Transport and Environment Committee

10.00am, Tuesday, 18 March 2014

Edinburgh Street Design Guidance - Draft for Consultation

Item number	7.3
Report number	
Wards	All

Links

Coalition pledges	P31 P40
Council outcomes	C07 C08 C09 C019 C026
Single Outcome Agreement	S01 S02 S04

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Executive summary

Edinburgh Street Design Guidance - Draft for Consultation

Summary

The purpose of this report is to seek the Committee's approval of new consolidated Street Design Guidance in draft for consultation. The new guidance has been prepared in the context of Designing Streets, the first policy statement in Scotland for street design. It signifies a move away from a system designed to meet the needs of motor vehicles in favour of a focus on place making. The new guidance will complement the Edinburgh Design Guidance, and help to achieve the Council's wider policy objectives.

The Council has been at the forefront of developing design guidance for streets, producing the Edinburgh Streetscape Manual in 1995 and the Edinburgh Standards for Streets in 2007.

The Edinburgh Street Design Guidance comprises three parts. Part A, the Introduction, sets out the context within which the guidance is set and establishes the goals, values and objectives for street design within Edinburgh.

Part B, the Design section and Part C, Detailed Design Manual define a street typology for Edinburgh together with design principles that will guide new street development and changes to the existing network. Detailed fact sheets and technical information will draw together a range of Council information into one place, assisting in bringing co-ordination to street maintenance and improvements.

Consultation will take place on the draft guidance, which will include focused sessions and feedback from designers and particular users of streets. The guidance will also be road-tested by practitioners and officers, the outcome of which will inform the final version of the guidance.

The guidance serves two principal purposes: (1) to ensure that new development proposals comply with planning policy objectives and (2) to ensure that the Council's responsibilities under roads and transport legislation including the delivery of public realm comply with government policy. For this reason, it must be approved by both the Planning Committee and the Transport and Environment Committee for these separate and distinct purposes in accordance with the Terms of Reference of those Committees.

Recommendations

It is recommended that the Committee:

1 notes the Planning Committee approval of the Edinburgh Street Design Guidance in draft for consultation; and

2 approves the Guidance, for consultation in respect of transport and public realm matters, within its Terms of Reference.

Measures of success

The design of existing and new streets in Edinburgh complies with the objectives of Designing Streets.

Financial impact

The rationalisation of design guidance will provide greater certainty to both maintenance and capital programmes and in budgeting for new developments.

There will be no direct financial impact arising from this report. However when finalised, the Edinburgh Street Design Guidance will influence the costs associated with the implementation and delivery of street improvements.

Equalities impact

Impacts on equalities and rights have been considered through Equalities and Rights Impact (ERIA) evidence.

Improvements to streets would result in enhancements of equalities and rights with benefits:

- to health, for example, through new public spaces and active travel;
- to individual, family and social life, for example, through provision of public seating, walking and cycling and the provision of shared spaces;
- to legal security, for example, through clear signage and regulation information;
- to physical security, for example, through safer places with improved layouts and lighting; and
- to age and disability, for example, through better use of materials, layouts and legibility of public streets and spaces.

Although it is not possible to provide technical details at this stage, the guidance will acknowledge the rights issues such as health from pollution, for example, ensuring that design solutions seek to improve the effects.

Overall, there would be no adverse equalities and rights impacts arising from this report.

Sustainability impact

- The proposals in this report will help to reduce carbon emissions, for example, using street furniture such as new street lighting which seeks to reduce energy and use improved materials. The principles for the street framework also include measures to improve traffic flows and improve pedestrian space.
- The proposals in this report will increase the city's resilience to climate change impacts through the use of natural materials and sources that are local to the area.
- The proposals in this report will help achieve a sustainable Edinburgh through the application of values to promote sustainable design which will include measures to improve technology, the use of better materials and help to increase pedestrian and cycle priority thereby assisting in the reduction of car use.
- The proposals in this report will help achieve a sustainable Edinburgh as improvements to streets and places are recognised as being a key to economic wellbeing.
- The proposals in this report will assist in improving social justice by improving street design and places to cater for all users and increasing accessibility for all.

Consultation and engagement

Consultation was undertaken during the preparation of the draft Edinburgh Street Design Guidance. Further consultation will take place during the public consultation period that will be used to inform the final version of the guidance. A Consultation Plan is provided in Appendix 2 of the main report.

Background reading/external references

- Movement and Development, Planning Guidance 2000
- Bus Friendly Design Guide, 2005
- Edinburgh Standards for Streets, 2007
- Edinburgh Public Realm Strategy, 3 December 2009
- Designing Streets, Scottish Government Policy Statement, 2011
- Edinburgh Design Guidance, 2012
- Local Transport Strategy 2014-19
- Active Travel Action Plan, 2013

Report

Edinburgh Street Design Guidance - Draft for Consultation

1. Background

Designing Streets Policy Statement

1.1 Designing Streets, the first policy statement in Scotland for street design, was published by the Scottish Government in 2010. It set out a change in the emphasis on the guidance on street design. It signalled a move away from a system designed to meet the needs of motor vehicles in favour of a focus on place making. It has been created to support the Scottish Government's place-making agenda and is intended to complement the 2001 planning policy document Designing Places, which sets out government aspirations for design and the role of the planning system in delivering well designed places.

1.2 Designing Streets seeks to change the way street design is undertaken and how it sits within the statutory process, ensuring there is a link between planning and transport legislation. In particular if states:

- Street design must consider place before movement.
- Street design guidance, as set out in this document, can be a material consideration in determining planning applications and appeals.
- Street design should meet the six qualities of successful places, as set out in Designing Places.
- Street design should be based on balanced decision-making and must adopt a multidisciplinary collaborative approach.
- Street design should run planning permission and Road Construction Consent (RCC) processes in parallel.

1.3 Designing Streets requires local authorities to develop guidance for streets at a local level. This provides an opportunity to develop local guidance that brings together planning and transport agendas corporately, aligning both project and process arrangements in the delivery of improvements to streets.

1.4 The Council's Public Realm Strategy already provides the context to good design in the city's public spaces, demonstrating the Council's commitment to providing high quality, coherent and co-ordinated public realm.

1.5 The Street Design Guidance will form one of the six new pieces of consolidated non-statutory guidance. It will be complementary to the themes of the Edinburgh Design Guidance; design quality and context, building design, and landscape and biodiversity.

Current street design guidance

1.6 The Council currently controls street design through The Edinburgh Standards for Streets and through detailed roads guidance, Movement and Development. These documents guide developers and the Council's own Roads and Transport functions on the requirements specific to Edinburgh streets.

1.7 Edinburgh has been at the forefront of street design since the 1990s through the preparation of the Edinburgh Streetscape Manual. This document was the forerunner of the Edinburgh Standards for Streets and helped to shape the current street design guidance, highlighting those elements of streets that make Edinburgh special.

1.8 The Streetscape Delivery Process was established when the current guidance was adopted in 2007. This comprises both a strategic approach to streetscape and an internal review process through the Streetscape Working Group and the Streetscape Officer in Planning and Building Standards. These processes are aimed at bringing together Council functions that make changes to streets. This has continued to underpin the approach to street design and the priorities established by the Public Realm Strategy.

1.9 Complementary strategies have been developed, including the City Dressing Strategy and the Sustainable Lighting Strategy for Edinburgh that add other detailed strands of street design. Further guidance and standards are also available, such as standard construction details, bus design and cycle design guidance.

Developing new street design guidance

1.10 The Council embarked on a review and consolidation process for all of its street design guidance in 2011. The work was carried out on a collaborative basis between Planning and Transport. Best practice reviews of current and emerging street design guidance across the world were carried out alongside a review session with expert practitioners from the private sector. They encouraged the Council to consider a simple structure to the guidance and set it out on the basis of *why and where* the guidance should apply, and *what and how* - the details that should be followed.

1.11 In addition, a series of internal practitioner workshops was held to highlight to staff the requirements of any new street design information and to establish any current street design issues and concerns that would need to be addressed in the review of the guidance.

2. Main report

The new Edinburgh Street Design Guidance

2.1 The new Edinburgh Street Design Guidance is attached at Appendix 1. It provides both design guidance and a technical manual to assist those changing or adding to any part of the street network in Edinburgh.

2.2 Part A provides the Introduction, setting out the policy and geographical context to street design in Edinburgh. It also sets the Council's expectations for street design through a series of goals, values and objectives that the Council would expect street design to be measured against.

2.3 Part B provides the Design section and will set out the detailed requirements for designers including principles for each street type.

2.4 Part C provides the Detailed Design Manual. It is anticipated that Part C will be more of a 'live' document and will be updated as best practice, policies and legislation change. The Detailed Design Manual will be completed during the consultation period. It will contain a large amount of detailed and technical information to implement the guidance. It is not policy but technical specifications which does not itself require committee approval.

2.5 The guidance will contain appendices, including the legal context, reference material, glossary etc.

2.6 When approved, the Street Design Guidance will supersede key Council documents for example, The Edinburgh Standards for Streets and Movement and Development as well as a large amount of technical guidance.

Why and Where

2.7. The Introduction (Part A) explains why the guidance has been produced. It explains why Edinburgh is special in terms of its street layouts and design, drawing on information set out in the Standards for Streets document, Edinburgh Design Guidance and Guidance for the Historic Built Environment. Key to this section are the goals and values that Edinburgh will apply in delivering street design in response to the qualities defined in the Government's Designing Streets policy statement. These goals and values are underpinned by commitments that show how Edinburgh will make changes to the processes it applies and to change what Edinburgh will do in relation to key street design features. These statements focus on considering the street as a place and on seeking more integrated design solutions.

What and How

2.8. The Design section (Part B) sets out the Edinburgh Street Framework which defines a street typology based on 5 place types and 5 link types. This produces a matrix of 25 street types. Design principles have been developed for each street type setting out the relative priority attached to the street users for each street type. These principles also set out the parameters against which different types of street can be improved or changed. They highlight any special requirements eg if a street is within a conservation area, along with the range of street furniture or features that may have to be accommodated. Particular attention is given to the different environments that make up the street: walking, cycling, public transport, and other carriageway users. The overall purpose is to ensure that any works to a street reflect the wider 'place environment' within which the street is located.

2.9 The Detailed Design Manual (Part C) will provide the clear set of instructions required for practitioners to implement the changes, presented as a series of fact sheets. An important and significant part of the guidance, these sheets will draw together all of the Council's technical information in one place. The sheets will be illustrated and will include reference examples.

2.10 The fact sheets will be grouped under the four modes of travel; walking, cycling, public transport and other carriageway users. Each environment will provide information and details that reference back to the principles, setting out guidance on layouts, the fabric and the furniture and features. A sample set of the fact sheets is included in the draft guidance to provide an indication of the approach and content. The accompanying title pages outline the full range of fact sheets that will form part of the Detailed Design Manual.

2.11 The Appendices will provide the legal requirements and context for street design and will provide an outline of the design process that the Council will employ, drawing together the Government's requirement to consider planning and transport legislation (Roads Construction Consent) together.

Format of the Guidance

2.12 While the draft guidance has been prepared as a word document, it is proposed that the final format of the guidance will be prepared for web use, rather than as a stand-alone document. This will allow the user to navigate through a complex range of layered information through the use of web based links and references.

Consultation Process

2.13 The success of the guidance will depend upon the extent to which the users have confidence in it, thus consultation with user groups has been employed to guide and shape the street design guidance. Early consultation was used to set up and shape the review for the guidance, as outlined at the start of section 2 above. More recent awareness-raising presentations and workshops with stakeholders, at the Transport Forum and the Edinburgh Urban Design Panel (EUDP), and with elected members at the Transport and Environment Policy and Review Committee have been used to inform the scope of the policy and to provide direction for the principles and the detailed fact sheets. The advice given by the EUDP is provided in the report provided as Appendix 3.

2.14 It is proposed that a programme of public consultation and consultation targeted at key user groups will be employed to develop the draft guidance to its final form. The Consultation Plan is set out in Appendix 2. Residents, key stakeholders and interested parties will be asked to comment. Respondents will be encouraged to focus on key issues through a series of target questions using a survey monkey questionnaire. The consultation will seek to identify, through workshops and review sessions with groups and organisations, where there are key street issues to address. This will include those who have a particular interest in the street, including, for example, vulnerable road users, those with a role in developing place, local communities and action groups.

2.15 Developing the detailed fact sheets is ongoing and it is proposed to feed the details as they emerge into the consultation process. Additional targeted consultation will also take place with key stakeholders and groups who will be able to contribute to, and inform, the details.

2.16 When the Edinburgh Street Design Guidance is finalised, the detailed fact sheets will be made available for the Committee to view the entire document in context.

2.17 The consultation period will also allow the policy guidance and emerging detailed fact sheets to be ‘road tested’ by officers and practitioners. The results of this testing will inform the final version of the guidance.

Procedure for Committee Approval

2.18 The Edinburgh Street Design Guidance will form one of the six new pieces of consolidated non-statutory planning guidance. It will be a material consideration in determining planning applications and has therefore been submitted for approval for consultation by the Planning Committee. However, it will also influence a wide range of works on the street under roads and transport legislation. Furthermore the Committee Terms of Reference and Delegated Functions places responsibility for public realm with the Transport and Environment Committee and the guidance, therefore, also requires the approval of the Transport and Environment Committee in respect of those matters within its remit.

3. Recommendations

3.1 It is recommended that the Committee:

3.1.1 notes the Planning Committee approval of the Edinburgh Street Design Guidance in draft for consultation; and

3.1.2 approves the Guidance, for consultation in respect of transport and public realm matters, within its Terms of Reference.

Mark Turley

Director of Services for Communities

Links

Coalition pledges	P31 - Providing for Edinburgh's economic growth and prosperity. P40 - Work with Edinburgh World Heritage Trust and other stakeholders to conserve the city's built heritage.
Council outcomes	CO7 - Edinburgh draws new investment in development and regeneration. C08 -Edinburgh's economy creates and sustains job opportunities C09 - Edinburgh residents are able to access job opportunities C019 - Attractive Places and Well Maintained- Edinburgh remains an attractive city through the development of high quality buildings and places and the delivery of high standards and maintenance of infrastructure and public realm. C026 - The Council engages with stakeholders and works in partnership to improve services and deliver on agreed objectives.
Single Outcome Agreement	S01 - Edinburgh's economy delivers increased investment, jobs, and opportunities for all. S02 - Edinburgh's citizens' experience improved health and wellbeing, with reduced inequalities in health. S04 - Edinburgh's communities are safer and have improved physical and social fabric.
Appendices	1. Edinburgh Street Design Guidance – draft for consultation 2. Consultation Plan 3. Report of the meeting of the Edinburgh Urban Design Panel 27 November 2013

Appendix 1

Edinburgh Street Design Guidance - Draft for Consultation

/

EDINBURGH
STREET DESIGN
GUIDANCE

DRAFT FOR CONSULTATION

February 2014

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YOUR COUNCIL – YOUR ENVIRONMENT

Versions and Acknowledgements

Version	Amendment
12 February 2014	Draft for Planning Committee approval for Public Consultation

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This version is to be considered for consultation by the Planning Committee in February 2014.

The most current version of and updates/addenda to this Guidance will be posted at [ ]. Readers may register to receive updates by email.

This Street Design Guidance was prepared for the City of Edinburgh Council's Services for Communities by a multidisciplinary team:

Reggie Tricker	Professional Officer, Transport Policy and Planning
Allan Hutcheon	Active Travel Officer, Transport Policy and Planning
Andrew McBride	Development Control Manager, Transport Policy and Planning
Will Garrett	Development Planning Group Leader
Karen Stevenson	Senior Planning Officer
Phil Noble	Senior Professional Officer, Transport Policy and Planning
Hugh MacLean	Design Officer, Road Services

Overseen by a Steering Group consisting of:

Ewan Kennedy	Transport Policy and Planning Manager
Euan Kennedy	Roads Services Manager
John Inman	Development Planning Manager
Cliff Hutt	Traffic and Engineering Manager

The project team reviewed other cities' guidance (referenced in Section Section D1-2) in producing this guidance. The assistance of Halcrow Group Limited, in the early development of this guidance, is acknowledged.

Executive Summary

This Guidance has been produced for three reasons:

1. To ensure local street design practices in Edinburgh align with Designing Streets, the Scottish Government's policy on street design
2. To ensure that street design supports the Council's wider policies, in particular transport and planning policies
3. To bring together previously separate Council guidance on street design, to achieve coordination and coherence

The challenge of making places better for people whilst not causing undue congestion or delaying other street users (depending on the location or time of the day) is at the core of this guidance.

Scope of the Guidance

This Guidance will be used for all projects that maintain, alter or construct streets including urban paths in Edinburgh. Such projects include:

- **Carriageway and footway maintenance and renewals**
- **New streets associated with development or redevelopment**
- **Design alterations to existing streets including surfaced paths**

This Guidance will be of interest to a wide range of people, from Council designers and Planning Officers, through to private developers and community groups or individual members of the public.

Status of the Guidance

This document should be read alongside Designing Streets which is translated into detailed design guidelines for Edinburgh by this Guidance.

This Guidance is supplementary to the Council's policies for planning and transport in the Local Development Plan and the Local Transport Strategy. It is one of six, user-focused, non-statutory guidance documents interpreting Local Development Plan policies; the Edinburgh Design Guidance, which deals with buildings, is another of these sitting alongside this Guidance.

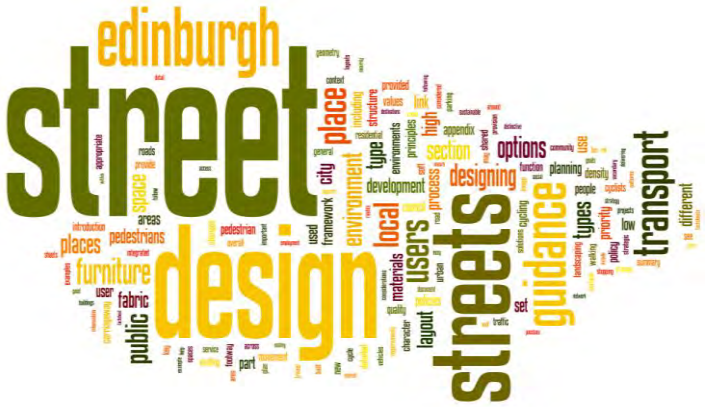
Goals and values

Edinburgh's design approach is guided by its values for street design, set out overleaf. These build on the six qualities of places in Designing Streets[1]. The goal is to find the appropriate fit between these in creating successful streets across the city.

[1] Distinctive; Safe & pleasant; Easy to move around; Welcoming; Adaptable; Resource efficient.

To ensure that Edinburgh's streets are designed to be:

- attractive and distinctive, supporting places of interest
- welcoming, inclusive and accessible
- helpful in making Edinburgh's transport and ecological systems more sustainable
- legible and easy to get around
- safe
- responsive to the needs of local communities
- cost effective in design



How this guidance works

Identify STREET TYPE by interpreting street's 'place' and 'link' role

↓

Use PRINCIPLES SHEETS to identify priority street users to emphasise in design

↓

Formulate STREET DESIGN OPTIONS and the overall DESIGN CONCEPT

↓

Use DETAILED DESIGN FACTSHEETS to design and engineer the scheme

Approach to Edinburgh Street Design Guidance

Edinburgh's challenges are posed in the Edinburgh Design Guidance. We build on this, Designing Streets' policies and Edinburgh's goals and values by working to fulfil the following approaches.

- Changes in how we do things
  - **We will follow a design process that starts by considering the street as a place**

- Changes in what we do
  - **We will recognise that streets have an important non-transport role**
  - **Street design will prioritise improving conditions for pedestrians, cyclists and public transport users in most streets**
  - **We will provide integrated design solutions for more than one mode of transport**
  - **We will use signs, markings and street furniture in a balanced way, providing them where they provide a positive function for street users**

Delivering these will require a coordinated and integrated approach.

Using a framework to guide street design

The guidance categorises the city's streets into 25 street types. A matrix illustrates this, using streets' relative place and link functions.

Some local design situations may be identified as part of the design process. These are important in delivering Edinburgh's goals and values. This Guidance does not examine the design of unsurfaced rural paths or the Scottish Government's trunk roads and motorways.

Priority street users and applying design options

During the design process, the whole street environment should be considered, with priority user groups emphasised during the design process; these are set out in the Principles Sheets. For example, streets can be based around one or often more types of user environment – streets as places, and for walking, cycling, public transport, and general carriageway use. These environments (or spaces) are often shared and overlap, therefore steps should be undertaken to assess the potential for integrated design across modes of transport and for different users. Street design options include LAYOUT AND GEOMETRY, FABRIC AND MATERIALS, STREET FURNITURE and SOFT LANDSCAPING, detailed below. Drainage (including sustainable urban drainage systems (SUDS)), utilities and servicing, use of streets by large vehicles, and gradients are also key elements in design.

- **layout and geometry** looks at the planning of the street including positioning of street furniture
- **street furniture** relates to the choices of items installed on the surface of the street, their specification and how they are fitted
- **fabric and materials** relate to the surface materials which are used to walk, ride or drive on and their underlying construction
- **soft landscaping** relates to the amount, size and positioning of trees, grass and planting

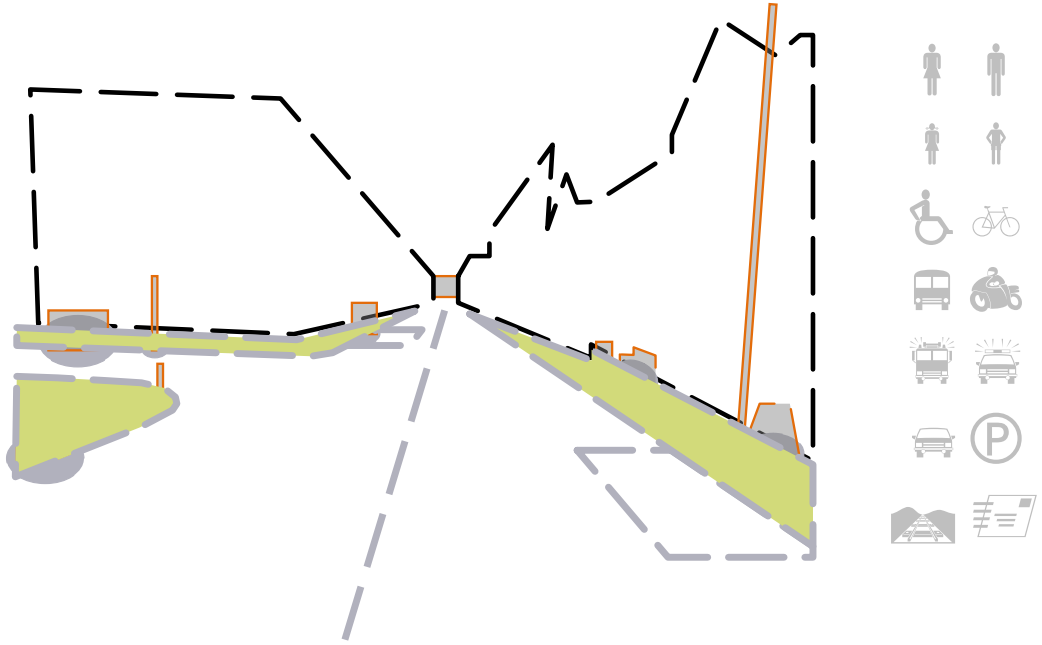
Design Principles and Details

Streets with a greater range of users, particularly those with higher numbers of pedestrians, will have a greater number of elements to be included in street design. Streets with relatively few different types of user, or few users in total, will be much simpler in their requirements.

Historically, different Council guidance documents have provided guidance on designing environments for different users. This guidance reflects the new integrated thinking about designing and sharing street space.

Detailed advice is presented by user environment through factsheets, as illustrated, right.

- **Pedestrian Environment**
  - **Layout and geometry**
  - Pedestrian Zone
  - Crossing
  - Shared
  - **Fabric and materials**
  - Footway
  - Kerbing
  - **Furniture**
  - Waste
  - Bollards
  - Traffic Signals
  - Seating
  - Trees & Vegetation
  - **General Furniture**
- **General carriageway environment**
  - **Layout and geometry**
  - General
  - Intersections
  - Parking & Loading
  - Traffic Calming
  - Road Markings
  - **Fabric and materials**
  - Surfacing
  - **Furniture**
  - Drainage
- **Public Transport Environment**
  - **Layout and geometry**
  - Bus
  - Tram
  - **Fabric and materials**
  - Public Transport Lanes
  - **Furniture**
  - Public Furniture
- **Cycling Environment**
  - **Layout and geometry**
  - Cycle Lanes
  - Transitions
  - **Fabric and materials**
  - Cycleway Materials
  - **Furniture**
  - **Cycle Parking**



Contents

Contents

Contents

How the guidance is set out

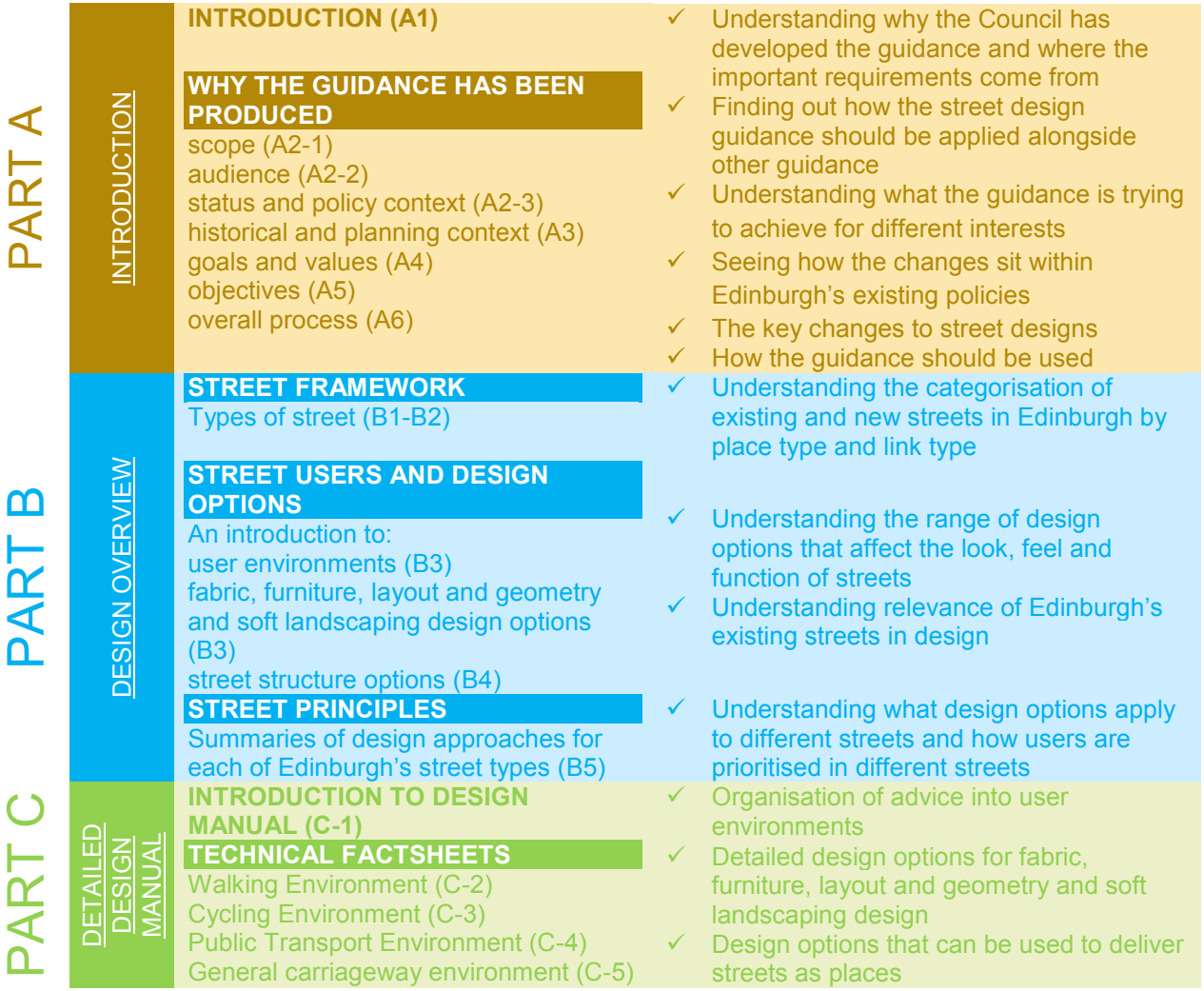
This structure of this guidance is based on Designing Streets and the Edinburgh Design Guidance (see Section A2-3). There are chapters on the **context of the document**, **overall design concepts**, and **detailed design guidance**. The content of these sections is outlined, right.

This guidance refers to Designing Streets for guidance on Street Structure, and particularly develops the Street Detail from Designing Streets, setting out its detailed application in Edinburgh.

If you are a designer you will mostly wish to refer to Section C, the Technical Design Manual, referring back to earlier section of the guidance as necessary to guide its application.

SMALL CAPS define technical terms included in the glossary. Links are provided to section headings where further information may be found. Policy objectives are emphasised by the term **"will" (emboldened).**

Some drafting notes in this version are retained in [square brackets]. This version contains some temporary images and graphics which will be replaced in the final publication.



Section A Introduction

Section A sets out why the guidance has been produced.

The key aims are the street design should:

- Relate to the objectives set out in Designing Streets, the Scottish Government's street design policies
- Be applied consistently to all new development projects as well as schemes affecting existing streets, to deliver the broader aims of planning and transport-related policies across the city
- Relate to the existing context of the built environment of Edinburgh, carrying through learning from existing good examples and positive learning from areas of the city that do not so fully demonstrate modern urban design
- Deliver the qualities set out in Designing Streets through Edinburgh's own related goals and values
- Be led by a process that considers the street as a place first, by recognising the non-transport roles that streets have, and by improving conditions and integrating solutions for pedestrians, cyclists and public transport users as a priority whilst not causing undue congestion or delaying other street users (depending on the location or time of the day)

A1 Purpose of this Guidance

- **The content of this Guidance relates to the objectives set out in Designing Streets, the Scottish Government's street design policies**

This Guidance describes design approaches on Edinburgh's streets.

It has been produced for three main reasons:

1. To ensure local street design practices in Edinburgh align with **Designing Streets**, the Scottish Government's policy on street design
2. To ensure that street design supports the Council's wider policies, in particular transport and planning policies
3. To bring together previously separate Council guidance on street design, to achieve coordination and coherence

The aim is to co-ordinate street design, by considering the function of a street first as a place, and then for movement; approaches are summarised in Section A5. Better places (discussed in Section B3-1-1) allow people to access a wide range of activities, whilst not causing undue congestion or delaying other street users (depending on the location or time of the day).

Making places better for people is at the core of this guidance

A1-1 Terms used in this guidance

There are some specific terms used consistently throughout this guidance with specific meanings. It is recommended that readers familiarise themselves with these terms as necessary, set out as follows.

Street framework

The street framework presents a guide to different types of street in Edinburgh, organised according to their importance in the transport network, alongside the importance as a place to live.

Street type

Street type is the classification of a street which arises from the combination of link type (how people use a street to travel) and place type (how people use the street as a place).

Link type

Link type reflects the importance of a street or section of street in moving types of traveller, ranging from strategic routes with high volumes of potentially many different modes of transport to neighbourhood paths with just one or two modes.

Place type

Place type reflects the importance of a street or section of street in providing a civic space or community function which contributes towards better places to live: ranging from shopping streets, with many pedestrians exercising non-transport functions such as socialising and strolling, to streets with no requirements for spaces for this kind of activity, such as beyond the edge of the city.

Street network

The street network is a way of expressing the network of all the different link types put together.

Street structure

The street structure is the pattern in which the street network is laid out, in terms of the proportion of and relationship between streets of different types, how long/short or linear they are, and the relationships between the width of the street and the heights or presence of buildings along the street. It determines how easy it is to get from street to street and to find your way around in a well proportioned place.

Public realm

Public realm is a way of describing the collection of the spaces for places in the street network.

Street principles

Street principles are the collection of guidelines for each street type. These present design options and users to be considered a priority in the design process.

User environments

A user environment is the distinct or shared zone (or space) for place use or transport users. Each use and **user** (including pedestrians, cyclists, public transport users, and general carriageway users) will have an amount of space devoted to it/them according to the street principles for that street.

User priorities

User priorities are the emphasis in the design process that should be afforded to different street users. Whilst this is a desirable starting point, there may be a balancing of demands from street uses and users in the outcome of the overall street design process.

A1-2 Design options – overview

The overall structure of DESIGN OPTIONS is set out in the diagram (right), further explained in Section B3.

Options will vary according to street type, and describe how the street might be designed or altered: the materials chosen, the street furniture used, the layout between different uses/users, and natural features such as trees and vegetation.

