Supplementary Guidance: Resources for New Development

1. Status of Supplementary Guidance

This Supplementary Guidance (SG) forms part of the Development Plan and is a material consideration in the determination of planning applications.

The SG expands upon the following Aberdeen Local Development Plan policies:

- Policy R6 – Waste Management Requirements for New Developments.
- Policy R7 – Low and Zero Carbon Buildings, and Water Efficiency.

2. Introduction to Topic

This Supplementary Guidance draws together a range of factors that can help to minimise resource use and waste. This Guidance requires the completion of a checklist to ensure compliance with a range of factors that will increase the sustainability of new development. The requirements and further guidance for each topic is set out in this section and the checklist is contained in Appendix 1.

This document is broken into two parts dealing with different issues:

- **Part A** - Density, Water Use Efficiency and Energy Use in New Buildings

- **Part B** - Waste

Part A – Density, Energy Use in New Buildings and Water Use Efficiency

1. Density

Policy H3: Density, requires that all housing developments larger than 1 hectare achieve a net density of 30 dwellings per hectare. The planning for this should take into consideration the sites characteristics and the surrounding area. Higher densities may be appropriate in central locations where lower densities may be more appropriate in other areas of a development providing the overall site meets the minimum requirement. Achieving higher density development can help to reduce travel distances and will improve the ability to support local services and facilities.

2. Energy Use in New Buildings

Climate change, energy insecurity and rising fuel poverty are key challenges for Scotland now and for the foreseeable future. The Climate Change (Scotland) Act 2009 received Royal Assent on August 4, 2009. The Act sets in statute the Government Economic Strategy target to reduce Scotland's emissions of greenhouse gases by 80 per cent by 2050. This covers the basket of six greenhouse gases recognised by the United Nations Framework Convention on Climate Change and includes Scotland's share of emissions from international aviation and international shipping.

More than 40% of Scotland's carbon dioxide emissions, a major cause of climate change, come from the energy we use to heat, light and run our buildings.

In Aberdeen City housing makes up 31% of the City's carbon footprint, which is 3.98 tonnes CO_2 per capita. The Aberdeen City and Shire Structure Plan provides significant housing and employment allowance: 36,000 homes and 175 hectares of employment land to 2030. The housing allocations, once built, would result in an increase in the housing stock by 33%.

Requiring new buildings to meet more stringent energy standards will lessen their environmental impact, make them more affordable to heat, lessen our dependence on imported energy and support a domestic market for low and zero carbon generating technologies.

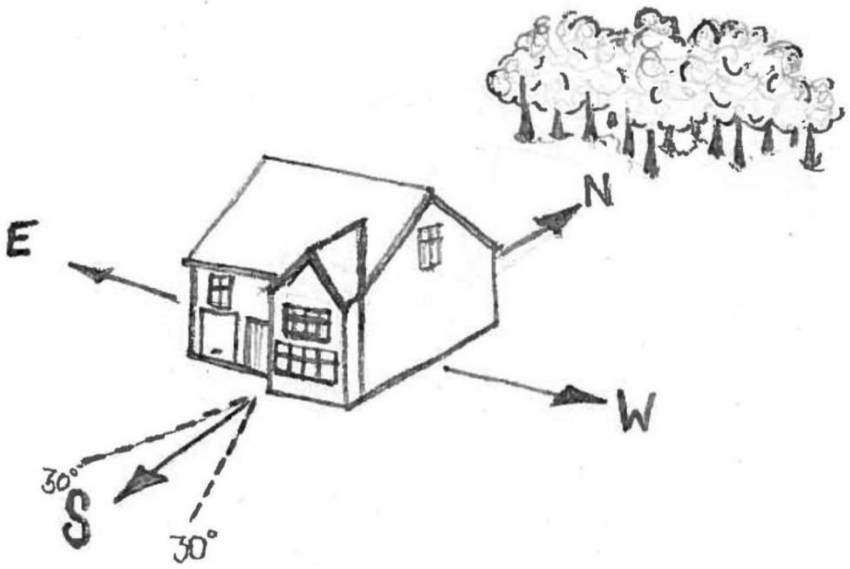
2.1 Layout, Orientation, Shelter and Aspect

Good, careful design at the outset will minimise the total energy demand for the lifetime of a development. Design considerations for a development as a whole and for the individual buildings will help to increase the efficiency of energy use. For example simply changing the orientation of a building to maximise solar gain can make significant improvements to energy performance.

Development design and layout should maximise the potential for passive solar gain. To maximise potential buildings should have public rooms facing south, or within 30^0 of south. Where possible development should also maximise the use of south facing slopes.

