# 2.3 HEALTHY, SAFE AND WELCOMING ENVIRONMENTS

# 2.3.1 CREATING SAFE PLACES

Create active frontages directly onto important streets and publicly accessible routes and spaces.

## In flatted development:

- Provide main door flats that are accessed directly from the street.
- Make sure all external space (including pedestrian and cycle paths, bin, and cycle stores) is well overlooked.

Show how external lighting is designed to promote community safety.

Take account of suicide risk in the design of buildings and structures.

#### City Plan 2030 Policies

ENV 3 Development Design – Incorporating and Enhancing Existing and Potential Features

ENV 25 Layout Design

ENV 27 Public Realm, New Planting, and landscape

Design

#### **NPF4 Policies**

Policy 14 - Design, quality, and place

Policy 23 - Healthy and safety

Design and layout play a key role in promoting and enhancing people's perception of safety in streets and public space, and in deterring and preventing crime and antisocial behaviour. This guidance addresses the

principles of protecting the safety of women, girls and marginalised groups.

People feel safer where buildings overlook and provide direct access to public space, streets, and paths. An active frontage, where the ground floor is designed to promote visual contact and pedestrian movement between inside and out, ensures that this is achieved.

People also feel safer knowing that other people are nearby. Streets and spaces that attract high footfall or offer good passive surveillance (e.g. from restaurants with outdoor seating) are more likely to signal that an area is safe, particularly at night.

Perception of safety is also influenced by the quality and condition of the public realm. Neglected and poorly maintained spaces often attract litter, graffiti or antisocial behaviour which, in turn, can make them feel unsafe.

# Safety at different times of day and season

Perception of safety varies according to time of day and season. This is especially relevant in Scotland, with short winter days. In darkness, people feel less safe on streets and spaces that attract little human activity, including traffic, are poorly lit or are dominated by blank frontages. They can also feel threatened, particularly at night, where businesses such as late-night venues attract antisocial behaviour. In assessing the suitability of ground floor uses, the Council will consider each case individually and balance implications for community safety against the need for development, including change of use.



**Eyes on the street** - The well-lit active frontage of this hotel on Torphichen Street contributes to the sense of safety on the adjacent pavement.

# **Street frontages**

Edinburgh has a wealth of neighbourhoods with active frontages that contribute to community safety. This is an important positive characteristic of the urban environment that development is required to replicate. To do so, design and layout should:

- Enclose streets and spaces with strong frontages that have active ground floor uses.
- Position principal entrances to take direct access from the street or space; where doors are accessed by paths, make sure these are well-lit.
- Configure ground floor plans to maximise opportunity for frequently spaced windows and doors facing the street.

- At street level, enable high levels of transparency and passive surveillance between inside and out.
- Locate "back of house" uses (e.g. plant rooms and cycle storage) away from the street edge to avoid blank walls or visually "dead" space;
- Minimise ground level recesses to deter antisocial behaviour; where these occur, make sure they are well-lit.

#### Movement routes

It is common for pedestrians and cyclists to take longer journeys, particularly at night, to avoid routes that are perceived to be unsafe – including deserted streets, underpasses and paths that are isolated or have poor sightlines, blind corners, high vegetation etc. Instead, people often favour routes where pedestrians, cyclists and vehicles travel safely alongside each other, offering activity, human presence, and natural surveillance. On isolated paths, wayfinding can contribute to a sense of safety by indicating proximity to destinations and landmarks and directing people to alternative routes.

Design and layout should enable safe, convenient access to key facilities and destinations at all times of day. Proposals will be assessed on the extent to which they:

- Create or contribute to a legible street hierarchy that integrates the needs of all street users
- Provide, where necessary, alternative links for walking, cycling and wheeling that avoid under-used routes with poor natural surveillance, blind corners, underpasses etc
- Locate public transport stops, if required, to maximise opportunity for passive surveillance and passing footfall
- Make sure paths leading to and through development are well-overlooked and have good sightlines that are not obscured e.g. by planting

- Make sure storage areas (e.g. for bins, cycles) are well-lit with good natural surveillance
- Use gable windows wherever possible to enhance passive surveillance over paths and footways

## Lighting

Effective lighting can make a very positive contribution to a person's sense of safety. People feel less safe in areas where lighting is insufficient, poor quality or poorly maintained.

In addition to lighting levels, it is important to consider the quality, type and consistency of lighting that people need to feel safe. To promote a sense of pedestrian safety, street lighting must illuminate pavements as well as the carriageway.

In parts of the city, particularly in or near parks and water courses, lighting interventions could have a significant detrimental impact on ecology. In these locations design must take account of nocturnal ecology and the needs of different wildlife species. Applicants should refer to Park Lighting Technical Guidance that the Council expects to publish in 2024.

External lighting is a key test of community safety and overall design quality and should be integrated into the design from the outset. It must also be considered as part of Road Construction Consent.



**Active frontages and housing—Marchmont Tenement** - Traditional tenements (above) have main doors directly into ground floor flats which maximises activity on the street and help ensure front gardens are used.



**Lights and active frontages improving the sense of safety -** The lampposts and active ground floor uses on Middle Meadow Walk work together to make the area feel safer.

#### Maintenance

Applications are required to provide a satisfactory scheme of maintenance for external space. <u>See Chapter</u> "1.4.4 <u>Landscape Design and Public Realm" on page</u> 41.

#### Liaison with Police Scotland

The Council will refer all major planning applications and local developments that have particular security issues to the Police Architectural Liaison service for their comments. Developers are encouraged to make early contact with the Police Architectural Liaison service.

Secured by Design is the Police's initiative to design out crime in the built environment. This has many benefits. However, sometimes there can be a conflict between the needs of Secured by Design and planning requirements. It is important that these matters are understood early in the process so that they can be addressed without compromising the design as a whole. Meeting the needs of Secured by Design should not be at the expense of the overall quality of the external space within the site.

#### Eyes on the Street Principles

The following matrix illustrates five key principles to consider in order to allow passive surveillance and potential interaction in streets and spaces in order to make these spaces safe.

For more information, refer to <u>Edinburgh Street Design Guide</u> Factsheet Pog - Women's Safety.

#### ES1 – Street use and activity

Human activities on the route which make people feel safer, e.g. people waiting at bus stops, walking or sitting outside cafes.



High levels of positive on-street activity. Multiple diverse activities and users throughout the day.



No significant positive on-street activity during the day. Issue is worse when dark.

#### ES2 - Building frontages

Glazing at ground level allowing people to see into and out of the building. A mix of uses to ensure social activity in the daytime and evenina.



Transparent frontages that provide more visibility to the activity inside. Active frontage along majority of route which includes a range of amenities which are open during daytime and evening.



No active frontage or potential relationship between activity inside and outside.

#### ES3 – Hidden Corners

Minimal hidden corners and areas where people could hide e.g., alleyways, underpasses, tunnels, recesses, large street furniture.



Avoiding hidden corners, maximising visibility, passive surveillance and opportunities for escape.



Multiple hidden corners and areas where people could hide. Restricted visibility, passive surveillance and opportunities for escape.

#### ES4 - Walls or barriers

Walls or barriers are kept to a minimum with clear entrances and exits providing good visibility.



No walls or barriers or if present are less than 1m in height, discontinuous, and promote good inter-visibility. Wide entrances and clearly visible exits.



