

# **Firm Foundations**

## Design Brief

Building Homes for the Highlands

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### **Affordable Housing Providers**

This Design Brief has been produced as a result of input, contribution and collaboration from the following affordable housing providers (AHP):

Albyn Housing Society Ltd

Caledonian Housing Association Ltd

Cairn Housing Association

Highland Housing Alliance

Lochaber Housing Association

Lochalsh & Skye Housing Association

The Highland Council

These organisations have consulted with the tenants and maintenance staff.

### **Design Brief Project Team**

The Design Brief has been prepared by KLM Partnership, Chartered Surveyors, and Bracewell Stirling Consulting Chartered Architects.

Consultation has also taken place with a number of housing developers.

### **First Edition August 2017**

This first edition has been prepared to incorporate current development legislation relating to housing, and reflect the changing role of the Local Authority and Housing Associations and reflect the standards expected for new homes.

Our various organisations and our extended design teams made up of our external framework consultants will need to bring their wealth of private sector experience to the table to ensure that all our future housing is designed to the highest achievable standards. Our future schemes will need to be of a design standard and quality that reflect their location, and maximising building efficiency.

We will be adopting a fabric first approach for the delivery of all of our units which addresses the issue of fuel poverty for our tenants.

### **1 Introduction**

- 1.1 The AHP's have produced this Design Brief, to help us provide the highest quality services for current and future residents. In a challenging and difficult world, we believe that it is possible to create exemplary buildings that inspire and delight. Good design helps to create an environment of respect and pride which all our residents deserve.
- 1.2 The purpose of this brief is to inform all parties involved in the design and construction of affordable housing of their requirements.
- 1.3 The AHP's intend that the brief should be used to ensure that a high standard of housing design will be attained which will not present the Client with management and maintenance problems in the future.
- 1.4 Designs presented to the Client should ensure a comfortable yet functional environment for prospective tenants and which aims to keep running costs as low as possible.
- 1.5 It is not intended that the brief should restrict the consultant's scope to find creative solutions for each site. However, consultants / contractors should inform the Client when parts of the brief cannot be met or if they wish to promote an alternative solution. The Client must be informed of any variations between the actual scheme design and this brief. All variations must be agreed with the Client in advance.
- 1.6 Nothing in this brief should lessen the professional responsibility of the consultant and they should inform the Client as early as possible if the requirements of the brief conflict with financial constraints of the scheme, statutory requirements, good practice or their professional judgement.

### **2 Vision**

- 2.1 This Design Brief has been developed from the work of our consultants, developers, our officers, our committee members and, more importantly, our residents.
- 2.2 All have had an input into what they see 'makes great places to live'. We believe that this Design Brief demonstrates what a good home could look like. Our vision is that the AHP's are a landlord of choice that the new homes we produce are ones that people will wish to live in because they have been suitably designed to meet both their immediate and their varying needs over the course of their lifetimes. Our objective is that by combining good quality design, functionality, sustainability and a secure and safe environment, we will ensure that our residents are happy in their homes.
- 2.3 This Design Brief has been prepared to reflect the AHP's aspirations for all new build social housing developments in the Highlands.
- 2.4 This Design Brief will form an integral part of any new Designer's or Developer's appointment for new affordable homes within the Highlands. The Design Brief will support and complement the written Design Brief provided for a particular project, together with the AHP's standard Technical Guidelines and Employer's Requirements, which provide a more detailed statement of requirements.
- 2.5 In addition, this Design Brief will be published on the AHP's web site as a clear statement on our aspiration for developing quality homes throughout the Highlands. It will form an important statement of intent in building partnerships with the Scottish Government, Local Authorities, Housing Associations, developers, land owners, etc, when looking at future development opportunities.
- 2.6 The Brief should be used as a reference point as the design develops, to ensure compliance with the AHP's aspirations. An overarching issue is the consideration of the likely user-groups and their needs. This issue must be borne in mind throughout the development process, to ensure that the design does not inadvertently exclude anyone.
- 2.7 The document layout is intended to lead the designer or developer in the sequence they should be considered through the design process. By following the steps identified in the design Brief, the AHP's trust that the design of all new developments will be thoughtful, responsive, appropriate, sustainable and delightful.

### **3 How to use this design Brief**

- 3.1 The guidance provided here is the result of detailed discussion and consideration by the AHP's. It represents best practice as well as a pragmatic and intelligent response to the challenge of providing attractive, desirable, sustainable housing for a range of tenures and user-groups within the current funding regimes.

**4 Achieving design quality**

- 4.1 Our design quality goals are to:
  - 4.1.1 create exemplary buildings which inspire delight, respect and pride in those who visit, live, work and play in them;
  - 4.1.2 build the best homes we can, which meet the needs of our residents now and in the future;
  - 4.1.3 make a positive contribution to the wider community by developing beautiful buildings which respect and enhance their surroundings;
  - 4.1.4 create the most sustainable homes possible, using tried and tested technologies, so that they can provide the maximum benefit to our residents;
  - 4.1.5 work as a team to produce high quality design solutions
- 4.2 All buildings should be designed to have a life of at least 60 years.
- 4.3 Of particular importance to the Client is the long term performance of each building. The ease and cost effectiveness of future maintenance and component replacement should be a relevant factor in each design decision.
- 4.4 The following are required to be achieved for the life span of the various components:
  - 4.4.1 Windows and Doors 30 Years
  - 4.4.2 Bathrooms 30 Years
  - 4.4.3 Kitchens 20 Years
  - 4.4.4 Heating Systems 20 Years
  - 4.4.5 Boilers 15 Years
- 4.5 The current benchmark allowances assume that the following will be achieved:

