium skin which made up curtain walling.

It has been confirmed by HCC that following receipt of the report, action was carried out to remove all combustible materials so that "the external walls of the building shall adequately resist the spread of fire over the walls and from one building to another, having regard to the height, use and location of the building."

Norfolk Property Services (NPS) hold handover packs and the O&M manual which documents and confirms this work has been completed. HCC are to obtain information and attach to this assessment and share with HFRS.

Fire Guidance UK LLP confirmed that the external walls of the building have been identified through a search of old records and from samples taken of the actual cladding materials. The external wall cladding build-up is described below:

Cladding:

- 75mm Rockwool insulation bat, affixed to the structural façade
- Outer cladding of 2mm Aluminium Alcan PVF2 pre-coated cassette panels, supported on galvanised steel frame.

Curtain walling:

- Steel tray creating the balcony upstand
- 50mm Rockwool insulation
- 50mm urethane insulation board with a bonded 2mm outer aluminium skin (NOW REMOVED AND REPLACED WITH EURO Class (BSEN13501) - A1)

Also, Fire Guidance UK LLP used original reference drawings to indicate fire stopping at the head of the curtain walling between storeys and vertically at the intersection of the curtain walling and the rainscreen system. This was also backed up with inspections made during the sampling on site, as it was evident that horizontal fire and vertical stopping/cavity barriers appeared to be in place in the areas of the curtain walling at the inspected locations.

Holistic carried out destructive inspections of wintergardens through the removal of materials and it was confirmed that the area is made up of the following:

- large double glazed screens
- non- combustible metal frame
- the bulkhead beneath glazing is made up of 15mm gypsum based plasterboard and x2 50mm stonewool insulation.



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31

[17020-CTN-R018-RB-20170808.pdf](#)

16.2. Is there a requirement for an External Wall Fire Risk Assessment to be carried out in line with PAS 9980?

Upon receipt of the most recent external wall survey and providing HCC confirm combustible materials have been removed through photographic evidence, it is the opinion of Holistic Fire Safety that there is no requirement for an External Wall Fire Risk Assessment to be carried out in line with PAS 9980.

16.3. Are records of the design of the external walls and details of the materials from which they are constructed readily available?

As described above:

HCC are to obtain information from Norfolk Property Services (NPS) as they hold handover packs and the O&M manual which documents and confirms works completed on the external wall system.

16.4. General comments / defects:

Other than information detailed above, the external envelope of a building is not expected to contribute to undue fire spread from one part of a building to another part. This is achieved by the following;

- The risk of ignition by an external source to the outside surface of the building and spread of fire over the outside surface is restricted by a strict housekeeping policy; and
- The materials used to construct external walls, attachments to them, and how they are assembled do not contribute to the rate of fire spread up the outside of the building.

Previously there has been no specific reference within the Fire Safety Order (FSO) 2005 to external wall systems and fire doors; however, for clarity they are now specifically mentioned within the Fire Safety Order: Article 6 – ‘Application to premises’.

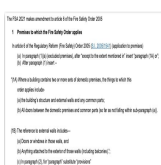


Photo 32

Internal Surface Linings

16.5. Do surface linings within the building contribute towards fire growth?

Generally speaking escape routes at Muswell Court are protected through effective compartmentation of REI 30 and the majority of surface lining materials are furnished to Euro Class B- s3, d2 or better to inhibit any lateral fire spread.

All linings of internal walls and floors within protected areas are solid and non combustible, and free of any additions which could be ignited and contribute to surface flame spread.

As a result, surface linings on walls and floors are not expected to contribute towards fire growth.

Protected escape routes should be protected through effective compartmentation of REI 30 with all surface lining materials furnished to Euro Class B-s3, d2 or better to inhibit any lateral fire spread.

16.6. General comments / defects:

Ceilings within escape routes however are lined with ceiling tiles which are suspected to be of a combustible nature. Although there is a concrete slab which separates floors, should tiles be subjected to ignition, it is foreseeable that they would contribute towards fire growth; as a result, tiles should be removed throughout all areas.



Photo 33



Photo 34

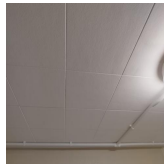


Photo 35

17. Compartmentation & Fire Separation

The appropriate fire separation and compartmentation of parts of a building are designed to restrict the internal spread and inhibit the damage of fire. This usually takes place between floors/ceilings and rooms/areas of high risk, with the creation of 'designated' or 'protected' routes whereby occupants can make their escape relatively unhindered and unharmed.

17.1. The fire resistance of the structure is as follows:

As per current statutory guidance, the following fire resistance levels are expected for the building:

- 120 minutes: for structural load-bearing elements
- 120 minutes: All compartment walls other than between any flat or firefighting stair, lobby or shaft
- 60 minutes: Separation between residential flats and any other area
- 30 minutes for all protected escape routes, both within the main communal area and also within each flat hallway

17.2. Are there clear and obvious breaches / defects in fire resisting construction?

Protected escape routes and residential dwellings are generally well compartmented with little to no evidence of breaches/defects which could result in injury/ill health of relevant persons.

As the majority of services which supply flats exit horizontally into service risers, should a flat fire occur, the likelihood of it affecting neighbouring dwellings (horizontally and vertically) is remote.

There are however, multiple defects within service risers where services are not adequately fire stopped as they enter adjacent compartments.

It is not reasonable to identify and advise on remediation for every breach / defect in compartmentation (fire stopping issues) that might exist within a building. Where defects are consistent and it is foreseeable that defects have the potential to affect the safety of those within the building, a specific compartmentation survey should be undertaken. The key principles of a compartmentation survey are to identify routes of heat and smoke transfer within the premises, e.g. service risers, ventilation risers, kitchen and bathroom extraction arrangements, flat entrance doors and breaches in fire resisting construction. The survey should determine whether past alterations / refurbishment on the building have had an impact existing compartmentation.

17.3. Is a compartmentation survey required / been carried out on the premises?

As part of the T4 fire risk assessment project, Holistic Fire Safety have been commissioned to complete a compartmentation survey on each HRRB. Holistic Fire Safety have appraised the compartmentation of each building and subsequently identified all breaches and defects in fire resisting construction.

Holistic Fire Safety have utilised 'Bolster' which is a digital recording platform to identify breaches and their locations. Each survey will generate a PDF document which can be used to brief Senior Management on findings. HFS's passive fire protection installers who work under the BM Trada Q-Mark scheme have identified each individual penetration and plotted them onto the building layout plans. Each report has identified the surface, substrate and size of each penetration before providing examples of materials which could be used to remediate.

Holistic Fire Safety have provided HCC with methods of satisfying building regulations, and with the intention of complying with test details, supplied by 'Protecta' and other manufacturers. As all properties are existing buildings, and are to remain occupied for the duration of remediation, it may not always be practicable to install a tested solution; therefore, the principle of 'betterment'

and to the 'intention of will be applied.

Refer to:

HFS.HCC.MuswellCourt.CSR.1.0 - Executive Summary

HFS.HCC.MuswellCourt.CS.1.0 - Bolster Report

[HFS.HCC.MuswellCourt.CS.1.0.pdf](#)

[Draft - HFS.HCC.MuswellCourt.CSR.1.0.pdf](#)

Summary of findings from compartmentation survey

17.4. Flats:

Generally satisfactory with no obvious defects present.

At the point services pass into adjacent service risers, fire stopping should be carried out from within risers using tested single sided details supplied by third party certified manufacturers and installers.

17.5. Common Areas:

Generally satisfactory.

Although breaches were present at the point data cables and conduit pass through fire resisting partitions, the presence of such defects are not considered to be detrimental to life safety; also it was confirmed by HCC representatives that, doors and screens are scheduled to be replaced.

17.6. Ancillary Accommodation:

The standard of compartmentation within store cupboards, laundry, lift motor room etc was generally satisfactory with limited evidence of breaches. HCC should refer to the compartmentation survey for evidence of breaches and methods of remediation.

17.7. Service Risers:

There are circa 60 service risers within the building and breaches/defects extensive and consistent throughout. As previously described, the majority of services (soil vent pipes, extraction arrangements, heating services) which supply flats pass freely between risers and dwellings without an effective sealing system in place.

