

HQI

HOUSING QUALITY INDICATORS FORM
(VERSION 2)

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HOUSING QUALITY INDICATORS

The Housing Quality Indicators (HQI) system is a measurement and assessment tool designed to allow potential or existing housing schemes to be evaluated on the basis of quality rather than simply of cost. The quality rating derived by using the system does not provide a direct correlation with financial value, nor does it set out minimum standards.

The HQI allows an assessment of quality of key features of a housing project in three main categories:

- location;
- design;
- performance.

These three categories produce the ten 'Quality Indicators' that make up the HQI system. The Indicators are not a substitute for compliance with statutory requirements such as the Building Regulations. These regulations, as well as other mandatory or recommended standards (e.g. SAP, Design of Lifetime Homes, Secured by Design, BREEAM) are the basis for much of the material in the Indicators. Other guidance of fundamental importance to the HQI is the Scheme Development Standards prepared by the Housing Corporation, and the important work on Standards and Quality produced by the National Housing Federation (NHF), with the support of the Joseph Rowntree Foundation.

It is intended that the HQI system can be updated as basic standards evolve and adapted over time to meet new circumstances and varied needs. Therefore, each Indicator is independently scored, but an aggregate score can be calculated. Each Indicator is evaluated within a range of levels and mix of ways of achieving good quality, so there are many different ways of achieving a 'good' score. Where developers and designers already have a systematic and effective approach to achieving good quality, good scores should already be achievable. For renovated older houses, scores may be somewhat lower. As developers build the goals of the Indicators into their own way of working, even higher scores will be achievable in both new and renovated housing.

HOW THE SYSTEM WORKS

The HQI system consists of two parts: the HQI Form and a Scoring Spreadsheet.

HQI Form

The HQI form is a paper booklet containing information on the project and the ten Indicators.

The first section of the HQI form covers the **project description**.

The main body of the HQI form contains information on the ten **Indicators** that measure quality. In general, each Indicator in the HQI form takes up a double page spread with the text guidance and scoring instructions on the left and the Indicators on the right. Each Indicator contains a series of questions that are completed by the developer or client. The ten Indicators are:

1. Location
2. Site – visual impact, layout and landscaping
3. Site – open space
4. Site – routes and movement
5. Unit – size
6. Unit – layout
7. Unit – noise, light and services
8. Unit – accessibility
9. Unit – energy, green and sustainability issues
10. Performance in use

It is important to relate dwelling design to the way in which people wish to live and the context in which their home is placed. For this reason, the Indicators look not only at the unit and its design in detail (5-9), but also the context and surroundings (1-4), and aspects of performance in use (10).

Scoring Spreadsheet

The second part of the HQI system is a Scoring Spreadsheet. The information from the HQI form is transferred to this spreadsheet. The spreadsheet with its computer-based score calculation turns the answers on the HQI form into a standardised score. This is expressed as a series of scores showing how well the scheme performed on each Indicator as well as an aggregated score.

It is the profile of the ten different Indicators that gives the most useful information about the strengths and weaknesses of a scheme. The overall figure is a convenient aggregate.

APPLICATION OF THE HQI METHOD

New build feasibility stage

At the early stages of a project, detailed information about the design of new houses or flats and their setting is usually not known. Typically use of the HQI at feasibility stage implies a commitment that the detailed design will provide a particular quality score.

Verifying that this quality score has been delivered may form part of an audit process. The completed unit, unit type or scheme can be checked against the HQI profile to confirm that the commitment to levels of quality has been met. Proof of compliance with some commitments – such as noise reduction or achieving temperature levels – can only be tested after completion. This will also apply to any decisions that are left until after a project is occupied in order to take account of tenant preferences.

Where schemes are based on the HQI requirements, it should be possible to complete the HQI form as part of the normal design process. Many answers should be pre-determined as part of the process of deciding what level of quality is to be aimed for in the scheme. This process will, of itself, perform a role in helping to achieve higher quality and ensure design and construction decisions take account of quality.

Refurbishment schemes

In principle, the qualities that are considered to be ‘good’ will be the same in refurbished and new buildings. However, as the former were built under different regulations and guidance they may be unable to meet all the higher levels of quality on certain Indicators. This does not imply that a different set of Indicators is needed for refurbished dwellings, but merely that typical quality scores may be lower than new housing.

Multiple Sites

Multiple sites cannot be scored using a single HQI form and spreadsheet. Separate HQI forms should be completed for each site.

Units for disabled people

The HQI system is designed to assess housing for the general population. It is not intended to cover the specialist requirements for disabled people.

SCORING

The HQI system can be used to assess a single unit or type of unit, and can also be applied to a scheme with units of different types. Appropriate answers to the questions that make up the Indicators should be ticked. This information is then transferred to the scoring spreadsheet which then produces the scores. If final information is not available, questions should be answered on the basis of intention.

Each Indicator receives one tenth of the total possible score as equally, though differently, important in creating quality. Each Indicator has several parts and there are individual questions within each part. Within each Indicator, the weight of each part is shown alongside the part title.

Failure to meet suitable levels of, say, security or noise control may render a house so uninhabitable that other factors cannot compensate. However, this does not imply that these Indicators should be more heavily weighted than other factors; merely that failure to meet a certain level is unacceptable for these Indicators.

HQI users have the option to change the weightings applied to each Indicator. This can take account of any special priorities determined by the developer.

Identical overall ratings may be achieved by projects with very different characters and qualities. The difference will be apparent as the scores are represented numerically and graphically, illustrating the strengths and weaknesses of a project, and how the overall score is made up.

Comments

At the end of each Indicator, a Yes/No box allows users to indicate whether they have recorded comments about the scoring of that Indicator at the back of the HQI form. This is the opportunity for a developer to explain

why it has provided or not provided a particular feature. Comments are particularly important where current stated minima are not met and where only very few units, or a single unit, are involved (see below for special instructions in such situations). When a user-defined set of weightings gives a score based on particular priorities, these should be stated. For example, when considering the provision of gardens, the base assumption is that 'more' is 'better'. If this is not the case for the project under consideration, a comment can be added.

'Not applicable'

When an item is genuinely 'not applicable' (n/a), this can be indicated so that its score is removed from the total available. This avoids distortion of the scores so that schemes are not penalised for not providing items that are clearly inappropriate. The scoring spreadsheet monitors the number of 'not applicable' entered and records this on a summary page for subsequent verification. 'Not applicable' should only be used where truly appropriate. For example, if there are no communal rubbish bins, the question about the servicing of the communal bin areas with tap and drainage for cleaning (Q2.20) is not applicable. Lack of information is not equivalent to 'not applicable'. If final information is not available, questions should be answered on the basis of intention.

When a question is 'not applicable' to some, but not all, units in a scheme, then a comment should be entered to note that fact so that reduced scores in respect of these Indicators can be explained. For example, where there are bungalows and houses in a scheme, the questions about stairs will not apply to the bungalows. A comment to this effect should be added to the HQI form.

Question and answer formats

Several different question formats are used, suited to different scoring requirements. There are four general types of question and answer, with some minor variations within them.

- Text and numeric
These provide basic descriptive information about the development (for example, Project Description information).

- Yes or No
These often apply to topics such as provision of amenities, hazards and site features (for example Q3.1.1). For these questions tick 'Yes' if the project complies. For some questions relating to the site, the answer 'Yes' may only apply to part of the site. If the 'Yes' applies to less than 50% of the site/units, please tick 'No'. If the 'Yes' applies to between 50% and 100% of the site/units, please tick 'Yes'. In this situation, it is important to answer 'No' the question 'Do all the 'Yes' answers on this page apply to 100% of the site?'. A reduction of 20% in the total available score for that section will then follow automatically on the spreadsheet. Circumstances relevant to the project are described on the 'comments' page at the end of the form and may be such that the reduction in the score can be waived.
- A number
A question requiring a numerical answer asks how many units meet a particular criterion or what percentage of the site meets the criterion (for example Q2.2.1). The number of units meeting each of a series of conditions is recorded. *For each block of questions, the number of units recorded should add up to the total number of units in the scheme.*
- What standard has been met
This form of question has a column format in the answer (for example Q5.1.1). The number of units meeting a basic standard of quality is entered in the central column. The number of units failing to meet the basic standard (by certain levels) is inserted in the 'falls short of' standard columns to the left of the central column. Similarly, the number of units exceeding the basic standard is inserted in the columns to the right of the central column.

SPECIAL INSTRUCTIONS

Mixed schemes

When there are different units within a scheme, the score will take account the variety. In an estate with two types of houses, for example, one of which meets and one of which exceeds or falls short of standards, the scoring method will indicate the overall quality gain for the estate as a whole. This overall score takes into account the number of each type of unit in the scheme. Alternatively, the HQI user can assess each unit type separately by calculating Indicators 4 to 10 for each type, to evaluate their differences.

Standard house types/unit type

When developers use HQI to score a 'standard' house type, only the unit Indicators (5 to 10) are relevant as the location and site are hypothetical.

Single unit and small schemes

When a single unit or a small scheme of fewer than six dwellings is being assessed, then the location is of great significance. However, it may be hard to create a relevant score for the site as so little is within the scheme itself. In these instances, location should receive double weight and the site Indicators only half the weight (in the user-determined weights). For a single unit, the site Indicators can be totally omitted. Alternatively, the local environment (as created by the neighbouring units) can be scored as if they represented the site in order to ascertain a quality score for the immediate locale. The comment section should detail and justify whichever option is chosen.

SAMPLING

The HQI system is designed to allow schemes to be fully assessed without detailed examination of all individual units. The majority of questions relate either to schemes at the site level or to unit types. However, where responses to questions vary at the level of individual units, a full HQI assessment involves examining each 'individual unit'. However, there are two possible occasions when such an examination is sufficiently time consuming to be impractical.

Large number of units

Schemes that contain a very large number of individual units, irrespective of number of unit types, may require sampling techniques to be used for Indicator 7. In all other cases, sampling should not be necessary provided a systematic approach has been taken to the design of the units.

In certain circumstance, questions 7.1.7 – 7.1.10, 7.2.1 – 7.2.3 and 7.2.5 (on Indicator 7) can only be answered by careful inspection of site and unit plans. This may prove sufficiently time consuming on large schemes to make some method of sampling necessary. In this case, the space for comment on the form should be used to describe the reason why sampling was used and the basis under which the sample was chosen. In this situation, only 2.75% of the overall HQI score is subject to sampling, and therefore the effect is not considered to be material.

Large number of 'unit types'

Where very large numbers of 'unit types' are encountered in a single scheme making a full assessment of the scheme can become time consuming. To reduce the workload to a manageable level, larger more complex schemes may require the use of sampling. Initially in these cases, the assessor should attempt to consolidate their different 'unit types' into a smaller number – the developers unit types may vary by characteristics that do not affect HQI scores e.g. handed units or by different external treatment. Such units can be grouped together. This may reduce the number of unit types to a manageable level. An assessment based on these consolidated units types will lead to no loss of accuracy and should not be considered to have been sampled.

If the number of unit types cannot be reduced by this method, sampling will be necessary. Again the approach should be to group together similar unit types by common characteristics: number of bedrooms, bedspaces, floor area (grouped within reference to Indicator 5 standards), type of dwelling and new/refurbished. This should reduce the number of unit types to a manageable level. The HQI assessment can then be carried out based on a sample of representative examples from the grouped unit types. If a consistent approach has been

taken to the provision of services, kitchen layout and associated elements, assessment based on a sample in these cases may lead to little loss of accuracy. The assumptions and methodology behind grouping of unit types and the choice of sample should be detailed in the space for comments.

Schemes will be encountered that combine large number of unit types with large numbers of individual units. In these cases, both of the approaches to sampling discussed above will have to be considered.

SCORING SPREADSHEET

The most current version of the scoring spreadsheet is available from the DETR. Please contact the Housing Support Unit, 2/B3, Eland House, Bressenden Place, London, SW1E 5DU. Fax: 020 7944 3533. E-mail: HQI@detr.gov.uk. Please mark the request 'Housing Quality Indicators spreadsheet'.

The spreadsheet is locked and allows data entry only in the appropriate cells. Users can not change the system weightings and the scores awarded for each response. However, users can generate an alternative set of weightings for the sections within each Indicator and for each Indicator. These alternative scores are generated separately from, and in addition to, the standard weightings.

The HQI spreadsheet runs on PC or Macintosh computers in Microsoft Excel version 5 or higher. The spreadsheet is designed for downloading only. *It is not designed to be printed out.* The following instructions are also found at the beginning of the spreadsheet.

Spreadsheet instructions

Enter your responses in the shaded boxes, starting with the scheme name (in cell E1). Ensure that the number of units being scored is entered in cell H47. This figure is incorporated into the scoring system and without it the scores will not all be calculated, resulting in error messages (see below). Use the tab key or the mouse to move between shaded boxes. For most questions you must enter something – do not leave the entire line blank. Where percentages are to be entered, key in only the number – the percent sign will be added automatically. Where your response

is a tick, keying in a '3' will give you a tick (but any other character will be scored as if it were a tick).

The scores for each Indicator are shown at the end of the Indicator section and are summarised at the end of the spreadsheet. If the score for any section shows 'VALUE' this means the data you have entered for one or more lines is in error; look in column 'T' to see which line is in error. Some error messages are also displayed in column 'U'. *Note: until you have entered all the data for the section, the score will show 'VALUE'.*

NB. Do not use any Excel functions such as 'copy', 'cut' or 'paste' as this may override the scoring formulae. Set to 'off' the checkbox for the display of the formula bar in the Excel menu bar: to do this, select Tools, Options, View, Show, Formula bar then make sure the 'show formula bar' checkbox does not contain a cross.

In order to be able to see the entire spreadsheet your monitor desktop area should be set to 800 by 600 pixels or higher. To do this in Windows 95 or Windows NT, go to the Start menu, Settings, Control Panel, Display, Settings, Desktop area. If you do not do this you will have to scroll to the right of the spreadsheet in order to see the error messages in columns 'T' and 'U'.

