



Housing Health and Safety Rating System (HHSRS)

Case Studies

Group A
Protection Against
Accidents

Hazard A3
Falling Between
Levels

Example A3.2
Pre-1920
First-floor Flat
(Non-HMO)

Vulnerable Group
5 years and under

Multiple Locations
Yes

Related Hazards A6
Collisions,
Entrapment and
Ergonomics



Dwelling

Description

This is an 1890s first-floor flat in a converted terraced house, in an inner-city location. The flat has two bedrooms (a small one to the front and the master bedrooms to the rear), a living room adjacent to the front bedroom, and the kitchen and bathroom to the rear of the flat. The house is in a conservation area so there is a requirement to retain the wooden sash windows and doors. The property, including the windows, is well maintained.



1

Front exterior

Deficiencies

Description

First floor front windows: The windows in both front rooms of the first-floor flat comprise the original double-hung sash windows. The internal sills are approximately 840 mm above floor level, and in the smaller room a wide double radiator runs the full width of the window, below the sill.

Externally, there is a basement area some 6.4 metres directly below half of the window. About 4.2 metres below the other half of the window are stone entrance steps. Iron railings run either side of these steps and separate the pavement from the basement area.

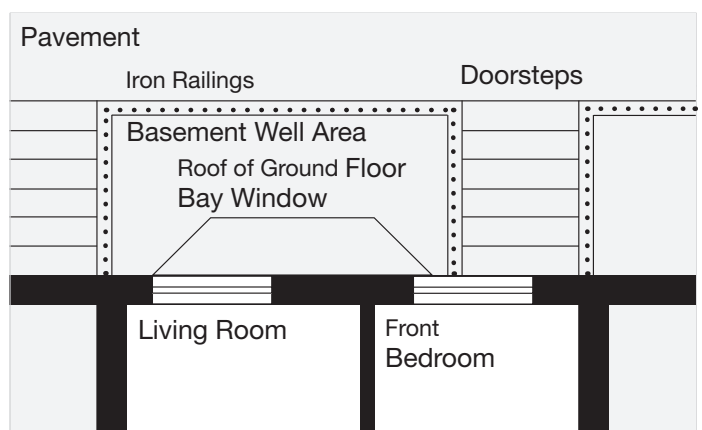
Other windows in the flat, including those in the large rear bedroom, are the same original sash windows with a similar sill height; they overlook an enclosed flagstone yard, but no additional basement level.



2
Sash window open with low sill height



3
Basement stairs



4
Partial floorplan showing the area below front windows

Relevant Baseline Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

| Subject | | Score | | | | BI | Baseline Indicators |
|---------|-----------------------|-------|---|---|---|------|---|
| 9 | External Space | 0 | 1 | 2 | 3 | 9.1 | External yards, paths, steps, access ways and surrounds shall be in good repair, even and well drained. Accessways must have adequate friction, adequate lighting, and should not have slopes of sufficient gradient to present a falls risk. This includes consideration to unevenness, trip steps and slip resistance, to any external space that is provided, to the front door, yard and garden. Where there are significant drops from paths, patios, steps, terraces, or garden areas guarding will be necessary where there are high risks of falling. All boundaries should be clearly defined and enclosed by well-maintained and suitable walls or fences. This also applies to structure, access ways, security doors and lifts. |
| | | 0 | 1 | 2 | 3 | 11.5 | All door and window frames and furniture shall operate properly and be in a good state of repair, with no open joints or compromised seals between the windows/doors and adjacent walls. |
| 13 | Guards | 0 | 1 | 2 | 3 | 13.1 | Every stairway, porch, patio, landing, and/or balcony located more than 600mm above an adjacent area shall have a structurally sound guard, between 900mm and 1100mm high, measured vertically from the floor. The guard shall be firmly fastened, capable of supporting normally imposed loads and in good condition. Balusters with a minimum thickness of 10mm shall be placed at intervals that do not allow passage of a sphere greater than 100mm in diameter. There shall be no climbable cross-pieces. |
| | | 0 | 1 | 2 | 3 | 13.2 | All windows with an opening section greater than 100mm, through which a person may fall a single storey or more, shall have a fall-prevention device that restricts opening to less than 100mm. It must be possible to overcome this restriction easily when the windows in question are required to be escape windows, under the building regulations. |
| 14 | Lighting and Services | 0 | 1 | 2 | 3 | 14.2 | Every hall, stairs and landing within the house, and every room used, or intended for use, by the occupant 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/fixtures to be changed and maintained safely. Two-way or PIR-activated lighting shall be provided to any internal staircase. |

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 operation |
| 0 | 1 | 2 | 3 | | Window sill heights |
| 0 | 1 | 2 | 3 | | Window cleaning |

| Score | | | | | Matters affecting Harm Outcomes |
|-------|---|---|---|--|------------------------------------|
| 0 | 1 | 2 | 3 | | Height above ground |
| 0 | 1 | 2 | 3 | | Nature of ground |
| 0 | 1 | 2 | 3 | | Non-safety glass |