Example breaches consist of:

- combustible plastic pipework entering risers from flats without an effective closing device present.
- Combustible plastic pipework travels vertically from riser to riser without an effective closing device present.
- Insulated non combustible pipework enters risers from flats without an effective closing device present.
- Linear gaps between door frame and substrate have been filled with polyurethane expanding foam (this is not a suitable/tested solution for backfilling around timber doorsets).

All compartments gave evidence of excessive use of pink polyurethane expanding foam. Most Polyurethane foams are combustible, which means they offer limited fire-stopping properties. Best practise states that polyurethane based foams should not be used unless in limited spaces

between 10 and 33mm. (spaces such as bed and side joints to lintels and frames). This filler does not protect larger spaces as it will never achieve satisfactory fire-resistant results. Any PU foam products used must have any fire safety performance determined by testing, to standards BS 476 Part 20/22 and BS EN 1366-4 for linear gaps and BS EN 1366-3 for service penetration seals.

Remediation will primarily consist of sealing defects with an ablative coated fire batt and mastic system applied in conjunction with an intumescent wrap/fire collar for combustible pipework. Where annular gaps allow, all isolated non combustible services can be sealed using fire rated mastic which is tested to BS EN 1366-3/4 and classified to 13501-2:2017 + A1:2009.

HCC should refer to the compartmentation survey for evidence of breaches and methods of remediation.



Photo 36

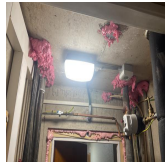


Photo 37



Photo 38



Photo 39



Photo 40

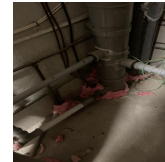


Photo 41

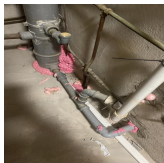


Photo 42

17.8. Ventilation Risers:

None/Not Applicable.

17.9. Other:

Refuse chute:

There are two refuse chutes within the building, both of which travel vertically and serve all floors. As described previously the majority of services discharge into service risers, however the disposal enclosure gave evidence of two louvred vents per riser on all floors which appear to lead directly into flats. Should a fire occur within either area, there is the potential for products of combustion to pass between areas. It is unclear whether vents are required for ventilation or whether vents can be made redundant and sealed so that effective compartmentation can be reinstated.

Also within refuse chutes there was a single soil vent pipe which travelled vertically through all floors which was not appropriately fire stopped using a suitable closing device. Remediation is to consist of installing a suitably sized intumescent fire collar.



Photo 43

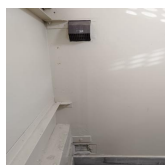


Photo 44

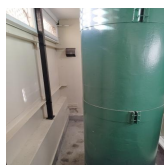


Photo 45



Photo 46

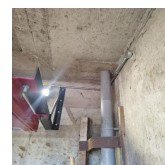


Photo 47

Conclusion

17.10. Are levels of compartmentation within the building

adequate to separate adjoining flats, flats and the common areas and flats and other ancillary accommodation?

No O&M manuals have been supplied to HCC following previous fire stopping works.

HCC representatives confirmed that current fire stopping measures were carried out as a temporary control measure following initial concerns in a previous assessment; works were not carried out by a third party certified installer. It was confirmed that all future fire stopping works are to be completed by competent third party certified installers following findings of the compartmentation survey.

It can be confirmed that as services travel horizontally into service risers and not horizontally or vertically into neighbouring residential flats; although defects and breaches are present, they are not expected to affect the safety of relevant persons due to the evacuation strategy being stay put.

Providing passive fire protection works are undertaken within a timely mannerr, using tested solutions and completed by a third party certified installer, levels of compartmentation are considered satisfactory to support the evacuation strategy and its occupancy.

HCC must ensure that handover packs are received from contractors undertaking works to meet the requirements of Building Regulations 2010 - Regulation 38 - Fire Safety Information.

18. Means of escape from flats

18.1. Description of flat layout:

Residential flats are a mix of single and two bed occupancies whereby all habitable rooms discharge onto the internal hallway. Entry into the flat is made via a certificated FD30s fire door set before the hallway provides access to bedrooms, bathroom, separate toilet, kitchen and lounge which then leads into a winter garden. This was formerly an open balcony which has now been enclosed.



Photo 48



Photo 49

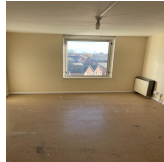


Photo 50



Photo 51



Photo 52



Photo 53

18.2. Are travel distances within flats restricted to 9 meters? If distances exceed tolerances, are mitigation measures in place adequate to control the risk?

Flat 20 was sampled with measurements providing a travel distance of 12m. Distances have been slightly increased due to external balconies now enclosed and part of the internal area of the flat.

Means of escape within flats is typical of diagram 3.3 of ADB B1 which does not require flats to have a protected internal hallway. This principle was based on limiting travel distances to circa 9m which in turn reduces the chance that residents could become trapped in the event of a fire. Additionally, cooking facilities are remote from the entrance door and do not prejudice the escape route from any point in the flat.

Although the travel distance is slightly in excess of 9m, automatic fire detection and warning is provided within the primary risk room (kitchen) and throughout escape routes including the lounge; in addition, existing doors to the lounge and kitchen are notional FD20 doors with georgian wired toplights - both of which are expected to be adequate to provide sufficient time for evacuation.

(Creating a protected route within flats in an occupied legacy building is considered unreasonable given challenges with access, distress to residents and additional works created by the install within properties etc - In addition, should doors be replaced, they would not require closer and therefore would remain open given the occupancy profile, therefore no benefit would be achieved for the time/money/effort carried out)

18.3. Are flats provided with a protected entrance hall and restricted travel distance? Is the standard of doors and construction adequate to restrict fire growth and facilitate evacuation from the dwelling?

As described above, there is no requirement for the entrance hall to be a protected route as travel distances are acceptable given the level of fire detection and that flats are provided with 30-minute fire-resisting construction and 20-minute fire-resisting doors.

18.4. Are flats provided with an alternative exit?

No.

18.5. Are further mitigation measures required as a result of

N/A

defects / non compliant provisions?

19. Means of escape from common parts:**19.1. Are flats provided with a balcony approach or deck approach?**

No.

19.2. Are flats provided with a corridor or lobby approach?

Yes.

19.3. Is every flat separated from the common escape stairway?

Every flat is separated from the common escape stairway by a protected lobby.

19.4. Are there reasonable distances of travel where there is escape in a single direction?

The distance of travel between the flat entrance door and the door to the lobby is limited to 7.5m. (Actual travel distance from flat entrance door to lobby door is 5.8m. Lobby door to protected stair door is 2.5m)

19.5. Are there reasonable distances of travel where there are alternative means of escape?

The ground floor is provided with alternative exits, both of which are within reasonable distances; however exits are not separated by fire resisting construction.

19.6. Are there adequate smoke control provisions to protect the common escape routes?

The protected stair is permanently vented at the head of the stair by an area >1m²; however, there is no ventilation within protected lobbies. Ventilation was originally in place via manually openable windows and louvered grills; however fire resisting partitions have been installed to separate the refuse chute from the means of escape.

Significant changes to escape routes on upper floors are scheduled to be undertaken. Norfolk Property Services (NPS) have produced a series of drawings, including specifications for the replacement of communal doors and screens, and service cupboard doors within communal areas. HCC requested Holistic Fire Safety Ltd (HFS) review drawings and specifications to ensure that those submitted by NPS take into consideration recent changes in fire safety legislation (The Fire Safety Act 2021, The Fire Safety (England) Regulations 2022 & Building Safety Act 2022) - HCC should refer to HFS.HCC.MuswellCourtPrecis.1.0.

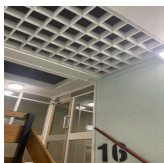


Photo 54

[HFS.HCC.MuswellCourtPrecis.1.0\[216901\].pdf](#)

19.7. Are door widths and escape routes sufficient for the volume of occupants who are required to use them?

Door widths along escape routes are considered to be satisfactory for the evacuation strategy and occupancy.

Approx. widths which form part of the escape route are as follows;

- Stair 1000mm (950mm Inc. handrails)
- Lobby doors between 770-800mm
- Ground floor lobby doors 1500mm and 1080mm
- Final exits 1300mm

There is currently no recorded evidence of challenges faced by residents with regards door widths.

