



**FIRE RISK ASSESSMENT  
9-16 GRAHAM HOUSE, BYKER,  
NEWCASTLE UPON TYNE.  
NE6 1AT**

**JULY 2022**

**Reference:** GH/06/07/22/IC

**Prepared by:**

Resilience Risk Management Services Ltd  
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**Version:** 1

**Prepared for:**

Karbon Homes  
Unit D2  
The Waterfront  
Newburn Riverside  
Goldcrest Way  
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## 1.0 INTRODUCTION

The Client	Karbon Homes
Instruction	This Fire Risk Assessment was undertaken in accordance with an instruction received from Tony Ruddick, Data & Compliance Manager, Karbon Homes.
Responsible Person	Paul Fiddaman, Chief Executive, Karbon Homes.
The Property	9-16 Graham House, Byker, Newcastle Upon Tyne. NE6 1AT.
The Surveyor	The Fire Risk Assessment was carried out by: Ian Cuskin GIFireE.
Survey Date	6 <sup>th</sup> July 2022
Scope and Purpose of the Fire Risk Assessment	The Regulatory Reform (Fire Safety) Order 2005 [RR(FS)O] applies to all non-domestic premises, including any voluntary sector and self-employed people with premises separate from their homes.

A fire risk assessment is an organised and methodical look at your premises. The fire risk assessment procedure identifies the activities carried out at the premises and assesses the likelihood of a fire starting. The aim of a fire risk assessment is to:

- Identify the hazards.
- Reduce the risk of those hazards causing harm to as low as reasonably practicable.
- Decide what physical fire precautions and management policies are necessary to ensure the safety of people in your premises if a fire does start.

The fire risk assessment was carried out in accordance with the Department for Communities and Local Government (DCLG) 'sleeping accommodation' guidance document as well as the Local Government Group (LGG) document 'Fire safety in purpose built blocks of flats'.



This building has been audited to highlight to the Client, any non-compliant issues with regard to relevant aspects of UK fire safety legislation and best practice. The principal documents relevant to buildings being:

- The Building Regulations 2019 Approved Document B – Fire Safety
- BS9999 2018 Code of practice for fire safety in the design, management and use of buildings
- BS9991 2015 Fire safety in the design, management and use of residential buildings – Code of practice
- Local Government Group - Fire safety in purpose-built blocks of flats (hereafter referred to as the LGA Guide)
- LACORS – Housing – Fire Safety – Guidance on fire safety provisions for certain types of existing housing

The RR(FS)O does not stipulate the required review period for a particular building; we recommend a review of this building **annually or when a material change is made to the property.**

#### Limitations of the Fire Risk Assessment

The RR(FS)O places a burden of responsibility firmly on the head of a 'responsible person' with regard to the fire safety of the occupants of the premises to which they have been assigned. The responsible person is required to co-ordinate all fire safety related issues including the carrying out of a fire risk assessment and production of associated documentation. The responsible person may nominate a 'competent person' to assist in the implementation of any measures deemed necessary to ensure the fire safety of the occupants of the premises.

There are many factors that impact upon what may constitute adequate measures to assess the fire safety of the occupants. Resilience Risk Management Services Ltd are not the responsible person and are unable to determine, on behalf of the organisation, the steps it should or must take to comply with its duties under the RR(FS)O. The fire risk assessment will cover all of the areas within the property. We will also comment upon the external construction materials of the building and the area surrounding the building.



This report is for the use of the party to whom it is addressed and should be used within the context of instruction under which it has been prepared.

A Type 3, Common Parts and Flats (non-invasive) Fire Risk Assessment (as detailed in LGA Guidance Document Fire Safety in Purpose Built Blocks of Flats) has been conducted in relation to this property.

Prioritisation of Recommendations To assist in the development of a strategy and action plan for addressing recommendations in the fire risk assessment report, a priority rating is attached to each recommendation. The following is an explanation of each rating:

High Priority: Immediate action required to prevent risk to the health and safety of relevant persons

Medium Priority: Planned action to improve fire safety within the premises

Low Priority: Features that comply with current regulations but which the responsible person may consider upgrading.