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 |
| | 1 in 20 |
| | 1 in 30 |
| | 1 in 50 |
| Unlikely | 1 in 100 |
| | 1 in 200 |
| | <div>Example Dwelling</div> 1 in 300 |
| | 1 in 500 |
| Very Unlikely | 1 in 1,000 |
| | 1 in 2,000 |
| | <div>National Average</div> 1 in 3,000 |
| | 1 in 5,000 |

Score

1 in 300

Justification of Scoring

Likelihood of Harm

The low sill-height in the small front bedroom (likely to be used for a child) will allow the window ledge to be easily accessed when the window is open. Although a radiator is under the window, this would not present much of an obstacle to accessing the sill. The window of the other front room provides access to the unguarded flat roof of a bay window. Over the course of a year, the windows will be frequently open, particularly in warmer months. Even if closed, the lower sashes can be readily unlatched and opened. There will therefore be a greater-than-average likelihood of falls.

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 | 45.0 |
| | 30.0 | | 30.0 | | 30.0 | | National Average |
| | 20.0 | | 20.0 | | 20.0 | | 92.5 |
| Likely | 10.0 | Likely | 10.0 | Likely | 10.0 | These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100% | |
| | 5.0 | | 5.0 | | 5.0 | | |
| | 2.0 | | 2.0 | | 2.0 | | |
| Unlikely | 1.0 | Unlikely | 1.0 | Unlikely | 1.0 | | |
| | 0.5 | | 0.5 | | 0.5 | | |
| | 0.2 | | 0.2 | | 0.2 | | |
| Very Unlikely | 0.1 | Very Unlikely | 0.1 | Very Unlikely | 0.1 | | |
| | 0.0 | | 0.0 | | 0.0 | | |
| Score | | Score | | Score | | Score | |
| 5.0% | | 20.0% | | 30.0% | | 45.0% | |

Justification of Scoring

Harm Outcomes

The large drop from the front rooms onto hard and unforgiving surfaces, being the basement lightwell (6.4 m), stone entrance steps (4.2 m) or metal railings to the entrance steps, would give rise to increased severity of harm outcomes should a fall occur. A fall from the rear first-floor windows onto the flagstone yard is also likely to lead to outcomes that are more severe than the national average.

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 300 | | | |
|-----------------------------------|---------------------|------------------|-------------------|
| Extreme 5.0% | Severe 20.0% | Serious 30.0% | Moderate 45.0% |
| Category | Band | Score | |
| 1 Legal duty to take action | High | 10,000 | |
| 2 Discretion to take action | Medium | 1,000 | |
| | Example Dwelling | 265 | |
| | Low | 100 | |
| | National Average | 3 | |
| Score | 265 | | |

Scenario 2

After works meeting baseline indicators

| | | | |
|-----------------------------------|---------------------|------------------|-------------------|
| Likelihood of Harm 1 in 1,000 | | | |
| Extreme 5.0% | Severe 20.0% | Serious 30.0% | Moderate 45.0% |
| Category | Band | Score | |
| 1 Legal duty to take action | High | 10,000 | |
| 2 Discretion to take action | Medium | 1,000 | |
| | Low | 100 | |
| | Example Dwelling | 79 | |
| | National Average | 3 | |
| Score | 79 | | |

Justification of Scoring

After works meeting baseline indicators

Baseline indicators would see appropriate window restrictors added to the first-floor windows, significantly reducing the likelihood of a fall occurring. However, the windows would still be original single-glazed with low sills, meaning the likelihood would remain higher than average. The harm outcomes remain unchanged from the original scoring as the heights, surfaces and projections would remain unchanged.

Scenario 3

After further improvements

| | | | |
|-----------------------------------|---------------------|------------------|-------------------|
| Likelihood of Harm 1 in 3,000 | | | |
| Extreme 5.0% | Severe 20.0% | Serious 30.0% | Moderate 45.0% |
| Category | Band | Score | |
| 1 Legal duty to take action | High | 10,000 | |
| 2 Discretion to take action | Medium | 1,000 | |
| | Low | 100 | |
| | Example | 26 | |
| | National Average | 3 | |
| Score | 26 | | |

Justification of Scoring

After further improvements

Secondary glazing could be fitted to the windows to reduce the risk of falling through the window.

Other Relevant Legislation and Guidance

Building status

Where properties are listed or are located in a conservation area, this should not affect the assessment of risk and the calculation of the hazard rating score. However, advice is likely to be needed from the conservation officer within the local authority planning team as to whether planning permission/listed building consent is needed for certain works. All external works are likely to need planning permission in a conservation area. A listed building is likely to need consent for any works that alter the character of the building, which may include internal works where there are specific characteristics. The Listed Building/conservation area status has to be taken into account when determining the most appropriate course of enforcement action and what reasonably practicable improvements can be made to the property whilst retaining its character and appearance.

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.