

the
**Edinburgh
Standards**



for **Streets**

愛丁堡街道標準

سڑکوں کیلئے ایڈنبرا کا معیار

সড়কগুলোর জন্য এডিনবরা'র মান

(দ্য এডিনবরা স্ট্যান্ডার্ডস ফর স্ট্রীটস)

معايير إدنبرة للشوارع

• EDINBURGH •
THE CITY OF EDINBURGH COUNCIL

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The
Edinburgh Standards for
Streets

Supplementary Planning Guidance

Approved by

The Planning Committee
City of Edinburgh Council

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The Edinburgh Standards for Streets

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The Edinburgh Standards for Streets

As City Design Champion I get asked quite often “what is it all about?” People make the assumption that it is about making things look good. In such a physically beautiful city as Edinburgh that is a tall order. Aesthetic beauty is an important issue but the primary role of design is to problem solve.

What are the problems that face us? Well the identity of this fine city is an issue which we need to be aware of. The central core of Edinburgh has a well defined urban structure which is recognised and cherished across the world. Sadly as with many other cities, due to a variety of factors, some of the details have not received the care and attention which is needed to reinforce the city’s overall identity.

Some 10 years ago the city produced its first ‘Standards for Streets’. This was an eloquent document full of good intention; one of its problems was that it appealed to planners and designers and not to the people who in reality shape the detail of our cities.

I am glad to see that the Design Initiative has played an active role in ensuring that this new document has evolved in a way which brings together all the differing professional objectives under my theme of ‘Walking City’ in a way which will start to ensure that, the critical urban detail ‘the public realm’ receives the attention and love it needs to reinforce Edinburgh’s singular identity.

Sir Terry Farrell

(Edinburgh City Design Champion)

The Principles

1.0 What We Want To Achieve For The Streets of Edinburgh

1.1 Aspirations for 'Streets'

The quality of Edinburgh's public realm has been a matter of great importance to the City for as far back as early the 16th century, when French craftsmen were brought in by James 1V to pave parts of the Old Town. The efforts to create external spaces fit for a capital city were deliberate and painstaking.

Today, the significance of public realm quality in achieving economic well-being is well documented. It is an attractor for inward investment.

The purpose of this revision to the Edinburgh Streetscape Manual is to help implement the principles of good public realm quality in a consistent manner across the city specifically in relation to the design of streets.

1.2 Streets

The Local Transport Strategy (LTS) recognises that 'streets form the core of the transport network- but are also the building blocks of the urban area, fulfilling a wide range of roles. They need to be managed to support all the objectives for the city.

The functions of streets include:

- **Streets as movement corridors**
- **Streets as the focus of activities**
- **Streets as city identity**

All of these functions work together towards 'place making' and are influenced by the design of the street.

Place making and the grain of the city

A key component of 'place making' is the creation of public spaces, with footways that are sufficiently safe, attractive and comfortable to use so that people are encouraged to walk in the City for pleasure. We know that visitors are becoming more sophisticated and compare Edinburgh with similarly important cities where people enjoy to walk: Copenhagen, Barcelona, Paris, and Manhattan.

Footways should be sufficiently spacious for their purpose and be uncluttered. People see a scene in its totality. The space between buildings, usually the carriageways and footways, is seen by visitors and residents as part of a wider townscape made up of buildings and streets. Cherished views of important monuments and groups of buildings are appreciated far more when not detracted by unnecessary foreground clutter.

Within this context, it is acknowledged that there are opportunities for more exciting designs which have a place in the wider public realm and key spaces of the city. However, throughout the city it is essential that the design of streets should be clear and simple.

Walking City

Edinburgh's Design Initiative, led by Sir Terry Farrell, has set a plan for the Walking City, supported by the Council's Walking Strategy (2005) which promotes Edinburgh as a city for the pedestrian.

Good design

An essential element of Edinburgh's visual character is the relationship between the stone buildings and the stone or stone-coloured carriageways and footways. The relationship between buildings, footways and roads is important and there should be a presumption to maintain this relationship. Footways should be plain and simple, and generally uniform as a suitable setting for the city's fine buildings.

Traffic equipment and signs, together with their posts, supports, boxes and guard railings should be kept to the practical minimum. Carriageway markings, applied colours, traffic lines and signs, etc. should also be minimised while ensuring the aims of the Local Transport Strategy are met.

Producing public spaces of quality is not easy. Statutory services and a range of different organisations all have a legitimate but often conflicting interest in the public realm. Transport and road safety issues are critical, but a street environment must also welcome pedestrians. It can be shown that the objectives of creating a public realm of real quality and addressing road safety issues can be achieved by attention to design detail.

It is not always possible to undertake comprehensive public realm improvements. However, in the same way that a series of poor changes can result in a degradation of the public realm so positive changes can, over a period of time; help to regain the standards of public realm quality that the city deserves.

1.6

Best practice

Edinburgh can learn from its European counterparts. Through the Design Initiative and the Waterfront Communities Project visits to cities such as Copenhagen, Malmo and Oslo, with their reputation for high quality streetscape design, have raised awareness and expectation of what can be achieved through a well designed public realm and streetscape. One of the key lessons has been that successful developments have put a high priority on the design of the surrounding public realm. Simple design solutions, with limited palettes of materials and well specified and executed proposals have invariably been used.



Copenhagen



BO 01 Malmo

Initiatives closer to home, in the Royal Borough of Kensington and Chelsea, challenged thinking about the solutions that are possible within the context of current roads legislation.

Source: www.cabe.org.uk



Kensington High Street

Improved guidance has and continues to emerge for roads and streets in England as well as Scotland. PAN 76 Residential Streets was published by the Scottish Executive and provides guidance on establishing street layouts that respond to a wider urban design context. The statutory processes for safety audits and traffic road orders (TROs) are recommended for consideration with the Planning process to ensure a co-ordinated approach is established.

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1.7

The role of The Edinburgh Standards for Streets

'The Edinburgh Standards for Streets' (ESS) will follow on from the already established The Edinburgh Standards for Urban Design, published in 2004.

The ESS brings together the city's aspirations for the public realm of Edinburgh's streets. The document constitutes supplementary planning guidance and should be referred to along with other policy guidance contained within the *Development Quality Handbook* (DQ Handbook).

The ESS are crosscutting and should be considered alongside the Local Transport Strategy and its supplementary guidance for developers, *Movement and Development*, as well as more specific guidance, such as the *Bus Friendly Design Guide*, *Cycle Friendly Design Guide*, *Tram Design Manual* and emerging *Lighting Strategy*.

This guidance is equally applicable for new developments and their associated carriageways and footways.

The ESS are set out in three sections:

- Part one **principles,**
- Part two **design guidance, and**
- Part three **delivery**

2.0 What Defines The Character of Edinburgh's Streets

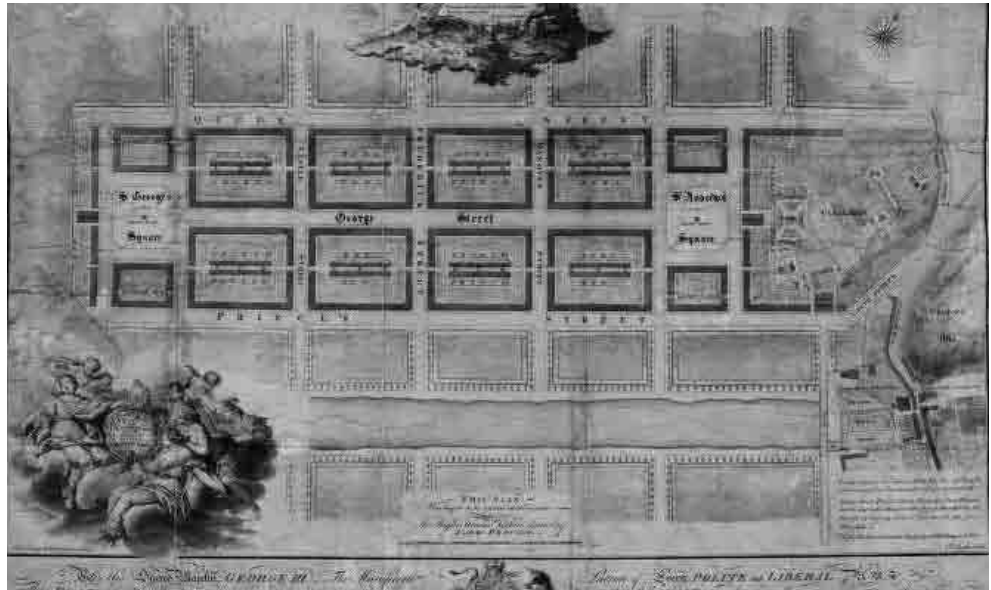
Edinburgh Street Patterns, Materials and Features

2.1 Introduction

Edinburgh streets developed in a similar way to those in most other towns and cities in the UK. However, the materials used to create them are unique to the area. The streets in the earliest parts of the city developed as links between functional spaces, such as market places. The street widths varied, responding to the underlying topography and established building lines, and there was originally no distinction between the footway and the carriageway. As the surface treatments improved, the layout of the streets were rationalised and raised pavements for pedestrians were introduced as activity on the street increased. The first stone paving in the city is reported to have been undertaken in 1532 by a Frenchman, Walter Marlion, who used stone cut from Salisbury Crags on the High Street. By the mid 1700s most of the streets in the Old Town were setted or 'causeyed' (applied to where they were paved down the middle with drains on either side). The 'crowns of the causeway' (a pronounced ridge or crown along the centre of the roads was removed and levelled along with other subsequent improvements in the late 1700s.