Identified costs of Recommendations The report will give a budget costing for recommendations covered in the fire risk assessment for alterations or improvements to physical features to assist the client in developing an Action Plan and improvement programme.

Access Limitations We were able to access all necessary compartments.

Revisit There is no requirement for a revisit at this time.



## 2.0 THE BUILDING

2.1 The Building      The building is a grade II\* listed building with Historic England and is constructed from concrete frame, and external brickwork. Windows are aluminium framed double glazed and the flat roof is bitumen as is the fascia and Upvc rainwater goods. Internally, floors in the common parts of the building are concrete, walls are of solid masonry construction with plaster artexed ceilings.

The building consists of 16 apartments over five storeys with a combined floor area of approximately 750m<sup>2</sup>. Eight of the apartments are accessed at ground level individually. Access to the remaining apartments is via two communal entrances with steel covered composite doors at the east and west (front and rear) of the building. Both open in the direction of travel in an evacuation. The doors have a secure magnetic lock entry system and are unlocked by a pre-programmed key fob. A push button release in the lobby allows residents to leave the building. These doors give access to the lobby area which houses service cupboards and protected stair to the upper floors. The landing on the first floor has access to flats 9 and 10 and the stairs continues to the second-floor landing which gives access to flat 11 and the landlord services room. Access to the remaining external flats is via a Georgian wired glass fire door, onto the external balcony walkway which is semi-enclosed with a corrugated polycarbonate roof with timber edge protection. Individual balconies to the rear of the building also have a corrugated polycarbonate roof with timber edge protection. To the north of the building there is an access bridge to Dunn Terrace which allows access to a further means of escape.

The building benefits from CCTV and a remote concierge service. It has emergency lighting throughout and has automatic fire detection within the private apartments and high-risk service cupboards only, connected to a 24/7 monitoring centre.

2.2 Fire Loss Experience      Karbon Homes have not made us aware of any fire related incidents at this housing scheme.



### 3.0 FIRE HAZARDS

#### 3.1 Sources of Fuel

- Electrical PVC insulation throughout and in particular the meter room.
- Timber construction materials (in particular, within the roof space, balcony/walkway construction).
- Refuse stored within the internal refuse store.
- Refuse stored in the wheeled bins within residents' rear gardens.
- Timber garden sheds within some residents' gardens.
- Combustible items within the ICT room.
- Potential for some properties to have a gas supply for cooking.

It is accepted that there will be sources of fuel located within the individual apartments associated with domestic living such as; timber and foam furnishings, linen, bedding and household clothing and cooking oils and fats within the kitchens.

Karbon Homes are in the process of removing all historic and redundant gas supplies in the Byker Estate, in partnership with Northern Gas Networks, with minimal properties still connected. Any remaining connected properties receive an annual gas safety check, and when they become void the gas supply is removed.

It was noted that some residents have installed a garden shed within their garden which are close to the fabric of the building. It is unclear what materials are stored within that may increase the risk of a fire developing, and in addition the sheds may be an easy target for vandalism and or/arson. Due to their close proximity to the building, any resultant fire may damage the building, with fire gases potentially entering the building through any open windows in its vicinity. We recommend the client confirms these sheds are allowed on these properties. If so, we would advise that the timber construction of the sheds are treated with a suitable approved fire retardant to minimise fire spread which may affect the safety of the residents.



Within the landlord services room on the second floor there are combustible items such as cardboard packaging on top of the electrical equipment cabinet. We recommend these are removed, this compartment kept sterile and the engineers reminded to remove any refuse following servicing operations.

### 3.2 Sources of Ignition

The sources of ignition within the property were assessed as follows:

- Electrical supply and distribution system.
- Electrical CCTV equipment within the landlord services room.
- Potential for arson, in particular, to the wheelie bins stored to the rear of the building within residents' gardens (away from the building with one exception).
- Sources of ignition located within individual apartments associated with domestic living such as electrical goods, cooking / heating appliances, and the possibility of smoking materials / candles.
- Potential for lightning strikes.