<b>Standards</b>	Building Regulations in force at time of Tender submission to AHP.
<b>Lifetime Homes</b>	For Lochaber Housing Association only.
<b>Secure by Design</b>	Certification is mandatory
<b>HVN</b>	Housing for Varying Needs – a design guide parts 1 & 2
<b>British Standards</b>	Current at the time of Tender
<b>Scottish Government Guidance Notes</b>	Current at the time of Tender
<b>Barrier Free</b>	All houses are to be designed to a “barrier free” specification
<b>NHBC or equivalent</b>	For Lift properties only

### 5 Place making

5.1 The proposed scheme should take into account the following:

- Topography – identify levels, landmarks and existing structures to
- The existing community and population.
- Ground conditions and contamination
- Public facilities, amenities in the area, public transport, schools, churches and social facilities.
- Availability and restrictions imposed by public utilities.
- Existing boundaries.
- Direction of prevailing winds.
- Types of housing adjacent to the site no. of storeys, density and their settlement pattern.
- Orientation.
- Views to and from the site.
- Points of access and egress to and from the site.
- The location and impact of existing trees
- Desire lines/pathways to and from adjoining above mentioned facilities
- Identify existing flora and fauna

5.2 Site Layout & Orientation

5.2.1 With reference to the site characteristics the following criteria must be adhered to wherever possible:

- Design to optimise the existing topography as far as possible to be harmonious in the existing landscape and knit to the existing urban fabric as far as possible. This should minimise earth movement within the site and avoid the removal of material offsite.
- Existing mature trees and planting should be retained as far as possible
- Existing flora and fauna should be recognized and habitat integrated/enhanced in the design wherever possible.
- Existing landmarks should be recognized and incorporated wherever possible. New landmarks such as gateway features should be introduced where appropriate.
- The density, settlement pattern and building massing should take cognisance of the surrounding settlements and harmonise with these as far as possible.
- Connection with existing vehicle, cycle and pedestrian linkages should be recognized and enhanced paying particular attention to location of schools and local facilities.
- The location of entrance doors should take into consideration their relationship to prevailing winds.
- All external spaces must be well defined and their function clearly determined and noted on drawings at the outset and designed accordingly.
- Designers to consider recessing entrance doors and to report whether this is



feasible/represents value for money.

- The maximization of solar gain to the living areas of houses by sensible orientation.
- Pedestrian routes through dwelling clusters should be avoided to reinforce their separate identity and private nature. Also as crime prevention measure.
- Every dwelling should have a garden where possible or an area of external private space.
- Shared common areas, which will require to be maintained by the Client, should be minimised, or designed with hard wearing and low maintenance surfaces and planting. Large areas of unbroken hard landscaping should be avoided. Small, grassed areas should also be avoided.
- Dwellings fronting a road or footpath must have a boundary with an appropriate form of enclosure, which could take the form of a trip rail or low fence or hedging where Planning allows. Dwellings fronting common areas may have open plan frontages although trip rails are desirable where wear will take place due to foot traffic. Trip rail fence to stop 1 meter short of the public footpath, bottom of rails to be at least 50-mm above ground level.
- Common areas should be easily apportioned between sharing owners with private space, bin stores, drying areas and car parking marked where appropriate on plans.
- Sub-division of larger estates is sought.
- All rear garden boundaries must be secured and divided by 900mm high vertical timber fencing with gated access, to be stock proof in rural locations. Bottom of fencing to be at least 50mm above the ground. Where a rear garden adjoins common ground or an existing amenity space or play area, an 1800 high screen fence or wall should be provided.
- On larger sites consideration should be given to division of the development into phases to provide sustainable delivery over a period of years.

#### 5.2.2 Garden Access, Boundaries, Drying Facilities and Landscaping

- All family houses should have direct access to a private rear garden. If there is only one door to the garden it should be from the kitchen.
- Any houses (2 bedroom / 3 person semi bungalows or ground floor flats) designed for amenity use with private garden should have small, manageable gardens which are easy to maintain. Large gardens are not acceptable.
- It is desirable that houses should be arranged in such a manner that tenants do not have to carry lawnmowers, bins etc. through the house from front to rear gardens areas.
- Flats wherever possible should have access to private gardens and where they are shared these should be shared by as few households as possible and should be laid out in easily maintained surfaces.
- Suitably screened communal drying space should be provided adjacent to flatted accommodation where individual gardens are not provided. This should be easily

supervised by residents of that accommodation and have only one entrance leading immediately to the dwellings they serve. Hard standings of 900mm wide should be provided to rotary dryers, or access path to clothes poles.

- Amenity houses should have a larger percentage of hard landscaping and large gardens should be avoided.
- Garden to garden boundaries should be secured with 900mm high vertical timber fencing.
- Any garden grounds which slope towards the house must have adequate cut off drain or other measures situated outwith the garden.
- Garden gradients must be less than 1:5 and a min 3-5m of level area to the rear must be supplied.
- Where water-logging may be expected suitable field drainage should be provided and taken to a local water course or soakaway. Open ditches should be avoided since they require to be kept clear.

