

The Glasgow Standard

A Design Schedule for Affordable Housing in
Glasgow

Interim Standard
September 2017

Introduction

Following a development conference in May 2017, Glasgow City Council circulated a draft design schedule for affordable housing for consultation during June and July 2017. Over 20 written responses were received from Housing Associations, Architects and Developers commenting on the proposed standard and these have been used to develop this interim standard.

The comments received were broadly supportive of what we are trying to achieve in terms of high quality in new build housing and indeed some comments stated that we were not going far enough with some of our proposals, however, we were very much aware that this was a first draft and that further work would be required before a final document could be implemented.

From the consultation responses, there were common themes where there was concern or where further clarity was required. These included:-

- The implementation of the “Gold” sustainability standard in April 2018
- Clarity around wheelchair adaptable and full wheelchair standard.
- Space Standards
- The pre tender appraisal process

Other issues were raised seeking clarity over specific points and we hope that we have addressed at least some of these within this interim document however if you still have any queries, please do not hesitate to contact us to discuss.

With regard to the main concerns:-

- we have removed the “Gold” standard from this interim standard although all developments will have to meet the “Silver Standard” We want to work with you further to review the “Gold” standard and evaluate what the impact of introducing this standard would be or whether together we can create our own standard.
- We have tried to provide some clarity around wheelchair accessible, adaptable and full wheelchair standard and have provided some information in this document however we want to work with you more to further develop what this looks like for

the final standard. We also want to consult with user groups in relation to accessible and adaptable design to make sure that what we are providing is what is required for a user perspective. For example there may be some aspects of design for dementia that could be included with little or no cost and is not brought out fully within the Housing for Varying Needs Guidance.

- We have tried to provide some clarity around why certain space standards are being used but we have also set the minimum size of a double bedroom at 11.5sqm instead of 12.5 sqm to take into account some of your cost concerns. It is still our ambition to increase the sizes but we want to do this in partnership with you and in an affordable way.
- We have tried to provide some clarity around what we mean by pre tender appraisal and this should not be an onerous process but rather one that speeds up the approval process rather than slowing it down.

The Interim Glasgow Standard will be issued to all housing associations from **1st September 2017** (following Council approval). If a scheme agreement has not yet been signed or if a signed scheme agreement is **older than January 2016** then the interim standard will apply. For scheme agreements signed and agreed **within the last 18 months**, these projects must achieve Housing for Varying Needs, Secure by Design and Technical Standards Section 7 Silver Level Aspects 1- 8 inclusive.

And finally, we would just like to thank everyone who took part in our Development Event in May 2017 and took the time to respond to our consultation document. We value the feedback that you give us and hopefully you will see from this interim document that we have listened to your concerns.

Patrick Flynn

Head of Housing and Regeneration Services

Contents

Background

Policy Context

- The Principles
- The Affordable Housing Supply Programme

The Glasgow Standard

- Layouts and Adaptability
- Design Quality
- Drawings
- Schedule of Housing Mix
- Defined Floor Areas
- Gross Internal Floor Area (GIFA)
 - Space Standards
 - Living Areas
 - Bedrooms
 - General Storage
 - Kitchen and Kitchen Storage Requirements
 - Bathrooms
 - Accessible toilets and Future shower provisions
 - Study and work
 - Circulation in Wheelchair Adaptable Dwellings
- Durability of Buildings
- Responsibly Sourced Materials
- Future proofing internally (power and communication)
- Access to Dwelling and Car Parking Provisions

Secure by Design

Sustainability

Wheelchair Adaptable

- Wheelchair Adaptable Design Criteria

Conversions/ Refurbishment

Housing for Varying Needs Part 2: Houses with Integral Support

PSR requirements

Future Proofing Internet and Broadband Access

Considerate Contractors Scheme

Appendix 1: Notional Furniture

Appendix 2: Document Checklist

Appendix 3: Process Chart

Background

This document is part of a suite of documents relating to Glasgow's Housing Strategy which is a 5 year plan for housing in Glasgow. The strategy sets out Glasgow City Council's housing supply target of delivering 15,000 new supply properties during the plan period, 7,500 of which are for affordable housing. Glasgow City Council has set out its investment priorities over the next 5 years (2017-2022) in its [Strategic Housing Investment Plan](#). This is an ambitious target for new housing but one which we feel we can achieve with our housing association (RSL) partners in the city. The 7,500 new build target will contribute to the Scottish Government's [More Homes Scotland](#) target of delivering 50,000 affordable new homes across Scotland. The approach is underpinned by the Scottish Government's 5 year [Joint Housing Policy Delivery Plan](#) which identifies priority actions to achieve the vision of all people in Scotland living in high quality, sustainable homes that they can afford and which will meet their needs.

Glasgow RSLs already have an excellent track record of delivering attractive, high quality, sustainable homes in the city. The purpose of this document is bring together all of the good practice in the city and to set out a **minimum** standard for all new build housing in Glasgow funded through the Affordable Housing Supply Programme. This new minimum standard aims to set the bar high for housing association development in the city which will not only give associations confidence and clarity about the standards expected but will also help to speed up the approval process meaning less delays.

This document is an interim standard to provide some clarity around the information and standards expected at tender approval with the final standard being finalised later in the year. We want to take the time to get it right and produce a standard that everyone has signed up to and demonstrates that Glasgow embraces best practice, encourages new technologies, is an exemplar of good design and most importantly delivers for our tenants. We have called this standard:-

The “Glasgow Standard”

Policy Context

In setting Glasgow's Housing Standard we have taken account of national standards such as [Housing for Varying Needs](#), [Secure by Design](#), [Creating Places](#), [Designing Streets](#) and the Scottish Government's [Age, Home and Community](#), a strategy for housing Scotland's older people. This document aligns with and complements these national priorities.

We have also taken account of local policy and standards such as the [City Development Plan](#), [Supplementary Guidance](#), GCC's Design Guide for New Residential Areas and taken the decision that all new affordable housing developments from 2017 must comply with Building Standards Technical Handbook, Domestic 2017 [Section 7- Sustainability \(Aspect Silver Level 1-8 inclusive.\)](#) We believe that the 2017 Technical Standards represent a natural extension of the good practice in design and construction adopted in the housing sector over recent years. While it will impose a new and demanding set of requirements on developers of affordable housing, we are confident that it will have a positive effect on the quality of new housing in Glasgow.

The Principle

This design schedule provides Glasgow City Council with an opportunity to develop an exceptional standard for affordable housing design which will benefit households and communities in Glasgow. In setting the standards in this document, Glasgow City Council aspires to meet the following principles:-

High Quality, Affordable Homes – Providing high quality, affordable homes is key to improving the general wellbeing of Glasgow's citizens, not only in terms of the physical quality of housing but in improving the overall quality of life for existing and future residents and in tackling the root causes of poverty, poor health and inequality.

Safe and Secure – We want people to feel safe and secure in their own homes and we want to discourage crime in the community.

Sustainable We want to contribute to Glasgow's [Carbon Management Plan](#) and [Affordable Warmth Strategy](#) by developing homes that have high sustainability standards and are developed around the principles of sustainability and the [Considerate Constructors Scheme](#). This will not only help the environment but it will help to protect tenants against increasing fuel costs and fuel poverty.

Meeting changing family needs – We want to build homes that are flexible, with the ability to adapt to the changing needs of existing and future tenants.

Wheelchair adaptable – We want housing to be built to good accessibility standards to meet both current needs and any needs that arise in the future. A citywide target of 10% of new housing is designed to be wheelchair easily adaptable (easily adaptable means without the need to carry out substantial structural alterations to the dwelling). All new build developments over 20 units must ensure that 10% of the units are to wheelchair adaptable standard. This has been set to ensure the increase of accessible housing across the city. This requirement must be incorporated into the design from day one, as it is very difficult to incorporate it at a later stage.

Storage Space – We want homes to have adequate storage space in order that homes don't feel cramped and cluttered. Residents need space for everyday items such as bicycles, prams etc.

The Affordable Housing Supply Programme

In Glasgow, the Affordable Housing Supply Programme is managed by Glasgow City Council as part of the Transfer of the Management of Development Funding arrangement which was agreed at stock transfer in 2003. The process surrounding AHSP grant in Glasgow is outlined below:-

HNDA

Housing Needs and Demand Assessments (HNDAs) are carried out by Glasgow City Council as part of the local housing strategy process. In some circumstances small area based demand studies may also be carried out. HNDAs provide the evidence base for the Housing Supply Targets which are defined in Glasgow's Housing Strategy and Development Plan.

