

# LAYOUT AND CONTENT OF TYPICAL WORKED EXAMPLE

## PAGE 1 - DESCRIPTIONS

### Category of Hazard

Vulnerable age group for hazard

Other potential hazards associated with same deficiency(ies)

Photographs & figures of deficiency(ies) relating to hazard category

Dwelling age and type

Short description of deficiency(ies) in order of importance (A,B,C etc)


Matters affecting the likelihood of a hazardous occurrence and assessed degree of contribution for each deficiency (A,B,C etc)

### FALLS ON STAIRS ETC

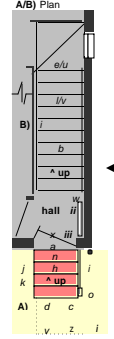
HHSRS VERSION 2

Vulnerable group	Persons aged 60 years or over	Multiple locations	Yes	No
Related hazards	None	Secondary hazards	Yes	No


**A) Front door steps**




**A/B) Plan**



**B) Main stairs**



**C) Steps at gate**



**DESCRIPTION OF HAZARD/S**  
Dwelling: 1930s, Semi-detached house

**A) Frontdoorsteps:** These are of smooth painted concrete and have no top 'landing'. The bottom riser is high and uneven (300mmx). There is a wobbly tubular steel handrail on one side but no guarding at all, despite the narrow width. There is no external porch light and little street lighting.

**B) Mainstair:** The main internal stair has two winders at the top and a moderate steep. There is a handrail only along the outside wall of the straight flight. There is a projecting radiator in the small hall and some glass in the front door at the foot of the stairs.

**C) Steps at gate:** These steps close to the front gate are of rough paving concrete. They have high uneven risers and a narrow tread. There is a crude rotten timber handrail but no guarding.

LIKELIHOOD		A	B	C	OUTCOMES		A	B	C
a	Tread lengths	1	1	2	a	Length of flight	-	1	-
b	Riser heights	3	1	2	b	Pitch of stairs	-	2	-
c	Variation in T&Rs	3	1	2	c	Projections etc #	-	2	3
d	Nosing length	-	-	-	d	Hard surfaces #	2	1	2
e	Poor friction quality	3	-	1	e	Construction/repair	2	-	3
f	Openings - in stairs	-	-	-	f	Thermal efficiency	3	-	2
g	Alternating treads	-	-	-	<b># Secondary hazards</b>				
h	Lack/height handrail	3	2	2					
j	Lack/height guarding	3	-	1	ii	Projecting radiator	-	2	-
m	Stair width	2	-	-	iii	Glass in front door	-	1	-
n	Length of flight	-	-	-					
o-q	Inadequate lighting	3	-	3					
r	Door/s onto stairs	-	-	-					
s	Inadequate landing	3	-	-					
t	Construction/repair	2	-	3					
u	Thermal efficiency	2	-	1					

**Key** 3 Seriously defective 2 Defective 1 Not satisfactory - Satisfactory/NA

Version of HHSRS

Whether deficiencies at more than one location

Whether secondary hazards present

Plan of relevant part/s of showing location of defective and non-satisfactory matters listed below (if appropriate)

Other photographs/figures of main hazard/s (A,B,C etc) and/or of secondary hazards

Matters affecting the health outcomes and contribution for each deficiency (A,B,C)

Note of secondary hazards, if present

Key to severity of matters

## PAGE 2 - ASSESSMENTS

Assessment of likelihood showing Model answer (in Red) and Average scores (with Green line)

Assessment of outcomes showing Model answer (in Red) and Average scores (with Green line)

Rating band for Model answer (in Red) relative to Average (Green line)

Likelihood and spread of harms after improvement


Rating band after improvement (in Yellow) relative to Average

### HEALTH AND SAFETY RATING SYSTEM SCORES

1920-45 House

LIKELIHOOD Low → High 1 in 18

Average: 226



Example

18

**Justification** The main stairs are assessed as giving the same likelihood of a major fall as the average for inter-war houses, (i.e. around 1 in 230), the limited handrail provision cancelling out any benefits of the broad winders. However, the added presence of the front access steps - particularly dangerous in icy weather and at night - substantially increases the overall annual probability of such a fall - to between 1 in 24 and 1 in 13.

