

**FIRE RISK ASSESSMENT
1-52 RABYGATE, BYKER,
NEWCASTLE UPON TYNE,
NE6 2EF**

6 MARCH 2019



STORM TEMPEST
PROPERTY CONSULTANCY

Reference: 3660-01-19-IR

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Version: 3

Prepared for:

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1.0 INTRODUCTION

The Client	Byker Community Trust (BCT)
Instruction	This Fire Risk Assessment was undertaken in accordance with an instruction received from Mark Mulhern, Support Services Team Leader, Karbon Solutions Ltd (KSL).
Responsible Person	Jill Haley, Chief Executive, BCT.
The Property	1– 52 Rabygate, Byker, Newcastle Upon Tyne. NE6 2EF
The Surveyor	The Fire Risk Assessment was carried out by: Ian Robertson BA(Hons) MSc CMIOSH MIFireE.
Survey Date	6 March 2019
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 2012 Approved Document B – Fire Safety
- BS9999 2008 Code of practice for fire safety in the design, management and use of buildings
- BS9991 2011 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 LGG Guide)
- LACORS – Housing – Fire Safety – Guidance on fire safety provisions for certain types of existing housing
- NFCC Guide for 'Fire Safety in Specialised Housing'

The RR(FS)O does not stipulate the required review period for a particular building however; we recommend a review of this building **every 3 years 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. Storm Tempest 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 LGG 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.



2.0 THE BUILDING

2.1 The Building

The building is a grade II* listed building with Historic England, designed and constructed circa 1969 in an iconic 'wall' design consisting of inter-connecting blocks of external cavity brick and concrete load-bearing walls of up to 8 storeys in height with concrete floors and a corrugated steel and membrane and bauber flat roof which incorporates the installation of solar power.

The building consists of 52 apartments ranging from bedsits to two bedroom flats and maisonettes which are housed in a block of up to 8 floors, with ground floor apartments accessed individually at ground floor with independent external front doors. Access to the upper floor apartments is via 2 steel security doors at the foot of 2 protected staircases located at the East and West ends of the block. Entrance 15 is located at the East end of the block where the building links to Shipley Rise via the upper balcony while entrance 16 is located at the West end where the block is adjacent to the former Victorian swimming pool and bath-house where, it is linked by a large steel chimney stack venting the district heating back-up plant rooms underneath the former swimming pool (now in use as climbing centre) and a brick wall. Stair 15 also houses a resident's lift. It should be noted that due to the slope in the land upon which the wall is built, the floor levels change in line with the grade as the land slopes upwards.

Both entrances give direct access into the communal concrete protected stairs which have solid masonry walls and ceilings with plaster skim finish (Class 0) and openable windows for smoke control. In addition, there are a number of panels affixed to the walls which appear to be Asbestos material and timber, we have not removed these panels and, as such, are unable to determine what lies behind the panels or the presence of any breaches in compartmentation however; damaged panels reveal electrical services with breaches in compartmentation into the meter rooms.

The stairs give access to 2 concrete balconies on the 4th and 7th floors which give access to the upper floor apartments. The balconies are protected by timber edge protection and PVC corrugated canopies. A number of timber features are installed



upon the balconies in the shape of fixed seating and planters which do not interfere with the means of escape.

The building features decorative timber cladding and composite boarding in part, affixed to the external surface of the south face of the building. The building also benefits from aluminium double glazing which is installed throughout and the property also benefits from a communal district heating system which is generated remotely from the building.

Internally, the apartments are constructed of solid brick compartment walls with plaster skim and internal timber stud walls also with plaster skim (Internally, apartments 6 and 28 were inspected).

The building benefits from 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.

There is a number of service cupboards located upon each communal stair housing refuse stores, communications equipment and electrical meters which are kept locked with access only to authorised persons. Within the meter cupboards are located internal units which are locked and therefore we are unable to identify potential breaches in compartmentation into the boxed sections within the protected stair however; evidence from adjoining blocks would indicate that there are significant breaches in the compartment walls to the protected stairs.

In addition, the stairs housing the resident's lifts also contain a lift motor room at roof level. Each of these service cupboards are fitted with fire doors (FD60), however several of the fire doors are not fitted with intumescent strips and cold smoke seals although, they are provided with automatic fire detection. Those fire doors which require attention are identified within the significant findings/schedule of observations.

In addition, a number of upper floor apartments have both front doors and escape doors opening onto the protected stairs. Some



of these have been surveyed and it is noted that all are fitted with fire doors (FD60) however; newer doors are also fitted with intumescent strips and cold smoke seals while some older doors are not. As a result, we would recommend a full survey of all doors which open onto the protected means of escape in order to determine the level of compliance.

Access was not gained to the following service cupboards; Within the protected stair 15; The ground floor service cupboard next to the Comms store, on the 4th floor the service cupboard next to apartment 30, on the 5th floor, the service cupboard next to apartment 31, on the 7th floor both service cupboards near to apartment 51 and on the 8th floor both the full door to the cupboard and the half door (suspect this to be the lift access). Within stair 16; The service store on the 1st floor next to the refuse store, on the 4th floor the service cupboard next to apartment 12 and on the 7th floor the service cupboard next to apartment 34.