#### Public footpaths, steps and ramps

- Public footpaths outwith garden areas should be designed to the appropriate Road Authority Standards for Adoption wherever possible. To maximise adoptable areas.
- Paths: - Minimum width 1.20m – no shared surfaces (as shared surfacing does not comply with Housing for Varying Needs requirements), - 1:100 cross-fall.
- Where possible the maximum gradient will be 1:20 with rest areas at 18 meter intervals.
- Remote footpaths should be avoided but where required the finish should be agreed with the LA. They should ideally be 1200mm wide with whin dust finish and grass edges (ie not larch or pre-cast concrete) without street lighting.

#### 5.2.3 House Paths

- Steps should be avoided wherever possible, particularly for single storey houses, ground floor flats and flats with lift access. Where steps are necessary, they must not be placed in the length of the pathway
- Paths to front doors should be of tarmac finish to avoid trip hazards
- All front doors should have a concrete platt at the door entrance.
- All paths should be constructed in a hardwearing material, such as tarmac, concrete paving slabs, tarmac construction or brick paviers.
- A patio area should be provided in all gardens where patio doors are provided.

#### 5.2.4 Roadways

- Dropped kerb routes should be provided at all obvious road crossings in sensible locations enroute to local facilities in addition to LA requirements.
- The extent of the adoptable road should be maximised for ease of refuse collection and road maintenance with appropriate siting of turning heads.

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### 5.2.5 Car Parking

- Car parking within the curtilage of each garden area is preferred and constructed in tarmac or lock-block. Ideally the parking area should be no more than 30m from the entrance door. Side by side parking is preferred where possible. Parking directly in front of living room windows or too close to the building should be avoided.
- Generally, garages will not be provided, but where ever possible family dwellings should have a suitable area for tenants to erect their own garage.
- The minimum number of parking spaces in accordance with Local Authority recommendations should be included in the layout.
- In general, in smaller schemes, no more than three car parking spaces should be placed together. Large blocks of parking should be avoided, or broken up with soft landscaping.
- Consideration should be given to the use of different materials and textures to define the parking areas. Spaces could be delineated by coloured lock block.

### 5.2.6 External Storage

- Bins should be contained in an enclosed area convenient to each dwelling but not close to the front door or below windows. These bins should sit on slabs and the bin storage areas should be defined by a three sided timber enclosure. The timber enclosure should be higher than the bins. The correct number of bins to be accommodated is subject to change and should be confirmed with the Local Authority.
- Bin stores and fuel bunkers should have a step free access by a path at least 900mm wide.
- Each store enclosure should be sufficient height to accommodate a "wheelie" bin and should be generally inconspicuous.

## 5.3 Housing Mix and Form

### 5.3.1 The following housing forms should be avoided -

Long terraces in excess of 4 housing units.

Houses above 2 storeys intended for family with young children.

Bed-sit accommodation.

### 5.3.2 The mix should be confirmed by the Client on a site by site basis and this should be agreed with the Client as early in the process as possible.

### 5.3.3 Externally all schemes should be tenure blind.

### 5.3.4 Although the requirements vary it should be assumed from the outset that 10% of every development will comprise wheelchair-accessible housing.

## 5.4 Play Areas & Open Space

- The need for play spaces will depend on a number of factors, including the size and location of the scheme the amount of private garden space and the alternative play opportunities within the area.

- In the first instance the Client will look to the Local Authority and other agencies to consider alternative provision in the area and the possible financing of play schemes. For the avoidance of doubt, play areas should not be included unless they are an absolute planning requirement.
- Where required, play areas should be carefully planned to ensure they are overlooked by adjacent houses, but that there is sufficient separation so to avoid undue disturbance to occupiers. Play parks should be designed with a dog guard at the entrance and slides etc. should be located in a sensible manner to work in the safest possible way. A specialist supplier should provide the spacial design. The design must be approved by the client.
- Planting should be restricted to common areas. Use of Hardy species to suit location that require a low maintenance regime. In choosing plants, consideration should be given to maintenance requirements, seasonal colour, and longevity, final size and shape of the chosen plants.
- Small grassed areas to be maintained by the Client should be avoided.
- Any large grassed area to be maintained by the Client must be easily accessible and not by the way of communal or private gardens.
- Trees and large bushes are not to be planted adjacent to any building, drain or underground service supply. As a general rule, a distance equal to the mature height of a tree or bush should be taken as the closest possible distance.
- Grassed communal areas will be seeded but must be grassed on completion and this should be turf if necessary.
- Hard landscaping should be varied using texture and colour. Concrete paviers are only to be used minimally and gravel is to be avoided if at all possible.
- The inclusion of artworks in the open space design should be considered to meet LA Planning requirements.
- Provision of seating at view points and vistas should be considered for older people and those with disabilities. However, it is important to avoid creating the equivalent of teen shelters in inappropriate locations.
- Open space should be located on principle routes, be integrated as a focal point, and be well overlooked to ensure it is safe and well used.

#### 5.5 Drainage

- Site drainage should be considered at an early stage and adoptable measures to deal with foul and surface water drainage are required as far as possible.
- Surface water drainage shall comply with SUDS drainage requirements most appropriate for the site conditions.
- Where there is no public sewer available, sewerage system is still required to be designed and constructed to adoptable standards.