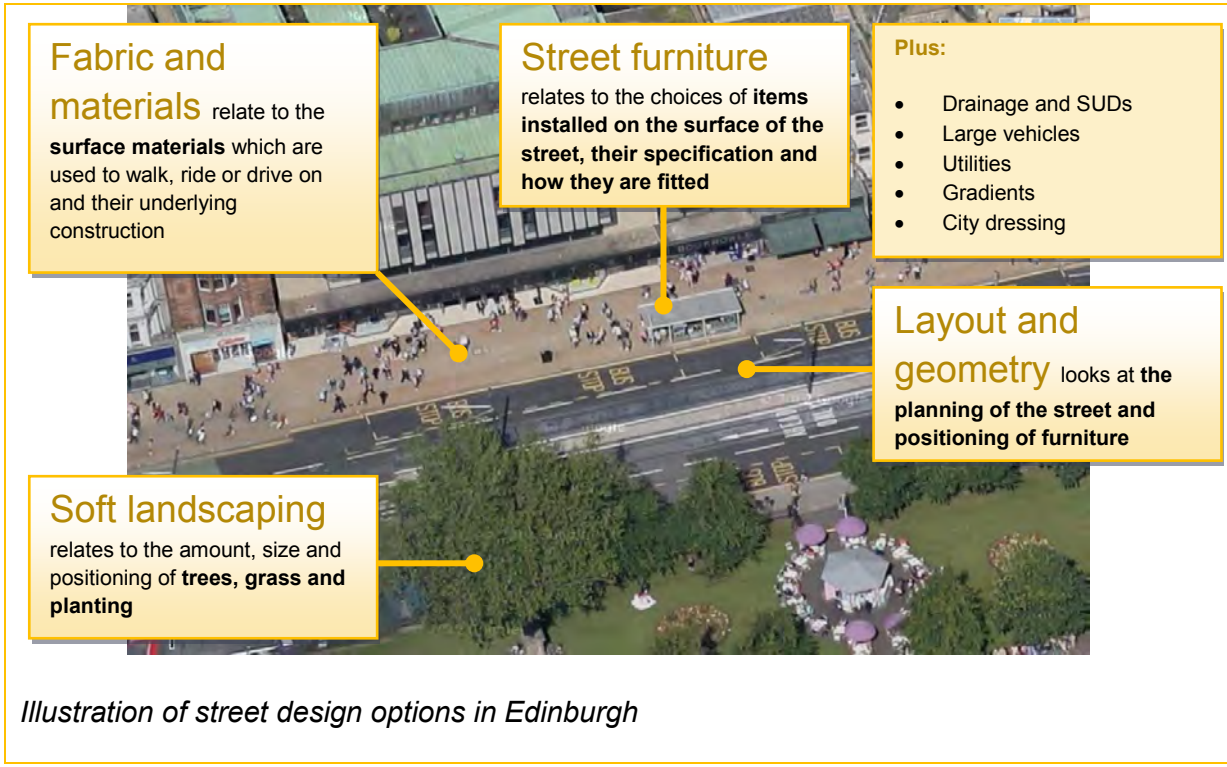


Illustration of street design options in Edinburgh

A2 Scope and Status of this Guidance

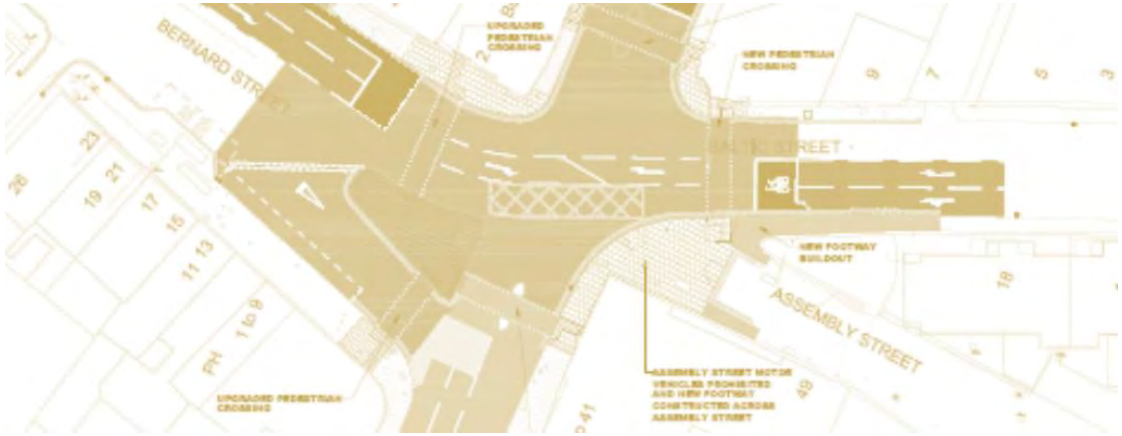
- **This guidance should be applied consistently to all new development projects as well as schemes affecting existing streets, to deliver the broader aims of planning and transport-related policies across the city**

A2-1 Scope of this Guidance

This Guidance will be used for the design of all aspects of projects that maintain, alter or construct streets including urban paths in Edinburgh. Such projects include:

- **Carriageway and footway maintenance and renewals**
- **New streets associated with development or redevelopment**
- **Design alterations to existing streets including surfaced paths**

The document does not examine the design of unsurfaced rural paths or the Scottish Government's trunk roads and motorways.



A2-2 Who this Guidance is for

This guidance is for use by anyone changing or adding to any part of the street network in Edinburgh or anyone experiencing this change. It will be of interest to a wide range of people, from Council designers and Planning Officers through to private developers and community groups or individual members of the public.

Residents may be interested in a proposal or want to know why their street is being changed or redesigned. Officers in the Council may be relying on this guide to ensure street design solutions are properly applied, whilst expert design users may be relying on the detail in Section B to inform design drawings. The Guidance is designed to dip in and out of, depending on the background of each user and their interests.

Being involved in the consultation on this Guidance is the first step for communities and individuals to be involved in scheme designs, but involvement in projects is an ongoing process.

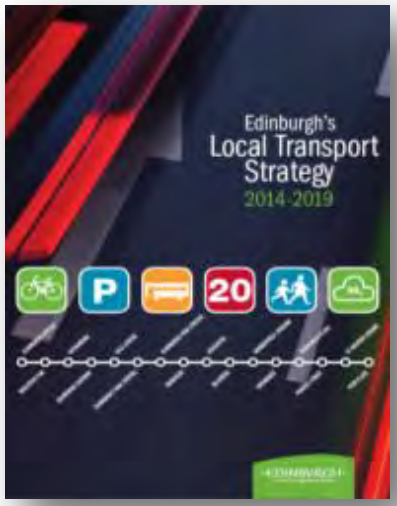
The Guidance will applied to various Council activities including its footway maintenance and cycling capital programmes, as well as public realm schemes. Maintenance priorities, such as guardrail assessment and street de-cluttering, will be informed by this Guidance.

A2-3 Status and Policy Context

This Guidance will be the first point of reference for all street design in Edinburgh. It supersedes the previous City of Edinburgh Council publications Standards for Streets (2006), Movement and Development (2000) and the Edinburgh Standards for Urban Design (2003) (listed in Section D1-2). Other documents should generally be used only where referenced.

This Guidance is supplementary to the Council's policies for planning and transport in the **Local Development Plan** and the **Local Transport Strategy**. This Street Design Guidance is one of six, user-focused, pieces of non-statutory guidance that interpret the policies set out in the Local Development Plan. The Edinburgh Design Guidance deals with buildings and sits alongside the Street Design Guidance.

This Guidance has a strong influence on local communities and is in part delivered at a neighbourhood level. The Edinburgh Partnership's priorities for delivering a better quality of life which relate to street design are listed in the following section.



Role of Designing Streets

This Guidance should be read alongside Designing Streets (right) which is translated into detailed design guidelines for Edinburgh by this Guidance.

Use of DMRB

In accordance with Designing Streets[2], **the Design manual for Roads and Bridges (DMRB)** standards should not be used unless specifically directed in the detail of this Guidance or where this Guidance does not cover an issue.

There are some instances in which the detail of this guidance sets out an approach different to that in the DMRB or other Scottish government guidance. Where appropriate these different approaches will be accompanied by a risk assessment.

[2] *"Design manual for Roads and Bridges (DMRB) is the standard for the design, maintenance and improvement of trunk roads and motorways. There are some locations, however, where a more sensitive design that follows the principles of Designing Streets may well be appropriate, such as where a small burgh High Street is also a trunk road. Most importantly, a multi-disciplinary approach, full community engagement and a balanced appreciation of context and function is fundamental to successful outcomes in such cases." (Designing Streets, p4)*

Designing Streets policies:

"Street design must consider place before movement. **B2**

Street design guidance, as set out in this document, can be a material consideration in determining planning applications and appeals. **B6**

Street design should meet the six qualities of successful places, as set out in *Designing Places*. **A4**

Street design should be based on balanced decision-making and must adopt a multidisciplinary collaborative approach. **B3**

Street design should run planning permission and Road Construction Consent (RCC) processes in parallel." **A6**

Context of other guidance in Edinburgh and Scotland

The Edinburgh Street Design Guidance is informed by the following key policies and guidance as discussed in Section A3.

Acts

- Climate Change Act
- Equalities and Human Rights Act
- Planning Act
- Transport Acts
- Roads Act

Scottish and Regional Policy

- National Planning Framework
- National Transport Strategy
- [National Design Framework (SCOTS)]
- Designing Streets and Designing Places
- SESPlan Strategic Development Plan
- SESTRAN Regional Transport Strategy

Technical Advice

- Design Manual for Roads and Bridges
- Sustrans Design Guidance
- Transport Assessments and Travel Plans
- CROW Design manual for bicycle traffic

City of Edinburgh Council Supporting Plans and Policies

- Parking Standards
- Public Realm Strategy
- Trees and Development
- Public Art Strategy
- Sustainable Lighting Strategy
- Edinburgh Design Guidance
- Community Plan
- Corporate Plan
- Local Transport Strategy
- Transport Action Plans e.g. Active Travel Action Plan
- Local Development Plan
- Area Development Frameworks
- Area Design Codes
- Character Area Assessments

Neighbourhood and Community Evidence

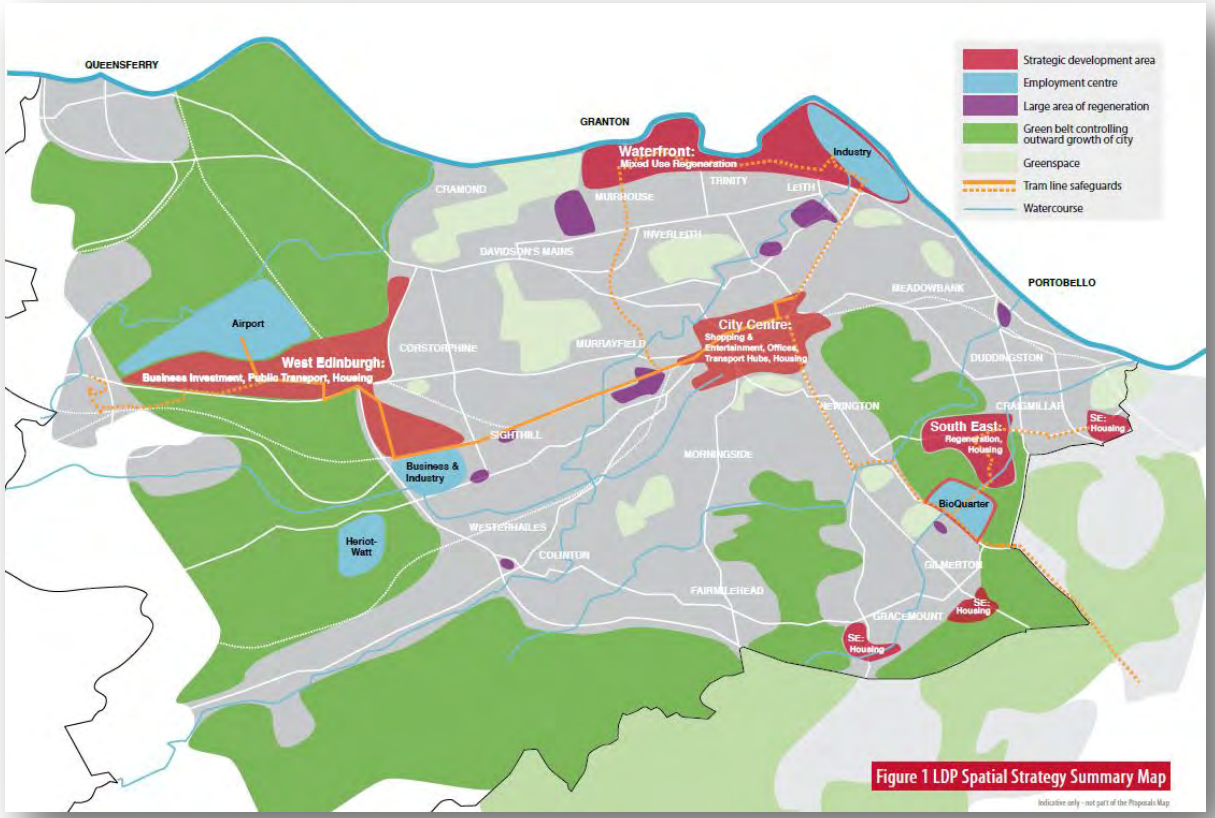
- Neighbourhood Plans
- Community Street Audits

Edinburgh Partnership Outcomes:

"Edinburgh is a thriving, successful and sustainable capital city, in which all forms of deprivation and inequality are reduced; Edinburgh's children and young people enjoy their childhood and Edinburgh's citizens experience improved health and well-being with reduced inequalities in health; Edinburgh's economy delivers increased investment, jobs and opportunities for all Edinburgh's communities are safer and have improved physical and social fabric."

A3 Historical and Planning Context for this Guidance

- **Street design should relate to the existing context of the built environment of Edinburgh, carrying through learning from existing good examples and positive learning from areas of the city that do not demonstrate compliance with modern urban design so fully**



[ABOVE MAP TO BE REPLACED WITH MAP SHOWING HISTORICAL EVOLUTION OF EDINBURGH'S BUILT-UP AREAS]

The city of Edinburgh developed through time giving each area a distinct character. What makes Edinburgh special is described in the **Edinburgh Design Guidance** (p8-9). This is summarised in relation to street design below, with examples of street design detailed in Section B4.

Why is Edinburgh special?

Edinburgh's city centre has a powerful and distinctive character created by its topography, geological history and the unique form of its historic environment, consisting of the Old and New Towns separated by what are now Princes Street and its gardens. This character makes a contribution to the city's quality of life, to its status as a World Heritage city and to its position as a major visitor destination. This provides potential templates for the development and expansion of the rest of the city.

Historic development and character areas

Each area of Edinburgh has its own distinctive built form, with street design being a fundamental contribution to local quality of life. There is considerable variation in the visual character and the density of development, but a unifying characteristic is that most areas of the city are highly permeable on foot. Certain details of the original street design can make them difficult for use by pedestrians, for example lack of dropped kerbs, and in some areas generous road and junction designs can encourage higher traffic speeds.

During the second half of the 20th Century there was an increasing emphasis on catering for and coping with the car. In an attempt to specifically design roads for motor traffic, areas for living were kept separate from major roads, and design standards, combined with an unimaginative approach to new development, led to new streets lacking a sense of place, to impermeable layouts, and to main roads that are hostile for those not inside a vehicle. The result is incompatible with environmental sustainability and has contributed to a decline in social, civic, physical, and economic activity on streets.

Recent policies

For over 20 years Edinburgh has pursued a transport strategy focussed on strengthening the role of public transport, walking and cycling. Over this period, design practice has increasingly addressed historic problems by favouring street designs that support healthier and more sustainable ways of getting around, and planning policies have sought to support this. Scottish Government policy in Designing Streets now explicitly supports this approach by requiring consideration of the role of streets as places before their role as movement corridors.

The Council wishes to design streets by always considering their role as a place first and which prioritise movement on foot, by cycle and by public transport. Improving streets across the city using this design guidance will contribute towards sustainable development. Specifically, the guidance delivers the policies in the Local Development Plan and others in table, overleaf.

Local Development Plan (LDP)

Relevant sections of the LDP are as follows:

- **Part 1**
  Section 5 – A Plan for All Parts of City
- **Part 2**
  Section 2 – Design Principles for New Development
  Section 7 - Transport

This guidance will inform the site specific design guidance in the LDP in delivering new developments. The LDP recognises that good design can help achieve a wide range of social, economic and environmental goals, creating places that are successful and sustainable, and that the design of a place can define how people live, how much energy they use, how efficient transport systems are and whether businesses succeed. The detail of area development frameworks will also be facilitated.

	Role of Street Design Guidance	Key Policies
Local Transport Strategy (LTS)	The LTS aspiration to give greater priority to pedestrians and cyclists in street design and management is facilitated by this guidance. Objectives for sustaining a thriving city support the economic vitality of the city centre, traditional centres and local shops, the development in the growth areas of the city through the provision of necessary transport infrastructure, improvements in the quality of life in Edinburgh's residential areas, and minimising the need for car use.	**Policy Thrive2 (p20)** **Policy Streets1 (p34)** **Policy Walk1 (P42)** **Policy Walk6 (p43)** **Policy PCycle1 (p45)**
Strategy for Jobs	The Economic Strategy sets out a Development and Regeneration programme to support sustainable physical development and regeneration including regenerating Edinburgh's town centres. This design guidance can strongly assist in delivering the detail of these proposals. In particular, this Guidance contributes towards public realm improvements that strengthen retail performance, care for the city's heritage and character, and help the city's four development zones progress, creating opportunities for well-designed housing and commercial development.	**Programme 1**
Delivering Capital Growth	Delivering Capital Growth identifies actions to continue the physical renewal and growth of Scotland's Capital, focusing on the next stages of the city's transformation. This design guidance is well-placed to inform ongoing developments such as the tram, Princes Street, BioQuarter, the city centre and the waterfront.	**Sections 4 and 5**
Health strategies	NHS Lothian is developing a strategic ten year plan which builds upon the Strategic Clinical Framework. Physical activity is facilitated by the street environments which this design guidance helps to deliver.	**TBC**

Table – Delivering Edinburgh's wider policies through street design

A4 Edinburgh's Goals and Values for street design

- **Street design will deliver the qualities set out in Designing Streets through Edinburgh's own related goals and values**

Streets will be designed to be:

❶ Attractive and distinctive, supporting places of interest

❷ Welcoming, inclusive and accessible

❸ Helpful in making Edinburgh's transport and ecological systems more sustainable

❹ Legible and easy to get around

❺ Safe

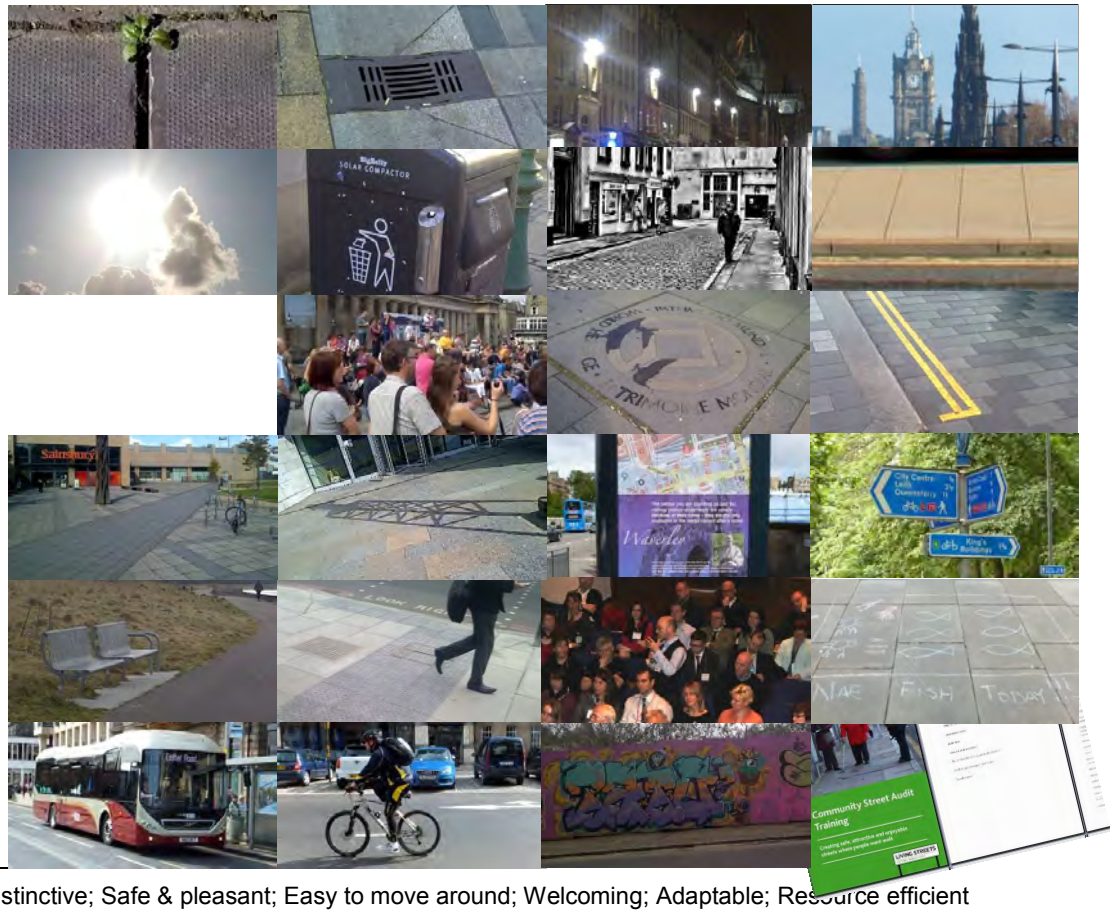
❻ Responsive to needs of local communities

❼ Cost effective in design

These values are referenced in the Principles Sheets in Section B5.

Edinburgh's values for street design are set out overleaf. These build on the six qualities of places in Designing Streets[3] (left and overleaf). Values 3 and 7 may be grouped together against the Designing Streets quality of being resource efficient (overleaf).

Streets take up 17% of Edinburgh's urban area (and 7% of its total land area) and are a critical part of the city's infrastructure. Their design and condition has an important impact on many aspects of life. The goal is to find the appropriate fit between all values these in creating successful streets.



[3] Distinctive; Safe & pleasant; Easy to move around; Welcoming; Adaptable; Resource efficient

Designing Streets' qualities	Edinburgh's goals and values	Description of application of goals and values in Edinburgh
Distinctive	❶ **Streets are attractive and distinctive, supporting places of interest**	• Materials and design reinforce and complement the rest of the built environment • Design helps you know you're in Edinburgh and reinforces local character within the city • Design adds to the attractiveness and interest of the street • In parts of the city where built environment has been of lower quality, street design contributes positively to improvement
Welcoming	❷ **Streets are welcoming, inclusive and accessible**	• You feel comfortable, especially if you're on foot or on a bike, irrespective of your age, ability, sex or ethnic background, or whether you're alone or with others • You want to linger and enjoy your surroundings • Walking is encouraged • Design responds to different user needs
Easy to move around	❹ **Streets are legible and easy to move around**	• There is a recognisable street pattern • Street users can find their way around • Street users understand how they're expected to behave • Street clutter is reduced to a minimum
Safe & pleasant	❺ **Streets are safe**	• Design helps to minimise the risk of injury and death, especially to vulnerable road users – reducing road speeds • A safe environment is provided for all users – giving priority to pedestrians, cyclists and public transport users
Adaptable	❻ **Streets respond to needs of local communities**	• The design of streets should involve local communities, with involvement increasing as the scope for redesign increases • Adaptable streets allow different things to happen, and are able to change over time
Resource efficient	❼ **Streets are cost effective in design**	• Design considers whole life costs including environmental impact and funding availability • There are consistent processes in place to streamline project delivery • A skilled workforce is developed to design and implement projects • A positive relationship with statutory undertakers is established to avoid streets being reworked
	❸ **Streets help make Edinburgh's transport and ecological systems more sustainable**	• Vegetation and trees and support local ecology • Design helps improve air quality and reduce negative microclimatic impacts • Streets support local shops and facilities • Design supports sustainable urban drainage, recycling and waste disposal • Robust materials are used and design minimises environmental impact • Streets support movement on foot, by bike and public transport

A5 What changes will we see?

- **Design should be led by a process that considers the street as a place first, by recognising the non-transport roles that streets have, and by improving conditions and integrating solutions for pedestrians, cyclists and public transport users as a priority in most streets**

Edinburgh's challenges in delivering a high quality built environment are posed in the Edinburgh Design Guidance (p10).

We will design around the following objectives, which deliver Designing Streets' policies in Edinburgh whilst not causing undue congestion or delaying other street users (depending on the location or time of the day).

Delivering these will require a coordinated and integrated approach and **changes in how we do things and in what we do.**

Examples of the resulting design approach are provided below. Some of these approaches will be in **widespread** use, whilst others will be **piloted** (P) or used only in some streets.

 Design Factsheets in Section C will provide detailed guidance and provide specific links to policies such as the Local Development Plan.

The consultation process to date is outlined in Appendix 2.

*** = These statements will have varying application to different street types**

**** = and where funding allows**

A5-1 Changes in **how** we do things

Summary Statement 1 – We will follow a design process **that starts by considering the street as a place**

The position of a street in the street framework **will** be a key determinant of design priorities. Changes in the resulting street design set out below will apply to streets as indicated by the street framework (included in Section B2)

This guidance **will** be used as the first point of reference for street design in Edinburgh

We **will** achieve a full application of Designing Streets policies

Particular consideration **will** be given to the design of streets that have a significant role as community focal points, using street design to emphasise place and create distinct and interesting spaces for people. Examples of how this will be applied are provided below

A5-2 Changes in **what** we do

Summary Statement 2 – We will recognise that streets have an important non-transport role

Place importance **will** be very high in shopping streets; socialising places **will** be of higher quality, with more frequent and more sizeable provision where there are more pedestrians

Opportunities **will** be taken at intersections and well-used pedestrian areas to improve their function as a place

Shared areas, including shared surfaces, **will** be considered for use to better balance place and movement in both high and low traffic flow areas (P)

The design of projects **will** consider where place can be maximised in all areas of the city including in employment areas, to ensure they are accessible and attractive for all modes of travel to work

The design of streets (in new developments) **will** consider how building heights and street widths interact and relate to the layout of streets to create well-balanced design (see Section B3-1)

Overall demand for place features	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	Very Low	Low		High	Very High
Secondary					
Local		Medium		Medium	High
Service					

Summary Statement 3 - Street design will prioritise improving conditions for pedestrians, cyclists and public transport users in most streets

Tight corners (i.e. small RADIUSES) **will** be used to help pedestrians follow DESIRE LINES and calm the speeds of turning traffic*. Examples of how this will be applied are provided right (radii in m). (See Factsheet)

Appropriate CROSSFALLS **will** be designed and used for the crossovers of footways by driveways (See Factsheet)

Minor Street		Strategic					Secondary					Local					Service				
Street Style		NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE
Major Street Type	Strategic	9	6	6	3	3	9	6	6	3	3	9	6	6	3	3	9	6	6	3	3
	Secondary						6	6	6	3	3	6	6	3	3	3	3	3	3	3	3
	Local											3	3	3	3	3	2	2	2	2	2
	Service																				

Shared surfaces **will** be considered to introduce unmarked junctions with fewer traffic management controls (P) (See Section B3-2-1 and Factsheet)

Footway surfacing that is flush and contrasting, where necessary, **will** be used to assist PEOPLE WITH REDUCED MOBILITY (PRM) (See Factsheet)

Crossing points **will** be located on desire lines* (See Factsheet)

Summary Statement 4 – We will provide integrated design solutions for more than one mode of transport

The design of public transport facilities **will** be integrated with other modes of transport including facilities for cyclists (See Factsheet)

Summary Statement 5 – We will use signs, markings and street furniture in a balanced way, providing them where they provide a positive function for street users

Redundant street furniture provision (including items installed on a temporary permit) **will** be identified and removed and non-standard approaches to the general provision (and reduction) of signage will be used (P)

Seating and other furniture for the comfort of street users features **will** be used to create better places. Seating **will** be provided in shopping streets and in other streets where there is a higher number of pedestrians and on preferred pedestrian routes; in general, other furniture provided for pedestrian comfort will follow this trend. Examples below.

Furniture demand e.g. seating	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	Very Low	Low	Low	Medium	Very High
Secondary		Very Low			High
Local			Very Low	Low	Medium
Service					

A6 – Overall Process

The overall process for using this document is depicted in the diagram right. This is explained in more detail in Section B1 and in Appendix 3.

A6-1 Street Design and Development

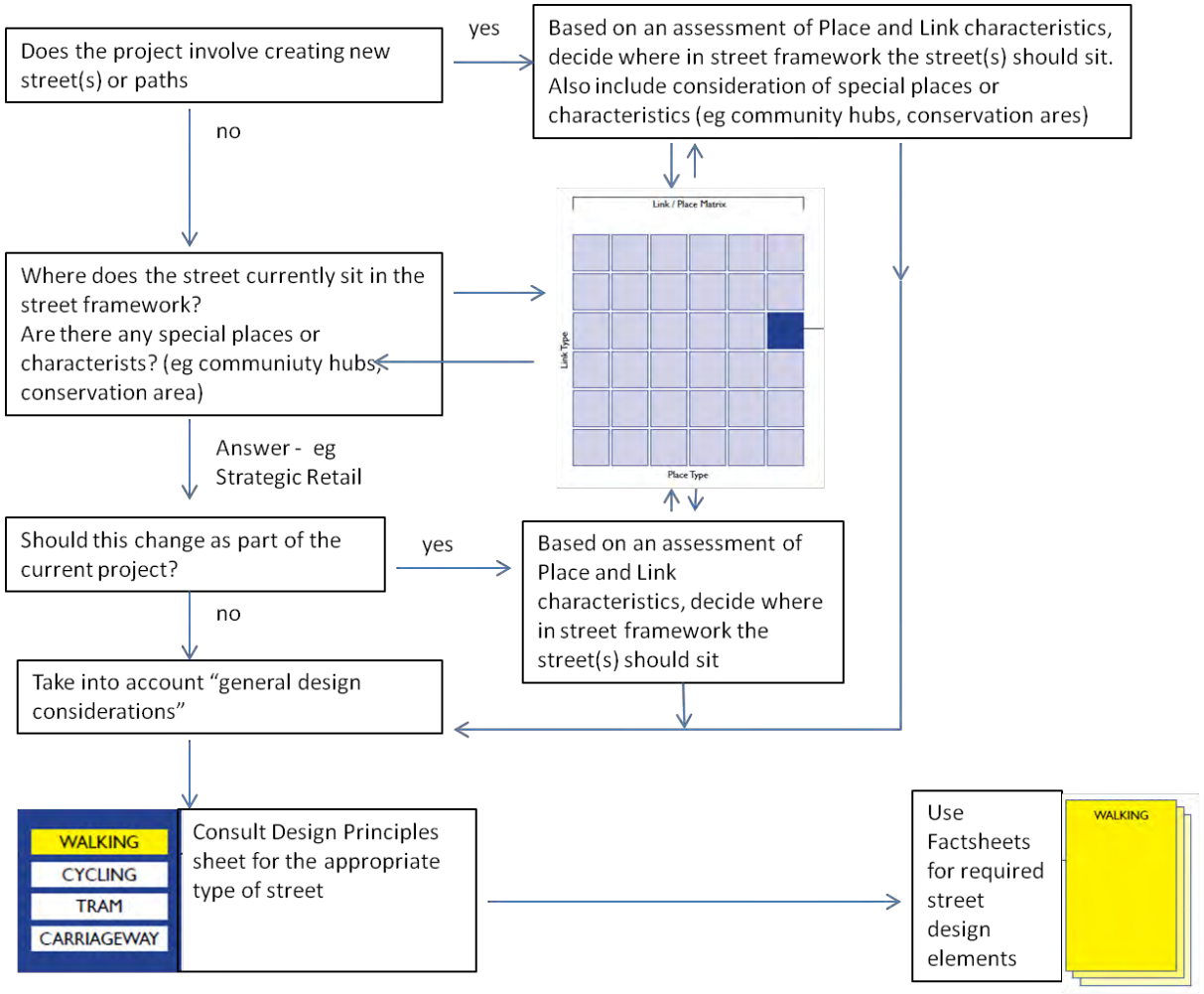
There is an important relationship between this Guidance and the residential street approval process set out in Designing Streets. This guidance relies on Part 03 of Designing Streets. This describes how to achieve a joint planning permission & Road Construction Consent (RCC) process, a policy within Designing Streets, covering the role of:

- **Transportation Assessments and Travel Plans**
- **Flood Risk Assessments and Drainage Studies**
- **Utility Assessments**
- **Street Engineering Reviews**
- **Quality Audits**
- **Road Safety Audits**

Community evidence will also play a part in this process.