Weights

The scoring spreadsheet allows weights to be specified at two levels: between different sub-sections for a particular Indicator to show the relative importance of particular topics within an Indicator, and between different Indicators to show the relative importance of each Indicator. The scoring system includes standard weights at both levels, with the Indicator weights being 10% to give equal importance to each Indicator. In this spreadsheet, you as the user can also specify weights to take into account particular requirements and key factors relevant to the scheme. The scores for each Indicator and the overall scores are calculated and shown using both the standard and the user-defined weights. The user-defined weights are initially set to be the same as the standard weights. If you do not wish to use user-defined weights, please leave these cells with their current (standard) value.

PROJECT DESCRIPTION

This section is used to record descriptive and location information about the scheme being assessed. These are general questions mainly for reference and identification purposes and are intended to act as a data collection opportunity. The information requested in this section may only be partially available at feasibility stage: for example, the type and mix of units may be known, within the floor areas and number of storeys being finalised. The project information should be updated, as detailed information on the project becomes available.

TYPES OF UNITS

The 'type of units' table shows the range of units in the scheme, grouped in a manner that facilitates the easy completion of the HQI form. This grouping is a matter for the discretion of the assessor. Typically, types of units are differentiated by whether they are new or refurbished, accommodation (bedrooms and bedspaces), construction type (flat/terraced house, semi-detached, detached) number of storeys and size.

BEDROOMS AND BEDSPACES

The number of bedspaces represents the number of occupants the dwelling was designed to accommodate. For example, a three bedroom house with one double bedroom, one twin bedroom and a single bedroom has 5 bedspaces. A five bedroom house with two double bedrooms, one twin bedroom, and two single bedrooms has 8 bedspaces. The occupancy table below is

designed to assist in the calculation of number of bedspaces. Please note that the information in the first three columns will automatically be transferred from the 'type of unit' table.

- A single bedroom is a bedroom designed to accommodate one person in a single bed.
- A twin bedroom is a bedroom designed to accommodate two people each in a single bed (with no bunk beds).
- A double bedroom is a bedroom designed to accommodate two people in one double bed.
- A triple bedroom is a bedroom designed to take three people in three single beds, or one double bed and one single bed (with no bunk beds).

Please note that this information should be consistent with Indicators 5 and 6. The total bedspaces given should be considered the 'full occupancy'. If a developer considers that the full occupancy is unrealistic, then they should indicate a 'realistic occupancy' in the table above. For example, a five bedroom house with two double bedrooms, one twin bedroom, and two single bedrooms has 8 bedspaces. However, the developer may consider it more realistic to assume the dwellings is occupied by a couple in one double bedroom, three children with their own bedrooms and a single 'spare bedroom'. In this case, the realistic occupancy is 5 people. This information can be added in the last column of the bedroom table, and used to explain the results of Indicators 5 and 6 through the comments section.

OCCUPANCY TABLE

UNIT TYPE	No in type	No of bedrooms per unit	Number of different type of bedrooms per unit				Total number of bedspaces per unit	Realistic occupancy
			Single	Twin	Double	Triple/other		
TOTAL								

PROJECT DESCRIPTION

Name of development/site reference
 Address Postcode

Type of housing (general needs)
 Urban, suburban/town edge, village or rural

RSL/Developer name Reg. N°
 Address

Local/planning authority name Reg. N°
 Address

Please tick 'Yes' or 'No' as appropriate

	Yes	No
Is all or part of the project in a conservation area?	<input type="checkbox"/>	<input type="checkbox"/>
Is this assessment for:		
a single unit/dwelling?	<input type="checkbox"/>	<input type="checkbox"/>
a standard house/unit type?	<input type="checkbox"/>	<input type="checkbox"/>
an entire scheme?	<input type="checkbox"/>	<input type="checkbox"/>
Is this assessment at:		
Feasibility stage?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed design stage?	<input type="checkbox"/>	<input type="checkbox"/>
At or after practical completion?	<input type="checkbox"/>	<input type="checkbox"/>
Has the scheme been sampled?	<input type="checkbox"/>	<input type="checkbox"/>
Has the room matrix approach been used for Indicator 6?	<input type="checkbox"/>	<input type="checkbox"/>

Please enter the total number of housing units being assessed and scored N°.....

Enter the number of each type in the table below.

TYPE OF UNITS

UNIT TYPE	No in type	refurbished/ new	No bedrooms in unit	No bedspaces in unit	flat/house	No of storeys in block	construction type	(area sq m)
TOTAL								

Area in hectares

	Yes	No
Are there non-housing uses in the project?	<input type="checkbox"/>	<input type="checkbox"/>
Is this a scheme with mixed tenure/use types?	<input type="checkbox"/>	<input type="checkbox"/>
If Yes to either of the above state the following uses as % (of floor area) of housing		
% frail elderly%	% other special needs
% wheelchair housing%	% other uses

Density dwellings/hectare Date of assessment

Density bedspaces/hectare Name of assessor

LOCATION

Location has a major impact on occupants and the long-term desirability of housing. It is important to be aware from the outset how good it will be for residents, even if a developer may have little influence over it. This indicator considers the physical context in which the project is set. A very low score may indicate that it is inappropriate to pursue a particular project. Alternatively it may make it possible to negotiate with interested parties to ensure that important facilities are incorporated rapidly.

Standard house types

When using the HQI method to assess a 'standard house type' or unit type, this indicator will not be applicable.

Amenities

The scale or type of amenity close to the project is relevant to 'quality'. Although there are different benefits to be achieved from different amenities, a better score is given for being close to a larger number of them. The most important amenities, such as health care facilities, appear on the table at two different distances. They score twice as much if very near (within 500 m) as if fairly near (between 500m and 1Km). A score can be obtained for both distances if there is a relevant amenity both very and fairly near. Only include amenities accessible to the general public.

Planned Amenities: Where a service or amenity does not currently exist but is planned within a 3 year period, please provide details in the comments section to explain the score.

Refurbishment schemes: For refurbishment schemes, the existing situation is the basis for the answers. Longer term plans should not be considered unless new amenities will be part of the project.

Play and leisure

Play facilities for the 5-12s would typically include 5 types of equipment and a small games area. Overall size approximately 400m². Play facilities for the over 12s would contain typically about 8 types of equipment, a game area suitable for kickabout football and/or cycle play opportunities. Overall size approximately 1000m².

Liabilities

Some features, such as a public refuse tip, may be a disadvantage. For these it is better to be further away. Absence of these liabilities generates the score, which contributes up to 10% of the indicator total. Where action has been taken to successfully mitigate against a

liability, please score as if the liability is not present. Please detail the liability and mitigating action in the comments section.

Noise

Noise sources close to the site can cause problems for residents and constitute a disadvantage. The score is based on absence of noise sources and contributes up to 10% of the indicator total. For 1.3.1 and 1.3.2 a 'major' road is a motorway, trunk road or 'A' road. For 1.3.5, noise contour maps are usually available from local airports. If this information cannot be obtained, please assume all units within 5km of the airport would be affected. For all noise source questions, the % of the site affected needs to be identified to the nearest 10%.

Acceptable distances

Acceptable distances vary according to whether the location is urban or rural and for different types of resident. Where existing occupied units are being assessed, distances in terms of walking times can be used as an alternative method. For an able-bodied adult, please assume 5 minutes walking is equivalent to 500m, and 10 minutes equivalent to 1km. For schemes for elderly persons, assume 10 mins for 500m and 20mins for 1km. Please note that all walking times are indicative and priority should be given to using actual distances involved.

Measuring

Distance is measured along roads and foot paths from the:

- geographical centre for amenities
- boundary for liabilities
- noise source to points within the site.

Where a layout is not yet planned add 20% to the straight line distance. A site plan showing the relevant distances will make it easier to answer the questions.

Amenities: the geographical centre of an estate is the basis for distance measurements where the project is a single compact area. For a long site, where one direction across a site measures more than twice another, treat the site as several with a diameter equal to the short dimension across the site. In these situations enter a percentage in the appropriate column.

Liabilities: use the distance from the item to the nearest point on the site boundary.

Scores

Tick 'Yes' where the scheme has assets or liabilities described and 'No' if not. Tick the planned column if applicable.

I.1 Amenities – how close are they? (80%)

Support services (20%)

- I.1.1 Is there a healthcare facility or GP practice very near (within 500m)?
- I.1.2 Is there a healthcare facility or GP practice fairly near (between 500m and 1 km)?
- I.1.3 Is there a public house, restaurant or cafe within 1km?
- I.1.4 Is there a place of worship or community hall or centre within 1km?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Retail (20%)

- I.1.5 Is there local retail outlets – e.g. food or newsagent – very near (within 500m)?
- I.1.6 Is there local retail outlets – e.g. food or newsagent – fairly near (500m to 1km)?
- I.1.7 Is there a post office very near (within 500m)?
- I.1.8 Is there a post office fairly near (between 500m and 1 km)?
- I.1.9 Is there a public telephone very near (within 500m)?
- I.1.10 Is there a cash-point/bank very near (within 500m)?
- I.1.11 Is there a major commercial centre or 'high street' within 2 km?

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Schools (10%) (excluding fee paying)

- I.1.12 Is there a pre-school/nursery very near (within 500m)?
- I.1.13 Is there a pre-school/nursery fairly near (between 500m and 1 km)?
- I.1.14 Is there a primary school very near (within 500m)?
- I.1.15 Is there a primary school fairly near (between 500m and 1 km)?
- I.1.16 Is there a secondary school within 1km?
- I.1.17 Is there a secondary school more than 1km but within 2 km?

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Play and leisure (10%)

- I.1.18 Are there toddler play areas within sight of family houses?
- I.1.19 Are there play facilities for 5 – 12s very near (within 500m)?
- I.1.20 Are there play facilities for 5 – 12s fairly near (between 500m and 1 km)?
- I.1.21 Are there play facilities for over 12s very near (within 500m)?
- I.1.22 Are there play facilities for over 12s fairly near (between 500m and 1 km)?
- I.1.23 Is there a park/public open space within 1 km?
- I.1.24 Is there a leisure/sports facility (eg pool or gym or playing fields etc.) within 1 km?

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Public transport (20%)

- I.1.25 Is there a bus or tram stop very near (within 500m)?
- I.1.26 Is there a bus or tram stop fairly near (between 500m and 1 km)?
- I.1.27 Is there a train or underground station very near (within 500m)?
- I.1.28 Is there a train or underground station fairly near (between 500m to 1km)?

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

I.2: Liabilities – how close are they? (absence of all of these will increase the score by 10%)

- I.2.1 Is there a refuse tip and/or ground contamination within 500m?
- I.2.2 Is there an industry generating smells or potential health hazards within 500m?
- I.2.3 Is there a derelict site – institutional/industrial/other within 500m?
- I.2.4 Are there high voltage overhead power lines within 500m?
- I.2.5 Are there polluted waterways within 250m?
- I.2.6 Is the site in a sea or river flood plain, within 3m (vertical) from high water level?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

I.3: Noise sources – how close are they? (absence of all of these will increase the score by 10%)

- I.3.1 Is there a bus route or major road within 20m?
- I.3.2 Is there a major road within 50m?
- I.3.3 Is there a motorway within 150m?
- I.3.4 Is there a railway within 150m?
- I.3.5 Is the site within the 69 Leq noise contour line of an airport?
- I.3.6 Is there industry generating noise within 150m?
- I.3.7 Is there an outdoor leisure facility (playing field, pool, etc.) within 150m?

Yes	% of site affected	No
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

COMMENTS: Have any comments been entered on the comment page at the end?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

The site

The site is the area for which the project has design input and responsibility. It generally refers to an area for a group of units but could, for example, consist of the curtilage of an infill project of a single unit or block. The site design indicators (2, 3, 4) will be of less significance for single units and smaller groups of units or buildings (eg. fewer than six.) This can be taken into account in user-determined weights and on the comments page. Site characteristics represent an important aspect of quality, since much of the aesthetic impact of a project lies in how aspects of the site overall are designed e.g.

- building form mass, material, details
- views, vistas
- relationships of buildings
- planing and hard surface treatment.

It is recognised that sometimes developers have little control over these qualities. However investing in a project where site scores are low merely because the individual dwellings meet required standards may not represent good value for money.

Site design characteristics are most easily evaluated when client requirements state the overall objectives and these are used in conjunction with a site-specific brief, allowing particular relevant features to be emphasised.

Single units, infill projects

For a single unit or small infill projects very few aspects of the wider site are in the control of the developing organisation. However merely having no power to affect the site does not constitute 'not applicable'. Questions should be answered even where the developing organisation has no direct influence. Enter a comment on this if it is relevant. Only where the questions are genuinely non-applicable should 'n/a' be entered.

Standard house types

When using the HQI method to assess a 'standard house type', this indicator would not be applicable other than question 2.5.

Visual impact

Features considered in the site-based indicators can be hard to quantify, so some subjective judgement must be used. This is particularly the case in relation to visual issues. There is little consensus on what is aesthetically pleasing and how to describe this. It should be noted that as the environment into which a scheme may be placed may itself be a poor visual model, the first two questions may be not applicable.

The questions relating to visual impact are likely to be modified as the HQI becomes more widely used. The feelings of those living there – whether they 'like' it, whether they are 'proud to invite friends and family to visit', whether 'it is a good place to bring up a family' – are all related to the site design as well as to the design and functionality of the dwellings. Achieving a high score in the site indicator overall will help to achieve a positive response from residents.

Habitable rooms provide the 'living accommodation' of the dwelling. They include living room, dining room, study, home office, conservatory, bedroom etc. They exclude the bathroom, WC, utility room, store room and circulation space. A kitchen is not a habitable room *unless* it provides space for dining.

Landscaping

For a single unit or an infill site, there may be no land outside the unit curtilage/building plot. In this case answer 'No' to Q 2.21. The landscape score will then be shared between 'Visual impact' and 'Layout'. For most sites, there is at least hard surfacing to design and detail. Please note that roads and pavements are included in this section. If such hard landscaping is the only form of landscaping, then questions 2.25, 2.27 and 2.30 should be N/A.