OUTCOMES	Average	Example	%
Class I	Av: 2.1	4.6	4.6
Class II	Av: 7.4	10	10.0
Class III	Av: 20.5	25	21.5
Class IV	Av: 70.1	63.9	63.9

**Justification** The stairs are designed to be carpeted but the resulting lower harms are offset by the small hall, projecting radiator and single glazing in the door, albeit this is not at low level. However, the presence of the external front door steps and steps near the front gate, both flanked by rough tarmac and a concrete kerb, significantly increase the risk of a fatal or severe fall occurring, particularly in cold weather or at night.

Example

Average: 155

RATING A B C D E F G H I J

Score: 3504

**RATING SCORES AFTER IMPROVEMENT**

IMPROVE Likelihood to 1 in 180 Outcomes to 2.2 |###|###|### %

**Justification** Replacing the steps to the front door and at the gate with steps satisfying current Building Regulations and British Standards and fitting porch light and a full handrail on both sides of the main stair would give a more average likelihood of a major fall and an average spread of health outcomes, and thereby a more average rating.

Improved Av: 155

NEW RATING A B C D E F G H I J

Score: 217

Av Nos: Average likelihood, outcomes and HHSRS score for falls on stairs and steps by persons aged 60 years or more in and around 1920-45 houses, 1997-99.

Age and type of dwelling

Model answer on likelihood

Justification for Model answer on likelihood of an occurrence

Model answer on spread of health outcomes

Justification for Model answer on spread of a health outcomes

Resulting Model hazard score

Justification for Model score after improvement

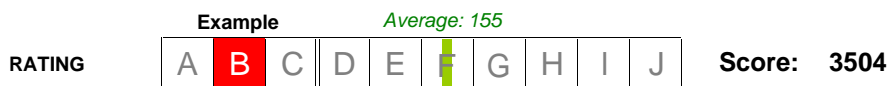
Score after improvement

Basis of averages



### The Average and Model HHSRS Rating

Using the Representative Scale Points for the chosen Likelihood and Outcomes ranges (red figures above), the HHSRS score (eg, 3504) is calculated using the prescribed formula. In which of the ten Rating Bands this score falls is shown in on the rating scale. This is the Model HHSRS Rating for the particular Worked Example. For comparison, the average Rating for all dwellings of the same type and age is also given (calculated from the average Likelihood and Outcomes - ie, those shown in green). Where this falls on the rating scale is also shown (with a green line) and

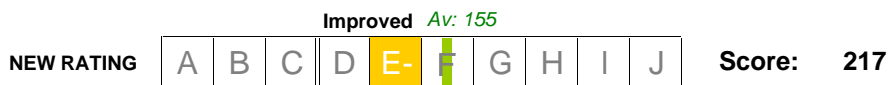


### Rating Scores after Improvement

Each Worked Example concludes by repeating the scoring procedure for the assessment of the condition following the suggested works to deal with the hazard. Again the Model scores for the likelihood and outcomes are given but in an

**IMPROVE**      Likelihood to    1 in   180      Outcomes to    2.2 | 10.0 | 21.5 | 66.3    %

After the justification for these scores, the new HHSRS score and rating is illustrated in a similar format as before. The final score (e.g. 217) is provided and the equivalent rating band shown (in Yellow) on the rating band. Again, the average rating for all dwellings of the same type and age, is provided where possible.



**NB** - For the Hazard of Crowding and Space, which is related to a mis-match between the household size and the dwelling, the Worked Example concludes by repeating the HHSRS scoring after considering the number

### Basis of Averages

For each Worked Example, the basis of the averages used is given at the bottom of the back page. The averages given are normally for the same type of dwelling (house or flat) and age of dwelling (pre 1920, 1920-45, 1946-79 or post 1979) as that being assessed. Where the sample of occurrences is too small to provide an accurate spread of harms for particular dwelling types and ages, the averages given relate to all dwellings of that type, or, where samples are particularly small, to all dwellings.

### Layout and Content of Typical Example

The following page shows the content and layout of a typical Worked Example.