The essential character of the Old Town, the historic heart of Edinburgh, is represented by the survival of the little altered medieval 'herringbone' street pattern of narrow closes, wynds and courts leading off the spine formed by the Royal Mile. The plan of the Old Town has retained much of its ancient pattern and distinctive character. It is an environment of enclosed streets which also offers a wealth of spaces created at various stages during its development. The historic paving has either survived or has been reinstated throughout much of the Old Town.



The planned streets of the New Town developments generally display a strictly ordered hierarchical grid layout with a simple form of street geometry which originally incorporated the extensive use of stone paving slabs. Carriageway and footway widths were defined by the layout of the buildings, forming streets and squares. In accounts of the layout of the New Town, it is reported that Craig's plan set George Street at 100 feet in width with the other main streets at 80feet. Footways on each side of the street were 10 feet wide and were not to rise higher than a foot above the level of the street with no posts erected between the street and the footway. The streets are laid out with a central parallel-sided carriageway defined by granite channels and kerbs bounded on either side by footways running in an unbroken surface from the kerb to the building line or stone base of railings guarding an open basement area. This pattern has remained largely unchanged despite the many alterations to the buildings adjacent to the streets, except that footpaths are now frequently paved with inferior pre-cast concrete slabs.

The street layout in many of the Victorian suburbs was regulated by feuing plans. This rigorous form planning resulted in uniform street layouts incorporating high quality natural materials. The feu plan requirements for footpaths in the Grange, for instance, specified that they were to be formed of 'high quality paving materials, raised above the bottom of the channel, edged with a hammer dressed kerbstone, and no wider than six feet nine inches'

Locally quarried natural stone paving slabs and stone setts were historically used for street surfaces for many centuries throughout the City. As traffic movements increased, more durable stone was introduced from more distant quarries. The historic paving displays a tradition of high quality workmanship, a limited palette of colours, attention to detail and the use of robust and durable materials. Other street furniture elements, such as traditional lamp standards, red phone boxes and Edinburgh Police boxes make a significant contribution to the architectural character of the historic centre.

Historic photographs of Edinburgh show uncluttered streets, well defined carriageway and footway lines with crossing points defined by changes in sett patterns.

Materials and laying patterns

Although no specification for the pattern of laying setts and flagstones along carriageways and footways seems to have been set out, certain practices are observed:

The Carriageway



Stone Setts



Whinstone Kerb



Stone Channels

- Stone setts were typically laid so that the bond ran across the carriageway at 90 degrees to the kerb with the exception of patterns at junctions. The size and proportions of setts vary, but are generally between 90-140mm wide (typically 100-125mm) and between one and a half to three to three and a half times as long. Joints between the setts were narrow. The setts were generally cool/neutral tones or warm greys along with other colours such as red. The palette of colours is created by the variations of one of these single tones.
- Stone kerbs are laid along the edge of the carriageway, laid to take up changes in level. Often double kerbs or sloped slab/ sett details are used in steep sections of street. The widths are generally 125mm to 150mm wide by 250mm high with an upstand kerb face of 100-125mm. Where wider kerbs are used they are about 250mm wide.
- Drainage channels are located along the kerb, either as a purpose shaped dished stone channel or created with setted courses.
- Mounting stones and lighting plinths were set along the kerb line and are still evident in some streets.
- Where no kerbs are used drainage channels are located along the edge of the carriageway.

Setted carriageways were a mixture of granite and whinstone, made up of dolerites and basalt stones. In some streets, wooden and even rubber setts were used. Macadam and later asphalt surfaces replaced many of these.

Kerbs/edgings and channels were whinstone, or sandstone and latterly granite. Modern materials, such as 'scorrior' blocks from the North East England can be found. There are also examples of cast iron edgings/kerbs and channels across the city.

The Footway

- Stone paving has an uninterrupted smooth surface which complements the intricate designs of the buildings.
- Slabs are aligned to the footway direction in random width courses across the footway.
- Odd sizes are cut on the inside of the footway and shaped to the profile of the building or the boundary.
- At street corners slabs are cut to the radius of the corner.
- Where footways or edges to the carriageway are lightly or not trafficked at all they were pitched with stones or 'horonized'.

Where carriageways and footways have been modernised, surfaces such as macadams and asphalts have been introduced. Stone paving flags have been replaced with concrete flags and paviors; however the key elements of footway, kerb, drainage channel and carriageway remain.

Footways were originally local sandstone followed by the limited use of Caithness stones. Moves to cheaper materials resulted in the introduction of precast concrete slab paving, generally 600 by 900mm or 450 by 600mm as these sizes reflected the character of the original stone materials.



Caithness Flag Paving, complementing the Royal Mile's historic buildings



Odd size cuts on the inside of the footway



Random width courses across the footway



Horonizing footway

In suburban areas, flexible surfaces were introduced, with the use of granolithic ('grano') concrete becoming widespread throughout areas such as the Grange and Trinity. This was also adopted where basements extended under the footway reducing the depth available. Granolithic concrete has been replaced over the years with asphalt.

Very little original stone paving remains and in some areas this has been replaced a number of times since it was first laid. Original sandstone can still be seen in Charlotte Square and, in small patches, in other parts of the World Heritage Site and Leith. Horonized paving remains in Glenfinlas Street and around the Newtown gardens. Very limited amounts of original Caithness flag remain.

2.3

Features

Numerous additional features have appeared as part of the street scene, many of them introduced at an early stage of development. A number of these features, such as post, police and telephone boxes, are of historic or architectural significance and are Statutorily Listed.

Spurstones are located at the base of buildings and gateposts and provide protection against damage by vehicles. They are generally finished in sandstone, although there are later examples in cast iron.

Bollards are used to control and direct traffic. At the waterfront, they are used at the edge of the dock basin. They are generally finished in sandstone or cast iron.



Sandstone Bollards



Boundary Railings for public gardens



Private Garden Railings

Cast Iron **Railings and Gateposts** are features throughout of many of the Georgian areas of the City. Railings were also used as boundaries to public gardens and as ornamental bridge parapets. All of these are usually mounted onto stone plinths as an integral part of the design.



Traditional cast iron Street Signs

Traditional cast iron **Street Signs** were located on walls and remain in the Closes off the Royal Mile. There are also examples of street names incised into stonework. A number of historic stone milestones remain in position.

2.4

Street relationship: footway- carriageway- building

The most critical design feature of Edinburgh's streets is the relationship between the carriageway, pavement width and alignment and the building property boundaries. Up to the mid 20th Century this relationship remained



Princes Street has had to accommodate increased levels of traffic since the 19th Century

unchanged. However over the last century, growth in car ownership has led to the adaptation of City's streets for a variety of reasons, including accommodating increased levels of traffic.

Retaining and reinforcing these relationships is a key objective. This does not mean that kerb lines cannot change. However, the manner in which the changes are made must maintain the relationship.

2.5 Street pattern across the city

In the redevelopment areas of the city, new streets are being created. It is important that these new streets and new public spaces use a design language that is derived from existing streets and spaces in Edinburgh.



The Holyrood North development followed a traditional street pattern that effectively linked the historic Canongate with new development on Holyrood road

New public realm areas must be co-ordinated between adjacent new development areas, and should also provide a positive connection back to the existing parts of the city. Furthermore, it is important that these new development areas utilise a recognisable range and palette of materials.

The ESS intend to work with the approaches already adopted for these new development areas, and draw them together to present a more unified public realm.

2.6 Overarching objective

The ESS have been developed to redefine those elements of street design that make up its character and to ensure new proposals that impact on the streetscape are designed, as far as practicable, to reinforce the existing character.

The overarching objective of the ESS is:

to facilitate the delivery of a streetscape that provides an enhanced environment for pedestrians that is designed to respond to its built context and, at the same time, meets the requirements of traffic movement.

3.0 Principles for Streets

3.1 Edinburgh Principles for Streets

There is a need for everyone to have a shared vision about the sort of public realm that Edinburgh should have. A series of high level principles have been developed that will be part of the design thinking for every scheme. These reflect the particular character of Edinburgh, linking streetscape to place making.

Principle 1

Preservation and enhancement of the historic fabric and grain of the City, particularly the World Heritage Site (WHS).

There is a great deal of historic fabric that enhances the streets of Edinburgh. For example, the city's setted streets, whinstone kerbs, the remnants of horonized paving and the original cast iron street lamps all add to the character and individuality of Edinburgh and need to be preserved and maintained. The characteristic and different street patterns of the Old and New Towns are of particular significance.

Gradual erosion of these will threaten the values that underpin WHS status and the essential character of the city's conservation areas.

Care in detailing and choice of materials is essential.



Edinburgh's World Heritage Site

Principle 2

Respecting and enhancing local character

When new street works are proposed, it is essential that the local character of the area becomes a reference point for the design in terms of layout and overall design arrangement and detailing. Due respect to proportion and careful selection of materials are a part of this process which applies across the city.



Restalrig Village



Holyrood North

Principle 3

New streets to contribute to formation of recognisable street pattern.