19.8. Do doors along escape routes open in the direction of escape, where necessary?

All doors open in the direction of travel where necessary.

There are two internal exits on the ground floor which open via a sliding door; both doors can be manually operated and fail safe in the open position during a power failure.

19.9. Do escape routes have a minimum clear headroom of 2m and are escape route floor finishes designed to minimise their impact when wet?

Floor coverings and head clearances are adequate to assist with evacuation.

19.10. Are all routes clearly identified through appropriate signage and lighting which lead residents to a place of ultimate safety?

Provisions for signage and emergency lighting are considered to be adequate to aid and assist relevant persons reach a place of ultimate safety. Refer to section 23 for details of Wayfinding signage.

19.11. Are there adequate provisions of exits which are easily and immediately openable?

Final exits doors are manually operated and fail safe in the open position during a power failure.

19.12. Is the fire-resisting construction (including any glazing) protecting escape routes and staircases of a suitable standard and maintained in sound condition?

As described previously, HCC are currently reviewing the design and layout of means of escape with a view of replacing communal doors and screens, and service cupboard doors throughout communal areas.

Current provisions are considered satisfactory providing that comprehensive maintenance is carried out. Refer to section 20.

19.13. Is the design and maintenance of the means of escape considered adequate?

The general principles of means of escape applied at Muswell Court are:

- Horizontal escape from the flat entrance door to a stairway or final exits; and
 - Vertical escape via a stairway leading to a final exit or place of relative safety
-

- Corridors and escape routes are clear of significant fire hazards, meaning that the most likely place for a fire to start is within a flat;
 - Flats and risk rooms have a reasonable level of compartmentation; therefore, the probability of fire spread from the room of origin will be low; and
 - If a fire does occur in common areas, the materials and construction will restrict fire spread and development whilst additional measures are in place to raise the alarm and provide smoke control.
-

20. Fire Doors

20.1. Is the fire resistance of doors / curtain walling to staircases and the common areas considered adequate, and are the doors maintained in sound condition? Describe the standard and condition of door sets?

Although significant changes to fire resisting doors and curtain walling are scheduled as part of the proposed refurbishment; should HCC decide to review the decision to carry out wholesale replacements, it is the opinion of the assessor that current provisions could be upgraded to provide a satisfactory standard should comprehensive remediation be completed.

HCC should refer to HFS.HCC.MuswellCourtPrecis.1.0 for further information.

All current doors are 44mm, self-closing and of notional fire resistance with large georgian wired vision panels either side of the central rail.

All curtain walling and partitions are made up of timber frames which are completed by large georgian wired glazed apertures.

As highlighted previously within the report, there are varying standards of hinges, electronic open devices, strips/seals and self closing devices. Gaps between the leaf and frame are generally excessive at all floor levels with side rails >4mm and threshold gaps >8mm.

If fire resisting doorsets are inspected in isolation then defects which are present suggest wholesale replacements are the appropriate course of action to take, such a decision would be further justified by the fact that lobbies are not provided with provisions for smoke control and occupants are generally considered more vulnerable than this typically residing within residential dwellings.

That being said, it is the opinion of the assessor that current proposals are reviewed.



Photo 55



Photo 56



Photo 57



Photo 58



Photo 59



Photo 60

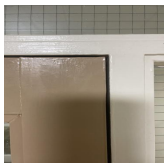


Photo 61

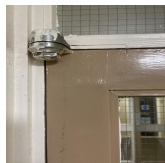


Photo 62



Photo 63



Photo 64

[HFS.HCC.MuswellCourtPrecis.1.0\[216901\].pdf](#)

20.2. Is the fire resistance of doors to meter cupboards/store rooms/plant rooms in the common areas considered adequate, and are they adequately secured and/or fitted with suitable self-closing devices? Describe the standard and condition of door sets?

Similar to lobby doors & screens and staircase doors & screens, doors which enclose risers and ancillary accommodation gave evidence of multiple defects.

Although the risk of ignition and fire spread within risers is low, the standard of doors is sub-standard as there are multiple defects throughout the building.

Current provisions are also notional 44mm FD30s doorsets, however defects consist of:

- damaged door leaves
- damaged timber frame
- retrospective installation of door stops
- lack of backfilling/fire stopping between the frame and substrate
- steel hinges with no markings
- missing screws from hinges

Given the volume of defects, it is the opinion of Holistic Fire Safety that all riser and ancillary rooms doors are replaced for certificated pre-hung FD30s fire doorsets.

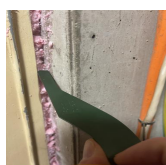


Photo 65

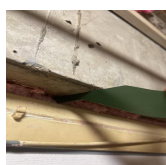


Photo 66

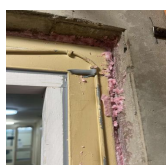


Photo 67

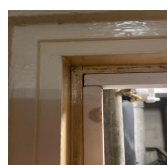


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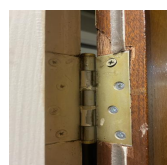


Photo 69



Photo 70



Photo 71

20.3. Are suitable self-closing devices fitted to doors which discharge into common areas?

The staff office and adjacent store cupboard on the ground floor are not provided with self closing devices. Although doors are due for replacement, in the interim they should be fitted with a self closing device.

As described previously, there are varying standards of self closing devices on communal doors ranging from pivot hinges, electronic open/closers to cater for mobility impaired residents and traditional overhead mounted devices. All doors sampled returned flush within their rebate when opened, however there was no consistency; as a result, a HCC should define standards throughout the building.

20.4. Is the fire resistance of flat entrance doors considered adequate, and are doors maintained in sound condition? Describe the standard and condition of door sets?

All flat entrance doors have been replaced with third party certified FD30s fire doorsets, which meet the requirements detailed in the ADBVol: 1 Appendix C1 2a for fire resistance and smoke control from both sides, and are fitted with an appropriate positive action self-closing device (BS 1154) and a single action mechanism which does not require the use of a key.

No evidence of certification has been provided, however handover packs are expected to be held by HCC compliance teams.

Doorsets have BM Trada Manufacturers plugs installed within the edge of the door leaf, however there is no evidence to suggest that doorsets have been installed by BM Trada certified installers.

Removal of architrave gave evidence of satisfactory backfilling/fire stopping between the doorframe and substrate with 4-6mm linear gaps sealed by fire rated mastic.



Photo 72

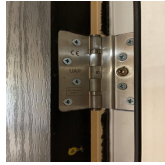


Photo 73



Photo 74



Photo 75

20.5. Are suitable self-closing devices fitted to flat entrance doors and, where fitted, maintained in good working order?

All replacement flat entrance doors are fitted with an appropriate overhead BS 1154 self closing device.

21. Means of warning

21.1. Is a fire detection and fire alarm system provided within the common areas of the building? Where applicable, confirm the category of system and describe provisions.

Muswell Court is not typical of a sheltered accommodation building as they are generally single, double or three storey buildings. As Muswell Court is made up of 16 floors of residential accommodation and occupied by a higher percentage of vulnerable residents than a general needs HRRB, there is a greater emphasis on ensuring compliance with best practise current guidance.

Single point battery smoke detectors are provided within isolated areas of ancillary accommodation (staff office & laundry etc), however there are no provisions within escape routes or areas with specific risk (lift motor room).

BS 5839:2019 + A1:2020 states that communal areas of the scheme should be provided with a Grade A system which is in accordance with recommendations of BS 5839-1:2017 for a category L4/5 system. It is advised variations should be applied so that coverage spans the communal lounge, laundry, lift motor room etc. Such provisions would not only assist with meeting current guidance, but they would also compliment a smoke control system which is also required.

Given the building height, it is not practicable for an activation to sound throughout communal areas as this could lead to panic and confusion. Simultaneous evacuation from communal areas of the building could also compromise firefighting operations as responding fire crews are likely to require access to the staircase.

It is therefore proposed that additional automatic fire detection and warning is installed throughout communal areas and identified risk rooms. An activation within isolated risk rooms should notify those within the area, however, an activation in escape routes should be operated as a silent system, whereby should an activation occur, it does not produce an audible sound, and it directly notifies the alarm receiving centre.