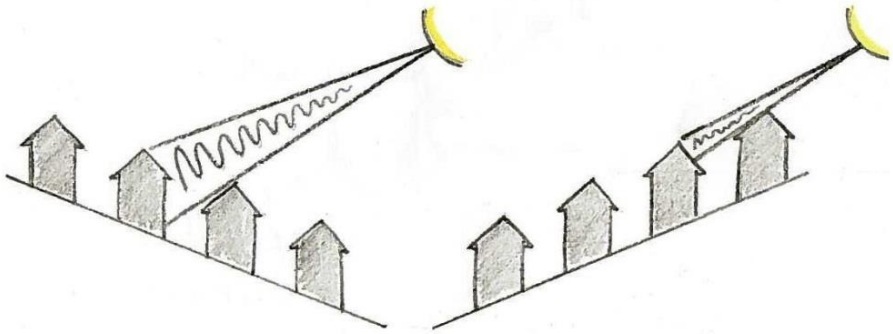
Shelter

Shelter from prevailing winds is also an important consideration in the siting of development. Design layouts that shelter from cold winds should be applied, particularly useful will be tree planting across the north of a site to protect against cold northerly winds. The use of trees combined with planting and fencing provides some degree of wind shelter. Trees should be of a similar height to the building and set 1 to 3 heights away or 3 to 4 if solar access is required.



Aspect

Where the land form allows, new developments should take maximum advantage of south facing slopes. The location of buildings on south facing slopes increases the number of buildings that can utilise solar energy and there is the opportunity to increase density in these areas without causing overshadowing issues.



3. Water Use Efficiency

Making more efficient use of water is important in improving the sustainability of Aberdeen and the North East, particularly with the forecasts for population and economic growth. Making more efficient use of water is important in adapting to climate change, and in protecting wildlife and natural resources. This is of particular relevance in Aberdeen where all water is currently abstracted from the River Dee, which is a Special Area of Conservation (a European Protected Site). Managing the use of water and increasing water efficiency is vital for new development and existing buildings.

3.1 Policy

In order to mitigate these concerns, the Aberdeen City and Shire Strategic Development Plan 2014 encourages all new developments to use water-saving technology in order to avoid increasing the level of extraction from the River Dee.

The Policy for water use efficiency has been set in Policy R7 - Low and Zero Carbon Buildings, and Water Efficiency to ensure that all new buildings minimise the use of water and do not place unnecessary pressure on the River Dee.

Water use can be reduced in buildings through a number of measures including the following:

- Rainwater harvesting
- Grey water re-use
- Aeration of water from taps to reduce consumption and flow rate
- Dual flushes and reduced flow rates for toilets
- Water saving appliances such as dishwashers and washing machines

The minimum level of water efficiency to be achieved for both domestic and non-domestic (Commercial) buildings is set out in Table 1. This table also sets out the timeframe of improvements from the initial level in 2016 to the required level in 2020. Further increases will be considered at the time of the Local Development Plan.

Table 1: Standard of Reduction in Water Usage Required

Year	**Domestic Buildings (Building Standards Sustainability Label)**	**Commercial Buildings (BREEAM Wat 01 Water Consumption)**
2016	Gold Standard	BREEAM Level 5
2020	Platinum Standard	Exemplary performance

To monitor this it will be expected that conditions will be placed on planning permission requiring developers to submit evidence of achieving either the BREEAM (for non-domestic) or the building standards Sustainability Label (for domestic), at the appropriate level for that period.

At planning application stage it will be necessary to submit the checklist in Table 5. (Sustainability Checklist) to show the development will comply with this requirement.

4. District Heating

District heating is a means for delivering heat to multiple buildings from a central energy centre. The energy centre would contain a heating plant, top up and back up boilers a heat store and circulation pumps. New development does not necessarily have to provide a new energy centre and may be able to connect to an existing district heating scheme or make use of locally available waste heat.

A heat map has been prepared for Aberdeen City to identify the potential links in the network that could be considered and further guidance will be contained in Supplementary Guidance: Energy Mapping. The use of district heating can offer a lower heat price than using individual boilers or electrical heating and by combining heat and power generation fuel can be used more efficiently. Overall a reduction in carbon emissions can be achieved through the use of district heating.

Larger developments that have a mix of both housing and business or include large energy users such as schools and swimming pools will provide a continued heat demand throughout the whole day. For this type of development the use of decentralised and local renewable or low carbon sources of heat and power becomes more viable, and for combined heat and power plants this continued heat demand will ensure continued electricity generation.

There are a number of larger mixed use allocations in the Local Development Plan and this provides an opportunity to make use of these technologies to achieve greater CO_2 savings.