For 2017-2022 the housing supply targets are:	<u>2017-2022</u>
Private Sector including Private Rented Sector (PRS)	7,500 units
Social Rented (SR) and Below Market Rent (BMR)	7,500 units
Total	15,000 units

Glasgow's Housing Strategy

Glasgow's Housing Strategy covers a 5 year period (2017-2022) and is reviewed and updated on a regular basis. The strategy provides the strategic direction to tackle housing needs and demand and informs future investment in housing and related services across Glasgow.

Strategic Housing Investment Plan (SHIP)

The SHIP document is the delivery plan for Glasgow's Housing Strategy. The SHIP is based on resource planning assumptions and covers a 5 year period. The SHIP tables detail proposed developments in the city over the 5 years. SHIP documents are reviewed annually and are submitted to the Scottish Government.

Strategy and Development Funding Plan

Strategy and Development Funding Plans will be requested from all developing associations during the summer. These should include any proposed developments that the association would like to complete within a 5 year period.

Project Proposal/Scheme Agreement

Following discussions with GCC's Development Funding Team, associations should submit a project proposal providing details of the site, number, type and tenure of properties, anticipated cost and timescales. The association will then be issued with a scheme agreement, setting out an "in principle agreement" to the project.

Feasibility Study/Acquisition

Where there is a requirement for a feasibility study or acquisition of a site, an application should be submitted to development funding and written agreement received before proceeding to commission studies or acquire sites.

Pre tender Technical Appraisal

This has been introduced by Glasgow City Council in order to minimise any delay at tender stage as previously tenders have been submitted with drawings that were not compliant with grant requirements. Drawings will now be assessed at pre tender stage to ensure compliance with this standard. (Please note that this is not the same as the previous cost plan requirements under the old HAG regime).

Associations should submit their proposed layouts and drawings for appraisal and approval prior to presenting their tender submission to DRS. Development costs and works costs do not need to be included at this stage, only layouts and drawings. DRS technical and development staff are happy to meet with design teams to discuss design/technical requirements at any time during the development process.

Tender Appraisal Application

Associations should submit a tender application including details of the project, housing mix, Scottish Social Housing Tender Price Index (SSHTPI), Tender Return, QS report on tenders etc. Technical staff will carry out an appraisal of the tender costs and an assessment will be made to determine if the costs fall within acceptable grant levels. Development funding will then issue a grant offer letter with any conditions attached. Please note that if an association submits an incomplete tender return, this will delay the evaluation of the tender beyond these timescales.

Housing and Regeneration Services will endeavour to evaluate the tender application (complete submission) within the following timescales:

- Projects over benchmark - 6 weeks
- Projects that are under or achieve benchmark – 2 weeks

The design team should fully complete the HAG Tender Return Table HIGH 2009/10 Scottish Social Housing Tender Price Index (SSHTPI) from the Scottish Government website. This has been updated as of 30th June 2017. DRS will assess the current housing tender price index on a project by project basis. The Building Cost Information Service (BCIS) housing tender price index is used to ensure that projects over benchmark have been inflated to the current rate. This changes on a month by month basis due to the tender price index set by the BCIS.

Site Start

Associations should then proceed to site start, dependent on receipt of necessary planning, building and other consents such as Section 56 or roads construction consent. They **must** inform Housing and Regeneration Services when they start on site. Claims can be made as per the agreed claim schedule and proof of work completed.

Practical Completion

Associations must inform Development Funding when the project is complete and submit a completion form as soon as possible after this date and not more than 1 month after practical completion.

Post Completion Review

3 projects per annum (one per Geographic Team) will be subject to a post completion review. This will involve a review of all development files, an inspection of the development and a survey of tenants.

HARP

From autumn 2017, all information will be required to be submitted on the Scottish Government's HARP system.

The Glasgow Standard

Over the last 90 years, a number of attempts have been made to define minimum space standards in the public sector. Previous design standards include Homes for Today and Tomorrow by the Parker Morris Committee and The New Scottish Handbook know as Bulletin 1- Metric Space Standards. The concern at that time was to ensure that every home provided a basic level of functionality and amenity – space, heating, and an indoor bathroom. Today the concern has moved to the quality of provision, ensuring that space can be flexibly used to respond to varying needs and that buildings are energy efficient and affordable.

This document outlines the standards and specifications that the Council requires Housing Associations and/or Private Developers to achieve in their new build developments in Glasgow, funded through the Affordable Housing Supply Programme. It does not apply to private sector properties not funded through the affordable housing supply programme.

It should be used as a guide for the design of all developments. We would encourage all associations to engage in an early dialogue with Housing and Regeneration Services about their developments and in particular where the expected standards are difficult to achieve.

All units funded by the Affordable Housing Supply Programme in Glasgow must be designed to provide innovation and flexibility in internal construction and layout so that space can be altered if required in the future (with reference in particular to [Housing for Varying Needs](#)). The Glasgow Standard outlines the minimum design criteria for all units together with the basic levels of Housing for Varying Needs Part 1 and Part 2 (where relevant). We support and encourage associations to build in excess of this level. Where different requirements from different policies overlap the most onerous requirement must be achieved.

Layouts and Adaptability

Layouts should show how the minimum space requirements for furniture and circulation can be met, taking into account the number of occupants and the range of activities each room may accommodate.

Designers should provide layout drawings with dimensions and room areas clearly illustrated in order to show how the design meets the standards set out in this document. Layouts should illustrate the position of furniture, activity zones and turning circles that are scheduled in Appendix 1. Layouts drawings should demonstrate how the design and construction of the dwelling will allow for the adaptability of future needs, for example future showers and their associated activity spaces.

If rooms of smaller dimensions are proposed, the onus will be on the designer to demonstrate that the dwelling accommodates all the furniture, access and activity space requirements for the intended number of occupants. Flexibility, adaptability and costs are key considerations that must be incorporated into the design of the layout of homes.

Flexibility is the potential to use the rooms of a home in a variety of ways; for example, the ability to rearrange furniture in a room, make space for guests, convert a double bedroom into a twin bedroom, or create suitable spaces for work and study. Flexibility is determined by space and room layout, and also by the number of rooms in a home. Homes where the living areas and circulation spaces are entirely open plan will not necessarily create the greatest degree of flexibility when the home is in use.

Adaptability is the potential to amend the layout / spaces of a home by modifying the fabric of the building. Designers should aim to provide built-in adaptability by designing the structure to allow new openings to be made in internal walls with relative ease. Layouts of dwellings should be accessible and offer both adaptability and flexibility of the existing layout which gives a more sustainable solution that will simplify modifications to the design and layout of dwellings, helping to reduce future cost and disruption. This should enable people to remain in their home as their circumstances and needs change.

Design Quality

Glasgow is, and always has been, a creative city and is renowned for its rich built and natural heritage. It is our responsibility as a sector to not simply preserve this asset, but also to create Glasgow's future assets. Our vision is a city where quality places support our communities, respect our environment, drive our economy and reflect our identity as a modern, forward-facing city.

Good design is a process that uses creativity and innovation to deliver the best outcomes and can guarantee that we get it right first time, avoiding scenarios where we are left with problem buildings or places which fail our communities. The [City Development Plan](#) supports this by putting place making and people at the heart of the design process and GCC's residential design guide should be referred to when designing new projects.

Good design is not merely about how a building looks, it is an innovative and creative process that delivers value. Design provides value by delivering buildings and places that enhance the quality of lives. This can be:

- physical value - enhances a setting;
- functional value - meets and adapts to the long-term needs of all users;
- viability - provides good value for money;
- social value - develops a positive sense of identity and community; and
- environmental value - efficient and responsible use of our resources.

At the same time, new developments should embrace contemporary designs, promote innovation and new technologies. Passivhaus, triple glazing, district heating, zero carbon, zero waste and a fabric first approach are encouraged.

Housing and Regeneration Services supports housing associations and designers to help achieve this vision and make Glasgow an inspiring place to live.

Drawings

Housing Associations must submit a series of annotated house plans, elevations and sections together with a brief performance specification to Housing and Regeneration Services (H&RS) for a technical appraisal at **pre tender** stage. A checklist of documents is included in appendix 2.

Associations should submit their proposed layouts and drawings for appraisal and approval prior to presenting their tender submission to DRS. Development costs and works costs do not need to be included at this stage, only layouts and drawings. DRS technical and development staff are happy to meet with design teams to discuss design/technical requirements at any time during the development process. Drawings and associated documents should be submitted electronically through HARP.