Scores

Tick 'Yes' where the scheme complies with a particular question. Tick 'No' where it does not comply. If 'Yes' only applies to part of the scheme for any questions then tick 'No' for question 2.33 at the bottom of the page.

SITE: VISUAL IMPACT, LAYOUT, LANDSCAPING

2

Visual Impact – overall visual effect and relationship to local character (33%)		Yes	No	<i>n/a</i>
2.1	Does the site scale and concept fit well with the surrounding area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Are the buildings in context with local buildings, street patterns (form, mass, detail and materials)? <i>(When the local environment is of poor visual quality enter n/a for questions 2.1, 2.2)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Do the buildings enhance the local environment?	<input type="checkbox"/>	<input type="checkbox"/>	
2.4	Are elements associated with the overall site (lighting, street furniture, street names and direction signs, curbs, benches/seats etc) well detailed, co-ordinated with each other and carefully located?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Are external elements associated with the dwellings (walls and fences, garages, refuse bin screening, electricity meter boxes, drainpipes, handrails etc) well detailed and co-ordinated?	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	Are existing important elements (natural or man-made) protected, to give the site maturity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7	Are any elements that could confer a special identity to the site used to do so?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8	Is it easy to understand how to enter and move about the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Layout – relationship of buildings to each other, open areas and site (33%)		Yes	No	<i>n/a</i>
2.9	Is overlooking of habitable rooms avoided e.g. 50% of units with at least 10m away from other buildings or public spaces, including pedestrian routes?	<input type="checkbox"/>	<input type="checkbox"/>	
2.10	Are buildings (houses, flats garages others) arranged to protect residents from external noise ?	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	Are units grouped to take best advantage of local topography?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.12	Has best advantage been taken of sunshine for views, heat and light in outdoor areas and in dwellings?	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	Are there distant or varied views from public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.14	Do 5 or less dwellings always share access e.g. houses: driveway/courtyard; flats: landing/corridor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.15	Do 15 or less dwellings always share access from a cul-de-sac, or vertical access route in a block of flats?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.16	Is the private/shared open space enclosed within unit boundaries, well designed in shape, dimension and location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.17	Do different public areas have specific differentiated characters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.18	Are refuse and bin storage areas convenient and inconspicuous?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.19	Is communal bin storage serviced by tap and drainage for cleaning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Landscaping – excluding private open space (33%)		Yes	No	<i>n/a</i>
2.20	Are there hard surfaces or soft landscaping in the scheme? If 'No' go to Q2.34	<input type="checkbox"/>	<input type="checkbox"/>	
2.21	Is there varied planting to create visual interest in different seasons using height, colour, texture?	<input type="checkbox"/>	<input type="checkbox"/>	
2.22	Has planting been related to climatic conditions to provide wind protection and/or shade?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.23	Are there trees in the public open areas or streets?	<input type="checkbox"/>	<input type="checkbox"/>	
2.24	Is screening provided for in-curtilage and grouped parking (rails, fences, planting)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.25	Are planted/grassed areas sufficiently large to be viable (approximately equivalent to a dwelling plot)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.26	Does layout of site discourage 'cutting corners' across landscape and/or private space?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.27	Has a qualified landscape architect been used to create or assess the landscape design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.28	Are hard surfaces varied – to suit relation to buildings or identify larger areas with different uses?	<input type="checkbox"/>	<input type="checkbox"/>	
2.29	Is landscaping able to be easily and cost effectively maintained?	<input type="checkbox"/>	<input type="checkbox"/>	
2.30	Is water (e.g. pool, stream, fountain etc) incorporated into the site and appropriately protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Yes	No
2.31	Do all the 'Yes' answers above apply to 100% of the site	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS: Have any comments been entered on the comment page at the end?		Yes	No
		<input type="checkbox"/>	<input type="checkbox"/>

SITE: OPEN SPACE

Public and private open space

The way in which public open space is provided has a great effect on the quality of a residential environment. Boundaries between public and private space must be clear for security and management reasons. Areas without a fully designated purpose may be provided to enable spontaneous uses to develop. However, generally in residential areas the way in which public open space can safely and non-intrusively be used should be clear from the way in which it is designed.

Private open space is open space accessible only to the resident. It includes gardens, roof terraces, patios, yards, and balconies. Shared open space is accessible to a restricted group of residents. It includes communal or shared gardens or courtyards. Any unit located more than 10m from the shared space (as measured from the closest entrance door) should not be considered to share the open space. Open space accessible by any member of the public or more than 25 units is considered public open space.

Standard house types

When using the HQI method to assess a 'house type' only a few items in the indicator will be applicable. These should be scored.

Site security

Principles of 'Secured by Design' that relate to the area outside and between buildings are addressed in this section. Others are covered in features of the unit. These questions are applicable even to single dwellings in infill or refurbishment schemes where some features may not be in the control of the developer.

For Q3.1.1, the presence of the following items would tend to indicate the space between buildings has *not* been planned for specific uses. The presence of areas with no planned hard or soft landscaping, open space with no clear ownership or boundaries, any open space without a clear purpose, or any shared/public open space of less than 4 sqm.

Children's play

In some projects, there will be no provision for children's play, either because the scheme is too small (or eg. infill or refurbishment), or close to existing suitable provision, or because the dwelling types are not planned for, nor expected to attract, families. For

these enter 'not applicable' (but still answer questions about children's play in indicator 1).

Shared areas

The shared areas of a block of flats are considered with the 'site' as they deal with areas outside individual dwellings. These have constraints and opportunities similar to those of open space: the distinction between public and private is crucial. Size, lighting and views all contribute to the quality. Where there are no flats enter 'not applicable'.

Private open space

It is recognised that larger gardens and private open space have implications for cost and land use, and consequently for 'sustainability'. These factors must be part of a wider project and policy assessment that relates the HQI measures to such other issues. Extra area is therefore not scored negatively.

In this indicator, a general assumption is made that 'more' private open space is 'better' on the basis that most residents appreciate space. Safe toddler play is most easily achieved in private gardens. Gardening is a popular recreation, and private open space is likely to increase opportunities for sunlight and views.

However some projects or standard house types are deliberately planned with small gardens or even without gardens or other forms of private open space. In these cases, the reasons should be stated in the 'comment' space at the end. Where shared open space exists, how this will be effectively managed and maintained should be covered in the comments section at the end.

Scores

Tick 'Yes' where the scheme complies with a particular question. Tick 'No' where it does not comply. If 'Yes' only applies to part of the scheme for any questions then tick 'No' for question 3.1.22. To score the gardens and car parking sections please enter the number of units to which each type of space applies.

3.1 Public and shared open space – security and children’s play

Site security (20%) (30% if no flats, 40% if no children’s play, 50% if neither)

	Yes	No	n/a
3.1.1 Are spaces between buildings planned for specific uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.2 Are boundaries between public and private spaces clear?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.3 Are spaces that are to be shared by residents but not for the general public clearly defined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.4 Is casual intrusion by non-residents beyond clearly defined public areas discouraged – eg using barriers, 'gates', concierges or security systems?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.5 Is site route network designed to discourage strangers and hinder escape?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.6 Is best advantage taken of opportunities for private open space?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.7 Do unit boundaries consist of strongly built walls or railings to deter intruders and vandalism?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.8 Is main entrance clearly visible and hiding places, near front doors and pedestrian routes, avoided?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.9 Does building grouping, position of windows or cameras allow surveillance of unexpected visitors?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.10 Does building grouping and position of windows allow supervision of open space and play?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.11 Are vulnerable points on buildings visible by other residents or passers by?	<input type="checkbox"/>	<input type="checkbox"/>	

Shared areas in flats (10%)

3.1.12 Are flats with shared areas provided? If 'No' go to Q 3.1.18	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.13 Are halls and corridors in blocks of flats well lit (both natural and artificial light)?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.14 Are vandal and graffiti resistant glass/finishes used to 2000mm from the ground?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.15 Is there an entry phone or other security system to main entrances of blocks of flats?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.16 Is 9 sq m or more available for a concierge desk in the main entrance hall of large (20+) blocks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Children’s play (20%)

3.1.17 Is the housing designed for households with children? If 'No' go to Q 3.1.24	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.18 Are play areas provided for 2–5 year olds within sight of 100% of family dwellings?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.19 Are play areas provided for 5–12 year olds – at a minimum of one for 40 dwellings?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.20 Are play areas fitted with play equipment for the age group?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.21 Is energetic play provided for – e.g. by adventure playground, cycle paths, etc?	<input type="checkbox"/>	<input type="checkbox"/>	
3.1.22 Are play areas and public spaces sited to avoid nuisance to neighbours?	<input type="checkbox"/>	<input type="checkbox"/>	
	Yes	No	
3.1.23 Do all the 'Yes' answers above apply to 100% of the site	<input type="checkbox"/>	<input type="checkbox"/>	

3.2 Private/shared open space (16%) please enter the number of units to which the following apply

Principal private open space

	Number of units
3.2.1 No private open space	<input type="text"/>
3.2.2 Principal (usually rear) private open space up to 8 sq m	<input type="text"/>
3.2.3 Principal (usually rear) private open space 8–20 sq m	<input type="text"/>
3.2.4 Principal (usually rear) private open space 21–50 sq m	<input type="text"/>
3.2.5 Principal (usually rear) private open space 51–200 sq m	<input type="text"/>
3.2.6 Private open space over 200 sq m	<input type="text"/>

Shared or second open space

3.2.7 No shared open space or no second private open space	<input type="text"/>
3.2.8 Second private open space less than 8 sqm or shared open space less than 8 sqm per unit	<input type="text"/>
3.2.9 Second private open space over 8 sqm or shared open space over 8 sqm per unit	<input type="text"/>

Characteristics of gardens/private/shared open space (9%)

		n/a
3.2.10 Robust principal (usually rear) private open space, boundary fences or walls 1.2 m side, 1.8 m rear	<input type="text"/>	<input type="checkbox"/>
3.2.11 Second private open space or shared open space with boundary fences/walls not less than 700 mm high	<input type="text"/>	<input type="checkbox"/>
3.2.12 Privacy screen 1.8 m high to within 2m of house wall	<input type="text"/>	<input type="checkbox"/>
3.2.13 Lockable gates to open space same height as open space boundaries	<input type="text"/>	<input type="checkbox"/>
3.2.14 External lockable storage suitable for large items (eg bicycles)	<input type="text"/>	<input type="checkbox"/>
3.2.15 Facilities for water recycling for garden use in open space	<input type="text"/>	<input type="checkbox"/>
3.2.16 Outside tap with suitable drainage	<input type="text"/>	<input type="checkbox"/>
3.2.17 Outside electricity supply	<input type="text"/>	<input type="checkbox"/>
3.2.18 Secure access from front to rear open space without going through house	<input type="text"/>	<input type="checkbox"/>
3.2.19 Clothes drying facility with access path with no level change	<input type="text"/>	<input type="checkbox"/>

SITE: OPEN SPACE

Car parking

Provision of car parking is sometimes considered to be associated with a wasteful form of personal transport, rather than with convenience for individuals. However for scoring the current version of the HQI, availability of conveniently located parking space is considered to be a positive attribute, as residents normally value this highly. In circumstances where better alternative transport systems are provided or become available, a car space that is not required for parking can benefit the exterior by providing greater openness, or a garage can offer extra interior amenity.

Only one car parking space per unit is assessed. No additional score is obtained for further spaces, except as clearly defined visitor parking.

Some projects or unit types are planned without car parking. In others, there is no possibility of providing parking directly for individual units. This may be the result of

- location (inner city)
- building type (flats)
- planning requirements
- to increase the environmentally sustainable qualities of the project.

In these cases the reason for absence of provision for car parking should be stated in the 'comment' space.

A 'secure' car space needs to provide security for the vehicle when parked and also for the resident when making their way to and from the car space and unit. At a minimum, this would include good lighting and visibility, and a clear line of sight.

Underground garages

Underground garages with controlled and secure access for residents *only* (and authorised visitors) can be included in 3.3.5. All other underground garages are allocated to 3.3.2. Where such garages are shared with commercial organisation and/or the general public on a time or space basis, they should be allocated to 3.3.2.

Visitor Parking

'Clearly defined' visitor parking covers car spaces labelled as visitors parking or additional hardstanding within the unit or building plot over and above the primary space per unit.

Scores

To score this section please enter the number of units to which each type of space applies.

The total of 3.3.1 to 3.3.11 MUST equal 100% for a score to be registered.

3.3 Car parking (25%)

*please enter the number of units to which the following apply
(a car parking space should be at least 2.8m x 4.8m to qualify for inclusion)*

Type of main/sole car parking provision for units

These questions only apply to one (primary) space per unit

	Number of units
3.3.1 No provision within 100m of front door	<input type="text"/>
3.3.2 Underground garages	<input type="text"/>
3.3.3 Only public road hard standing available – 30 to 100m beyond front door	<input type="text"/>
3.3.4 Only public road hard standing available – within 30m of front door	<input type="text"/>
3.3.5 Grouped hard standing more than 30m from unit or block (flats) or underground garages <i>only</i> accessible by residents	<input type="text"/>
3.3.6 Grouped hard standing within 30m of unit	<input type="text"/>
3.3.7 Grouped garages within 30m of unit or block (flats)	<input type="text"/>
3.3.8 Hardstanding outside building plot but clearly related to dwelling	<input type="text"/>
3.3.9 Hardstanding within unit or building plot	<input type="text"/>
3.3.10 Car port within unit or building plot	<input type="text"/>
3.3.11 Garage within unit or building plot	<input type="text"/>

Quality of car parking provision

	Number of units	n/a
3.3.12 A large car space is provided (3.3m x 4.8m)	<input type="text"/>	<input type="checkbox"/>
3.3.13 Car space further than 2m from window of a habitable room	<input type="text"/>	<input type="checkbox"/>
3.3.14 Car space is secure	<input type="text"/>	<input type="checkbox"/>
3.3.15 Car space provides easy access directly to garden without passing through dwelling	<input type="text"/>	<input type="checkbox"/>
3.3.16 Car space does not 'dominate' elevation – eg less than half width of elevation	<input type="text"/>	<input type="checkbox"/>
3.3.17 Grouped parking is clearly identified with the dwellings it serves	<input type="text"/>	<input type="checkbox"/>

Dispersed visitor parking

	Yes	No
3.3.18 Small amount of clearly defined visitor parking provided (less than one space per three dwellings)	<input type="checkbox"/>	<input type="checkbox"/>
3.3.19 Fair amount of clearly defined visitor parking provided (more than one space per three dwellings)	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS: Have any comments been entered on the comment page at the end?