The mains electrical supply and distribution system was subject to a fixed wiring inspection by a competent engineer which is recorded within the records held by Karbon Homes as 06/09/21.

All electrical installations are required to be tested regularly to the standards defined by the IET Wiring Regulations (BS 7671). The mains electrical supply and distribution installation and wiring (common areas and rented dwellings) should be tested at least every five years by a registered NICEIC contractor to satisfy compliance with the requirements of the Electricity at Work Regulations 1989 in addition to the IET Wiring Regulations BS7671:2018 18th edition.

Records held centrally by Karbon Homes confirmed the lightning conductor for the building was last subject to an annual inspection and test by a competent person to BS EN 62305 in February 2022.





The communal areas (stairs and landings) of the property are no smoking areas and are accompanied with the appropriate signage. There were no signs of smoking taking place in these areas.

3.3 Sources of Oxygen

Natural airflow through doors and windows.

3.4 People at Risk

The residents within the building and ground floor flats as well as the potential for visitors, housing staff and trades persons.



## 4.0 MEANS OF ESCAPE

4.1 Escape Routes The means of escape routes within the building are sterile apart from an occasional planter and/or fixed bench seating outside several individual properties. These are low risk and due to the size, layout, available exit routes and number of residents within the building pose a minimal risk of impeding evacuation in the event of a fire. Karbon Homes are also aware of these and this is part of their "managed use" policy of the building to keep these to an acceptable level and at the same time encourage residents to have a sense of pride and value in their home environment.

The protected escape route is accessed by two communal entrance doors (front and rear of the building) leading directly into the entrance lobby, with resident's bin store and electrical service cupboard. Stairs from the lobby lead to the first-floor landing which has access to flats 9 and 10. Stairs continue to the second floor which has access to flat 11, and a landlord services room. A FD30 fire door with fire rated glazing and self-closing device gives access to the communal walkway and flats 12-16.

Ground floor flats exit directly to a place of ultimate safety. Flats 9, 10 and 11 entrance doors are within the protected stairway, and all other flats exit onto a balcony / walkway. From the walkway, residents are able to access a second means of escape via the Dunn Terrace entrance to the north via an adjoining bridge. All exits allow residents to leave by means of a single action mechanism.

It was noted the vinyl flooring is in a poor state of repair in several areas on the second-floor landing as well as on the stair down from the second floor. This poses a potential trip hazard for those evacuating. We recommend the vinyl tiles be reassessed and replaced where necessary.

With the exception of the fixed benches, planters outside of residents' property and the wheeled bin adjacent to the ground floor final exit (previously mentioned), all access/egress routes were clear at the time of the inspection and are within the recommended travel distances for this type of premises as detailed with the



Building Regulations Approved Document B and DCLG Fire Risk Assessment Guidance.

**4.2 Fire Doors** We were able to gain access to flats 10 and 11 in order to check the specification and action of the flat entrance doors. The flat entrance doors on the protected stair appear to conform to BS8214 as a FD60S door with a fire rated letterbox, door viewer and self-closing device.

All refuse store and service cupboard doors (kept locked) have recently been upgraded and are FD60S SC doors to BS8214. Doors onto the balcony walkways appear to be FD30S part glazed fire doors with self-closing devices.

**4.3 Fire Compartmentation** The means of escape routes within the building are protected by fire resistant walls, ceilings, and doors, which provide 60-minute fire protection. These include solid brick walls with a plaster finish, ceilings with artex finish, and concrete floors. There were no obvious signs of breaches in compartmentation within the flats inspected (flats 10 and 11).

Adjacent to flat 10, there is a breach at ceiling level where cables penetrate. We recommend this breach in compartmentation is addressed using a suitable fire stopping material to achieve at least 60 minutes fire resistance.

Windows opening onto the communal walkway are double glazed units set into aluminium frames and do not appear to be fire rated. These windows are also part of the listed status of the building. However, as there are alternative escape routes available from each flat entrance along the open balcony, these flat entrance doors and windows are not required to be fire-resisting (LGG Fire Safety in Purpose Built Blocks of Flats Sec 59.4).