Walls or barriers are over 1m in height for walking routes with long and continuous sections or dead ends, limiting safety and opportunity for escape.

#### ES5 – Carriageway activity

Low speed, low volume vehicular traffic, and/or high levels of cycle traffic, offering passive surveillance and interaction with pedestrians.



Low speed, low volume vehicular traffic passing that may allow interaction between pedestrians and carriageway users, whilst promoting a pedestrian-friendly space.



High speed and volume of vehicular traffic, and low cycling levels, resulting in little opportunity for interaction and creating a physical barrier.

## **Designing for Suicide Prevention**

Buildings and structures that have public or shared access to an external space adjacent to a drop can present a greater risk of suicide by jumping from a height. Due to the topography of Edinburgh this is not limited to tall buildings. This risk is further increased where buildings and structures are located next to rivers. While it is not possible to create an entirely risk-free location, the design should include features that decrease this risk. Potential methods include the following:

- Designing physical barriers to prevent or delay jumping from height. This can be through balustrading or fencing.
- Including strategically placed dense, thorny or prickly planting to delay and deter access to a potential jumping location. This method must include consideration of the maintenance of the planted barrier.

Different methods may have an aesthetic impact. Not all solutions may be appropriate for buildings of a higher heritage status.

The level of surveillance of high outdoor areas should also be considered. Jumping from height is most common in unobserved locations. Providing passive or active surveillance through the inclusion of uses that overlook roofspaces or through CCTV may deter suicidal individuals and increase the opportunity for human intervention.

If roof or balcony areas are open at night-time, the lighting strategy should ensure that there are no unlit areas where suicidal individuals can linger unobserved for prolonged periods of time.

High risk locations can also include clear signage that provides appropriate messaging that can deter suicidal individuals and direct them to places of support.



**Rooftop planting to reduce risk** - The intensive planting on the rooftop of the National Museum of Scotland provides an attractive edge, while also delaying or deterring anyone from accessing the roof edge.

# 2.3.2 PUBLICLY ACCESSIBLE OPEN SPACE

Make sure new homes are within walking distance of good quality, well-designed greenspace.

Design public open space in residential development to:

- meet the needs of existing and future communities.
- connect to surrounding networks that promote active travel, green-blue infrastructure, and biodiversity.

Make sure open space is useable, welldesigned and has good natural surveillance.

Where appropriate, provide new, publicly accessible open space in non-residential development.

### City Plan 2030 Policies

Env 6 - Green Blue Infrastructure

Env 27 - Public Realm, New Planting and Landscape Design

Env 31 - Useable Open Space in New Development Inf 1 – Access to Community Facilities

#### **NPF4 Policies**

Policy 14 - Design, quality and place

Policy 15 - Local Living and 20 minute neighbourhoods

Policy 20 - Blue and green infrastructure

Policy 21 - Play, recreation and sport

Local greenspace, close to homes, plays an important role in how people feel about their neighbourhood. It also offers convenient spaces for everyday enjoyment of the outdoors such as meeting up with neighbours, harbouring wildlife, enjoying a walk to the shops, or playing after school.

Neighbourhoods also benefit from proximity to a large park where the whole community can enjoy free time. A well-designed park enables people of all ages and abilities to come together for local events, experience natural open space and engage with wildlife and scenery across different seasons. It's a place to exercise and play informal ball games, walk the dog, or go for a run.

Housing development is required to promote health and well-being by providing outdoor spaces that are useable and attractive.

Non-residential development may be required to provide publicly accessible open space, justified by the scale of development and the needs it gives rise to.

# Useable open space

Publicly accessible open space should be useable and suitable for a range of functions and should cater for a variety of needs and ages. See Chapter "2.3.3 Inclusive Design of Public Space" on page 102.

Provision, design and management of open space, including greenspace and play areas, must be considered as an integral element of placemaking from the start of the planning process. This should be informed by an understanding of local community needs, including health and well-being, and should establish the necessary framework for new neighbourhoods to thrive.

As far as possible, public open space should be directly overlooked from adjacent businesses or main



Publicly accessible open Space providing a range of uses -**Saughton Park** - This open space works well with the adjacent cafe, providing outdoor seating alongside tables for playing chess.

living areas in adjacent homes, such as living rooms and kitchens. Open space that lacks good natural surveillance will not be supported.

Areas that will not count towards the provision of useable public open space include:

- Sloping or heavily overshadowed open space;
- Narrow corridor space:
- Verges on the periphery of development;
- Left-over grassed areas lacking a specific use and/or high biodiversity value.
- Poor quality, poorly located planting.

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# Walking distance

Walking distances to public open space should be based on actual routes, rather than distance 'as the crow flies'. Wherever possible routes should avoid crossing busy roads. see "1.5.2Living Well Locally" on page 53

# **Edinburgh's Open Space Strategy**

The Council's *Open Space Strategy* sets standards to ensure that all communities have access to quality greenspaces that cater for a variety of needs and ages. The strategy sets separate standards for Local Greenspace, Large Greenspace and Play Access. It also guides the protection, management, and expansion of the city's parks, play areas, sports pitches, and community growing space.

All residential development should support the delivery of the strategy by providing publicly accessible open space on site. Where this is not possible, contributions may be sought for the improvement of open space within the area.



**Incorporating green space into high-density developments, Fountainbridge** - A range of green space is included in the public realm of McEwan Square as part of this development.

# **Local Greenspace**

All homes should be within 400 metres walking distance of 'good' quality, accessible greenspace measuring at least 500 square metres.

Local green space should:

- Complement provision of private gardens for new houses, blocks of flats, garden flats and communal back greens
- Have surfaced paths linked to the surrounding area
- Provide features to attract wildlife
- Incorporate seating or walling, cycle parking and waste bins
- Provide a safe and stimulating place for unequipped play
- Incorporate urban tree planting and use of hedges and shrub planting to define spaces and create appropriate shelter and shade
- Incorporate fruit trees and raised beds for community growing

#### In addition:

- Areas of open grass should be balanced with the use of herbaceous perennials and bulbs to create yearround interest
- Local greenspace can be complemented by drainage features, such as grass or planted swales and rain gardens, providing these form part of useable open space
- Below ground surface water storage should be avoided



**Small open space in the Old Town—Hope's Court on Trunk's Close -** This small space makes good use of its constrained site and provides an attractive, tranquil green setting for surrounding uses.



**Providing a range of new local greenspace, Lawrie Reilly Place** - This housing development includes informal play space and wildlife planting to supplement the private gardens in the area.

# **Large Greenspace**

All homes should be within 800m walking distance of an accessible large greenspace of 'good' quality, measuring at least two hectares.

New large greenspace must relate well to homes, schools, public buildings, and commercial uses, placing it at the centre of community life. Its location should provide options for refreshment and access to conveniences. It should also meet local greenspace needs.

The overall size and form of new parkland should respond to the topography and the opportunities of the site. Parkland design, location and layout should also:

- Provide well drained, level ground for community events, markets, informal ball games, outdoor learning, and personal exercise
- Create opportunities for outdoor socialising including group activity and events

- Deliver measured walking and running circuits, linking, wherever possible, to the wider green/blue network
- Integrate community growing space such as gardens, orchards and/or allotments
- Incorporate existing built, cultural, and natural features, including skyline views to celebrate distinctive local characteristics
- Maximise opportunities for new landmark features such as woodland and forest scale trees

#### In addition:

- Surface water management solutions should deliver amenity and biodiversity benefits. Examples include planted swales and storage basins that create wetland habitat or open water as a landscape feature
- Grassland management may include a mix of close mowing, naturalised grass, or meadows

# **Play Access**

Edinburgh's vision is to achieve a 'play friendly city, where all children and young people can enjoy their childhood.' Play is vital to help children learn how to get along with each other and keep healthy.