## **6 The Home**

### 6.1 Front entrance

- The main entrance to the property should be highly visible and welcoming.
- It should provide shelter from the elements in the form of a canopy or recess wherever possible and this should be adequate to protect a wheelchair or buggy.
- The route and entrance area should be safe and well lit.
- Level access should be provided to the principle entrance.
- Every house should be self-contained with its own front door and wherever possible this should lead directly to the outside. This is also desirable for ground floor flats.
- Communal entrances are not to be located adjacent to bedrooms.
- Consideration should be given to contrasting colours and finishes around the door to aid recognition for sight impairment.

### 6.2 Home Layout and General Requirements

- Lifecycle costing is required for all schemes.
- Avoid tortuous corridors and awkwardly-shaped rooms, as these make a home difficult to navigate and furnish.
- Care should be taken in design to ensure that rooms of the same uses are stacked over each other to avoid nuisance noise transfer.
- The minimum floor-to-ceiling height is 2.4m
- Access into all rooms should be from a corridor; direct entry is not permissible.
- All houses should be designed on the basis of each house unit having at least one self-contained bedroom.
- Lounges and bedrooms in adjoining properties should not be located adjacent to one another.
- Dual aspect is desirable for all homes where the rear elevations are visible or are north-facing.

### 6.3 Circulation

- There should be natural daylight and ventilation to circulation areas as far as possible. If this is not possible, borrowed light should be provided.
- The AHP's will not accept entering a property directly into a living room, or kitchen dining room for family 3 bed + units

### 6.4 Cooking and Eating Spaces

- Separate kitchen-dining rooms are preferred wherever possible. This is a requirement for all 3 bed + family homes.
- Access to a living room through a kitchen dining room in 3 bed + family units is not acceptable.
- Open plan arrangements are acceptable for all tenures in 1 and 2-bed homes. However, consideration should be given to the location of washing machines and

extract fans to avoid noise nuisance.

- In all schemes there should be a choice of open plan or separate kitchen.
- Open plan kitchens should be semi-enclosed to facilitate demarcation of the areas, and to allow for future separation by screens or folding doors.
- If the dining space is not in the kitchen, there should be space in the kitchen for a small table for casual meals
- In ground-floor homes, a view of and direct access to the garden is required from the kitchen, in order to supervise children's play.

### 6.5 Living Rooms

- The minimum width of a living room is 3.0m.
- The living room being used for circulation should be avoided where at all possible.
- Access from the living room to private external space is desirable where possible.
- Plans should show a furniture layout conforming to the dimensions given in HVN.
- Irregularly shaped living rooms should be avoided wherever possible. Where this is not possible it is imperative that sensible furniture layouts and everyday use of the room is achievable. Careful consideration should be given to the location of the TV point.
- Rooms on either side of a party wall should have the same use, i.e. living room to living room or bedroom to bedroom.
- One room should not be accessed from another except in the case of kitchens from a living or dining room.
- Dining areas may be combined with living rooms or kitchens.
- Living rooms should be flexible to cater for a number of family activities. Therefore, It should be possible to arrange the living room furniture in at least two different ways

### 6.6 Bedrooms

- A double bedroom should be a minimum of 2.60m wide, for good access.
- A single bedroom should be a minimum of 2.25m wide, for good access.
- Double bedrooms should be capable of accommodating twin beds.
- Future provision for direct access from the main bedroom to a bathroom is desirable.
- One or more twin or double bedrooms capable of subdivision into two single bedrooms is desirable.
- There should be space for beds to be located in more than one location, and without the bedhead under a window.
- Careful consideration should be given to the location of sockets and to the potential head height above the bed.
- Irregular room shapes and very narrow rooms should be avoided.
- Bedrooms should be designed to allow the proper placement of furniture with reasonable circulation space and access to windows.

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- Built-in wardrobes should be provided to all bedrooms and be of sufficient size to accommodate clothes on a hanger. Wardrobes should have sliding or side hung pre-finished flush doors, shelf and adequately supported hanging rail. Internal depth of the wardrobe should not be less than 600mm.
- Example dimensions and furniture layouts can be viewed in HVN guidance.

### 6.7 Washing

- All bathrooms and cloakrooms should be accessed from dedicated circulation space.
- All ground floor flats are to have low level showers trays, minimum 900 x900mm, with cubicles. The design of these spaces should include for flexibility in the design to allow the low level tray to be replaced by a walk-in accessible shower at a later date.
- All accessible ground floor 'bathrooms' must have walk in accessible showers with a tray formers, minimum 900 x 1350mm.
- Internal bathrooms should be avoided wherever possible
- The preference is for the door to open outwards, but ensuring this does not cause an obstruction in the hall.
- The layout and dimensions of any first floor bathrooms should allow for a bath and for this to be replaced by a walk in shower, if this was preferred or becomes necessary.
- The normal installation shall be for a bath with over bath shower fitting.
- Where there are properties with more than one shower, the second shower should be a minimum 10-kilowatt direct main shower appliance.
- The bath position should allow for easy fitting of a bath shower screen
- The layout of the bathroom fittings should allow free access to windows
- The bath should not be hard against a wall at both ends. A shelf of at least 400mm at the head can be used a shelf or seat.
- Baths should not be sited below windows.
- Appliances shall be fully supported and securely fixed to walls with non-corrosive fittings. Bath feet over chipboard floor are to be supported on bearers.

### 6.8 Laundry

- In small open plan homes, the washing machine should be located in a separate cupboard to avoid noise and vibration nuisance.
- In 8-person homes, there should be a separate utility room with space for a sink and two appliances as a minimum. This space can also be used to provide storage.
- Drying Rooms - in accordance with the Healthy Low Energy Home Laundering MEARU (Mackintosh Environmental Architecture Research Unit), The Glasgow School of Art are required Highland Council properties and considered for all other.