In regeneration areas such as the Waterfront, Craigmillar and Fountainbridge new streets should be designed as part of a recognisable townscape that picks up on street characteristics specific to Edinburgh. They should form a part of a coherent relationship between building, footway and road.



Holyrood North



Fountainbridge

Principle 4

Contributing to place making

When considering street improvements or new streets, a primary consideration should be to design streets that people would wish to use. Streets are the arena where the public interface takes place and, as such, should be designed so that they are not dominated by traffic or with over complicated instruction and segregation. Instead they should be simply designed in a manner that is easily understood and attractive to pedestrians.



BO 01 Malmo



John Knox House, Royal Mile

Principle 5

Best practice

If there is a real desire to create streets that people wish to use, it will be necessary to experiment with a reduction in traffic related signage and markings without putting people at risk.

The work carried out in The Royal Borough of Kensington and Chelsea provides evidence of such an approach.

Extensive research has been undertaken to improve the specification for the maintenance and enhancement of the city's setted streets, with the High Street as a successful example.



Kensington High Street

Source: www.cabe.org.uk

Principle 6

Achieving quality

The desired quality of the public realm can be achieved through the careful consideration of a number of measures. Taken together these will have a significant impact on the appearance of the streets.

- **Reduction of clutter**

The less clutter that exists in a street, the better. Less clutter allows greater appreciation of the city's unique townscape.

- **Natural materials**

Edinburgh's built environment prides itself on a regime of natural materials. When used within the public realm, this sends a positive message to residents and visitors that the city cares for its environment.

- **Minimum palette of materials**

A strictly defined small palette of materials will reinforce the limited set of materials used in the buildings and assist with the provision of a coherent public realm.

- **Simple, clean designs**

The streets are part of a wider townscape. An approach to street design that is understated is appropriate. The finished appearance should look as though it had always been there. Simple kerb lines and the relationship between buildings, footways and carriageways is important.

- **Co-ordination of design and colour**

The use of colour requires careful consideration and can be a key aspect of respecting local character. As with materials, a limited range of colour is important in the wider streetscape.



Natural materials - North Holyrood



Decluttering - Kensington High St



Simple, clean design using minimal material palette - Cockburn St

Source: www.cabe.org.uk

Principle 7

Maintenance

A well-cared for public realm is the result of good design and effective on-going maintenance. The type of simple clean design to which the city aspires would make maintenance easier. Maintaining and managing an uncluttered, simple street design requires all those involved in the public realm to share in a philosophy of care.



Street Cleaning



Laying Setts

Principle 8

A co-ordinated approach

A co-ordinated approach across the city will only be achieved if the appropriate processes and protocols are in place. Adherence to these is the key to consistency and ensuring that high standards of design are maintained through the life of any scheme.



Design Guidance

4.0 Design Guidance for Street Design & Activities in the Street

4.1

The Principles for the design of streets in Edinburgh will be met through detailed design solutions. Design guidance has been provided to advise designers and project managers at every stage of the process for the design of streets and its public realm.

4.2

The guidance is set out under the following headings:

- 1 **General arrangement of streets (road alignment and pedestrian circulation)**
- 2 **Footways**
- 3 **Carriageways**
- 4 **Signage**
- 5 **Street furniture and features**
- 6 **Street trees and landscaping**

General and detailed design guidance is provided for each of these areas of activity. These underpin the high level principles and set out clearly what the council wishes to achieve in the various areas within the street.

Preparing a new design, considering a maintenance operation or simply adding a new feature or facility for the street will require an understanding of what is there at the moment.

There will be a responsibility to deliver the ESS which will be helped by considering the following:

- Understand the street and area before starting the project
- Be clear what Principles apply and what they mean for the project
- Assess the effects of the project and any new features or furniture being proposed
- Use the approved design guidance

Reference should be made to the design checklist at the back of the ESS.

Design Guidance 1

The General Arrangement Of Streets (Road Alignment And Pedestrian Circulation) Should be read in conjunction with Movement and Development.

General Guidance

The movement of vehicles and pedestrians is affected by the layout and arrangement of the street. Traffic management measures that prioritise traffic or parking arrangements, such as kerb build-outs, bays, splitter islands and staggered pedestrian crossings, particularly when these have not been part of the original street design, can fragment and produce an overly complicated street. The movement of pedestrians is affected by the layout and arrangement of the street. Consideration has to be given to balancing the management of the street with the adoption of a design philosophy. The following information reinforces the guidance provided in *Movement and Development*.

- **Designs should seek to reinforce the proportional relationship between the carriageway, footway and buildings by retaining or reinstating kerb lines that run parallel to buildings. (There are, however, some situations where this could be altered. For instance; pavement build outs to facilitate pedestrian movement or bus boarding where this would make a significant improvement to safety and convenience. Designs to achieve these objectives should be agreed with the Council's Streetscape Working Group.**
- **In circumstances where it is considered acceptable to create build-outs or blisters to facilitate pedestrian movement should ensure build-outs do not encroach onto the principle route.**

The design of corners is important to the movement of pedestrians. 'large radii encourage high speed turning manoeuvres by motor vehicles and make crossing side roads more difficult for pedestrians' (7.12.9 Movement and Development). Where corner radii are increased to accommodate the largest vehicles, pedestrians are forced to cross over a longer distance and the footways are often narrowed. However, failure to accommodate the turning movement of a larger vehicle will result in the over running of the footway, putting pedestrians at risk. Where street geometry allows larger vehicles can often be accommodated within the overall geometry of the road. Reducing the radius at corners is preferred. However, there are situations such as when the street is narrow that the radius corners may have to be increased to facilitate some traffic movements.

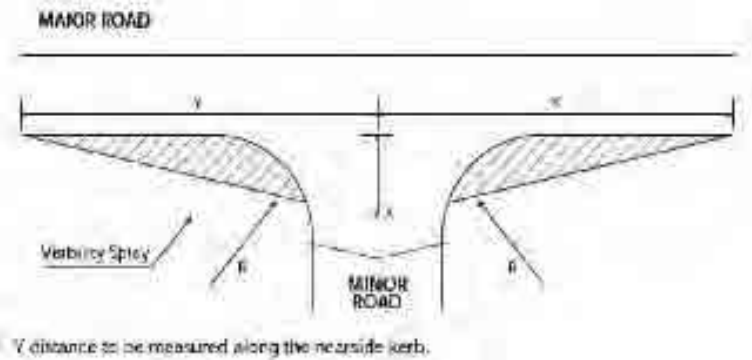
- **Seek to reduce corner radii to as small as possible in urban areas (using table 9 Movement and Development with 3/ 6 and 9m minimums as a guide).**

Applying standard visibility splays can destroy the relationship between the building line and the street. (This relationship is demonstrated by the tight street patterns in existing Edinburgh).



Restalrig Village corner

- **Apply the minimum 'x' value as the starting point for visibility splays (using table 9 Movement and Development and reference to paragraph 7.12.10)**



Pedestrians can cross in greater comfort if the radius kerb is reduced so that the desire line for crossing is at kerblines which are parallel. They are able to cross using a wide crossing and they are able to cross in a single movement.

- **Simplify junction layouts by attention to radius and visibility splays (noted above). Seek to provide simple and convenient crossing movements for pedestrians.**
- **Maximise the width available for pedestrians at crossing points at important junctions/ key locations.**

Achieving a standard and unified approach to the street layout, particularly along the length of main streets, at junctions and important spaces can improve the ease of use of the street.

- **Be consistent in applying the main elements of the design of the street. Consider how the proportions of the street are being affected. For example, radius would be expected to be the same, footways of a similar width and the use of materials consistent, for example.**

Changes in level can have a significant effect on achieving the requirements of good general arrangements, affecting the cross falls of footways and heights of kerbs for example. In Edinburgh the topography of the city has been crafted to good effect. New design and layouts should be aware of the implications of levels on detailed design solutions.

- **Establish level information in considering both general arrangement and detailed design solutions for street design.**



Grainger Town, Newcastle



Holyrood North

Source: www.gillespies.co.uk

Design Guidance 2

Footways

General Guidance

Footway layouts should be designed for the use and enjoyment of pedestrians. They should provide sufficient space for the user, provide a setting to the adjoining buildings and be as clear and clutter free as possible. The layout of footways should be simple. Footways should be constructed without awkward or abrupt changes in level. Public footways should not be used to take up differences in level when new entrances to buildings are being created.

- **Respect the proportional relationship between the footway, buildings and the carriageway (with a presumption against reducing footway widths).**
- **Ensure footways avoid awkward or abrupt changes in level and access or frontages with developments are clear and uninterrupted.**
- **Vehicle run- ins and crossovers (for access to buildings and parking for example) should not normally interrupt the footway layout. Dropped kerbs and reinforced surfaces are recommended. Retain existing access where it would provide reference to the character of the area.**



Avoiding awkward level change



Dropped kerb

The layout and jointing of paving is important to achieve a quality of finish.



Paving laid 90° to kerb

- **Where paving flags are used, they should be rectangular and laid in stretcher bond at 90 degrees to the kerb.**

There are some situations where smaller square unit flags are beneficial (for pub frontages etc). It is essential that their use is minimised (using reinforced footway options in areas in the city centre and areas of high amenity) and that they are considered within the overall design and detailing of the footway (using a staggered bond).