The plans must show:

- Net Floor Areas
- Gross Internal Floor Area (GIFA)
- room areas and dimensions
- furniture layouts and associated activity space
- General storage space (m²)
- Kitchen storage space (m³)
- wheelchair turning circles
- Sustainability features (home office position etc.)

Architect Drawings

The Architects drawings should include

- floor plans (A3) at a scale of 1:50
- elevations and sections at a scale of 1:100
- site plan which indicates the location of the wheelchair parking bays

Schedule of Housing Mix

Associations should include a housing mix schedule with their technical appraisal submission at pre tender stage. The housing mix schedule should include:

- Number of units for each house/ flat type by tenure
- Number of bedrooms, apartments and bed spaces per dwelling
- Number of fitted wheelchair/ future wheelchair adaptable units
- Minimum aggregate of living areas (m2)
- Bedroom areas (m2)
- General Storage (m2)
- Net Floor Areas for each unit type
- Gross Internal Floor Area of communal areas
- Gross Internal Floor Area for the whole development

Defined Floor Areas

Net Floor areas

Glasgow Standard refers to Net floor areas which relate to the useable area of the rooms on plan within a building measured to the finished internal face of the walls (plasterboard) as described below:

	Including		Excluding
1.1	Living rooms, dining rooms, bedrooms, kitchens, and the like	1.7	Corridors and other circulation areas when used in common with other occupiers (Stairwells, lift-wells, landings) and balconies
1.2	Areas occupied by fitted cupboards within those rooms	1.8	Internal walls whether structural or not, columns, piers, chimney breasts, vertical ducts, mutual walls and the like
1.3	Areas occupied by skirting	1.9	Areas with a headroom less than 1.5m
1.4	Halls incl. staircases	1.10	Fuel stores, lift rooms, tank rooms, plant rooms etc.
1.5	General storage (incl. meter cupboards within the property)	1.11	Areas under the control of service or other external authorities
1.6	Bathrooms, showers, cloakrooms, and ensembles		

Gross Internal Floor Area (GIFA)

Glasgow Standard relates to the Gross Internal Floor Area, which is the area of a building measured to the internal face of the perimeter walls at each floor level as described below:

	Including		Excluding
2.1	Areas occupied by internal walls, partitions and mutual walls.	2.13	Perimeter wall thicknesses and external projections
2.2	Columns, piers, chimney breasts, stairwells, lift-wells, other internal projections, vertical ducts, and the like	2.14	External open-sided balconies, covered ways and fire escapes
2.3	Atria and entrance halls, with clear height above, measured at base level only	2.15	Canopies
2.4	Internal open-sided balconies, walkways, and the like	2.16	Voids over or under structural, raked or stepped floors
2.5	Structural, raked or stepped floors are to be treated as a level floor measured horizontally	2.17	Greenhouses, garden stores, fuel stores, and the like in residential property
2.6	Horizontal floors, with permanent access, below structural, raked or stepped floors		
2.7	Corridors of a permanent essential nature (e.g. fire corridors, smoke lobbies)		
2.8	Mezzanine floor areas with permanent access		
2.9	Lift rooms, plant rooms, fuel stores, tank rooms which are housed in a covered structure of a permanent nature, whether or not above the main roof level		
2.10	Voids over stairwells and lift shafts on upper floors		
2.11	Areas with a headroom of less than 1.5m		
2.12	Integrated garages		

Internal face means the brick/blockwork or steel/timber frame not the surface of internal linings.

Space Standards

The aim of this standard is to re-introduce and promote the minimum standard for the size of affordable housing in Glasgow. Housing and Regeneration Services have set minimum internal space standards (Net Floor Area) for dwellings by defining overall space standards for a range of occupancy levels and breaking these down into suggested standards for individual rooms. The following standards will apply to all new residential developments and conversions. Any decision to include en-suite facilities, utility rooms etc. will require additional floor areas to be provided above the minimum space requirements. Dwellings that exceed these minimum space standards are to be encouraged.

Table 1 Number of bedrooms/people	Minimum Net Floor Area		
	One-storey dwellings (m ²)	Two-storey dwellings (m ²)	Three-storey dwellings (m ²)
1 bedroom (1 person)	33.0		
1 bedroom (2 person)	48.5		
3 person	61.0	68.0	
4 person	73.5	79.0	
5 person	82.5	89.5	98.5
6 person	90.0	97.0	102.5
7 person	111.5	114.5	118.5
8 person	120.5	123.5	127.5
9 person	129.0	132.0	136.0
	Minimum Net Floor Areas for Wheelchair Adaptable		
1 bedroom (1 person)	43.0		
1 bedroom (2 person)	58.5		
3 person	75.0	82.0	
4 person	87.5	93.0	
5 person	100.5	107.5	116.5
6 person	108.0	115.0	120.5
7 person	122.5	136.5	140.5
8 person	133.0	151.0	155.0
9 person	147.5	161.5	165.5
Notes:			
1. The above areas are based on Net Floor Areas definition as detailed in this document.			
2. The figures above are based on Housing Investment Guidance Note HIGN 2008 /06.			

Housing Association's and their design team are to design suitable house / flats types and layouts for wheelchair adaptable units that comply with the standards included within this document.

All wheelchair adaptable dwellings should be able to foresee the changing needs of tenants. If a home is more than one storey, the layout of the dwelling should be capable of providing space for a bedroom at entrance level or for the provision for a through floor lift and allowance for a reasonable route for a potential tracking hoist from a main bedroom to the bathroom.

External Staircases to Cottage Flats

External staircases to cottage flats are no longer permissible under Scottish Government's statutory Technical Standards (Domestic).

Living Areas

The combined area of the living room, dining room and kitchen is an important measure of the quality of space within a home. The minimum combined living areas in this guide allow the designer the freedom to organise and combine these spaces in different ways while safeguarding the overall living space within a dwelling.

The design of dwellings over more than one storey should provide space for the provision of a stair lift, and a suitably identified space for a through floor lift from the ground to the first floor if required for wheelchair adaptable units.

To provide usable living spaces the rooms must be of a size and shape that allows space for circulation, activity spaces, and notional furniture and complies with the following requirements:

- The minimum combined internal floor area of the living, dining and kitchen area meets the minimum aggregate area described in Table 2.
- The path must be a minimum of 600mm wide for necessary circulation between furniture and access to windows and radiators. The path can overlap activity spaces.

Living areas for Wheelchair adaptable units:

- As above plus:
- All layouts should include an unobstructed maneuvering circular space of at least 1500mm diameter or an ellipse of 1400mm by 1800mm.
- The path must be a minimum of 800mm wide for necessary circulation between furniture and access to windows and radiators. The path can overlap activity spaces.

Note:

1. *all drawings must demonstrate that the provisions can be achieved by providing dimensioned living area layouts, notional furniture, access and activity space requirements relating to the confirmed level of occupancy (number of bed spaces).*
2. *Activity spaces are clear of any structure, fitting, heating appliance or notional furniture, but spaces for different activities can overlap each other. Activity space requirements must be adhered to.*
3. *Examples of typical living area layouts and activity spaces will be provided in the final standard.*

Table 2: Minimum Aggregate of Living Area (lounge/kitchen & dining area)	No. of bed spaces per dwelling for general units					
	2	3	4	5	6	6+
Minimum area required for general units (m ²)	23	25	27	29	31	31 (+ 2 m ² per additional person)
Minimum area required for wheelchair adaptable (m ²)	24	26	28	30	32	32 (+2 m ² per additional person)

Note:

1. *Figures for general units are based on the Interim London Housing Design Guide 2010.*
2. *Figures for wheelchair adaptable units have been increased to accommodate additional activity spaces and circulation.*

Bedrooms

It is important that affordable housing provides decent sized bedrooms to enable a wide range of people to access and use them. Bedrooms should comply with the following:

- All double bedrooms should be able to accommodate a double bed or two single beds to ensure that properties can be let to a range of household types.
- At least one bedroom in all dwellings must allow for wheelchair access 'path' from the door to the bed and clear space beside the bed at least 800mm wide.
- Bedroom(s) should allow for notional furniture and a 600mm wide circulation path between furniture and access to windows and radiators.