During the process of preparing masterplans for larger mixed use developments developers will be required to carry out a feasibility study of the potential for renewable and low-carbon energy solutions across the site, for example, the potential to make use of decentralised combined heat and power using a renewable fuel source such as woodchip. This may result in an opportunity to make greater CO_2 savings than required by Policy R7. In terms of residential developments this should cover developments of 500 units or more that include other uses than solely housing.

For sites where a decentralised energy scheme is commercially viable, and it is the preferred option, it will be important to consider the build programme and at which stage in the development the energy scheme will become viable. It will not always be feasible to implement the full decentralised energy scheme, using renewable fuel, designed to serve the whole development for the first phase of development because the projected heat load will not exist to support the plant.

In the case that development will, once complete, make use of a decentralised heating or combined heat and power plant and it has been calculated that on completion of the development there will be additional CO_2 savings above those required by Policy R7, flexibility in the application of policy should be applied to the earlier phases that make use of temporary sources of heat. For example, installing a temporary small scale gas powered decentralised energy plant in advance of providing a larger scale biomass powered decentralised energy plant.

4.1 Policy Requirement Low and Zero Carbon Generating Technologies

4.1.1 Legislation

Section 72 of the Climate Change (Scotland) Act 2009 requires Local Planning Authorities to "include policies requiring all developments in the local development plan area to be designed so as to ensure that all new buildings avoid a specified and rising proportion of the projected greenhouse gas emissions from their use, calculated on the basis of the approved design and plans for the specific development, through the installation and operation of low and zero carbon generating technologies." In addition the Strategic Development Plan targets require all new buildings to be carbon neutral by 2020

4.1.2 The Development Plan Context

Section 25 of the Town and Country Planning (Scotland) Act 1997 requires decisions on planning applications to be made in accordance with the development plan, unless material considerations indicate otherwise. Upon adoption of the Aberdeen Local Development Plan in 2016, the Development Plan for Aberdeen will comprise the Aberdeen City and Shire Strategic Development Plan (2014), the Aberdeen Local Development Plan and associated Supplementary Guidance.

The Strategic Development Plan targets require:

- All new buildings to be carbon neutral by 2020
- For the equivalent of the city region's electricity needs to be met from renewable sources by 2020.

Local Development Plan policy:

Policy R7 sets a requirement for "All new buildings must meet at least 20% of the building regulations carbon dioxide emissions reduction target applicable at the time of the application through the installation of low and zero carbon generating technology."

4.1.3 Implementation

The following sets out the targets to be achieved and the dates by which they must be achieved, as well as the types of technologies that can be used to achieve them.

Table 2: Indicative Percentage Reduction achieved through Low and Zero Carbon Generating Technologies

Year	Percentage Reduction	Building Standards Sustainability Label
2016	20%	Gold Standard for Energy
2020	25%	Platinum Standard for Energy
2025	30%	Platinum Standard for Energy

The equipment may be attached to the building or within the site boundary as shown on the planning application. This allows for the low and zero carbon generating technologies to benefit more than one building and being sited to maximise energy gain.

The technologies eligible to meet the requirements of the policy are set out in Table 3.

Table 3: Eligible Zero and Low Carbon Generating Technologies

Biomass	Solar power	Air source heat pumps
Fuel cells	Photovoltaics	Combined heat and power
Micro-hydro	Ground source heat pumps	Heat exchange recovery systems
Micro-wind	Water source heat pumps	Geothermal
Solar Thermal	Passive flue gas heat recovery devices	District Heating

Applicants should consider how to meet the requirements of this guidance at an early stage of planning. It will be the responsibility of applicants to provide the necessary technical calculations in support of planning applications to demonstrate how the proposed development will satisfy the requirements of this guidance.

The policy target is specific to CO_2 emissions from the energy performance. The assessment approach in this guidance therefore relates directly to this.

In order to demonstrate the appropriate reduction in CO_2 emissions as a result of low and zero carbon generating technologies the Standard Assessment Procedure energy rating (SAP) is required for dwellings and the Simplified Building Energy Model (SBEM) for all other developments. Other Dynamic Simulation Software may be used if agreed with the council.

Table below sets out a summary of the stages in the calculation to demonstrate compliance with this policy.

