

Housing Health and Safety Rating System (HHSRS)

Case Studies

Group
Psychological
Requirements

D

Hazard
Lighting

D21

Example
Pre-1920
Basement Flat

D21.2

Vulnerable Group
Persons of all ages

Multiple Locations
Yes

Related Hazard
Damp and
Mould Growth

B11

Related Hazards
Excess Heat

B14

Dwelling

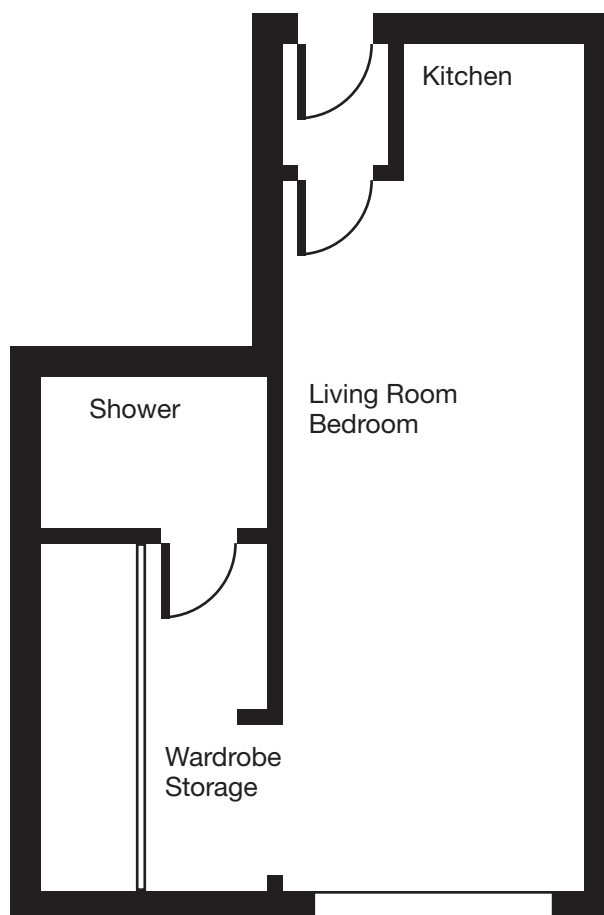
Description

This is a first-floor studio flat above ground-floor retail and café premises, located in a city centre. The flat is one of sixteen, created when an early-1970s office block was converted in the mid-2010s. It is surrounded by other tall buildings and faces north, overlooking a flat roof.

The studio flat comprises a living/kitchen/bedroom with a shower room. There is secure bike storage and a small storage room elsewhere in the building for tenant use. The EPC rating is B.



1
Exterior view of barred
windows in shade



2
Plan of flat

Deficiencies

Description

The studio flat has a single openable window which is not less than 10% of the floor area, with secondary glazing, sited at one end of the combined living/kitchen/bedroom. The view of the flat roof is reduced by the presence of bars on the window. Blinds have been installed by the landlord between the window and the secondary glazing, and these can be adjusted. The flat roof is accessed by maintenance staff on a regular basis (two to three times a month), who pass close to the window.

The flat is dark, and artificial light is required at all times for normal household tasks and activities. The recessed ceiling lights provide a good standard of illumination but also cast shadows. There are no additional lights under the kitchen wall cupboards.



3
View through the bars in living room / bedroom window onto neighbouring buildings brick wall.



4
Kitchen area lacking natural light

Relevant Baseline Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject		Score				BI	Baseline Indicator
14	Lighting and Services	0	1	2	3	14.1	Every habitable room shall have adequate natural lighting.
		0	1	2	3	14.2	Every hall, stairs and landing within the house, and every room used, or intended for use, by the tenant of the house shall have a suitable and adequate means of artificial lighting that is controllable and accessible which can allow lighting to be turned on and off and bulbs and fixtures to be changed and maintained safely. Two-way or PIR-activated lighting shall be provided to any internal staircase.
		0	1	2	3	14.3	Light switches that control ceiling or wall-type electric light fixtures shall be located conveniently in each room for safe use.

Other Relevant Matters

0

Satisfactory or N/A

1

Not Satisfactory

2

Defective

3

Seriously Defective

Score				Matters affecting Likelihood of Harm
0	1	2	3	Window obstruction
0	1	2	3	Window form and position
0	1	2	3	Artificial lighting position
0	1	2	3	Glare
0	1	2	3	Window view
0	1	2	3	Outlook

Score				Matters affecting Harm Outcomes
0	1	2	3	Window obstruction
0	1	2	3	Window form and position
0	1	2	3	Artificial lighting position
0	1	2	3	Glare
0	1	2	3	Window view
0	1	2	3	Outlook

Likelihood of Harm

Scale Points Likelihood of harm from this hazard over the next twelve months	
Very Likely	1 in 1
	1 in 2
	1 in 3
	1 in 5
Likely	1 in 10
	Example Dwelling 1 in 20
	1 in 30
	1 in 50
Unlikely	1 in 100
	1 in 200
	1 in 300
	1 in 500
Very Unlikely	1 in 1,000
	1 in 2,000
	1 in 3,000
	National Average 1 in 5,000
Score 1 in 20	

Justification of Scoring
Likelihood of Harm

While artificial lighting is adequate for the kitchen, shower room and walk-through wardrobe, low natural lighting in the open-plan bedsitting room will lead to eye-strain, headaches and could cause depression. Natural lighting to the only habitable room is being obstructed by the bars on the window, and the occupier is likely to keep the blinds drawn to maintain privacy if maintenance staff are working on the roof. The lack of a garden, terrace or balcony restricts the occupant’s access to natural lighting (unless they leave the property), meaning the likelihood of harm is greater.