Bedrooms for Wheelchair adaptable units:

- As above plus:
- All layouts should include an unobstructed maneuvering circular space of at least 1500mm diameter or an ellipse of 1400mm by 1800mm.
- One bedroom should be next to an accessible bathroom suitable for a wheelchair user with the option of a knock out panel.
- The ceiling structure is strong enough to allow for the fitting of an overhead hoist capable of carrying an appropriate load.
- Every bedroom should provide a minimum clear access route, 800mm wide from the doorway to the window, between furniture and for access to windows and radiators.
- In a wheelchair adaptable unit, a wheelchair user should be able to access a bed on three sides. Other beds within the property do not require access to 3 sides.
- The wheelchair bedroom should provide a minimum 1200mm wide clear access on one side of the bed, 800mm on the other side and at the foot of the bed.
- Clear access / activity space of 1200mm should be provided in front of all other notional furniture. All other bedrooms must be accessible in a wheelchair and allow access to the bed.

Note:

1. *All drawings must demonstrate that the provisions can be achieved by providing dimensioned layouts, room areas, notional furniture, access and activity space requirements relating to the confirmed level of occupancy.*
2. *Activity spaces are clear of any structure, fitting, heating appliance or notional furniture, but spaces for different activities can overlap each other. Activity space requirements must be adhered to.*

3. *Single beds are not allowed to be placed together or in front of windows.*
4. *No box rooms allowed (rooms under 7m²)*
5. *Examples of typical bedroom layouts and activity spaces will be provided in the final standard.*

Minimum floor area for a single bedroom

The minimum floor area for a single bedroom is **7m²**

The minimum floor area for a single bedroom is **10m²** for wheelchair adaptable

Minimum floor area for a double bedroom

The minimum floor area for a double/twin bedroom is **11.5m²**

The minimum floor area for a double/twin bedroom is **14.5m²** for wheelchair adaptable

Built in wardrobes

If the design incorporates built in wardrobes within the bedrooms, the floor space occupied by built-in wardrobes will count towards the floor area of the bedroom.

Accessible built-in shelves

Where built-in shelves are provided in conjunction with built-in hanging space, this may reduce some, but not all, of the drawer unit requirement **by agreement**.

The built-in shelves should be in addition to the 600mm hanging space required for each person in the bedroom. If a bedroom is designed with built-in clothes hanging space and shelves for clothes the following requirements are required:

- Built in shelves to the side of the hanging space will be acceptable for the reduction in drawer units.
- The cubic capacity for the built in shelves must be equal to the reduction in cubic capacity for the drawer unit.
- The top shelf of the fitted wardrobes will not account for the reduction of drawer units.
- Minimum clear depth of 600mm.
- 1000mm clear access area if doors open outwards
- 600mm clear access area for sliding doors

Accessible built-in shelves for Wheelchair adaptable units:

- As above (with the exception of clear access space).
- Easily accessible.
- Minimum clear depth of 600mm.
- A hanging rail set at a height of 1400mm – 1500mm from the floor.
- 1200mm clear access area.
- Built-in shelves at a height between 400 and 1350mm above floor level for shelving for clothes to the side of the hanging space.

Note:

Examples of typical accessible built in shelve layouts and activity spaces will be provided in the final standard.

General Storage

Minimum aggregate general storage capacity

All residents require storage space to accommodate the variety of goods associated with day-to-day living. Storage is an important factor in ensuring that properties are future proof and that people have enough space to enjoy their homes. Without adequate storage space, people's belongings will take space away from rooms and limit enjoyment of them.

Appropriate levels of built-in storage space should be incorporated into every dwelling. The Council will seek the following minimum storage requirements in all new residential developments and conversions. These requirements are included within the net floor areas set out in the space standards in table 3 below. They are in addition to built-in kitchen units and wardrobes and should *ideally* comprise floor to ceiling storage.

Storage should be provided through dedicated, built-in storage cupboards such as airing, utility and cloak cupboards, cupboards under the stairs or built-in wardrobes. Storage space should reflect the range of households to be included within a development.

Table 3: Minimum aggregate general storage capacity	No. of bed spaces per dwelling						
	2	3	4	5	6	7	7+ *
Dwellings	1.5m ²	2m ²	2.5m ²	3m ²	3.5m ²	4m ²	(+ 0.5 m ² per additional person)

Notes:

1. Storage cupboards should be provided in addition to the notional furniture listed in Appendix 1.
2. Storage is built-in and free of hot water cylinders and other obstructions.
3. Storage has a minimum internal height of 1.5m.
4. In addition to general storage (above), wheelchair adaptable units require additional storage space for wheelchairs and special equipment (minimum size of 1.2m by 1.2m).
5. In two or three storey dwellings there should be general storage provided at each level of the dwelling.
6. Figures are based on *The New Scottish Housing Handbook Bulletin 1, Edinburgh City Council Design Guide, Department for Communities and Local Government Technical Housing Standards – nationally described space standards and the Interim London Housing Design Guide 2010.*

Storage in Larger Dwellings

Larger dwellings, particularly those suitable for families with children, should include an increased area of useable storage space capable of containing bulky items such as prams, pushchairs, bicycles etc. (minimum size of 1200x1200mm).

Kitchen & Kitchen Storage Requirements

Adequate storage is essential to the convenience of a kitchen. The Technical Standards Domestic Section 3, require all dwellings to have at least 1m³ of storage in the kitchen but this is a minimal amount even for small households and inadequate in family housing.

The Council will seek the following minimum kitchen storage requirements for all new residential developments and conversions. These requirements are included within Table 4.

Table 4: Minimum aggregate kitchen storage capacity	No. of bed spaces per dwelling						
	2	3	4	5	6	7	7+
Flat/ House	1.5 m ³	1.6 m ³	1.7 m ³	1.8 m ³	1.9 m ³	2.0 m ³	2.0 m ³ + 0.1 m ³ per additional person

Notes:

1. Kitchen storage capacity *excludes* Aspect 8 (material use and waste).
2. Kitchen storage is built-in and free of boilers, hot water cylinders and other obstructions.
3. Kitchen storage is excluding storage for cleaning equipment (vacuum cleaner, mop, ironing board etc.).
4. Figures based on the requirements within Housing for Varying Needs Part 1.
5. Kitchen storage capacity excludes waste, washing machines, ovens, dishwashers and tumble driers.

- All layouts should include an unobstructed maneuvering circular space of at least 1500mm diameter or an ellipse of 1400mm by 1800mm.
- There must be a clear space of at least 1200mm in front of all fittings and appliances.
- Floor spaces must be allocated for cooker, full height fridge-freezer, washing machine, dishwasher or tumbler drier with vent (minimum 625mm clear width).
- The space for a cooker or hob must never be in front of a window or where window curtains could be over the hob.
- Min. 300mm long worktop provided both sides of the cooker.
- In larger flats and houses, a separate utility room for washing and drying may be more desirable.

Kitchen for Wheelchair adaptable units:

- As above plus:
- In all situations the kitchen must be of a size that allows a clear space of 1500mm in front of fittings and appliances to allow a wheelchair user space to maneuver.

Bathrooms

All bathrooms, accessible toilets and ensuites should offer both adaptability and flexibility of layouts. This gives a more sustainable solution that will simplify modifications to the design and layout of dwellings, helping to reduce cost and disruption and better enabling people to remain in their home as their circumstances change.

The layout and dimensions of all bathrooms must accommodate different needs and allow for:

- All layouts / designs incorporate ease of access to the bath, WC and wash hand basin.
- It must be of a design and size that allows for different and changing needs and should allow for flexibility in its use and layout with minimum adaptation works and costs.
- A bath or a shower so that the occupant can have whichever best suits their needs, the layout must allow both to be fitted but not at the same time.
- Drawings must indicate an area of 100mm x 1000mm for the installation of a future level access shower (which may overlap with a bath).
- All bathrooms must be designed for adaptation to meet the needs of occupants and future occupants.
- A minimum of 2100 between walls to allow for a space of 400mm at the end of the bath this will allow for a shelf or provides space for the tenant's fixtures. The 2100mm must be clear of soil pipes and boxing in to conceal pipes or any other fittings.
- The minimum size for the bath must be 700(w) x 1700(l) mm with an activity space of 1200(l) x 800(w) mm clear floor space at some point along the bath, if the activity space is measured to a wall then the activity space must increase from 700mm to 900mm in width.
- WC's in bathrooms must be positioned with their centre line 450mm from a wall with a minimum activity space of 1100mm x 800mm in front of WC.
- WHB's in bathrooms should have a minimum dimension of 550 x 425mm and the centre line should be at least 500mm from any adjacent wall with a minimum activity space 800(l) x 700(w) mm below basin rim and 1000mm above basin rim (or 900(w) mm where measured to a wall) .
- an unobstructed height above each activity space and above any bath or shower of at least 1.8m above floor level.
- If showers are provided in lieu of the bath due to the tenants needs then the minimum activity space in front of the shower tray would be 1000(l) x 800(w) mm, the activity

space is measured to the wall then the width would increase to 900mm.