Parks and other large green spaces provide the ideal setting for high quality, equipped play space. Exploring woodland and meadows, or running up and down slopes, also provide ways for children to develop creativity and imagination.

Housing development is required to comply with the Play Access Standard set out in the Council's <u>Open Space Strategy</u>. Play area design must comply with requirements set out in the Council's <u>Play Area Action Plan</u>.

In addition to equipped play spaces, new green space and residential streets should be designed to encourage more 'free play' without equipment.



**New large greenspace at the centre of community life** - Meadowfield Park in West Craigs has been created to providing access to good quality green space to new homes being bult in the area. The park includes a range of greenspaces, include new tree planting, a wildflower meadow, new playspace and an intergrated SuDS basin with a raised timber walkway.



**Play space included alongside new housing** - This play area in Cammo has been designed in the central green space with good passive surveillance provided by the adjacent housing.

## **Community growing space**

Facilities such as community gardens and growing space, orchards, woodlands and allotments within new greenspaces allow both new and existing communities to have a greater influence on how places develop over time. They can also strengthen bonds and contribute to the sustainable management of the city's greenspace resources.

The Council is committed to widening access to more local food production and promoting more sustainable management of food growing. <u>Growing Locally</u> (<u>Edinburgh's Food Growing Strategy 2021 - 2026</u>) sets key objectives and showcases the wide range of food growing sites and food-related activity that already exists. The Council's <u>Allotment Strategy</u> describes the current approach to planning and managing allotments

in the city. Advice on site planning and design is presented in <u>Scotland's Allotment Site Design Guide</u>.

Opportunities to integrate community gardening and food growing into publicly accessible open space should be considered from the outset of the design process. Provision should be tailored to local needs and should address ongoing management requirements. This is likely to require engagement with neighbouring communities throughout the planning process.

Where development is phased, it may be appropriate to consider community food growing as a 'meanwhile' use on part of the site.

#### Path surfaces

Path surface plays a key role in enabling and encouraging people to spend time outdoors. Materials must be tailored to the context and footfall:

- A grass edged multi-user path with Macadam wearing course will generally provide the most robust long-term solution, enabling access for all, including wheelchair users and pushchairs. This can be enhanced using rolled stone chips
- Bound gravel may be suitable for local greenspaces or feature spaces
- Whin dust paths are generally only acceptable in semi-natural settings, subject to appropriate build up, drainage and ongoing maintenance



**Community growing space alongside housing** - The Ropeworks housing in Leith includes allotment space for the community



**Providing pleasant, accessible and durable paths -** The allabilities path network at Saughton Park

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# 2.3.3 INCLUSIVE DESIGN OF PUBLIC SPACE

Make sure open space is welcoming and safe for individuals and families, and for people of all ages, abilities and gender identities.

Make open space and play facilities easily accessible from bus stops, pedestrian and cycle routes.

Design play areas to be stimulating and challenging for a range of ages, genders and mobility needs.

# City Plan 2030 Policies

Env 27 - Public Realm, New Planting and Landscape
Design

Env 31 - Useable Open Space in New Development

#### **NPF4 Policies**

Policy 14 – Design, quality and place
Policy 21 – Play, Recreation and Sport

Public open space, including parts of the green-blue network, should be welcoming and safe for individuals, families and people of all ages, abilities, and gender identities. Inclusive design considers the needs and preferences of different users including requirements for shelter, safety, seating, opportunities of social interaction, quiet areas, movement, and play.

## Meeting the needs of a range of users

Meeting the needs and preferences of different users involves creating spaces of distinct and different landscape character that serve a range of functions and experience.

The variety of functions will vary by scale but in all circumstances, space is required to provide:

- Sheltered areas for neighbours to meet, walk and dwell, incorporating safe space for informal play.
- A range of resting and seating areas to suit people of all ages including some with:
  - both back and arm rests
  - space for buggies, wheelchairs etc.

Small parks should typically include a variety of green spaces with functions such as gardens, play, exercise, strolling and quiet seating. Larger parks should typically provide:

- Seating within easy access of public transport links and car parking bays
- Formal and informal play facilities
- Locations for public toilets and drinking fountains (and connected infrastructure)
- Fenced, dog-free quiet zones
- Outdoor classrooms with accessible space suitable for primary school children
- Accessible waymarking and interpretation (e.g. natural and built heritage, archaeology)



**Making open space accessible** - An all abilities surface has been incorporated into recent improvements to Coalie Park, adjoining the Water of Leith Walkway.

## Safe, accessible routes

Inclusive design creates routes that are safe and accessible for all users. Site topography is considered from the outset ensuring routes are designed to achieve gentle gradients. Where steep level changes are unavoidable, a choice of routes must be provided.

Route choices should also include:

- direct, clearly legible connections to surrounding streets, spaces and active travel routes
- meandering routes providing access to quieter areas, away from principal paths and cycleways

Design and layout should also deliver:

- Safe crossing points at entrances
- Open and inviting gateway features
- Routes that are wide enough, and adequately surfaced, for safe wheeling in two directions
- Good lighting and clear sightlines along principal footpaths and cycleways
- Good natural surveillance on principal routes ensuring, wherever possible, these are welloverlooked by adjacent buildings
- Places for people to rest on their journeys
- Waymarking signage to help people navigate and orientate themselves easily. Navigation should also be supported by incorporating landmarks, such as trees, buildings and public art into movement layouts and views



**Play for a range of ages, Meadowfield Park -** The playspace at Meadowfield park provides a range of play equipment and landscape.



Sensory garden in a therapeutic setting, Royal Edinburgh Hospital Garden - The accessible community garden has been designed to supports sensory experiences, like smelling flowers, touching and tasting. Photo courtesy of erz landscape, © Christopher Swan Photography

# **Inclusive play space**

Inclusive design delivers play areas that are stimulating and challenging for the entire range of ages, genders and mobility needs. This includes areas suitable for children who should be accompanied by a guardian, those who can go and play independently, and older children.

Inclusive design provides:

- Safe, stimulating unequipped play for children of all ages and levels of mobility (through either manufactured features or playable natural landscapes)
- Opportunities for older children and adolescents to socialise as well as play
- Sheltered, outdoor space that is safe and inviting to older and adolescent girls
- Quiet areas that enable sensory experiences
- Spaces and equipment that engage the senses (such as tactile experience, smell and taste, use of colour, texture, sound, movement, vibration, water, and lighting)

Play areas should be enclosed in attractive settings that are overlooked, well-lit and take advantage of direct sunlight. They should be easily accessible from bus or tram stops and active travel routes. They should also be equipped with space to park buggies, prams, mobility equipment and non-standard cycles. A range of seating choices should be provided for adults of all ages to keep watch over children playing

Provide all residential accommodation with useable, well defined, good quality private open space.

Provide houses and ground floor flats with good quality private gardens.

Make sure the design and orientation of private open space provide satisfactory levels of privacy, amenity, sunlight, and shelter.