A6-2 Using this guidance

The diagram below supports provides an overview of the relationship of the sections in this Guidance. This supports the design process set out in Section B1.



Section B Design Overview

The first part of this Section B provides an overview of the design options.

The key aims are for street design to:

- Fully cater for all potential users in a given space by following a process that identifies and considers those which deserve priority before embarking on a design solution
- Design should be guided by the street framework and the appropriate requirements for the place and link type
- Make streets function well and look great by considering as many aspects of the street environment and street users at once as the scheme will allow, by looking at the relationship between street furniture, fabric and materials choices and the layout and structure of the street together. This happens by observation, analysis and design

B1 Using Section B

- **Design should fully cater for all potential users in a given space by following a process that identifies and considers those which deserve priority before embarking on a design solution**

Section B (right) sets out the Edinburgh implementation of Designing Streets policy.

An overview is provided of the street framework, street design options and street structure in an Edinburgh Context.

Applying this approach will help achieve the best solutions, applying DESIGN OPTIONS best suited to different street types.

Principles sheets set out the information that designers and engineers will need in developing a design concept. Detailed design factsheets are then provided to help design and construct this concept. This overall street design process is illustrated overleaf.

Structure of Sections B and C

	Content	Coverage	Sections
OBSERVATION AND ANALYSIS OF THE STREET	Edinburgh Street Framework	How streets are categorised into place types and link combinations	B2
	Street Users And Design Options	How the Guidance is structured into: ENVIRONMENTS for • Place • Walking • Public Transport • Cycling • Other carriageway users DESIGN OPTIONS • Layouts and geometry • Fabric and materials • Furniture • Soft landscaping	B3
	Edinburgh Street Structure	Edinburgh's distinct street patterns	B4
DESIGN PROCESS	Design Principles	How and when to apply the guidance to each of Edinburgh's street types	B5
	Design Details	Factsheets providing the technical specification for the design options set out in Section B	C

Applying the Street Design Process

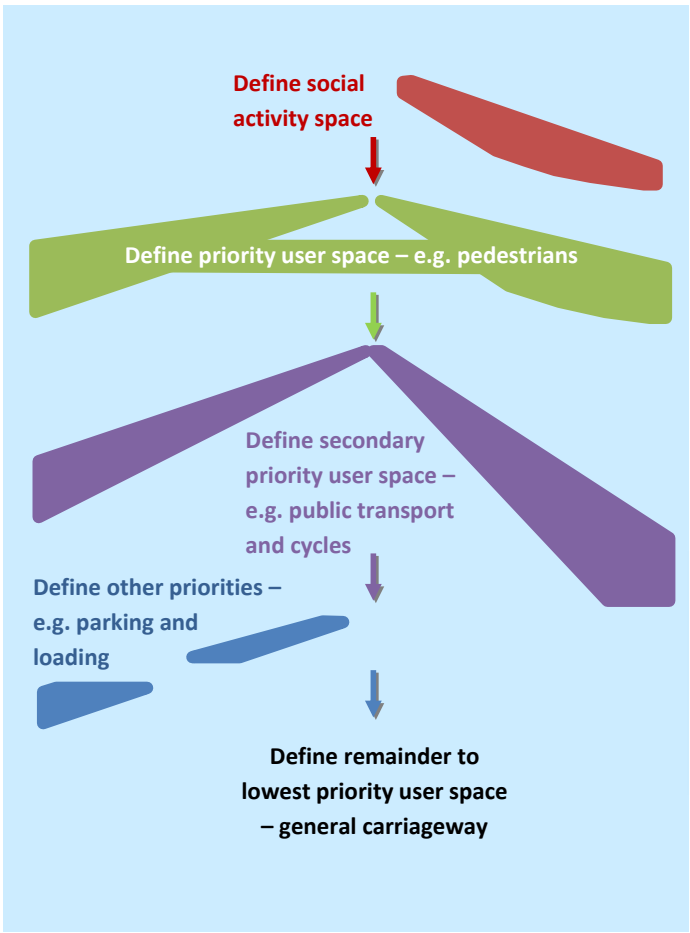
This process is further explained in Appendix 3 for different scheme sizes.

Step 1. Identify STREET TYPE (B2) by interpreting street's place and link role.

		Place types				
		No frontage	Residential (low density)	Employment (non high street)	Residential (medium and high density)	Shopping/ high street
Link types	Strategic	1	2	3	4	5
	Secondary	6	7	8	9	10
	Local	11	12	13	14	15
	Service	16	17	18	19	20
	Path	21	22	23	24	25

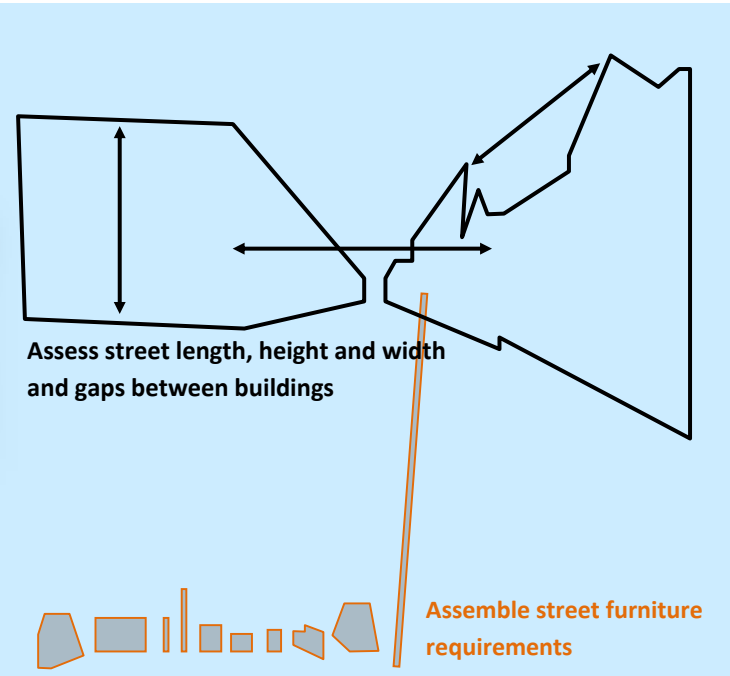
Are there any special buildings or places? (See Appendix 1.8)

Example:



Step 2. Use STREET PRINCIPLES SHEETS (B5) to identify street user environments to emphasise in design (explained in Section B3)

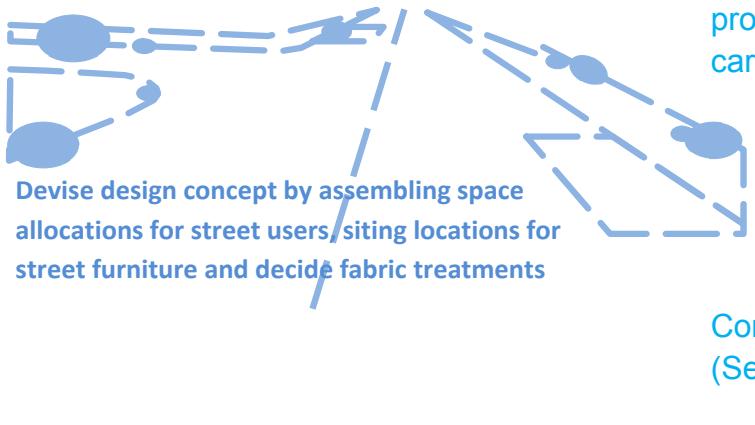
Design emphasis		
	Place	Very High/ High
	Peds	Very High/ High
	Cycle	Medium*
	Public Trans	High
	Movement (Cars)	Medium
	Movement (Large)	Medium
	Parking	Low
	Loading	Medium
	Furniture	High



Assemble street furniture and occupied space requirements

It is important to design for context. Design should seek to reinforce the proportional relationship between the carriageway, footway and the buildings.

Understand the street/area before design work commences (see Appendix 4)



Apply DESIGN OPTIONS from PRINCIPLES SHEETS (explained in Section B3) to create an overall DESIGN CONCEPT

Consider could the brief be expanded to provide a better overall street solution (See Appendix 3-1)

Step 3. Use DETAILED DESIGN FACTSHEETS (Section C) to design and engineer detailed aspects for each street

B2 Introducing Edinburgh's Street Framework

- **Design should be guided by the street framework and the appropriate requirements for the place and link type**

The Street Design Guidance has referenced publications such as Link and Place, Designing Streets and Manual for Streets in using a STREET FRAMEWORK to guide the design of its streets. (Background in Appendix 1.)

In Edinburgh, streets are classified into 25 types using a grid, or matrix: the Edinburgh STREET FRAMEWORK (right). This combines link and place, depicted simply in the diagram overleaf. The majority (around 75%) of Edinburgh's existing streets are local streets, largely residential, with (highly complex) busy retail streets making up only 1.5% of streets by length.

The difference in design approach between two adjacent street types in the framework, such as between a strategic and a secondary street may be small. However, differences between street types further away from each other in the street framework are likely to demand very different design approaches.

Edinburgh Street Framework – A Guide to Edinburgh's Streets

Click to link to summary principles sheets		Place types				
		No frontage	Residential (low density)	Employment (non high street)	Residential (med/high density)	Shopping/ high street
Link types	Strategic	1	2	3	4	5
	Secondary	6	7	8	9	10
	Local	11	12	13	14	15
	Service	16	17	18	19	20
	Path	21	22	23	24	25

The principles for each of the 25 resultant street types from the combinations of places and links are set out in Section B5, linked from the table above. There are five place categories and five link categories in Edinburgh. Usage in both may vary by time of the day/year. An overview of user priorities in provided in Section B3-1.

THE PLACE CATEGORIES in Edinburgh's STREET FRAMEWORK are based on identifying land-uses and street frontages around the street. These tell us the opportunity for community and engagement in non-transport activities on the street. Put simply, **places** are destinations in their own right. Important distinctions between different types of place include:

- Land uses
- Street dimensions
- Place potential (non-transport needs)
- Pedestrian demand (destinations)
- Distinctiveness of local buildings/spaces

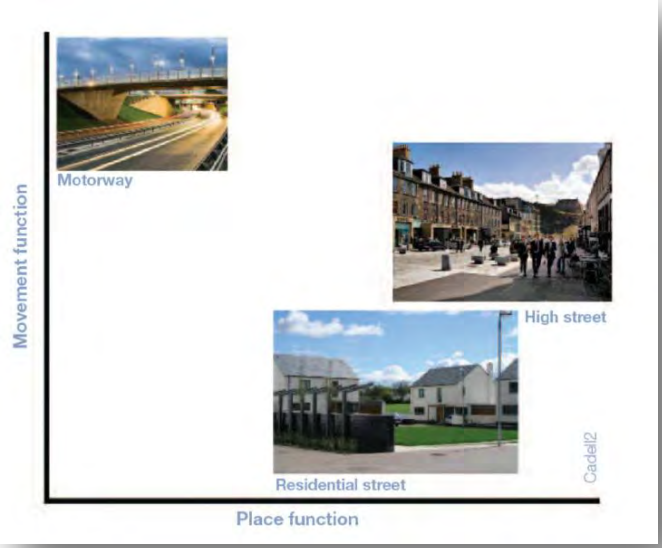
" Place status

…locations with a relatively high place function would be those where people are likely to gather and interact with each other, such as outside schools, in local town and district centres or near parades of shops…

Movement status

…Movement status should be considered in terms of all modes of movement, including vehicle traffic, pedestrian and cycle flows and public transport… "

(Designing Streets, p8)



THE LINK CATEGORIES are based on movement role of streets, junctions or sections/segments. There is a focus on motorised movement because of its effect on street design, and the desire to minimise impacts arising from it. **Links** are used for movement - that is, to get from one place to another by any mode of transport. Important distinctions between different types of link include:

- Destinations served
- Modes of travel
- Separation between different users
- Capacity required

There are additional local situations that may need to be considered; these are set out in Section B2-3 and Appendix 1.8. Examples of residential situations are provided in Section B4.

Each individual place and link category is described in Appendix 1, which compares the link categories with other terminology previously used for ROADS such as distributor roads.

B2-1 Local design situations

Some local design factors may be identified as part of the design process. These are important in delivering Edinburgh's goals and values and apply across the standard street types. These are listed in Appendix 1.8. They include regeneration areas such as peripheral estates; areas that are visually distinct or historically important - such as conservation areas, the World Heritage site, non-urban areas such as Edinburgh's villages and coastal towns; areas that may require increased social and pedestrian space which may support key civic spaces because of their high pedestrian flows (such as street intersections or buildings such as libraries, theatres, museums, cinema, conference or sports centres or particular retailers that have high footfall); and specific street segments outside buildings such as schools, pubs, local shops or at bus stops or rail stations.

B3 Overview of Street Users and Design Options

- **Design should make streets function well and look great by considering as many aspects of the street environment and street users at once as the scheme will allow, by looking at the relationship between street furniture, fabric and materials choices and the layout and structure of the street together. This happens by observation, analysis and design**

Design should consider the whole street, emphasising priority uses and user groups. The roles of streets (as places, and for walking, cycling, public transport, and general carriageway use) are set out in Sections 3-1-1 to 3-1-5. These environments are often shared and overlap. Design should assess the potential for integrated solutions (see Appendix 3).

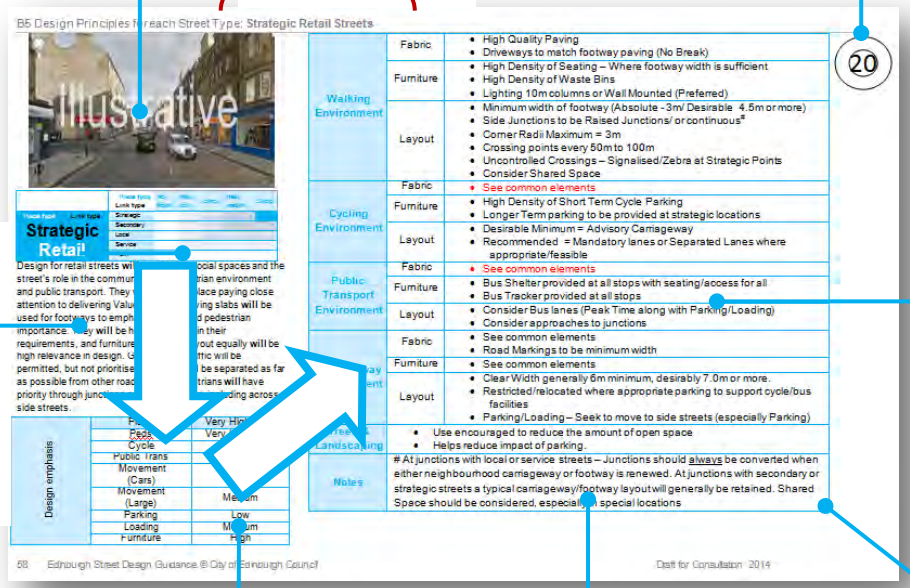
Design options for LAYOUT AND GEOMETRY, FABRIC AND MATERIALS, STREET FURNITURE and SOFT LANDSCAPING are summarised in the principle sheets (Section B5); an example is provided (right).

Example principles sheet:

An example image for this type of link and place combination

Street type

Recommended **speed** limit



Summary statement covering this type of street

Information about **fabric, layout and furniture** appropriate for each environment

The relative emphasis to be given to catering for different street users in designs options, influenced by street type

Specific **notes** relevant to this type of street

Principles

B3-1 Introduction to street user priorities

Complex streets require a lot of work to balance user requirements. Traditionally streets have been highly segregated. As a result, street users, particularly pedestrians, can feel uncomfortable outside of their 'own space'. An example is at the crossing of a carriageway.

We are now moving towards a more comprehensive design process that gives, for example, pedestrians a rightful place on the carriageway through crossing points that easy, convenient and appealing, particularly in streets with a high place function such as shopping streets.

Other examples of integrated design solutions are set out on the right.

Historically, different Council guidance documents have provided guidance on designing environments for different users. The new integrated thinking about designing and sharing street space is shown in the figure right and in Appendix 3.

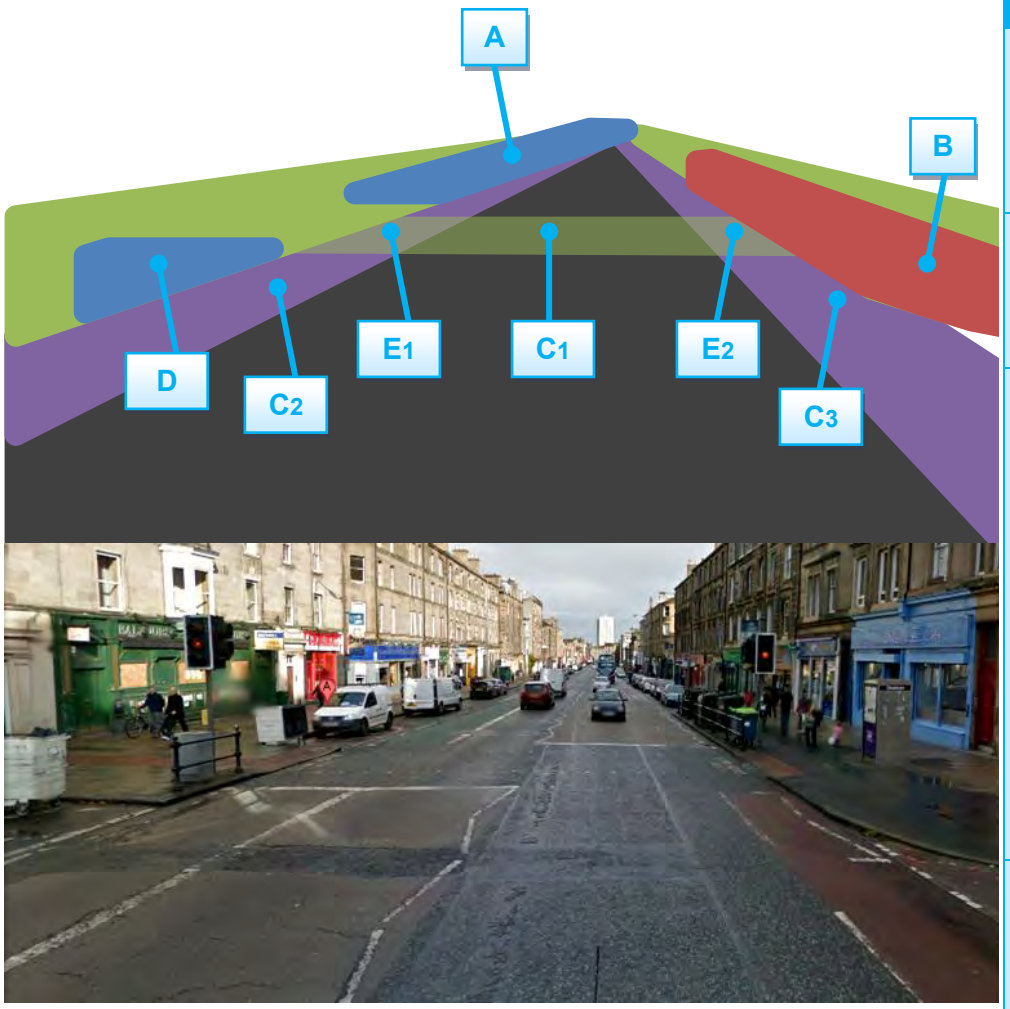


Figure – diagram/photo showing Leith Walk and the multi-user environments contained within it

The challenge is to make more complex streets look simple, and to make simple streets effective.

Shared environments – Leith Walk example	
A	**Public transport space in the footway zone** - Places to wait for the bus and socialise
B	**Social spaces in the footway zone** - Space to sit - Space to stand or chat
C	**Pedestrian, public transport, and cycling spaces in the carriageway zone** - Pedestrians crossing at formal crossing points (1), informal crossing points and in shared spaces - Bus lanes (2) - Cycle lanes on-road (3)
D	**Carriageway space in the footway zone** - Short term parking and loading
E	**3+ multi-user environments** - Cycling in bus lanes on carriageway (1) - Pedestrians crossing cycle lane in carriageway (2)

Street user priorities in the Edinburgh Street Framework

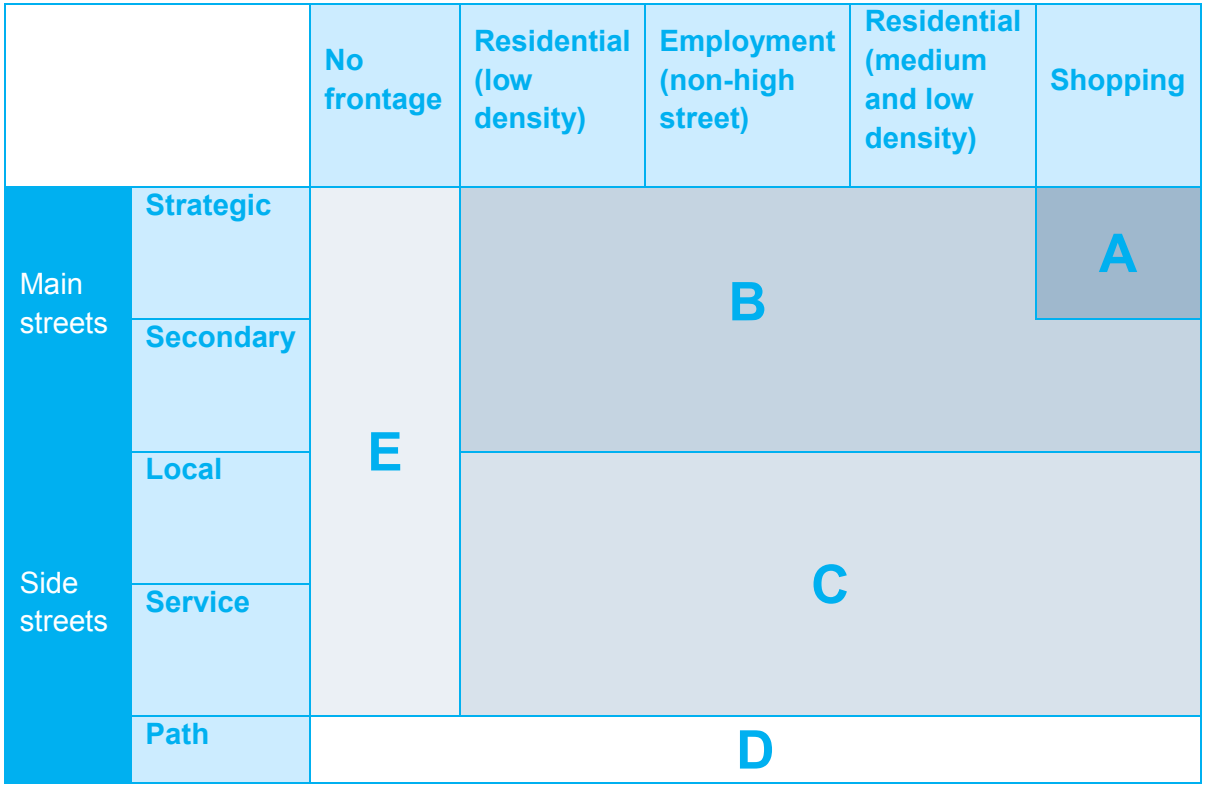
Note, all users should be catered for, but the highest priority users are more likely to have their optimum needs met.

A street with a high level of both place and movement function could require non-transport spaces to be treated equally to transport considerations, e.g. spaces for socialising, relaxing and eating/drinking, with high quality fabric design options, whilst balancing impacts on the wider transport network away from the location of interest.

LINK/PLACE BALANCE		
	A	Complex shopping streets with a greater number of place making requirements, likely to focus on pedestrians and public transport users
	B	Main streets balancing movement and place requirements, where there are a variety of street users often with an equal level of priority
	C	Simple side streets with some place requirements. Service streets have very low movement requirements
	D	Simple streets for pedestrians and cyclists
	E	Simple streets where motor vehicle use is likely to predominate

Streets with a greater range of users, particular those with higher numbers of pedestrians, will have a greater number of elements to be included in street design. This for example could mean wide pavements, frequent crossing points, and street furniture such as seating and bus shelters. Pedestrians are likely to feature particularly heavily in place types to the right of the framework and on lesser-trafficked neighbourhood streets.

Streets with relatively few different types of user, or few users in total, will be much simpler in their requirements.



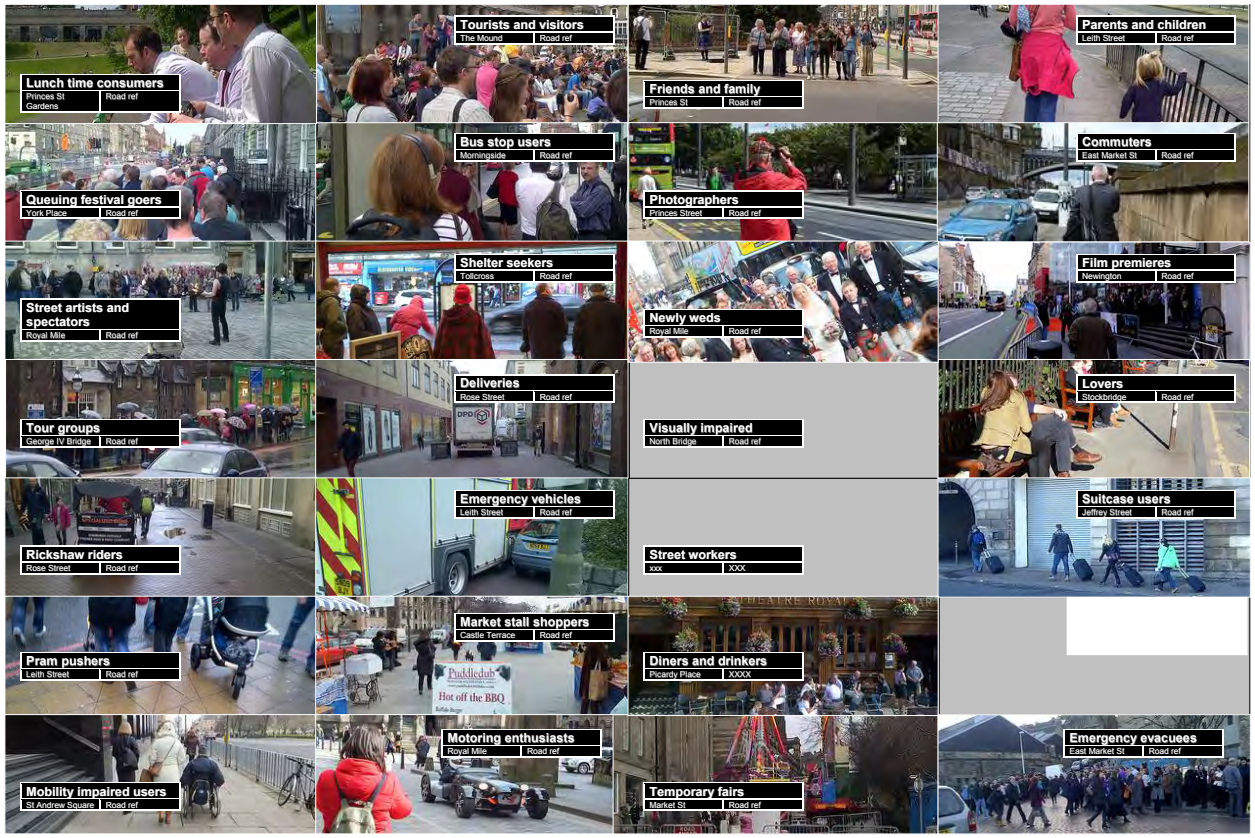
B3-1-1 Considering streets as places

"The design of all streets should recognise the importance of creating places for people to enjoy, rather than simply providing corridors for the movement of traffic. Streets should generally be designed with a focus on social interaction.

"A significant amount of interaction within a community takes place in the external environment, and street design should encourage this by creating inclusive social spaces where children can play, people can stop to chat, and other appropriate activities can take place safely. In order for this to occur, it is essential that vehicular traffic does not dominate the street." Designing Streets, p38

The amount of social and personal space people require is influenced by the type of street (indicated in the principles sheets). Social space can often be included in the main footway, but can easily be overlooked with priority given to solely to movement rather than considering place. Examples of street users are provided in the montage right.

Figure – example street users

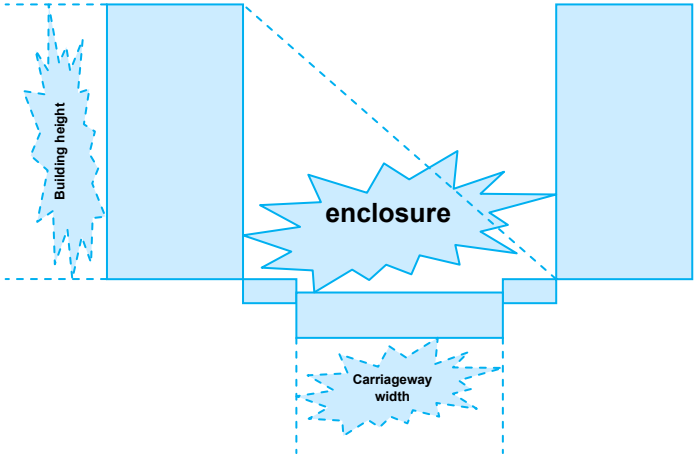


"the public realm (streets and places) acts as the stage upon which the life of the city is played out. It is the glue that binds the city's diverse areas." Edinburgh's public realm strategy

Design elements relevant to designing streets as places will be marked with a yellow tick in Section C. These include using street furniture and fabric to emphasise place.

Importance of scale

The combination of the height and width of the street is an important component of street design, (discussed in Section B4 and in the factsheet). It can be used to create a sense of place through enclosure. In existing streets, this can mean that the scale of buildings will create a strong identity for streets which gives better place making opportunities. In new streets, this gives the opportunity for large buildings to support well proportioned streets and public spaces. Retaining and reinforcing the relationships between building height, street width and space given to the user environments is a key overall element in design.



Getting this concept right in itself can provide places that are overlooked and that naturally calm driver behaviour, creating a safer environment for all users.

Functions of a street for place

Making places better for people is at the core of this guidance – for people to take part in or access a wide range of activities including sitting, strolling, socialising, shopping or just relaxing (discussed in Section B3-1-1).

GEHL architects have set out functions of a street that contribute to place. This list is a useful tool for analysing pedestrian use of streets and has been reflected in Edinburgh's values for street design in Section A4. Considering projects against these criteria (under headings of protection, comfort and enjoyment) should aid balanced decision-making which contributes towards place. In short, it's about observing people and their behaviour in public spaces with the aim of enriching civic life.

Equalities issues are set out in Appendix 6.

Protection from:

- traffic and accidents
- crime and violence
- unpleasant sense experiences

Comfort for:

- walking
- standing/staying
- sitting
- seeing
- hearing/talking
- playing/unfolding/activities

Enjoyment of:

- scale characteristics
- enjoying the positive aspects of climate
- aesthetic quality/positive sense-experiences

B3-1-2 Considering streets for walking

16% of travel to work in Edinburgh is done on foot.

Walking routes between places, such as neighbourhood facilities and local transport services, should be safe and easy. Links should be direct, follow desire lines and avoid deviation to minimise distances travelled. This involves looking at safe and attractive access points into and through street blocks and to and from everyday activity destinations. Design should give special consideration to the young, old and those with disabilities. Common issues include people having to walk around 'three sides of a square' to get around road junctions or having to wait excessive lengths of time to cross roads using multi-staged, button-controlled, crossings.

Policy references: The City of Edinburgh Council supports and encourages walking through the Active Travel Action Plan

Encouraging walking has many health benefits including a reduction in vehicle emissions, traffic collisions and improving personal health.

High quality provision for pedestrians within suitable surroundings is a major influence on encouraging people to walk rather than use alternative less sustainable modes.

Accessibility considerations:

- SURFACING: Cohesive/stable, level/ well-maintained (designed to accommodate wheeled users)
- GRADIENT: Free of abrupt changes (e.g. slopes, steps, kerbs)
- PASSAGE: Free from barriers such as footway obstructions (parked cars, street furniture (signs, bins), overgrown foliage/vegetation)
- CONTINUITY: Continuous without gaps
- DIRECTNESS: Pedestrian shortcuts and gates to respect desire lines (filtered permeability) minimising detours
- CROSSINGS: Well-designed, efficient/well-timed and direct pedestrian crossing opportunities at junctions, roundabouts and across roads - to respect desire lines (e.g. tighter kerb curvatures to allow pedestrians to follow direct routes across junctions)

Safety and security considerations:

- AFTER DARK SECURITY: Lighting
- DAYTIME SECURITY: CCTV
- VISIBILITY: Overlooked, no blind corners/alleys
- QUALITY OF SPACE: Friendly and interesting surroundings (quality of built environment, greenery, presence of people)

Comfort considerations:

- DRAINAGE: Well drained and free of puddles in the wet
- CLEANILESS: Free of litter, grime and criminal damage
- PALATABILITY/NUISANCE: Low perceived levels of noise and air pollution
- PARKING: Provision of regular seating opportunities

Information provision considerations:

- CONSPICUITY: Walking routes easy to find and follow
- WAY-FINDING: Presence of accurate, continuous, legible directional information/signage (including destinations, distances in time, and symbols and pictures where appropriate)
- WAY-FINDING: Complete presence of street name plates in local area
- VISUAL CLUES: Use of landmarks, focal points or distinctive foliage

Design elements relevant to the walking environment are included in Section C.