- Consideration should be given to flats designed for an occupancy of 5 persons or more should provide a minimum of one bathroom and one additional WC. .
- It should be possible to replace the bath with an accessible shower without adversely affecting access to other sanitary facilities.
- Windows should be easily accessible and not be located above bath or shower.

Bathroom for Wheelchair adaptable units

- As above plus:
- The layout should include an unobstructed maneuvering circular space of at least 1500mm diameter or an ellipse of 1400mm by 1800mm.
- Any dwelling with four or more bed spaces must provide access to an additional WC's in separate bathroom or WC/ cloakrooms.
- The ceiling structure is strong enough to allow for the fitting of an overhead hoist capable of carrying an appropriate load.

Note:

- 1. all drawings must demonstrate that the provisions above can be achieved by providing dimensioned bathroom layouts, room areas, access and activity space for each fitting.*
- 2. Activity spaces are clear of any structure, fittings and heating appliance but spaces for different activities can overlap each other. Activity space requirements must be adhered to.*
- 3. Examples of typical bathroom layouts and activity spaces will be provided in the final standard.*

Accessible toilets and future shower provisions

All dwellings should provide wheelchair accessible entrance level WC's, with drainage provision enabling a shower to be fitted in the future.

Accessible sanitary accommodation should incorporate the following:

- a maneuvering space that will allow a person to enter and close the door behind them. This should be at least 1.1m long by 800mm wide, oriented in the direction of entry, and clear of any door swing or other obstruction.

- Provide the appropriate activity space for each sanitary facility as per the Technical Standards. These may overlap with each other and with the maneuvering space noted above. A door may open over an activity space.
- an unobstructed height above each activity space and above any bath or shower of at least 1.8m above floor level.
- A hand rinse basin can be installed within an accessible toilet / shower area only if there is a full size wash hand basin elsewhere within the dwelling.
- Space for future shower can be in an enclosed space of a size that, alone or by incorporation within the accessible toilet, will permit formation of an accessible shower room with a minimum 800 x 800 mm activity space provided in front of the shower entrance.
- If the future shower provision space can offer useful storage space, however the design must ensure that sufficient storage is provided if this space is adapted.

Study and Work

Flexible working patterns, wider access to home computing and developments in internet technology are making it possible for more people to work from home. Occupants of all ages will also require space in the home to study.

Dwelling plans should demonstrate that all homes are provided with adequate space and services to be able to work from home. The dedicated space must comply with Silver Standard Aspect 6.

Workspace for Wheelchair adaptable units:

- As above plus:
- The layout must include an unobstructed maneuvering circular space of at least 1350mm.

Circulation in dwellings

The width of the doorways and hallways should conform to the specifications below:

- Pass doors within individual units must comply with the Technical Standards - Domestic 2017 with the exception of the pass doors to ensuites and cupboards these should have a clear opening width of at least 750mm with a return of at least 300mm beyond the handle edge. Each accessible level or storey within a dwelling should have corridors with an unobstructed width of at least 900mm.

Circulation in wheelchair adaptable dwellings

The width of the doorways and hallways should conform to the specifications below:

- All Entrance doors must have a clear opening width that allows a wheelchair to pass through. They must therefore have a minimum clear width of at least 840mm.
- All entrance doors must open to a circulation area and not a room.
- Entrance door positioned with space of at least 550mm beyond the handle edge for communal areas.
- Entrance door to individual units positioned with a return of at least 300mm beyond the handle edge.
- All Pass doors to individual units must have a clear opening width of at least 800mm with a return of at least 300mm beyond the handle edge.

- The circulation space immediately inside the door must allow for a person in a wheelchair adaptable unit to turn through 180°. It must therefore have a minimum width of 1500mm extending at least 1500mm back from the face of the door.
- There should be storage space for an outdoor wheelchair and space alongside this for transferring to and from an indoor chair. This will require an area 1100 x 1700mm, with adjacent circulation space.
- Passages must be designed to allow a wheelchair user to have access to all parts of the dwelling. Passages should generally be at least 1200mm wide, but a width of 1000mm is adequate for lengths of up to 900mm, provided there is no door opening at a right angle to the direction of the passage.
- In a wheelchair adaptable unit the living room and dining space of a size that allows for notional furniture and 800mm wide path.
- In wheelchair adaptable dwellings the storage and transfer space may be used for another purpose such as general storage provided that the space is additional to the minimum requirements for storage and provided that the dwelling is not used by a wheelchair user. This must be reversible should a wheelchair user be allocated to the property.

Wheelchair Adaptable

The Technical Standards 2017 sets out the minimum requirements for accessibility that all new homes are statutorily obliged to meet. However, it makes only a basic provision for inclusive design, with its focus on ensuring disabled people can visit new homes.

Accessible and adaptable are terms used to refer to housing or features in housing. Each term has different meaning and purposes. The differences are subtle but important. They are frequently used, interchangeable and sometimes misunderstood.

Accessible Design

Accessible generally means that the dwelling meets the minimum mandatory requirements set out in the Technical Handbook. Dwellings that are accessible are intended to be usable in such a way that the level of amenity ensures that the welfare and convenience of all occupants of, and visitors to the building.

Adaptable Design

Adaptable housing is an approach to residential design and construction in which homes can be modified at minimal cost to meet occupants' changing needs over time. By building flexibility into homes from the start, adaptable housing:

- helps people stay in their own homes through illness, injury and aging
- provides more accessibility for people with disabilities
- reduces the cost of future renovations to accommodate people with disabilities

Adaptable housing includes:

- Basic adaptable features such as level entrances, door positions and wider openings, adequate storage, circulation areas, wider halls and corridors, transfer space, bathrooms, kitchens, installation of a stair lift or through floor lift and parking provisions.

Designing wheelchair adaptable housing is not simply a matter of drawing turning circles on plans in the right places. This guide provide designers with the technical information necessary to ensure that 10% of new homes are readily adaptable for wheelchair users and other disabled people can comfortably access and use all parts of their home.

Housing and Regeneration Services are committed to providing 10% of homes (both flats and houses) for wheelchair or readily adaptable standard for each development over 20 units, rounded down.

Wheelchair adaptable units should:-

- Where a tenant has been identified in advance, be to designed to Housing for Varying Needs Part 1 wheelchair standard, and take into account the tenants needs and occupational therapist requirements, whilst be designed flexibly to allow different wheelchair users with different requirements in the future.
- If no specific tenant has been identified, 10% of the development should be designed to a readily adaptable standard.
- Space for wheelchair turning is required in all apartments (1500mm diameter or an ellipse of 1400mm by 1800mm).
- The level of subsidy awarded is linked to the number of bed spaces per dwelling therefore a 4 person flat receives more subsidy than a 3 person. With wheelchair adaptable dwellings, a flat which is adequately sized for 4 person general needs will be deemed suitable for a 3 person household where there is a wheelchair user. To ensure that Associations are not penalised for meeting the wheelchair adaptable quota, such units will be assessed for grant on the basis of their general needs bed space numbers.
- If properties are designed as a 2 / 3 –storey wheelchair adaptable dwelling, they must ensure that the wheelchair user has access to all habitable rooms and w.c facilities.
- Readily adaptable means that the build form of the dwelling should be flexible enough to accommodate a range of needs and circumstances for the tenant if they need it in the future. This does not mean that the property has to be built to wheelchair standard, rather that the property is designed in a way that it can be easily adapted at a later date should the needs of the tenant or future tenant require it.

Wheelchair Adaptable Design Criteria

The table below has been adapted from the Housing for Varying Needs standards for housing design for wheelchair adaptable users. The asterisks indicate where features are required to be designed into the dwelling, or are for future adaptable provision.