Footway protection Some footways require to be protected to avoid conflict with pedestrians from overrun from vehicles.

- **Alternative solutions to the use of bollards should be considered for a new scheme or extensive maintenance proposals. Strengthened footways may be suitable or increasing heights of kerbs. (see detailed design guidance for the carriageway section 3).**



Limited use of bollards

Materials should be consistent to make replacement and maintenance easier. The maintenance and cleaning of footways are essential. This can be facilitated through the use of a limited palette of materials and careful consideration of the placement of features required on the footway. Where shared surfaces are proposed, it will generally still be important to differentiate the footway from the carriageway material. Permeable paving solutions may be appropriate in new development areas.

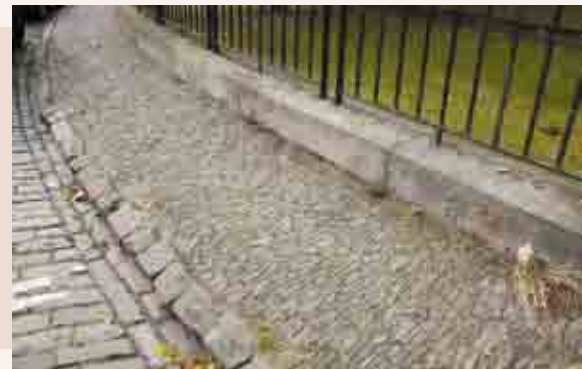
- **Footways should be laid with a consistent material for the entire length of the street and relate to footway surfaces in the surrounding streets and/or as directed by the Council's Roads Asset Management Plan (RAMP) and public realm guidance.**
- **Reinstatement/ permanent patching should match the surrounding paving material (with reference made to the Council's RAMP). It should be noted that grey pcc flags should be used instead of red/ buff where this occurs.**
- **Consideration should be given to the use of permeable paving solutions in new development areas (that must comply with Sustainable Urban Drainage and maintenance requirements) (refer to detailed design guidance for the general arrangement of the street).**



Consistent use of Caithness paving

Historic and original paving features, kerbs and details, are important and should be retained and repaired appropriately.

- **Respect original local designs and details in developing new proposals and/or maintenance schemes**
- **Retain and protect areas of original paving or historic street details such as 'horonizing', mounting stones, lighting mounts, brass plates.**



Horonizing

Maintenance

The quality of workmanship and maintenance of paving is essential for achieving the high standards that Edinburgh is aspiring to.

- **Ensure the Council's specifications/ standards/ guidance for workmanship are used in all cases.**

Detailed Guidance

- **Small module paving (below 450mm by 600mm) should be avoided for footways, preferring larger unit paving or simple flexible surface treatments. (300mm by 450mm should be the smallest unit used)**

Paving

Paving for streets should seek to use one of the following:

- **Natural stone paving materials will be either Caithness or Sandstone. (Where natural stone paving is specified there will be a presumption for sandstone in areas of the New Town and Caithness in the Old Town and other parts of the city centre)**
- **All other paving shall be grey precast concrete (pcc) paving slabs, for example 1:3 ratio 450mm by 600mm or 600mm by 900mm are preferred.**
- **Asphalt**



Sandstone Paving



Caithness Paving

Tactile (blister and hazard) paving

Scottish Executive/ DETR 'Guidance on the use of tactile paving surfaces' suggests that in conservation areas and near listed buildings an alternative colour for tactile may be appropriate. In Edinburgh conservation areas and listed buildings cover a large part of the city. The Council are recommending that an alternative approach should apply for the entire city and red and buff tactile will no longer be used.

The choice of colour for both blister paving at crossings and hazard paving used as a warning at steps should ensure that the resulting contrast provides the necessary signal for those who are visually impaired. The colours to be used are as follows:

- **Grey (Natural or Charcoal) concrete ensuring the choice of colour results in the necessary visual contrast with the surrounding paving or;**
- **Grey/ white granite or stone in areas of natural paving, ensuring the necessary visual contrast with surrounding paving.**



Block of grey concrete paving laid across the footway

Wider Public Realm

In areas outside or adjoining the public street, such as squares and public spaces, there are opportunities to introduce a wider variety of materials and paving styles that respond to modern design proposals. However these should relate clearly to adjoining street footway paved areas in their general arrangement and there will be a presumption for the use of natural paving materials in key public spaces.

Design Guidance 3

Carriageways

General Guidance

Kerb lines and in most streets kerb 'up stands' are an essential part of the design and layout of the street (see Principles for General Arrangement of Streets).

- **Kerb lines (with or without kerb 'up stands') should be used at all times to define a footway and should run parallel with the building line.**
- **Newly laid kerb upstands shall normally be set to 125mm**

In some cases a higher kerb upstands can prevent parking and provide a suitable alternative to bollards to protect the footway.

- **Consider higher kerb upstands to assist in protecting the footway.**



Kerb running parallel with boundary line

Dropped kerbs and pedestrian crossing points

At junctions and at crossing points in the street, the kerb should be dropped to improve crossing facilities. The dropped kerb should be on the direct pedestrian desire line, so that pedestrians are able to cross the road conveniently and preferably at right angles to the direction of pedestrian travel.

Standard dropped kerbs result in angled cuts which can be unattractive. This is particularly apparent on flagged footways when adding dropped crossing points and where levels are awkward. Bespoke quadrant kerbs can reduce the amount of flag cutting, but should not be used if the levels dictate a long lead in or the footway is narrow (as a guide 2/3 of the footway should remain uninterrupted) otherwise an unacceptable trip hazard can be created.

Traffic Advisory Leaflet 5/05 provides up to date guidance on pedestrian facilities. Part 3 states "The width of the crossing place is dependant on site conditions but is normally in the range 2.4 to 5 metres. Exceptional numbers of pedestrians may require the width to be increased to 10 metres".

- **Dropped crossings should be designed (and located) on pedestrian desire lines preferably within straight sections of the kerb. Avoid where possible locating tactile at dropped crossing into flagged footways at radius corners. Existing levels and general arrangements of footways must be taken into account (refer to section 1 detailed design guidance for the general arrangement of streets).**
- **When the footway is flagged and as part of a comprehensive scheme or maintenance programme, quadrant kerbs should be considered).**
- **Dropped crossings should be designed to match up to the existing paving pattern/ tactile pattern.**



Dropped crossing on desire line

- **The widths of dropped crossings should reflect the scale of pedestrian flows. A minimum of 3m should be specified. Where there are exceptional numbers of pedestrians this should be extended to 10m.**



Source: www.cabe.org.uk

Single and 2 stage crossings

Pedestrian crossings and associated refuge islands should be designed as complete entities (paving, kerbs, road surface, road markings signs and street furniture) and to consistent details. The designs should seek to introduce the minimum requirements to avoid unnecessary clutter and should ensure that the surrounding footway and carriageway designs are consistent in details and materials. Where they are designed as part of a more extensive central island and refuge for the street the designs / proportions and detailing should be consistent.

Dropped crossing

- **Standardised details for crossings/ refuges islands should be used.**
- **Where 2 stage crossings are required guard rail/ 'visirail' should be omitted, unless an overriding safety requirement is identified (see section 5 detailed design for street furniture, guard rail/ visirail').**
- **Other street features and signs should be reviewed in the general vicinity.**



Source: www.cabe.org.uk

No guard rails / visi rails

Carriageway design

The scale and proportion of the carriageway means that it can have a marked impact on the appearance of the street. The choice of materials and infrastructure used affect this appearance.

The maintenance of the carriageway is important and an excessive use of different materials and features can be a burden to upkeep. Simplifying the design and layout of these features and thinking about the requirements in a particular location rather than just applying the standard can help ease such a burden. Emerging best practice for standardised solutions should be considered at the start of the project where there is scope for improving the overall design of proposals recognising design philosophies are changing and new approaches can be tried. It is however essential that safety is maintained in the design and application of any approach.

- **Consider best practice solutions**
- **Coloured surfacing will generally only be used on lengths of street to be defined on a map which will be appended to these standards. These lengths will be based on locations where the use of colour is considered particularly important for safety or compliance reasons. Initially a map will be produced for the World Heritage Site, to be followed by a city wide map.**

- **Road markings- zig zag lines, central of road white lines, yellow boxes and parking bay lines and lettering- should be rationalised and reduced and the final design solution considered on a site by site basis.**



Parking, waiting and loading restriction lines can detract from the appearance of street design, especially setted streets. These lines and markings are subject to legislation that ensures their enforceability. However, it is important to consider each location where parking/ loading restrictions are being applied to see whether any changes to the size or extent of markings can be made to reduce their impact. Consideration of alternative approaches is of value in certain circumstances.

“No waiting loading ” restriction lines and kerb markings (‘blips’) are sometimes applied without reference or consideration to the nature of the kerb or boundary that they are affecting. If the kerb is not standard or a historic feature the lines can often be reduced to minimise their visual effect.

Special zones can be created using signs (indicating a restricted or pedestrian zone) to explain where parking can take place. Applications can be made to the Scottish Executive (SE)

There is an ongoing programme to freshen existing lines and markings. The opportunity should be taken in cases where the carriageway is being resurfaced or where lines have worn off completely to introduce narrower lines and markings.