B3-1-3 Considering streets for cycling

4% travel to work in Edinburgh is done by bike.

Cycling routes between places such as neighbourhood facilities and local transport services should be safe and easy. Supporting facilities such as cycle parking will need to be well-designed, easy and attractive to use, and fit-for-purpose to encourage their use by cyclists.

Policy references: The City of Edinburgh Council supports and encourages cycling through the Active Travel Action Plan

Accessibility considerations:

- TOPOGRAPHY: Flat
- GRADIENT: Free of abrupt changes (e.g. slopes, steps, kerbs)
- WIDTH: Adequate (e.g. 3m minimum for a shared-use path)
- PARKING: Nearby off-site cycle parking and at local destinations (e.g. post office/ convenience store)
- DIRECTNESS: Routes unimpeded by “no cycling” regulations
- CONTINUITY: Continuous without gaps
- DIRECTNESS: Cycle shortcuts and routes to respect desire lines (filtered permeability) minimising detours
- CROSSINGS: Well-designed, efficient/well-timed and direct cycle crossing opportunities at junctions, roundabouts and across roads - to respect desire lines
- PROVISION: Dedicated paths/lanes/tracks or shared paths with pedestrians
- PASSAGE: Cycle lanes unobstructed by parking cars/other vehicles
- PASSAGE: Routes unimpeded by permanent barriers or abrupt/sudden changes in direction
- CROSSINGS: Toucan crossings allowing cyclists to cross roads mounted

Comfort considerations:

- SPEEDS: Appropriate design speeds on dedicated/off-road cycle routes for a mix of riders (e.g. 8-20+mph)
- PROVISION: Advance cycle stop lines at junctions in local area
- DIRECTNESS: One-way street exemptions for cyclists in local area

Safety and security considerations:

- PROVISION: Clearly defined on-road lane or off-road track where road traffic is busy or high speed (minimum width 1650mm)
- SPEEDS: Road calming (carriageway surface materials, features and chicanes) which reduce vehicle speed and flow and also cater sensitively for the comfort of cyclists
- SURFACING: Cohesive/stable, level/well-maintained (including road margins)

Information provision considerations:

- CONSPICUITY: Cycling routes easy to find and follow
- WAY-FINDING: Presence of accurate, continuous, legible directional information/signage/milestones (including destinations, distances in time, and symbols and pictures where appropriate)

Design elements relevant to the cycling environment are included in Section C.

B3-1-4 Considering streets for public transport

26% of travel to work in Edinburgh is done by bus.

Streets provide space for public transport services to run along and depart from, across different times and days of the week and year. Demand responsive transport options and community-based transport can travel where other public bus services do not. Provision for travel information and waiting areas should be built into designs.

Policy references: The City of Edinburgh Council supports and encourages public transport through the Public Transport Action Plan

Accessibility considerations:

- LOCATION: Proximity to the destinations served
- INTEGRATION: Accessibility by all modes of transport, particularly walking and cycling
- VEHICLES: Access to stop unimpeded by parked/loading/waiting vehicles at/on entry/exit to bus stop
- BOARDING: Raised kerbing provided

Comfort considerations:

- PROTECTION: High quality weatherproof shelter or other shelter from wind/rain/sun
- SEATING: Appropriate amount of comfortable seating provided facing towards the road
- VISIBILITY: Clear and comfortable view up the road towards approaching bus services
- CLEANLINESS: Free of litter, grime and criminal damage

Safety and security considerations:

- AFTER DARK SECURITY: Lighting
- DAYTIME SECURITY: CCTV, overlooked
- QUALITY OF SPACE: Friendly and interesting surroundings (quality of built environment, greenery, presence of people)

Information provision considerations:

- SCHEDULING: Clear and up-to-date timetable with real-time (live) service departure information screens
- LEGIBILITY: Stop 'flag' with service numbers, name of stop, and text/maps with information about services
- DIRECTIONS: Clear local signing to local destinations
- INCLUSIVITY: Audible electronic information, e.g. intercom, recorded information

Design elements relevant to the bus and tram environment are included in Section C.

B3-1-5 Considering streets for general carriageway users

40% of travel to work in Edinburgh is done by motor vehicle.

Carriageways transport cars, motorcyclists, taxis, freight and emergency vehicles, and parts of them form part of the pedestrian, cycling and public transport environments.

Accessibility considerations:

- SURFACING: Smooth and free from defects and raised utility covers
- LOCATION: Link type appropriate to destinations being served
- INTEGRATION: Integrated with pedestrian, cycling, and public transport environment
- VEHICLES: Lane widths appropriate to the vehicle and street type

Comfort considerations:

- DRAINAGE: Free draining with a camber to avoid standing water and ponding
- PARKING: Size, location and layout of parking areas appropriate to the street type
- VISIBILITY: Appropriate visibility standards and sightlines for the street type

Safety and security considerations:

- AFTER DARK SECURITY: Lighting
- DAYTIME SECURITY: CCTV, overlooked
- QUALITY OF SPACE: Friendly and interesting surroundings (quality of built environment, greenery, presence of people)

Information provision considerations:

- DIRECTIONS: Clear local signing to local destinations

Policy references: The City of Edinburgh Council will manage roads through the forthcoming Road Maintenance and Renewals Action Plan

Design elements relevant to the carriageway are included in Section C.

B3-2 Introduction to design options

There are four design aspects that should interact to deliver the appropriate balance between place and movement in delivering street functions. This section presents an introduction to:

- **Layout and geometry**
- **Street furniture**
- **Fabric and materials**
- **Soft Landscaping**

Other aspects have key importance and form high level considerations. These include:

- **Drainage solutions including SUDS**
- **Requirements for emergency service vehicles and freight movements and tracking alignments**
- **Utilities layouts below the ground and servicing requirements**
- **Gradients and crossfalls affecting layout and geometry, drainage and accessibility**
- **City dressing**

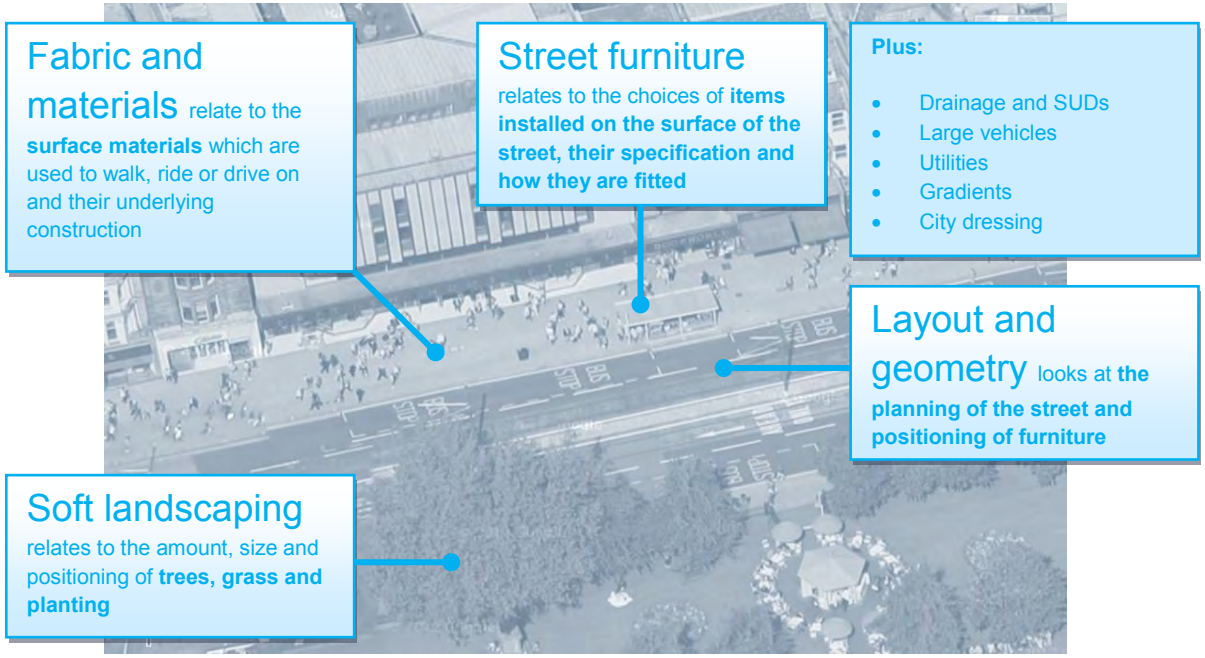
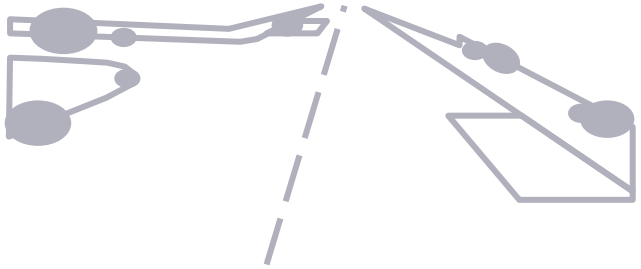


Illustration of street design options in Edinburgh

These aspects help deliver the values set out in Section A4.

Design options relevant to each street type are Included in Section B5.

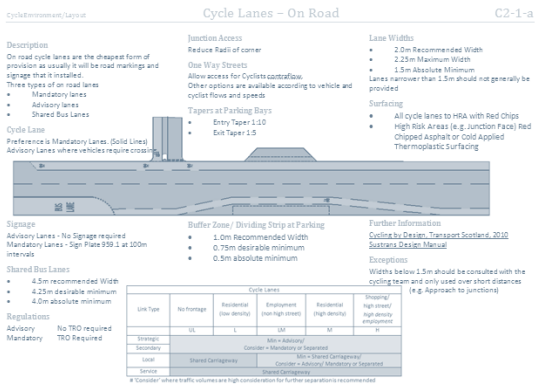
B3-2-1 Introduction to layout and geometry

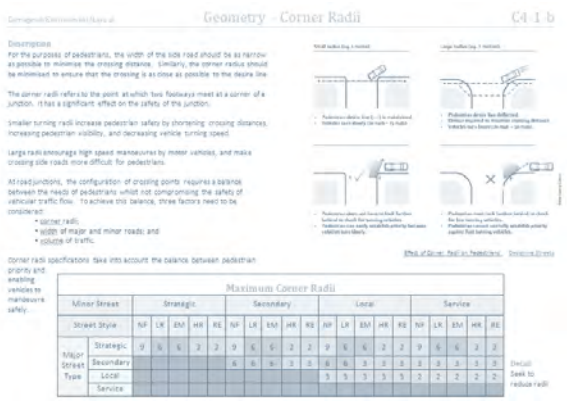


Layout factsheets look at **planning of the street and the positioning of furniture**. The following should be considered in design:

- how much space is allocated to different user environments
- where street furniture and OCCUPIED SPACE (including parking) is positioned
- how the space given to user environments and street furniture may be combined within a street
- how geometries may facilitate movement by all relevant street users inc. large goods vehicles
- how layout matches gradients to provide accessible street layouts
- how utilities are positioned, accessed and serviced without disrupting other street design requirements

It includes footway, cycle and carriageway lane, junction and intersection layouts



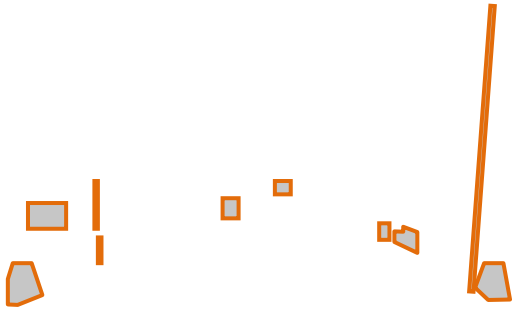


Example street layout factsheets

Using shared surfaces

Shared surfaces without traditional levels of delineation between street users will be considered and may be used where more than one street user requires a high level of priority. Shared space can assist with giving pedestrians priority over other street users where traffic speeds are controlled, and can help bring about less cluttered streets, providing space for positive additions such as seating and trees. Shared surfaces effectively promote place, and through clever fabric and layout design options can provide distinctive streets. This can promote economic development and high levels of footfall. Edinburgh will pilot shared surface approaches on busier streets and/or intersections learning from examples such as Poynton, Ashford ring road and Exhibition Road in London, whilst maintaining their application to quieter historic city centre and residential streets. Shared spaces between users such as cyclists, pedestrians, buses, and car parking will also continue. Detailed factsheets provide further guidance.

B3-2-2 Introduction to street furniture



Street furniture factsheets look at the the choices of **items installed on the surface of the street, their specification and how they are fitted**. The following should be considered in design:

- what furniture is used to assist street users make the most of the space and create inclusive and useful streets
- what part furniture plays in the look and feel of a street to create welcoming places

Street furniture may be related to traffic management or is provided for the comfort of street users. It includes, for example, poles and columns (e.g. street lighting), art works, bins, seating and benches, cycle and motorcycle parking, bus shelters and private items outside a business such as A boards, cafe tables, chairs, fencing and banners.

B3-2-3 Introduction to fabric and materials

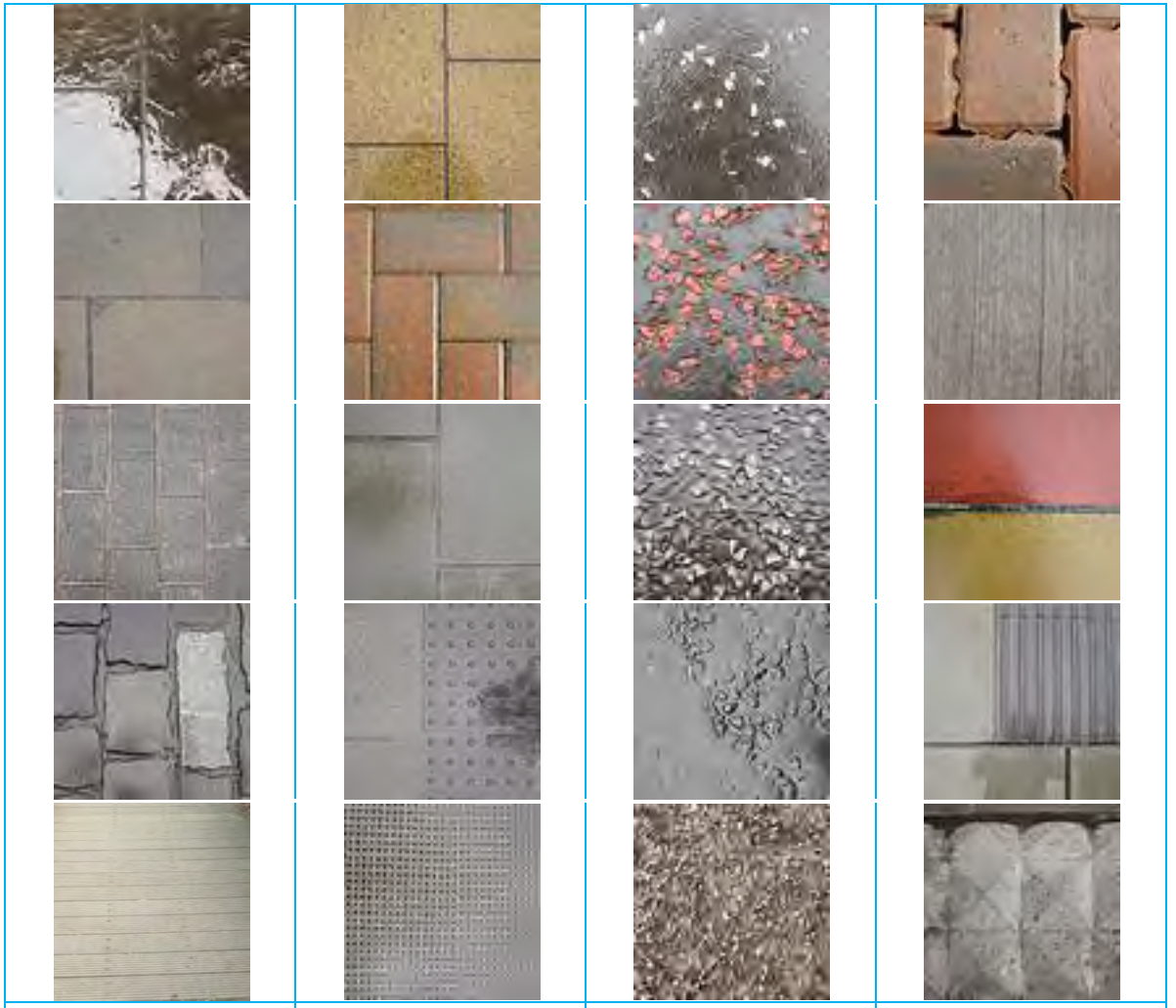
Fabric factsheets look at the **surface materials** which are used to walk, ride or drive on and their underlying construction.

The following should be considered in design:

- how contrasting fabric choices help express street layouts
- how fabric makes users feel good about the street (for example, by emphasising the place element of the street)
- how fabric choices make the street long-lasting and cost-effective to maintain
- how sustainable drainage solutions can be achieved (e.g. top right)

A summary of footway options for different streets is provided in the summary sheets in Appendix 5.

Edinburgh's existing street fabric is illustrated, below.



Natural fabrics	Man-made fabrics	Tarmac/chip-based fabrics	Special fabric applications (SUDs, top)

B3-2-4 Introduction to soft landscaping

”Planting, particularly street trees, helps to soften the street scene while creating visual interest, improving microclimate and providing valuable habitats for wildlife.” Designing Streets, p49

Soft landscaping factsheets look at to the amount, size and positioning of **trees, grass and planting.**

The following should be considered in design:

- how soft landscaping supports walking and cycling and creates nicer places, such as the Edinburgh Green Network
- what ecological function soft landscaping performs to benefit ecosystems
- what aesthetic function soft landscaping performs to benefit human health
- opportunities for soft landscaping to contribute to street structure and width/height relationships of the street

B4 Edinburgh's Street Structure

STREET STRUCTURE is the relationships of various elements of urban form and how they work together.

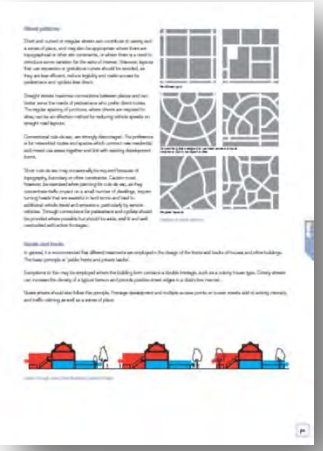
Getting street structure right is fundamental to ensuring that design solutions help to create the best places for people. Designing Streets presents key considerations for designing new street structures which should also apply to making amendments to existing streets. These are summarised in the table (right). They require:

- **establishing connected streets**
- **creating an urban form that establishes suitable grids and patterns and creates relationships between street widths and building heights to ensure neighbourhoods are walkable**
- **design solutions that draw on typologies common to Edinburgh and respond to the character and features of the area that serve to establish and reinforce interesting places**
- **considering the environmental quality of the street**

B4-1 Links to Designing Streets

The following table provides a summary of the objectives of Designing Streets (right) in relation to street structure

Designing Streets – street structure	Designing Streets objectives
Connections to wider networks (p19)	• Street patterns should be fully integrated with surrounding networks to provide flexibility and accommodate changes in built and social environments
Connections within a place (p20)	• Street design should provide good connectivity for all modes of movement and for all groups of street users, respecting diversity and inclusion
Block structure (p22-25)	• The urban form should be distinctive with landmarks and vistas that provide good orientation and navigation of an area
Walkable neighbourhoods (p26-27)	• Street layouts should be configured to allow walkable access to local amenities for all street users
Public transport p28)	• Public transport planning should be considered at an early stage in the design process
Context and character (p29-30)	• The requirements and impact of pedestrians, cycles and vehicles should be reconciled with local context to create streets with distinctive character • Opportunities should be taken to respond to, and to derive value from, relevant elements of the historic environment in creating places of distinctive character
Orientation (p31)	• Orientation of buildings, streets and open space should maximise environmental benefits



B4-1 Edinburgh's contribution to street design

Edinburgh is fortunate in having an extensive city structure that provides great examples of pedestrian friendly, connected, distinctive and successful streets, where local amenities are available. In significant parts of Edinburgh, however, while there may be places of interest and character, there is a poor relationship between the street and the built form and may have a lack of connectively and permeability; this means they fail, overall, as successful streets and places.

Street design will draw on Edinburgh's recognisable street patterns and urban structures for new streets. Edinburgh has a legacy of original street fabrics and materials and furniture. Locally quarried sandstone, Caithness paving, original WHIN kerbs and granite SETTS have been retained in some streets. Features such as bollards, railings and lighting columns and lamps are characteristic of many parts of Edinburgh.

This guidance will assist in defining how to create improvements to Edinburgh's urban setting.

B4-2 Referencing Existing Street Types

There is range of street types in Edinburgh where the scale, ratios and patterns of streets vary. These examples demonstrate good townscape relationships. Appendix 1 outlines detail on the specific characteristics of these typologies, drawing on the details set out in CONSERVATION AREA CHARACTER APPRAISALS.

Examples

THE MEDIEVAL PATTERN was developed in response to the links and patterns connecting the main high street (the Royal Mile) with the surrounding landscape. This pattern provides the flexibility to accommodate changes in the built environment. This pattern is typified by the High Street which is the main spine from which other connections extend; human scale CLOSES and WYNDS which present pedestrian priority spaces or narrow routes that can just accommodate vehicles, which often include soft landscaping. Places of interest are created with market and urban squares and at cross/gate locations.

THE GEORGIAN PATTERN of the **New Town** exhibits a planned street structure defined by the layout of the buildings. This order restricts significant change to the urban form. This pattern is typified by the grand scale of the 'Principal Streets' and 'Cross Streets'; secondary streets accessible by vehicles and narrow mews lanes providing access to the rear of properties. Formal gardens were central to the structure, either established as terminating squares or as part of the principal street pattern as circuses or crescents. Place of interest were established as an integral part of the planned design, with buildings and statues established to terminate views.

THE VICTORIAN AND EDWARDIAN PATTERNS resulted in uniform street layouts that responded to local topography and features, absorbing historic villages and settlements. They are well connected and successfully link residences with areas of amenity. A variety of street widths are defined by the varying relationships with built forms. Wide high streets are crossed by narrower terraces and rows. Wider avenues accommodate trees and narrower lanes follow natural corridors. The urban BLOCK is typical of these streets. Unique COLONY developments create a tight urban pattern with narrow streets allowing vehicular access. The front/back relationship of buildings is characteristic of this street type.

BETWEEN WAR STREET PATTERNS grew with a good mix of home types & tenures and well-connected permeable, street networks.

POST WAR STREET PATTERNS are typified by low density residential development. The streets are wide, but vary in their urban form. Some earlier arrangements, such as Craigmount (right), are connected and provide good access for pedestrians to local amenities.

RECENT DEVELOPMENT examples in Craigmillar and Gracemount demonstrate new street patterns and urban structures that reflect the more successful relationships exemplified by historic streets.

Craigmount Area Street Pattern case study

✓ **Pedestrian access to local school/shops**	• Near direct routing possible, due to highly permeable grid layout • Easy to cross roads, due to tighter corner radii at junctions • All footways overlooked by properties, therefore feeling of security
✓ **Public transport penetration**	• Layout is flexible, bus services could use any street as demand dictated. • Permeable layout meaning services could go on to serve other destinations.
✓ **Cycling**	• Compact priority junctions feel safer. • More direct routings within neighbourhood.
✓ **Community**	• All streets have pleasant environment; are well overlooked. • Good connectivity with neighbouring areas due to permeable layout.

B5 Design Principles for each Street Type

- **Apply design options to the identified street type**

Each street type from Section B2 is introduced by a paragraph summarising design principles. These set out the high level design considerations for the street type according to the relative importance of the various street users.

The sheets are summarised in the table overleaf which includes the areas of design where there is greatest variation between street types.

Key

High priority	●
Medium priority	○

How do principles vary across street types?

The balance of priorities will affect the design options chosen for each type of street.

Variation of street design options across street types	
Overall design options	• Simplicity • Link-place balance
Street furniture options	• Furniture need • Extent/breadth of provision (numbers and types of item) • Specification and size of items • Location/position (see layout) and fixing method
Fabric options	• Choice of fabric and materials (including compared to existing street fabric)
Layout options	• Design emphasis (social/place, walking, cycling, public transport, carriageway) • Delineation and use of markings, separation of users and shared surface appropriateness • Drainage options • Geometries and dimensions • Pedestrian priority over side streets • Priority for on-street parking
Values	• Distinct • Inclusive • Sustainable • Legible • Safe • Local • Cost effective

B5 Design Principles for each Street Type

	OVERALL DESIGN				DESIGN EMPHASIS						LAYOUT					FURNITURE	VALUES						
Priority: High ● Medium ○	Simplicity		Link/Place balance		Environments					Shared space	Priority on-street parking					Notable furniture needs							
STREET TYPES	Simple	Complex	Link	Place	Pedestrian	Public Transport	Cycle	Car	Social		Short-term /loading	Residents/ employees	Long term cycle & m/cycle	Pedestrian priority over side street			1 distinct	2 inclusive	3 sustainable	4 legible	5 safe	6 local	7 cost effective
Strategic																							
Retail		●		●	●	●	○	○	●	●	●		●	●		●	●	●					
Hi Density Res		○		●	●	●	○	○	●			●	●	●							●	●	
Employment	○	○	○	○	○	●	●	○	○								●	●					
Low Density Res	○		○	○	○	○	○	○				●									●	●	●
No frontage	●		●				○	●													●		●
Secondary																							
Retail		●		●	●	○	○	○	●	○	●		●	●		●	●			●		●	
Hi Density Res		○		●	●	○	○	○	●		●	●	●	●						●		●	
Employment	●		○	○	○	●	●	○	○									●	●	●			
Low Density Res	○		○	○	○	○	○	○				●					●	●	●	●	●	●	●
No frontage	●		●				○	●													●		●

B5 Design Principles for each Street Type

	OVERALL DESIGN				DESIGN EMPHASIS						LAYOUT				FURNITURE	VALUES						
Priority: High ● Medium ○	Simplicity		Link/Place balance		Environments					Shared space	Priority on-street parking				Notable furniture needs							
STREET TYPES	Simple	Complex	Link	Place	Pedestrian	Public Transport	Cycle	Car	Social		Short-term /loading	Residents/ employees	Long term cycle & m/cycle	Pedestrian priority over side street		1 distinct	2 inclusive	3 sustainable	4 legible	5 safe	6 local	7 cost effective
Local																						
Retail	●			●	●	○	○	○	●	●	●		●	●	●	●					●	
Hi Density Res	●			●	●		○			●		●	●	●	○	●		●			●	
Employment	●			○	●		○	○		●							●	●				
Low Density Res	●		○	○	○		○		●	●		●					●	●				
No frontage	●		○				○	●	○	○										●		●
Service																						
Retail	●			○	●		○	○	●	●	●		●				●			●		
Hi Density Res	●		○	○	○					●		●	●						●			
Employment	●		○	○	○		○	○		○							●		●	●		
Low Density Res	●		○	○	○				●								●		●			
No frontage	●		○		○	○	○	○	○	○										●		●

B5-1 Principles Sheets

The structure of the Principles Sheets is set out in Section B3. There is a sheet for each street type. The principles sheets summarise the priority street users alongside relevant design options. There are some elements that are common to all streets, which are summarised in the first sheet. Any local factors relating to the street should also be identified (discussed in Appendix 1.8).

The notes set out should usually be the starting point for design. However designs should always respond to local context and this may justify changes in the approach. Special locations are shown in Appendix 1.8.

[All sections will be linked to factsheets for further information]

Note on Car Parking Standards regarding Street Design

The following sets out the Council's current position on car parking and street design.

"PARKING STANDARDS FOR DEVELOPMENT MANAGEMENT. Approved December 2009. Produced by The City of Edinburgh Council with the assistance of Halcrow Group Ltd

5 Reductions in minimum / increases in maximum standards

Car parking provision below the normal minimum may be permitted for sites where:

• minimum parking provision is physically impossible but the development is desirable for other reasons; OR

• lower parking provision is deemed essential for reasons of townscape, air quality or transport impact; OR.

• the developer can justify lower provision to help manage travel in a manner consistent with other Council policies while not causing unacceptable on-street overspill; AND

• the development includes suitable provision of high quality cycle parking at ground or basement level

In this circumstance, additional contributions to public transport, pedestrian and/or cycle facilities in the vicinity and to the Car Club will usually be required. Car parking provision above maximum standards will be acceptable only where the developer can demonstrate that it will not compromise the Council's Local Transport Strategy or other Planning requirements."

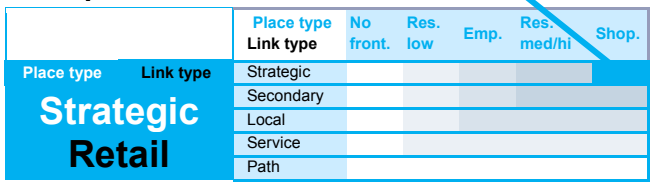
Note on road widths on strategic routes

Road widths on strategic routes are 7m, as prescribed for road closures in Chapter 8 of the Traffic Signs Manual; this relates to the clear running lane width (see factsheet).

Structure of principles sheets

Each sheet contains a small version of the Edinburgh Street Framework, illustrating by a **blue box** the position in the street framework that the street on the sheet refers to. Streets are grouped by link type, so all sheets relating to strategic links are presented first.

Example:



Each sheet also contains a table summarising the **design emphasis** to be given to different users and design features in the design process.

Example:

Design emphasis	Place	Very High/ High
	Peds	Very High/ High
	Cycle	Medium*
	Public Transport	High
	Car traffic	Medium
	Large vehicles	Medium
	Parking	Low
	Loading	Medium
	Furniture	High

*** = Where street is part of family friendly network, cycle design priority should be high for cyclists (Appendix [X] – Map)**

Order of information

These sheets are grouped by link function and the subdivided into place function (illustrated below) in order of relative importance of link and place function for each street.

Link function:

Main streets:

Strategic

Secondary

Neighbourhood streets:

Local

Service

Path [to follow]

Place function:

Places with high numbers of pedestrians:

Retail

High Density Residential

Places with some pedestrians:

Employment

Low Density Residential

Places with low numbers of pedestrians:

No frontage

Common elements

Design options that are common to all street types are shown on the right.

Walking Environment	Fabric	• Typically use Pre-Cast Concrete (PCC) Kerbing and Edging outside conservation areas, unless whinstone is currently being used • Contrasting Grey Tactile Paving • Utility Chambers accesses to be replaced with recessed ones where appropriate
	Furniture	• Minimise Signage and unnecessary furniture and cluster together, where possible, outside central walking zone • Presumption against guardrail where appropriate, existing guardrail to be removed after a guardrail assessment has been carried out. • Grit Bins to be provided at Strategic Locations • Signage should be wall mounted/relocated outside walking zone
	Layout	• There should be a convenient and direct route for pedestrians • All carriageway crossing points should be suitable for wheelchair users • Pedestrian phases on all legs of signalised junctions where required • Presumption against shared footways with cyclists, apart from No Frontage /Employment Streets and sections used for connection of the Family Friendly Network
Cycling Environment	Fabric	• Red Chipping Asphalt • Thermoplastic used in high risk locations
	Furniture	• Short Term Cycle Parking = Sheffield Stands or Cycle Hoops • Long Term Cycle Parking = Weather protected and within a lockable building/compound
	Layout	• Continue across Junction faces (Advisory Markings and Coloured Chips) • Continue across Pedestrian Crossings Zigzags/Bus Stops (Coloured Chips Only) • Advanced Stop Line (ASL) on all legs of signalised junctions where appropriate • Door Zone Minimum 0.5m
Public Transport Environment	Fabric	• Bus Lanes - Red Chipping Asphalt • High level kerbs minimum 100mm upstand
	Furniture	• All stops must have a Sign Plate & Information Board • All stops should have a shelter installed where appropriate
	Layout	• Bus Stops 25m Bay with Clearways or Bus Boarders • Minimum 1.5m walking zone past furniture
Carriageway Environment	Fabric	• Antiskid used where appropriate 0m@20mph, 25m@30mph. High PSV stone HRA can be used as an alternative • HRA Asphalt or SMA where appropriate
	Furniture	• Utility Chambers to be replaced if worn • Traffic Signal Crossing equipment Minimum Requirements as per TSRGD
	Layout	• Recommended widths specified in carriageway Width Factsheet • Additional 0.5m each side if parked vehicles are located alongside
Conservation Areas	• Within Conservation areas natural materials (eg Stone) should be considered and this should always be discussed with the local neighbourhood/streetscape section as early as possible in the design process Road Markings to be minimised in width Maximum width 50mm. (where permitted by TSRGD)	
Trees & Landscaping	• Discussion with streetscape/Parks & Greenspace to be had as early as possible in the design process	
Notes	• Central Walking zone is shown as per factsheet PE-00x, Minimum Zone width to be 1.5m	

Click for index

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Strategic Retail

Design for retail streets **will** emphasise social spaces and the street's role in the community, the pedestrian environment and public transport. They **will** prioritise place paying close attention to delivering Values 1 and 2. Paving slabs **will** be used for footways to emphasise place and pedestrian importance. They **will** be highly complex in their requirements, and furniture, fabric and layout equally **will** be high relevance in design. General road traffic will be permitted, but not prioritised. Cyclists **will** be separated as far as possible from other road traffic. Pedestrians **will** have priority through junctions and intersections, including across side streets.