The height of the surrounding buildings and the orientation of the building containing the flat in question result in a lack of natural light being able to penetrate throughout the flat. Alongside the issues of shadows and glare from the recessed lighting, there is a significant increase in the likelihood of the situation being detrimental to the occupier’s health.

Harm Outcomes

Extreme		Severe		Serious		Moderate	
Death, permanent paralysis, etc.		Heart attack, serious fractures, etc.		Chronic stress, severe concussion, etc.		Broken fingers, moderate cuts, etc.	
Very Likely	50.0	Very Likely	50.0	Very Likely	50.0	Example Dwelling National Average These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100%	88.9
	30.0		30.0		30.0		88.9
	20.0		20.0		20.0		
Likely	10.0	Likely	10.0	Example Dwelling + National Average	10.0		
	5.0		5.0		5.0		
	2.0		2.0		2.0		
Unlikely	1.0	Example Dwelling + National Average	1.0	Unlikely	1.0		
	0.5		0.5		0.5		
	0.2		0.2		0.2		
Example Dwelling + National Average	0.1	Very Unlikely	0.1	Very Unlikely	0.1		
	0.0		0.0		0.0		
Score		Score		Score		Score	
0.1%		1.0%		10.0%		88.9%	

Justification of Scoring

Harm Outcomes

There is no reason to think the spread of harm outcomes will be any different from the national average, which is the same for all ages and types of property.

Safety Ratings

Scenario 1
As described in this document

Key

Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Medium	1,000
	Low	100

Likelihood of Harm 1 in 20			
Extreme 0.1%	Severe 1.0%	Serious 10.0%	Moderate 88.9%
Category	Band	Score	
1 Legal duty to take action	High	10,000	
2 Discretion to take action	Medium	1,000	
	Example Dwelling	294	
	Low	100	
	National Average	12	
Score	294		

Scenario 2

After works meeting baseline indicators

Likelihood of Harm
1 in 50

Extreme 0.1%	Severe 1.0%	Serious 10.0%	Moderate 88.9%
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Category	Band	Score
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1 Legal duty to take action	High	10,000
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2 Discretion to take action	Medium	1,000
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Example Dwelling	Low	118 100
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National Average		12
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Score**118****Justification of Scoring**

After works meeting baseline indicators

To meet BI 14.1, 'adequate' light must be provided to the habitable room. This might be achieved simply by removing the bars and blinds from the window. A privacy film could be applied to the lower part of the only window to the flat. On completion of works, lighting levels by the dining-room table and the sofa-bed should be measured to see if 250 Lux natural lighting is achieved during daylight hours. It may be that the property needs additional measures such as changing the window size or installing solar tubes (if practical) to increase natural light levels. To comply with BI 14.2, the artificial lighting will also require improvement to prevent the casting of shadows. Under-cupboard lights should be installed in the kitchen. Overall, even with improvements, the remaining factors such as the inherent design of the studio apartment (one window and no access to outdoor space), the height of the neighbouring buildings and the orientation of the flat all result in the average likelihood of harm remaining above the national average.

Scenario 3

After further improvements

Likelihood of Harm
1 in 50

Extreme 0.1%	Severe 1.0%	Serious 10.0%	Moderate 88.9%
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Category	Band	Score
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1 Legal duty to take action	High	10,000
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2 Discretion to take action	Medium	1,000
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Example Dwelling	Low	118 100
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National Average		12
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Score**118****Justification of Scoring**

After further improvements

It may not be practicable to make further changes to the building, given the high cost of forming new structural openings to facilitate a larger window and/or a second window where the walk-in wardrobe is. Any further works would need to be carefully considered and should include cost-benefit and proportionality analysis, particularly if the minor alterations result in the hazard being reduced from moderate risk to low risk. Landscaping of the flat roof area to provide an aesthetically pleasing view may be desirable, but it is unlikely to improve the score: the property will always be worse than the national average.

Other Relevant Legislation and Guidance

Dwelling Perspective

When assessing multiple dwellings in the same building, due consideration may need to be given to the level of risk posed to different flats within a building. The likelihood of an occurrence, and harm outcomes resulting from an occurrence, may vary significantly for many hazards, depending on the location of the flat within a building.

Leasehold Properties

In leasehold properties there may be restrictions on works that can be carried out without the freeholder and management company's express approval. This could include, for example, alteration of doors and windows as well as maintenance of the structure of the building (e.g. the roof).

Party Walls

A party wall agreement may be needed before works can be undertaken to party structures, party walls that form part of a building, or shared garden boundaries.

Updates

Matters for consideration listed in this section were correct at the time of publication. For the most up-to-date legislation and guidance in these areas, please visit the [gov.uk](https://www.gov.uk) website.