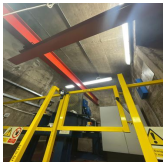


Photo 76

21.2. Where applicable, is control indicating equipment provided and positioned in a suitable location?

There is a fire alarm panel located on the 14th floor which is linked to detection within the communal lounge only. Should HCC renew automatic fire detection and install provisions within identified risk rooms and escape routes, control indicating equipment should be relocated adjacent to the front entrance on the ground floor.



Photo 77

21.3. Where applicable, has a fire alarm zone plan been provided? This should consist of 'a diagrammatic

representation of the building, showing building entrances, the main circulation areas and the division into zones. The diagrammatic representation should be printed, correctly orientated and provide an accurate zone plan.'

A text written zone plan is provided adjacent to the fire alarm panel, however, following proposed changes to the system a new plan will require siting adjacent to the panel. The plan should be a diagrammatic representation of a building, showing specific topographic information and the division of the building into detection zones.

In at least one multiple fatality fire, it has been determined that some or all of the deaths could have been avoided if a diagrammatic representation of the premises (commonly described as a zone plan) had been provided in close proximity to the CIE.

21.4. Where applicable, are manual call points provided at suitable locations? Describe provisions.

Manual call points are appropriately located within the communal lounge at final exits and outside the staff office.

21.5. Where applicable, are sounders including visual alarm devices suitable for the occupancy and considered adequate in raising the alarm?

As describe previously, single point detectors are located within isolated risk rooms and they are considered satisfactory to raise the alarm for those occupying the area/adequate to prevent relevant persons entering the area.

See 21.1 for proposed changes to automatic fire detection and warning.

21.6. Where applicable, is the system connected to an alarm receiving centre?

Automatic fire detection and warning within the communal lounge and residential dwellings is linked to the social tele care system, in the event of activation of a detector/pull cord, the alarm receiving centre will be notified.

21.7. Where applicable, are there adequate arrangements in place for silencing and resetting an alarm condition?

Although, the current communal alarm system is not considered adequate, arrangements are in place for silencing and resetting.

21.8. Are provisions within communal areas adequate to meet the purpose group and occupancy of the building?

As described previously, the current level of automatic fire detection and warning is not considered adequate for the purpose group and building type. Detection which meet the requirements of a Grade A system which is in accordance with recommendations of BS 5839-1:2017 for a category L4/5 system should be installed throughout communal areas of the block.

Detection and alarm systems within residential accommodation

21.9. Are provisions within residential accommodation

Yes

adequate to meet the purpose group and occupancy of the property? Describe the standard/category along with provisions.

Each residential flat is provided with a Grade D1 LD2 (BS 5839:2019 + A1:2020) system which comprises of a smoke detection throughout all circulation areas that form part of the escape route from [within] and heat detection within areas of high fire risk to occupants (kitchen).

Upon activation of a detector, the alarm receiving centre will be notified via the social telecare Tunstall System. This will enable the alarm receiving centre to communicate with residents via a telephone or master station. In the event of no response from residents, Humberside Fire & Rescue Service will be requested. The alarm receiving centre passes all necessary information to HFRS - access codes and which flat the activation originates from.

The social telecare system includes provisions which comprise of pull cords and an intercom system which enables residents to communicate with scheme staff during operational hours and the ARC out of hours.

Residents with specific impairments should be provided with individual devices in the form of pendants and vibrating pads. Again, such provisions should be considered as part of the PCFRA.

HCC confirmed that as part of future proofing of their HRRB's, as a baseline install within void properties, a Grade D1 LD2 fire alarm system is installed. HCC are also working on a system which sends key information to the cloud. e.g. the system will identify issues in the event of an activation - HCC will be automatically notified. HCC do not currently have sufficient resources to monitor activations however, plans are being put in place to achieve this.

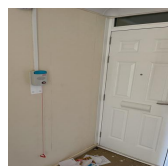


Photo 78

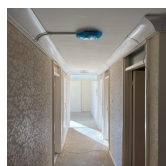


Photo 79

Evacuation alert system

Inline with recommendations made in Phase 1 of the Grenfell Tower report (Executive Summary) Section 12, 33.22 (d). If the property is defined as a high rise residential building, it should be equipped with an evacuation and alert system which meets BS 8629:2019.

21.10. Is an Evacuation alert system provided and does it consist of the following:

- **Evacuation and alert control indicating equipment (EACIE) within additional SIB accessible to the attending Fire and Rescue Service**
- **Signage to indicate EACIE**
- **Sounders for evacuation and alert system within each residential flat**
- **EACIE to be on toggle switches**
- **Ability for the Fire and Rescue service to control evacuation by individual floor or whole building**

There is no evacuation alert system provided at Muswell Court.



Photo 80

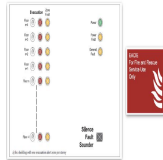


Photo 81

22. Emergency escape lighting

22.1. Has a reasonable standard of emergency escape lighting been provided? Is emergency escape lighting adequate to enable occupants to locate, and move safely along defined routes and escape via final exits? Describe arrangements and deficiencies observed.

Although emergency lighting was not tested, an inspection of luminaires and their locations has determined that provisions are adequate to enable occupants to locate, and move safely along, defined routes and escape via final exits.

Emergency lighting installed consists of bulk head lights, illuminated signs and ceiling mounted lights; all luminaires are low voltage LED.

The building is provided with a mixture of maintained (X 1 180) luminaires and non maintained (X 0 180) luminaires with a three hour battery back up. Bulkheads and final exits are maintained units. Internal and external provisions appear satisfactory, although there are some small rooms which are not provided with luminaires, however based on risk assessment, the risk within these areas has determined current provisions as satisfactory.

Luminaires are provided with test switch keys which are located at various places and are tested monthly internally.

Provisions appear to be in accordance with BS 9999 Table 8



Photo 82



Photo 83

Table 8 Provisions for emergency escape lighting	
Category	Maintained or non-maintained emergency escape lighting
Provision	Subdivided or unobstructed accommodation
A	Subdivided or unobstructed accommodation That the escape route is clearly marked That the escape route is clearly marked That the escape route is clearly marked
B1	Escape route of non-fire exit Escape route of non-fire exit Escape route of non-fire exit
B2	Escape route of fire exit Escape route of fire exit Escape route of fire exit
C	Escape route of fire exit Escape route of fire exit Escape route of fire exit
Key	All escape routes shall be clearly marked Escape routes shall be clearly marked Escape routes shall be clearly marked
1	Escape route of fire exit Escape route of fire exit Escape route of fire exit
2	Escape route of fire exit Escape route of fire exit Escape route of fire exit
3	Escape route of fire exit Escape route of fire exit Escape route of fire exit

Photo 84

23. Fire safety signs and notices

23.1. Is there a reasonable standard of fire safety signs and notices?

Fire safety signage is generally to a satisfactory standard both internally and external to the premises with reasonable provisions for hazard warning signs (risk rooms), mandatory signage for fire doors, information signage detailing emergency arrangements and prohibition signage for smoking. Fire safety signage is generally in accordance with the Health and Safety (Signs and Signals) Regulations together with BS 5499-4: 2013 and BS EN 7010.

23.2. Are Fire Action Notices provided and displayed in appropriate locations?

Each residential floor is provided with comprehensive instruction on actions to be taken in the event of fire. Fire action notices are displayed prominently opposite/adjacent lift doors.



Photo 85

23.3. Is emergency evacuation/safe condition signage provided within communal areas?

Due to the single means of escape, and the expectation that all residents are familiar with the layout of the building and its communal areas, although some signage is technically incorrect in places, current safe condition signage provided is considered to be satisfactory and it is expected that all relevant persons using the building will understand signage in place.

Should changes be made to escape route layouts, it is advised that escape route signage consists of the following:

- a combination of a BS EN ISO 7010 emergency exit sign including a directional arrow and supplementary text
- The use of supplementary text should be in accordance with BS 5499-4 clause 4.7 and state either 'Exit' or 'Fire Exit'
- For any sign suggesting a 'straight ahead' an up arrow is required (meaning 'progress forward and through here' as per BS 5499-4:2013 Table 1). A down arrow suggests a change in level downwards.

It is advised that all replacement safe condition escape route signage should be photo luminescent as manufactured by Jailite. Signs should be rigid or semi rigid PVC fixed by 4 x screws in each corner of the sign or with appropriate adhesive.