Table 4: Summary of Calculations and Process

1.	The appropriate software program (SAP/SBEM) is used to calculate the 2007 Building Regulations CO2 Emissions Standard. This will provide a Target Emissions Rate (TER), which is the predicted CO2 emissions for a building of the specified size. Note: it is important for the purposes of this calculation that it is the 2007 TER that is used.
2.	The appropriate software program (SAP/SBEM) is used to calculate the actual emissions rate for the proposed development, which includes the low and zero carbon generating equipment. This is the Dwelling or Building Emissions Rate (DER/BER at the time of the application), which is the predicted CO2 emissions for the actual proposal.
3.	Calculate the reduction from step 1 to step 2: step 1- step 2
4.	Calculate the reduction in step 3 as a % reduction on the 2007 TER: (Step 3 ÷ Step 1) x 100
5.	The appropriate software program (SAP/SBEM) is used to calculate the actual emissions rate for the development without the low and zero carbon generating technologies. This is a repeat of stage 2 and provides a re-calculation of the (DER/BER at the time of the application), without the low and zero carbon generating technologies.
6.	Calculate the reduction, beyond the 2007 standard, due to the low zero carbon equipment: (step 5 – step 2)
7.	Calculate the percentage reduction beyond the 2007 standard as a result of low and zero carbon equipment: (Step 6 ÷ step 3) x Step 4
Note: The calculation methodology may require to be updated when revised building standards come into force.	

4.2 Instances When Policy Will Be Relaxed

SPP states that energy efficiency is a vital component in achieving Low Carbon Places. The Council recognises that developments such as Passive Housing aim to reduce their energy consumption significantly rather than installing LZCGT. Development will therefore be deemed to have complied with the requirement to install LZCGT if it can be demonstrated that the development will achieve a CO_2 saving 15% greater than required by the current Building

Standards (the minimum standard is likely to change over the life time of the SG as Building Standards are increased).

4.2.1 Justification

Section 44 of the Climate Change (Scotland) Act 2009 seeks to ensure that public bodies act in the way best calculated to contribute to the delivery of the carbon reduction targets and carry these out in the most sustainable way. In addition the Strategic Development Plan has set a target of all new buildings to be carbon neutral by 2016.

It is accepted that the most sustainable way in which the carbon emissions from new buildings can be saved is through improving the energy efficiency of the building. By reducing the energy demand of a building in the first instance as far as is practicable it becomes more feasible to then provide the lower energy requirements through low and zero carbon generating technologies.
By allowing the relaxation of policy if a greater CO2 saving can be achieved the Council will make a greater contribution towards the delivery of the Scottish Government's carbon reduction targets and the Strategic Development Plan target.

4.3 Pre-Application Discussions

The installation of LZCGT can raise additional issues which need to be tackled at an early stage in planning a development. As an example, ground source heat pumps (which are one of the eligible technologies listed in Table 2), can cause significant damage to trees. Where trees are present on, or adjacent to the site where associated pipes are to be buried, a tree survey should be submitted along with the application highlighting the likely impact of the excavation works on the tree(s) and any mitigation proposed. The impact the excavation works and installation are likely to have on local hydrology should also be investigated.

Micro-hydro schemes may require authorisation from SEPA under the Water Environment (Controlled Activities) (Scotland) Regulations 2005.

Before submitting your planning application, we encourage you to discuss your proposal with us. We can advise you of your project's compliance with planning policies and on detailed design matters.

Table 5: Sustainability Checklist

Sustainability Checklist			
	Requirement	**Y/N**	**Justification**
Density	Does the development meet a net density of 30 dwellings per hectare?		
Passive Design	Does the orientation of the building(s) maximize the potential for solar gain?		
	Does the development provide protection against prevailing winds?		
District Heating	Does the development make use of decentralized energy generation or link up to the energy network?		
Low and Zero Carbon Generating Technologies	Does the development meet the standards for low and zero carbon generating technologies set out in Policy R7?		
Waste	Do all areas have suitable storage areas for bins?		
Water use Efficiency	Does the development meet the standards for water use efficiency set out in Policy R7?		

Table 6: LZCGT Calculation Template (To be filled in and submitted with each application)

Low and Zero Carbon Generating Technologies								
Step	**Task**	**Unit Type 1**	**Unit Type 2**	**Unit Type 3**	**Unit Type 4**	**Unit Type 5**	**Unit Type 6**	**Unit Type 7**
1	(TER) based on proposed building constructed to 2007 Building Regulations standards.							
2	(DER/BER at the time of the application) based on actual building constructed *WITH* LZCGT.							
3	Calculate the reduction from step 1 to step 2: step 1- step 2							
4	Calculate the reduction in step 3 as a % reduction on the 2007 TER: (Step 3 ÷ Step 1) x 100							
5	(DER/BER at the time of the application) based on the proposed building constructed *WITHOUT* LZCGT							
6	Calculate the reduction beyond the 2007 standard (step 5 – step 2)							
7	Calculate the percentage reduction beyond the 2007 standard as a result of LZCGT (Step 6 ÷ step 3) x Step 4							
Does the building comply with the target emission set out in **Table 1 – Y / N**								
Calculation process follows the steps identified in **Table 7: Summary of Calculations and Process in the SG Resources For New Development: A Sustainability Checklist** and on the back of this sheet.								
Calculations done using SAP or SBEM software. Other Dynamic Simulation Software may be used if agreed with the council.		TER - Target Emissions Rate LZCGT - Low and Zero Carbon Generating Technologies				DER – Dwelling Emission Rate BER – Building Emission Rate		