REQUIREMENTS FOR HOUSES READILY ADAPTABLE FOR WHEELCHAIR USE				
FEATURE	DESIGN CRITERIA	Reference (Housing for Varying Needs part 1 or Technical Handbook).	Mandatory	Future Provision required
Access to Individual Dwellings	Step-free access from road, pavement and parking space to dwelling entrance	7.3	*	
	Access paths at least 1,200 mm wide	7.3	*	
	All other paths within curtilage 900mm wide with widening to 1,200mm at turns	7.3	*	
	Gates of sufficient width	7.4	*	
	Step-free entrance	7.5	*	
	Ramps	Technical Standards		
	Platform of suitable size of 1500mm x 1500mm	7.5	*	
	Clear space beyond the handle edge of the door of 300mm for inward opening doors	7.5	*	
	Clear space beyond the handle edge of the door of 550mm for outwards opening doors	7.5	*	
	Doorbell/entry system at suitable height	7.11	*	
	External light at entrance	7.11	*	
	Canopy or porch at entrance	7.12	*	
	Covered car space in-curtilage or within 15 metres of entrance and of a minimum size 3600mm x 5700mm long	7.13		*
	Charging point for electric wheelchair (spur point provided)	7.14	*	

REQUIREMENTS FOR HOUSES READILY ADAPTABLE FOR WHEELCHAIR USE				
FEATURE	DESIGN CRITERIA	Reference (Housing for Varying Needs part 1 or Technical Handbook)	Mandatory	Future Provision required
Access to Blocks or Flats	Step-free access from road pavement and parking space to communal entrance	7.3	*	
	Access paths	Technical Handbook	*	
	Step-free entrance	7.6	*	
	Platform of suitable size of 1500mm x 1500mm	7.6	*	
	Platform of suitable size of 1500mm x 1800mm where door opens outwards	7.6	*	
	Clear space of at least 550 mm beyond the handle edge of the door	7.6	*	
	Ramp and/or steps of suitable design	Technical Handbook	*	
	Doorbell/entry phone at suitable height and position	7.11	*	
	External light at entrance	7.11	*	
	Canopy or porch at entrance	7.12	*	
	Car space within 15m of entrance	7.13	*	
	Covered car space in-curtilage or within 15 metres of entrance and of a minimum size 3600mm x 5700mm long	7.13		*
	Communal Access Areas, Stairs and Lifts	All doors with clear opening width at least 840mm	8.2	*
Accessible threshold		Technical Handbook	*	
Area inside the door and circulation areas should have a minimum dimension of 1500mm x 1800mm to allow for wheelchair turning and manoeuvre		8.4	*	
Area inside the door and circulation areas should have a minimum dimension of 1500mm x 1500mm if door opens outwards		8.4	*	
Entrance door positioned with space of at least 550mm beyond the handle edge		8.4	*	
Passenger lift and		Technical Handbook	*	
Circulation Routes		Technical	*	

REQUIREMENTS FOR HOUSES READILY ADAPTABLE FOR WHEELCHAIR USE				
FEATURE	DESIGN CRITERIA	Reference (Housing for Varying Needs part 1 or Technical Handbook).	Mandatory	Future Provision required
Entrance Doors to Individual Houses or Flats	All entrance doors with clear opening width of at least 840 mm	9.2/9.6	*	
	Accessible threshold	Technical Handbook	*	
	Allowance is made for recessed doormat	9.3	*	
	All main entrance doors must open into a circulation area and not a room.	9.6	*	
	Circulation space immediately inside the door should allow for a person in a wheelchair adaptable unit to turn through 180o. It must therefore have a minimum width of 1500mm extending at least 1500mm back from the face of the door.	9.6	*	
	Entrance door positioned with a return of at least 300mm beyond the handle edge	9.6	*	
	Storage space for an outdoor wheelchair	9.6	*	
	Storage space for an outdoor wheelchair and space alongside this for transferring to and from an indoor chair. This will require an area 1100 x 1700mm, with adjacent circulation space.	9.6	*	
	Entrance door positioned with a return of at least 550mm beyond the handle edge	9.6		*
Any lobby is of sufficient size, 1600mm x 1600mm or 1300mm x 2100mm	9.7	*		
Circulation Spaces and Internal Doors	Passages should be a minimum of 1200mm wide, however a width of 1000 is acceptable for lengths up to 900mm	10.2	*	
	Doors positioned with a return of at least 300mm beyond the handle edge	10.4	*	
	Space must be provided within the design for future through floor lift in two –storey houses.	10.3	*	
	Pass doors at right angles to each other should both be at least 400mm from the corner to the opening.	10.4	*	
	Pass doors with a minimum clear opening width of 800 mm	10.5	*	
	Pass doors without threshold plate	10.5	*	
	Doors opening beyond 90 degrees	10.5	*	

REQUIREMENTS FOR HOUSES READILY ADAPTABLE FOR WHEELCHAIR USE				
FEATURE	DESIGN CRITERIA	Reference (Housing for Varying Needs part 1 or Technical Handbook).	Mandatory	Future Provision required
Living and Sleeping Areas	Space for wheelchair turning in all apartments	11.1	*	
	Living room and dining space of a size that allows for notional furniture and circulation "path "must be a minimum of 800mm	11.2/ 11.3	*	
	Bedroom(s) of a size that allows for notional furniture and circulation "path" must be a minimum of 800mm	11.4	*	
	Beds for wheelchair users can be accessed on three sides	11.4	*	
	Double bedrooms allow for twin beds	11.4	*	
	Built-in clothes hanging space	11.4		*
	Other bedrooms should be accessible in a wheelchair and allow access alongside a bed.	11.4	*	
Storage	Storage Provision is made for adequate and accessible general storage. Wheelchair storage is a minimum of 1200mm x 1200mm additional to the usual storage requirements.	12.2	*	
	Storage space is allowed for special equipment	12.2	*	
	All layouts should include an unobstructed manoeuvring circular space of at least 1.5m diameter or an ellipse of 1.4m by 1.8m.	Technical Handbook 3.11.3	*	
Kitchen	In all situations the kitchen must be of a size that allows a clear space of 1500mm in front of fittings and appliances to allow a wheelchair user space to manoeuvre.	13.5	*	
	In kitchens there should preferably be window controls that are not reached over a worktop or sink, though some users will be able to reach controls if they are at a height of no more than 1050mm and there is knee space below	16.3	*	

REQUIREMENTS FOR HOUSES READILY ADAPTABLE FOR WHEELCHAIR USE				
FEATURE	DESIGN CRITERIA	Reference (Housing for Varying Needs part 1 or Technical Handbook).	Mandatory	Future Provision required
Bathroom	All layouts should include an unobstructed manoeuvring circular space of at least 1.5m diameter or an ellipse of 1.4m by 1.8m.	14.9	*	
	Layouts must be able to accommodate a bath or a shower so that the occupant can have whichever best suits their needs	14.9	*	
	A minimum of 2100 between walls to allow for a 400mm shelf at the end of the bath.	14.9	*	
	One bedroom is next to an accessible bathroom suitable for a wheelchair user with the option of a knock out panel.	14.10	*	
	Position of WC should allow frontal or side transfer with a clear space of 750mm on one side.	14.11	*	
	WC should be a minimum of 450mm from the centre line to the wall	14.11	*	
	Allowance for a ceiling mounted hoist	14.10	*	
	Floor gully	14.14	*	
	Allowance for fixing grab and support rails to walls - robust wall construction	Technical Handbook 3.12	*	
	Outward opening door	14.9	*	
	The position of the WC and WHB should allow access to window controls and the bath should not be positioned below the window	16.3	*	
	Additional WC	Provided in dwellings for four or more people	14.17	*
Accessible in a wheelchair		14.17	*	
Transfer space to front or side of WC		Technical Handbook 3.12.3	*	
Windows	Design allows view from seated position	16.2	*	
	Controls easily and safely accessed, reached, and operated	16.3	*	
Electrical	Sockets, switches and controls of suitable design and at suitable location and height and allow for future adaptation	18.2	*	

Access to dwellings and car parking provisions

Parking Provisions for wheelchair adaptable units (Individual dwellings)

- All developments over 20 units must provide 10% wheelchair adaptable units. There must be at least 1 car parking space for each wheelchair adaptable unit.
- Where a parking space is provided for a wheelchair adaptable unit, it must be provided with a car space at a maximum of 15m from the entrance.
- The **future provision** of a covered carport for a wheelchair adaptable dwelling should be designed to a minimum size of 3600mm by 5700mm for future installation.

Communal Parking

- Where a parking space is provided for a wheelchair adaptable unit, it must be provided with a car space at a maximum of 15m from the entrance.

Communal Entrances for wheelchair adaptable units

To enable a wheelchair user to enter the principal communal entrance they should incorporate the following basic requirements:

- The level platform at the door should have dimensions of 1500 x 1500mm or 1500 x 1800mm where the door opens outwards.
- The clear space beyond the opening edge of the door should be 550mm.
- External light.
- Canopy or porch which must extend a minimum of 1200mm from the face of the door.