# City Plan 2030 Policies

Env 31 - Useable Open Space in New Development

Env 32 - Useable Communal Space and Private

**Gardens in Housing Development** 

Env 33 - Amenity

#### **NPF4 Policies**

Policy 14 - Design, quality and place

Policy 16 - Quality homes

Providing attractive, useable private open space is key to fostering a healthy living environment that benefits residents and other building users. Well-designed private open space encourages social interaction and cohesion and can influence people's physical and mental well-being. It can also play a significant role in helping the city respond to climate change, including safeguarding and enhancing biodiversity.

All development that includes long term accommodation (including housing, HMOs, purpose built student accommodation, and residential care homes) must satisfy useable private open space requirements.

The appropriate range of open space functions will vary by tenure and the needs of individual resident groups.

Functions are also likely to be informed by the site context, including setting and orientation. Design and layout of all private open space must achieve a clear distinction between public and private space, defined by appropriate boundaries such as walls, railings or hedges both to the street edge and between neighbouring properties.

# Private open space in high density development

The Council's commitment to high quality, high density, mixed-use development makes it likely that residential development will rely on a mix of communal open space and private gardens. High density development requires efficient and effective use of space, emphasising the importance of high-quality design. Applications will be assessed on the extent to which the design and layout of open space, its attractiveness and range of functions, will meet the varying needs of future residents.

Ground floor flats should generally be provided with private rear gardens of a minimum depth of 3M, which may open directly on to communal gardens. Where the depth of private gardens is limited (for example less than 3M), patio doors to the main living space and a defined threshold space should be provided.

Wherever possible, communal open space should be located at ground level, maximising opportunity for high quality landscaping, SuDS and green blue infrastructure. It should provide a sense of enclosure and privacy and be well-overlooked by properties who share the space. It should also be easily accessible to all residents. Residents should not normally have to cross streets or car parking to access communal open space. Where development comprises more than one building in multiple occupancy, each building is expected to satisfy individual/standalone requirements for open space provision.



Combining private and communal open space: Rowanbank Gardens - Balconies and private gardens provide natural surveillance to the communal garden.



**Little private space can be successful—Lady Stair's Close** - There is very little private outdoor space in the Old Town. This is compensated by the outstanding quality of the semi-private spaces in the form of closes and courtyards.

Where it is difficult to achieve the areas normally required for private open space - for example, because of a need to adhere to a spatial pattern in an area - balconies, shared or private roof terraces may count towards open space provision. It should be demonstrated that these will benefit from adequate sunlight or have an outstanding view. They should also be adequately sheltered and preserve reasonable privacy.

## Useability

Functions that count towards useable private open space include spaces for play, outdoor socialising, sitting, food growing and laundry drying. Elements that provide visual amenity such as trees, planting and water features can be included provided these form part of well-designed, multifunctional open space.

Areas not considered useable include:

- Space that is sloping, heavily overshadowed or has poor outlook
- Narrow peripheral or corridor space
- Planted buffer strips, including threshold spaces abutting flats unless these allow direct access from the properties served
- · Poor quality, poorly located planting
- Left-over grassed areas lacking a specific use and/or high biodiversity value;
- Primary paths
- Parking areas and vehicle routes

A SuDS feature can count towards open space provision only if it attenuates up to 1 in 30-year rainfall and is effectively designed as useable open space that also provides temporary, safe water storage.



**Private and shared gardens for flats** - This drawing is sliced through a courtyard development to show its interior and street side. It shows small private front gardens with private rear gardens opening on to a communal space. Additional space is required in gardens where there is insufficient natural sunlight. North facing gardens should be longer to compensate for this. Private garden grounds need to be of an adequate width and shape to be attractive and useable for residents.

# Private communal open space

Private communal open space, including shared terraces and decks, should be designed to balance a range of functions, including play, outdoor socialising, sitting and visual amenity. It should feature attractive planting and trees and, wherever possible, reinforce surrounding green blue networks.

Good quality communal open space typically provides:

- A defensible, attractive outdoor environment for residents and building users, secluded from vehicles
- Good passive surveillance from homes that surround and share use of the space
- A range of functions that includes sheltered sitting areas and space social interaction



**Private and shared open space** - The design of the flats at Canonmills Gardens follows the approach in the diagram above.

- Play opportunities serving a variety of age groups
- Planting that provides year-round visual interest and enhances biodiversity
- Well-proportioned space that relates well to the interior spaces and uses that surround it
- Sustainable surface water management and opportunities for rainwater harvesting, together with outdoor taps

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**Private balconies supplementing shared space, Shrubhill** - Balconies have been included to provide private outdoor space at high density

#### **Balconies and roof terraces**

A balcony or private roof terrace should have an area that is not less than 5% of the net floor area of the dwelling and should be accessed from the main living area.

Recessed rather than projecting balconies should be considered because they are more likely to benefit privacy and shelter. Where the balcony is recessed, care should be taken to avoid excessive reduction in daylight to main living rooms.

Roof terrace design should consider sensitive integration of blue-green infrastructure, including green roofs and raised planters.

## **Private front gardens**

Private front gardens and threshold spaces play an important role in softening the urban environment and providing planting on streets. They also preserve privacy by separating ground floor rooms from the public realm.

The need for street trees increases where gardens or threshold space cannot be provided.

It is likely that development will be required to provide a garden or threshold space of a similar size to nearby frontages, where these exist, to preserve the character of an area. Garden size often contributes to the character and attractiveness of an area, which is particularly evident in villa areas.

Boundary treatments are equally important to neighbourhood character. Driveways and in-curtilage parking should not interfere with the continuity of boundary treatments and/or street tree planting. Wooden fencing must not be used in the public realm.

# New houses with private rear gardens

The Council wants development to be adaptable and capable of meeting residents' changing needs. Design and layout of new houses should allow sufficient space for house extension while retaining reasonably sized gardens. This also ensures that neighbouring amenity can be protected.

Useable terraced space should be provided where development is set out across sloping ground. High retaining walls must be avoided and excessive changes in level should not be taken up across private rear gardens.

Wooden fencing may be used to separate private back gardens, providing these are screened from public view e.g. by a sensitive response to site topography. Consideration should be given to different heights of fencing to allow the communication between neighbours and to add visual interest.

Gardens should be equipped with outdoor taps and opportunities for rainwater harvesting.

# **Residential Homes and Care Homes**

Particular attention should be paid to the orientation of care homes and long-term residential homes.

Residents should have access to garden space that

is attractive and welcoming and provides a circuitous walking route. Garden areas should benefit from a good level of sunlight throughout the year.

# Open space: amenity

Privacy, sunlight and shelter are key factors in ensuring open space is useable. These will be influenced by layout, orientation and position of built form and open space, together with trees and planting.

Chapter "2.3.5 Daylight, Sunlight, Shelter, Privacy and Outlook" on page 108 sets requirements for sunlight standards in private open space. Space that does not meet sunlight standard will not usually count towards open space provision except on heavily constrained sites, such as in the city centre where development achieves a sensitive response to the historic setting.

Private and communal open space, including gardens, decks, roof terraces and balconies, should also receive adequate shelter from the wind. Open space that is not comfortable or safe for year-round standing, walking and frequent sitting by people of all ages and abilities will not count towards open space provision.



**A clear distinction—Marchmont** - It is clear what is public and private space in traditional tenements. The buildings enclose shared gardens making them private. At the front, the walls and hedges separate the public street from the private gardens.