Design emphasis	
Place	Very **High**/ **High**
Pedestrians	Very **High**/ **High**
Cycling	Medium*
Public transport	**High**
Car traffic	Medium
Large vehicles	Medium
Parking	Low
Loading	Medium/**High**
Furniture	**High**

Walking Environment	Fabric	• High Quality Paving • Driveways to match footway paving (No Break)
	Furniture	• High Density of Seating – Where footway width is sufficient • High Density of Waste Bins • Lighting 10m columns or Wall Mounted (Preferred)
	Layout	• Minimum width of footway (Absolute - 3m/ Desirable 4.5m or more) • Side Junctions to be Raised Junctions/ or continuous# • Corner Radii Maximum = 3m • Crossing points every 50m to 100m • Uncontrolled Crossings – Signalised/Zebra at Strategic Points • Consider Shared Space
Cycling Environment	Fabric	• See common elements
	Furniture	• High Density of Short Term Cycle Parking • Longer Term parking to be provided at strategic locations
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• Consider Bus lanes (Peak Time along with Parking/Loading) • Consider approaches to junctions
Carriageway Environment	Fabric	• See common elements • Road Markings to be minimum width
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more. • Restricted/relocated where appropriate parking to support cycle/bus facilities • Parking/Loading – Seek to move to side streets (especially Parking)
Trees & Landscaping	• Use encouraged to reduce the amount of open space • Helps reduce impact of parking.	
Notes	• # At junctions with local or service streets – Junctions should <u>always</u> be converted when either neighbourhood carriageway or footway is renewed. At junctions with secondary or strategic streets a typical carriageway/footway layout will generally be retained. Shared Space should be considered, especially in special locations	

Click for index

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Strategic Residential (High density)

Design for high density residential streets **will** emphasise social spaces, the pedestrian environment and public transport. They **will** use layout treatments to balance movement and place. They **will** pay close attention to delivering Values 5 and 6. Street furniture such as seating, bins, cycle and motorcycle parking, and bus shelters will be Highly relevant. General road traffic will be permitted, but not prioritised. Cyclists **will** be separated as far as possible from other road traffic. Pedestrians **will** have priority through junctions and intersections, including across side streets.

Design emphasis	
Place	**High**
Pedestrians	**High**
Cycling	Medium
Public Transport	**High**/Medium
Car traffic	Medium
Large vehicles	Medium
Parking	Low
Loading	Low
Furniture	Medium

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• Medium Density of Seating • Medium Density of Waste Bins • Lighting 10m columns or Wall Mounted (Preferred)
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable 3m or more) • Side Junctions to be Raised Junction/ or continuous# • Crossing points approx every 100m (Protected from Parking e.g. Build out, Consider Raising) • Corner Radii Maximum = 3m
Cycling Environment	Fabric	• See common elements
	Furniture	• Medium/Low Density of Short Term Cycle Parking
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• Consider Bus lanes (Part Time along with Parking/Loading) • Consider approaches to junctions
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more. • Restricted parking to support cycle/bus facilities • Parking/Loading – Seek to move to side streets (especially Parking)
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	• # At junctions with local or service streets – Junctions should generally be converted when either neighbourhood carriageway or footway is renewed. • At junctions with secondary or strategic streets a typical carriageway/footway layout will generally be retained. Shared Space should be considered, especially in special locations	

Click for index

Place type / Link type	Place type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic Employment	Strategic					
	Secondary					
	Local					
	Service					
	Path					

Design for employment streets **will** prioritise cycle movements, using the space available to help enable an increase in cycle journeys to work and reduce any potential for conflict with large moving vehicles, and public transport. Cyclists **will** be separated as far as possible from other road traffic. They **will** use layout treatments to balance movement and place. They **will** pay close attention to delivering Values 1 and 2.

Design emphasis	Place	Medium
	Pedestrians	Medium
	Cycling	Medium
	Public Transport	**High**
	Car traffic	Medium
	Large vehicles	Medium
	Parking	Low
	Loading	Low/Medium
	Furniture	Medium

Walking Environment	Fabric	• HRA Surfacing • PCC Paving at special or Higher use locations
	Furniture	• Medium/Low Density of Waste Bins • Lighting 10m columns
	Layout	• Minimum width of footway (Absolute – 1.5m/ Desirable 2m or more) • Crossing points every 100m – Uncontrolled Crossings • Corner Radii Maximum = 9m
Cycling Environment	Fabric	• See common elements
	Furniture	• Density of Short Term & Long Term Cycle Parking dependent on off road provision (Discussion with Cycle Parking Team at an early stage)
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• Consider Bus lanes (Part Time along with Parking/Loading) • Consider approaches to junctions
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more. • Restricted parking to support cycle/bus facilities
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	•	

Click for index

Place type / Link type	Place type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic Residential (low density)	Strategic					
	Secondary					
	Local					
	Service					
	Path					

Design for low density streets **will** permit movements by all street users on an equal High basis, with no street users designed for as a priority. Lower density residential streets **will** provide fewer buildings and land uses, generate fewer pedestrians which reduces the need for a high place function.

They **will** pay close attention to delivering Values 5, 6 and 7.

Parking may be able to be provided outside of the clear carriageway width.

Design emphasis	Place	Medium
	Pedestrians	Medium
	Cycling	Medium
	Public Transport	**High**
	Car traffic	Medium
	Large vehicles	Medium
	Parking	Low
	Loading	Low
	Furniture	Medium

Walking Environment	Fabric	• HRA Surfacing • PCC Paving at special or Higher use locations
	Furniture	• Low Density of Waste Bins • Lighting 10m Aluminium Columns
	Layout	• Minimum width of footway (Absolute – 1.5m/ Desirable 2m or more) • Crossing points approx every 200m • Uncontrolled Crossings – Signalised/Zebra at Strategic Points • Corner Radii Maximum = 3m
Cycling Environment	Fabric	• See common elements
	Furniture	• Generally no on street cycle parking is required
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more. • Restricted parking to support cycle/bus facilities
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	•	

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Click for index

Place type	Link type	Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic No frontage		Strategic					
		Secondary					
		Local					
		Service					
		Path					

Design for no frontage streets **will** generally allow motor vehicle movement to predominate, with priority for public transport where necessary (e.g. A90, A8 at A89).

They will be simple in their requirements using common standard design elements. They **will** pay close attention to delivering Values 5 and 7. Footways **will** be provided where they could be any demand for pedestrian movement, including access to public transport services from adjacent communities.

Design emphasis	Place	Very Low
	Pedestrians	Low
	Cycling	Medium
	Public Transport	**High**
	Car traffic	**High**
	Large vehicles	**High**
	Parking	Very Low
	Loading	Very Low
	Furniture	Very Low

Walking Environment	Fabric	• HRA Surfacing • Consider no edging with Type 1 shoulders in rural setting
	Furniture	• Very Low Density of Waste Bins • Lighting 10m Aluminium Columns
	Layout	• Footway provision dependent on level of traffic and whether there is significant pedestrian (and/or cycle) demand.
Cycling Environment	Fabric	• See common elements
	Furniture	• No Requirements
	Layout	• Desirable Minimum = Segregated or Shared Footway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more. • Restricted parking to support cycle/bus facilities
Trees & Landscaping	• Use of Trees and Landscaping encouraged.	
Notes	Rural no frontage streets can be used for agriculture machinery and as such should be design to accommodate this equipment for access	

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Click for index

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Secondary Retail

Design for retail streets will emphasise social spaces and the street's role in the community, the pedestrian environment including informal movements and public transport. They will prioritise place paying close attention to delivering Values 1, 4 and 6. They will use layout treatments alongside fabric and furniture treatments to balance movement and place. Street furniture such as seating, bins, cycle and motorcycle parking, and bus shelters will be highly relevant. Space for cycling, public transport, loading and short term parking will have priority over delivering high through traffic flows. Pedestrians will have priority through junctions and intersections, including across side streets.

Design emphasis		
	Place	**High**
	Pedestrians	Very **High**/ **High**
	Cycling	Medium
	Public Transport	Medium
	Car traffic	Medium
	Large vehicles	Medium
	Parking	**High** (Short Term parking **High**)
	Loading	Medium/**High**
	Furniture	Medium/**High**

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• High Density of Seating • High Density of Waste Bins • Lighting 10m columns or Wall Mounted
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable 3m or more) • Side Junctions to be Raised Junctions/ or continuous# • Corner Radii Maximum = 3m • Crossing points every 50m to 100m • Uncontrolled Crossings – Signalised/Zebra at Strategic Points
Cycling Environment	Fabric	• See common elements
	Furniture	• High Density of Short Term Cycle Parking • Low Density of Long Term Cycle Parking
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 5.5m minimum, desirably 7.0m or more. • Parking/Loading as required at strategic points – Seek to move to side streets
Trees & Landscaping	• Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	• # At junctions with local or service streets – Junctions should always be converted when either neighbourhood carriageway or footway is renewed. • At junctions with secondary or strategic streets a typical carriageway/footway layout will generally be retained. Shared Space should be considered, especially in special locations	

Click for index

Place type	Link type
Secondary Residential (High density)	Strategic
	Secondary
	Local
	Service
	Path

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Design for **High** density residential streets will emphasise social spaces and the pedestrian environment. These streets may form lower frequency bus and/or cycle routes. They will use layout treatments to balance movement and place. They will pay close attention to delivering Values 4 and 6. Long-term cycle parking will be provided for residents. General road traffic will be permitted, but not prioritised, and car parking will be provided. Pedestrians will have priority through junctions and intersections, including across side streets.

Design emphasis	Place	Medium
	Pedestrians	**High**
	Cycling	Medium
	Public Transport	Medium
	Car traffic	Low
	Large vehicles	Low
	Parking	Medium
	Loading	Low
	Furniture	Medium

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• Medium Density of Seating • Medium Density of Waste Bins • Lighting 10m columns or Wall Mounted
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable +) • Side Junctions to be Raised Junction/ or continuous# • Crossing points every 100m (Protected from Parking e.g. Build out, Consider Raising) • Uncontrolled Crossings – Signalised/Zebra at Strategic Points • Corner Radii Maximum = 3m
Cycling Environment	Fabric	• See common elements
	Furniture	• Medium Density of Short Term Cycle Parking • High Density of Long Term Cycle Parking
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds)
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 5.5m minimum, desirably 7.0m + • Parking as required at strategic points
Trees & Landscaping	• Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	# At junctions with local or service streets – Junctions should generally be converted when either neighbourhood carriageway or footway is renewed. At junctions with secondary or strategic streets a typical carriageway/footway layout will generally be retained. Shared Space should be considered, especially in special locations	

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B5 Design Principles for each Street Type: Secondary Employment Streets

Click for index

Place type / Link type	Strategic	Secondary	Local	Service	Path
Secondary Employment					

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Design for employment streets will prioritise cycle movements, using the space available to help enable an increase in cycle journeys to work and reduce any potential for conflict with large moving vehicles, and public transport.

They will be simple streets use fabric treatments to balance movement and place, and ensure that pedestrians feel comfortable through attractive design. They will pay close attention to delivering Values 2, 3 and 3.

Design emphasis	
Place	Medium
Pedestrians	Medium
Cycling	Medium
Public Transport	Medium
Car traffic	Medium
Large vehicles	Medium
Parking	Low
Loading	Low/Medium
Furniture	Medium

Walking Environment	Fabric	• HRA Surfacing • Paving Flags at Strategic Locations
	Furniture	• Low Density of Waste Bins • Lighting 10m columns
	Layout	• Minimum width of footway (Absolute – 2m/ Desirable 2.5m or more) • Crossing points every 100m • Corner Radii Maximum = 6m
Cycling Environment	Fabric	• See common elements
	Furniture	• Density of Short Term & Long Term Cycle Parking dependent on off road provision (Discussion with Cycle Parking Team at an early stage)
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	•	

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B5 Design Principles for each Street Type: Secondary Residential (low density) Streets

Click for index

Place type / Link type	Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Secondary Residential (low density)	Strategic					
	Secondary		■			
	Local					
	Service					
	Path					

Design for low density streets will permit movements by all street users on an equal basis, with no street users designed for as a priority. There will not be a widespread place function although local design details and features will be used. They will pay attention to delivering all street values. Trees will help improve the sense of enclosure on these streets.

Design emphasis	Place	Medium
	Pedestrians	Medium
	Cycling	Medium/**High**
	Public Transport	Medium/Low
	Car traffic	Medium
	Large vehicles	Medium
	Parking	Medium/**High**
	Loading	Low
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • Paving Flags at Strategic Locations
	Furniture	• Low Density of Waste Bins • Lighting 10m columns
	Layout	• Minimum width of footway (Absolute – 1.5m/ Desirable 2m or more) • Crossing points every 100m • Corner Radii Maximum = 3m
Cycling Environment	Fabric	• See common elements
	Furniture	• Generally no on street cycle parking is required
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.0m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	•	

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B5 Design Principles for each Street Type: Secondary No frontage Streets

Click for index

Place type / Link type	Strategic	Secondary	Local	Service	Path
Secondary No frontage					

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Secondary					

Design for no frontage streets will allow car movement to predominate.

They will be simple in their requirements using common standard design elements. They will pay close attention to delivering Values 5 and 7. Footways will be provided where they could be any demand for pedestrian movement, including access to public transport services from adjacent communities. Cycle lanes will be important where there are destinations such as rural settlements adjoining the route, carrying cyclists elsewhere.

Design emphasis	Place	Very Low
	Pedestrians	Low/Medium
	Cycling	**High**/Medium
	Public Transport	Low
	Car traffic	**High**
	Large vehicles	**High**
	Parking	Low
	Loading	Low
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • Consider no edging with natural shoulders in rural setting
	Furniture	• Very Low Density of Waste Bins • Lighting 10m Columns
	Layout	• Footway provision dependent on level of traffic and whether there is significant pedestrian (and/or cycle) demand.
Cycling Environment	Fabric	• See common elements
	Furniture	• No Requirements
	Layout	• Desirable Minimum = Advisory Carriageway • Recommended = Mandatory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds
Public Transport Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 6m minimum, desirably 7.3m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged.	
Notes	• Rural no frontage streets can be used for agriculture machinery and as such should be design to accommodate this equipment for access	

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Click for index

Place type / Link type	Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Local Retail	Strategic					
	Secondary					
	Local					
	Service					
	Path					

Design for retail streets **will** emphasise social spaces and the street's role in the community and the pedestrian environment. They **will** prioritise place paying close attention to delivering Values 1 and 6.

They **will** be simple streets, where seating, bins, cycle and motorcycle parking, and bus shelters will be relevant. Full shared space will be considered. General road traffic will be permitted at low speeds, but not prioritised. Space for loading and short term parking will have priority over moving traffic. Pedestrians **will** have priority through junctions and intersections, including across side streets.

Design emphasis	Place	**High**
	Pedestrians	Very **High**/ **High**
	Cycling	Medium
	Public Transport	Medium
	Car traffic	Low
	Large vehicles	Low/Medium
	Parking	Medium/**High**
	Loading	Medium
	Furniture	Medium

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• Medium Density of Seating • Medium Density of Waste Bins • Lighting 10m columns or Wall Mounted (Preferred)
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable 3m or more) • Side Junctions to be Raised Junctions/ or continuous# • Presumption against shared footways with Cyclists • Corner Radii Maximum = 3m • Uncontrolled Crossings – Signalised if required • Crossing points every 50m to 100m • Consider Shared Space
Cycling Environment	Fabric	• See common elements
	Furniture	• High Density of Short Term Cycle Parking • Low Density of Long Term Cycle Parking
	Layout	• Desirable Minimum = Shared Carriageway • Recommended = Advisory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements • Consider use of Bus Gate
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 5.5m or more. • Parking/Loading as required at strategic points
Trees & Landscaping	• Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	• # At junctions with local or service streets – Junctions should <u>always</u> be converted when either neighbourhood carriageway or footway is renewed.	

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Place type	Link type	Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Local Residential (High density)		Strategic					
		Secondary					
		Local					
		Service					
		Path					

Design for **High** density residential streets **will** emphasise the pedestrian environment. Full shared space such as home zones will be considered.

They **will** be simple streets, where cycle and motorcycle parking will be relevant. They **will** pay close attention to delivering Values 1, 3, and 6. General road traffic will be permitted at low speeds, but not prioritised. Pedestrians **will** have priority through junctions and intersections, including across side streets.

Place	Medium
Pedestrians	**High**
Cycling	Medium
Public Transport	Low/Medium
Car traffic	Low
Large vehicles	Low
Parking	**High**
Loading	Low
Furniture	Medium

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• Medium Density of Seating • Medium Density of Waste Bins • Lighting 10m columns or Wall Mounted (Preferred)
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable 2.5m or more) • Side Junctions to be Raised Junction/ or continuous# • Crossing points every 100m (Protected from Parking e.g. Build out, Consider Raising) • Presumption against shared Cycle/Pedestrian footways • Corner Radii Maximum = 3m • Consider Shared Space especially in new streets or if problems of footway parking
Cycling Environment	Fabric	• See common elements
	Furniture	• Low Density of Short Term Parking • High Density of Long Term Parking
	Layout	• Desirable Minimum = Shared Carriageway • Recommended = Advisory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker on all new streets
	Layout	• See common elements • Option to include Bus Gate
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 5.5m or more. • Parking/Loading as required at strategic points
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	• # At junctions with local or service streets – Junctions should generally be converted when either neighbourhood carriageway or footway is renewed.	

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Place type / Link type	Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Local Employment	Strategic					
	Secondary					
	Local					
	Service					
	Path					

Design for employment streets **will** prioritise pedestrian movements. Full shared space will be considered.

They **will** be simple streets. They **will** pay close attention to delivering Values 2 and 3.

	Place	Medium
Design emphasis	Pedestrians	**High**/Medium
	Cycling	**High**/Medium
	Public Transport	**High** (If Present)
	Car traffic	Medium/Low
	Large vehicles	Medium
	Parking	Medium
	Loading	Medium
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • PCC Paving at Strategic Locations
	Furniture	• Low Density of Waste Bins • Lighting 10m Aluminium Columns
	Layout	• Minimum width of footway (Absolute – 2m/ Desirable 2.5m or more) • Crossing points every 100m • Corner Radii Maximum = 3m
Cycling Environment	Fabric	• See common elements
	Furniture	• Density of Short Term & Long Term Cycle Parking dependent on off road provision (Discussion with Cycle Parking Team at an early stage)
	Layout	• Desirable Minimum = Shared Carriageway • Recommended = Advisory lanes or Separated Lanes where appropriate/feasible
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all • Bus Tracker provided at all stops
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 5.5m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	• depends on density. (Offices will mean High pedestrian priority) • # As pedestrians High Priority on Family Network	

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Click for index

Place type / Link type	Strategic	Secondary	Local	Service	Path
Local Residential (low density)					

Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Design for low density streets will prioritise pedestiran movements. Full shared space such as home zones will be considered.

They **will** be simple streets. They **will** pay close attention to delivering Values 2 and 3.

Parking may be able to be provided outside of the clear carriageway width.

Design emphasis	Place	Medium
	Pedestrians	Medium
	Cycling	Medium
	Public Transport	Low/Medium
	Car traffic	Low
	Large vehicles	Low
	Parking	Medium/**High**
	Loading	Low
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • PCC Paving at Strategic Locations
	Furniture	• Low Density of Waste Bins • Lighting 10m Aluminium Columns
	Layout	• Minimum width of footway (Local – 1.5m/ Desirable 2m or more) • Crossing points every 100m • Presumption against shared cycle/pedestrian footways • Consider Shared Space especially in new streets or if problems of footway parking
Cycling Environment	Fabric	• See common elements
	Furniture	• Generally no on street cycle parking is required
	Layout	• Shared Carriageway
Public Transport Environment	Fabric	• See common elements
	Furniture	• Bus Shelter provided at all stops with seating/access for all
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 5.5m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	•	

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Click for index	Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Place type / Link type	Strategic					
Local No frontage	Secondary					
	Local	■				
	Service					
	Path					

Design for no frontage streets **will** allow car movement to predominate.

They will be simple in their requirements using common standard design elements. They **will** pay close attention to delivering Values 5 and 7. Shared space such as virtual footways will be provided where they could be any demand for pedestrian movement, including access to public transport services from adjacent communities.

Design emphasis	Place	Low
	Pedestrians	Low
	Cycling	Medium
	Public Transport	Low
	Car traffic	**High**
	Large vehicles	Low
	Parking	Low
	Loading	Low
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • Consider no edging with Type 1 shoulders in rural setting
	Furniture	• Very Low Density of Waste Bins • Lighting 10m Aluminium Columns
	Layout	• Footway provision dependent on level of traffic and whether there is significant pedestrian (and/or cycle) demand.
Cycling Environment	Fabric	• No Requirements
	Furniture	• No Requirements
	Layout	• Generally Shared Carriageway
Public Transport Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• See common elements
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 5.5m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. Trees can be used to break up areas of parking. • Discussion with streetscape/Parks & Greenspace to be had as early as possible in the design process	
Notes	• Rural no frontage streets can be used for agriculture machinery and as such should be design to accommodate this equipment for access	

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Click for index

Place type / Link type	Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Service Retail	Strategic					
	Secondary					
	Local					
	Service					
	Path					

Design for retail streets will emphasise social spaces and the street's role in the community and the pedestrian environment. They will prioritise place paying close attention to delivering Values 1 and 5.

They will be simple streets. Street furniture such as seating, bins, cycle and motorcycle parking will be relevant. Full shared space will be considered. Space for loading and short term parking will have priority over moving traffic.

Design emphasis	
Place	**High**
Pedestrians	**High**
Cycling	Medium
Public Transport	Low
Car traffic	Low
Large vehicles	Low
Parking	Medium
Loading	**High**
Furniture	**High**

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• Medium Density of Seating • Medium Density of Waste Bins • Lighting 5-6m Columns or Wall Mounted • Consider Shared Space
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable 3m or more) • Side Junctions to be Raised Junctions/ or continuous# • Presumption against shared footways with Cyclists • Corner Radii Maximum = 3m • Crossing points every 50m to 100m
Cycling Environment	Fabric	• See common elements
	Furniture	• High Density of Short Term Cycle Parking • Low Density of Long Term
	Layout	• Desirable Minimum = Shared Carriageway • Recommended = Advisory lanes or Separated Lanes where appropriate/feasible (Particular at Higher Traffic Volumes/ Speeds
Public Transport Environment	Fabric	• NA
	Furniture	• NA
	Layout	• NA
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 6.0m or more. • Parking/Loading as required at strategic points
Trees & Landscaping	• Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	# At junctions with local or service streets – Junctions should <u>always</u> be converted when either neighbourhood carriageway or footway is renewed. At junctions with secondary or strategic streets a typical carriageway/footway layout will generally be retained. Shared Space should be considered, especially in special locations	

Click for index

Place type / Link type	Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Service Residential (High density)	Strategic					
	Secondary					
	Local					
	Service					
	Path					

Design for high density residential streets will emphasise the pedestrian environment. Shared space such as virtual footways will be considered.

They will be simple streets. They will pay close attention to delivering Values 4. Long-term cycle and motorcycle parking will be provided for residents. Car parking will be provided.

Design emphasis	
Place	Medium
Pedestrians	Medium
Cycling	Low
Public Transport	Very Low
Car traffic	Low
Large vehicles	Low
Parking	Medium
Loading	Low
Furniture	Low

Walking Environment	Fabric	• Paving Flags • Driveways to match footway paving (No Break)
	Furniture	• Low Density of Waste Bins • Low Density of Seating • Lighting 5-6m Columns or Wall Mounted
	Layout	• Minimum width of footway (Absolute - 2m/ Desirable 2.5m or more) • Side Junctions to be Raised Junction/ or continuous# • Crossing points every 100m (Protected from Parking e.g. Build out, Consider Raising) • Corner Radii Maximum = 3m • Consider Shared Space especially in new streets or if problems of footway parking
Cycling Environment	Fabric	• See common elements
	Furniture	• Low Density of Long Term Parking
	Layout	• Shared Carriageway
Public Transport Environment	Fabric	• NA
	Furniture	• NA
	Layout	• NA
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 6.0m or more. • Parking as required at strategic points
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	# At junctions with local or service streets – Junctions should generally be converted when either neighbourhood carriageway or footway is renewed. At junctions with secondary or strategic streets a typical carriageway/footway layout will generally be retained. Shared Space should be considered, especially in special locations	

Click for index

Place type / Link type	Strategic	Secondary	Local	Service	Path
Service Employment					

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Service Employment					

They will be simple streets. Shared space such as virtual footways will be considered.

They will pay close attention to delivering Values 2, 4 and 5. They will be streets for all users.

Design emphasis		
	Place	Medium
	Pedestrians	Medium
	Cycling	Medium
	Public Transport	Low
	Car traffic	Medium
	Large vehicles	Medium
	Parking	Low
	Loading	High
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • Paving Flags at Strategic Locations • Whinstone Kerbs & PCC Kerbs out with conservation areas
	Furniture	• Low Density of Waste Bins • Lighting 5-6m Columns or Wall Mounted
	Layout	• Minimum width of footway (Absolute – 1.5m/ Desirable 2m or more) • Presumption against shared footways • Option to create Shared Space
Cycling Environment	Fabric	• See common elements
	Furniture	• Medium Density of Short Term Cycle Parking • Longer Term parking to be clustered
	Layout	• Shared with Carriageway
Public Transport Environment	Fabric	• NA
	Furniture	• NA
	Layout	• NA
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 6.0m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space	
Notes	•	

Click for index

Place type / Link type	Strategic	Secondary	Local	Service	Path
Service Residential (low density)					

Place type Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service					
Path					

Design for low density streets will emphasise social spaces and the street's role in the community, including play, and the pedestrian environment. They will pay attention to delivering Values 2 and 4.

They will be simple streets. Cycling may be relevant.

Design emphasis	Place	Medium
	Pedestrians	Medium
	Cycling	Low
	Public Transport	Very Low
	Car traffic	Low
	Large vehicles	Medium
	Parking	Low
	Loading	Low
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • PCC Paving at Strategic Locations
	Furniture	• Low Density of Waste Bins • Lighting 5-6m Columns or Wall Mounted
	Layout	• Minimum width of footway (Local – 1.5m/ Desirable 2m or more) • Crossing points every 100m • Consider Shared Space especially in new streets or if problems of footway parking
Cycling Environment	Fabric	• See common elements
	Furniture	• Generally no on street cycle parking is required
	Layout	• Generally Shared Carriageway • Cycle Gates appriprate
Public Transport Environment	Fabric	• NA
	Furniture	• NA
	Layout	• NA
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 6.0m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	
Notes	•	

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Click for index

Place type / Link type	No front.	Res. low	Emp.	Res. med/hi	Shop.
Strategic					
Secondary					
Local					
Service	■				
Path					

Service No frontage

Design for low density streets will permit movements by all street users on an equal basis, with no street users designed for as a priority. They will be simple in their requirements using common standard design elements. They **will** pay close attention to delivering Values 5 and 7. Shared space such as virtual footways will be provided where they could be any demand for pedestrian movement.

	Place	Place
Design emphasis	Pedestrians	Medium
	Cycling	Medium
	Public Transport	Medium
	Car traffic	Medium
	Large vehicles	Medium
	Parking	Low
	Loading	Low
	Furniture	Low

Walking Environment	Fabric	• HRA Surfacing • PCC Paving at Strategic Locations
	Furniture	• Low Density of Waste Bins • Lighting 5-6m Columns or Wall Mounted
	Layout	• Minimum width of footway (Absolute – 1.5m/ Desirable 2m or more)
Cycling Environment	Fabric	• See common elements
	Furniture	• Generally no on street cycle parking is required
	Layout	• Generally Shared Carriageway • Cycle Gates appropriate
Public Transport Environment	Fabric	• NA
	Furniture	• NA
	Layout	• NA
Carriageway Environment	Fabric	• See common elements
	Furniture	• See common elements
	Layout	• Clear Width generally 4.5m minimum, desirably 6.0m or more.
Trees & Landscaping	• Use of Trees and Landscaping encouraged. • Use encouraged to reducing the amount of open space • Helps reduce impact of parking.	

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Section C
Technical Street Design Manual

This Section of the Guidance develops the Street Detail section in Designing Streets setting out its detailed application in Edinburgh to create the places defined by the values set out in Section A.

C Detailed Design Manual – the street design options

- **Design must carry forward policies, values and concepts into the detail of a street.**

Edinburgh has set out street detail as a series of factsheets. These provide the technical requirements for designing streets in Edinburgh in detail. Factsheets cover each element of the street environment.

Factsheets are organised by the user environments (set out in Section B3.1), and sub-divided by the design options (set out in Section B3.2). How design options vary in general terms is summarised in Section B5 and Appendix 5, for background information.

The factsheets cover good practice, the street types that the design options are relevant to, and alternative options for design and implementation. Some factsheets contain an ENGINEERS' CHECKLIST and others contain design drawings, depending on the design option.

C-1 Factsheet Contents

- **Pedestrian Environment**
  - **Layout**
  - Pedestrian Zone
  - Crossing
  - Shared
  - **Fabric and materials**
  - Footway
  - Kerbing
  - **Furniture**
  - Waste
  - Bollards
  - Traffic Signals
  - Seating
  - Trees & Vegetation
  - **General Furniture**
- **General carriageway environment**
  - **Layout**
  - General
  - Intersections
  - Parking & Loading
  - Traffic Calming
  - Road Markings
  - **Fabric and materials**
  - Surfacing
  - **Furniture**
  - Drainage
- **Public Transport Environment**
  - **Layout**
  - Bus
  - Tram
  - **Fabric and materials**
  - Public Transport Lanes
  - **Furniture**
  - Public Furniture
- **Cycling Environment**
  - **Layout**
  - Cycle Lanes
  - Transitions
  - **Fabric and materials**
  - Cycleway Materials
  - **Furniture**
  - **Cycle Parking**

A illustrative sample of the factsheets is provided in this version:

Pedestrian Environment/Layout

Cycling Environment/Layout

Carriageway Environment/Layout

Pedestrian Zones – Widths

Description

The width of the footway should be of sufficent width to accommodate activity present.
The crossfall of footway can greatly affect all users. And as such requires to be suffiencent to drain water during rainfall but not to an adverse of users.

Why

Suitable widths to assist all users in comfortable use of the footway
Greater width create places to stay/chat or play

Checklist

The table specifies the minimum widths of footways - i.e. Pedestrian routes associated with carriageways.
These widths may require to be increased to cater for high pedestrian volumes, and/or bus stops.

Detail

- Where vehicles park at right angles to the footway, an extra 0.8m will be required to accommodate any overhang
- Though generally pedestrian areas should be protected by bollards, chocks within the parking bay, or other devices
- Headroom should normally be at least 2.6m, with a minimum of 2.3m for a distance no greater than about 10m.
- Footway should be widened to minimum widths where feasible.
- Footpaths should be in wider corridors normally constituting path and verges.
- Where paths are separated from the general road network they should be within corridors no less than 5m wide.
- These widths may require to be increased to cater for high pedestrian volumes, and/or bus stops/schools/shops

Minimum/ Desirable										
Link Type	No frontage		Residential (low density)		Employment (non high street)		Residential (high density)		Shopping/ high street/ *high density employment*	
	UL		L		LM		M		H	
Strategic	3	≥3	3	≥3	3	≥3	3	≥3	3	≥5
Secondary	2	≥2	2	≥2	3	≥3	3	≥3	3	≥4
Local	2	≥2	2	≥2	2	≥2.5	2	≥2.5	2	≥3
Service	2	≥2	2	≥2	2	≥2.5	2	≥2.5	2	≥3
Path	2	≥2	2	≥2	2	≥2.5	2	≥2.5	2	≥3

Exceptions

Footways may be reduced in width over short lengths not exceeding 3 metres to negotiate mature trees and other obstructions, but they should at no point be less than 1.4 metres wide
Where public utilities services underlie the footway, special arrangements may be necessary at sections of reduced width to accommodate utilities.