Table 7: Summary of Calculations and Process

1.	The appropriate software program (SAP/SBEM) is used to calculate the 2007 Building Regulations CO2 Emissions Standard. This will provide a Target Emissions Rate (TER), which is the predicted CO2 emissions for a building of the specified size. Note: it is important for the purposes of this calculation that it is the 2007 TER that is used.
2.	The appropriate software program (SAP/SBEM) is used to calculate the actual emissions rate for the proposed development, which includes the low and zero carbon generating equipment. This is the Dwelling or Building Emissions Rate (DER/BER at the time of the application), which is the predicted CO2 emissions for the actual proposal.
3.	Calculate the reduction from step 1 to step 2: step 1- step 2
4.	Calculate the reduction in step 3 as a % reduction on the 2007 TER: (Step 3 ÷ Step 1) x 100
5.	The appropriate software program (SAP/SBEM at the time of the application) is used to calculate the actual emissions rate for the development without the low and zero carbon generating technologies. This is a repeat of stage 2 and provides a re-calculation of the DER/BER without the low and zero carbon generating technologies.
6.	Calculate the reduction, beyond the 2007 standard, due to the low zero carbon equipment: (step 5 – step 2)
7.	Calculate the percentage reduction beyond the 2007 standard as a result of low and zero carbon equipment: (Step 6 ÷ step 3) x Step 4
Note: The calculation methodology may require to be updated when revised building standards come into force.	

Table 8: Indicative Percentage of Building Regulations Carbon Reduction Achieved Through Low and Zero Carbon Generating Technologies.

Year	Percentage Reduction	Building Standards Sustainability Label
2016	20%	Gold Standard for Energy
2020	25%	Platinum Standard for Energy
2025	30%	Platinum Standard for Energy

Part B – Waste and Recycling

1. Summary of Requirements for Waste and Recycling Services

Aberdeen City Council provides the following waste and recycling service to the residents of Aberdeen.

- Fortnightly collection of general waste in a grey 180 litre wheeled bin, fortnightly collection of garden & food waste in a brown 240 litre wheeled bin and a mixed recycling collection in a blue-lidded 240 litre wheeled bin.
- For those properties in multi-occupancy buildings where space means they cannot accommodate the above, a communal service is provided where the residents share bins. This may be a 660 litre or 1280 litre general waste bin (black lid), 660 litre or 1280 litre mixed recycling bin (blue lid) and a communal 120 litre food waste collection (bin inside brown fixed housing). Communal bins are serviced on varying frequencies as required.

Please note that waste collections cannot commence without the road surface being completed to adoptable standard by the Roads Authority and must not be hindered by construction works. If this is not complete, the developer must contact the Waste Collection Authority to agree an alternative temporary collection point or other arrangement. It will be the responsibility of the developer to ensure bins are placed at the temporary collection point until the access road is completed to the required standard.

All Developments:

The following must be detailed on all planning applications:

- Details of how waste and recyclables will be stored and for the development including locations and numbers of bins being proposed for waste and recycling services.
- Details of where bins will be collected from on collection days (residents/ factors are responsible for presenting bins for collection)
- A swept path analysis to demonstrate collection vehicle can access bin storage area

Applications must demonstrate the following:

- Evidence that waste and recycling facilities meet the legal requirements as per The Waste (Scotland) Regulations 2012 which includes provision for food waste and recycling collections and meets the requirements under R6 - Waste Management Requirements for New Developments contained in the Local Development Plan (LDP).
- Bin store/ storage area within 30 metres of all residents
- The bin store/ storage area within 10 metres of the proposed vehicle collection
- Reversing of collection vehicles to be avoided and if not feasible then kept to a minimum - no more than 10 meters

2. Essential Requirements – Domestic Properties

2.1 Waste & Recycling Requirements by Property Type

All containers require to be EN 840 compliant (BS EN 840-1:2012/ BS EN 840-2:2012). *For details and dimensions of bins see Appendix C.*

Houses		
General Waste	**Recycling**	**Food & Garden Waste**
180 litre grey wheeled bin	240 litre blue-lidded bin	240 litre brown wheeled bin