The building benefits from CCTV and a remote concierge service.

2.2 Fire Loss Experience

BCT have not made us aware of any fire related incidents at this housing scheme.



3.0 FIRE HAZARDS

3.1 Sources of Fuel The sources of fuel within the property were assessed as follows:

- Electrical PVC insulation throughout.
- Timber construction materials (in particular, within the roof space, balcony/walkway construction and decorative timber facings).
- Refuse stored within the internal refuse stores.
- Refuse in communal wheelie bins located in car park and remote from building.
- Refuse stored within the wheelie bins within residents' rear gardens (away from the building).
- Mains gas supply to the building as some apartments retain a gas supply for a gas cooker. All properties with a gas cooker receive an annual gas safety check.

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, clothing and cooking oils and fats within the kitchens.

BCT are in the process of removing all historic and redundant gas supplies to properties in the Byker Estate in partnership with Northern Gas Networks.

3.2 Sources of Ignition

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

- Electrical supply and distribution system.
- Communications and CCTV equipment within the Communications room.
- Solar power electrical supply equipment within the service cupboard next to apartment 51 and within the lift motor room.
- Potential for arson, in particular, to the wheelie bins stored to the rear of the building within residents' gardens (away from the building).



- 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.

The electrical meters and distribution equipment are individually located outside each property and the communal equipment is located within the electrical cupboards in the communal stair (within these units are internal units of which some are locked and we have had no access).

We have been informed that the mains electrical supply and distribution system was subject to a ten-year fixed wiring inspection by a competent engineer, is compliant, and recorded within the records held by BCT as 27/07/2018. As from 1 April 2019, this will become a five-year fixed wiring inspection.

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.

In addition to the mains electrical system, Rabygate is fitted with solar power with roof-top panels and meters, inverters and controls within the lift motor room and the cupboard adjacent to apartment 51.

The communal areas (stairs and landings) of the property are no smoking areas and are accompanied with the appropriate signage.

3.3 Sources of Oxygen

Natural airflow through doors and windows.



3.4 People at Risk The residents within apartments and communal areas of the building in addition to the potential for visitors, housing staff and trades persons.



4.0 MEANS OF ESCAPE

4.1 Escape Routes The means of escape routes consists of the two main protected stairs and the upper floor balconies which connect to all stairs and give access to the upper floor apartments.

The means of escape within, and external to the building, are sterile apart from fixed seating and planters previously mentioned which do not impinge upon the means of escape and are acceptable.

Both escape stairs terminate with an outward opening final exit which is opened by the operation of a press to open button and leads to a place of ultimate safety.

The access doors from the protected stairs onto the 2 access balconies are fire doors (FD30) with self-closing devices, however they are not fitted with intumescent strips but do have 20mm rebates and are close fitting.

All ground floor apartments exit directly to a place of ultimate safety via their independent front doors and all other apartments exit onto the balcony exit routes or protected stairs. From these walkways, residents are able to access all main stair means of escape routes. In addition, to the East, the balcony provides access and escape via the upper balcony of the adjoining Shipley Rise.

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 There were several apartment doors opening onto the protected means of escape. Refer to section 2.1 paragraph 10 above.

Within staircases 15 & 16 there are a number of fire doors fitted to service cupboards which are not fitted with intumescent strips and cold smoke seals. These have been identified within the



significant findings/schedule of observations.

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 plaster skim, and concrete floors. There were no obvious signs of breaches in compartmentation within the building with the exception of those noted within the significant findings/schedule of observations.

In addition, as previously discussed, the communal stairs are fitted in places with boxed panelling which would appear to be asbestos containing material. The condition and compartmentation behind this and where in places this has been replaced with plywood boarding could not be inspected however; in places where this is damaged, significant breaches of compartmentation have been identified within adjoining blocks. As a result, we would recommend a full compartmentation survey in order to identify breaches in compartmentation which are in addition to those we have identified.

Windows opening onto the communal balconies are aluminium double glazed and are not fire resistant in construction however; as there are alternative escape routes available from each flat entrance along the open balcony, the apartment entrance doors and windows are not required to be fire-resisting.

4.4 Fire Alarm and Detection System There is no fire detection within the communal staircase, which is an acceptable for this construction design. The refuse stores and communications cupboards are fitted with mains powered smoke detection. The apartments are fitted with automatic fire detection that appears to be an LD3 grade D system in compliance with BS5839-6. This comprises of interlinked mains powered smoke detectors which are also linked to the concierge system. The fire alarm system is tested weekly by BCT staff in the refuse and communication cupboards only and the results are recorded and stored within the records at the BCT office. In Addition, the



automatic fire detection should be regularly cleaned and maintained in line with the manufacturer's guidance and BS5839-6.