Footpath Widths (Off Road)

Route/Area Type	Minimum Width (m)
Minor pedestrian routes	2.0
Major pedestrian routes	3.0
Shopping Precinct	6.0
Footbridge	2.5
Underpass (2.3m headroom)	2.5

Key Pedestrian Usage
UL - Ultra Low
L – Low
LM – Low/Medium
M – Medium
H - High

Pedestrian Zones - Crossovers

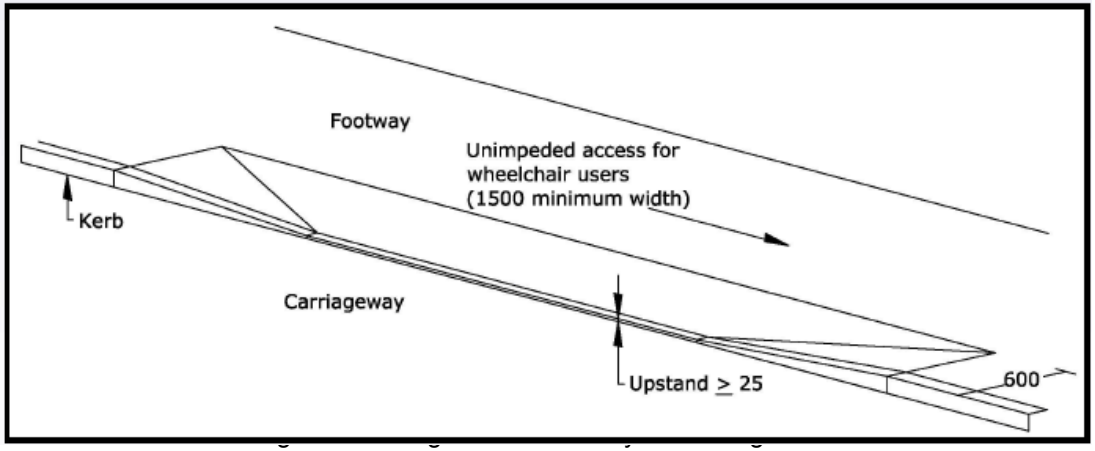
Description

A access point across a footway/verge to gain vehicle access to property from the carriageway.
To allow access to individual driveways while keeping priority for pedestrians

Checklist

- Where vehicular access to premises is taken across a footway, the ramped portion should be confined to that immediately adjacent to the carriageway thus emphasising the pedestrians' priority
- Must not cause a hazard for pedestrians.
- Designer should ensure that the design of vehicle crossovers clearly indicate the pedestrians and cyclist have priority over vehicles
- The short ramp adjacent to the dropped kerb also encourages a reduction in the speed of vehicles crossing the footway.

Detail



- Rear of footway to remain level
  - Minimum width 1m
  - Recommend width 1.5m
- Ramped section of footway confined to carriageway edge - this emphasises the pedestrian priority
- 25mm Kerb Height to be maintained
- Design of crossover such that surface water run off into carriageway
- Gradient of ramp section should not exceed 1:6
- If vehicle entrance has a high usage the depth of footway construction should be increased (Materials Factsheet)
- Material should match existing footway
- Where footway is narrow alternative chamferred kerbs should be used to avoid change in level of footway
- The length of reduced kerb height should be 1.8 metres greater than the width of the access and a minimum of 4.5m.

Exceptions

- Where there is larger or busy driveway/car park access (e.g. Entrance to a busy car park), the entrance should be converted to a junction entrance (Junction Factsheets)
- Where vehicle flows are high, such as at the entrance to a petrol station, tactile surfacing may be required. Such crossings must comply with current DETR guidelines.
- Tactile paving should be provide at the crossing point where material change

Crossings – Zebra Crossing

Description

A formal pedestrian crossing without the use of Signals or push button control. Vehicles must stop when pedestrian are waiting to cross.

Furniture

- Belisha Beacon (Amber cloured globe atop a black and white pole) Illumintated at night.
- Set 450mm from kerb face and 500mm from tactile paving
- Required on the approaches to the crossing.

Road Markings

- Layout as per TSM Chapter 5
- Zigzags can be reduced on exits where

Other Key Points

- Cycle Lane surfacing should be continued through crossing (Outwith Road Studs/Stop Lines)
- Should be located close to pedestrian desire lines
- No guardrail should be installed unless required as part of guardrail assesssment
- Consideration should be given to raising the crossing, this helps with pedestrian prioority and making a place.

Road Width

- X<10m – Single Stage
- 10<x<15m – Single Stage with Refuge Island
- X>15m – Zebra not suitable

Tactile Paving

- See Tactile Factsheets for layout
- Blister paving to be used at all crossing points
- Contractsing colour to the surrounding footway to be used

Antiskid Length

- 20mph – Not Required
- 30mph – Minimum 25metres
- 40mph – Minimum 50metres
- Risk Assessment Where required

Bus Stops

Sited upstream of crossing
See Bus Stop Factsheets

Crossing Width

- Minimum – 2.8 metres
- Desirable – 3.2 metres
- Maximum – 10.0 metres

Further Information

- Pedestrian Crossing Guidance
- Tactile paving guidance
- Factsheets (Tactile paving, d-islands, & materials)
- LTN 2/95 Design of pedestrian Crossings
- Appenidx A – Note on crossings near to junctions
- The Zebra, Pelican and Puffin Pedestrian Crossings Regulations and General Directions 1997

Crossings – Signalised Crossing

Description

A signalised crossing is a formal type of pedestrian crossing with push button controls.

Furniture

- Keep furniture to a minimum
- Cabinets sited out with pedestrian waiting area
- Vehicle Drivers require Primary & Secondary Signal head
- Primary Push Button Right hand side
- Toucan/Pegasus require 2 push buttons
- See Furniture Factsheets

Crossing Width

Pelican/Puffin

- Minimum – 2.8metres
- Desirable – 3.2metres
- Maximum – 10.0 metres

Toucan/Pegasus

- Minimum -3.2metres
- Desirable – 4.0metres
- Maximum – 10.0metres

Road Widths

x<10m – Single Stage
10<x<15m – Single Stage with refuge
X>15m – Two Stage/ Staggered

Options

Pelican (Pedestrian),
Puffin (Pedestrian),
Toucan (Pedestrian & Cyclist)
Pegasus (Pedestrian, Cyclist & Equestrian)

Other Key Points

- Cycle lanes surfacing should be continued through crossing (Outwith Road Studs/Stoplines)
- Should be located close to pedestrian desire lines – See (Location of Crossing guidance)
- Refer to Guardrail Assessment before installing
- Vehicle Drivers require Primary & Secondary Signal head
- Option to raise crossing

Tactile Paving

- See Tactile Factsheets for Layout
- Blister paving to be used at all crossings
- Contrasting Colour to surrounding footway

Road Markings

Stop Lines required
Minimise Zigzags where possible
Layout as per Traffic Signs Manual Chapter 5

Antiskid Length

- 20mph – Not Required
- 30mph – Min 25metres
- 40mph – Min 50metres
- Risk Assessment

Bus Stops

Sited upstream of crossing
See Bus Stop factsheet

Further Information

- Pedestrian Crossing Guidance
- Tactile paving guidance
- Factsheets (Tactile paving, d-islands, & materials)
- LTN 2/95 Design of pedestrian Crossings
- Appenidx A – Note on crossings near to junctions
- The Zebra, Pelican and Puffin Pedestrian Crossings Regs and Gen Directions 1997

Crossings – Uncontrolled

Description

The most basic form of crossing is a pedestrian refuge in the form of an island in the centre of the road, often at junctions.
They are usually placed at junctions, where pedestrian normally cross the minor street to continue there journey.
Also used at strategic points on the network where there isn't a requirement to install a controlled crossing such as zebra or puffin.
Although these are subject to site constraints they can be introduced without any informal or formal consultation.
Pedestrians must wait for a suitable gap in the traffic before crossing.

Detail

- A variety of uncontrolled crossings can allow pedestrians to stop and cross the main traffic safely.
- These include solutions that passively reduce traffic speeds and/or address the crossing as a two-stage process.
    - Installed with Refuge Island
    - Raise the surrounding carriageway
    - Buildouts (Factsheets)
- Blister paving to be used at all crossing points
- Contrasting colour to surrounding footway
- White Bars marking can be used across crossing point to avoid parking
- Can be installed with 'look left' and 'look right' road markings that also act as a parking deterrent.
- The dropped kerb should be flush with the carriageway. (maximum 6mm rounded bullnose if absolutely essential)
- The minimum width of the flush dropped kerb should be 1.8m.
- Recommended width 2.4m
- The maximum gradient of the dropped kerb approach should be 1/12.
- The flared sides should have a maximum gradient of 1 / 11.
- If the width of the footway is sufficient there should be a level area (900mm minimum width) along the rear of the dropped crossing to allow easy passage for wheelchair and mobility scooter users who are not crossing the road.

- Tactile paving should extend across the entire width of the flush dropped kerb and be used on all crossing points.
- Consideration should be given to providing tactile paving on existing dropped crossings that were installed without it, especially on A and B roads.
- The crossing points should be directly in line with each other and the length of tactile and flush drop kerb equal on both sides.
- When finding a suitable location for the crossing to be installed, consideration should be given to pedestrians' most likely route of travel.

Shared – Home Zones

Description

- Home Zones are residential areas featuring streets shared between pedestrians, cyclists and motor vehicles. Vehicle speeds and volumes are low, and an environment is created in which pedestrians, cyclists and vehicles have equal priority and status within the carriageway.
- High quality street environment that pedestrians can feel safe to use and hence they should be designed with people who use them in mind
- Given that Home Zones are very much tailored to the needs of local communities, it is likely that their form will vary between developments. As a consequence, it is difficult and not constructive to provide prescriptive guidance in relation to their implementation.
- A shared surface allows pedestrians and vehicles to gain access to premises via a road which is not constructed with the conventional carriageway/footway arrangement. Where such roads are proposed for residential development, they must constitute part of an overall design concept, aimed at creating a more pedestrian friendly environment.

Why

- Create an environment where vehicle speeds are low and everyone has equal priority
- It is recommended that full involvement from the Council's planners, engineers and community development staff is included in the design process. This should mean that current best practice from schemes elsewhere in the city is taken into account, in addition to ensuring that community needs are accommodated.
- Certain sites adopting shared surface streets may be formally designated as Home Zones. Formal promotion of such schemes is required under the Transport (Scotland) Act (2001) and the Home Zones (Scotland) Regulations (2002),
- Layouts which do not conform in this respect, and merely seek to avoid the provision of footways, will not be acceptable.

Detail

In terms of the principles, Home Zones should:

- consist only of short lengths of residential streets
- be located on streets which do not form through routes, i.e. generally only carry traffic local to and from the immediate vicinity of the zone;
- be streets where the maximum vehicle flow is less than 100 vehicles per hour;
- have a design speed close to walking/cycling speed, i.e. less than 10mph; this can be achived through use of horizontal traffic calming, street furniture or planting and different surface types,
- The reduction of carriageway width and forward visibility can also help to achieve this design speed
- feature controls on parking, permitting parking only in designated and well-defined areas and limiting parking so that it does not dominate the street;
- feature measures to encourage social activity within the street, such as benches, play areas and street furniture;
- be clearly a different environment from a traditional street, by means of surfacing, signing and the presence of planting or street furniture;
- be designed wherever possible with community involvement, to ensure the buy-in of the main end users of the scheme; and
- take full cognisance of the needs of disabled people and vulnerable road users, where appropriate providing measures to protect users and assist with navigation through the area.
- Tailored on individual bases to needs of communities
- Distinguished from other streets by having signed entry/exit points

If these principles cannot be incorporated, it may be inappropriate for the scheme to be considered a Home Zone and more traditional layouts may be more applicable.

Layout

Shared surfaces should be designed so as to keep vehicle speeds low, ideally approaching walking pace. This may be achieved through use of horizontal traffic calming, street furniture or planting and different surface types. The concepts of reduced carriageway width and reduced forward visibility described earlier will also assist in meeting this objective.

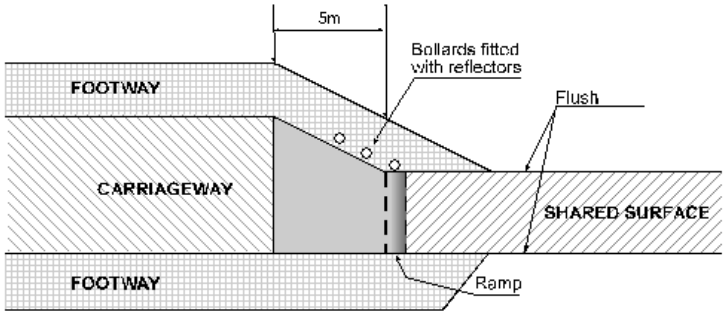
Transitions to Shared Surfaces

Transitions from conventional to shared surface roads should occur only at road junctions, or at locations where there is a marked discontinuity in road alignment, to draw to the attention of drivers the change in the nature of the road and the need for a different driving technique. All transitions should be further emphasised by the incorporation of the following features as detailed in Drawing 3:

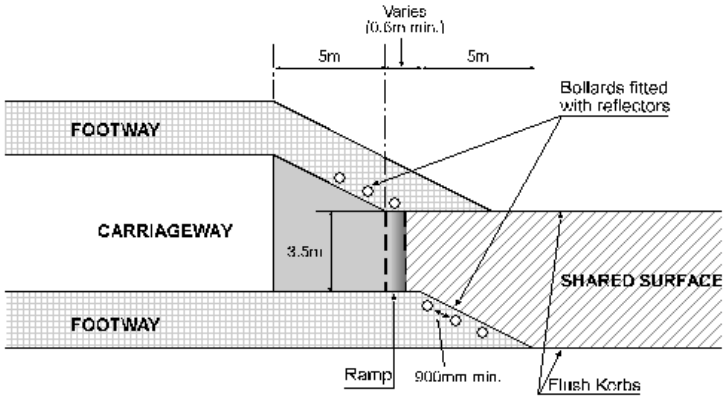
- An offset to the right in nearside kerb alignment.
- A change in the type of road surfacing.
- A ramp (usually up to footway level)
- Topographical features

Parking

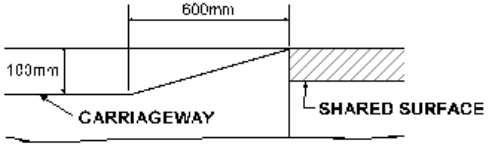
The presence of parked vehicles can be especially dangerous in that children using the shared surface may be concealed from the view of approaching drivers by them. Layout design should therefore include provision of clearly demarcated parking spaces in convenient and safe locations, and every effort should be made to discourage casual parking elsewhere on the shared surface. Parallel lay-by parking will not be appropriate for shared surface roads, except in Home Zone layouts.



(a) Transition from 5.5m wide carriageway to 3.5m wide shared surface.



(b) Transition from 5.5m wide carriageway to 5.5m wide shared surface.



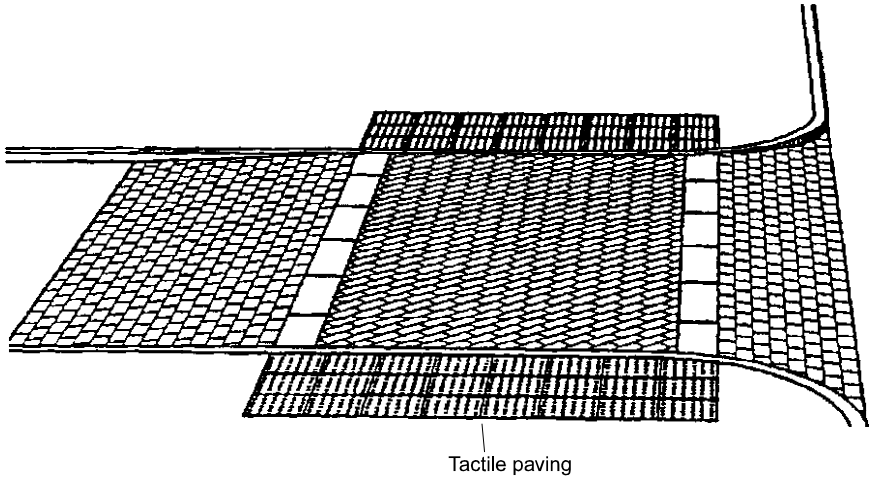
Section through ramp.

Drawing 3 - Transitions to Shared Surface Roads

Materials

It is of paramount importance for road safety that all road users are continually aware of the shared nature of these roads and, to this end, shared surfaces should be paved differently from adjacent roads which are provided with separate footways.

- Block paving or alternative similar materials (e.g. setts) are the preferred materials for shared surfaces, subject to maintenance considerations.
- All materials must be approved by the Development Control (Services for Communities)
- Landscape treatment and shrub planting should not restrict intervisibility between pedestrians and vehicles.



Drawing 4 - Raised Entry Treatment (illustrative only)

Cycle Lanes – On Road

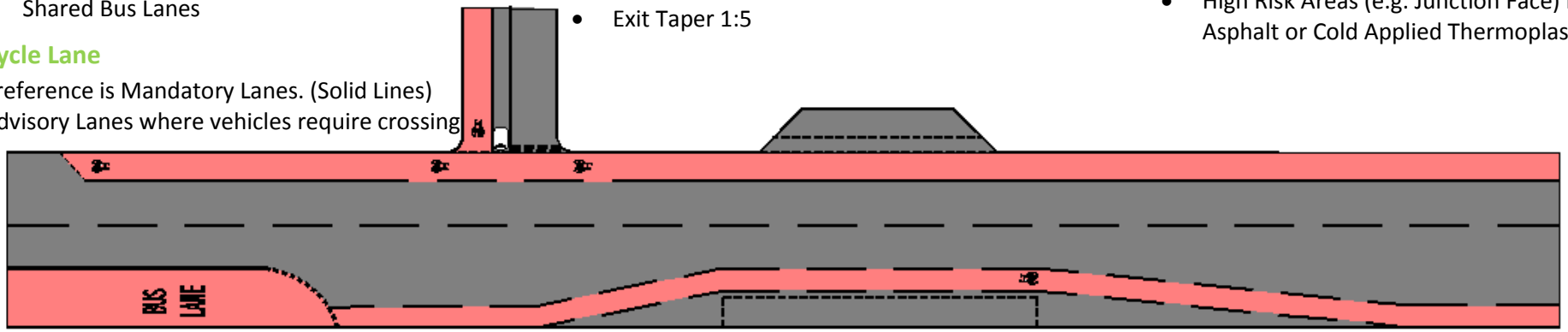
Description

On road cycle lanes are the cheapest form of provision as they are defined by road markings and signage.
Three types of on road lanes

- Mandatory lanes
- Advisory lanes
- Shared Bus Lanes

Cycle Lane

Preference is Mandatory Lanes. (Solid Lines)
Advisory Lanes where vehicles require crossing



Signage

Advisory Lanes - No Signage required
Mandatory Lanes - Sign Plate 959.1 at 100m intervals

Shared Bus Lanes

- 4.5m recommended Width
- 4.25m desirable minimum
- 4.0m absolute minimum

Regulations

Advisory	No TRO required
Mandatory	TRO Required

Junction Access

Reduce Radii of corner

One Way Streets

Allow access for Cyclists contraflow.
Other options are available according to vehicle and cyclist flows and speeds

Tapers at Parking Bays

- Entry Taper 1:10
- Exit Taper 1:5

Buffer Zone/ Dividing Strip at Parking

- 1.0m Recommended Width
- 0.75m desirable minimum
- 0.5m absolute minimum

Lane Widths

- 2.0m Recommended Width
- 2.25m Maximum Width
- 1.5m Absolute Minimum

Lanes narrower than 1.5m should not generally be provided

Surfacing

- All cycle lanes to HRA with Red Chips
- High Risk Areas (e.g. Junction Face) Red Chipped Asphalt or Cold Applied Thermoplastic Surfacing

Further Information

Cycling by Design, Transport Scotland, 2010
Sustrans Design Manual

Exceptions

Widths below 1.5m should be consulted with the cycling team and only used over short distances (e.g. Approach to junctions)

Cycle Lanes					
Link Type	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street/ *high density employment*
	UL	L	LM	M	H
Strategic	Min = Advisory/ Consider = Mandatory or Separated				
Secondary					
Local	Shared Carriageway		Min = Shared Carriageway/ Consider = Advisory/ Mandatory or Separated		
Service	Shared Carriageway				

'Consider' where traffic volumes are high consideration for further separation is recommended

Cycle Lanes – Separated Lanes (Types)

Description

On strategic routes into the city, cycle tracks are the safest solution, being preferable to cycle lanes, as the track is separated from the motorised traffic, the risk of (passing) conflicts are kept to a minimum. There is a higher risk of conflict at intersections where cycle and vehicles encounter each other. Generally cycle tracks next to carriageway are one-way (In Direction of Travel); however there may be occasion where 2-way is more appropriate such as:
1/ shortening the route,
2/ Prevents crossing movements or
3/ Lack of space to provide a cycle track on both sides
Attention to detail particular at intersections is very important in the design of 2 way cycle tracks

Surfacing

All cycle lanes to HRA with Red Chips
High Risk Areas (e.g. Junction Face) Red Chipped Asphalt or Thermoplastic Surfacing

Buffer Zone at Parking Bays

Desirable 1m
Absolute Minimum 0.5m (Parking Bay Factsheet)

Widths

Raised Hybrid Cycle Lane

Separated by half raised kerb 50mm height
Desirable Width - 2.5m
Minimum Width - 2.0m

Two Way Cycle Track

Desirable Width - 4.0m
Minimum Width - 3.0m

Separated Lane Widths

2-way
>4.0m Recommended Width
3.5m Desirable Minimum
3.0m Absolute Minimum
1-way
>2.0m Recommended Width
2.0m Desirable Minimum
1.75m Absolute Minimum

Positioning

- Separated Lanes should be installed along the existing kerbline to protect cyclist
- Parking Bays
  - Will be installed outside the lanes
- Bus Stops
  - See Bus Stop Factsheet

Side Road Access at 2-way Lanes

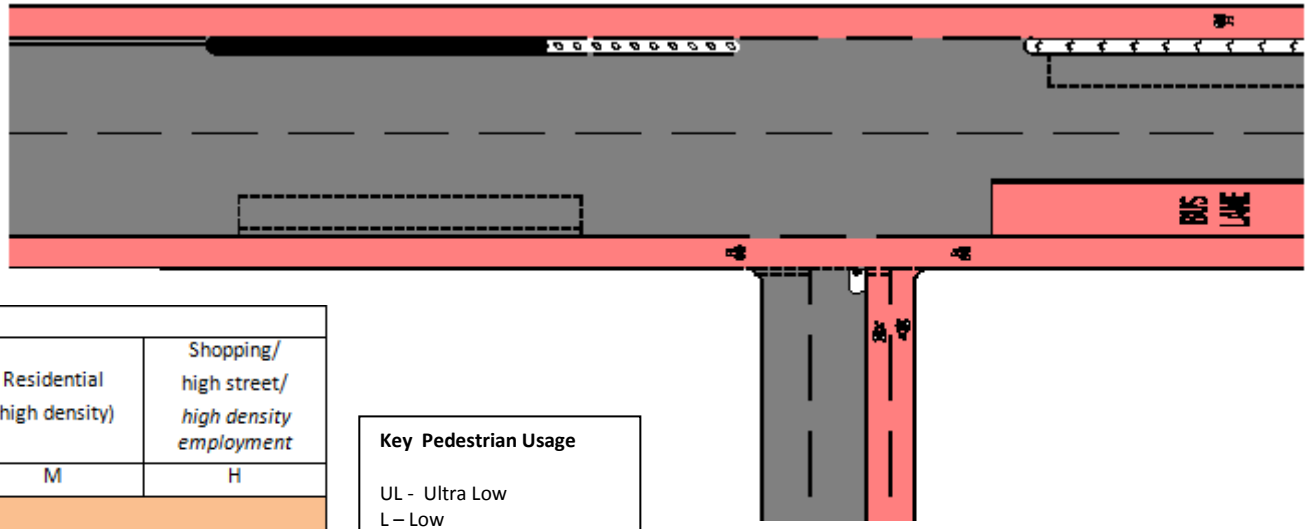
- Elephant footprints to be used
  - See Side Junction Access Factsheet

Style of Cycle Lane

- Preferred option is to install Hybrid Lanes but other options are available, See next page

Further Information

- Cycling by Design, Transport Scotland, 2010
- Sustrans Design Manual



Cycle Lanes					
Link Type	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street/ *high density employment*
	UL	L	LM	M	H
Strategic	Min = Advisory/ Consider = Mandatory or Separated				
Secondary					
Local	Shared Carriageway		Min = Shared Carriageway/ Consider = Advisory/ Mandatory or Separated		
Service	Shared Carriageway				

'Consider' where traffic volumes are high consideration for further separation is recommended

Key Pedestrian Usage

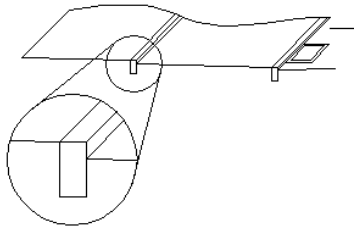
UL - Ultra Low
L – Low
LM – Low/Medium
M – Medium
H - High

Draft for Consultation 2014

Hard Infrastructure

Raised Hybrid Cycle Lane

- Kerb Segregation from Footway & Carriageway
  - 75mm Upstand at Footway
  - 50mm upstand at Carriageway
- Drainage
  - Crossfall towards carriageway (2.5%)
  - Existing Gullies relocated in carriageway
- Return to carriageway level at junctions to allow vehicles turning to cross
- Bus Stops (Factsheets Options)



Kerb Separation Lane

- Installed at Carriageway Level
  - 100-125mm Upstand at Footway
- Kerb Separation with 45°Splay Kerb Cycle Track
- Option 1
  - Minimum 0.25m Back to Back Kerbs (at Critical width positions
- Option 2
  - Kerbed with separation Strip >0.75m
  - Space can be used for Street Furniture
  - Grass Verge or Asphalt Surfacing
- Drainage
  - Existing Carriageway Crossfall (2.5%)
  - Existing converted to Inlet Gullies
  - New Gullies located outside Kerb Separation
- Return to carriageway level at junctions to allow vehicles turning to cross over. (Advisory Lanes)
- Access points required where cyclist will join/leave cycle lane
- Width of lane should be sufficient to allow road cleaner access
- Bus Stops (Factsheets)

Soft Infrastructure

Armadillos

- Installed at Carriageway Level
  - 100-125mm Upstand at Footway
- Separation – Road Markings/Armadillos
  - Width Required >0.75m
  - Spaced Every 3m
- Drainage
  - Existing Carriageway Crossfall (2.5%)
- Remove at junctions to allow vehicles turning to cross over. Advisory Lane required
- Width of lane should be sufficient to allow road sweeper access
- Bus Stops (Factsheets)
- Can be used with Planters

Cycle Lanes – Footway (Separated and Shared)

Description

Used only when carriageway environment is assessed to be unsuitable for cyclists and not possible or desirable to improve on carriageway conditions

As stated in the LTS 'shared footways will only be considered where they are necessary to provide cyclists with a reasonably safe route separated from busy traffic and they form a component of a longer cycle route.

The usual preference will be for cyclists to be separated from pedestrians on a shared footway by a white line, difference in materials, or similar. However, this will not always be the preferred solution; for example, when pedestrian use is low and width is limited it may be better not to segregate

Surfacing

- HRA Asphalt or Close Graded Macadam

Cycle Pedestrian Segregation

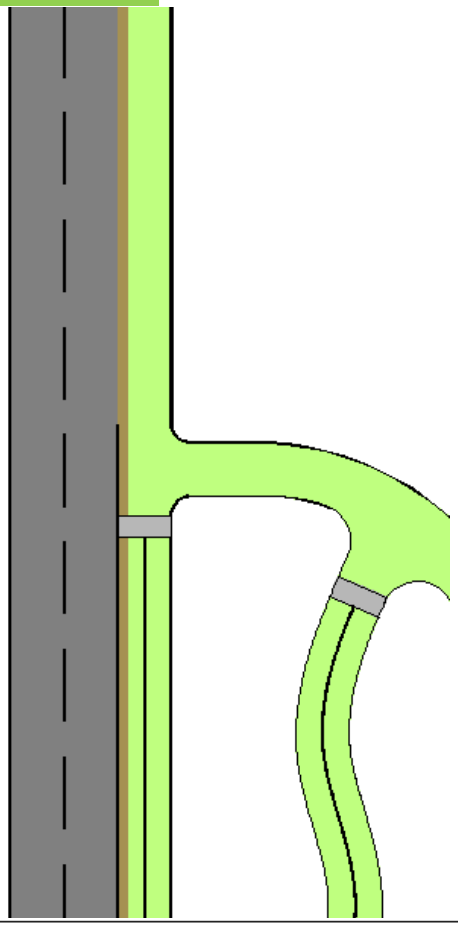
- Minimum Required 100mm Line
- Recommended 100mm Wide Raised Profile

Separation Strip

- 0.5m Wide Strip (Antiskid)
- Along Carriageway Edge of Footway
- Tactile Paving
- Used at start of separated routes
- See Tactile Factsheet for detail

Further Information

- Cycling by Design, Transport Scotland, 2010 & Sustrans Design Manual



Cycle Lanes (Footway Shared & Separated)					
Link Type	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street/ *high density employment*
	UL	L	LM	M	H
Strategic	Shared	Shared	Shared	NA	NA
Secondary	Shared	Shared	Shared	NA	NA
Local	NA	NA	NA	NA	NA
Service	NA	NA	NA	NA	NA
Path	Shared	Shared	Shared	Separated	Separated

Signage

- Shared Use Signage required at start and end point & strategic locations
- Relocate signage onto lighting columns/ walls where possible

Segregated Footway

Desirable (High Usage) 5.5m

- 0.5 Separation Strip
- 2.5m Cycle, 2.5m Pedestrian

Acceptable Minimum 4.5m

- 0.5 Separation Strip
- 2.0m Cycle, 2.0m Pedestrian

Absolute Minimum 3.5m

- 0.5 Separation Strip
- 1.5m Cycle, 1.5m Pedestrian

Shared Use Footway

- Desired Width 4m
- Recommended Width 3.5m
- Absolute minimum width generally 2.5m
- (Shorter sections of if the sightlines are suitable)

Other Key Points

- Minimum head room 2.7m

Furniture

- Minimise furniture where possible.
- Relocate signage onto lighting columns/ walls where possible.
- Lighting Columns and poles to located in separation strip

Transitions – Bus Stops

Description

There is a requirement to make the interaction at bus stops safer for passing cyclist (rather than have to go out into the road, have them pass the bus on the inside)
Conflict at Bus Stops can happen in all environments including;
1/ Footway - Passengers waiting, alighting and entering buses
2/ Cycle - Pedestrians crossing cycleway to alight/enter buses
3/ Carriageway - Buses pulling into/away from bus stop, General Traffic & Movement
Two important factors - Stopping Buses & Crossing Pedestrians
Bus Stops are provided to allow buses pick and set down passengers quickly & convenient
These sheets show 5 options that can be used at Bus Stops dependent on what style of cycle lane is used on approach.
Establish Bus Usage/Cycle Usage profile at stop in advance of design choice.

Option 1

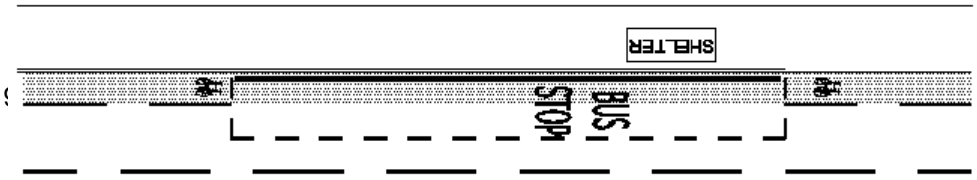
- Typical layout for a standard Bus Stop.
- High bus flow/medium cycle flow/ high pedestrian flow.

Conflict

- Bike vs. Buses.
- Cyclist having to manoeuvre around bus into live traffic lane.

Detail

- Cycle lane continues straight along kerb edge.
- Cycle lane markings to be curtailed through the bus stop.
- Red coloured surfacing to continue.
- Shelter & pole to be sited at front of footway.