**4.4 Fire Alarm and Detection System** There is no fire detection (or a requirement to do so) within the communal stairs. The bin stores and most landlord services



cupboards have mains powered smoke detection within, linked to the concierge.

There is no smoke detection within the landlord services cupboard housing the communal electrical distribution board (door 27A/G.2). Due to the electrical hazard within, we recommend the detection from the adjacent bin store is extended into this compartment.

We inspected the detection within flats 10 and 11 and noted that the fire detection system within each property appears to be a Grade D1 category LD3 system covering the circulation spaces within the dwelling, which appear to conform to BS5839-6. This comprises of interlinked mains powered smoke detectors which are also linked to the concierge system. Records available confirmed the domestic fire alarm and detection system has been inspected and tested by a competent person on 04/02/22 in line with BS5839-6.

#### 4.5 Emergency Lighting

The premises have 3-hour non-maintained emergency lighting installed at key points on the escape routes throughout the building that conform to BS5266. These were last subject to an annual full discharge test 04/02/2022. Weekly functional tests are being carried out by on-site electricians' and details recorded centrally. The emergency lighting is required to be tested and maintained in accordance with BS5266 which requires monthly short duration tests and annual full discharge test.

It was noted the emergency lighting luminaire outside of entrance 27a does not appear to be working. We recommend this is investigated and the defect rectified.

Outside of the exit 27b, there are steps down within a short distance of leaving the premises. It is also particularly dark due to overhanging branches from nearby trees. For this reason, we recommend one emergency lighting luminaire is installed above this exit door to provide adequate illumination for those evacuating.



- 4.6 Fire Fighting Equipment  
There is no portable firefighting equipment on site in the communal areas. Landlords are not required to provide such equipment in residential properties and some fire authorities discourage installing firefighting equipment as they would rather the residents leave the building than attempt to fight a fire with equipment they have not been trained to use.
- 4.7 Signage  
There is adequate fire exit and directional signage fitted within the building conforming to BS5499. "No smoking" notices and general fire action notices are also displayed throughout the building in appropriate locations.
- The bin store (door 27A / G.1) requires a "Fire Door Keep Locked" sign installed to the face of the door in order to replace an existing damaged sign.
- All signage should satisfy the requirements of BS 5499-5 and be installed in accordance with the recommendations of BS 5499-4.
- 4.8 Disabled Persons Egress  
The property is suitable for persons with limited mobility on the ground floor. It is the Responsible Person's duty to ensure suitable provision is made for disabled persons within the property to ensure that they can escape in the event of a fire.



## 5.0 MANAGEMENT PROCEDURES

- 5.1 Fire Evacuation Procedures There is a "Full Simultaneous" evacuation policy for this premises for all occupants in a fire situation. When residents are first inducted to the premises, they are given a briefing on what to do in the event of a fire within the building. This is reinforced by the provision of General Fire Action notices.
- 5.2 Fire Log Book There is a newly issued fire log book held within the red fire documents box in the entrance lobby (27b) which was partially completed. It would be beneficial for the electricians weekly functional tests of the emergency lighting to also be included within (only required to be monthly). Karbon Homes holds all records of equipment tests and staff training carried out. No staff are present at these premises.
- 5.3 Training There are no staff in general needs accommodation.
- 5.4 Access & Facilities for the Fire Service Access to the buildings for fire appliances is good and is in line with the requirements of Approved Document B.
- 5.5 Arson The risk of an arson attack is considered medium. The premises have secure access and entry is controlled, with the addition of a concierge service when needed. CCTV is also installed at key points within and external to the building. On the ground floor, generally, residents wheeled bins are stored to the rear of their gardens away from the building. See earlier comments regarding the addition of garden sheds which may increase the risk of arson.
- 5.6 Previous Recommendations Karbon Homes have provided us with the previous fire risk assessment for this building. Should any significant issues be outstanding, we will highlight these in Appendix 2 – Schedule of Observations of this report.