### 6.9 Storage

- Refer to the table in section 7 for the minimum requirements, which are applicable regardless of tenure.

- Tall storage is required for a vacuum cleaner and ironing-board.
- Storage space should be provided for outdoor clothes, either with hooks on a wall, or cupboard adjacent to the entrance.
- The desirable maximum depth of a storage cupboard is 1m, to allow for sensible usage of the space.

### 6.10 Stairs

- Naturally lit and ventilated staircases are preferred.
- All common stairs to upper floor flats must be located within the building envelope.
- Winding stairs are not permissible.
- Ceilings over stairs should be lowered to match the rake of the stairs for ease of maintenance while maintaining the required 2m min head height.

## 7 Space Standards

- 7.1 A dwelling for occupation by the number of people shown in the table below must be designed to provide areas of net space and general storage space not less than those set out below:

	Number of People (i.e. bed spaces) per dwelling	General Storage Area (m <sup>2</sup> )	Gross Floor Area including General Storage (m <sup>2</sup> )	Gross Floor Area Wheelchair Accessible including General Storage (m <sup>2</sup> )*
Single Storey Homes	1	3.00	33.00	
	2	4.00	48.50	
	3	4.00	61.00	74.00
	4	4.50	71.50	84.00
	5	4.50	83.50	108.00
	6	4.50	92.00	120.00
	7			128.00
Two Storey Homes	2	4.00	62.50	
	3	4.00	75.00	
	4	4.50	86.00	
	5	4.50	99.00	
	6	4.50	107.00	
	7	6.50	123.50	
Flats	1	2.50	32.50	
	2	3.00	49.00	
	3	3.00	62.00	
	4	3.50	75.50	



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### 7.2 Notes:

7.2.1 Designing all homes the same size (as if for rent and shared-ownership) allows for tenure to be determined near project completion, responding to the market conditions at the time.

7.2.2 \* Designed to comply fully with the requirements of the "Wheelchair Housing Design Guide", and any relevant Local Authority standards.

7.2.3 Deviation from the above space standards may be necessary where a site is of a peculiar shape and difficult to develop in a standard manner.

### 7.3 Barrier Free Standards

7.3.1 The Client's schemes are subject to tight cost constraints and the design team should inform the Client of any aspects of the "barrier free" specification which may be difficult to achieve within these constraints.

### 7.4 Internal circulation areas

7.4.1 For efficient use of space, the aim should be that internal circulation areas are no more than 15% of the internal area.

### 7.5 Minimum room sizes

Minimum Room Sizes	No. of People					
	1p	2p	3p	4p	5p	6p
Kitchen	6.50	6.50	8.00	8.00	9.50	9.50
Kitchen / Dining	8.00	9.00	13.00	15.00	16.50	16.50
Living Room	12.00	12.00	13.00	15.00	16.50	18.00
Lounge / Dining	13.00	15.00	18.00	22.00	24.50	26.00
Single Bedroom	7.80	7.80	7.80	7.80	7.80	7.80
Double / Twin Bedroom	10.00	10.00	10.00	10.00	10.00	10.00

7.5.1 Single Bedrooms should have a wardrobe 600 x 600mm

7.5.2 Double Bedrooms should have a wardrobe 1000 x 600mm

### 7.6 Storage Requirements

Storage requirements	No. of people							
	1p	2p	3p	4p	5p	6p	7p	8p
Minimum built-in general internal storage area free of hot water cylinders, washing machines, tumble dryers and other obstructions, with a minimum floor to ceiling height of 2m. (m <sup>2</sup> )	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
Linen cupboard (in addition to the general storage above and any kitchen storage provision) – minimum 2m high. May contain hot water cylinder as long as 2 no. 600 x 600mm slatted shelves can be fitted with 450mm minimum clear height	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

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Storage requirements	No. of people							
	1p	2p	3p	4p	5p	6p	7p	8p
above each. (m <sup>2</sup> ).								
Study/home office requirements: 1800mm space for desk, chair and filing cabinet, plus wall-space, sockets, telephone points, adequate ventilation and an average daylight factor of 1.5%. For dwellings with three or more bedrooms, a suitable room is a room other than the kitchen, living room, master bedroom or bathroom. Note that the study space should not be on an escape route.	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Kitchen storage with removable shelves for storage of bulk purchase items – excluding under-sink storage (m <sup>3</sup> )	1.3	1.5	2	2.1	2.2	2.4	2.6	3.1
Minimum separate utility cupboard or room (m <sup>2</sup> )	-	-	-	1.2	1.2	1.6	2.4	5.0

**8 Sustainable design**

8.1 Our approach to sustainable design

- 8.1.1 The AHP’s have developed a strategic approach to sustainable design which goes beyond the requirements of the targets of the Building Regulations and identifies what we believe to be important in the provision of housing which will meet the needs of our residents now and in the future.
- 8.1.2 In this section, we summarise the specific requirements, and strategies we wish to adopt that go beyond the Regulations, while in the following sections we highlight measures which contribute to our sustainable design strategy.
- 8.1.3 Providing homes that our residents can afford to heat and power is of the utmost importance to the AHP’s.
- 8.1.4 All new homes must achieve an energy efficiency standard of at least SAP 80.
- 8.1.5 The building envelope maximises its insulation performance and is as airtight as possible, whilst maintaining good indoor air quality and a healthy indoor environment.
- 8.1.6 The design should take advantage of solar gain from south facing orientations and consider shading, internal layouts and window dimensions and specifications.