Option 2

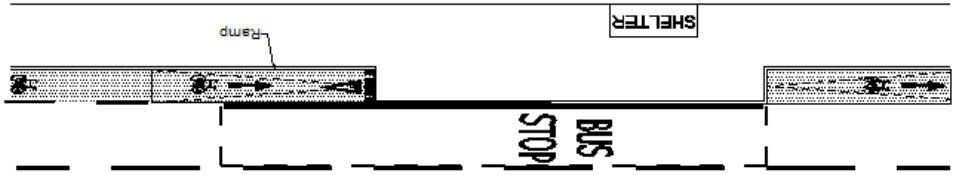
- Inline bus stop
- Low bus flow/low cycle flow/ medium pedestrian flow.

Conflict

- Bike vs. Pedestrians.
- Waiting passengers.
- Passengers boarding/alighting bus.

Detail

- Cycle lane continues straight along kerb edge.



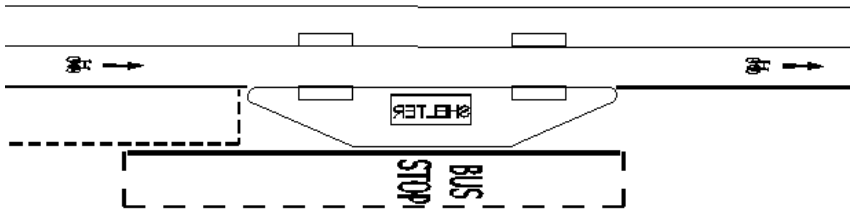
- Ramp onto shared area with pedestrians.
- Cyclist gives way to pedestrians on shared area.
- Shelter & pole to be sited at rear of footway to avoid conflict with cyclist.
- Clearly signed for cyclist to Give Way to pedestrians alighting/boarding bus.
- Shelter & pole to be sited at front of footway.

Option 3

- Bus Stop Floating Island.
- High bus flow/high cycle flow/ high pedestrian flow.
- Pedestrian Give Way to cyclist.

Conflict

- Bike vs. Pedestrians.
- Pedestrians spilling over from island onto cycle lane.



Detail

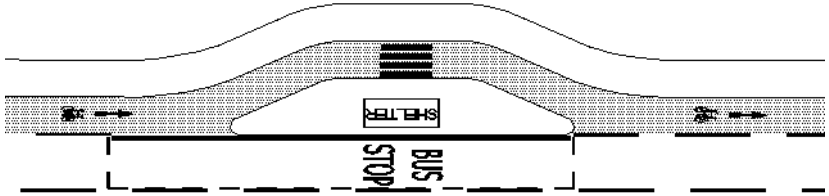
- Cycle Lane continues straight along kerb edge.
- Used where cycle lanes are separated or mandatory.
- Red Coloured Surfacing to continue through bus stop.
- Pedestrian crossing provided at either end of island.
- Can be installed along with parking/loading bays.
- Can be installed as part of a raised cycle lane.
- Shelter & pole to be sited on island.
- Island to be of suitable size to accommodate pedestrians without spilling over onto cycle lane.

Option 4

- Bus Stop Inline Island.
- High bus flow/medium cycle flow/ high pedestrian flow.
- Cyclist gives way at Zebra Crossing.

Conflict

Bike vs. Pedestrians.
Pedestrians spilling over from island onto cycle lane.



Detail

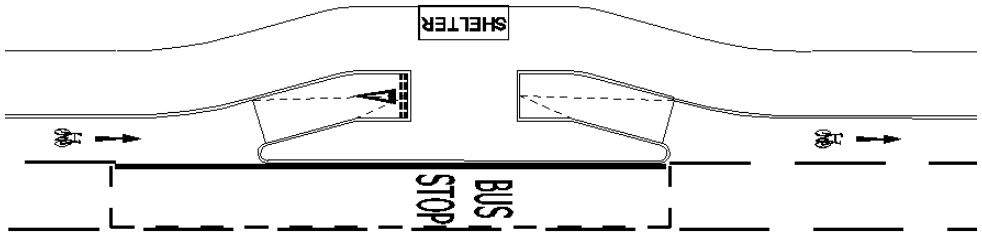
- Cycle Lane transition towards footway.
- Only suitable where sufficient width to continue footway behind cycle lane.
- Red Coloured Surfacing to continue through bus stop.
- Pedestrian crossing provided at either end of island.
- Can be installed along with parking/loading bays.
- Can be installed as part of a raised cycle lane.
- Shelter & pole to be sited on island.
- Island to be of suitable size to accommodate pedestrians without spilling over onto cycle lane.

Option 5

- Bus Stop Inline Island.
- High bus flow/medium cycle flow/ high pedestrian flow.
- Cyclist Give way to pedestrians.

Conflict

- Bike vs. Pedestrians.
- Pedestrians spilling over from island onto cycle lane.



Detail

- Cycle Lane transition towards footway.
- Only suitable where sufficient width to continue footway behind cycle lane.
- Shared area to allow pedestrians to cross to island.
- Can be installed as part of a raised cycle lane.
- Ensure sufficient width to allow cycle to manoeuvre past bus stop.
- Shelter & pole to be sited at rear of footway.

Transitions – Joining/Leaving Carriageway

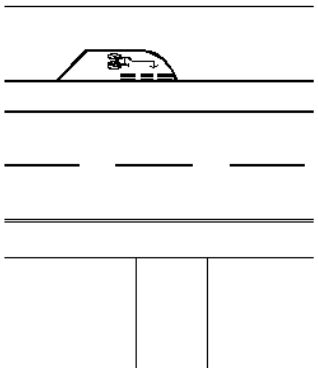
Description

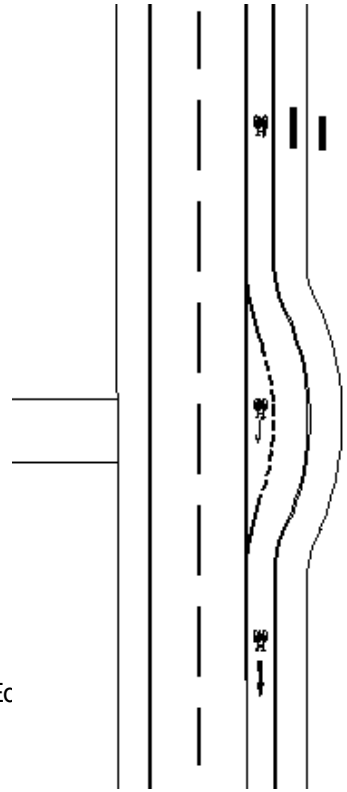
For cycle routes to be continuous/safe and easy to use; transitions between lanes/tracks have to be well designed.

Detail

Built not to surprise anyone, with no sharp manoeuvres for cyclists
Should provide continuity of movement/ comfortable and safe for cyclists
Should not feed onto carriageway directly at junction, this should be done 10-20m prior to junction
Vertical transition should be a ramp of less than 5%, no abrupt edges, straight line
Across junction it should drop down to carriageway level or it can be raised to the table level
Cycle lanes should not abruptly stop, with no obvious next step in journey.

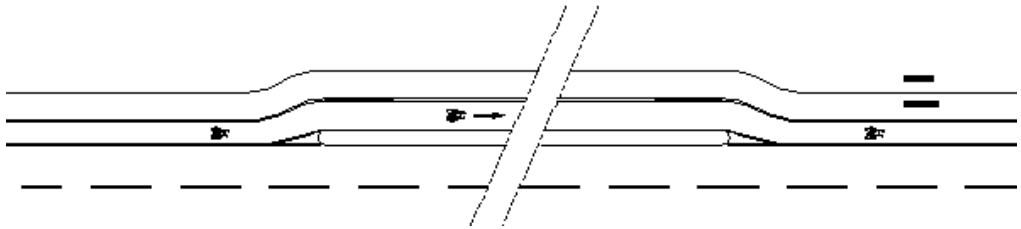
Crossing Carriageway





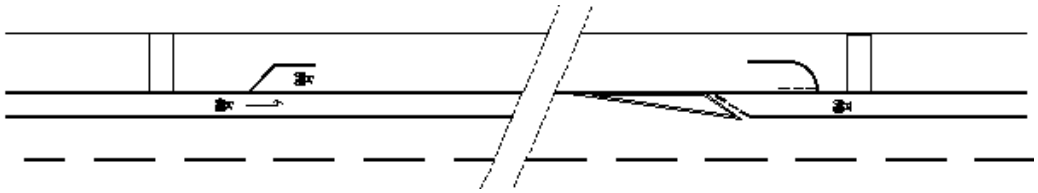
Option 1

- Smooth transition into/out of separated section
- Can be kerbed or light separation
- Minimum 1.5m width



Option 2

- Tactile Paving required
- Drop kerb to be flush. 0mm, to allow access to footway
- Build out protection required for rejoining carriageway



Geometry - Widths

Description

It is shown that carriageway width has an impact on vehicle speeds, the wider the carriageway, the higher the speeds of vehicles using it are likely to be.
In line with the document values to ensure that the street environment is attractive to pedestrians and cyclists, vehicle speeds should be kept to a minimum. In turn carriageway width should also be minimised.
The carriageway is used to control the speed and layout of streets by reducing width to enhance the function of street/place instead of movement
It is important that when considering appropriate widths, all users and their needs are considered in context, rather than the adoption of standard values.

Lane widths are determined based on the following:-

- Pedestrian & Cyclist Needs,
- Volume of Traffic,
- Type of vehicle usage

Table Notes

- Table widths are specified as Clear Widths (see below for detail).
- Table does not include additional space required for cycle lanes, on street parking or bus lanes.
- Narrower widths than those specified are permissible over short lengths, for example to form traffic calming measures.
- The above widths are based on a two lane single carriageway. Multi-lane, dual carriageways and one-way streets may feature different widths.
- When choosing carriageway width, parking and loading on the street must be considered. Where the street width is not sufficient to permit parking/loading and maintain the desired traffic flow, traffic regulation orders shall be required.
- Local reductions to 5m in off peak situations may be acceptable, if bus flows are less than 30 per hour 2-way.

Carriageway Widths (Clear Widths)					
Link Type	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street/ *high density employment*
Ped Usage	UL	L	LM	M	H
Strategic	6m to 7.3m	6m to 7m	6m to 7m	6m to 6.5m	6m to 6.5m
Secondary	5.5m to 7.3m	5.5m to 7m	5.5m to 7m	5.5m to 6.5m	5.5m to 6.5m
Local	4.5m to 6.0m	4.5m to 6.0m	4.5m to 6.0m	4.5m to 6.0m	4.5m to 6.0m
Service	4.5m to 6.0m	4.5m to 6.0m	4.5m to 6.0m	4.5m to 6.0m	4.5m to 6.0m

Key Pedestrian Usage
UL - Ultra Low
L – Low
LM – Low/Medium
M – Medium
H - High

Design Standard

Although the matrix defines streets as having particular functions, there can be variations within these functions in terms of traffic and usage. For example, a particular street may or may not carry buses or feature on-street parking. Given these variations, these guidelines specify a range of widths for streets. Designers should choose an appropriate width within these ranges, balancing the requirement to minimise carriageway width whilst permitting the activities of the street to be undertaken.

Traditional design guidance has prescribed standard widths for carriageways and footways. This 'one size fits all' approach can lead to layouts which fail to meet the needs of all users.

It is also important to note that the overall width and sub-division of street space has an influence on the place aspect to the street, and whether it is an attractive place for pedestrians to be. It is important to note the effect that building proximity can have on both pedestrian security and vehicle speeds.

Where upgrades/ repairs are to be carried out, streets should be narrowed where possible to allow space to be relocated for footway, cycle lanes, bus lanes, parking and street vegetation

Consequences of excessive/inadequate widths can be:

- High vehicle speeds;
- difficulty with passing buses;
- parking problems;
- pedestrian crossing difficulties; and
- insufficient space for cyclists.

Buses

Streets with bus routes should be suitable in width, alignment and construction.

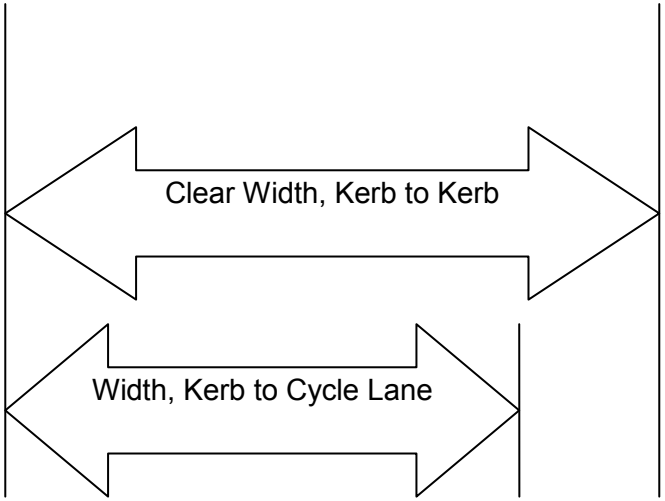
- Minimum width for one way operation is 6m.
- Minimum width, for two-way operation, is 6.5m increasing to 7.3 metres outwith city centre.

Traffic Calming

- Narrow carriageways, are most effective traffic calming measures.
- Should not affect cycle lanes, or remove them, as narrow carriageways can cause conflict between slower moving cyclists and vehicles.
- Do not have to be constant widths, varying widths can create interest in the streetscape, providing informal locations for parking or street trees.
- Lightly trafficked streets can be narrowed to single lane over short distances as traffic calmed features (such as cycle bypasses and pedestrian crossing points) (Traffic Calming).

Clear Width

The clear width is the available width for running carriageway. This can be be from kerb to kerb or in most cases between parking/loading bays or cycle lanes



- No parking or loading. Clear Width = Kerb to Kerb
- Loading allowed = Clear Width + 3.0m (2.5 vehicle width +0.5m) (Loading)
- Parking allowed = Clear Width +2.5m (Parking Bays)
- Cycle Lane = Clear Width + Cycle Lane Width (Lanes)

Geometry – Corner Radii

Description

For the purposes of pedestrians, the width of the side road should be as narrow as possible to minimise the crossing distance. Similarly, the corner radius should be minimised to ensure that the crossing is as close as possible to the desire line.

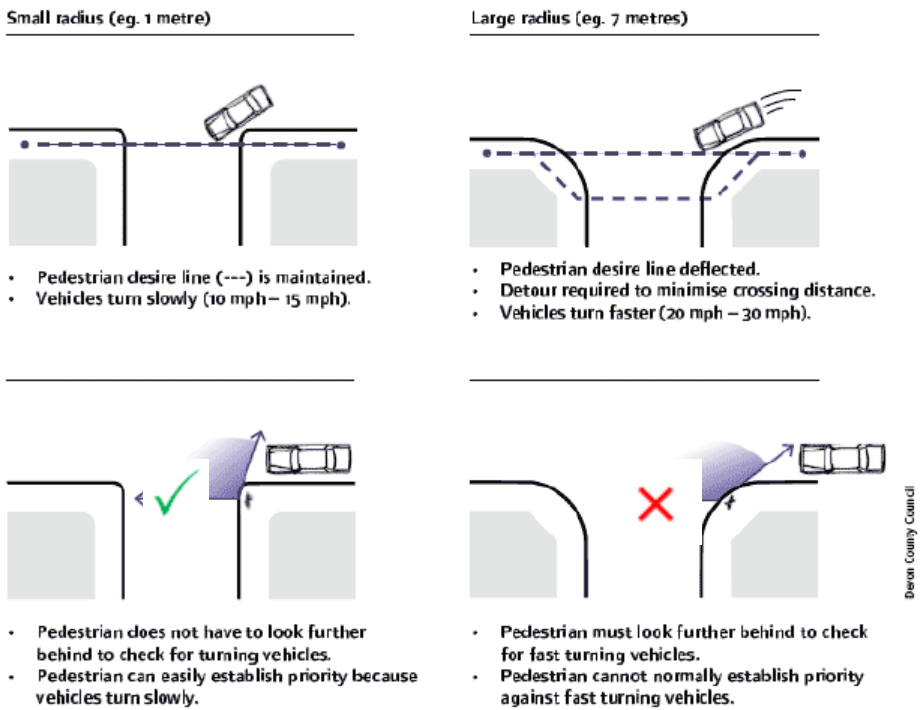
The corner radius refers to the point at which two footways meet at a corner of a junction. It has a significant effect on speed at the junction.

Smaller turning radii increase pedestrian safety by shortening crossing distances, increasing pedestrian visibility, and decreasing vehicle turning speed.

Large radii encourage high speed manoeuvres by motor vehicles, and make crossing side roads more difficult for pedestrians.

At road junctions, the configuration of crossing points requires a balance between the needs of pedestrians and other users. To achieve this balance, three factors need to be considered:

- corner radii;
- width of major and minor roads; and
- volume of traffic.



Corner radii specifications take into account the balance between pedestrian priority and enabling vehicles to manoeuvre safely.

Maximum Corner Radii (m)

Minor Street		Strategic					Secondary					Local					Service				
Place Type		NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE
Major Street Type	Strategic	9	6	6	3	3	9	6	6	3	3	9	6	6	3	3	9	6	6	3	3
	Secondary						6	6	6	3	3	6	6	3	3	3	3	3	3	3	3
	Local											3	3	3	3	3	2	2	2	2	2
	Service																				

Effect of Corner Radii on Pedestrians Designing Streets

Key
NF Non Frontage
LR Low Residential
EM Employment
HR High Residential
RE Retail

Detail

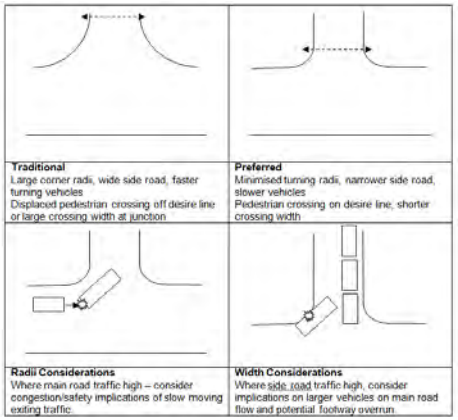
Seek to reduce radii where possible and as such reduce moving pedestrians off desire line. The length of crossings should be minimised by keeping minor street narrow as possible. This may mean that, in conjunction with small radii, larger turning vehicles may need to use the full carriageway width to turn.

- In principle this is considered acceptable, where speeds are 30mph or less and flow levels are relatively low.
- At busier junctions, consideration should be given to the major and minor road flows.
- No requirement to design for largest vehicle, if only infrequent, particularly on neighbourhood street.
- Larger vehicles can still negotiate junctions with tight radii by overrunning onto opposite side of carriageway.
- Footway can be strengthened to allow overrun of larger vehicles, if required (Footway Materials).
- When constructing junctions on strategic/secondary streets, it may be appropriate to provide over-run areas to cater for occasional large vehicles, whilst retaining a tight radius (say 3m) for cars.
- Width of the side road should be as narrow as possible, to minimise the crossing distance.
- The length of crossings should be minimised by keeping minor streets as narrow as possible (Carriageway Widths). This may mean that, in conjunction with small radii, larger turning vehicles may need to use the full carriageway width to turn. In principle this is considered acceptable, where flow levels are low. However, at busier junctions, consideration should be given to the major and minor road flows.
- Where flows are higher, there will be an increased risk of turning vehicles encountering oncoming traffic. At very busy periods, queues may form at the give way line meaning turning vehicles cause congestion or a safety hazard on the major road. Alternatively, turning vehicles may mount the footway, which is also undesirable.
- Consideration for rasising the junction should be considered as per (Junction Factsheet/s).

Exceptions

Where a larger radii must remain, consideration should be given for a refuge island to be installed across minor road to aid pedestrians.

- A presumption should be to minimise the radii, where the maximum is to be installed, justification must be given in audit document.
- At certain locations there may be a need to widen entrances, to allow larger vehicles to enter safely.
- Minimising corner radii means that vehicles must exit the main road slower speeds.
- Beneficial to pedestrians but consideration should be given to the effect on the main road.
- Congestion may be caused where volumes of turning traffic is high.
- On higher speed roads, slow turning vehicles may increase the likelihood of rear-end shunts.
- These factors should be considered when choosing a corner radius.
- Engineering judgement should be applied and design software used to ascertain the optimum solution based on the principles above.
- Roads may be widened on their approaches to junctions, in order to keep tight corner radii, while allowing appropriate larger vehicles to turn without obstructing oncoming traffic, especially on the major road.



Unregulated Junction

Minor Street		Strategic					Secondary					Local					Service				
Street Style		NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE
Major Street Type	Strategic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Secondary						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Local											Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Service																Yes	Yes	Yes	Yes	Yes

Description

This style of junction is to be used where there are low volumes of slow traffic, such as local and service streets.
It creates uncertainty due to having no priority for any street. All users have equal priority for crossing.
At these junctions there are no give way markings or signage.

- Can be used as a Traffic Calming feature.
- Creates uncertainty among users leading to slower speeds.
- It can be used to help create a place.

Regulatory Markings

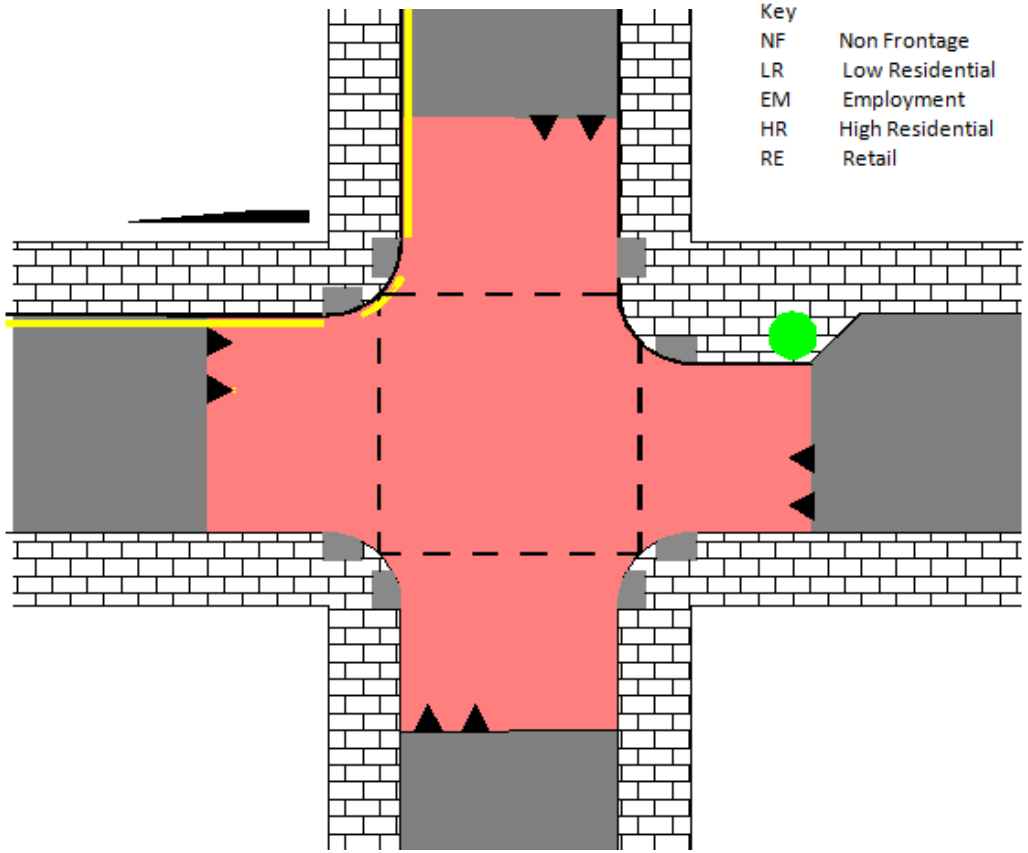
- 75mm wide markings.
- Curtailed at crossing.
- (Omitted from other corners for clarity).

Table Approach

- Maximum 1/12 Gradient.
- Sinusoidal Transitions.

Raised Table

- Specify different material to highlight junction.
- Unregulated junctions can be installed without table but should be highlighted by different material generally asphalt with red chips



Drainage

- Existing gullies to be raised & replaced as part of raised table.
- Additional gullies required on approaches to junction.

Tactile Paving

- Standard Uncontrolled Crossing
- Contrasting grey colour
- Minimum width 1.6m *800mm Depth

Tactile Paving Factsheet

Buildout

- This can reduce crossing width for pedestrian.
- Create public space to install trees/ seating or cycle parking

Corner Radii

- Should be minimised, where possible, up to the maximum 3m Radii Factsheet

Continuous Junction (Gateway Entrance)

Minor Street		Strategic					Secondary					Local					Service				
Street Style		NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE	NF	LR	EM	HR	RE
Major Street Type	Strategic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	NA	NA	NA	Yes	Yes
	Secondary						NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	NA	NA	NA	Yes	Yes
	Local											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Service																NA	NA	NA	NA	NA

Description

Priority is given to pedestrians and cyclist movement over vehicle movement.
These are to be installed along strategic walking routes in the city, where local/service streets meet strategic or secondary streets.

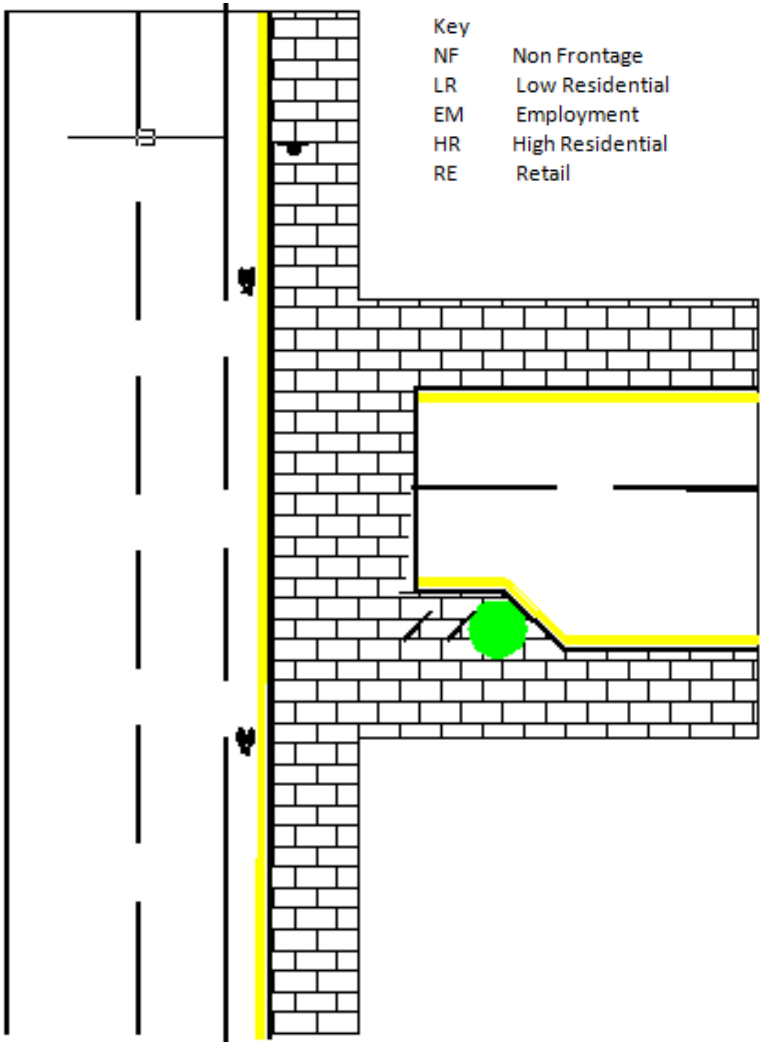
- Vehicles have to drive across footway to access minor street.
- Improves the safety conditions for pedestrian and cyclists.
- Signals to driver that they are entering a residential zone.
- It creates a sense of place and priority for the pedestrian by continuing the footway across the junction.

Cycle Lane

- Cyclist has priority over vehicles turning.
- See Cycle Lane Factsheet for lane detail.

Footway Material

- Material used should match surrounding surface, to provide a continuous footway across junction face.
- Where installed with paving flags these can be smaller 300*300mm paving flags, with vehicle reinforced steel or granite blocks to withstand force from traffic.



Key Details

- No change in level for pedestrians.
- No tactile paving required.
- Traffic must give way to pedestrians and cyclists.
- No Give Way/Stop road markings required.
- Surfacing should match existing footway.

Drainage

- Existing gullies to be relocated as required.

Buildout

- Reduce crossing width.
- Create Pedestrian Space to install Trees/ Seating or Parking.

Section D

Glossary and references

D1 Glossary and references

This expands on the terminology definitions set out in Section A1-1. Further terms on path construction are available in the Paths for All glossary.

D1-1 Glossary

Term	Definition
ASL	Advanced Stop Line (usually provided for cyclists as junctions)
Carriageway	Part of a road referring to the part that will technically carry the traffic. See Roads
Clear width	The clear width is the available width for running carriageway. This can be from kerb to kerb or in most cases between parking/loading bays or cycle lanes (see Geometry - Widths)
Conservation area	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
Cross fall	A level surface sloping to one side only, allowing water to run off in the direction of the fall.
Crossover	An access point across a footway/verge to gain vehicle access to property from the carriageway, to allow access to individual driveways while keeping priority for pedestrians
Desire line	The route people would choose to travel if given a free choice, often using a direct route
DMRB	Design Manual for Roads and Bridges
Dropped kerb	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.
Flag	An alternative name for paving slabs. Paving slabs or flags are larger in size than setts or cobbles. They usually range in size from 300mm upwards and are usually made from either precast concrete or natural stone.

Footway	A path alongside a carriageway (e.g. separated by kerbing), a standalone path away from the carriageway or a shared use surface for pedestrians and cyclists. See Roads.
Home zone	Home Zones seek to provide a better quality of public space and enhanced street design 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
HRA	Hot Rolled Asphalt
Link type	See A1-1 Terms used in this guidance
Occupied space	Space in the street containing street furniture, people, or stationary vehicles
Path	Part of the street network as defined under Roads
PCC	Pre-cast concrete (a type of Flag)
Place type	See A1-1 Terms used in this guidance
PRM	A person with reduced mobility
PSV	Polished Stone Value (a test carried out on stones used in road surfaces for resistance to skidding)
Public realm	See A1-1 Terms used in this guidance
Public realm	That part of the built environment to which the public have free access, such as streets, squares, and parks. Public realm issues embrace the social interaction and use of spaces as well as their servicing and management
Radius (radii)	The corner radius refers to the point at which two footways meet at a corner of a junction. It has a significant effect on speed at the junction. See Geometry – Corner Radii
Raised entry treatment	Raised sections of the road in conjunction, located at the entrance to a side road.
Road	Defined by the Roads (Scotland) Act (1984), a road is any way (other than a waterway) over

	which there is a public right of passage (by whatever means) and includes the road's verge, and any bridge (whether permanent or temporary) over which, or tunnel through which, the road passes. The public right of passage may be by foot only where it is associated with a carriageway (a "footway") and where it is not so associated (a "footpath"); by pedal cycle only, or by pedal cycle and foot only (a "cycle track"); right by vehicle, other than a right by pedal cycle only (a "carriageway")
SCOTS	Society of Chief Officers of Transportation in Scotland
Segregated	A user environment that is not shared with other user types.
Separated	A user environment that is physically protected from other users, e.g. by a kerb or barrier.
SMA	Stone Mastic Asphalt (a mixture of road surfacing material)
Street design	Street design is the process of allocating spaces to street users, through the setting out of furniture and surfacing, to provide a layout within which users can carry out their activities. Design relates to 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 its surfaces and furniture (such as lighting, seating), trees and its width
Street framework	See A1-1 Terms used in this guidance
Street frontage	The buildings or land running along the edge of a street, which defines the activity taking place along the street and the likely activities and movements which may occur on the street
Street furniture	See B3-2-2 Introduction to street furniture
Street network	See A1-1 Terms used in this guidance
Street pattern	Series of streets that collectively form a pattern, contributing or helping to define a group of streets
Street principles	See A1-1 Terms used in this guidance
Street structure	See A1-1 Terms used in this guidance
Street type	See A1-1 Terms used in this guidance
Sustainable urban drainage system	A comprehensive way of dealing with surface water, which avoids the problems associated with conventional drainage practice, by minimising the quantity and improving the quality of water

(SUDS)	before being discharged
Tactile paving	Profiled paving surface providing guidance or warning to visually impaired people
Town centre	Centres that provide a diverse and sustainable mix of activities and land uses
Townscape	The composition of the urban environment ; the combination of all the buildings, spaces and objects
Traffic management	Measures undertaken to control/improve traffic flow, safety and the associated environment; such as controlled road junctions, or regulating parking provision, or physical features such as pedestrian crossings and refuge islands
Trunk roads and motorways	Roads with higher speed motor traffic flows, little or no pedestrian activity, located on the outskirts of Edinburgh away from frontages with non-motorised access
Upstand	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
User environments	See A1-1 Terms used in this guidance
User priorities	See A1-1 Terms used in this guidance

D1-2 Bibliography

Title	Publisher	Year
MOVEMENT AND DEVELOPMENT - TRAFFIC AND TRANSPORT	CITY OF EDINBURGH COUNCIL	2000
ROAD CONSTRUCTION GUIDELINES FOR DEVELOPMENT CHAPTER 4	CITY OF EDINBURGH COUNCIL	
EDINBURGH STANDARDS FOR STREETS	CITY OF EDINBURGH COUNCIL	2006
EDINBURGH DESIGN GUIDANCE	CITY OF EDINBURGH COUNCIL	2013
MEASURING EDINBURGH	CITY OF EDINBURGH COUNCIL	
DESIGNING STREETS	SCOTTISH GOVERNMENT	2010
MANUAL FOR STREETS	DEPARTMENT FOR TRANSPORT (UK)	2007
MANUAL FOR STREETS 2 - WIDER APPLICATION OF THE PRINCIPLES	DEPARTMENT FOR TRANSPORT (UK)	2010
DESIGN MANUAL FOR ROADS AND BRIDGES	DEPARTMENT FOR TRANSPORT (UK)	1992
DESIGN MANUAL FOR URBAN ROADS AND STREETS	IRELAND DEPARTMENT OF TRANSPORT, TOURISM AND SPORT	2012

Design Guide for New Residential Areas	**Glasgow City Council**	**2013**
Streetscape Guidance A guide to better London streets	**Transport for London**	**2009**
Camden Streetscape Design Manual	**London Borough of Camden**	**2005**
Street scene Design Guide	**London Borough of Hounslow**	**2012**
Street Design Manual	**New York City Department of Transportation**	**2010**
Better Streets	**City & County of San Francisco**	**2011**
Sydney Streets Design Code	**City of Sydney**	**2010**
Cycling by Design	**Transport Scotland**	**2010**
National Cycle Manual	**Ireland National Transport Authority**	**2011**
Sustrans Design Manual	**Sustrans**	**2013 Draft**
Design manual for bicycle traffic	**CROW**	**2007**
Recommendations for traffic provisions in built-up areas	**CROW**	**1998**

LINK AND PLACE: A GUIDE TO STREET PLANNING AND DESIGN	**LANDOR PUBLISHING**	**2008**
QUALITY FOR PEOPLE: A SET OF QUALITY CRITERIA FOR THE DESIGN OF PEDESTRIAN PLACES AND NETWORKS - WITH PEOPLE IN MIND	**LARS GEMZØE, ASSOCIATE PARTNER GEHL ARCHITECTS – URBAN QUALITY CONSULTANTS**	**2006**

D2 Background appendices

Appendices

Appendix 1 Street categories – places and links

This appendix sets out the background to the development of the street framework. How the street framework relates to other classifications of links and places in the Council is set out below. This has evolved taking into account advice in publications such as Link & Place, Designing Streets and Manual for Streets.