Yes **No**

SITE: ROUTES AND MOVEMENT

For small infill projects very few aspects of the wider site are in the control of the developing organisation and so will not form part of the project. However merely having no power to affect the site does not constitute 'not applicable'. Questions should be answered even where the developing organisation has no direct influence. Enter a comment on this if it is relevant. Only where the questions are genuinely non-applicable should 'n/a' be entered.

Routes and movements

Routes for vehicles and pedestrians need to be planned with convenience, safety and security of all users in mind. Where these already exist and are not provided as part of the scheme, the questions should be answered on the basis of the existing infrastructure.

Appropriate traffic calming measures include clear road hierarchies, road detailing, speed bumps, road narrowing etc. Not all the measures need to be included in any scheme.

Access to the unit

For accessibility questions please answer questions about the recommended, non-required levels as well as the standard basic requirements. All questions must be answered in order for a score to be registered. The score will be increased where the recommended levels are met.

For 4.2.3 and 4.2.5, essential ramps and stairs are those providing access where no alternative route is available.

There are a number of features of lifetime homes and mobility standards that relate to items in this indicator. They include:

- Parking space associated with the dwellings is or can be widened to 3.3m
- Distance from car parking space to entrance door kept to a minimum
- Level or gently sloping approach to entrance door
- Level area outside front door and over the threshold within is covered and well lit.

(Information adapted from Edwin Trotter Associates diagram for Lifetime Home: Agenda, May 1997).

Scoring

Tick 'Yes' where the scheme complies with a particular question. Tick 'No' where it does not comply. For the accessibility questions there are two possible levels of achievement, the required basic level of provision and a higher recommended one. If 'Yes' only applies to part of the scheme for any questions then tick 'No' for questions 4.1.14 and 4.2.23 as appropriate.

4.1 Routes and movements (50%)

General

	Yes	No
4.1.1 Do routes connect with the surrounding neighbourhood (eg cul-de-sacs accessing more than 25 units avoided)?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.2 Is the hierarchy of routes clear?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.3 Are road, place and building names and unit numbers clear; visible and legible and sited appropriately in relation to buildings?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.4 Do routes take advantage of vistas/landmarks within or around the project site?	<input type="checkbox"/>	<input type="checkbox"/>

Vehicles

4.1.5 Are appropriate traffic calming measures used to control vehicle speed?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.6 Is vehicle segregation possible to help pedestrians (eg young children) to use safe routes?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.7 Can large, emergency or service vehicles come within 30m of all front doors of units or flats?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.8 Are there spaces for refuse and service/delivery vehicles to stand without blocking routes?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.9 Do routes facilitate and encourage cycling (cycle lanes, barriers to cars that cyclist can pass)?	<input type="checkbox"/>	<input type="checkbox"/>

Pedestrians

4.1.10 Are public spaces connected by clear, well lit and hard surface routes?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.11 Is lighting appropriately related to buildings and easy to maintain?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.12 Does position of lighting prevent 'pools' of darkness where people walk both outside and in common parts of flats?	<input type="checkbox"/>	<input type="checkbox"/>
4.1.13 Are kerbs dropped where foot paths cross roads?	<input type="checkbox"/>	<input type="checkbox"/>

Yes No

4.1.14 Do all the answers in 4.1 above apply to 100% of the site?

4.2 Access to the unit (50%)

Are the following requirements met over the site as a whole?

	Yes	No	n/a
4.2.1 Pedestrian routes and garden paths – firm, even, slip-resistant finish, distinctive texture/colour	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.2 Pedestrian routes and garden paths – width 900mm minimum	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.3 Gradient for essential ramps – max 5m at 1:12 or 10m at 1:15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.4 Where ramps are used, are alternative steps with handrails provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.5 Rails for essential steps and rise max. 150mm plus going min. 280mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.6 Level changes protected from adjacent drop by handrail if drop exceeds 380mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.7 Dropped kerbs for main footpaths and dwelling access positions	<input type="checkbox"/>	<input type="checkbox"/>	

Are the following recommended standards met over the site as a whole?

4.2.8 Paths with gradients of less than 1:12 throughout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.9 Paths with minimum width of 1000mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are the following requirements met for the dwelling entrance approach?

4.2.10 Gateways min width 850mm and no step	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.11 Convenient wheelchair accessible parking space within 30m of main entrance for 10% of units	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.12 Any slope to external doors to be gentle with level platform 1200x1200mm clear of door swing	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.13 Canopy/porch over main entrance with light.	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.14 External thresholds nominally flat – max. 15mm upstand weather bar	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.15 Main front door 800mm clear width between blade and stop-swings	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.16 Other external doors 750 mm clear between blade and stop-swings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.17 Lifts for dwellings with entrances over 3m from ground level for wheelchair plus accompanying person with good travel speed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are the following recommended standards met for dwelling entrance approach?

4.2.18 Approach to all external doors to be level	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.19 Convenient wheelchair accessible parking space within 30m of main entrance for 100% of units	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.20 Lift to all dwellings with entrances above ground level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.21 All dwellings with private entrance at ground floor level	<input type="checkbox"/>	<input type="checkbox"/>	
4.2.22 Main front doors with a 300mm return (in addition to the required 800mm width)	<input type="checkbox"/>	<input type="checkbox"/>	

Yes No

4.2.23 Do all the answers in 4.2 (excl. 4.2.11) above apply to 100% of the site

COMMENTS: Have any comments been entered on the comment page at the end?

Yes No

UNIT SIZE

It is recognised that larger dwellings have implications for cost and land use, and consequently 'sustainability'. These factors must be part of a wider project and policy assessment that relates 'quality', as measured by this HQI method, to such other issues.

People set store by larger living spaces and the size of a unit as well as the number of rooms it contains. A larger unit in area and one with more rooms both represent higher quality than smaller ones. However, merely providing a larger unit will not compensate for a poor layout, badly proportioned spaces, awkward door swings that reduce usability, or poor orientation of units.

Scores

Indicator 5 must be calculated assuming a 'full occupancy'. If developers consider this level of occupancy is unrealistic, they can separately calculate the indicator based on 'realistic occupancy' and place this information and the reasons for this decision in the comments section. If this approach is adopted, developers *must* complete the last two columns of the occupancy table (in the Project Description section).

The assessment of the units is designed to cover the whole group of units simultaneously – generally either all the units in one type, or all the units in all types in the project. This number is the number of units that is totalled in the Project Description. It is entered in the spreadsheet and used in calculations.

Enter the number of units that achieve a particular quality as indicated in each question. On the spreadsheet, an automatic calculation will allocate the appropriate percentage of the score according to the number of units achieving the quality in each part of each question.

If preferred, the unit indicators 5 to 10 can be separately scored for each unit type on a project with several different types. When the majority of units meet a particular level in a question, with some individual exceptions, these can be separately noted and reasons for non-compliance given.

Size by internal area

For each type of unit represented in the assessment, enter the number of units in the relevant size category indicating the size achieved. The list should match that in the project description. Where the list is insufficient to cover the unit types on the project, insert additional ones in the rows labelled 'other'. If more are needed make additional copies of the list. Where a type has more than 7 bedspaces add 10 sqm to the areas in the target range for each additional bedspace.

'Exceeds' applies to those that exceed the upper figure in a range by the % indicated at the top of the column, 'falls short' applies to those that fall short of the lower figure in a range by the % indicated at the top of the column. Where a unit is larger than the given size range, and does not include additional living spaces, it is also likely to score positively in Indicator 6. If this is not the case, then it may be that the design of the unit should be reconsidered.

Size by number of living spaces

If additional living spaces over the numbers shown in the following table of required rooms are provided in some or all units, enter the number of units which benefit from each of the different additional living spaces as listed in 5.2. Please note that for 5.2.2, additional bedrooms above the minimum required can be provided by the provision of additional single bedrooms rather than twin or double bedrooms.

Number of rooms required

required living spaces	1p	2p	3p	4p	5p	6p	7p	8+
Bedroom	1	2	2	3	3	4	4+	
Bathroom	1	1	1	1	1	1	1+	
WC [†]	1	1*	1*	2	2	2	2+	
Kitchen	1	1	1	1	1	1	1	
Living room	1	1	1	1	1	1	1	
Dining space	1	1	1	1	1	1	1	

[†] Separate or within a bathroom

* Two WCs required for 3p or 4p when on two floors

Source: adapted from 'Standards and Quality', National Housing Federation/ Joseph Rowntree Trust

5.1 Unit type by area (75%)

*please enter the number of units to which any of the following apply
enter something on every line – use 'not applicable' for unit types not included in the scheme*

	exceeds the upper figure by over 10%	exceeds the upper figure by 1% – 10%	Meets – falls within the range	falls short of the lower figure by 1% – 10%	falls short of the lower figure by over 10%	n/a
5.1.1 1 bedspace 30 to 35 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.2 2 bedspace 45 to 50 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.3 3 bedspace 57 to 67 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.4 4 bedspace 67 to 75 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.5 5 bedspace 1 storey 75 to 85 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.6 5 bedspace 2 storey 82 to 85 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.7 6 bedspace 1 storey 85 to 95 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.8 6 bedspace 2 storey 95 to 100 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.9 6 bedspace 3 storey 100 to 105 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.10 7 bedspace 2+ storey 108 to 115 sq m	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.11 7+ bedspace add 10 sq m per bedspace	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.1.12 Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

5.2 Units by living spaces (25%)

*please enter the number of units to which any of the following apply
enter something on every line*

	number of units
5.2.1 At least the number of rooms required for the unit size are provided	<input type="text"/>
5.2.2 Additional bedroom above minimum required is provided	<input type="text"/>
5.2.3 Additional WC above minimum required is provided	<input type="text"/>
5.2.4 Additional bath/shower facility is provided in separate room from main bathroom	<input type="text"/>
5.2.5 Study/ separate work area is provided	<input type="text"/>
5.2.6 Separate utility room or separable utility space is possible	<input type="text"/>
5.2.7 Conservatory/enclosed sun porch is provided	<input type="text"/>

COMMENTS: Have any comments been entered on the comment page at the end?

Yes **No**

UNIT LAYOUT

Checking the quality of units, especially in relation to layout and usability, is a detailed task. It is most readily done in relation to standardised or preferred unit types and associated specifications which have been devised with the HQI in mind. However there is no requirement to use standard unit types, and they confer no scoring advantage other than as a convenience.

The usability of a house is dependent not only on its size but also on whether it can be organised to suit the way the residents wish to live. These HQIs make use of material created for the Standards and Quality project by the NHF with the Joseph Rowntree Foundation (1998). This document provides a list of furniture that should fit into each rooms and which is included here on page 22. It also includes illustrations of spaces required to access the furniture and to perform activities typical to each room.

Scores

Furniture If all listed furniture and appropriate activity and access zones (on following pages) can be accommodated, a room meets a basic standard.

Higher scores Please see tables in Indicator 6 annex to identify the additional furniture required to obtain higher scores. For storage, providing sufficient for the next size of unit is the way to exceed by one 'item'.

Lower scores If one (or more) furniture items listed for that room type cannot be accommodated, the room falls short by one (or more) 'item'.

Activity and access zones

The ability to accommodate activity, access and passing zones is treated in the same way as if these were furniture items. If an activity zone is 10% larger (or smaller) than the given size, the room exceeds (or falls short) by 'an item'. Similarly for access/passing zones: 1 sq m more (or less) means that the room exceeds or falls short by an item. If a room exceeds the requirement in one of these three particulars – furniture, activity zones, and access/passing zones – but falls short in another, then both aspects should be entered in the table. If this is the case, however, it may indicate poor planning of the unit and the design should be carefully reviewed.

In the dining space, the following activity spaces are required between the edge of the dining table and the surrounding wall or other furniture: 700mm one side, 900mm one side, 1100mm one side, and 1300mm one side. These allow for a combination of access to seats and passing with and without a tray/serving dishes. Where all the residents can be seated at a table which has one or two edges against a wall or other furniture then the 700mm and then 900mm activity space should be dropped.

Indicator 6 must be calculated assuming a 'full occupancy'. If developers consider this level of occupancy is unrealistic, they can separately calculate the indicator based on 'realistic occupancy' and place this information and the reasons for this decision in the comments section. If this approach is adopted, developers *must* complete the last two columns of the occupancy table (in the Project Description section).