Principal Private Entrances for wheelchair adaptable units

Individual dwelling entrances or entrances to blocks of flats for wheelchair adaptable units should incorporate the following basic requirements:

- The level platform at the door should have dimensions of 1500 x 1500mm.
- The clear space beyond the opening edge of the door should be 300mm or 550mm if the door open outwards.
- External light;
- Canopy or porch;
- Car space within 15 metres of entrance;
- Provision for a covered car space in-curtilage or within 15 metres of entrance with a minimum sizes of at least 3.6m wide x 5.7m long

Durability of Buildings

All new dwellings must be designed and specified to achieve a minimum life span of 60 years, allowing for planned major repairs and renewal of building components. All refurbished projects must be designed and specified to achieve a minimum life span of 30 years. Design and specification should aim to minimise both short term cyclical maintenance, and longer term maintenance requirements which can impose a substantial financial burden in the later years of a building life.

Responsibly Sourced Materials

Glasgow City Council aims to contribute towards improving the environmental, economic and social sustainability of construction products by encouraging Housing Associations to select products with responsible sourcing certification.

Housing Associations must ensure that all developers / contractors have a sustainable procurement strategy in place to help them deliver and commit to responsibly sourced materials.

All developers / contractors must procure materials that are responsibly sourced and demonstrate an ongoing commitment to the principles of responsible sourcing of materials used in the construction of all developments (new build and refurbishment).

Future proofing internally (power and communication)

The use of technology within the home will increase in the future and allowances should be made especially for wheelchair adaptable units.

Grant applicants should be able to demonstrate that any housing proposal has considered and/ or taken account of current and future smart home technology requirements or installation needs. In most circumstances, this is likely to be the provision for

- Future wiring zones
- Door entry systems and automatic controls
- Alarm call systems and safety devices
- Flexibility for mounting heights for controls

This will help people with particular needs to live more independently and in general terms is likely to future proof dwellings to be adaptable to people's changing needs over time.

Future Proofing Internet and Broadband Access

In line with action 14 of the [Fairer Scotland Action Plan](#) and Scottish Government Guidance, MHDGN 2017/01 homes delivered under the Affordable Housing Supply Programme should include ducting to help future-proof access to internet and broadband services.

Grant applicants should consider fibre broadband as being the equivalent of a utility service and should be able to demonstrate that any housing proposal has considered and/or taken account of current and future digital services requirements or installation needs. In most circumstances, this is likely to be the provision for future broadband cable connection(s) by ensuring that adequate internal ducting exists for fibre or network cable runs from a logical exterior connection point.

Grant applicants are advised that if ducting within new homes can be shared with other services, the cost is likely to be marginal or neutral as fibre optic cabling can be inserted into existing ducting as required. If additional ducting is needed however, the cost will vary according to the size of the dwelling and the configuration of wireless and fixed data points – an indicative cost of £200 per home would be a good estimate, which should be accommodated from within the existing grant subsidy framework.

Consideration should be given to the provision of:-

- an accessible location and power supply for central digital devices such as a wireless hub or router and
- additional, internal spurs in living and bedroom areas, and
- the potential impact which construction methods, materials and/ or design may have on the ability of wireless signals to penetrate within the home.

Secure by Design (SbD)

Security considerations must be taken into account from a scheme's earliest stages and developments are therefore required to meet [Secure by Design \(Gold Standard\)](#).

Consultation should take place with Police Scotland's Designing Out Crime Officer at the pre-application stage. The Secure by design requirements are in 3 sections:-

Section 1 is the development layout and design. The section provides guidance on all aspects of design and layout that impact on the creation of a safe and secure environment including road layout, footpath design, communal areas, dwelling boundaries, car parking and lighting.

Section 2 provides the 'Police Preferred Specification' for all physical security requirements for new or refurbished homes.

Section 3 addresses the requirements for a range of additional or optional residential features, such as enhanced glazing, bicycle storage, drying rooms, external bin stores, etc. If a development contains any of the features within Section 3, the physical security requirements within this section should be adhered to in order to achieve full SBD Gold Compliance.

*Note: Please note that the items detailed in section 3 are **optional** i.e. intruder alarms, cycle storage, undercroft parking etc. If these items are included within the development then they must comply with secure by design. If you meet the requirements of section 1 and 2a then gold will be awarded.*

Sustainability

There is a Council wide commitment to ensure that new homes are future proof and have high sustainability considerations that will protect residents from rising energy costs and help to contribute to the Council's carbon emissions reduction targets. Housing and Regeneration Services encourages housing associations to be ambitious in trying to exceed current energy efficiency and sustainability targets and to develop housing which will be exemplars across the country making Glasgow one of the most sustainable cities in Europe.

To do this, Glasgow City Council has commitment to the principle that all new housing developments submitted for approval and funded through the Affordable Housing Supply Programme will comply with Building Standards Technical Handbook Domestic 2017, should meet all the Technical Standards Domestic 2017, Sections 1 – 6 Bronze Standard and comply Section 7, Silver Standard (Aspects 1-8 inclusive). This will apply to all new build projects from January 2017. Developers should endeavour to use good practice and maximise the degree of compliance for all housing developments. While it will impose a new set of requirements on developers of affordable housing, we do not anticipate that construction costs in general will increase significantly as a result of the adoption of the new Technical Standards as this new standard replaces some of the old Ecohomes requirements. Compliance with Ecohomes is no longer required.

All Associations must ensure that all drawings submitted to building control are marked up to indicate the level of sustainability of each type of Unit. Developers will be required to demonstrate compliance with Silver Level (Aspects 1-8 inclusive.) prior to completion. An independent assessor will have to be appointed for each project to verify compliance, and the costs associated with their appointment will be grant eligible.

Technical Standard, Domestic, 2017, Silver Level (Aspects 1-8 Inclusive) are noted below:

Aspect 1: Carbon dioxide emissions

All new dwellings that meet or exceed the Target Emissions Rate (TER) detailed in Section 6, Energy of the Technical Handbook, Domestic 2017 will automatically meet the Silver level criteria in respect of CO₂ emissions. This is due to the 21% improvement on the 2010 standards that occurred in October 2015.

Aspect 2: Energy for space heating

The maximum annual demand for useful energy for space heating should be:

- 40kWh/m² for houses, or
- 30kWh/m² for flats or maisonettes

Aspect 3: Energy for water heating

At least 5% of the dwelling or domestic building's annual energy demand for water heating should be from: heat recovery and/or renewable sources with little or no associated fuel costs (e.g. solar thermal water heating and associated storage or heat recovery from grey water) that are allocated for water heating.

Aspect 4: Water use efficiency

Enhanced or additional products should be provided as follows:

- WCs of average flush volume not more than 4.5 litres
- Wash hand basin taps with a flow rate not more than 6 l/m litres per minute
- shower heads with a flow rate not more than 8 l/m, and
- 1 water butt (with a min. capacity of 200 litres) for outdoor use per dwelling. Dwellings without a private garden or landscaped area, or if there is no access to rainwater collection (for example if there is no external rainwater pipe within the curtilage) are excluded.

Aspect 5: Optimising Performance

- **Quick start guide:** Developers should provide guidance to new occupants on the ways in which their new home is intended to function and how to optimise its performance on the scope, format and contents of the guide for occupants. Supplementary guidance with a performance specification as well as links to an example completed quick start guide is in Annex B.
- **Resource use display:** Developers should install a real-time resource use monitor that displays electricity use, located in an easily accessible and readable position.

Aspect 6: Flexibility and Adaptability (Home Office Space)

Developers should provide a **home office space** dedicated for home working/study to include:

- A clear space, against a wall or partition, where a desk of 1800mm long x 600mm deep could be placed. Alternatively, the desk space could be 'L' shaped in plan as long as each leg of the 'L' is a minimum length of 1200mm..
- Two switched electrical sockets in addition to those that should be provided under Section 4.
- A connection to allow direct access to internet services (unless such a provision is made elsewhere in the dwelling).
- For natural daylight there should be a line of sight to a window, glazed external door or roof light.
- Generally ventilation, accessibility, safety and escape should meet all the other standards however, see paragraphs below.
- In any dwelling, the home office space can be in a circulation space but should not be located in a protected enclosure. The desk space and/or its activity space can locally reduce a corridor width to 800 mm and should not interfere with door swings.
- In any dwelling, the home office space can occupy a room by itself even if this room is too small to be an apartment. In this case, this small room should be ventilated as if it were an apartment.
- In any dwelling, the home office space can occupy a part of the enhanced apartment but the desk space and its activity space should be additional to the defined spaces and access of the enhanced apartment.
- In any dwelling the home office space can be in a room that includes the kitchen but the desk space and or its activity space should not interfere with kitchen worktops, appliances or manoeuvring spaces.
- To allow some more flexibility in smaller dwellings (those of not more than 2 apartments) the home office space can be in any apartment. But in this case, the desk space and its activity space should not overlap with the minimum furniture provision or associated activity spaces.
- The height of the home office should be not less than 1.8m over the activity space and 1.5m over the desk space.
- For dwellings over 150m² floor area, two home office spaces should be provided.