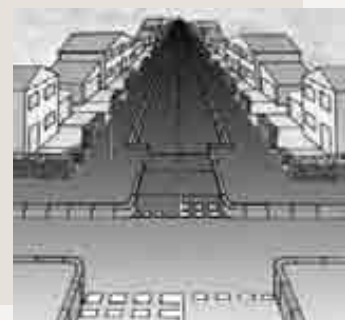
- **Parking and loading restriction lines and markings- should be installed in the narrow 50mm wide format. This should apply for all new markings applied to carriageway resurfacing/ kerbs which will gradually replace original lines.**
- **No Waiting/ loading lines and markings (blips)- should be applied to the minimum requirement with careful consideration to how they are applied to local features.**



Raised entry treatments and speed tables

Raised crossings of side roads can enhance conditions for pedestrians on busy footways, especially traditional ‘high street’ shopping areas. Entry treatments are a common way to persuade drivers to give way to pedestrians. ‘Movement and Development’ requires that raised crossings, as far as possible, send a visual message to motorists and pedestrians that the footway continues across the side street. The area of raised carriageway should have a tactile surface at its footway edge at the crossing point.

- **Where speed tables / shared surfaces are introduced the use of bollards for signage should be considered as an integral feature (see section 4 signage).**
- **Raised entry treatments and speed tables should be considered to improve the pedestrian environment. They should be located on pedestrian desire lines and designed to respond to local conditions.**



Raised Entry Treatments

Materials should be consistent to make replacement and maintenance easier.

- **Carriageways should be laid in a consistent material over the entire length of the street and as directed by the Council's RAMP and public realm guidance.**
- **Reinstatement and patching of carriageways and kerbs should match surrounding surface and should reflect the same detailed specification.**
- **Carriageways should be either setted or asphalt.**
- **Kerbs and channels should be either natural stone or pcc (including in some cases conservation kerbs). There will be a presumption for natural stone in the World Heritage Site, local and village centres and key streets. (A renewal schedule will emerge through the development of the council's RAMP).**
- **Anti-skid surfacing should match the colour of the carriageway (grey/ black). Where, for reasons of safety, a colour is required, this should be introduced as buff.**

In Edinburgh's historic kerbs, channels, carriageway surfaces and the way they are detailed and arranged are important and should be retained, maintained and repaired appropriately (see Part 2).

- **Respect original local materials, designs and details in developing new proposals and/or maintenance schemes.**
- **Retain and protect areas of setted carriageway or historic kerbs (whin, sandstone and granite) and channels and the way they are arranged and detailed on the ground.**



Using reclaimed stone setts and channels

Maintenance

The quality of workmanship and maintenance of paving is essential for achieving the high standards that Edinburgh is aspiring to.

- **Ensure the Council's specifications / standards / guidance for workmanship are used in all cases.**



Laying reclaimed stone setts

Detailed Guidance

Kerbs

Consistent kerb detailing is preferred. Where new developments link with existing streets the detailing and materials will be consistent throughout.

- **Natural stone kerbs will be whinstone or granite (125mm upstand and 125-150mm wide). In some parts of the city sandstone may be required to match with existing detailing.**
- **Pcc (125mm upstand and 100mm wide).**



Whinstone kerb

Channels and gratings

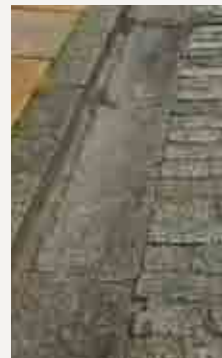
In general streets will have either a dished or flat channel section or setted channel running parallel to the kerb, which should match the material quality of the kerb.

In most asphalt streets the channel will not be required. Where shared surfaces are proposed, kerb and channel details should still be included.

- **Channels should match the kerb or carriageway material.**
- **Gratings shall match the width of the channel and be aligned at right angles to the direction of the channel.**



Historic setted channel



Channels material matching carriageways



Gratings matching width of channel

Setts

The setts found in Edinburgh streets are varied (see part 2). Retaining the colour mixes, sizes of setts and the joint widths/materials in a particular street is important. New setts should reflect these traditions and proportions.

- **Original setts should be retained and laid to an agreed specification.**
- **New setts should normally reflect the modular plan sizes and proportions of the original setts.**



Reclaimed sett surfacing



New sett surfacing

Design Guidance 4

Signage

General Guidance

The street with its footways and carriageways form the setting to the surrounding buildings and urban form. All signage should be located with this in mind. The presumption will be to minimise signage. This can be achieved in some cases through consideration of alternative locations as well as combined use and operation.

The **Legislation** specifies whether both signage and road markings are mandatory. For instance it is not mandatory to accompany a 'give way' road marking with a 'give way' sign, for example. Many signs do not have to be used, typically in the WHS and conservation areas and where traffic speeds and volumes are not high and thus it is safe to do so. **Traffic and General Directions 2002** note that many signs may be used at the discretion of the local authority. In the latest revision sign 637 'at any time' is omitted. These should be removed as part of any project/ maintenance operation for a street.

- **Sign size and the number used should be reduced to the minimum required by legislation, ensuring that it is appropriate for all users' requirements.**
- **Exemptions should be considered and sought (from the Scottish Executive) particularly for schemes proposed in the WHS and conservation areas.**

General siting and design.

Edinburgh has very narrow footways in many of its streets, which result in severe obstructions occurring where sign poles are added. Poles can often have considerable visual impact in residential suburban streets. Review best practice in design and location with a view to reducing impact of signage.

Sign poles should be positioned to ensure that there is a clear zone for pedestrians along the footway and to reduce their visual impact. Sign poles should not be sited on the middle of the footway.

Only signs which are essential should be retained and combined with others to reduce the numbers of posts used. Many traffic signs, particularly parking restriction signs in residential areas may be fixed to walls or railings.

- **In general signage should be considered on a street/ site specific basis, proposing a consistent approach for the entire street where possible and should consider the following approach.**
- **Locate signage onto buildings, walls and street furniture, where possible and reduce the use of poles. (following current Council guidance on obtaining approval from owners and any agreement from Planning and Strategy)**
- **Poles for signs will be positioned to the rear of the footway or 450mm from the kerb edge in both cases ensuring that the middle of a footway is not obstructed.**
- **Sign poles have located at the back of the footway should be designed into recesses, allowing a clear building line to be retained.**

An array of oddly sized and shaped signs located together not only gives a confusing message for drivers, it reduces the quality of a street scene. Many signs are not mandatory and may be used at the discretion of the Council. Co-ordinating different signs and carefully considering the location of signs can reduce the number of poles required. In the WHS and many of the Conservation Areas signs can have a detrimental affect on key views and vistas. More detailed townscape assessments may be valuable.

- **Undertake site surveys for all new signage to ensure co -ordination with existing signage. Redundant signs should be removed.**
- **Multiple signs on individual poles are not always the solution.**
- **Signage requirements and restrictions and their potential impact should be considered during the development of any new scheme proposal.**
- **At the outset of the design process check if the scheme lies within a conservation area.**

Siting on buildings, walls and railings

Individual parking/traffic regulatory signs can be located on buildings and features without the requirement for formal planning approval (even if they are listed) providing that the numbers in any one area are not high and the size and location are appropriate. Only small signs (not much larger than A3) can be located onto these structures as long as they are located neatly into the structure, respecting any particular design features.

- **Signs can be located onto buildings, walls and railings once the proposals have been discussed with Planning and Strategy.**



Temporary Signs

The siting and removal of these signs is important.

- **Specific provision and timescale for the siting and removal of temporary signs must be detailed in contracts.**

Detailed Guidance

- **Permanent yellow backed signage will be resisted in the WHS and Conservation Areas (acknowledging they may be required for temporary signs).**
- **All Traffic and Regulatory sign poles should be grey. The backing for signs will match.**
- **Use slimline horizontal light to externally illuminate signs. Alternatively reflective/ultra reflective signage should be considered.**
- **Street Name Plate Signs to the Edinburgh Standard plate, Scottish Executive requirements**
- **Directional signs to be consistent in design and relate to the central signage system. The Edinburgh Navigator system is being reviewed in 2007, the outcome of which should be referenced.**

Design Guidance 5

Street Furniture & Features

General Guidance (to be read in conjunction with other detailed guidance - bus friendly design guide, siting of containers, 'A' boards)

In addition to signage there is a range of other street features and furniture that are often provided in the context of the street. These features also have an effect on the setting of the surrounding urban form as well as the overall function of the street. **All street furniture and features should be located with this in mind.** The presumption will be to co-ordinate and in some cases minimise furniture and features, taking into account the requirements for signage outlined in the previous section.

Street furniture is considered 'development' under the planning legislation and in the WHS and conservation areas there may be a requirement to obtain consent for the proposed works.

- **Check requirement for planning consent for new furniture and features**

The footway is used to locate fixed features that are associated with the direct function of the road, such as traffic signals and lighting columns and are also where features such as bins, seats, telephone kiosks, bus shelters, parking ticket machines and supply cabinets in the control of the Council have to be accommodated. Other organisations have permitted development rights / obtain consents to locate their equipment on the footway as well.



Integrated and sensitive street furniture

As a result the footway can become congested and movement is difficult causing particular problems for wheelchairs, pushchairs and people who are visually impaired.

New items of street furniture should be considered in the context of the wider street design and combined with other features where possible or appropriate.