Room Matrix Approach

In recognition of the time consuming nature of this indicator, an alternative approach has been developed. Assessors should be aware that higher scores are likely to be obtained if the full method is carried out. The alternative approach – The Room Matrix Approach – is detailed in the Indicator 6 annex. **Assessors using this approach MUST indicate this in the Project Description section.**

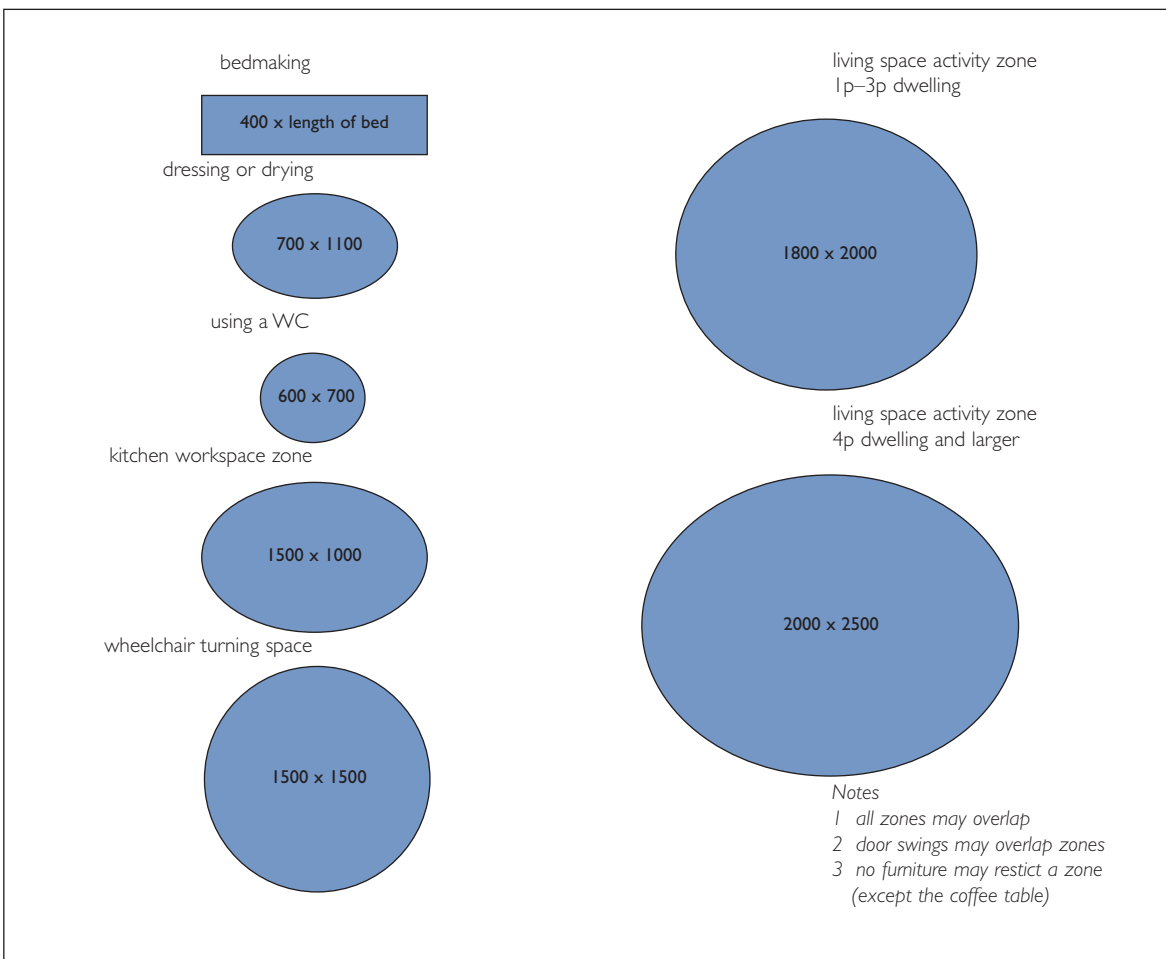
Additional features

Further points can be obtained for additional features. Where these are achieved, enter the number of units in the project with that features. For 6.2.8, Indicator 6 Annex contains advice on whether cot space is available. For 6.2.4 and 6.2.13, the resulting rooms must meet at least the basic standards detailed in Section 6.1.

6.1 Furniture provision, access, passing and activity zones (50%)

please enter the number of units to which any of the following apply

	exceeds by more than one item or 10%	exceeds by one item or up to 10%	Meets the requirement	falls short by one item or 10%	falls short by more than one item or more than 10%
6.1.1 Living room – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.2 Living room – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.3 Dining space – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.4 Dining space – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.5 Bedrooms – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.6 Bedrooms – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.7 Bathroom – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.8 Bathroom – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.9 Kitchen – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.10 Kitchen – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.11 Storage – internal	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.12 Storage – external	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Source: adapted from 'Standards and Quality' National Housing Federation/Joseph Rowntree Trust

COMMENTS: Have any comments been entered on the comment page at the end?

Yes No

UNIT LAYOUT

Units by layout – Table of furniture to be accommodated in units of different sizes

All sizes in mm

See previous pages for illustration of the way in which furniture and access, passing and activity zones are shown on plans.

Living space	1p	2p	3p	4p	5p	6p	7p	+
arm chair 850x850 – combination to equal one seat/person	2	2	3	1	2	3	4	+1
settee – 2 seat 850x1300 (optional; as above)								
settee – 3 seat 850x1850 (optional; as above)				1	1	1	1	
TV 450x600	1	1	1	1	1	1	1	1
coffee table 500x1050 or 750 diameter	1	1	1	1	1	1	1	1
occasional table (450x450)					1	1	1	1
storage units 500x1000 – and incrementally larger	1000	1000	1000	1500	2000	2000	2000	+
space for visitor chair 450x450	2	2	2	2	2	2	2	2
Dining space	1p	2p	3p	4p	5p	6p	7p	+
dining chair 450x450	2	2	3	4	5	6	7	8+
dining table 800x800 – and incrementally larger	800	800	1000	1200	1350	1500	1650	+
sideboard 450x1000 (+ larger) (but not in dining/kitchen)	1000	1000	1000	1200	1500	1500	1500	+
Bedrooms	1p	2p	3p	4p	5p	6p	7p	+
Double bedroom	n/a							
Double bed 2000x1500 or 2 singles 2000x900		1	1	1	1	1	1	1
bedside table 400x400		2	2	2	2	2	2	2
chest of drawers 450 x750		1	1	1	1	1	1	1
table 500x1050, and chair/stool		1	1	1	1	1	1	1
double wardrobe 600x1200 – could be built in		1	1	1	1	1	1	1
occasional cot space 600x1200 for family dwelling								
Twin bedroom	n/a							
single bed 2000x900		2	2	2	2	2	2	2
bedside table 400x400		2	2	2	2	2	2	2
chest of drawers 450 x750		1	1	1	1	1	1	1
table 500 x 1050, and chair/stool		1	1	1	1	1	1	1
double wardrobe 600x1200 (or two singles) could be built in		1	1	1	1	1	1	1
Single bedroom								
single bed 2000x900	1	1	1	1	1	1	1	1
bedside table 400x400	1	1	1	1	1	1	1	2+
chest of drawers 450 x750	1	1	1	1	1	1	1	2+
table 500 x 1050 and chair/stool	1	1	1	1	1	1	1	2+
single wardrobe 600x600 – could be built in	1	1	1	1	1	1	1	2+
Kitchen	1p	2p	3p	4p	5p	6p	7p	+
1 sink top and drainer 600x1000	1000	1000	1000	1000	1000	1000	1000	1000
2 cooker space 600x600	600	600	600	600	600	600	600	600
3 washing machine position / worktop 600x630	630	630	630	630	630	630	630	630
4 other base units 600 x length	1200	1200	1600	1600	1600	2700	2700	+
5 ancillary equipment space 600x length	–	–	–	–	600	600	1200	1200
6 fridge/freezer space 600x600(space above not in VOL)	600	600	600	600	600	600	600	600
7 broom cupboard 600x5600x1950 (or adjacent in area)	600	600	600	600	600	600	600	600
8 tray space 600x150	inc.	inc.	inc.	inc.	inc.	inc.	inc.	inc.
9 Length of fitments = 1+2+3+4+5+7+8	4630	4630	5030	5030	5630	6730	7330	+
10 VOL- min capacity (cu m.) (MUST include drawers)	1.3	1.5	2	2.1	2.2	2.4	2.6	+
* (any wall units 300 deep + 450 above base units)								
Bathroom	1p	2p	3p	4p	5p	6p	7p	+
WC + cistern 500x700	1	1	1	1	2	2	2	2
Bath 700x1700	1	1	1	1	1	1	1	1
Wash hand basin 600x400 - 2nd one can be 250x350	1	1	1	1	2	2	2	2
shower tray 750x750 optional								
Storage	1p	2p	3p	4p	5p	6p	7p	+
General normal (300x1500ht) Min shelf area 1.5 sq m	1.5	1.5	2.25	3.0	3.75	4.5	5.25	+ .75
General tall (ht over 1500) min floor area 0.5 sq m	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Airing cupboard - shelf area 0.4 sq m(included in above)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Lockable external min 2.5 sq m (except flats w/o gardens)	2.5	2.5	2.5	2.5	3.0	3.0	3.0	+
TOTAL storage shelves: general + floor: tall/external	4.5	4.5	5.25	6.0	6.75	7.5	8.25	+

In addition to listed furniture each room requires a heat source - nominally a minimum 1100mm x 75mm

Source: adapted from 'Standards and Quality' National Housing Federation/Joseph Rowntree Trust

6.2 Additional features (50%)

please enter the number of units to which any of the following apply

	Number of units	n/a
Living space		
6.2.1 Living room not an essential part of circulation	<input type="text"/>	
6.2.2 Space for future focal point fire installation or actual fire in living room	<input type="text"/>	
6.2.3 Some storage space not in living room	<input type="text"/>	
6.2.4 Two separate living rooms or areas are possible or provided	<input type="text"/>	
6.2.5 Direct access or via lobby from living to private open space is possible or provided	<input type="text"/>	
Dining space		
6.2.6 Dining space is separate (not in kitchen/living room)	<input type="text"/>	
6.2.7 Casual eating for 2 people in kitchen (if household dining space not in kitchen)	<input type="text"/>	<input type="checkbox"/>
Bedrooms		
6.2.8 Space for occasional cot in at least one double bedroom	<input type="text"/>	<input type="checkbox"/>
6.2.9 Beds (in all rooms) can be in more than one position	<input type="text"/>	
6.2.10 Beds (in all rooms) have one position with bedhead NOT under window	<input type="text"/>	
6.2.11 Double room can accommodate twin beds	<input type="text"/>	<input type="checkbox"/>
6.2.12 One or more twin or double bedrooms can subdivide into two singles	<input type="text"/>	<input type="checkbox"/>
6.2.13 One or more bedrooms has direct access to washing/WC	<input type="text"/>	<input type="checkbox"/>
Bathrooms		
6.2.14 Shower over the (main) bath with necessary wall tiling and screening	<input type="text"/>	
6.2.15 A separate shower cubicle is provided	<input type="text"/>	
Kitchen		
6.2.16 View from kitchen of outdoor area suitable for toddler play or sitting	<input type="text"/>	
6.2.17 Direct access or via lobby from kitchen to private open space	<input type="text"/>	
6.2.18 Kitchen sequence storage/prep: cook/serve: waste/wash-up	<input type="text"/>	
6.2.19 Kitchen worksurface not interrupted by circulation or tall fittings	<input type="text"/>	
6.2.20 Min 1200mm run between cooker and sink in kitchen	<input type="text"/>	
6.2.21 Drawers of varying depth provided in kitchen units	<input type="text"/>	
6.2.22 Facing kitchen units 1200mm apart or more	<input type="text"/>	<input type="checkbox"/>
6.2.23 Space for auxiliary equipment, (eg dishwasher) provided	<input type="text"/>	
6.2.24 500mm min. clear work top each side of cooker	<input type="text"/>	
Circulation and storage		
6.2.25 Halls and corridors well planned and lit	<input type="text"/>	
6.2.26 Hanging for outdoor clothes by external doors	<input type="text"/>	
6.2.27 Large item (e.g. push chair, wheelchair) 'park' by external doors	<input type="text"/>	
6.2.28 Recyclable materials store in kitchen, hall, or external lockable store	<input type="text"/>	
6.2.29 Tall storage in or adjacent to kitchen (or to utility room if this is provided)	<input type="text"/>	
6.2.30 Provision of fitted storage - eg in bedroom, under stairs etc	<input type="text"/>	
Safety		
6.2.31 Slip resistant floors in 'wet' areas (bath/shower rooms, WCs, kitchen, utility)	<input type="text"/>	
6.2.32 Restrictors on upper floor casement windows	<input type="text"/>	<input type="checkbox"/>
6.2.33 Reversible childproof hinges on casement windows to allow safe cleaning	<input type="text"/>	<input type="checkbox"/>
6.2.34 Hard wired smoke alarm on every floor of the unit	<input type="text"/>	
6.2.35 Secure storage for harmful substances, eg medicines, cleaning/gardening items	<input type="text"/>	
6.2.36 Laminated glass on internal glazed doors	<input type="text"/>	<input type="checkbox"/>
6.2.37 Laminated glass on any single glazed entrance level window	<input type="text"/>	<input type="checkbox"/>
General		
6.2.38 Glazing line in living/dining/bed rooms no higher than 800mm from floor level	<input type="text"/>	

COMMENTS: Have any comments been entered on the comment page at the end?

Yes No

UNIT NOISE CONTROL, LIGHT QUALITY, SERVICES

Noise control

Appropriate characteristics can help ensure effective noise reduction. Where these are achieved, enter the number of units with the characteristics shown in 7.1.

Light quality - aspect and prospect

Good daylight, natural light and views add greatly to the quality of a dwelling unit. Enter the number of units with the characteristics shown in 7.2. Principal rooms are kitchen, living and dining spaces.

Services

The following table indicates a standard of service provision for each room - light, power, data and telecoms. Enter the number of units that meet, exceed or fall short of the standard - some elements are not 'required' and falling short in these respects will not jeopardise a scheme. The guidance given for heating standards and ventilation rates represents a balance between achieving appropriate comfort conditions and excessive expenditure on energy to heat to higher levels or to ventilate more and compensate with more heating. Therefore achieving these standards is considered important. The required levels for heating are incorporated in SAP ratings (see indicator 9).

An increment can be any of the following in the relevant category: additional double sockets in any room(s), additional appliance spur, additional TV aerial position, two phone data points. Please note that in Section 7.3, the basic standard of provision in an item must be met in all rooms before additional scores can be obtained for exceeding the standard. Additional points can be scored for certain non-standard features. Where these are achieved enter a number of units in the project with that feature.