8.2 Energy Efficiency

- 8.2.1 The AHP’s tenants may be on limited incomes therefore the overall energy costs for the houses should be assessed from the SAP rating and improved on by a balance of energy efficiency measures. The designers should consider the recommendations contained in the BRE Housing Design Handbook – Energy Efficiency & Internal Layout.
- 8.2.2 The specific design of the heating will be governed by the availability of local services and local climatic conditions. However, special attention should be paid to the higher standards required for amenity housing for the elderly and wheelchair users.

8.3 Energy systems and services

- 8.3.1 The table below sets out our preferred energy strategy to aid design to meet the requirements of the Building Regulations taking into consideration the following:
  - The site constraints.
  - The energy profile of the proposed homes.
  - Maintenance implications.
  - Running costs for residents.

8.4 Sites with gas supply / access to mains gas

Option	Heating System – individual units	Supplementary low or zero carbon technologies
1	Individual gas boilers	Photo Voltaics
2	Individual gas boilers	MVHR with insulated ducting

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8.5 Sites without gas supply / access to mains gas

Option	Heating System – individual units	Supplementary low or zero carbon technologies
1	Air Source Heat pump	
2	High heat retention storage heater	MVHR with insulated ducting
3	High heat retention storage heater	Photo Voltaics

8.5.1 Other options can be considered on a site by site basis. Full details are to be submitted at the time of Tender.

8.5.2 Tariffs will require discussion with the AHP’s at the time of Tender, where possible not restrictive standards.

8.6 External lighting

8.6.1 LED lighting is preferred for communal areas.

8.7 Water conservation

8.7.1 All new homes should have water efficient sanitaryware installed that is fit for purpose. Showers should be fitted over baths.

8.7.2 Grey water recycling and rainwater harvesting are not preferred, except for water butts for houses.

8.8 Waste reduction

8.8.1 Reducing the amount of material sent to landfill saves us money and helps save valuable resources, reduces the use of virgin materials and reduces energy usage.

8.8.2 Our design and construction project teams will be required to:

8.8.3 Implement Site Waste Management Plans throughout the design and construction period that include project-specific targets for waste recovery and reused and recycled content (below) and for waste reduction.

8.8.4 Measure and report progress against our sustainability performance indicators for the quantity of waste produced and the quantity of waste sent to landfill (measured in tonnes per £100k construction value) [using the WRAP Waste to Landfill Reporting Portal and guidance].

8.9 Home User guide

8.9.1 A simple Home User guide should be provided for all new homes which is in line with AHP’s template.

8.9.2 To encourage minimum energy use, controls should be labelled, user-friendly and located in sensible places.

8.10 Smart meters

8.10.1 Smart meters will provide residents with the ability to check their energy consumption and modify their behaviour accordingly. Visual displays of energy consumption should be provided and fitted in all units.

8.11 Materials

8.11.1 All homes should achieve a Green Guide rating of between A+ and D for all five elements of construction:

- Roof.

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- External walls.
- Internal walls.
- Upper and ground floors.
- Windows.

### 9 Diverse needs

The AHP's wish to continue to meet the housing needs of the diverse communities in which we work. We also aim to make our schemes inclusive by including features which would benefit as wide a range of requirements as possible.

#### 9.1 Inclusive design

9.1.1 Design proposals should be inclusive of all residents and reflect the needs of the local community as well as anticipate future requirements.

9.1.2 The principles of inclusive design call for places to be:

Inclusive so everyone can use them safely, easily and with dignity.

Responsive taking account of what people say they need and want.

Flexible so different people can use them in different ways.

Convenient so everyone can use them without too much effort or separation.

Accommodating for all people, regardless of their age, size, gender, mobility, ability, disability, ethnicity or circumstances.

Welcoming, with no barriers that might exclude some people.

Realistic, offering more than one solution to help balance everyone's needs and recognising that one solution may not work for all.

9.2 The next chapter covers the requirements for designing fully wheelchair-accessible homes.

However, there are a number of best practice design principles which can be adopted from the outset without any significant cost implication, but which will make any home more accessible to a wider section of the population, regardless of their circumstances. These include:

9.2.1 For sight loss:

Colour or tonal contrast should be used in many situations:

- between the door or architrave and the wall.
- between the floor and wall or skirting sockets/switches and other controls and the wall they are located on.
- between cupboard doors and handles between the top and the edge of the kitchen worktop.

Good provision of sockets for task lighting, rather than overhead lighting which can cast shadows.

Task lighting located underneath wall units to illuminate the work surface.

9.2.2 For hearing loss:

Lighting wired in with the doorbell so that lights flicker when the door bell is activated

Bathroom light switch located outside the room, so that lights can be switched on and off

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to attract the attention of someone in the bathroom.

Video entry phone system.

For those with learning disabilities or confusion:

Simple layouts which are logical and visible from the front door.

No open-tread staircases, as this can cause confusion to someone who is autistic or who has certain types of vision loss or cognitive disability.

#### 9.2.3 For limited mobility:

Provision for future installation of a remote door entry system including video intercom

Provision of electrical connections on the stair for a future stair-lift.

Kitchen base units designed as drawers rather than cupboards, for full accessibility.

Kitchen storage provided as 300-400mm deep cupboards.

Provide tall pull-out larder storage with access both sides.