Siting

Some elements of furniture have to be fixed in certain locations however, others have preferred positions. Edinburgh has very narrow footways in many of its streets which result in severe obstructions occurring where street furniture is added. Street furniture should be positioned to ensure that there is a clear zone for pedestrians along the footway.

Where street furniture and features are located at the back of the footway, they should be designed into recesses, retaining a clear building line where possible. It will not be acceptable to protect a frontage by locating bollards at the back of the footpath.

- **A desired minimum 1200mm unobstructed footway is required which will generally extend from the building line towards the front of the footway.**

The Council has protocols/ siting and design guidance for features and furniture including 'A' boards, outdoor seating areas and cafés and for features such as lighting columns, waste containers and bus shelters. It is essential that street furniture is considered in the context of the entire street or space and conflicts with other features avoided.

- **Siting and design guidance must be followed and used as a guide for locating other features and equipment. It is generally accepted that furniture and features will be located to either the front or the rear of the footway, leaving a clear zone in the centre. The siting should be consistent, providing groupings of features where appropriate.**
- **New items of street furniture will be minimised and considered in context with the capacity of the footway and other features already located there.**

There is a presumption against the introduction of guard rail/' visi-rail' except where there is an overriding safety concern.

Where bollards are essential to protect the footway and pedestrians from overrun, the choice of bollard siting and general arrangement should take the wider street design and context into consideration.

- **Where required, bollards and guard rail should be sited carefully taking into account the wider street design and context.**
- **Use of bollards to protect paving from vehicle overrun should be limited. Alternative footway reinforcement should generally be adopted in mixed use/ areas of high activity (see 2 design guidance for footways- footway protection).**

Design

There will be a requirement to consider the overall design of a particular features and items of street furniture to meet Edinburgh's aspirations for design simplicity. In order to improve maintenance burdens, some standardisation of street furniture and features will be sought.

- **Simple contemporary standard furniture and features will be used consistently in general street arrangements (refer to requirements for specific street furniture).**
- **Key or unique public spaces (such as new squares, local shopping centres, the canal or the waterfront) could be considered for alternative solutions for some features.**



Unique public space - Fountainbridge Canal Basin

Historic Street furniture and features

Edinburgh has a rich tradition in creating special street furniture that enhances the city.

- **Historic items of street furniture will be retained, in their original locations and preferably fulfilling their original functions. Allowance should be made in maintenance and enhancement schemes for this.**



Historical street light feature



E J MacRae's logo

Design opportunities

The styles and designs of many items of street furniture will be standardised. There are, however, opportunities to introduce elements of public art to add interest or texture to streets and spaces. This can range from the use of carved stone to name the Old Town Closes to the location of major pieces of public art



Using public art to add interest

Opportunities for public art will be highlighted through development briefs and masterplans as well as through the Council's art strategy.

Any art proposed will consider the maintenance implications and resources for upkeep.

Detailed Guidance (to be read in conjunction with other detailed guidance- bus friendly design guide, siting of containers and reference made to standard details)

In order to improve coherence in the street the Council will seek to develop standard detailing and colour for some features across the city. In other situations furniture and features will be designed to suit the specific scheme.

Street Lighting

Consideration of existing lighting installations will offer initial guidance as to the positioning of equipment, the style that should be considered and the type of light source to be selected that would be acceptable to the Council. Edinburgh has a tradition of building fixed lighting and new schemes will be encouraged to adopt this approach.

- **Style of equipment should be considered in the context of the surrounding lighting installations.**
- **Positioning should be considered in the context of the streetscene.**
- **Building fixings will be encouraged/ a requirement in some streets (A renewal schedule will emerge through the development of the RAMP, see also the Public Realm Strategy).**



Street light fitted to building



Street lights forming gateway entrance

The choice of light source is important as it will determine the night time appearance of the area in which new lighting is installed as will the position of the lighting units in order to achieve the required lighting standard.

The current lamp sources being specified are mainly high pressure sodium (SON), metal halide and compact fluorescent (CDM, PL). There is an ever increasing range of lamp sources and only the most efficient available should be used wherever possible to help reduce future maintenance and energy costs.

The Council has adopted white light for the City Centre areas and areas of high night time activity establishing the requirement for people to feel safe in their immediate surroundings and also assist the various surveillance measures in place e.g. CCTV.

- **All street lights (other than heritage/ architectural lighting) should be aluminium (brushed or spun finish) or galvanised steel (rather than stainless steel). They should be grey if painted finish.**
- **The Council will look for a consistent light colouring and light levels approach along entire streets.**



Consistent street level lighting at night

CCTV Cameras

Opportunities should be taken to integrate CCTV cameras with other street furniture or located them on to buildings to avoid locating additional poles in the street. These options should be considered in all cases where new developments are being proposed. Control boxes must be sited in suitable locations (see section on control boxes). The Council is seeking a comprehensive approach to CCTV coverage. Proposals for new systems should be discussed with the council.

- **CCTV should be incorporated with other street furniture (lighting columns and traffic signals for example) or ideally located onto buildings.**
- **In the WHS and Conservation Areas building fixings are preferred (where allowed subject to any planning consents required) using the globe style camera.**



Integration of CCTV cameras

Combined solutions must avoid out of scale pole solutions.

- **The design and proportions of any combined poles must fit with the surrounding column design and colours.**

Bollards

The Movement and Development Guideline require bollards to be colour-contrasting and be at least 1 metre high, a minimum of 0.9metre apart. Where bollards are being introduced as part of a comprehensive piece of public realm design:

- **Bollards shall be unpolished stone (granite, sandstone for example), concrete (plain finish). These shall be a minimum of 850mm.**

Where a historic pattern is being referenced or bollards are being used for traffic management:

- **Bollards shall be cast iron or precast/ 'ferocast', black 'Edinburgh type' (Broxap). 900-1000mm high.**



Unpolished stone bollard



Edinburgh type bollard

In contemporary development areas:

- **Bollards may be aluminium (brushed or spun finish) or galvanised steel (natural finish), rather than stainless steel ,to match lamp posts. 900-1000mm high.**

Reflective strips should only be used where required and located onto leading edge of the bollard only.

- **Reflective strips should be located onto the leading edge of bollards adjacent to a carriageway and be either white or colourless material only. Reflective strips are not required for bollards remote from vehicular traffic.**

Timber bollards may be considered where streets are associated with open spaces.

Guard Rail/ 'Visi rail'

Council policy (LTS) seeks to minimise the use of new guardrail, however it is recognised that in some places it is required to provide safety for pedestrians at some corners and near to schools, for example. Safety assessments should be undertaken to balance a full range of design requirements. The Council is developing a protocol for risk analysis.

- **Minimise the use of new guardrail/ 'visi-rail' .**
- **Adopt the principles for assessment of exiting guard rail in reference to the Council's emerging protocol.**

The Council has a standard detail for guard rail which should be used in all cases. In many situations guard rail is used in combination with 'visi-rail' or 'visi-rail' is the preferred option. Consideration must be given to combining the details to the same specification/ design arrangement.



Guard rail / visi rail used as safety precaution outside primary school

- **pedestrian guard rail or 'visi' rail, to Council's standard detail (palisade arrangement with open tip section) - 1000mm high in plain unpainted galvanised steel.**

Railings and gateposts

Railings are characteristic of Edinburgh, and are used to define boundaries to both public and private gardens. They should be used in preference to fences and always designed into a base plinth. In areas where railings are introduced to reinforce safety and are particular to an area, like the Waterfront or the Water of Leith/ Canal for example, the railings should be consistent in style.

- **Railings should be used in preference to fences to a style that reflects the character of the area.**



Historic railing around Princes Street Garden

Traffic Lights/Crossing controls

- **Traffic Lights will be the current LED based standard used by Edinburgh and the poles will be grey.**

The use of backing boards on traffic lights can increase the impact of controls and heads in sensitive areas. Consideration should be given to sensitive locations in the WHS where the boards can left off.

Minimising the number of signal heads and crossing controls is preferred. The Council prefer to use secondary signals where they are required. They should be sensitively located in the context of the overall design of the junction and the footway/ street general arrangements. In the WHS and conservation areas particular care should be taken to protect important views and vistas and the settings to listed buildings. It is important to install consistent approaches.

Crossing controls should be combined with the signals

- **Seek to minimise the number of signal heads and controls and locate signals and crossing controls to take into account the general arrangements of the footway/ street and any views and vistas.**



Minimise number of poles and signal heads

- **Ensure a consistent approach is adopted.**

There are situations where signal poles have to be extended where they may conflict with vehicle movements. Bracket extensions or cranked poles are used. Cranked poles can look bulky and are not the preferred solution for the WHS or conservation areas.

- **There will be a general presumption against the use of cranked signal poles in the WHS and conservation areas. Bracket extensions should be used.**

Seating

Benches and seats are an important component of the street and wider public realm. Work undertaken by Jan Gehl puts a value on informal seating but also reinforces the utility of the traditional Edinburgh bench. It is important that provision is made for the elderly and that benches are sited at regular intervals. The Council promotes a memorial bench scheme. In more contemporary spaces alternative solutions may be more appropriate; however in general street arrangements the timber benches are preferred.