Noise control

New separating floor/ceiling construction	Mean value: to 4 pairs of rooms	Individual value (dB)
Airborne noise - Measured D'nT,w shall not be less than	52	48
Impact noise - Measured L'nT,w shall not be greater than	61	65

New separating wall construction	Mean value: to 4 pairs of rooms	Individual value (dB)
Airborne noise - Measured D'nT,w shall not be less than	53	49

Services specification

Provision	living	dining	kitchen	bedrms	bathrm	hall	store
double switched sockets	3	2	4	2 in each		1	1
socket location - consistent height - 450-600mm from floor (Recommended)	all	all	all	all		all	all
kitchen appliance spurs 2 min, 3 for 5 + p			2-3				
shaver socket in each bathroom					1		
TV aerial links	1						
phone/data points						1	
switch location - consistent	all	all	all	all		all	all
two way switches						2	
ventilation -air change/hour	1.5	1.5	2	1	2	1.5	

Source: both tables adapted from 'Standards and Quality', National Housing Federation/Joseph Rowntree Trust

UNIT NOISE CONTROL, LIGHT QUALITY, SERVICES

7.1 Noise reduction characteristics (30%)

please enter the number of units to which any of the following apply

Characteristic	Number of units	n/a
7.1.1 Surveyed by a suitably qualified acoustic specialist and recommendations implemented	<input type="text"/>	
7.1.2 Designed to meet the criteria in the 'noise control' table (on the previous page)	<input type="text"/>	
7.1.3 Use of approved construction/specialist design checked by specialist during construction	<input type="text"/>	
7.1.4 Sound reduction demonstrated by test and meets requirements	<input type="text"/>	
7.1.5 Sound reduction exceeds requirement by between 3 dB(A) and 10dB(A)	<input type="text"/>	
7.1.6 Sound reduction exceeds requirement by >10dB(A)	<input type="text"/>	
7.1.7 Living/sleeping areas are not adjacent to shared internal areas	<input type="text"/>	
7.1.8 Bedrooms protected - not adjacent to neighbours bath/living areas	<input type="text"/>	
7.1.9 Windows more than 3m horizontal distance from a public route or space	<input type="text"/>	
7.1.10 Noisy communal equipment is >3m from doors/windows (eg lifts, plant)	<input type="text"/>	<input type="checkbox"/>
7.1.11 Effective buffer between building and any noise source identified in 1.3	<input type="text"/>	<input type="checkbox"/>
7.1.12 Triple glazing to combat noise	<input type="text"/>	<input type="checkbox"/>

7.2 Quality of light, aspect and prospect (30%)

please enter the number of units to which any of the following apply

	Number of units
7.2.1 Principal rooms have windows that do not look out on wall within 3m	<input type="text"/>
7.2.2 At least one main living area has urban views of over 50m OR distant or rural views	<input type="text"/>
7.2.3 Living room window within 30 degrees of South or gets good daylight	<input type="text"/>
7.2.4 Kitchen has a window	<input type="text"/>
7.2.5 Kitchen window is within 30 degrees of South or gets good daylight	<input type="text"/>
7.2.6 All bathrooms have a window	<input type="text"/>

7.3 Standard of service provision (30%)

please enter the number of units to which any of the following apply

	exceeds by more than one increment	exceeds by one increment	Meets the standard	falls short by one increment	falls short by more than one increment
7.3.1 Double switched sockets	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.2 Sockets in consistent location	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.3 Appliance spurs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.4 Shaver sockets 240/115 volt	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.5 TV aerial point with conduit and draw wire	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.6 Phone/data points	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.7 Switches in consistent location	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.3.8 Two way switches	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

7.4 Additional features -services (10%)

please enter the number of units to which any of the following apply

	Number of units	n/a
7.4.1 Ventilation air changes to meet targets	<input type="text"/>	
7.4.2 Switched lights in storage spaces with volume over 1.2 cu m	<input type="text"/>	<input type="checkbox"/>
7.4.3 Accessible meters/circuit breakers	<input type="text"/>	
7.4.4 Fused spur for security alarm or security alarm installed on fused spur	<input type="text"/>	
7.4.5 Future stair lift fused spur or stair lift installed on fused spur	<input type="text"/>	<input type="checkbox"/>
7.4.6 Additional/new cabling can be installed with minimal disturbance to decoration	<input type="text"/>	

COMMENTS: Have any comments been entered on the comment page at the end?

Yes No

ACCESSIBILITY WITHIN THE UNIT

Accessibility for those with impaired mobility or other access problems is assessed both at the site (external) and the unit (internal) level. The assessment for site accessibility is included in indicator 4, routes and movement in 4.2

Accessibility is important for residents and their visitors. A unit that scores well for accessibility will be suitable for a wider range of users and will enable residents to remain in their homes despite advancing age or decreased mobility for other reasons. This is an important aspect of value and quality in housing.

The focus of this indicator is accessibility for disabled visitors, rather than for disabled residents requiring special adaptations. Certain basic requirements to facilitate elderly people to remain in their homes are also included (e.g. stairs designed to take a stair lift).

Scores

Units may meet the general specification or reach the higher recommended level. Enter the number of units reaching each level of specification. For small infill projects, very few aspects of the wider site are in the control of the developing organisation and so will not form part of the project. However merely having no power to affect the site does not constitute 'not applicable'.

SELECTED INTERNAL FEATURES OF LIFETIME HOMES

- Width of doors and hall suitable for wheelchairs (see indicator 8 for requirements)
- Turning circles (1.5m diameter) for wheelchairs in entrance level habitable rooms
- Living room (or family room) at entrance level
- Space for single bed within an entrance level habitable room
- Wheelchair accessible entrance level toilet with shower or plumbing/draining fittings for later installation of a shower.
- Internal and external walls constructed to take additional aids easily if required.
- Design of stairs, construction and space provided to allow a stair lift to be installed easily.
- Provision for future installation of lift to first floor bedroom easily or provision of suitable entrance level bedroom.
- Easy access from at least one bedroom to bathroom.
- Bathroom planned to give side access to the toilet and bath
- Low window sills
- Sockets, controls etc at a convenient height (see indicator 7 for height requirements).

Adapted from Edwin Trotter Associates diagram for Lifetime Home: Agenda, May 1997

ACCESSIBILITY WITHIN THE UNIT

8 Accessibility requirements for the interior of the unit (100%)

please enter the number of units to which any of the following apply

Are the following requirements met?

	Number of units	n/a
8.1 Internal doors with 750 mm clear between blade and stop with door swings to facilitate wheelchair manoeuvre	<input type="text"/>	
8.2 Stairs designed to take a stair-lift or stair-lift installed	<input type="text"/>	<input type="checkbox"/>
8.3 Circulation width generally 900mm clear (decrease to 750mm allowable for a max. length of 900mm)	<input type="text"/>	
8.4 Circulation 1200mm wide for change of direction or turn into 750mm door	<input type="text"/>	<input type="checkbox"/>
8.5 Space for wheelchair access and manoeuvre with furniture, in all entrance level rooms incl. kitchen	<input type="text"/>	
8.6 Door catches, handles, switches and thermostats at constant height: 900-1200mm from floor	<input type="text"/>	
8.7 Socket outlets at constant height: 450-600mm from floor	<input type="text"/>	
8.8 Items in 8.6 and 8.7 plus taps and window catches are suitable for people with limited reach/grip	<input type="text"/>	
8.9 Entrance level WC to accommodate wheelchair users with front/side transfer	<input type="text"/>	
8.10 Main living room at entrance level	<input type="text"/>	

Are the following recommended standards met?

	Number of units
8.11 Accommodation without stairs	<input type="text"/>
8.12 Circulation width minimum 1000mm throughout	<input type="text"/>
8.13 Kitchen with continuous work surface	<input type="text"/>
8.14 Space for platform or seat at head (top) end of bath	<input type="text"/>

COMMENTS: Have any comments been entered on the comment page at the end?

Yes No

ENERGY, GREEN AND SUSTAINABILITY ISSUES

9

Low energy costs are an essential aspect of affordability for the occupant. The energy efficiency of housing is normally measured by SAP. There is a recommendation to meet a defined SAP level for new housing of particular sizes in order to comply with the requirement that there be a reasonable provision for conserving fuel and power. Energy efficient units are being designed with SAP ratings well above those recommended. The more the requirement is exceeded, the higher the score. For refurbished units it may not be possible to reach the SAP levels suggested for new buildings in which case this must be stated.

Recommended SAP levels for new housing (based on Building Regulations 1991 and Scheme Development Standards 2000)

Floor Area	New Build SAP recommended level
<35m ²	71
>35m ² / \leq 40m ²	72
>40m ² / \leq 45m ²	73
>45m ² / \leq 50m ²	74
>50m ² / \leq 55m ²	75
>55m ² / \leq 60m ²	76
>60m ² / \leq 65m ²	77
>65m ² / \leq 70m ²	78
>70m ² / \leq 75m ²	79
>75m ² / \leq 80m ²	80
>80m ² / \leq 90m ²	81
>90m ² / \leq 100m ²	82
>100m ² / \leq 110m ²	83
>110m ² / \leq 120m ²	84
>120m ²	85

EcoHomes Assessment

The Building Research Establishment (BRE) has developed a measure for sustainability of housing called EcoHomes. EcoHomes considers the broad environmental concerns of climate change, resource use and impact on wildlife, but balances these against the need for a high quality, safe and healthy internal environment. The assessment provides a four point scales from pass, good, very good to excellent. For those schemes where EcoHomes has either not been sought or not achieved, individual aspects of EcoHomes requirements can be separately scored in Section 9.2. Details of EcoHomes are contained in the Building Research Establishment reports *EcoHomes – The environmental rating for homes* (2000) Report Number BR389 and *The Green Guide to Housing Specification* (2000) Report Number BR390. Both are available from Construction Research Communications (Tel: 020 7505 6622). Please note units must be assessed under 9.2.1 to 9.2.4 OR 9.2.5 to 9.2.13.

Scores

Enter the number of units in the project that achieve the listed standards and features.

9.1 Energy use standards and features (60%)

New dwellings

9.1.1 Are there any new dwellings? If 'No' go to Q 9.1.7

Yes No

please enter the number of units to which any of the following apply

9.1.2 Not reaching the SAP level recommended for new housing

Number of units

9.1.3 Reaching the SAP level recommended for new housing or exceeding it by 5 points

9.1.4 Exceeding the recommended SAP level by 6-10 points

9.1.5 Exceeding the recommended SAP level by 11 or more points

Refurbished units

9.1.6 Are there any refurbished units? If 'No' go to Q 9.1.11

Yes No

please enter the number of units to which any of the following apply

9.1.7 Refurbished unit not improving its existing SAP level by 2 points

Number of units

9.1.8 Refurbished unit improving its existing SAP level by 2 points

9.1.9 Refurbished unit improving its existing SAP level by between 2 and 5 points

9.1.10 Refurbished unit improving its existing SAP level by 6 or more points

All

9.1.11 Heating system zoned, flexible

9.1.12 Heating system easily programmable

9.2 Sustainability standards and features (40%)

please enter the number of units to which any of the following apply

9.2.1 EcoHomes accreditation achieved at the 'Pass' level

Number of units n/a

9.2.2 EcoHomes accreditation achieved at the 'Good' level

9.2.3 EcoHomes accreditation achieved at the 'Very Good' level

9.2.4 EcoHomes accreditation achieved at the 'Excellent' level

OR:- For units NOT achieving obtaining EcoHomes accreditation (30%)

please enter the number of units to which any of the following apply

9.2.5 Designed to achieve CO₂ emission levels of less than 20 kg/m²/yr

Number of units n/a

9.2.6 No ozone-depleting substance in at least 2 of the following 4 elements: roof (inc. loft hatch), walls (inc. doors), floor (inc. foundations) and hot water cylinder

9.2.7 Low (less than 125 mg/kWh) NO_x emitting burners to boilers

9.2.8 Sustainability managed timber used for basic building elements (either FSC certification or UK grown)

9.2.9 At least 3 out of the following 5 elements obtain an 'A' rating from the Green Guide to Housing Specification: roof, external walls, internal walls, floors and windows

9.2.10 Water metering for all water use

9.2.11 WC designed with 6-litre flush

9.2.12 Gray water recycling achieved

9.2.13 More than 50% of the site is 'brownfield': i.e. previously built upon, reclaimed from industrial processes or landfill

COMMENTS: Have any comments been entered on the comment page at the end?

Yes No

PERFORMANCE IN USE

Durability and adaptability

The cost of regular maintenance and of making changes to a unit as new living patterns need to be accommodated over time are an important part of the quality of the unit. Careful compliance with existing regulations will provide some assurance of low cost of long-term maintenance. This is dependent on the quality of construction and is therefore dependent on the procurement process followed by the developer, and the effectiveness of their technical specification and the checking of all stages of construction. With these provisos, the following features and approaches are relevant to the control of maintenance costs and costs of future adaptation.

For 10.3.1 and 10.3.2, 'easy' means that no major structural alterations are required and that there is no significant change in other amenities. For example the installation of a lintel or additional support to structural roof members would be a major alteration. A change that resulted in a decreased HQI score would be considered significant.

Feedback/Post Occupancy Evaluation

The objective of the HQIs is to assist in obtaining value for money from housing investment. This can only be achieved if housing is actually appreciated by the residents. Hard to let or to sell properties represent a waste of resources. If providers get feedback from residents, it will be possible to modify provision to meet needs more appropriately and thereby achieve a more long lived product. For this reason, a score is given for the intention to ask relevant questions after a project is occupied. The results of such feedback will be part of the validation of the HQI scores that will take place in order to ensure that bids are based on realistic commitments to HQI ratings.

Topics that may be covered in post-occupancy evaluation feedback include:

1. As an object

Does the estate/unit in your opinion/experience represent a satisfactory use of funds – i.e., value for money? Is the cost of running the house reasonable and affordable?

2. As a home

Does the estate/unit allow you and your social relationships to thrive? Do you feel happy, secure and proud to live in it? Are the needs of children and older people taken care of?

3. Design principles

Does the estate/unit look, feel and perform as a housing development of this type should?