Photo 86

23.4. Is suitable and adequate signage in place to notify relevant persons of actions taken in relation to lifts?

Information relating to the use of lifts in the event of fire is contained within fire action notices.

23.5. Is 'Fire exit, keep clear' signage in place at appropriate locations?

To prevent persons from obstructing emergency exit doors on the external side of the building, 'Fire exit keep clear' signs that comply to BS 5499-4 have been displayed on the outside of final doors.

23.6. Is hazard warning signage provided at appropriate locations?

Hazard warning signage is in place on the external face of risk areas such as the lift motor room and the external electrical substation. Each individual ESU within the building is also provided with hazard warning signage to warn both occupants and responding fire crews.



Photo 87

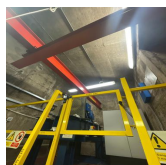


Photo 88

23.7. Is mandatory signage prescribing a specific behaviour in place at appropriate locations?

Mandatory signage prescribing a specific behaviour is displayed prominently on all fire doors where necessary (including flat entrance doors) throughout the building.

- Fire doors which are accessible from either side have 'Fire door keep shut' signs attached to both sides of the door leaf
 - Fire doors where access is restricted, has 'Fire door keep locked' sign to the open facing leaf of the door only
 - Doors fitted with electromagnetic hold open devices are fitted with 'Automatic fire door, keep clear' signage on both faces of the door leaf.
-

23.8. In relation to Regulation 8 of the Fire Safety Regulations 2022, has the responsible person ensured that the building contains clear markings of floor identification and identification of domestic premises in the form of Wayfinding Signage?

Muswell Court is provided with signage which identifies both floor number and flat numbers, however, although emergency lighting is provided, current signage is not considered adequate to be visible in lowlighting or smoky conditions.

'It is a requirement that floor numbers be clearly marked on each landing within the stairways and in a prominent place in all lobbies in such a way as to be visible both in normal conditions and in lowlighting or smoky conditions'

ADB Vol 1. 15.14 states that floor identification signs should meet all of the following conditions:

- A. The signs should be located on every landing of a protected stairway and every protected corridor/lobby (or open access balcony) into which a firefighting lift opens.
- B. The text should be in sans serif typeface with a letter height of at least 50mm. The height of the numeral that designates the floor number should be at least 75mm.

- C. The signs should be visible from the top step of a firefighting stair and, where possible, from inside a firefighting lift when the lift car doors open.
- D. The signs should be mounted between 1.7m and 2m above floor level and, as far as practicable, all the signs should be mounted at the same height.
- E. The text should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.

ADB Vol 1. 15.15 states the floor number designations should meet all of the following conditions:

- F. The floor closest to the ground level should be designated as either Floor 0 or Ground Floor.
- G. Each floor above the ground floor should be numbered sequentially beginning with Floor 1.
- H. A lower ground floor should be designated as either Floor -1 or Lower Ground Floor.
- I. Each floor below the ground floor should be numbered sequentially beginning with Floor -1 or Basement 1.

ADB Vol 1. 15.16 states the flat indicator signs should meet all of the following conditions:

- J. The signs should be sited immediately below the floor identification signs, such that the top edge of the sign is no more than 50mm below the bottom edge of the floor identification sign.
- K. The wording should take the form Flats X-Y, with the lowest flat number first.
- L. The text should be in sans serif typeface with a letter height of at least half that of the floor indicator sign.
- M. The wording should be supplemented by arrows when flats are in more than one direction.
- N. The text and arrows should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.

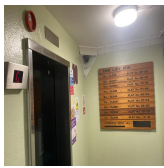


Photo 89



Photo 90



Photo 91



Photo 92

For the purposes of the paragraph above “markings” means an identification designed and located in accordance with the guidance in Volume 1 of Approved Document B(1) on each landing within the stairways and in the lift lobbies of the floor level marked in such a way as to be visible both in low level lighting conditions or when illuminated with a torch.

24. Extinguishing media and fixed systems

24.1. Is Automatic Water Fire Suppression Systems (AWFSS) provided within communal areas/ancillary accommodation? Where applicable, describe arrangements and deficiencies.

None provided.

24.2. Is Automatic Water Fire Suppression Systems (AWFSS) provided within residential accommodation? Where applicable, describe arrangements and deficiencies.

Cognisance of the structure and use of the building, together with its long term future planning, consideration should be given to the additional protection afforded by engineering solutions such as retro-fitted AWFSS sprinkler system.

The recent amendment to ADB Vol 1. (May 2020) with regard to the lowering of the trigger height for sprinkler requirements in relevant buildings to 11 metres only emphasises this is a proactive approach to the direct safety of the sleeping residents.

24.3. Is suitable portable firefighting equipment provided at appropriate locations? Where applicable, describe arrangements and deficiencies.

Extinguishers are not present within means of escape.

Extinguishers are provided in the lift motor room, staff room where people are employed to work, laundry and plant room. Dry powder extinguishers should be removed from the premises and replaced with an appropriate equivalent. E.g. CO₂. Dry powder extinguishers should not be used within buildings/enclosed spaces, otherwise provisions provided are satisfactory considering fire risk, floor area and travel distance.

Extinguishers - cctv room/caretaker office DP. Welfare room CO₂. Cleaners cupboard CO₂. Laundry CO₂. Water pump room DP. Mains room DP. LMR CO₂. Community room DP x3 & FB in date 11/22.

HCC should consider reviewing fire extinguisher provisions within the building with a view of converting extinguishers to composite P50 extinguishers; benefits include environmental and financial savings.

25. Other relevant fixed systems and equipment

25.1. Where applicable, are there appropriately sited facilities for electrical isolation of any photovoltaic (PV) cells, with appropriate signage, to assist the fire and rescue service?

There is no PV system installed at Muswell Court.

25.2. Other fixed systems including arrangements and deficiencies.

Fire dampers are provided in ductwork at the point extraction exits residential dwellings and enters service risers. It was confirmed that dampers are subjected to inspection and testing to ensure that they will still operate in a fire every four years.

26. Access and facilities for the fire service

26.1. Are the following provisions provided for the premises:

- External access which enables fire appliances to be used near the building
- Access into the building for firefighters to search and rescue people
- Access into the building for firefighters to fight any fires

Access roads are not compromised by parked vehicles even though surrounding areas are heavily populated by residential accommodation.

HFRS are provided with key fob access and the alarm receiving provides access codes via mobile data terminal.

In line with Regulation 4 & 6 of the Fire Safety Regulations 2022, Holistic Fire Safety have provided HCC with a secure information box which contains accurate building and floor plans to assist HFRS search and rescue people and fight fires.

26.2. Are provisions for fire appliance approach and positioning satisfactory to facilitate and assist emergency response? Describe arrangements and deficiencies - widths, heights, weight tolerances, distance from dry riser/building etc.

Access to Muswell Court is via the B1237 which then enters Perivale Close and leads directly to the north, east and south side of the building.

Current provisions provide a minimum of 3.7m in width and 4m in height to allow for unrestricted access for pumping and high reach appliances (ADB Vol 1. B5 Table 13.1).

There are no obvious signs of weight restrictions or anything that could impact appliance approach and positioning. The nearest point at which a fire appliance could position to the building is <18 meters.

26.3. Water main: Describe arrangements and deficiencies observed.

All immediate hydrants are within 90 metres, and are 100mm diameter and are the responsibility of the local water authority undertaking, via Humberside Fire and Rescue Service, who maintain each hydrant on a two year flow test programme.

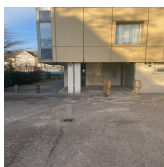


Photo 93

26.4. Dry riser: Describe arrangements and deficiencies observed.

The dry riser is located within an enclosure which forms part of the central core of the building. The dry riser serves all floors and it is estimated that all points within each flat of the block are in the region of 45m from the nearest landing valve.

The inlet valve is located adjacent to the stair on the ground floor and landing valves are located in

the lobby which separate flats and the protected stair. Such provisions increases firefighter safety in the event of an incident.

The 16th floor dry riser enclosure had an electrical distribution board located within it, it is strongly advised that this is reviewed as it is foreseeable that water spray/mist could be produced when charging hose/the dry riser.