**Surveyor** Ian Cuskin GIFireE

**Signed** 

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On Behalf of Resilience Risk Management Services Ltd

**APPENDIX 1  
FIRE RISK ASSESSMENT**



## FIRE RISK ASSESSMENT

		<i>Potential consequences of fire</i>		
		<i>Slight Harm (1)</i>	<i>Moderate harm (2)</i>	<i>Extreme harm (3)</i>
<i>Likelihood of fire occurring</i>	<b>Low (1)</b>	<b>Trivial Risk</b>	<b>Tolerable Risk</b>	<b>Moderate Risk</b>
	<b>Medium (2)</b>	<b>Tolerable Risk</b>	<b>Moderate Risk</b>	<b>Substantial Risk</b>
	<b>High (3)</b>	<b>Moderate Risk</b>	<b>Substantial Risk</b>	<b>Intolerable Risk</b>

Taking into account the fire prevention measures observed at the time of this risk assessment, it is considered that the hazard from fire (likelihood of fire) at these premises is:

**Low** 
                         
 **Medium** 
                         
 **High**

- Low:** Unusually low likelihood of fire as a result of negligible potential sources of ignition.
- Medium:** Normal fire hazards (e.g. potential ignition sources) for this type of occupancy, with fire hazards generally subject to appropriate controls (other than minor shortcomings).
- High:** Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.

Taking into account the nature of the premises and the occupants, as well as the fire protection and procedural arrangements observed at the time of this fire risk assessment, it is considered that the consequences for life safety in the event of fire would be:

**Slight harm** 
                         
 **Moderate harm** 
                         
 **Extreme harm**

In this context, a definition of the above terms is as follows:

- Slight harm:** Outbreak of fire unlikely to result in serious injury or death of any occupant (other than an occupant sleeping in a room in which a fire occurs).
- Moderate harm:** Outbreak of fire could foreseeably result in injury (including serious injury) of one or more occupants, but it is unlikely to involve multiple fatalities.
- Extreme harm:** Significant potential for serious injury or death of one or more occupants.

Accordingly, it is considered that the risk to life from fire at these premises is:


### **Tolerable Risk**


(Note that, although the purpose of this section is to place the fire risk in context, the above approach to fire risk assessment is subjective and for guidance only. All hazards and deficiencies identified in this report should be addressed by implementing all recommendations contained in the following action plan. The fire risk assessment should be reviewed regularly.)

Risk level	Action and timescale
Trivial	No action is required and no detailed records need be kept.
Tolerable	No major additional fire precautions required. However, there might be a need or reasonably practicable improvements that involve minor or limited cost.
Moderate	<p>It is essential that efforts are made to reduce the risk. Risk reduction measures, which should take cost into account, should be implemented within a defined time period.</p> <p>Where moderate risk is associated with consequences that constitute extreme harm, further assessment might be required to establish more precisely the likelihood of harm as a basis for determining the priority for improved control measures.</p>
Substantial	Considerable resources might have to be allocated to reduce the risk. If the premises are unoccupied, it should not be occupied until the risk has been reduced. If the premises are occupied, urgent action should be taken.
Intolerable	Premises (or relevant area) should not be occupied until the risk is reduced.


**APPENDIX 2**  
**SCHEDULE OF OBSERVATIONS**

## Fire Hazards


<b>MEDIUM</b>		<b>1</b>
		<p><b>Assessors Observations:</b></p> <p>Some residents have installed a garden shed within their garden which are close to the fabric of the building. It is unclear what materials are stored within that may increase the risk of a fire developing, and in addition the sheds may be an easy target for vandalism and or/arson. Due to their close proximity to the building, any resultant fire may damage the building, with fire gases potentially entering the building through any open windows in its vicinity.</p>
<b>Date First Identified:</b>	06/07/22	<p><b>Recommended Action:</b></p> <p>We recommend the client confirms these sheds are allowed on these properties. If so, we would advise that the timber construction of the sheds are treated with a suitable approved fire retardant to minimise fire spread which may affect the safety of the residents.</p>
<b>Date of FRA</b>	06/07/22	
<b>Rectify Within: (months)</b>	6	
<b>Budget Cost:</b>	No Cost	