4. Diversity

Have motifs, colours and spatial patterns important to your religion or cultural expectations been accommodated in the design of the site and the units?

5. Adaptability

Has the estate/unit adapted to changes in lifestyle (caused by disability, age, changed family circumstances) during your tenure? Do you believe it has that capability if required?

6. Estate management

Does management response meet your expectations. Is there a suitable house manual? Are rules for use of shared areas clear?

Scores

Enter the number of units to which each applies.

10.1 Durability (25%)

please enter the number of units to which any of the following apply

	Number of units
10.1.1 Life cycle costing has been taken into consideration when specifying components	<input type="text"/>
10.1.2 Components with insurance backed guarantees have been used	<input type="text"/>
10.1.3 Performance specification for 25 year life - windows and doors	<input type="text"/>
10.1.4 Performance specification for 15 year life - ironmongery and kitchen units	<input type="text"/>
10.1.5 Use of kite marked or BS rated products where available	<input type="text"/>
10.1.6 Accessible layout and generous conduit capacity for maintenance/upgrade/renewal	<input type="text"/>
10.1.7 Accessible stop cocks to isolate all plumbed equipment	<input type="text"/>
10.1.9 Locks meet Secured by Design - front doors (5 lever lock, sturdy door)	<input type="text"/>
10.1.10 Locks meet Secured by Design - windows	<input type="text"/>
10.1.11 Parts and components easy to source and replace	<input type="text"/>

10.2 Accreditation (10%)

please enter the number of units to which any of the following apply

	Number of units
10.2.1 Accreditation by an organisation such as HAPM, NHBC, Zurich etc achieved	<input type="text"/>

10.3 Adaptability (25%)

please enter the number of units to which any of the following apply

	Number of units	n/a
10.3.1 Designed to allow easy future expansion of dwelling to provide additional room	<input type="text"/>	<input type="checkbox"/>
10.3.2 Designed to allow easy changes to internal layout of dwelling	<input type="text"/>	<input type="checkbox"/>
10.3.3 An entrance level bedroom can be created (enough space in a suitable location)	<input type="text"/>	<input type="checkbox"/>
10.3.4 Lift installation is easy (1450x1100mm opening possible without structural modifications)	<input type="text"/>	<input type="checkbox"/>
10.3.5 Supports can be added (e.g. bathrooms - suitable supports in walls etc.)	<input type="text"/>	<input type="checkbox"/>
10.3.6 Plumbing outlets and space to allow entrance level shower or actual shower provided	<input type="text"/>	<input type="checkbox"/>
10.3.7 Plumbing outlets and space to allow added WC or bidet or actual items provided	<input type="text"/>	<input type="checkbox"/>
10.3.8 Shared open space for flats can be replanned to be associated with individual units and vice versa	<input type="text"/>	<input type="checkbox"/>
10.3.9 Design in open plan with no rigid definition between living and circulation areas	<input type="text"/>	<input type="checkbox"/>
10.3.10 Meet agreed specific need for ethnic diversity requirement	<input type="text"/>	<input type="checkbox"/>

10.4 User Satisfaction Post Occupancy Evaluation (40%)

	Yes	No
10.4.1 Will you carry out research on customer/resident satisfaction on the unit/site following final completion?	<input type="checkbox"/>	<input type="checkbox"/>
10.4.2 Is there in place a mechanism for regular customer/resident feedback or market research?	<input type="checkbox"/>	<input type="checkbox"/>
10.4.3 If Yes to either 10.4.1 or 10.4.2 – Does/will an independent specialist do the research/feedback?	<input type="checkbox"/>	<input type="checkbox"/>
10.4.4 Is there an agreed process in place to act on customer/residents comments and/or research findings received?	<input type="checkbox"/>	<input type="checkbox"/>
10.4.5 Please tick the types of questions any user feedback research will cover <i>see previous page for types</i>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	5 <input type="checkbox"/>	6 <input type="checkbox"/>

please use the comments section to give details of your survey approach

COMMENTS: Have any comments been entered on the comment page at the end?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

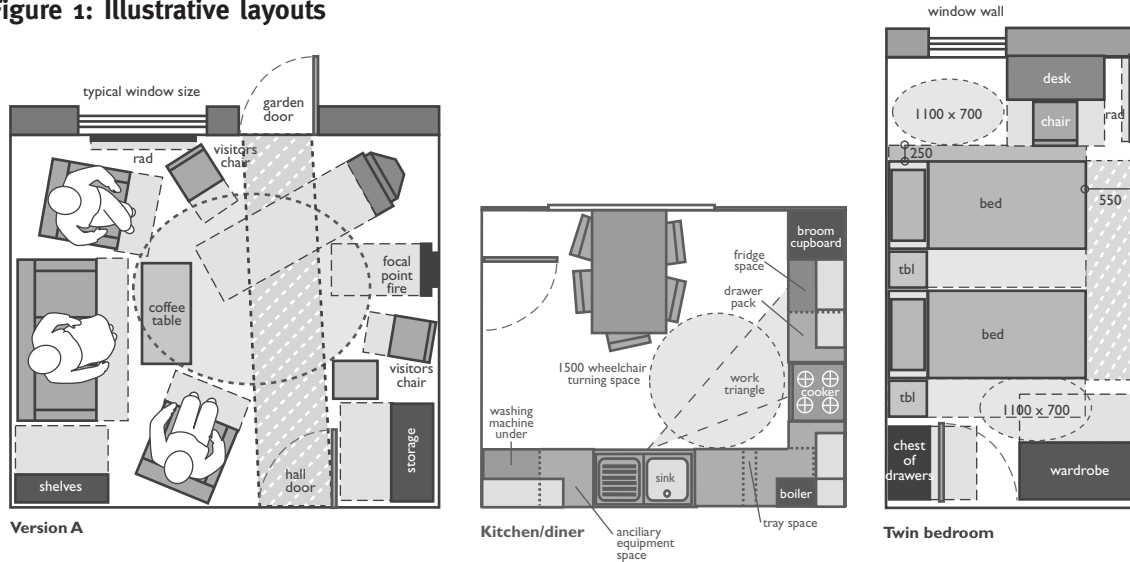


COMMENTS

Please make any comments you wish to explain special circumstances. If you apply weightings of your own choosing explain the basis for these. Please give the indicator number and section for each comment. The spreadsheet includes space to enter comments. If using this page for written comments but NOT the spreadsheet please indicate this as requested on the spreadsheet.

The following illustration shows access, passing and activity zones. These features can be incorporated in designer's drawings from an early stage, thus facilitating both the design process and scoring for the HQI.

Figure 1: Illustrative layouts



ROOM MATRIX APPROACH

In recognition of the time consuming nature of indicators, an alternative approach has been developed. Assessors should be aware that higher scores are likely to be obtained if the full method is carried out. The alternative approach involves reading scores from a room matrix for different sizes and types of rooms. The approach has various steps that are detailed below. **Assessors using this approach MUST indicate this in the Project Description section.**

Step 1: Identify the full occupancy of the unit. Indicator 6 must always be calculated assuming a 'full occupancy'.

Step 2: Identify the type of room. Please note that instructions relating to specific rooms are provided at the end of this worked example. *Please read these before using the room matrixes.* There is no matrix for storage.

Step 3: Identify the size of the room. All measurements are based on a rectangularised room. This involves measuring the room size to obtain the smallest width and length measurement. These measurements are rounded *down* to the nearest 0.5 metre.

Step 4: Identify the correct room matrix and cell. For each type of room and occupancy level, there is a room matrix. Choose the correct room matrix. Then identify the cell on the table that represents the room size that is being evaluated.

Step 5: Record the furniture score. The first score in the cell relates to the furniture score.

- 2 score is equal to exceeding standard by more than 1 item
- 1 score is equal to exceeding standard by one item
- 0 score is equal to meeting the standard
- -1 score is equal to falling short of standard by one item
- -2 score is equal to falling short of standard by more than one item

From this, it is possible to allocate each unit to one of the five columns in section 6.1.

Step 6: Record the activity zone score

The second score in the cell relates to the activity zone score.

- 2 score is equal to exceeding standard by more than 10%
- 1 score is equal to exceeding standard by up to 10%
- 0 score is equal to meeting the standard
- -1 score is equal to falling short of standard by up to 10%
- -2 score is equal to falling short of standard by more than 10%

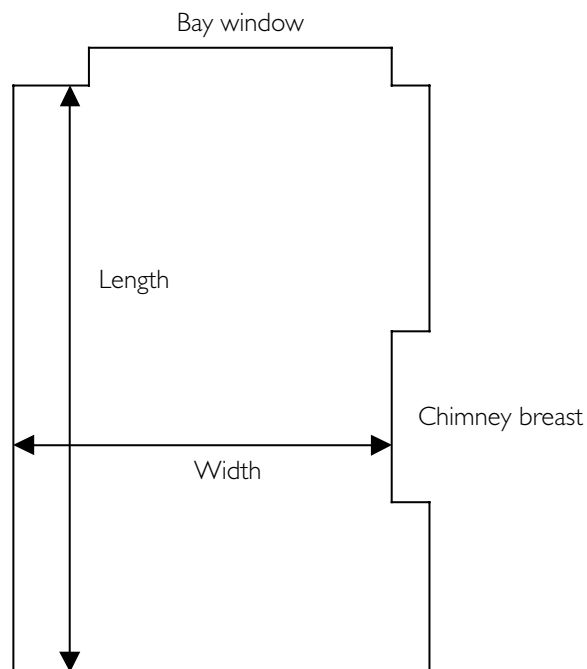
From this, it is possible to allocate each unit to one of the five columns in section 6.1.

WORKED EXAMPLE

Living room

- 1) Assuming 30 identical units, all with 2 bedspaces at full occupancy e.g. 1 bedroom dwelling.
- 2) Assessing living room.
- 3) For the layout below, the measured length is 3.7m long and 2.8m wide. Therefore the rounded measurements are 3.5m long, and 2.5m wide.

Figure 1: Living room layout



- 4) Matrix 1 is for a living room for 1 or 2 people. The bold cell is the correct cell for a 3.5 x 2.5 living room.

Matrix 1: Living Space 1/2P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-1, -2	0, -2	1, -2	1, -2	1, 0	1, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1
2.5		0, -2	-1, 0	0, 1	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

- 5) The first 0 means that this living room meets the standard furniture for living rooms. Therefore the 30 units which have a living room this size for 2 people need to be placed in the column 'meets the requirement' on row 6.1.1.

6) The 1 means that this living room exceeds by up to 10% the standard for access/activity zones for living rooms. Therefore the 30 units which have a living room this size need to be placed in the column 'exceeds the requirement by one item/up to 10%' on row 6.1.2.

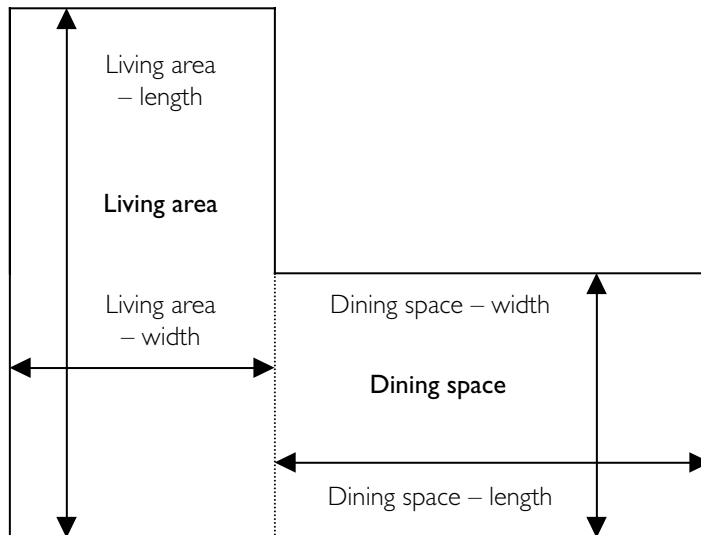
Row 6.1.1 and 6.1.2 are shown in Figure 2.

Figure 2: Room matrix scores within section 6.1

		Exceeds by more than one item/10%	Exceeds by one item/up to 10%	Meets the requirements	Falls short by one item/up to 10%	Falls short by more than one item/10%
6.1.1	Living room – furniture	<input type="text"/>	<input type="text"/>	30	<input type="text"/>	<input type="text"/>
6.1.2	Living room – access/activity zones	<input type="text"/>	30	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.3	Dining space – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.4	Dining space – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.5	Bedrooms – furniture	<input type="text"/>	<input type="text"/>	50	<input type="text"/>	<input type="text"/>
6.1.6	Bedrooms – access/activity zones	<input type="text"/>	<input type="text"/>	50	<input type="text"/>	<input type="text"/>
6.1.7	Bathroom – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.8	Bathroom – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.9	Kitchen – furniture	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.1.10	Kitchen – access/activity zones	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ADDITIONAL INSTRUCTIONS

Living-Dining space



The HQI system requires separate scores to be included for the living room and for the dining space. Therefore, a living-dinning room needs to be considered as a living room and dining space. To do this, the room needs to be divided into two spaces. The example shows an L-shaped living-dining space divided into two areas. The room matrix approach is then applied to each area separately.

All bedrooms

It is possible that the scores for various bedrooms in a unit are different. In this situation, take the average score (rounded to the nearest whole number). For example, a four bedroom unit has the following score:

Bedroom	Type	Furniture score	Activity and access zone score
Bedroom 1	Double	-1	0
Bedroom 2	Twin	0	0
Bedroom 3	Twin	0	0
Bedroom 4	Single	1	1
OVERALL SCORE		0	0

Then the average score for furniture is 0.

The average score for activity space is 0.25, which is rounded to the nearest whole number of 0.

Assuming there are 50 units of this type, the scores are shown in row 6.1.5 and 6.1.6 in Figure 2 earlier.

All bathrooms and WC

Where a second WC and wash hand basin is required, this should be a room other than the main bathroom. It is possible that the scores for various bathrooms and WC are different. In this situation, take the average score (rounded to the nearest whole number) as for bedrooms.