Access to the ground floor dry riser inlet valve is restricted by conduit fixed at ceiling level; this prevents the door from opening.



Photo 94



Photo 95



Photo 96



Photo 97



Photo 98

26.5. Other / defects:

Lifts at Muswell Court are not designated firefighting lifts, however there is an agreement in place that lifts would be utilised by HFRS in the event of an incident.

Signage within communal areas clearly states that lifts are not to be used in the event of an incident by relevant persons and it was confirmed that the lift returns to the ground should the alarm sound within the communal lounge.



Photo 99

Secure information box

In relation to Regulation 4 of the Fire Safety Regulations 2022, the responsible person in relation to high-rise residential building must install and maintain a secure information box in or on the building

26.6. Is the secure information box positioned at a location in or on the building which is readily accessible to the fire and rescue authority?

The SIB is located adjacent to lift 1 within the ground floor lobby. Consideration is to be applied as to whether its location is the most suitable. It is the opinion of the assessor that its current location is acceptable, however, HCC may wish to relocate to the external face of the building to ensure the responding emergency services can gain access to the building.

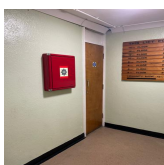


Photo 100

26.7. Is the secure information box capable of containing

documents required by these Regulations and is it reasonably secure from unauthorised access and vandalism?

HCC are currently reviewing the content of the SIB.

Content is to include the following:

- 3 laminated plans of each floor including flat numbers + arrangements to meet Regulation 6
- Details of vulnerable residents - PEEPS (Personal Emergency Evacuation Plans)
- Evacuation plan for the block
- Details of "essential fire-fighting equipment"
- Location of utility `shut off` valves
- Location of service risers
- Location of fire fighting lifts
- Location of EACIE (if/when installed)
- Copies of building access keys
- Copies of lift engagement key
- Copy of SSRI & Ops Pre plan
- Copy of appliance pump pressure convertor
- Location of utility `shut off` valves

The responsible person must ensure that the following information is contained within the secure information box (Assessor to confirm)

26.8. Is the name, address and telephone number within the United Kingdom of the responsible person present?

Under review.

26.9. Is the name and contact information of such other persons within the United Kingdom who are provided with the facilities to and are permitted to access the building as the responsible person considers appropriate present?

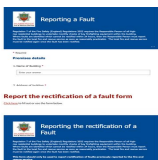
Under review.

26.10. Has the responsible person provided the local fire and rescue authority with everything required to enable it to access the secure information box and are arrangements in place to as soon as reasonably practicable notify the local fire and rescue authority if there are any changes to those requirements?

Holistic Fire Safety are to complete an audit/assessment of the management of HRRBs - this audit/assessment will confirm HCC are meeting all the requirements of the Fire Safety Regulations 2022.

It can be confirmed that arrangements are in place to notify the local fire and rescue authority if there are any changes which affect their ability to gain access to the building, carry out search and rescue or carry out firefighting operations.

<https://humbersidefire.gov.uk/your-safety/business-safety/fser>



Floor plan and building plans

26.11. Are plans provided adequate to assist emergency response and meet the requirements of Regulation 6 of the Fire Safety Regulations 2022?

HCC have produced plans to meet Regulation 6 of the Fire Safety Regulations 2022.

Attached are drafts as final versions were not complete at the time of the assessment.

- Ground floor
- Eighth floor
- Vertical Section
- Assistance Section

[22291-MC-2-Ground Floor.pdf](#)

[22291-MC-10-Eighth Floor.pdf](#)

[22291-MC-19-Vertical Section.pdf](#)

[22291-MC-20-Assiatance Section.pdf](#)

Confirmation of Regulation 11 of the Fire Safety Regulations 2022

26.12. Has the responsible person provided the local fire and rescue authority adequate documentation relating to Regulation 5 (design and materials in external walls)? This information must be communicated via electronic means.

It can be confirmed that HCC have provided HFRS with the necessary documentation which meets the requirements of Regulation 5 (design and materials in external walls. Initial surveys were carried out on 08/08/2017, which identified materials within the external wall that did not meet the requirements of Approved Document B - B4. HCC acted upon findings of the survey and removed all combustible materials which made up curtain walling, however it is unclear whether handover pack / the O&M manual documenting works has been shared.

Fire Guidance UK LLP

Muswell Court
Fire Safety Technical Note
External Facades and Cladding

Hull CC
01482 2017

[17020-CTN-R018-RB-20170808.pdf](#)

26.13. Has the responsible person provided the local fire and rescue authority adequate documentation relating to Regulation 6 (floor plans and building plan)? This information must be communicated via electronic means.

Plans are in the process of being produced - Under review.

27. Resident and stakeholder engagement - communication & information

Regulation 9 of the Fire Safety Regulations 2022, the responsible person must display fire safety instructions in a conspicuous part of any building:

- which contains two or more sets of domestic premises; and
- which contains common parts through which residents
- would need to evacuate in the case of an emergency.

Fire safety instructions must be in a comprehensible form that the residents can be reasonably expected to understand; they must also contain instructions relating to the evacuation strategy for the building, how to report a fire to the fire and rescue authority, and any other instruction that tells residents what they must do when a fire has occurred.

Yes

The responsible person must provide a copy of the instructions to a new resident of domestic premises within the building, as soon as reasonably practicable after that resident moves into the premises; and to all residents of domestic premises within the building within each period of 12 months beginning with the date these Regulations come into force.

After any material changes to the instructions, the responsible person must display the fire safety instructions and provide a copy to residents which relate to evacuation, how to report an incident and any other instruction of actions to be taken in the event of an incident.

27.1. Are arrangements in place to meet the requirements of Regulation 9?

HCC confirmed that significant efforts are being made to improve engagement and communication with residents; a clear and defined example of this is the creation of the Tenancy Management High Rise Team. In addition, HCC have created various steering and residents groups which undertake monthly surgeries who are to be attended by emergency services - police, fire, anti social groups etc.

HCC are currently in the process of producing a 'Welcome Pack / Resident Information Pack'; these safety packs are to cover the contents stated below along with resident duties, HCC obligations, key contacts within HCC and how to report defects / incidents etc.

HCC have committed to community drop in's to assist engagement along with producing periodic briefing letters which provide updates - good and bad & feedback forms.

Another clear and defined demonstration of engagement is installing smart tv's on landings which are to be used for communicating with residents.

Consulting and notifying residents is critical to the safety of the building. The points below should be cross-referenced with information provided to residents to ensure adequate communication is in place. BS 9991:2015 Annex F Figure F.1 provides a suitable example of such advice, or residents may be provided with specific information in the form of a bespoke document. The term 'They'

refers to Residents.

- How they can prevent fires in their own home and in the common parts.
- The importance of maintaining the security of their block (making sure doors close behind them when they enter or leave) and being vigilant for deliberate fire setting.
- that they should never store or use petrol, bottled gas, paraffin heaters or other flammable materials in their flats.
- what action they should take if they discover a fire.
- how they can ensure they can make their way safely from their flats and how to exit the building once they have left their flat.
- what 'stay put' means if there is a fire elsewhere in the building.
- what they must do to safeguard communal escape routes, especially taking care to make sure fire doors self-close properly and are not wedged, tied or otherwise held open.
- what the policy on the use of common parts requires of them.
- how they can avoid inadvertently damaging the buildings fire protection when making changes to their flat. what is involved in testing their smoke alarms and how often they should do it.
- ways they can assist the fire and rescue service by not blocking access when parking, and by keeping fire main inlets and outlets, where provided, clear.
- how they can report essential repairs needed to fire safety measures in their flat and elsewhere in the block.

27.2. Are arrangements in place to provide residents with sufficient information to meet guidance provided in BS 9991:2015 Annex F Figure F.1?

As described above.



Photo 103



Photo 104

Fire doors

Regulation 10 of the Fire Safety Regulations 2022, the responsible person, in relation to a building which contains two or more sets of domestic premises and which contains common parts through which residents would need to evacuate in the case of an emergency, must provide the required information about fire doors to the residents of the building.