Traditional wooden benches

- **Benches and seats should be traditional wooden style in general street arrangements, while contemporary spaces will allow for alternative designs.**



Contemporary bench design



Alternative bench design

Tables and Chairs

The opportunity to sit outside on the footway or in squares and spaces is increasing in the city and adds to the vibrancy of streets and the public realm. In this context commercial premises are given the opportunity to reserve space on the footway for tables and chairs. Located adjacent to the building line, they can unfortunately sometimes present a hazard to the visually impaired and other users of the footway. In recognition, the Council require a licence for occupation of the footway. The consent to occupy the footway with tables and chairs is subject to siting requirements.

- **Tables and chairs are allowed to occupy the footway under licence. The requirements and controls for siting of tables and chairs must be considered in the context of the siting of other street furniture and features to retain sufficient footway space.**



Litter bins / salt containers

Litter bins can help keep the city clean and tidy, however, there is a 'presumption against' the prolific use of litter bins and of different designs across the city. Ideally litter and salt bins should be positioned in relation to other street features and furniture e.g. seating. The location and need for bins in particular street should be established at the design stage in consultation with the Council's environmental teams.

- **The Council's standard bin design should be used.**



Trade, domestic and recycling waste bins

The Council's policy is for the containerisation of waste to reduce bags of unsightly rubbish on the streets. This applies to all types of waste. In many parts of the city this is on-street (apart from the WHS), however in new development areas, alternative locations including underground solutions for waste are being developed.

- **Containers are amongst the largest objects placed on the street and can have a considerable impact on the street scene. Their locations must be carefully considered in the context of the street. Refer to the planning policy guidance on the siting of containers.**



'A' boards add to the obstructions on the already crowded footway. Edinburgh has a protocol for the location of 'A' boards and a licence is required. Advertisement panels are not permitted in Edinburgh.

- **'A' boards require a licence and will only be accepted if they conform to the Council's protocol for siting.**

Cycle racks should be well designed and sensitively located as an integral element of the design of the footway. For general street arrangements the Council will require the standard detail, Sheffield design, to be used. This should be steel (and not stainless steel).

- **Generally the standard detail for cycle racks should be used, in plain galvanised steel/ aluminium (bushed or spun). If painted the finish should be in a polymer bonded coating.**

Signage for cycling and cycle routes should follow the requirements for siting and design of signage set out in section 4.



Sheffield design cycle rack

Transport stops and shelters

Where stops and shelters are required the Council has sought to rationalise the requirements for the design of the stops and shelters and has prepared the Bus Friendly Design Guide for this purpose. Further opportunities exist to co-ordinate other items of street furniture which may be associated with bus shelters: local direction signs, bins, seats, phones and advertisements, passenger information and timetables by considering the overall design concept. The Tram Design Manual sets out further requirement in the context of the tram system.

- **Where stops and shelters are required the policy guidance 'bus friendly design guide' should be considered in the siting and design of stops and shelters**
- **In contemporary situations opportunities should be taken to combine and co-ordinate features and furniture**



Control, power and telecoms units

The size of telecoms units and other equipment control boxes can be substantial, visually intrusive and can add to the obstruction to circulation on the footway.

- **Ideally new street equipment should have mains power supply boxes incorporated within them not added as separate switch boxes.**

Locating cabinets and boxes into existing street arrangements can be awkward, particularly in historic areas.

- **The positioning of large scale units on footways in the sensitive parts of the city (WHS and conservation areas) will be resisted and alternative sizes or locations sought in these instances.**
- **Consideration should be given to underground solutions or sites within adjacent premises or gardens.**



Integration of cabinets and boxes

Litter traps must be avoided in the location of cabinets.

Design Guidance 6

Street Trees & Landscaping

General Guidance

Landscape is important to Edinburgh and plays a role on a strategic setting as well as a townscape level. The Council refers to the role of landscape in its policy guidance 'Edinburgh Standards for Urban Design' and at a more detailed level 'Quality of landscaping in developments'.

- **Reference must be made to the Edinburgh Standards for Urban Design and the Quality of Landscaping in developments' for advice on the general requirements for landscaping and species to be used.**

Street trees provide an attractive and healthier urban environment- contributing to a sense of place and improving air quality and linkages in habitat networks.

Street trees can provide an important contribution to the urban structure of the city. The Grassmarket and Castle Terrace, for example, enjoy the setting of significant trees. Traditionally trees are used in parks and gardens in Edinburgh to provide accents and space to contrast with the urban built forms, exemplified by both large scale trees of the New Town formal gardens, and by more intimate Old Town closes and gardens. In the suburban development areas trees are focused on gardens, where they complement the streetscape from behind a boundary. Trees with historical reference can be found in some 'village' areas, like the Corstorphine Sycamore.

Street trees are not characteristic of most general street arrangements.

New development offers the opportunity to increase tree cover and general landscaping. In any development trees should be used to reflect varying approaches.

- **Trees should be planted into soft landscaped areas where possible, in preference to hard surfaces.**
- **In general public street arrangements/ through streets, preference will be for trees to be located within gardens and frontages, where appropriate and not in the footway. Groups of trees should be established within landscaped areas, providing a contrast to the built form in a street layout or acting as a focal point to a view.**
- **Mews/ shared surfaces or home zone arrangements can provide an appropriate context for street trees.**
- **Where existing trees are to be retained, the general arrangement of the street and public realm should be designed to take account of the trees requirements.**
- **Consideration should be given to the impact of underground services on proposals. This should apply in particular to avenue or formal arrangements.**



'Colour in the City'

There are many opportunities where colour, through landscaping, can be introduced to the city. The Council promotes the enhancement of roundabouts and landscaped areas in both the city centre, local areas and at entrances and gateways to the city. Guidance on the style of landscape treatments was set out in a background document 'framework for the enhancement of roundabouts' which focuses on the structural and natural landscape treatments that would be appropriate for Edinburgh. The use of bedding displays and bulbs are central to any of these enhancements.

Introducing planters and flower boxes into streets should be considered carefully and should ensure that they complement the street layout and are appropriate.

- **Planters will be resisted on street corners, unless part of an overall soft landscaping proposal and will not be supported in the WHS.**
- **Careful consideration will need to be given to the location of hanging baskets and window boxes, especially in the WHS and Conservation Areas**

Detailed Guidance

Where trees are located in the footway or paving they should be planted to a suitable specification and be tied into the paving using a **tree grid** / feature. Traditional metal tree grids attract litter and can be a hazard to pedestrians. Tree grid surfaces should be either porous resin bonded gravel or a more solid concrete/ metal cover that is flush with the paving surface. 'Up stands' will not be acceptable unless the trees are planted in an area away from the general footway.

- **Tree grids should be porous resin bonded gravel or a more solid concrete/ metal cover (as illustrated) flush with the surrounding paving (unless an 'up stand' is suitable).**
- **Tree guards should not be used.**



Porous resin tree grid

Trees planted in streets are often underspecified and fail to develop. The Quality of Landscaping guidance provides a list of suitable street/ park trees. Generally trees should be planted small which will mean that they have a better chance of success in establishing. This would apply to trees planted into landscaped areas, however trees planted into paving should be selected to a higher specification to avoid damage.

- **Street trees planted into landscaped areas should be standard or smaller size.**
- **Generally trees in paving should be planted to a minimum of an extra-heavy standard size.**

Choice of **species** for streets must be agreed with the Council and the size and scale of the tree appropriate.

Planting requirements.

The technical requirements for tree planting, particularly where the tree is being introduced into a paved area, are critical. Allowance must be made for a suitable size of tree pit/ volume of soil that will enable the tree to develop. The British Standard requirements should be referenced; with dimensions of no less than 1m³. Drainage and pit preparation are essential and should be included in the specification.

- **Volume of soil and pit dimensions should not be less than 1m³**
- **Drainage and pit preparation should be included in any specification for works.**

Delivery

5.0 Delivering The Principles of Street Design for Edinburgh

5.1 Streetscape Delivery Process

The Council has put in place a structure for the delivery of streetscape which will bring council representatives alongside outside partners to champion streetscape and co-ordinate delivery of the Standards for Streets. An independent design advisor will introduce important external expertise to assist the Council.

The new structure will ensure that schemes of all sizes, from large scale public realm to day-to-day maintenance programmes will be considered against a standard set of design principles and use detailed design guidance.

This will ensure that individual projects do not develop their own public realm solutions, but provide coherence to the public realm across the whole city.

5.2 The Design Process

In order to affect changes in the street there is a need to understand the character of the local area. **A balance of skills is required to deliver a comprehensive design approach.** Skills of different professionals ensure that all aspects of design from visual qualities through to safety, maintenance and sustainability are covered.



Training for both the designers and those delivering the new works is an integral part of the process. Standard detailed specifications will be used for Council projects, but also as a guide to the standards that are expected in Edinburgh from others undertaking works that affect the streets. These standards will apply equally to new works and to maintenance operations across the city.

Roads Asset Management Plan (RAMP)

Good maintenance and aftercare of the streets is essential whether they have been repaired, redesigned or newly created.

Edinburgh is developing a **RAMP** which will guide detailed requirements for streets. A range of information will be available, such as areas where specific approaches to work should be taken or where particular materials should be used.

The RAMP will provide the co-ordination mechanism for the annual capital investment and revenue programmes for maintenance and will assist in recording information from inspections and noting and prioritising defects.