4.5 Emergency Lighting

The premises have a 3-hour non-maintained emergency lighting installed within the means of escape stairs and upon the external balconies every 20-25m. These were subject to an annual inspection and discharge test on 19/10/2018. In addition, a monthly function tests and inspection are undertaken by BCT staff with the last inspection recorded as 04/02/2019. The emergency lighting is required to be tested and maintained in accordance with BS5266 which requires monthly short function tests and annual full discharge tests which should be detailed in a Fire Log Book.

4.6 Fire Fighting Equipment

There is no portable firefighting equipment on site in the communal areas and no requirements for such equipment however; there is a CO2 portable fire extinguisher within the lift motor room that has been subject to an annual service by a competent engineer on 23/02/2019.

In addition, despite the buildings height, there is no rising fire main installed.

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 displayed throughout the building in appropriate locations.

There are no final exit signs fixed to the final exit doors while a number of fire doors require signs indicating 'fire door, keep locked'.

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 disabled access on all floors due to the ease of entry and the presence of a residents lift however; some apartments have internal stairs. 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.
- 4.9 Arson
- The risk of an arson attack is considered low. 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, residents wheeled bins are stored to the rear of their gardens away from the building.
- 4.10 Access for Fire appliances
- Access to the buildings for fire appliances is via the car park direct to the building and in compliance with Building Regulations, Section 16.



5.0 MANAGEMENT PROCEDURES

5.1 Fire Evacuation Procedures There is a "full simultaneous evacuation" policy 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 no fire log book on site. BCT holds all records of equipment tests and staff training carried out. No staff are present at these premises.

Note: The following rooms were not accessed due to any keys being available at the time of the Fire Risk Assessment; we recommend BCT seek to access these rooms in order to confirm the fire safety requirements in relation to fire doors, compartmentation, automatic fire detection and emergency lighting.

Stair 15:

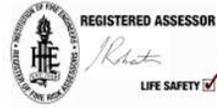
- **Ground floor Communications room**
- **Fourth floor store next to apartment 30.**
- **Fifth floor store next to apartment 31.**
- **Seventh floor stores (x2) next to apartment 51**
- **Eighth floor stores x2 (one full door and one half door)**

Stair 16:

- **First floor store next to refuse store**
- **Fourth floor store next to apartment 12.**
- **Seventh floor store next to apartment 34**



Surveyor Ian Robertson BA(Hons) MSc CMIOSH MIFireE



Signed

.....
On Behalf of Storm Tempest Ltd

Checked Dave Stilling BSc (Hons) MCIOB

Signed

.....
On Behalf of Storm Tempest Ltd

APPENDIX 1
FIRE RISK ASSESSMENT

FIRE RISK ASSESSMENT

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

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:

Moderate 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

Means of Escape and Fire Doors

MEDIUM		1
		<p>Assessors Observations:</p> <p>The following Service cupboards are fitted with fire doors (FD60) however; they are not fitted with intumescent strips and cold smoke seals;</p> <ul style="list-style-type: none"> • Refuse store on 7th floor (stair15) partial. • 5th floor refuse store near apartment 31 (stair 15) • 4th floor refuse store near apartment 30 (stair 15) • Ground floor communications room (stair 15) • Ground floor refuse store next to apartment 9 (stair 16) • 4th floor refuse store next to apartment 12
Date First Identified:	06/03/2019	<p>Recommended Action:</p> <p>Fit intumescent strips and cold smoke seals to the fire doors listed above.</p> <p>In addition, we would recommend a full survey of the standard and compliance of all fire doors opening onto the protected stairs means of escape.</p>
Rectify Within: (months)	6	
Budget Cost:	£210	

MEDIUM		2
		<p>Assessors Observations:</p> <p>The presence of what appear to be asbestos panels in addition to some timber panels that have replaced damaged panels has the potential to conceal significant breaches in compartmentation from within the protected stairs.</p>
Date First Identified:	06/03/2019	<p>Recommended Action:</p> <p>We recommend that the breaches are fire stopped to provide the same level of fire resistance as the wall and/or ceiling.</p> <p>In addition, due to the consistent evidence of compartmentation breaches within this block in addition to other sections of the Byker wall, we would strongly recommend a full compartment survey.</p>
Rectify Within: (months)	6	
Budget Cost:	£250	

MEDIUM		3
		Assessors Observations: The following fire doors are not fitted with signage indicating 'fire door, keep locked'; <ul style="list-style-type: none"> • The refuse store near apartment 30 in stair 15 • The communications room on stair 16
		Recommended Action: Ensure that signage indicating 'fire door, keep locked' is fitted to the above fire doors in compliance with BS 5499.
Date First Identified:	06/03/2019	
Rectify Within: (months)	6	
Budget Cost:	£20	

MEDIUM		4
		Assessors Observations: The following final exits are not fitted with fire exit signs; <ul style="list-style-type: none"> • Exit 15 • Exit 16
		Recommended Action: Fit fire exits signs which conform with BS5499 to the following fire exit doors; <ul style="list-style-type: none"> • Exits 15 & 16
Date First Identified:	06/03/2019	
Rectify Within: (months)	6	
Budget Cost:	£20	