Flats		
General Waste	**Recycling**	**Food Waste**
- flats or less 1 x 660 litre bin - 6 or more 1 x 1280 litre bin per 10 flats	- 5 flats or less 1 x 660 litre bin - 6 flats or more 1 x 1280 litre bin per 10 flats	One communal container per bin store
For information on Underground Bins please refer to Section 5		

Student Accommodation and Sheltered Housing		
General Waste	**Recycling**	**Food Waste**
1 x 1280 litre bin per 15 students/ residents	1 x 1280 litre bin per 15 students/ residents	One communal container per bin store

HMO Properties		
General Waste	**Recycling**	**Food & Garden Waste**
- 1 x 180 litre bin if less than 6 residents - 1 x 660 litre bin per 6-10 tenants - 1 x 1280 litre bin per 10 tenants	- 1 x 660 litre bin per 6-10 tenants - 1 x 1280 litre bin per 10 tenants	1 x 240 litre brown wheeled bin if 6 or less tenants if they are responsible for garden OR 1 x communal food container if they are not responsible for a garden

Consideration must be given to how and where residents will sort and store their general waste, recyclables and food waste internally.

2.2 Waste and Recycling Container Provision/Developer Contribution

Developers are required to provide a contribution for refuse and recycling containers as per section 2.1 for all residential new build properties. Please contact Aberdeen City Council Waste and Recycling Team for details of required contributions. Containers may be provided by the developer but must meet the correct specification and Aberdeen City Council's Waste & Recycling Team will provide an up to date copy of the specification.

Containers will not be delivered on site before payment is received so please ensure orders are placed at least TWO months before first occupation.

3. Guidance on Waste and Recycling Facilities in New Developments

This guide provides a quick and comprehensive reference for developers and includes guidance on:

- Pre Application Advice
- Storage (including bin stores)
- Access & Roads
- Collection Points

3.1 Pre Application Advice

The Council's Waste & Recycling Service actively encourages developers/architects to contact them at the early stages of the process for advice and guidance on waste and recycling issues. This is of particular importance for Major Development applications.

3.2 Storage & Bin Stores

3.2.1 Storage

Waste is often stored centrally in communal facilities such as a bin store or designated storage area. Design, scale and size of the storage area will depend on the development. For further guidance refer to BS5906:2005 Waste Management in Buildings (BSI, 2005). Consideration of bin stores/ storage points should be considered carefully to ensure they are convenient for both the residents and collection crew.	Developers should futureproof the facility by allowing space for additional containers should these be required, or design the storage area/bin store so that it could be extended.
	Storage points should ideally be shaded and positioned away from windows. Design features such as shrub beds or planters can be used to increase the visual acceptability of bin store areas.
Mixed development e.g. commercial and residential should have separate storage facilities as the two sources should not be mixed.	The need for the occupier to take containers through their house to the collection point should be avoided.
Storage areas must be of sufficient size to accommodate the required containers per Section 2.0. An additional 100 mm must be allowed between bins to allow free movement. All bins must be easily accessed by householders – i.e. bins should not be placed in rows one behind the other.	Storage points should be hard, impervious, free draining surfaces of an appropriate size to accommodate the containers which need to be presented in a way without intruding onto the public right of way.
	There should be no changes of level between the location where the bins are stored and the collection point unless appropriate lifting equipment is in place.

3.2.2 Bin Stores

Bin stores are not a requirement, but where provided should follow the requirements in BS 5906:2005 Waste Management in Buildings - Code of Practice. Some developments may require security such as lockable doors or gates. Collection crews will require access in these cases.	Bin stores should be no more than 10 m from vehicle access point. Where possible, it should be located close to car park entrance/ nearest adopted road to avoid the requirement for a collection vehicle to enter car park.
The entrance to a bin store should be a minimum of 1500 mm unobstructed access. Gates/doors should not reduce the space within or access to the store. If locked, 5 keys must be provided to the Council. Keys must be delivered to the Council's Waste and Recycling service in an envelope with a location map and address at least two weeks prior to occupation or the service may not be provided.	Good natural ventilation is required. Passive ventilation should be fly and vermin proof plus located as near as possible to ceiling or floor but away from windows of dwellings.
If covered, bin storage area must have a minimum or 2000 mm height clearance when 1280 litre bins are stored.	Enclosed stores should be well lit either by artificial or natural light. Electrical light to be supplied by means of a sealed bulkhead fitting.
Bin stores ideally to be external to building or capable of being isolated from the main building.	Bin stores ideally have a trapped gulley connected to the foul sewer and wash down facility in the interest of hygiene. Rainfall or surface water should not be allowed to flow into the bin store. Bin stores should be free of pipework and other obstacles.

3.3 Access and Roads

Road layout and design must take into account the Council's access requirements for waste and recycling collection vehicles (Refer to Transport and Accessibility Supplementary Guidance for more information).