Sustainability

The Council has recently adopted the Edinburgh Standards for Sustainable Building. Within the principles that are being applied are requirements to **establish good pedestrian/ cycle access to structural open spaces and public transport; public realm strategy and recycling facilities**. New designs should consider how they have satisfied the particular requirements.

Using the Edinburgh Standards for Streets

In addition to the correct balance of skills there is a requirement to ensure that key stages of the design process are undertaken. From a projects inception to the final detailed design and RCC, certain requirements should be acknowledged. PAN 76 suggests an inclusive process between planning and transport. This suggested process considers the requirements of RCC early in discussions for street design proposals and seeks to secure planning and RCC permission concurrently.

The suggested option for integrating the RCC process with the overall design and planning process should be a consideration in all street design projects.

PAN76 set out a **Design Checklist** based in the themes, context, identity and connection. This checklist has been adapted (see Appendix A) to include specific questions that should be asked for any design developed in Edinburgh to ensure that they conform to the Standards for Streets.

The Design Checklist should be referenced for any design proposal affecting streets.

Design Checklist

(based on the requirements set out in PAN 76 - New residential streets)

Formal Consents
Is Planning consent required/ have you discussed with Streetscape Working Group?
Have you considered the integrated RCC process set out in PAN 76?
Is the project in a Conservation Area?
Have you applied the requirements of the Standards for Sustainable Building
Design Team
Do you require additional design advice/ other expertise?
Spatial: Context: Visual: Function (safety)
Have you considered the objectives and Principles for Standards for Streets?
Have you visited the site and understand the aspects noted above?
Consider local character
Consider built form
Consider all links into a surrounding area
Detail and Identity
Have you referred to the Standards for Streets detailed design guidance/ RAMP?
Have you undertaken an audit of the wider street scene?
<ul style="list-style-type: none"> ● Street character ● Street furniture ● Materials ● Signage ● connected streets and networks ● Movement through and within, a site (both pedestrian and other) ● Traffic speed and road safety ● Junctions ● Parking ● Bus Routes ● Designing for utilities and service vehicles

Glossary

Carriageway	Part of a road referring to the part that will technically carry the traffic.
Conservation Areas	Conservation Areas have a special architectural or historic interest. Councils designate conservation areas to try and protect or enhance the special characteristics of the locality. As these areas are sensitive, planning authorities would require appropriate higher standards of design and would also normally discourage demolition of buildings and features. Conservation Areas include parks, open spaces and the public realm, not just buildings.
Cycle friendly design guide	Document setting out specific design guidelines for the provision of cycling within towns and cities.
Development Quality handbook	Procedural and policy guidance that helps to achieve high quality in new developments and deliver a high standard of customer service. (Found on the council's website at www.edinburgh.gov.uk)
Dropped kerbs	The dropped kerb is installed on the pavement. This involves the kerb stones being lowered and the pavement being ramped. Drop kerbs occur where the footpath and road surfaces are at the same level to allow unhindered movement across the kerb line, usually at vehicle crossovers and at pedestrian crossings.
Edinburgh Arts Strategy	Public art strategy set out in the council's overall strategy for the arts and culture (currently being drafted). Information is also available on art in public spaces in the Development Quality Handbook.
Edinburgh Design Initiative	An initiative that provides the conceptual basis for the design of the city, revolving around the following four themes: the 'Compact City'; the 'Shared City'; the 'Walking City'; and the 'Waterfront City. Sir Terry Farrell is the council's appointed design champion who is supported at the council by the design leader.
Edinburgh navigator system	A series of orientation posts that are located across the city centre

Edinburgh Streetscape Manual	Document containing guidelines relevant to the design of the public realm in Edinburgh- now replaced by the Edinburgh Standards for Streets.
Flags	An alternative name for paving slabs. Paving slabs or flags are larger in size than setts or cobbles. They usually range in size from 400mm upwards and are usually made from either precast concrete or natural stone.
Footway	Footways are the pedestrian paths alongside a carriageway, and are often referred to as a pavement.
Footway reinforcement	Additional strengthening beneath paving slabs (either concrete or bitumem wearing course).
Framework for the enhancement of roundabouts	Background document to inform the Edinburgh Roundabout Sponsorship Initiative presented to the planning committee on the 3rd of November 2005.
Guard rail, 'visi' rail	Protective railing below and parallel to a handrail.
Home zones	Home Zones seek to provide a better quality of public space and enhanced streetscape usually incorporating pedestrian priority. They involve residents in the design process and raise awareness about street design and road safety.
Horonizing	The use of stone off cuts as a surfacing material in the same way as setts or cobbles. While quite large areas can be covered in this way, the material is more often used at small, awkward junctions for example at the foot of walls or in areas where pedestrians are not encouraged to walk.
Kerb upstands	A kerb upstand is the distance between the two surfaces defined by the kerb. The kerb prevents vehicles running off the road and onto the adjacent surface and is usually 125mm high.
Light-Emitting Diode (LED)	A light-emitting diode is a semiconductor device that emits incoherent narrow-spectrum light, used within the public realm for devices such as traffic lights.
Lighting strategy	The council's street lighting strategy (currently being drafted).
Local Transport Strategy	Document prepared by a Council setting out its transport strategy and an implementation programme.
Movement and Development	The council's non- statutory planning guidance for developers on road design and detailing
PAN 76 Residential Streets	Providing advice on the design of better quality residential streets. It focuses on some key factors which can create successful street design. It also clarifies the roles and responsibilities of those involved. (found on the Scottish Executive's Website at www.scotland.gov.uk)

Permeable paving	Paving methods for roads, parking lots and walkways that allow the movement of water and air through the paving material.
Place making	Placemaking is a term that began to be used at the beginning of the 1970s by architects and planners to describe the process of creating squares, plazas, parks, streets, and waterfronts that will attract people because they are pleasurable or interesting.
Public Realm	That part of the built environment to which the public have free access, including streets, squares, parks, etc. Public realm issues embrace the social interaction and use of spaces as well as their servicing and management.
Quality of landscaping in developments	Development quality guideline- council's development quality handbook- non statutory planning guidance.
Raised entry treatments	Raised sections of the road in conjunction with footway build-outs, located at the entrance to a side road.
Road Construction Consent (RCC)	Formal consent required for the construction of a new road or alteration to an existing road for the purpose of allowing vehicle access.
Redevelopment areas	An existing area of the city undergoing a physical change
Roads Asset Management Plan (RAMP)	A document setting out maintenance processes for the local road network
Scorrior blocks	Blocks made from the waste slag of iron, copper or tin smelting.
SCOTS	Society of Chief Officers of Transportation in Scotland
Setts	Square blocks, usually of granite or whinstone, forming a street surface.
Shared surfaces	A street surface with no clear definition between areas for pedestrian and vehicular movement.
Speed tables	Raising a section of road in line with the pavement to slow down traffic speeds giving greater street priority to the pedestrian
Spurstones	Located at the base of buildings and gateposts providing protection against damage from vehicles.
Statutory listed	Listing of buildings and spaces that are protected by a legislative statute.
Street pattern	Series of streets that collectively form a pattern, contributing or helping to define the urban grain of a settlement.

Streetscape	The physical quality of a street, created and influenced by the activities and uses it contains, the height and quality of the buildings fronting onto it, the materials and details of it's surfaces and objects/furniture (lighting, seating, trees etc) and it's width.
Streetscape Working Group	Part of the council's streetscape delivery process
Sustainable urban drainage (SUDS)	An environmentally friendly way of dealing with surface water runoff which avoids the problems associated with conventional drainage practice
Tactile paving (blister and hazard)	Profiled paving surface providing guidance or warning to visually impaired people
The edinburgh standards for sustainable building	A set of standards that raises the sustainable benchmark for all agencies operating in the city. (Found on the Council's website at www.edinburgh.gov.uk)
The Edinburgh Standards for Urban Design	A document that provides urban design advice and guidance for Edinburgh. (Found on the Council's website at www.edinburgh.gov.uk)
Townscape	The composition of the urban environment ; the combination of all the buildings, spaces and objects
Traffic and general directions 2002	A 400 page document providing information on the latest legally enforceable regulations for traffic signs, replacing the 1994 standards.
Traffic management measures (build-outs, spitter islands, staggered pedestrian crossings, refuge islands)	Measures undertaken to control/improve traffic flow, safety and the associated environment; such as controlled road junctions, or regulating parking provision.
Tram Design Manual	The role of the Design Manual is to set out the context and requirements and mechanisms for achieving quality design for the Edinburgh Tram Project and to play a key part in the process of procuring a high quality design product.
Tree grid/ grille/ guards	A surface surrounding the base of a tree that provides root ventilation and natural water supply in paved areas.
Traffic Regulation Order's (TRO's)	A legal order, which allows the Highways Authority to regulate the speed, movement and parking of vehicles and regulate pedestrian movement, which are enforceable by law. The act governing Traffic Regulation Order's is the Road Traffic Regulation Act 1984.

Walking Strategy	A strategy that sets out a vision, a series of objectives and an action plan to help create or maintain safe, people friendly streets.
Waterfront Communities project	A learning network of nine cities from around the North Sea, who are rediscovering their waterfronts and striving to reconnect their cities with the sea.
World Heritage Site	In UNESCO's words they are of 'outstanding universal value'. The list of World Heritage Sites along with Edinburgh's City Centre includes places such as The Great Wall of China, The Pyramids and The Statue of Liberty.

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