Install carousel units in corner cupboards.

#### 9.2.4 For dementia:

Task lighting and access to as much daylight as possible, particularly in key task areas e.g. sinks, kitchen work-tops

Non-slip external paving

External lighting positioned to ensure clearly lit pathways with shadows minimised,

Improved access to bin stores and space to hang washing,

Continuous worktop between oven and sink.

Some transparent cupboard doors as standard with others simply and economically replaceable with transparent ones on a responsive basis,

Lever taps, with a clearly marked 'H' and 'C' and red and blue colours,

Raised button or traditional handle flush levers,

Sinks with ample, stable space to easily and securely place items,

Use of colours/styles of bathroom tiles which will minimise glare e.g. marble effect – matt finish rather than gloss to reduce risk

Showers with automatic switch off e.g. after 30 mins or if reach too high a temperature,

Window handles which can be simply and economically replaced with easier to use and/or contrasting coloured handles – plus the option of having windows that are harder to open to reduce risk,

Contrasting coloured light switches and switch plates,

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Lighting pathways to bathrooms at night,

Deeper window sills,

Raised planters as part of the amenity design guide

Electricity sockets at raised height from the floor

Consider the impact of natural light coming into the property to ensure that people can get cues from the environment and day/night cycles.

Provision of conduits for future installation of a remote door entry system including video intercom

9.3 The following are design measures which should be considered in the design of all new homes.

Design Measure	Essential	Desirable
<b>General principles</b>		
All homes should be designed to be tenure neutral. It should not be possible to guess who lives where, nor to distinguish what additional features have been added to make the home suitable for any particular household.	☒	
<b>Mixed tenure</b>		
Mixed tenure but of neutral design	☒	
<b>Layout and circulation</b>		
Generous, welcoming entrance area	☒	
Space for storage of shoes	☒	
Space for storing a buggy, wheelchair or walking frame		☒
Good colour and/or tonal contrast between floor finishes and walls, doors and handles, and light switches and walls	☒	
<b>Bathrooms</b>		
Shower fitted to bath	☒	
Continuous sheet flooring and floor gulley for shower in separate WC.		☒
<b>Bedrooms</b>		
Fitted wardrobes	☒	
<b>Services</b>		
Additional security lighting		☒
Satellite dish and wired for Sky + (Flats)	☒	
Zoned heating controls	☒	
Offer of translations for tenant manual		☒



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Design Measure	Essential	Desirable
<b>External areas</b>		
Children's play area		<input checked="" type="checkbox"/>
<b>Living rooms</b>		
Reception room at the front of the home	<input checked="" type="checkbox"/>	
Connecting door to kitchen/dining room to create a large open area		<input checked="" type="checkbox"/>
Lighting wired in with the doorbell so that lights flicker when the door bell is activated		<input checked="" type="checkbox"/>
<b>Kitchens</b>		
Separate but adjacent kitchen, easily linked to the dining / family room		<input checked="" type="checkbox"/>
Access to kitchen shall not be via living room in 3 bed + units		<input checked="" type="checkbox"/>
Connecting door to living room		<input checked="" type="checkbox"/>
Kitchen larger than standard with occasional space for eating		<input checked="" type="checkbox"/>
Kitchen/dining room and separate living room in large family homes (ie 3 bed + units)	<input checked="" type="checkbox"/>	
Additional kitchen storage - tall cupboard for bulk purchase goods	<input checked="" type="checkbox"/>	
Food preparation and clothes washing facilities to be kept separate in 3 bed+ units		<input checked="" type="checkbox"/>
Electric cooking	<input checked="" type="checkbox"/>	
Gas cooking (Not Highland Council Properties)	<input checked="" type="checkbox"/>	
Booster fan to ventilation to extract steam and cooking smells	<input checked="" type="checkbox"/>	
High mixer taps to wash large pans	<input checked="" type="checkbox"/>	
High tonal contrast between worktop fronts and the worktop, and between cupboard doors and handles		<input checked="" type="checkbox"/>

### **10 Wheelchair accessible homes**

10.1 Wheelchair-accessible homes are to be designed fully in accordance with Housing for Varying Needs.

10.2 A wheelchair-accessible home is one which can be easily adapted for residents who are wheelchair users. That is, a ho

10.3

10.4 me which is designed to comply fully with the required standard, but which may not be fully fitted out with specialist kitchen and bathroom fittings and grab rails. The fit-out may be delayed until the allocation of a resident and a discussion between them and their Occupational Therapist.

10.5 Wheelchair-accessible homes for sale or shared ownership are expected to be designed to be wheelchair-adaptable. This means that the space standards meet the requirements of a wheelchair-accessible home, but the fit-out is delayed until a suitable tenant or purchaser is found.

10.6 The main items of note are as follows:

10.6.1 Site considerations

10.6.2 Accessibility of the site and local neighbourhood.

10.6.3 Parking provision, except in car-free developments.

10.6.4 Space standards

- Space standards of approximately 25% larger than general needs homes designed to the Lifetime Homes standard.

10.6.5 Getting around the home

- Wider corridors and doors to facilitate access without damage to walls and doors.
- Space at the front door to negotiate the entrance easily.
- Provision of a through-floor lift travelling between corridors rather than from room to room.
- Provision for a short hoist to be installed at a later date in the bedroom and bathroom.
- Space to store and charge a wheelchair and to transfer from an outdoor chair to an indoor one.