Access	Access from the rear to the front of a terraced/detached/semi detached house must be provided to allow movement of bins to collection point on kerbside. This may be provided by means of a footpath, common pend or an integral ground floor garage for terraced houses.
Road/ Path	Road surface should be to adoptable standard and able to withstand the Gross Vehicle Weight (GVW) of the collection vehicle of up to 26 tonnes.
	Road or path gradient must be less than 1:12.
	A two way road no less than 4.8m wide is required as determined by Scots National Roads Development Guidelines.
	Hammerheads should be avoided in the interests of reducing reversing manoeuvres if possible.
	Turning circles provided at all no-through roads. See Appendix A. The maximum turning circle of a collection vehicle is 20.3 metre (see Appendix B)
	Roads should be free of tree roots or overhanging branches which may impede or cause damage to the collection vehicle.
	Drop down kerbs provided at adequate points and these must be 6 mm upstand. Yellow lines or other measures should be provided at drop down kerbs to deter obstructive parking.
Car park	Residents requirement to cross a road or car park to access bin store/ bin storage area should be minimised as far as possible
	Parking spaces should not restrict access to bin stores or collection crew access between bin store and vehicle. Bins should not be moved between parked vehicles unless there is a path between spaces.
	Any archway to a courtyard should be a minimum of 4.5 metres in height.

3.4 Collection points

The collection point is the location where the container will be placed on collection day and should be detailed by the developer on the site layout/ map. These collection points should be convenient to both the resident and the collection crew.

The Council's policy is to uplift waste and recycling containers from the nearest adopted public road. Collection vehicles may enter private roads but only by agreement provided that the road continues to meet an acceptable standard (see Appendix D).

Kerbside	Sufficient space should be provided outside all developments by the side of the road where the collection vehicle will access the development for residents to place their waste and recycling containers on collection day. This should not cause any obstruction of the road or footpath.
End of Road Collections	End of road collection point will be required in cases where the location does not meet the criteria laid out in Appendix D. If this collection point is near a public road the Roads Service should be consulted for approval.
Communal Street Collection Point	On street collection points must be identified by the developer.
	Communal street collection point should be within 30 m of all residents

4. Commercial Developments

Commercial, industrial and retail sites vary depending on business type and scale. Developers must provide details of how waste from the business will be stored and dealt with in accordance with the following legislation:

- Section 34 of the Environmental Protection Act 1990 and the Duty of Care. This requires the business to ensure that it stores waste safely, does not allow it to escape, and to only transfer it to someone who is authorised to deal with it.
- Waste (Scotland) Regulations 2012. This requires businesses to present their recyclable materials and where appropriate, food waste separately for collection. It is important that plans identify where waste, recyclables and food waste will be stored and also identify the collection points for any containers.

Premises must be able to demonstrate that adequate arrangements are in place for waste management and that the bins are not permitted to be either stored permanently on the street or outwith the curtilage of the premises. Bins must only be presented on the street for collection then removed once emptied.

4.1 Storage and capacity

Consideration should be given to how the wastes will be separated both internally and externally.

Commercial Properties	
Internal capacity	Storage space for waste and recyclables should be dry and vermin proof.
	Internal space should be provided for a food waste, dry recyclables and residual waste.
	For licensed premises, additional storage may be required for glass bottles.
	Storage areas must meet health and safety requirements for access, lighting, ventilation and should be secured to prevent fly tipping and vandalism.
External capacity	An area of hard standing at storage and collection points being a size to accommodate bins and prevent overflow onto public right of way (see Section 3.2 for guidance on storage)

	Dropped kerbs at proposed bin collection point where necessary.
	Yellow lines or other measures to prevent parking access problems should be provided at collection point.
	Bin storage areas should be provided with a gulley and wash down facility.
	Retail facilities over 1500m^2 are required to provide public recycling facilities. Please contact the Waste & Recycling Service to discuss.

Guidance on estimated waste storage capacity requirements by business type:

Development type	Litres per 1000 metre gross floor space
Offices	2600
Retail	5000
Restaurants and fast food outlets	10,000
Hotels	4500

The location of collection points should be identified at the planning application stage and space should be provided for all waste and recycling services.

Please refer to Making Space for Waste for further guidance.

Trade waste is a chargeable service and this can be provided either by the Council or another contractor. The contact details for the Council's Trade Waste Team are:

03000 200 292
businesswaste@aberdeencity.gov.uk

5. Underground Bins

Underground, semi underground or above ground bin storage is required for a Communal development unless the developer can fully demonstrate to the Planning department that there is a technical reason why this option cannot be implemented. If space is at a premium, underground bins provide an aesthetic and valuable solution eliminating the need for on-street bulk bins which threaten limited parking spaces.