Please note that the shower room matrix should only be used if a bathroom (with a bath) is also scored. If only a shower-room is present in the unit, please use one of the bathroom matrixes.

Kitchen-diner

The HQI system requires a score to be added for the kitchen and dining space. Therefore there are two sets of room matrixes for use with kitchen-diners. One set of matrixes applies to the kitchen requirements, and the second set applies the dining space requirements. **These matrixes should only be used with kitchen-diners.**

ROOM MATRIX LIST

Matrix 1: Living Space 1/2P Dwelling

Matrix 2: Living Space 3P Dwelling

Matrix 3: Living Space 4P Dwelling

Matrix 4: Living Space 5P Dwelling

Matrix 5: Living Space 6P Dwelling

Matrix 6: Living Space 7P Dwelling

Matrix 7: Dining Space 1/2P Dwelling

Matrix 8: Dining Space 3P Dwelling

Matrix 9: Dining Space 4P Dwelling

Matrix 10: Dining Space 5P Dwelling

Matrix 11: Dining Space 6P Dwelling

Matrix 12: Dining Space 7P Dwelling

Matrix 13: Dining Space of Kitchen-Diner 1P/2P Dwelling

Matrix 14: Dining Space of Kitchen-Diner 3P Dwelling

Matrix 15: Dining Space of Kitchen-Diner 4P Dwelling

Matrix 16: Dining Space of Kitchen-Diner 5P Dwelling

Matrix 17: Dining Space of Kitchen-Diner 6P Dwelling

Matrix 18: Dining Space of Kitchen-Diner 7P Dwelling

Matrix 19: Single Bedroom – all units

Matrix 20: Twin Bedroom – all units

- Matrix 21: Double Bedroom – all units
- Matrix 22: Bathroom with WC – all units
- Matrix 23: Shower-room with WC – all units
- Matrix 24: Bathroom without WC – all units
- Matrix 25: Separate WC – all units
- Matrix 26: Kitchen 1/2P Dwelling
- Matrix 27: Kitchen 3/4P Dwelling
- Matrix 28: Kitchen 5P Dwelling
- Matrix 29: Kitchen 6P Dwelling
- Matrix 30: Kitchen 7P Dwelling
- Matrix 31: Kitchen Area of Kitchen-Diner 1P/2P Dwelling
- Matrix 32: Kitchen Area of Kitchen-Diner 3P Dwelling
- Matrix 33: Kitchen Area of Kitchen-Diner 4P Dwelling
- Matrix 34: Kitchen Area of Kitchen-Diner 5P Dwelling
- Matrix 35: Kitchen Area of Kitchen-Diner 6P Dwelling
- Matrix 36: Kitchen Area of Kitchen-Diner 7P Dwelling

Matrix 1: Living Space 1/2P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-1, -2	0, -2	1, -2	1, -2	1, 0	1, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1
2.5		0, -2	-1, 0	0, 1	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 2: Living Space 3P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-1, -2	0, -2	0, -1	0, 1	0, 1	0, 1	0, 1	1, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1
2.5		0, -2	0, -1	1, 0	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 3: Living Space 4P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-1, -1	0, 0	0, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
2.5		-2, -2	-2, -2	-2, -2	0, -2	0, -2	0, 0	0, 1	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-2, -2	-1, -2	0, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, -2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 4: Living Space 5P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -1	0, -1	0, 0	1, 0	2, 0	2, 0	2, 0	2, 0	2, 0
2.5		-2, -2	-2, -2	-2, -2	-2, 0	-1, 0	0, 0	0, 0	1, 0	1, 0	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-2, -2	-2, -2	-2, 1	2, -1	2, 0	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, -2	0, 1	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 5: Living Space 6P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -1	0, -1	0, 0	0, 0	1,0	2, 0	2, 0	2, 0	2, 0	2, 0
2.5		-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, 0	0, 1	1, 2	1, 2	1, 2	2, 2	2,2	2,2	2,2	2,2
3.0			-2, -2	-2, -2	-1, -2	0, -2	0, -1	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				-2, -2	0, -2	0, -2	1, 0	2, 0	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 6: Living Space 7P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -1	-1,-1	-1, 0	0, 0	1,0	2, 0	2, 0	2, 0	2, 0
2.5		-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-1, -2	-1, -2	0, 0	1, 0	1, 1	1, 2	2,2	2,2	2,2	2,2	2,2
3.0			-2, -2	-2, -2	-2, -1	-1, -1	0, -1	0, 0	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				-2, -2	-1, -1	-1, -1	0, 0	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					0, 2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 7: Dining Space 1/2P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-1, -2	0, -2	1, 0	0, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
2.5		0, -1	2, 1	2, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 8: Dining Space 3P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-1, -2	0, -2	0, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-1, -2	0, -2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			1, 0	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 9: Dining Space 4P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-1, -2	0, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-1, -2	0, -2	0, 0	0, 1	1, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1	2, 1
3.0			1, 0	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 10: Dining Space 5P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-1, -2	-1, -2	0, -2	1, -2	1, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-1, -2	-1, -2	0, 0	1, 0	2, 0	2,0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
3.0			1, 0	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 0	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 11: Dining Space 6P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+	
2.0	-2, -2	-2, -2	-1, -2	-1, -2	0, -2	1, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-2, -2	-1, -2	-1, -2	0, -2	0, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
3.0			-1, -2	0, -2	0, 0	1, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
3.5				0, -1	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 12: Dining Space 7P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+	
2.0	-2, -2	-2, -2	-1, -2	-1, -2	0, -2	0, -2	0, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-2, -2	-1, -2	-1, -2	0, -2	0, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2	2, -2
3.0			-2, -2	0, -2	0, 0	0, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
3.5				0, -2	0, 0	1, 2	2, 2	2, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 13: Dining Space of Kitchen-Diner 1P/2P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-1, -2	-1, -2	0, -2	0, -2	0, -2	0, -1	0, 0	0, 0	1, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
2.5		0, -1	0, 0	1, 0	1, 0	2, 0	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 14: Dining Space of Kitchen-Diner 3P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-1, -2	-1, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	1, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-1, 0	0, -2	0, -2	0, -2	0, -2	0, -2	0, -1	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, -2	0, -2	0, 0	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, 0	0, 0	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 15: Dining Space of Kitchen-Diner 4P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-1, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -1	0, -1	0, -1	1, 1	1, 1	2, 1	2, 1	2, 1	2, 1	2, 1
3.0			0, -2	0, -2	0, 0	0, 1	1, 1	1, 1	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, -1	0, 0	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 16: Dining Space of Kitchen-Diner 5P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	1, -2	2, -2	2, -2	2, -2	2, -2	2, -2
2.5		-2, -2	-1, -2	0, -2	0, -2	0, -2	0, -2	0, -1	0, -1	0, -1	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0	2, 0
3.0			-1, -2	-1, -1	0, -1	0, 0	1, 0	1, 0	2, 0	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				-1, -1	0, 0	1, 0	1, 0	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 17: Dining Space of Kitchen-Diner 6P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2
2.5		-2, -2	-1, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -1	1, 0	2, 0	2, 0	2, 0	2, 0
3.0			-1, -2	0, -2	0, -2	0, -2	1, 0	1, 0	1, 1	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, -2	0, -1	0, 1	0, 1	1, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					0, 0	0, 0	0, 1	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 18: Dining Space of Kitchen-Diner 7P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2
2.5		-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-1, -2	0, -2	0, -2	0, -1	0, 0	0, 0	1, 0	2, 0	2, 0
3.0			-2, -2	-2, -2	-2, -2	-1, -2	0, 0	0, 0	0, 0	0, 0	1, 1	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2
3.5				-2, -2	0, -2	0, 0	0, 0	1, 1	1, 1	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					0, -2	0, 0	0, 0	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						0, 1	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 19: Single Bedroom – all units

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-1, 2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 20: Twin Bedroom – all units

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-1, 0	1, 0	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-2, -2	-2, -2	-1, 2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-1, -2	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 21: Double Bedroom – all units

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2	-2,-2
2.5		-2, -2	-1, -2	-1, 1	0, 2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 22: Bathroom with WC – all units

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6+
1.0	-2, -2	-1, -2	-1, -2	-1, 2	0, -2	0, -2	0, 0	0, 2	1, 2	2, 2	2, 2
1.5		-2, 0	-2, 0	0, 1	0, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.0			0, 1	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3 +					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 23: Shower-room with WC – all units

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6+
1.0	-2, -2	-2, -2	-1, -2	0, -2	0, -2	0, 0	1, 2	1, 2	1, 2	1, 2	2, 2
1.5		0, -2	0, 2	1, 2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.0			1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3 +					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 24: Bathroom without WC – all units

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6+
1.0	-2, -2	-1, 0	-1, 0	-1, 0	0, 0	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2
1.5		-2, 0	0, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.0			1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3 +					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 25: Separate WC – all units

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6+
1.0	-1, -2	0, 0	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
1.5		2, 0	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.0			2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3 +					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 26: Kitchen 1/2P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-1, -2	0, -2	0, -1	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-1, 0	0, 2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 27: Kitchen 3/4P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-1, -1	0, 2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			1, 0	2, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 28: Kitchen 5P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-1, 1	0, 1	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-2, -2	-1, -2	1, -2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, -2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 29: Kitchen 6P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, -2	0, 0	0, 1	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-2, -2	-2, -2	0, -1	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-2, -2	0, -2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 30: Kitchen 7P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, -1	0, 0	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-2, -2	-2, -2	-1, -1	0, -1	0, 2	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-2, -2	0, -2	1, 1	1, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 31: Kitchen Area of Kitchen-Diner 1P/2P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-1, -2	0, -2	0, -1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, 0	0, 2	0, 2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 32: Kitchen Area of Kitchen-Diner 3P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-1, -2	0, -1	0, 0	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-1, -1	-1, -1	-1, -1	-1, -1	-1, 1	0, 2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-1, -2	0, -1	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 33: Kitchen Area of Kitchen-Diner 4P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	1, -2	1, -2	1, -2	1, -2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-1, -2	-1, -2	0, -1	0, -1	1, -1	1, 1	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-1, -2	0, -1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 34: Kitchen Area of Kitchen-Diner 5P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-1, -2	-1, -2	-1, 0	-1, 0	0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
2.5		-2, -2	-2, -2	-1, -2	0, -1	0, -1	0, 0	0, 2	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.0			-2, -2	-1, 0	0, 2	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 35: Kitchen Area of Kitchen-Diner 6P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2	0, -2
2.5		-2, -2	-2, -2	0, -2	0, -1	0, -1	0, -2	0, -2	0, -2	0, -2	0, -2	0, -1	1, 0	2, 0	2, 0	2, 0	2, 0
3.0			-2, -2	0, -2	0, -1	0, 0	1, 0	1, 1	2, 1	2, 1	2, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2
3.5				0, -2	0, -1	0, 1	0, 1	1, 1	2, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					0, 0	0, 1	0, 1	0, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						0, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

Matrix 36: Kitchen Area of Kitchen-Diner 7P Dwelling

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10+
2.0	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	-2, -2	0, -2	0, -2	0, -2	0, -2	0, -2
2.5		-2, -2	-2, -2	-2, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	-1, -2	0, -2	0, -2	1, -2	1, -2	2, -2
3.0			-2, -2	-1, -2	0, -2	0, -2	0, -2	0, -1	0, 0	0, 0	1, 0	1, 0	2, 0	2, 0	2, 0	2, 0	2, 0
3.5				-1, -2	0, -1	0, 0	0, 1	1, 0	1, 0	1, 2	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.0					0, 0	0, 0	0, 1	1, 0	1, 1	1, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2
4.5 +						0, 1	1, 1	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2	2, 2

ADDITIONAL FURNITURE TO OBTAIN HIGHER SCORES

The following furniture, over and above that already including the basic room requirements, would obtain a higher score as indicated.

Room	Additional Furniture	Additional furniture score
Bath/shower room with WC	Additional bidet and separate shower and bath	Exceeds by more than one item
Bath/shower room without WC	Additional wash hand basin	Exceeds by one item
Bath/shower room without WC	Additional wash hand basin and shower separate from a bath	Exceeds by more than one item
Bathroom or shower-room with WC	Additional bidet	Exceeds by one item
Dining space	Larger sideboard	Exceeds by one item
Dining space	Larger sideboard and larger dining table	Exceeds by more than one item
Double bedroom	Additional chest of drawer	Exceeds by one item
Double bedroom	Additional chest of drawers and double wardrobe	Exceeds by more than one item
Kitchen	Additional 600mm unit	Exceeds by one item
Kitchen	Additional 1200mm unit	Exceeds by more than one item
Living room	2 armchairs above requirement	Exceeds by more than one item
Living room	1 armchair above requirement	Exceeds by one item
Separate WC	Additional bidet	Exceeds by one item
Separate WC	Additional wash hand basin and bidet	Exceeds by more than one item
Single bedroom	Additional chest of drawer	Exceeds by one item
Single bedroom	Additional chest of drawers and single wardrobe	Exceeds by more than one item
Twin bedroom	Additional chest of drawer	Exceeds by one item
Twin bedroom	Additional chest of drawers and double wardrobe	Exceeds by more than one item

COT SPACE

One of the double bedrooms in the unit should have sufficient space to take an occasional cot (Q. 6.2.8). The table below indicates whether this is possible whilst the room still meets the furniture and activity/access requirements. Please note that any room not meeting the requirements cannot contain space for a cot.

	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
2	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2.5		NO	NO	NO	NO	YES	YES	YES	YES	YES
3			NO	YES	YES	YES	YES	YES	YES	YES
3.5				YES	YES	YES	YES	YES	YES	YES
4					YES	YES	YES	YES	YES	YES
4.5						YES	YES	YES	YES	YES
5							YES	YES	YES	YES
5.5								YES	YES	YES
6									YES	YES
6.5										YES

Key

Yes indicates an occasional cot can be accommodated in a double room.

No indicates an occasional cot cannot be accommodated in a double room.