<b>LOW</b>		<b>2</b>
		<p><b>Assessors Observations:</b></p> <p>Within the landlord services room on the second floor there are combustible items such as cardboard packaging on top of the electrical equipment cabinet.</p>
<b>Date First Identified:</b>	06/07/22	<p><b>Recommended Action:</b></p> <p>We recommend these are removed, this compartment kept sterile and the engineers reminded to remove any refuse following servicing operations.</p>
<b>Date of FRA</b>	06/07/22	
<b>Rectify Within: (months)</b>	12	
<b>Budget Cost:</b>	No Cost	

### Means of Escape

<b>MEDIUM</b>		<b>3</b>	
		<b>Assessors Observations:</b> The vinyl flooring is in a poor state of repair in several areas on the second-floor landing as well as on the stair down from the second floor. This poses a potential trip hazard for those evacuating.	
<b>Date First Identified:</b>	06/07/22	<b>Recommended Action:</b> We recommend the vinyl tiles are assessed and replaced where necessary.	
<b>Date of FRA</b>	06/07/22		
<b>Rectify Within: (months)</b>	6		
<b>Budget Cost:</b>	£150		


### Compartmentation


<b>MEDIUM</b>		<b>4</b>	
		<b>Assessors Observations:</b> Adjacent to flat 10, there is a breach at ceiling level where cables penetrate.	
<b>Date First Identified:</b>	06/07/22	<b>Recommended Action:</b> We recommend this breach in compartmentation is addressed using a suitable fire stopping material to achieve at least 60 minutes fire resistance.	
<b>Date of FRA</b>	06/07/22		
<b>Rectify Within: (months)</b>	6		
<b>Budget Cost:</b>	£50		

### Fire Alarm and Detection System


<b>LOW</b>		<b>5</b>
<b>No Photo</b>		<p><b>Assessors Observations:</b></p> <p>There is no smoke detection within the landlord services cupboard housing the communal electrical distribution board (door 27A/G.2).</p>
<b>Date First Identified:</b>	06/07/22	<p><b>Recommended Action:</b></p> <p>Due to the electrical hazard within, we recommend the detection from the adjacent bin store is extended into this compartment.</p>
<b>Date of FRA</b>	06/07/22	
<b>Rectify Within: (months)</b>	12	
<b>Budget Cost:</b>	£150	

### Emergency Lighting

<b>LOW</b>		<b>6</b>
		<p><b>Assessors Observations:</b></p> <p>The emergency lighting luminaire outside of entrance 27a does not appear to be working.</p>
<b>Date First Identified:</b>	06/07/22	<p><b>Recommended Action:</b></p> <p>We recommend this is investigated and the defect rectified.</p>
<b>Date of FRA</b>	06/07/22	
<b>Rectify Within: (months)</b>	12	
<b>Budget Cost:</b>	No Cost	

<b>LOW</b>		<b>7</b>	
		<b>Assessors Observations:</b> Outside of the exit 27b, there are steps down within a short distance of leaving the premises. It is also particularly dark due to overhanging branches from nearby trees.	
<b>Date First Identified:</b>	06/07/22	<b>Recommended Action:</b> For this reason, we recommend one emergency lighting luminaire is installed above this exit door to provide adequate illumination for those evacuating.	
<b>Date of FRA</b>	06/07/22		
<b>Rectify Within: (months)</b>	12		
<b>Budget Cost:</b>	£150		

#### Signage

<b>LOW</b>		<b>8</b>	
		<b>Assessors Observations:</b> The bin store (door 27A / G.1) requires a "Fire Door Keep Locked" sign installed to the face of the door in order to replace an existing damaged sign.	
<b>Date First Identified:</b>	06/07/22	<b>Recommended Action:</b> As above.	
<b>Date of FRA</b>	06/07/22		
<b>Rectify Within: (months)</b>	12		
<b>Budget Cost:</b>	£10		