Required information includes:

- Fire doors should be kept shut when not in use;
- Residents or their guests should not tamper with the self closing devices; and
- residents should report any faults or damages with doors immediately to the responsible person;

The required information must be provided by the responsible person to a new resident of domestic premises in the building, as soon as reasonably practicable after that resident moves into the premises; and to all residents of domestic premises within the building, within each period of 12 months beginning with the date these Regulations come into force.

The responsible person, in relation to a building which contains two or more sets of domestic premises and which is above 11 metres in height, must use best endeavours to undertake checks of fire doors at the entrances of individual domestic premises in the building at least every 12 months.

The responsible person in relation to a building which contains two or more sets of domestic premises and which is above 11 metres in height, must undertake checks of any fire doors in communal areas of the building at least every 3 months.

The responsible person must keep a record of the steps taken to comply with the obligation including in any case where access to the domestic premises was not granted during any 12 month period, and the steps taken by the responsible person to try and gain access. The checks required must include ensuring that the self-closing devices for the doors are working.

27.3. Are arrangements in place to meet the requirements of Regulation 10?

HCC are currently reviewing a number of internal arrangements and processes in attempt to meet the requirements of the Fire Safety Regulations 2022. As described previously Holistic Fire Safety are to complete an audit/assessment of the management of HRRBs - this audit/assessment will confirm HCC are meeting all the requirements of the Fire Safety Regulations 2022.

28. Management of fire safety

28.1. Fire safety at the premises is managed by:

Fire Safety in HCC's HRRB's is managed by Hull City Council with the Assistant Director seen as the most appropriate and senior role responsible for Fire Safety.

28.2. To meet Article 18 of the Fire Safety Order - Safety assistance and inline with recommendations made by WG8 and Hackitt report (Building A Safer Future) Recommendation 3.1c), have those in control of the building nominated a 'Building Safety Manager' (BSM). This role should be nominated as the 'named individual' who is the single point of contact responsible for all safety issues in the premises. The BSM must have the 'relevant skills, knowledge, experience and behaviours, to carry out the day to day management of the fire and structural safety of the building, having regard to the statutory functions of the BSM'.

HCC have not yet nominated an individual/role as the Building Safety Manager (BSM); a comprehensive recruitment drive has taken place, however they have been unable to fill the position.

28.3. Safety assistance continued: Are competent person(s) appointed under Article 18 of the Fire Safety Order to assist the responsible person in undertaking the preventive and protective measures (i.e. relevant general fire precautions)?

The structure of the organisation at HCC is complex and it is currently unclear from a third party's point of view who is responsible for each area associated with Fire Safety. As with any Local Authority, different departments are responsible for different areas of the organisation, it is the opinion of Holistic Fire Safety that HCC should document the organisational structure and roles responsible for fire safety.

See the attached as guidance:

There should be formal agreement between duty holders and key roles such as Assistant Director, Head of Service, Families & Neighbourhoods etc. Their roles and responsibilities should be documented in the form of a matrix. The matrix should clearly identify the agreed responsibility for every key aspect of fire safety management specific to HCC's (duty holders include anyone who, "under a tenancy or contract, has a responsibility for maintenance or repair of the premises, maintenance or repair of anything in or on the premises, or for the safety of the premises".

This can include a wide variety of people, including, third party contractors on short and long term agreements, along with fire risk assessors and service engineers who maintain fire protection equipment; roles who may commit offences if they do not carry out their work properly.) The matrix should look like the following:



Photo 105

28.4. Do those in control of the building have a Fire Safety

Management Plan in place which demonstrates how fire safety is managed across the organisation. The management plan should be a single and central document which provides evidence of compliance with Article 11 of the Fire Safety Order - Fire safety arrangements.

Verbal discussions with HCC representatives confirmed that HCC have a number of policies and procedures in place which confirmed compliance with Article 11 of the Fire Safety Order.

TCW is the electronic recording database which is defined as the buildings fire safety manual.

As described previously Holistic Fire Safety are to complete an audit/assessment of the management of HRRBs - this audit/assessment will confirm whether current provisions are satisfactory.

28.5. Does the premises have a fire safety design strategy document?

- **A complete and thorough consideration of the fire safety requirements and its occupants**
- **To widen the consideration of fire precautions with respect to broader objectives including life safety, business continuity and property protection**
- **To assist in the review of fire system design criteria prior to the preparation of the designs**
- **To ensure that fire protection system designs support the strategy**
- **To provide a framework for all future fire safety and protection works**

There is no fire strategy design document in place for Muswell Court.

28.6. Does the property have a database/fire safety manual which contains the following information?

- **Building design information**
- **Building plans - inc. locations of isolation points, fire hazards & hydrants**
- **Drawings of the building identifying the fire alarm zones and compartment boundaries**
- **Drawings defining levels of fire-resistance in accordance with the fire strategy**
- **Fire Risk Management Plan**
- **Fire risk assessment**
- **Routine test inspection and maintenance of passive and active systems**
- **Details of fire safety training**
- **Record and action plan of any fire safety audit and programme of works to remedy defects and deficiencies**
- **Evacuation procedures**
- **Business continuity plans**
- **Emergency Plan**
- **Safe working procedures**

TCW is the electronic recording database which is defined as the buildings fire safety manual.

28.7. Are those who occupy the premises as a 'place of work' provided with fire safety training specific to the building? In

Yes

relation to Article 11 of the Fire Safety, fire safety training should cover:

- **The premises fire safety strategy and procedures and their personal responsibilities to prevent and protect against outbreaks of fire**
- **What action to take if they discover a fire**
- **How to raise the alarm, the location of manual call points, and the procedure for contacting the Fire Service**
- **What action to take immediately on hearing the fire alarm**
- **The location and safe use of portable or other fire extinguishing equipment (if authorised to do so)**
- **The location of escape routes from their place of work including those routes not used regularly for normal access and egress**
- **Their responsibility to direct or escort visitors and contractors in their charge to escape routes (and in the case of disabled persons to the nearest useable escape route)**
- **The importance of keeping closed all fire doors and windows to limit the spread of fire, heat or smoke**
- **How to safely isolate or shutdown process plant or equipment, where appropriate**
- **The importance of good housekeeping in preventing the outbreak of fire and limiting its effects.**

Regulation 7 of the Fire Safety Regulations 2022, relates to routine test, inspection and maintenance of lifts and essential firefighting equipment. It is important to demonstrate to the legislative enforcing authority and Building Safety Regulator that the building has a comprehensive testing and recording programme of passive and active protection relating to the overall functioning of the building; such demonstration of planned preventative maintenance provides for a good fire safety culture and reduce the possibility of ignition.

28.8. Are arrangements in place to inspect, test, and maintain lifts and essential fire fighting equipment within the premises?

TCW is the electronic recording database which is defined as the buildings fire safety manual and this is where all records associated with all HCC's HRRB's are stored.

Verbal discussions confirmed that compliance plans & maintenance programmes are in place which detail test, inspection and maintenance frequencies for lifts and all essential fire fighting equipment.

Management audits should view records and ensure compliance with the appropriate British Standards.

It can be confirmed that arrangements are in place to notify the local fire and rescue authority if there are any changes which affect their ability to gain access to the building, carry out search and rescue or carry out firefighting operations.

<https://humbersidefire.gov.uk/your-safety/business-safety/fser>

Where the responsible person identifies any fault with a lift for use by firefighters, evacuation lift or piece of essential fire-fighting equipment, are arrangements in place for the responsible person to rectify the fault?

Where a fault identified cannot be rectified within a 24-hour period beginning with the time the fault is identified, the responsible person must, as soon as reasonably practicable report the fault to the local fire and rescue authority by electronic means; and subsequently report the rectification of the fault to the local fire and rescue authority by electronic means when it has been rectified

Appendix



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31

The FSA 2021 makes amendment to article 6 of the Fire Safety Order 2005

1 Premises to which the Fire Safety Order applies

In article 6 of the Regulatory Reform (Fire Safety) Order 2005 (S.I. 2005/1541) (application to premises)

(a) In paragraph (1)(a) (excluded premises), after "except to the extent mentioned in" insert "paragraph (1A) or";

(b) After paragraph (1) insert –

"(1A) Where a building contains two or more sets of domestic premises, the things to which this order applies include—

(a) the building's structure and external walls and any common parts;

(b) All doors between the domestic premises and common parts (so far as not falling within sub-paragraph (a)).