Developers should be advised of the options below:

- Each household should be provided with containment capacity of 120 litres for general refuse and 120 litres for recyclate per week.

- Underground containers are available in 3000, 4000 or 5000 litre capacities; equivalent to 2.3, 3.1 and 3.9 x 1280 litre on street bins respectively.

This is our preferred option in developments where:
Space can be provided for 1835mm x 1835mm per container with 2 containers needed (general refuse and dry recycling) per:

- 25 properties if 3000l containers are used
- 33 properties if 4000l containers are used
- 41 properties if 5000l containers are used

NOTE: properties will still be provided a brown bin (houses) for garden/ food waste requiring a 1m x 1m paved area per property or a communal food waste bin for flats.

6. Contact Details

Residential Waste and Recycling:

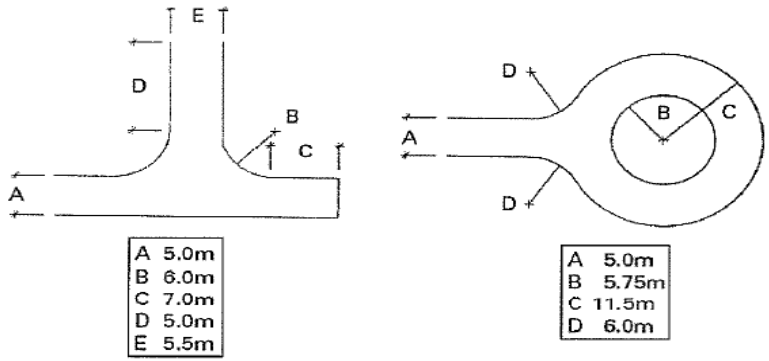
- Technical Support Officer - Planning and Performance: wasteplanning@aberdeencity.gov.uk

Commercial Waste:

- Trade Waste Officer: businesswaste@aberdeencity.gov.uk

Appendix A: Minimum Road Turning Area Dimensions

11.8 Minimum dimensions for turning areas (waste collection vehicle)



Please note that this could be subject to change over time, therefore please liaise with the Waste and Recycling Service to check dimensions.

Appendix B: Collection vehicle dimensions

Here are the dimensions of our largest vehicles:

Top loaders: height 4.00m x Width 2.55m (those dimensions in transport mode and not tipping height ie top loaders)
Mercedes Econic 3 axle and is 10.30m long.

Please note that this could be subject to change over time, therefore please liaise with the Waste and Recycling Service to check dimensions.

Appendix C: Dimensions all waste, recycling and food containers in use for residential developments

Container Type	Height (mm)	Width (mm)	Depth (mm)
180 litre	1080	480	740
240 litre	1070	585	725
660 litre	1330	1230	720
1280 litre	1298	1280	1000
Food waste	1298	620	650
10 litre food waste caddy	300	230	240

Appendix D: Unadopted Roads Waste and Recycling Collection Policy

1. The following criteria should be fulfilled in order for collection from a private road to be provided:

   - The road surface is in a good state of repair, free of potholes and/ or is of asphalt (or a similar bound surface)
   - There should be a minimum of 5 households located on the private road (although the service may be provided to fewer properties where the alternative road end collection is deemed to be hazardous or undesirable for any other reason and provided all other criteria are met)
   - The road is at least 3 metres in width without obstruction from trees, shrubs, cables, etc. which could cause damage to the side of the vehicle or mirrors
   - The minimum height clearance should be 3.75 metres without obstruction from overhanging branches, cables etc. which could cause damage to the lighting on the roof of the vehicle
   - There should be sufficient turning area to allow a 10.5 metre long vehicle to turn in no more than three manoeuvres
   - There are no health and safety risks to recycling and waste collection vehicles and/ or employees arising from road conditions such as adverse cambers; poor visibility at bends; risk of flooding; unprotected steep embankments

2. In cases where the road does not meet the required standards defined in Paragraph 1, as assessed by a Council Officer, residents are required to place their waste or recycling in the container provided on the pavement or verge of the nearest adopted road to their property.

3. Where a location meets the criteria in this policy but the access road then falls below the minimum standards, householders will be notified that remedial action is required.

   If the road condition is considered to be likely to cause a serious safety issue householders will be informed and the service will revert to the nearest adopted road with immediate effect.

   Where the defect is less serious, letters will be sent to householders giving a reasonable timeframe for action to be taken. If this is not carried out to the service's satisfaction within that time the service will be withdrawn and revert to collection from the nearest adopted road. Householders may re-apply for service re-instatement at a later date.