# Technical guidance

#### Wind assessment

Wind is a key consideration in the design of streets and spaces that are sheltered, safe and comfortable for people to use. Strong winds and wind gusts affect the attractiveness of streets and the useability of public and private open space. Wind impacts are influenced by layout, orientation and position of built form and open space, along with trees and planting.

When there is concern that streets and/or open space could be exposed to strong winds, applicants may be required to submit a wind microclimate assessment that analyses the local wind environment and suggests ways to mitigate adverse impacts. This assessment should be carried out at an early stage in the planning process. The design statement should demonstrate how wind analysis has informed layout and design highlighting, where relevant, necessary mitigation measures.

It is anticipated that wind patterns will be assessed using computational simulations, based on round-the-clock analysis for all four seasons. Results should be reported using the Lawson Wind Comfort Criteria (LWCC), which classify wind conditions in relation to safety and comfort levels of people sitting, standing, walking and cycling. Conditions are expressed in terms of Gust Equivalent Mean (GEM).

To meet LWCC comfort standards, GEM must not exceed the following thresholds for more than 5% of the time:

Activity	GEM Speed (m/s)
Sitting	≤ 4
Standing	≤ 6
Strolling	≤ 8
Business walking/ running/ cycling	≤ 10

To meet LWCC safety standards GEM must not exceed the following thresholds for more than 0.022% of the time:

Activity	GEM Speed (m/s)	
Unsafe	<b>→</b> 15	
Dangerous	>20	

Wind conditions at relevant locations within and surrounding the development proposal should be analysed. These typically include entrances, open space (including decks, roof terraces, balconies), seating areas, play areas, and the street environment (e.g. footways, bus stops, pedestrian crossings, and cycle lanes). Applicants are encouraged to agree relevant locations with planning officers in advance. Analysis should address the impact of any mitigation measures.

Depending on the context, it may be necessary to analyse the difference between the wind environment before and after development is in place where, for example, the scale and position of built form could alter the local wind environment of an existing street or open space. Applicants must demonstrate that any impact on the existing wind environment falls within acceptable levels of comfort and safety. Analysis is required for:

- The site, as existing
- The development proposal with existing surrounding buildings; and
- (where relevant) the development proposal and adjacent, approved future development

# 2.3.5 DAYLIGHT, SUNLIGHT, SHELTER, PRIVACY AND OUTLOOK

Design built form and position windows to ensure that the amenity of neighbouring developments and/or open space is not adversely affected and that future occupiers have reasonable levels of amenity in relation to:

- daylight
- sunlight
- privacy and immediate outlook.

Maximise provision of dual aspect dwellings to limit potential for overheating.

City Plan 2030 Policies
Env 33 Amenity

**NPF4 Policies** 

Policy 14 - Design, quality and place

Policy 16 - Quality homes

Providing good levels of natural light and sunlight in buildings and spaces is beneficial to the health and quality of life of the residents and users of the buildings as well as helping to save energy through reducing lighting and heating demands. For this reason all development that includes long term accommodation (including housing, HMOs, purpose-built student accommodation, and residential care homes) must meet the daylight requirements for living spaces (living rooms, kitchens and bedrooms).

It is important that buildings are spaced far enough apart that reasonable levels of privacy, outlook, daylight, and sunlight can be achieved. However, care should be taken that buildings do not become so far apart that the townscape becomes uninteresting. Therefore, achieving reasonable amenity needs to be balanced against the requirement to achieve good townscape.

Trees impact daylight and sunlight. This can be positive - for example, deciduous trees provide shading from the sun in summertime but let sunlight into buildings in winter. However, if buildings are too close to trees, daylight can be adversely affected.

To achieve reasonable levels of daylight, windows must be big enough and interiors must be designed to allow daylight to penetrate deep within them. Reasonable levels of sunlight to buildings and spaces will be achieved if sufficient account is taken of orientation.

Daylight and privacy are particularly important in single aspect flats.

Edinburgh has a wealth of successful areas where good levels of daylighting, sunlight, privacy, and outlook have been achieved. These can be used as a guide



**Including a set back from a gable: Haymarket Terrace -** The upper floors of the modern office are set back from windows on the tenements' gable. This allows some daylight to reach the windows, but importantly maintains the street frontage.

to the layout and form of new development. When comparing proposed new development against existing situations, scale drawings, showing layout including external spaces, building height and elevations should be provided along with the relevant calculations and methodology. It is the responsibility of the agent/applicant to ensure that this information is provided and that all affected properties are clearly shown and tested.

This section applies to all new development where these aspects of amenity are particularly valued including housing, schools, nurseries, residential care homes, hospitals, and clinics

## **Dual and single aspect dwellings**

The quality of internal space needs careful consideration especially in higher density or flatted development. To provide a good standard of overall amenity, most dwellings should have two (dual) or more aspects. Dual aspect dwellings have windows on two external walls, which may be on opposite or adjacent sides of the dwelling.

The provision of more than one aspect can deliver multiple benefits for internal amenity including opportunities for:

- better daylight and sunlight
- greater flexibility as to the use of spaces, such as positioning bedrooms towards a quieter aspect if the development is on a busy road

Single aspect dwellings should not make up more than 50% of the overall dwelling numbers. In addition, development should avoid single aspect dwellings that are north facing or exposed to noise sources, or contain three or more bedrooms.

Where single aspect dwellings are proposed, applicants should demonstrate that they meet the requirements for daylight, sunlight and privacy for each habitable room and provide good levels of ventilation and internal amenity.

# Design to prevent overheating

Designing for a future climate includes considering the impact of heatwaves on living and working environments. Excessive indoor temperatures can affect thermal comfort, health and productivity. Buildings formed of lightweight construction are at greater risk of overheating than traditional stone buildings. High levels of natural ventilation, particularly cross ventilation, are an important means of mitigating the impact of excessive heat. Dual or multiple aspect properties provide better opportunities for cross ventilation so typically withstand high temperatures better than single aspect units.



**Generous window heights: Marchmont, Arden Street -** These tenements manage to provide good levels of daylight to all the properties. This is a result of the high floor to ceiling heights and relatively large and tall windows which allow daylight to go deep into the rooms.

# Privacy and outlook

People value privacy within their homes but they also value outlook - the ability to look outside, whether to gardens, streets or more long-distance views. To achieve both, windows should be set out so that direct views between dwellings are avoided.

The rearward side of development often provides a better opportunity for privacy and outlook than the streetward side. To some degree, privacy on the streetward side is already compromised because people in the street can come relatively close to the ground floor windows. In a street situation, privacy is generally achieved by means of blinds, curtains, translucent glass, etc.

The pattern of development in an area will help to define appropriate distances between buildings and consequential privacy distances. This means that there may be higher expectations for separation in suburban areas than in historic areas such as the Old Town.

On the rearward side, as well as spacing windows far apart, reasonable levels of privacy can be achieved by setting out windows on opposing buildings so that there are not direct views between them, angling windows and erecting screens between ground floor windows. In assessing this, the Council will look at each case individually and assess the practicalities of achieving privacy against the need for development.

Though private views will not be protected, immediate outlook of the foreground of what can be seen from within a building may be. Unless there are exceptional circumstances, development that blocks out the immediate outlook of an existing dwelling must be avoided.

This guidance does not seek to protect the privacy of gables of existing housing.