(1B) The reference to external walls includes—

(a) Doors or windows in those walls, and

(b) Anything attached to the exterior of those walls (including balconies);";

(c) In paragraph (2), for "paragraph" substitute "provisions"

Photo 32



Photo 33



Photo 34



Photo 35



Photo 36



Photo 37

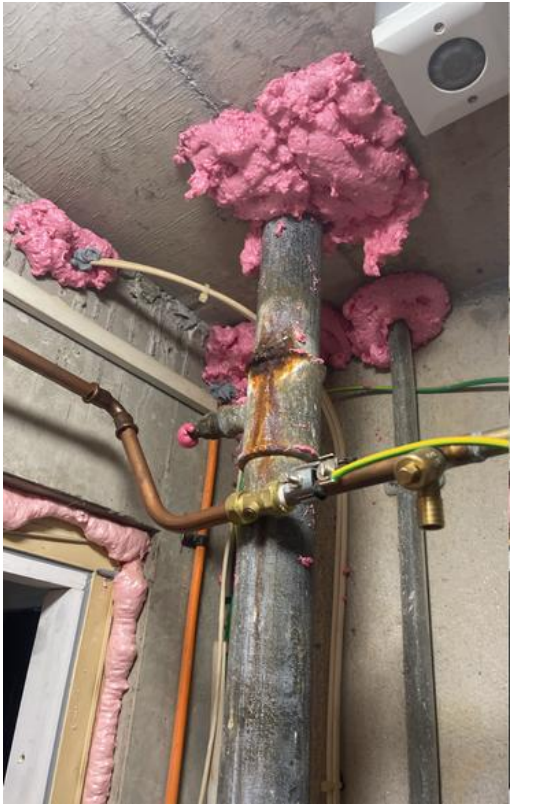


Photo 38



Photo 39



Photo 40



Photo 41



Photo 42



Photo 43



Photo 44



Photo 45



Photo 46



Photo 47



Photo 48



Photo 49



Photo 50



Photo 51



Photo 52



Photo 53



Photo 54



Photo 55



Photo 56



Photo 57



Photo 58



Photo 59



Photo 60



Photo 61



Photo 62



Photo 63

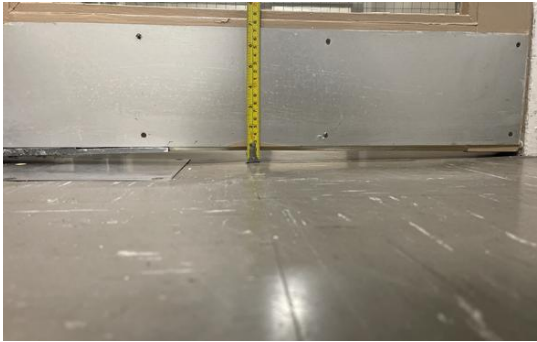


Photo 64



Photo 65



Photo 66



Photo 67



Photo 68



Photo 69



Photo 70



Photo 71



Photo 72



Photo 73



Photo 74



Photo 75



Photo 76



Photo 77



Photo 78



Photo 79

d. that all high-rise residential buildings (both those already in existence and those built in the future) be equipped with facilities for use by the fire and rescue services enabling them to send an evacuation signal to the whole or a selected part of the building by means of sounders or similar devices;

Photo 80

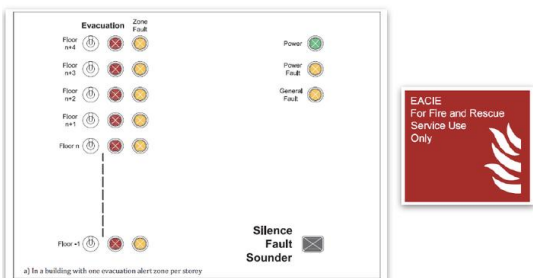


Photo 81



Photo 82



Photo 83

Table 8 Provisions for emergency escape lighting

Occupancy characteristic	Areas needing emergency escape lighting
A	Underground or windowless accommodation Stairways in a central core or serving storey(s) more than 18 m above ground level Internal corridors more than 30 m long Open-plan areas of more than 60 m ²
B ^{A)}	All escape routes ^{B)} (except in shops of three or fewer storeys with no sales floor more than 280 m ² provided that the shop is not a restaurant or bar)
C	All common escape routes ^{B)} , except in two-storey blocks of flats
Any use	All sanitary accommodation with a floor area over 8 m ² Windowless sanitary accommodation with a floor area not more than 8 m ² Electricity and generator rooms Switch room/battery room for emergency lighting system Emergency control room

^{A)} In areas of shops where the public are not admitted use occupancy characteristic A.
^{B)} Including external escape routes.

BS 9999 Table 8

Photo 84



Photo 85



Photo 86



Photo 87



Photo 88



Photo 89



Photo 90



Photo 91



Photo 92



Photo 93



Photo 94



Photo 95



Photo 96



Photo 97



Photo 98



Photo 99

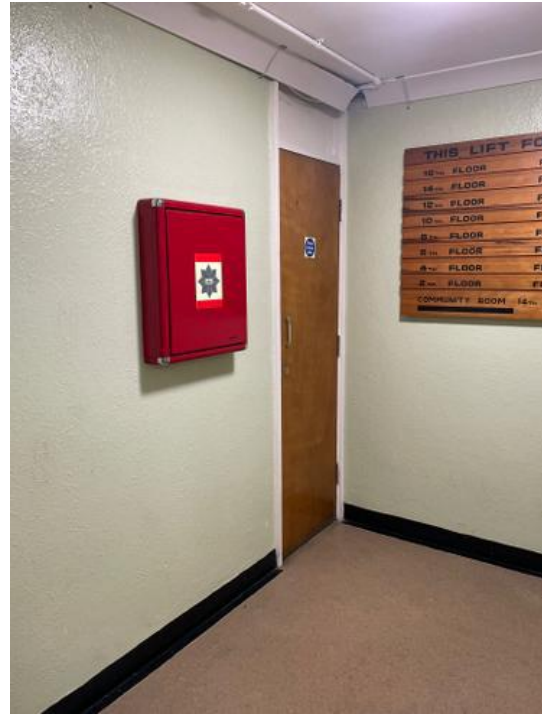


Photo 100



* Required

Premises details

1. Name of Building *

→ Address of building *

Report the rectification of a fault form

[Click here](#) to fill out or use the form below.



Photo 101

Fire Guidance UK LLP

17020

Muswell Court

Fire Safety Technical Note
External Facades and Cladding

for

Hull CC

8th August 2017

Photo 102



Photo 103



Photo 104

Aspect of Fire Safety Management	Agreed Responsibilities				
	Owner/landlord	Housing Provider	Managing Agent or Facilities Managers (if different from housing provider)	Care Provider	Commissioner of Services
Lead duty holder?					
Building fire risk assessment					
Person-centred fire risk assessment (where appropriate)					
Testing of fire alarm system					
Maintenance of fire alarm system					
Testing of emergency lighting					
Maintenance of emergency lighting					
Testing of sprinkler system					
Maintenance of sprinkler system					
Testing of smoke vents					
Maintenance of smoke vents					
Testing of door release mechanisms					
Maintenance of door release mechanisms					
Testing of social alarm system					
Maintenance of social alarm system					
Routine housekeeping inspections, including checking fire doors, fire exit doors and condition of fire extinguishers, etc.					
Maintenance of fire doors					
Maintenance of fire extinguishers					
Maintenance of rising mains					
Maintenance of lightning protection system					
Provision of the safety information to new residents					
Ongoing engagement with residents regarding fire prevention					
Ongoing engagement with residents to remind them of fire procedures					
Fire drills (if applicable)					
Maintaining a record of the fire safety arrangements					
Ensuring that fire procedures are up to date					
Liaison with local fire and rescue service crews					
Training of staff					
Inspections during contractors' works					
Provision of information to outside contractors					
Recording false alarms					
Holding of relevant records re testing maintenance, training, drills, etc.					

Source: Fire Safety in Specialised Housing

Photo 105

[22291-Muswell-Court-01-B-22291-MC-00.pdf](#)

[22291-Muswell-Court-01-B-22291-MC-06.pdf](#)

[22291-Muswell-Court-01-B-22291-MC-09.pdf](#)
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