Aspect 7: Well-being and security

- **Noise separation:** Design performance levels for separating walls and separating floors associated with attached dwellings should be:

1. Minimum airborne sound insulation: 58 dB $D_{nT,w}$
2. Maximum impact sound transmission: 54 dB $L'_{nT,w}$

Performance levels for noise isolation for separating walls and separating floors should be verified by carrying out a sound test as indicated in the Technical Standards 2017 guidance (Section 5)

- **Noise reduction between rooms:** Design performance level for a minimum airborne sound insulation should be 44 dB R_w . This refers to all internal partitions in all dwellings and intermediate floors within houses and maisonettes excluding storage cupboards and should be substantiated by manufacturer's laboratory test certificates.
- **Enhanced natural lighting:** The enhanced apartment should be provided with a glazed area of not less than 1/8th of the floor area of the apartment.
- **Security:** Install a 13 amp fused spur, suitable for an intruder alarm system, located within 2m of the main entrance door.

Aspect 8: Material use and waste

Recycling of solid waste: Provide a dedicated internal space with a volume of at least 0.12m³(120 litres) and no dimension less than 450mm, for storing recyclable material. The storage space should:

- be able to store small amounts of recyclable material (e.g. metal, glass, plastic, cardboard and/or paper)
- be easily cleanable
- be additional to the general 1m³ kitchen storage in Section 3, and
- facilitate temporary storage before transfer to a main storage point or a collection point, whether for the dwelling or for a group of dwellings.

Conversions / Refurbishment

When existing houses and flats are being refurbished, opportunities should be sought to provide accommodation that reflects the minimum requirements set out to the Glasgow Standard or Housing for Varying Needs Part 1. The design criteria and considerations may have to be compromised and the minimum rather than preferred requirements adopted due to the limitations imposed by the existing structure or available space.

Housing for Varying Needs Part 2: Houses with Integral Support

In order to meet the support needs and preferences of some service users, there will be a need for shared accommodation, group homes or housing with associated communal facilities, staff accommodation or other specialist features. Procedures on the design criteria for these forms of provision are contained in *'Housing for Varying Needs – a design guide, Part 2: Housing with Integral Support'*. These criteria are intended to ensure that forms of housing provision with integral support:

- are fit for their purpose
- are flexible in use
- accommodate a range of needs
- represent good value for money over their lifetime
- Incorporate the barrier free criteria from *'Part 1: Houses and Flats'*.

What is considered to be the most appropriate design will depend on the preferences and needs of the clients for whom it is intended, the type of support and its delivery, including staffing issues. The criteria should be followed by any applicant seeking funding for this type of provision. Glasgow City Council intends to use it as the basis for required standards in relation to funding.

Partnership Support for Regeneration (PSR)

Partnership Support for Regeneration Grants (PSR) are provided to eligible applicants to build houses for sale in areas with little or no private housing and to help meet local shortages. All developments must comply with The Glasgow Standard to receive grant funding through Partnership Support for Regeneration which is part of the Affordable Housing Supply Programme.

Considerate Contractors Scheme (CCS)

The developer / contractor must be a member of the Considerate Constructors Scheme (<https://www.ccscheme.org.uk/>). [The Considerate Constructors Scheme code of practice outlines five areas that contractors should adhere to:-](#)

- Care about appearance
- Respect the Community
- Protect the Environment
- Secure everyone's safety
- Value their workforce

Appendix 1: Notional Furniture

Space	Min. furniture requirements	Furniture dimensions	Number of bed spaces/furniture items required							
			1p	2p	3p	4p	5p	6p	7p	8p
Living Room	Sofa seats: Easy seating must be allowed for the number of bed spaces plus two	- Armchairs size 850mm x 850mm - 2 seat sofa size 1350mm x 850mm - 3 seat sofa size 1850mm x 850mm	3	4	5	6	7	8	9	10
	Bookcase/ Storage fitments (s)	Total length of 2000mm x 500mm depth and height of 1500mm	1							
	Television	650mm x 220mm	1							
	Occasional table	800mm x 600mm	1							
	Wheelchair turning circle to all Wheelchair/ adaptable units	1500mm diameter or an ellipse of 1.4m by 1.8m.	1							
Dining Space	Dining Table	length shown x 800mm	10 00	12 00	15 00	15 00	18 00	18 00	24 00	24 00
	Dining Chair: number of bed spaces plus two	450mm x 450mm	3	4	5	6	7	8	9	10
	Sideboard/dresser (if separate dining room)	Total length of 1200-1500mm x 450mm	1							
Bedrooms	Minimum Furniture Required	Furniture dimensions	Number of furniture items required							
Single Bedroom	Single Bed	2000mm x 900mm	1							
	Bedside Table	400mm x 400mm	1							
	Chest of Drawers	Total of 1200mm x 450mm (1000mm high)	1							
	Wardrobe	600mm x 600mm	1							
Twin Bedroom	Single Bed	2000mm x 900mm	2							
	Bedside Table	400mm x 400mm	2							
	Chest of Drawers	Total of 1200mm x 450mm (1000mm high)	2							
	Wardrobe	600mm x 600mm	2							
Double Bedroom	Double Bed	2000mm x 1500mm	1							
	Bedside Table	400mm x 400mm	2							
	Chest of Drawers	Total of 1200mm x 450mm (1000mm high)	2							
	Wardrobe	600mm x 600mm	2							
Family Bedroom	Double Bed	2000mm x 1500mm	1							
	Single Bed	2000mm x 900mm	1							
	Bedside Table	400mm x 400mm	3							
	Chest of Drawers	Total of 1200mm x 450mm (1000mm high)	3							
	Wardrobe	600mm x 600mm	3							
All bedrooms	Wheelchair turning to all Wheelchair/ adaptable units	1500mm diameter or an ellipse of 1.4m by 1.8m.	1							

Appendix 2: Document Checklist



Checklist for Pre-tender/ Tender Submission

Name of Association.....

Project Name.....

PLEASE USE THIS CHECKLIST TO ENSURE THAT YOU HAVE SUBMITTED ALL THE REQUIRED
TECHNICAL AND DEVELOPMENT DOCUMENTATION FOR PRE TENDER AND TENDER APPRAISALS

Please
tick box
↓

Required for a technical appraisal at pre tender stage

Drawings

at a scale of 1:50 (floor plans A3) & 1:100 elevations and development plan

This should include details (noted on the drawings) of:

- Gross Internal Area (GIA) for each house type and overall development
- Furniture and activity space
- Room areas and dimensions
- Storage space (incl. kitchen storage)
- Wheelchair turning circles
- Sustainability

Specification and Schedule of Accommodation

Housing for Varying Needs -Confirmation that the development meets this standard

City Development Plan/SG 1 Place making (Wheelchair Adaptable)

- Confirmation that the development meets this standard

Secure by Design – Verification that the standard will be achieved at completion

Technical Standards (Sect 7, 2017) Silver Standard Aspects 1-8 (inclusive)
– Confirmation that the development will meet building standards

Required for Tender Appraisal

A completed Tender Application including the following information:

- Technical Requirements
- Housing mix
- 3p calculation
- Rent calculation
- Monthly spend profile
- Project costs (see breakdown of costs below)

Scottish Social Housing Tender Price Index (SSHTPI)

QS Report on tenders

Breakdown of Costs including

- Detailed breakdown of works costs (elemental analysis & costs split by tenure and general or particular needs)
- Professional Fees (including independent certifier of section 7)
- Development and other costs / fees
- Abnormal/Adhoc Costs
- Sustainability Costs

- **Verification of Warrants etc.**

Please confirm that you have included all the necessary documentation by signing below

X

Please sign here

Name (block capitals) _____

Appendix 3: Technical Appraisal Process Chart

AFFORDABLE HOUSING SUPPLY PROGRAMME - TECHNICAL APPRAISAL PROCESS