# Technical guidance

# Protecting daylight to existing buildings

New buildings should be spaced out so that reasonable levels of daylight to existing buildings are maintained. The Council will use the layout of existing buildings in an area to assess whether the proposed spacing is reasonable.

Daylight is a requirement for living rooms, kitchens (unless internalised) and bedrooms, and for non-domestic buildings where daylight would be a reasonable expectation such as schools and hospitals.

All daylight analysis and reporting must be undertaken by a suitably qualified professional. When there is concern about potential levels of daylight, the Council will refer to the BRE Guide, <u>Site layout planning for daylight and sunlight: a guide to good practice (BRE 209 2022 edition)</u> which shows how to measure daylight and sunlight.

It is important to understand the difference between the levels of daylight before and after the proposed development is in place. Applicants should provide assessment information showing the amount of daylight in an existing building before and after the proposed development is in place to demonstrate that there would not be an unacceptable impact on daylight to existing buildings.

The amount of daylight reaching an external wall is measured by the Vertical Sky Component (VSC). This should be more than 27% or 0.8 of its former value. If this is not the case, changes to the building design, including a reduction in building height may be required.

27% VSC is achieved where new development does not rise above a 25° line drawn in section from the horizontal at the mid-point of the existing window to be tested. This is the 25° method.

VSC can be measured using more complex methods that

are set out in the BRE guide. The applicant's daylight report should clarify which VSC method has been used.

If proposed development would not meet VSC requirements, particularly in more sensitive and densely planned parts of Edinburgh, the Council may require more detailed information on the likely amount of daylight in affected rooms in existing buildings. This will be assessed using the Daylight Factor methodology, as set out in the BRE Guide.

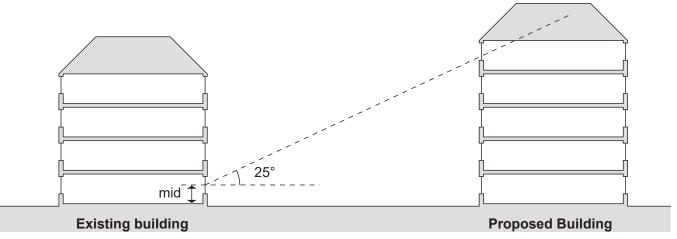
Daylight Factor measures the amount of daylight reaching grid points on a horizontal plane within rooms. The assessment is expected to demonstrate that daylight levels in existing homes will achieve the following targets:

Target daylight factors to achieve over at least 50% of the assessment grid			
Bedroom	Living Room	Kitchen or Living / Kitchen	
0.7%	1.1%	1.4%	

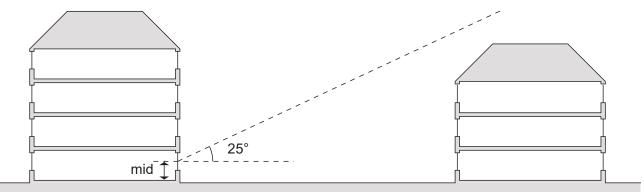
Daylight to bathrooms, stores and hallways will not be protected. Daylight to gables and side windows is generally not protected.

In calculating Daylight Factor the following criteria should be used:

Daylight Factor calculation criteria			
Default surface reflectances	Surface	Default reflectance	
	Interior walls	0.5	
	Ceilings	0.7	
	Floors	0.2	
	Exterior walls and obstructions	0.2	
	Exterior ground	0.2	
Transmittance of double glazing		0.68	



**Measuring Vertical Sky Component 25° method example 1 -** This situation may fail to provide reasonable levels of daylight to the existing building.



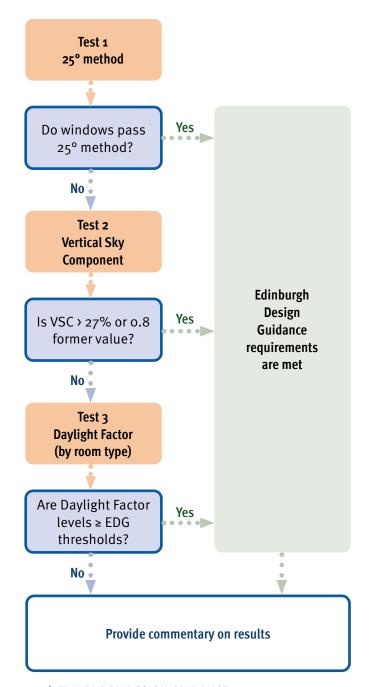
**Measuring Vertical Sky Component 25° method example 2 -** This situation would provide reasonable levels of daylight to the existing building.

Framing factor (net to gross area of window)	0.6
Maintenance factor (for dirt on glass etc)	0.92
Assessment grid height	0.85
Assessment grid spacing maximum	o.3m
Grid distance from walls	o.3m

In assessing impact on neighbouring daylight, the Council will consider each case individually. The

Council recognises that a marginal breach of Daylight Factor targets may be unavoidable where, for example, development replicates existing relatively high density and/or prevailing townscape character, or where daylight levels in neighbouring properties are already low.

# Assessing daylight to existing homes



# Daylight report: impact on daylight to existing homes

This report should:

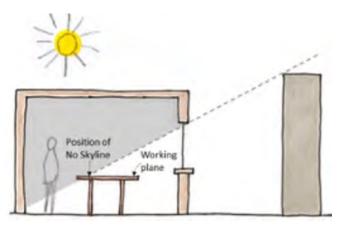
- Provide a map (dated) of the surrounding context showing residential properties where daylight may be affected by adjacent development
- Provide elevations and photos of these properties showing windows of habitable rooms that may be affected, individually numbered
- For each window:
  - supply an accompanying table recording existing Vertical Sky Component (VSC), proposed VSC, and factor of former value
  - Cross reference this data, by window number, to each elevation
- For windows where proposed VSC falls below EDG threshold:
  - Supply daylight data for affected rooms expressed as the Daylight Factor (DF), including annotated room layouts and an accompanying table
  - Confirm whether or not rooms conform to EDG target Daylight Factors
  - Confirm that the method used to calculate DF conforms to EDG and BRE guidance
- Provide a commentary on the impact on daylight to existing homes

# Providing daylight to new buildings

Another measure of daylight is known as the position of the "No Sky Line" (NSL), the point beyond which the sky cannot be seen on a working plane\*. The BRE guide explains this in detail. The NSL test is satisfied where direct skylight penetrates at least half-way into a room at the height of the working plane\* and where the window

surface makes up more than 25% of the external wall area.

Providing adequate daylight to new development does not guarantee that adequate daylight will be maintained to existing development. This could be the case in instances where the existing building is lower.



**No sky line method** - The no sky line divides areas of the working plane\* which can and cannot receive direct skylight. The extent of skylight in a room can be increased by raising the height of the window head.

\*The working plane will be different for different types of rooms – in housing it is assumed to be 0.85m above floor level and 0.7m high in offices.