10.6.6 Wheelchair storage

- Space to store and charge a wheelchair and to transfer from an outdoor chair to an indoor one.

10.6.7 Bedrooms

- Clear space around the main bed of 1m to the foot and one side and 1.2m on the other.
- Clear space 1.0m square in other bedrooms, so that a disabled parent might be able to tuck up a child at night.

10.6.8 WC and bathroom

- Provision of an accessible WC at entrance level with level access shower.

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- Two WCs in a 2-bed 4-person home.
- An accessible bathroom, with a linking door giving direct access to the bedroom.

#### 10.6.9 Kitchen

- Kitchens are designed to take wheelchair- accessible fittings, but homes are to be fitted out with a standard kitchen until it is known whether a wheelchair-user is moving in.

#### 10.6.10 Storage

- Accessible stores, no deeper than 800mm in order to be fully accessible from a wheelchair.

### **11 Shared Equity homes**

- 11.1 The key attraction to purchasers of new homes is the quality of the design and the fixtures and fittings.
- 11.2 The AHP's have a detailed specification for preferred items. This includes door types, ironmongery, wall finishes, floor finishes, tiling, sanitary ware, lights and appliances.
- 11.3 However, there are other aspects of a new home which attract a purchaser, and these relate to space, amenity, and good design. The items identified on the adjacent table therefore relate to the requirements of the structure and design of the sale or shared ownership home.
- 11.4 Bathrooms
  - 11.4.1 Baths should be acrylic with matching acrylic bath panels
  - 11.4.2 Lever taps should be provided over bath and sink.
  - 11.4.3 Rail for shower curtain should be provided but no shower curtain.
  - 11.4.4 Shaver point and light should be provided over sink
- 11.5 Kitchens
  - 11.5.1 Mixer tap should be provided over kitchen sink.
- 11.6 Decoration
  - 11.6.1 All internal paint work including doors, skirting boards and window cills should be painted white. (Albyn only)
- 11.7 Gardens
  - 11.7.1 Gardens should be provided as for the rented units but with a standard domestic style whirly gig rather than a Y pole dying line.
- 11.8 Third party guarantees
  - 11.8.1 Either NHBC or Premier Plus guarantees are required. (This should be non-social).

#### **12 Mid-market rent homes / NHT**

- 12.1 Intermediate renting (MMR) is a form of affordable housing. It allows tenants to pay rent levels below the normal market rent level in their area, although rents are higher than what a tenant would normally expect to pay in social housing.
- 12.2 As well as the NHT initiative with Councils and developers, which will offer tenants homes for intermediate rent for a five to 10 year period, some housing associations are also offering intermediate rent homes over the longer term to individuals or families on moderate incomes.
- 12.3 There are only a fairly small number of homes provided for intermediate rent at the moment, but that number is expected to increase over the next few years.
- 12.4 The AHP's have a detailed specification for preferred items. This includes door types, ironmongery, wall finishes, floor finishes, tiling, sanitary ware, lights and appliances.

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### **13 Mid-Market Rent**

#### 13.1 Bathrooms

13.1.1 Lever taps should be provided over bath and sink.

13.1.2 Rail for shower curtain should be provided

13.1.3 Simple fitted mirror to be installed above sink with shaver point and light

13.1.4 Toilet roll holders and towel rail required.

#### 13.2 Soft furnishings

13.2.1 Carpets and floor coverings to be fitted throughout

13.2.2 Carpet: Tuflex Twist Felt back carpet in Sable or equal and approved.

13.2.3 Underlay: Cloud 9 8mm underlay or equal and approved.

13.2.4 Sharon Leon Collection vinyl to kitchen and bathroom.

13.2.5 Vertical Louvre blinds to be supplied and be fitted to all windows. Cream, fire retardant, hard wearing, wipe clean.

#### 13.3 Garden

13.3.1 Garden to be turfed front and rear with patio area to the rear.

13.3.2 Neither whirly gig nor drying poles are required.

#### 13.4 Third party guarantees

13.4.1 Either NHBC or Premier Plus guarantees maybe required. (This should be non-social).

### **14 NHT**

#### 14.1 Bathrooms

14.1.1 Baths should be acrylic with matching acrylic bath panels

14.1.2 Lever taps should be provided over bath and sink.

14.1.3 Rail for shower curtain should be provided

14.1.4 Simple fitted mirror to be installed above sink with shaver point and light

14.1.5 Toilet roll holders and towel rail required.

#### 14.2 Soft furnishings

14.2.1 Carpets and floor coverings to be fitted throughout

14.2.2 Carpet: Tuflex Twist Felt back carpet in Sable or equal and approved.

14.2.3 Underlay: Cloud 9 8mm underlay or equal and approved.

14.2.4 Sharon Leon Collection vinyl to kitchen and bathroom.

14.2.5 Vertical Louvre blinds to be supplied and be fitted to all windows. Cream, fire retardant, hard wearing, wipe clean.

#### 14.3 White goods

14.3.1 The following 'A' rated white goods are to be provided:

- Electric oven and hob,
- fridge freezer and
- combined washing machine / Tumble drier

#### 14.4 Garden

14.4.1 Garden to be turfed front and rear with patio area to the rear.

14.4.2 Neither whirly gig nor drying poles are required.

#### 14.5 Other

14.5.1 Fire blanket to be installed in suitable location within kitchen along with simple guidelines for use.

#### 14.6 Third party guarantees

14.6.1 Either NHBC or Premier Plus guarantees are required.