# Daylight report: daylight levels in future homes

The report of daylight levels in future homes should provide a "No Sky Line" assessment for all habitable rooms that includes:

- Annotated context drawings
- Layouts of all dwelling units showing room numbers and daylight distribution contours
- Accompanying tables, cross-referenced to context drawings, showing NSL data for individual rooms, including whether rooms conform to EDG thresholds for daylight in new residential accommodation

- Confirmation that the method used to calculate NSL conforms to EDG and BRE guidance
- A commentary on proposed daylight levels in new dwelling units

## Providing sunlight to open space

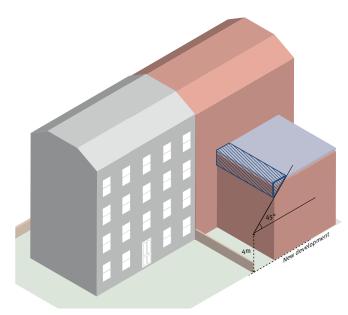
Sunlight is an important feature of gardens and open spaces. Applicants should assess the availability of sunlight to all open spaces that are created or affected by development. These include:

- gardens (usually a main back garden)
- communal private open space
- parks (including pocket parks) and public squares
- sitting out areas such as: between non-domestic buildings and public squares; along the waterfront promenade
- focal points for views, such as monuments and fountains
- playgrounds
- playing fields

Each type of space will have different sunlight requirements. When there is concern about potential levels of sunlight, the Council will refer to the BRE Guide, Site layout planning for daylight and sunlight: a guide to good practice (Second Edition, 2011).

# Sunlight to new gardens and amenity space

Half the area of new gardens and amenity space should be capable of receiving potential sunlight for more than two hours during the spring equinox, at a time of day that will be of benefit to future occupiers. This will be assessed using hour by hour shadow plans for each hour of 21 March.



**45° method for sunlight -** This sketch shows proposed development located on the north side of an existing garden. The sunlight to the existing garden might be adversely affected because development rises above the 45° line drawn from 4m above ground level at the boundary between the properties.

# Sunlight to existing gardens and open space

Built form should be laid out so that reasonable levels of sunlight are maintained to existing gardens and open space, including public open space.

Impact on sunlight to neighbouring gardens can be tested by checking whether new development rises above a 45° line drawn in section from the site boundary. If a development rises above this line, the amount of sunlight falling in the neighbouring garden might be affected. To take account of orientation, the 45° line should be drawn at the following heights above ground level along the different boundaries around the site:

Orientation of boundary in relation to potentially affected garden	Height of 45° line above boundary
N	4m
NE	3.5m
E	2.8m
SE	2.3M
S	2M
SW	2M
W	2.4m
NW	3.3m

Note that these heights do not indicate whether a development will be acceptable when assessed against other considerations.

The use of an affected area of garden and the size of the garden will be considered when assessing whether any loss of sunlight is adverse.

Sunlight to spaces between gables will not be protected unless the affected space is of particularly high amenity value when compared with the remainder of the garden. Examples include a patio space designed as an integral part of the ground floor plan.

Where there is an established, high-quality townscape (such as the Old Town) that in itself would not satisfy the requirements of the 45° method, sunlight will be assessed using before and after plans showing shadows for each hour on 21 March. The qualities of the existing space, and sunlight effects both before and after will inform whether any loss of sunlight is considered adverse.

Hour-by-hour shadow plans should be accompanied by a commentary on:

- the capacity of affected space to receive sunlight throughout the day, and
- the quantity and quality of sunlight lost

# 2.3.6 ENVIRONMENTAL PROTECTION

Adopt good design principles to minimise public exposure to poor air quality, noise, odour and light pollution, and contaminated land.

Enable all future residents to ventilate homes with clean outside air.

Avoid creating street canyons.

Minimise emissions and contribute to better pollution management.

Protect amenity and ensure noise levels are acceptable for new and existing residents alike.

Where land has potential to be contaminated, use site-specific assessment to identify and remediate contamination.

#### City Plan 2030 Policies

Env 33 - Amenity

Env 34 - Pollution and Air, Water and Soil Quality

#### **NPF4 Policies**

Policy 14 - Design, quality and place

Policy 23 - Healthy and safety

Development should actively enhance the environment, limit exposure to pollutants and minimise overall emissions, and this should be evident in the design approach.

## **Air Quality**

The location and design of a development has a direct influence on exposure to elevated air pollution levels. This is particularly relevant where developments include sensitive uses such as residential uses, hospitals,

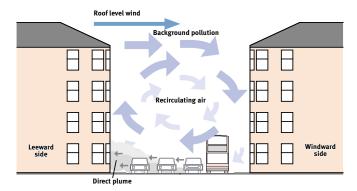
schools, open spaces, and playgrounds. Good practice principles in the design stage should be aligned to delivering *Cleaner Air for Scotland 2*, and should consider the following:

- New developments should not contravene the Council's <u>Air Quality Action Plan</u>, or render any of the measures unworkable
- Wherever possible, new developments should not create a new "street canyon" or building layouts that inhibit effective dispersion of pollutants.
   New trafficked roads should align to prevailing winds which may help with pollutant dispersal; alternatively, the creation of a buffer zone between busy roads and buildings could be another practical solution to pollution exposure
- New development should be designed to minimise public exposure to pollution sources, e.g., by locating habitable rooms away from busy roads
- Whether a ventilation system could be appropriately designed to mitigate against Particulate Matter pollution, which has no safe threshold.
- Zero carbon energy schemes are supported and the use of fossil fuels should be avoided.

In areas of poor air quality, use air quality assessments to determine the suitability and location of outdoor space, including gardens, balconies, and outdoor and roof terraces

Design and position open space to minimise exposure to pollutants. Screen outdoor spaces by planting where practical

Where parking is offered, 100% electric vehicle charging infrastructure should be installed



**Air flow pattern in a street canyon** – where vehicular traffic is expected street canyons should be avoided

# Protecting internal air quality

Residents should be able to ventilate their homes with clean outside air. Developers should be cognisant of the recommendations in the <u>NICE Guideline NG149: Indoor Air Quality at Home (January 2020)</u>.

To protect internal air quality, developers should specify environmentally sensitive (non-toxic) building materials. The use of materials or products that produce volatile organic compounds and formaldehyde which can affect human health should be avoided. The applicant should ensure this information is include in their Sustainability Statement.

#### Odour

Chimney or flue termination points located at low levels in relation to adjacent sensitive receptors are not supported. When designing extract for commercial kitchens, new plant, or industrial processes, careful consideration must be given to the location and height of these points. It is more effective to address odour at the design and planning stage of a new food business, plant, or process than to seek to resolve an odour issue retrospectively.

Wood burning stoves in particular give cause for concern regarding general air quality, indoor air quality and odour. These are discouraged, especially in the urban environment. In 2024 a Scottish Government consultation on air quality instigated work to look at how limitations on Permitted Development Rights for the siting of flues could be geographically targeted to help address the issues of nuisance and air quality.

#### Noise

In addition to reducing overall quality of life, excessive noise can damage health and harm the environment. The density and mix of uses within Edinburgh contribute to the vibrancy of the city. However, noise associated with this mixture of land uses can have a significant impact on the health and amenity of noise sensitive receptors.

- Where a proposed development will emit noise, site layout should be designed to minimise future noise complaints, incorporating the most appropriate mitigation measures into the scheme
- Where a proposed sensitive development is likely to be exposed to noise, the layout should be designed to minimise noise and implement the most appropriate measures to ensure amenity is protected
- This could include locating noise sensitive areas / rooms away from the noise source or designing the building so its shape and orientation reflect noise and protect sensitive uses
- Masterplan layouts should be designed to allow enough external space to accommodate landscape buffers (with mounding and planting) from any source of noise (e.g., busy roads, factories) in preference to the use of acoustic barriers which are visually unsightly. Green acoustic barriers may be more attractive, but they have a high maintenance burden so landscape mounding and planting, which contributes to visual amenity and biodiversity, is better
- In general, cumulative plant machinery noise should meet (Noise Rating Curve) NR25, and general

commercial noise should meet NR15 when assessed within a noise sensitive receptor. Traffic noise should be assessed using BS8233 and vibration using BS6472

• Consideration should be given to <u>Planning Advice</u> Note 1 /2011: <u>Planning and Noise</u>.

# Lighting

Lighting is a critical component in the design of highquality public realm, and it has a key role in supporting placemaking across the city.

Lighting should be designed to eliminate glare into receptors properties and minimise light spillage onto neighbouring land.

Further advice can be found in the Scottish Government's <u>Guidance Note: Controlling Light Pollution</u> <u>and Reducing Lighting Energy Consumption (2007), and</u> <u>the Institute of Lighting Professionals' Guidance Notes</u> for the Reduction of Obtrusive Light (GNo1/21).

#### **Land Contamination**

Consideration of land contamination is necessary to avoid a wide range of potential impacts that may include harm to health, damage of structures, pollution, and the legal and financial implications of a development deemed unsuitable for use.

Early identification of land contamination issues by site investigation enables the consideration of mitigation measures, phasing, and the potential to implement costeffective and sustainable in-situ clean up technologies.

A site-specific assessment of the risks associated with developing land potentially affected by contaminants is essential to inform decisions about the appropriate level of treatment, and to identify sustainable remediation options that may be required.

Site investigations must be consistent with a recognised standard such as BS.10175.2017 Investigation of Potentially Contaminated Sites.

It is the developer's responsibility to ensure that the site is, or can be made, suitable for the proposed development. Further guidance can be found in <u>PAN 33:</u> <u>Development of Contaminated Land</u> and Environmental Protection Scotland's <u>Land Contamination and</u> <u>Development (August 2019).</u>

# **Further Reading**

- Planning Advice Note 51 (Revised 2006): Planning, Environmental Protection and Regulation.
- Local Air Quality Management Guidance
- <u>The City of Edinburgh Council's Air Quality Action</u> Plan
- Planning Advice Note 1 /2011: Planning and Noise
- PAN 33: Development of Contaminated Land

Provide adequate storage for waste and recycling.

City Plan 2030 policies
Env 8 - New Sustainable Buildings

The storage and collection of waste is an important consideration in the design of a new development. Poor waste management practices tend to be unsightly and can spoil otherwise attractive developments. Good waste management practices can encourage more sustainable lifestyles and help to achieve recycling targets.

It is important that the integration of waste management facilities is considered at the outset of the design process.

Designers and developers of any development that contains housing must engage with the Council's Waste and Cleansing Service to agree a waste management strategy. This must happen as early as possible to ensure that their requirements can be satisfactorily incorporated within the design. This includes new-build housing, refurbished housing, housing within mixed-use developments and student accommodation.

For other types of development information would need to be provided regarding how waste will be stored and collected on the site.

# **Waste Collection in Liveable Neighbourhoods**

Enabling practical waste collection in high-density, mixed-use neighbourhoods requires the waste strategy to be considered early in the design process. Refuse collection vehicles are large vehicles. The access routes and bin store locations should therefore be optimised to minimise the number of streets and junctions that

need to accommodate these large vehicles. This is to ensure that the development is still able to satisfy the guidelines on street design and the requirements of promoting walking, wheeling and cycling see <u>"1.5.3"</u>
<u>Layout Design to Support Sustainable Transport" on page 55</u>

These are the key considerations at each stage of the development of the waste management strategy. Refer to the Council's <u>Waste and Recycling Instructions for Architects and Developers</u> for detailed technical guidance on these considerations:

# **Preparation and Briefing - Overall access strategy**

- A development must have a waste collection system that is appropriate for the design, layout and building uses. The Council only collects household waste. A private collection must be arranged for all other uses, including the non-residential parts of developments that include housing. This should be agreed from the outset so that the waste collection requirements are known.
- Kerbside collection may be acceptable for lower density schemes. A communal collection arrangement will be required for higher density schemes.
- Most waste collection systems will be collected at ground level. For some schemes an underground system may be appropriate, providing there are no underground constraints, such as archaeology or energy infrastructure, and this is agreed with the relevant waste collection service.

# **Concept Design - Agreed route & bin store locations**

- The route that the refuse vehicle will follow across the development must be agreed. This should include clearly defined entry and exit points and should work with the street hierarchy of the development. The extent to which the refuse vehicle needs to travel should be minimised to avoid unnecessarily oversized roads and junctions. Limit the instances where the refuse vehicle must cross the path of other road users for example, making a right turn on a two-way road.
- The location and size of waste storage spaces must be suitable for the needs of the development and must work with the agreed route. Bin store locations should be consolidated or located near to each other where possible, providing this doesn't exceed permitted travel distances and bins are safely accessible for both residents and waste collection staff.



**Accessible bin enclosures, Leith Fort** - These carefully designed bin stores are discrete but easily accessible

# Spatial Coordination - Detailed route development

- The detailed design of the streetscape on the access route must accommodate the refuse vehicles while still providing a safe and pleasant environment for walking, wheeling and cycling. Different waste collection services will have different requirements and vehicle sizes. Private waste collection vehicles are often wider than the Council's vehicles. Ensure that the access route accommodates the swept path analysis of the relevant refuse collection vehicle but avoid widening streets unnecessarily.
- The design must consider the construction phases of the development and whether temporary arrangements are needed to ensure operational waste collection is possible for the earlier phases of the development.

Once agreement has been made, Waste Services will issue a letter of agreement detailing this and any further requirements. The letter of agreement is valid for 12 months. If the commencement of development is delayed beyond this time, the waste management strategy may need to be reviewed and renewed. This is to ensure the design is aligned with the latest requirements. Similarly, if any design changes occur which could impact on access to bins by collection crews or residents, or which impact the ability to site the agreed bins, Waste Services must be consulted.

# **Creating Healthy & Safe Communal Bin Store Environments**

The siting and design of communal bin storage must provide a safe and accessible environment for people of all ages, genders and abilities, at all times of day. Storages areas must be well-lit and their entrances well-overlooked. In addition:

 Where the location for bin storage is in a publicly accessible area, or in an open area around a building, the bin store should be enclosed or contained within a shelter.

- All bins must be accessible within the bin store. A clear space of 150mm should be provided between and around the containers.
- Enclosures, compounds, or storage rooms should be of adequate height to allow the lids of containers to be fully opened.
- Clear, colour-coded signage should be used to indicate different waste and recycling bins.
- There must be adequate lighting that is easily maintained
- Bin stores must be well ventilated.
- All materials used within the bin store should be non-absorbent and easily cleaned and maintained. There should be consideration for washing down the bin store, including a drainage system suitable for receiving polluted effluent. Drainage should include a trap which maintains a seal even in prolonged periods of disuse.
- Plates or other protective materials must be provided to prevent damage to internal walls.
- The bin store must be a secure environment. It should be designed to deter anti-social behaviour.
   The bin store should also be designed to prevent the spread of fire.



Overlooked and secure bin store entrances: Ropewalks, Salamander Street - The secure entrances to the bin stores are well overlooked and on a street with active frontages and access off a main route.