LINKS						
Street Design Guidance 2014	**Strategic**	**Secondary**	**Local**	**Service**	**Path**	
LTS 2006-2011	Strategic Network	Secondary network	Local streets and minor rural roads	Service roads and lanes, and	Cycleways	Footpaths
Reinstatement category	Strategic Route	Main distributor / District and local distributor	General access road	General access road	*Not covered*	*Not covered*
Updated pedestrian maintenance prioritisation categories	As LTS + “All A Roads”	As LTS + “All B Roads”	As LTS “All other roads streets”			

PLACES						*Additional categories*
Street Design Guidance 2014	Retail	High Density Residential	Low Density Residential	No frontage		
Updated pedestrian maintenance prioritisation categories (Employs definitions used in Local Plan)	As LTS + "Central Edinburgh + Town Centres"	As LTS + "Local Centres + Neighbourhood shop units"	As LTS + "Any other urban areas"	*Not included*	As LTS + "Green Belt areas"	*Shopping Streets – Ultra High Pedestrian flows*
Original LTS	Shopping Streets	Tenements and Minor Shopping	Low density frontages	Main urban roads with limited frontage access	Rural roads	

Below, each category of place and link is set out, as background to the street framework.

Places

1.1 Shopping/high streets

Shopping streets or segments will have a group shops along a street frontage at the ground floor level. Shopping is typically mixed with other land uses between or above them such as non-retail employment (e.g. offices), tenement flats, restaurants, offices, hotels or other types of private residence.

- In TOWN CENTRES, shopping streets will be formed by significant numbers of shops forming an important neighbourhood or citywide function
- In local centres, there will be smaller numbers of shops (from a short parade, potentially in an inlet to the main street, to perhaps only one or two at an intersection); this will provide an important community function
- In some parts of Edinburgh, shops may exist in self-contained streets such as local shopping parks or drive ins; these will be designed to provide a building line along the street frontage and promote travel by walking and cycling as the natural choice.

- *One or two shops should be treated as a local consideration (see Appendix 1.8)*

[insert cross section]
Example cross section

[Insert image]	
Shopping streets form important parts of the community and this role will be emphasised in design through creating social spaces.	*Shopping parks will be carefully designed to provide an active frontage and promote travel by walking and cycling as the first choice.*

1.2 Residential places - medium to high density

Residential streets will sometimes be mixed with retail and/or non-retail employment uses along a street frontage:

- multi-storey tenements
- other medium to high density housing (for example large semi-detached housing, closely-spaced TERRACES, COLONIES, or 2 to 3 storey VILLAS)

Newer high density housing developments consisting of modern apartments with different street layouts and building accesses that may depart from traditional street patterns (particularly early high rise development, see Appendix 1.8)

Buildings above five stories should be treated as a local consideration particularly in areas of multiple deprivation.

[insert cross section]
Example cross section

[Insert image]	
Existing streets with high densities of housing are likely to feature historic architecture which will influence street furniture design choices.	*Modern apartments will have their own street network including squares, car parking courts and enclosed facilities for cycle and motorcycle parking.*

1.3 Employment places (Non-retail)

Employment streets will have non-retail workplaces including offices or manufacturing and distribution. These are distinct from shopping streets. Types of employment street will include:

- short stretches of employment in otherwise residential locations (such as offices on the ground floor of tenement buildings)
- self-contained business or industrial parks
- streets within the urban fabric forming identified business areas

Many self-contained employment streets will be mixed use and feature both office and manufacturing or distribution; these streets will therefore carefully balance movement needs, including large vehicles, with the need to promote a pedestrian and cycle friendly environment to enable and promote these modes of travel to work and for business. Particular design approaches for streets with regular large vehicles include:

- Ghost radiuses and roundabout to allow large vehicles to pass around corners without disrupting pedestrian desire lines and to constrain carriageway widths
- Robust carriageway fabric treatments

[insert cross section]
Example cross section

[Insert image of business park – South Gyle or Bankhead]	[image of Fountainbridge]
Employment streets will be made attractive and accessible to sustainable modes of transport in their design. To help do this, designs will avoid inactive frontages, including car parks, and buildings set back from the street.	*Streets with offices in the main built environment of the city will reflect their land use and high levels of pedestrian movement.*

1.4 Residential places (low density)

Lower density residential streets will have their own private frontage/gardens and off-street car parking. Types of low density residential street will include:

- dwellings with fewer floors above ground, e.g. 1-2 storey
- less densely spaced family dwellings, such as semi-detached houses or bungalows

They are typically in suburban areas outside of the central areas of the city.

1.5 Rural and other no frontage streets

No frontage streets will be surrounded by fewer features of the built environment and will be likely to be surrounded by fields, the green belt or countryside, with potentially with a few isolated dwellings in a rural setting. They will have very few accesses from them to other streets, strategic and secondary routes often forming part of faster interurban routes.

[insert cross section]

Example cross section

[Insert image]

[insert caption]

Links

1.6 Main streets

1.6.1 Strategic routes

Strategic streets will accommodate a high levels of movement by all modes of travel, including a significant proportion of cross city and out-of-city movements. These cover A roads and other main streets, such as the Western Relief Road, aside from trunk roads (see Appendix 1.8).

Strategic routes will have their place function maximised where there are many pedestrians by measures such as raising the surface of the carriageway, slowing speeds, and reducing traffic management furniture. Re-routing some traffic onto alternative routes where available can help complement these measures.

1.6.2 Secondary routes

Secondary streets will provide for moderate to high levels of movement including a significant proportion of cross-city movements, which may typically include travel by bus.

Caption

1.7 Neighbourhood streets

1.7.1 Local routes

Local streets will provide access, for example for local residents and employees to and from their houses and places of work, and will not normally have a through traffic function. Some local streets may have less frequent bus services using them. Such residential streets may form an important strategic role in the family-friendly cycle network [insert mao]. Options for local streets are provided in Section B4 as these can vary widely substantially in street width.

Caption

1.7.2 Service routes

Service streets will typically provide access to the front of small groups of buildings such as a shopping parade or office block, or the rear of employment units or dwellings e.g. within street blocks. They will typically be a spur or offset from the rest of the street network. The streets may be used for short visits to local shops, and volumes of motorised vehicle movements are likely to be low. Together with paths, they will help increase the permeability of the street network particularly for walking and cycling. Some service routes may prohibit motorised users, and effectively form public squares.

Caption

1.7.3 Paths

Paths are a type of street that will usually excludes any form of motorised traffic. The level to which pedestrians and cyclists are separated from one another, or the latter permitted, will vary.

Caption

1.8 Local Considerations Checklist

Some key differences arise from the following situations. This will lead to departures from the standard street type design principles in the ways identified in the table:

Table – Checklist of local considerations that apply across the street framework

Local consideration	Environ-ment affected	Street treatment affected	Key change	Factsheet reference
Peripheral estates	Social, walking	Fabric	Higher quality fabric than standard for key places in residential areas will help engender a sense of pride and improve social well being in the local community, as well as contributing towards increases in active travel and play. This will help improve the character and feeling of streets.	[insert reference]
Conservation areas and the World Heritage Site and villages	All	All	Conservation areas and the World Heritage Site are governed by controls on the look and feel of streets so that they respect their historical design details. This will impact upon the choice of fabric, the layout of the streets and the amount of furniture contained within them. Villages out with Edinburgh's urban fabric will also have a similarly traditional look and feel.	[insert reference]
Distinctive buildings	Social, walking	Layout, fabric	Additional space and higher quality materials will help set off local buildings and give them an appropriately respectful setting.	[insert reference]
Pedestrian attractions	Social, walking	All	Buildings with high numbers of pedestrians will benefit from additional space around their entrances and facilities such as cycle parking. As with distinctive local buildings, high quality/hard wearing footway fabric will be warranted.	[insert reference]
Street intersections	Social, walking	All	Intersections often feature high buildings and are where people naturally meet and gather together. They can have a greater amount of space than in the adjoining street network. They will provide interesting spaces including seating, vegetation, art and/or enhanced footway fabric treatments or detail.	[insert reference]
Squares and pedestrianised areas	Social	Layout	Pedestrianised areas will have an overriding place function. They will provide a non-transport function, such as sitting or relaxing, although will sometimes feature priority routes for through movements by foot or bike.	[insert reference]
Residential streets that don't have a conventional frontage	All	Layout, fabric	High-rise developments such as apartments and high-rise blocks will have a different street frontage and a non-traditional street pattern. Design will ensure that useful spaces are created around them. Car parking will not form the sole function of such spaces. High quality paths will be important to define local spaces and pedestrian and cycle routes will be legible.	[insert reference]
Outside	Walking	Furniture,	Consideration will be given to the use of guardrail outside schools using the Council's Guardrail	[insert

Local consideration	Environ -ment affected	Street treatment affected	Key change	Factsheet reference
schools		layout	Assessment Methodology. Space for waiting children and parents will be created, and particular attention will be given to school front safety and sustainable routes to school.	reference]
Outside local shops	Walking	Layout, fabric	Local shops such as shopping parades attract higher numbers of pedestrians and are locally important. They will benefit from additional space around their entrances and facilities such as cycle parking. As with distinctive local buildings, high quality footway fabric will be warranted.	[insert reference]
Outside pubs	Walking	Fabric	Crack resistant fabric will be used to cater for barrels.	[insert ref]
Transport interchanges	Walking	Layout	High pedestrian numbers can arise on an otherwise quiet streets due to the presence of bus stops or train stations. This will lead to the need for greater space for pedestrians to access buses and trams entrances to stations and if necessary wait for their transport connections.	[insert reference]

Appendix 2 Consultation to Date

Date	Event	Attendees
November 11	Design Guidance Workshop	Urban Movement (John Dales)
		WSP (Keith Gowenlock)
		Halcrow
		Planning
		Development Control
		New Works
		Transport Projects
		City Centre Roads
		North Roads
		South Roads
		Roads Services
		Active Travel
		Road Safety
		Traffic Control
		Parking Operations
September 13	Transport Forum	Elected members
		Neighbourhood areas
		Transport users
		Lothian Buses
		Chamber of Commerce
		Bus Users Group
		Essential Edinburgh
		Federation of Small Businesses
		Ed Airport
		Transport Research Institute

Date	Event	Attendees
		Institute of Advanced Motorists
		Automobile Association
		Passenger Focus
		Transport Scotland
		Transform Scotland
		Taxis
		Sustrans
		Cockburn Association
		Equalities Transport Advisory Group
		SEStran
		NHS Lothian
		Living Streets
		Spokes
		Marketing Edinburgh
September 13	PDR Committee	Elected members (Transport & Planning)
November 13	Urban Design Panel	TBC

Appendix 3 Design Process Methodology for Integrated Street Design

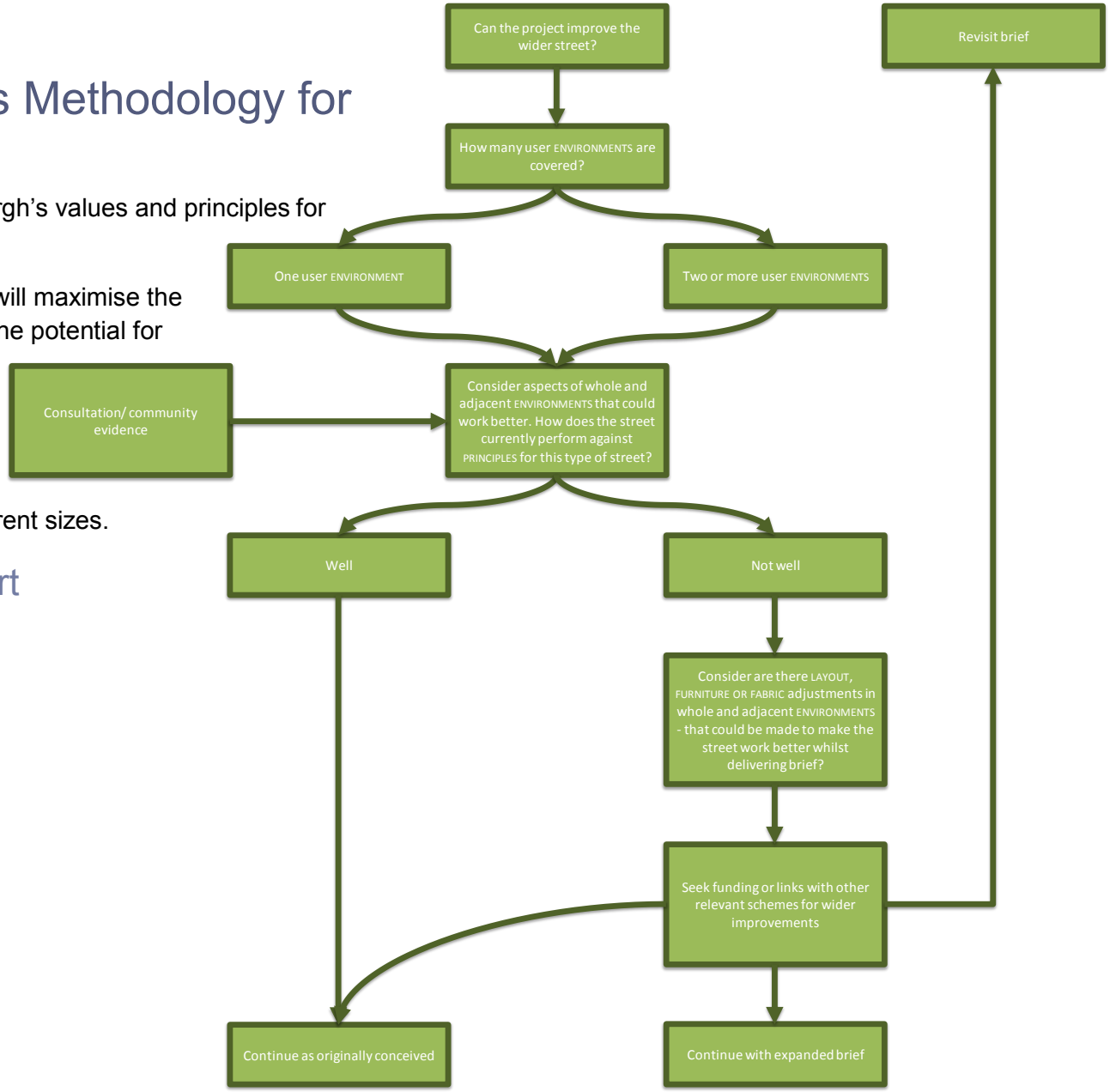
Projects will contribute towards delivering Edinburgh's values and principles for street design.

Integrated design is about ensuring that projects will maximise the potential of the street for all users and maximise the potential for place.

The processes for designing a project or development can be summarised in the Table overleaf. This appendix sets out the relative importance of different factors for projects of different sizes.

Integrated street design Flow Chart

(right)



Delivering integrated design means considering and, if appropriate:

- Extending the types of ENVIRONMENTS covered
- Extending the types of DESIGN OPTIONS used

Projects should strive to consider and if necessary cover more than one user ENVIRONMENT or types of DESIGN OPTION. At relevant stages in the process, steps will be undertaken to assess potential for integrated design within reasonable time and cost tolerances; these amendments do not necessarily need to be implemented as part of the scheme, but dialogue should be started with the community, local organisations, businesses fronting onto the scheme, or Council services to see how opportunities for integrated street improvements can be taken. Categorisation should consider not just the current role of the street but Community, Council and other stakeholder aspirations; should the project seek to change the function of the street, or of specific junctions or locations on the street, and how it works/they work?

Table: Integrating consideration of total place into projects - example

	ENVIRONMENTS					DESIGN OPTIONS		
	Socialising/ Place	Walking	Cycling	Public Transport	Carriageway	Fabric	Furniture	Layout
Total place approach	✓	✓	✓			✓	✓	✓
One environment/ option only			✓			✓		
✓ = considered and, if necessary, covered as part of project brief								

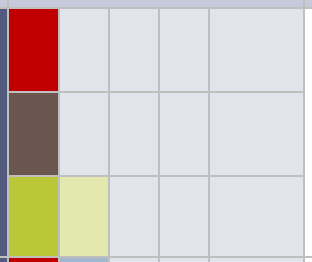
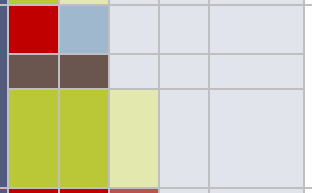
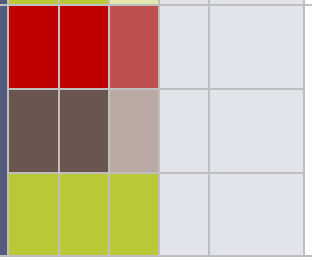
Examples include an on-road cycle route that might afford the opportunity to provide additional footway space around an intersection which runs alongside it, or replacing and relocating street furniture items such as street lighting and seating, removing redundant items such as unused poles, and creating space for community use at the same time as upgrading a footway.

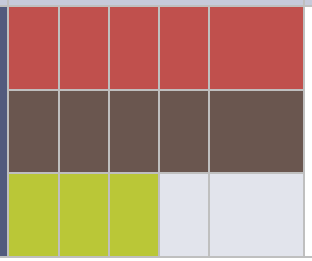
3.1 Delivering integrated design for different sizes of project

3.1.1 Project Type

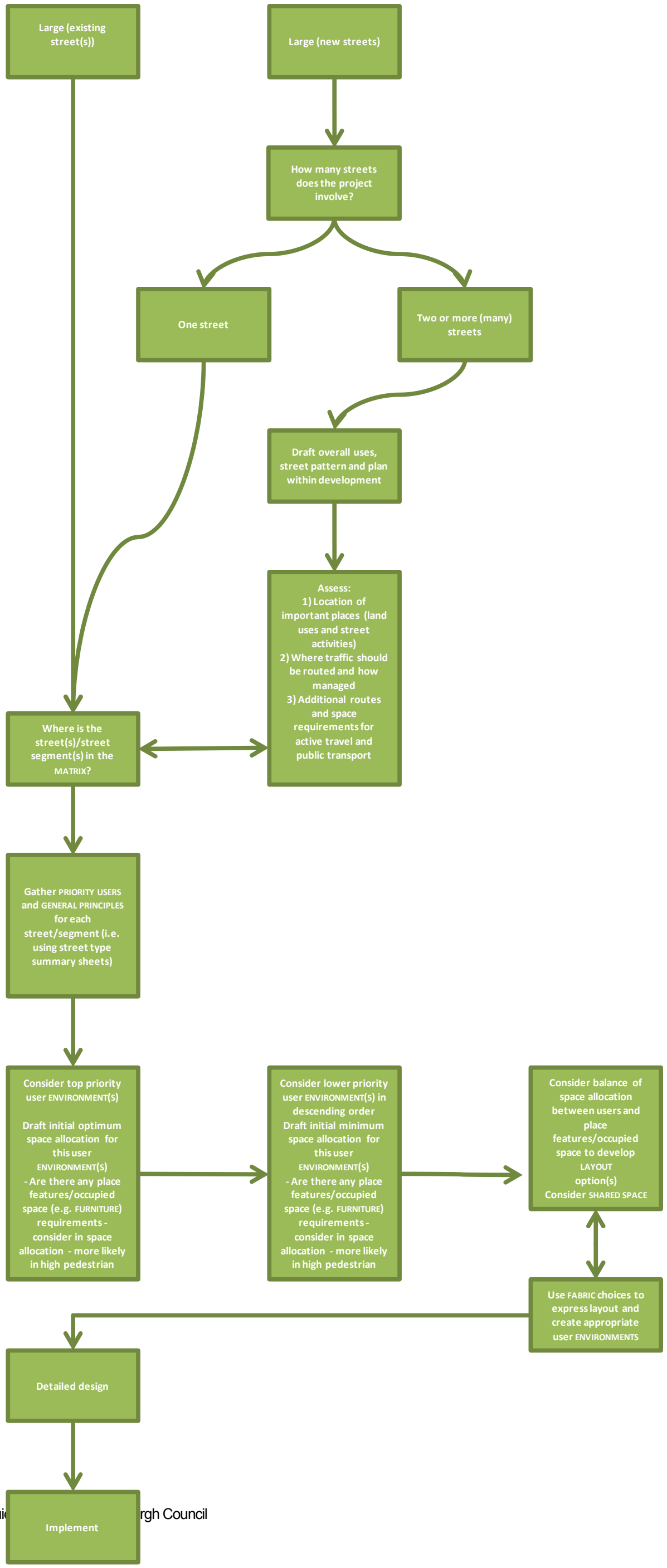
There are four types of project, each of which is accompanied by a summary: small, medium, and large/very large.

3.1.2 Table – integrated design approach guidelines for different sizes of project-

Size of project	Typical extent of design work for ENVIRONMENTS, DESIGN OPTIONS, and STREET TYPES	Integrated design - guiding approach	Starting projects - Examples
SMALL		The key issue is seeing if there are any adjoining street environments that can be upgraded or any layout adjustments that can be made at the same time.	e.g. isolated projects - Dropped kerbs - Driveway crossovers - Potholes - Isolated footway repairs
MEDIUM		It is important that community input is obtained for schemes with a moderate amount of street change and money involved.	- Footway resurfacing - Road safety projects - Junction refurbishments - On-/off-road cycle schemes
LARGE		These involve an allocation of street space to priority users to come up with an overall street concept. This is most likely to happen in new developments where streets and buildings are fluid early in their planning. It is also where it is most likely that integrated design can be achieved. **See flowchart overleaf.**	e.g. single streets - Public realm/economic development interventions

Size of project	Typical extent of design work for ENVIRONMENTS, DESIGN OPTIONS, and STREET TYPES	Integrated design - guiding approach	Starting projects - Examples
VERY LARGE			e.g. multiple streets - New development (e.g. housing, business)

3.1.2 Flow Chart for Large/Very Large Projects



3.2 Guidance on segmenting the street network

The categorisation of a street is applied at ground floor level. A street may be segmented into sections of one or more building unit(s); in many cases, streets will have a consistent design along a longer section. Distinctive buildings and local shops are examples of areas of particular design emphasis discussed in Appendix 1.8 where short areas of distinctive street design may be warranted as a local design consideration.

One side of a street may be categorised differently to its opposite side; this is a positive design response that may allow a street to make best use of environmental conditions, such as sun or shade, or to provide additional space for land uses that only exist on one side of the street, such as pubs or restaurants.

*Figure – street segmentation along a **street**; each **segment** may have an individual place type and design options (based on Link & Place)*

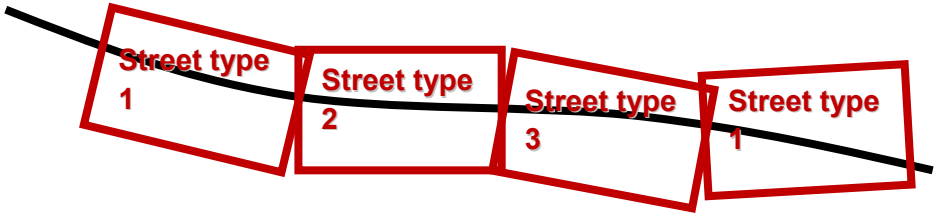
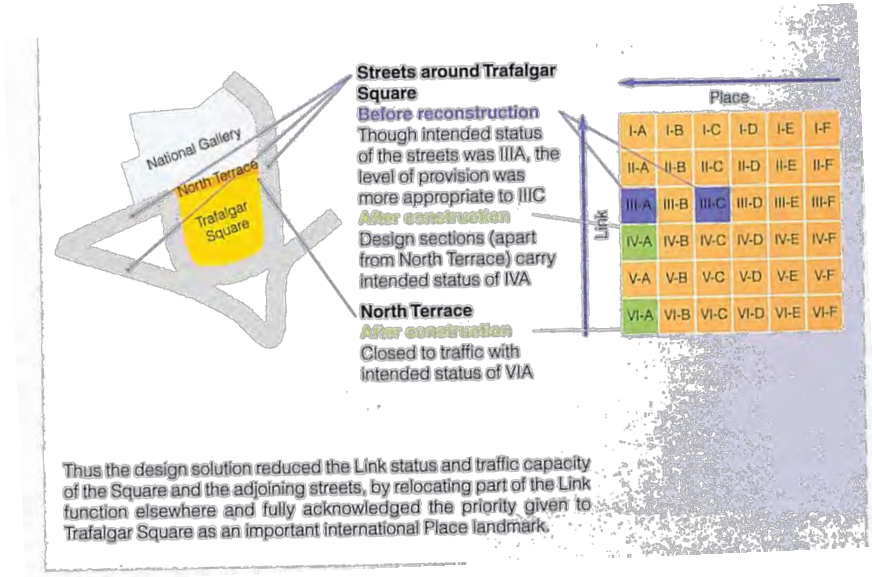


Figure – example of a street change resulting from link and place analysis (Source: Link & Place)



3.3 Respond to local context

Streets may also impose design criteria on their adjacent streets; for example, a land use with a high reliance on large vehicles may affect the design of neighbouring residential streets if it relies on these for access. These factors are illustrated in the example, overleaf.

Figure - Examples of where street design will need to respond to local context on short sections of street (overleaf).

Distinctive building frontage with possible distinctive street fabric needs

Local shopping parade with the opportunity for quality social space to be created on a short section of residential street around an intersection

Higher story apartment frontage creating different layout needs to surrounding lower density housing and tenements, e.g. provision of parking

Local bus company with access needs affecting design of adjacent local residential streets

Appendix 4 Designing Streets risks

Annex: Technical questions and answers

What is the legal and technical context?

A complex set of legislation, polices and guidance applies to the design of streets. There is a tendency among some designers and approving authorities to treat design guidance as hard and fast rules because of the mistaken assumption that to do otherwise would be illegal or counter to a stringent policy. This approach is wrong. It restricts innovation, and leads to standardised streets with little sense of place or quality. In fact, there is considerable scope for designers and approving authorities to adopt a more flexible approach on many issues. It is, therefore, Scottish Government policy in *Designing Places* and *Designing Streets* to encourage street design which engenders place and quality.

By copying a standard example without due consideration, designers abrogate their own professionalism. When doing so, they still retain responsibility for the design, as it is their decision to copy a standard example which has been produced by individuals who may never have seen the site in question, and which may therefore not be suitable.

The following comprise the various tiers of instruction and advice:

- the legal framework of statutes, regulations and case law
- government policy
- government guidance
- local policies
- local guidance
- design standards
- evidence and research base and the concept of 'evidence-based design'

The Westminster and Scottish Parliaments and the Courts have established the legal framework. In this respect, certain aspects of transport are reserved to Westminster in terms of the *Scotland Act 1998*[51]. For example, this includes the provisions which are the subject matter of the *Road Traffic Act 1988*[52], namely traffic signs and speed limits.

The Scottish Government develops policies aimed at meeting various objectives which roads and planning authorities are directed to follow. *Designing Places* and *Designing Streets* are such policies. It also issues supporting guidance to help authorities implement these policies, including the guidance in this document.

Evidence-based design has been developed as a concept within recent years. A distinction needs to be drawn between policies, guidance and practices that are, in essence, rule of thumb and that reflect simply a continuation of a conventional approach, and those that are based on science, statistics and designed experimental studies, and regularly challenged to ensure that they are relevant to modern needs and conditions. *Designing Streets* is supported by an evidence base.

Within this overall framework, road and planning authorities have considerable leeway to develop local policies and standards, and to make technical judgements with regard to how they are applied. Other bodies also produce advisory and research material on which they can draw.

What is the risk and liability?

Concerns around risk and liability frequently lead to the rigid application of standards that can stifle design-led, contextual approaches. Roads authorities have often applied a very cautious approach in order to avoid potential liability in the event of damage or injury.

This over-cautious approach is ill-advised, and restricts innovation and responses to local context. Recent case law has established that drivers are primarily responsible for their own safety and although road authorities have a general duty under Section 39 of the Road Traffic Act 1988 to promote safety, this does not create a duty of care.

A major concern expressed by some road authorities when considering more innovative designs, or designs that are at variance with established practice, is whether they would incur a liability in the event of damage or injury.

This can lead to an over-cautious approach, where designers strictly comply with guidance regardless of its suitability, and to the detriment of innovation. This is not conducive to creating distinctive places that help to support thriving communities.

In fact, imaginative and context-specific design that does not rely on conventional standards can achieve high levels of safety. The design of Poundbury in Dorset, for example, did not comply fully with standards and guidance then extant, yet it has very few reported accidents. This issue was explored in some detail in the publication *Highway Risk and Liability Claims 2009.*

Claims against road authorities relate almost exclusively to alleged deficiencies in maintenance. Claims for design faults are extremely rare. The duty of the road authority to maintain the road is set out in the *Roads (Scotland) Act 1984,* and case law has clarified the law in this area.

The courts in Scotland have adopted a cautious approach when considering the duty of care potentially owed by roads authorities. Merely because a roads authority has powers, this does not generally open up the authority to liability. The circumstances in which roads authorities have been held liable in damages have been very restricted. The restrictive approach has also been adopted in circumstances where the risk of an accident may well be foreseeable. (See *Murray v Nicholls* and *Bennett v J Lamont & Sons*).

The Scottish line of authority has been recently reinforced by the House of Lords in the case of *Gorringe v. Calderdale* MBC (2004). A claim was made against a highway authority in England ('roads' authority in Scotland) for failing to maintain a 'SLOW' marking on the approach to a sharp crest. The judgement confirmed a number of important points which were that:

- the authority's duty to 'maintain' covers the fabric of a highway, but not signs and markings;
- there is no requirement for the road authority to 'give warning of obvious dangers' and natural road hazards; and
- drivers are 'first and foremost responsible for their own safety'.

A handful of claims for negligence and/or failure to carry out a statutory duty have been made under section 39 of the *Road Traffic Act 1988*, which places a general duty on road authorities to promote road safety. In connection with new roads, Section 39 (3)(c) states that road authorities 'in constructing new roads, must take such measures as appear to the authority to be appropriate to reduce the possibilities of such accidents when the roads come into use'.

The *Gorringe v. Calderdale* judgment made it clear that *Section 39 of the Road Traffic Act 1988* did not create a duty of care and, therefore, does not form the basis for a liability claim.

Advice to road authorities on managing their risks associated with new designs is given in Chapter 5 of *Highway Risk and Liability Claims (2009)*. In summary, this advises that authorities should put procedures in place that allow rational decisions to be made with the minimum of bureaucracy, and create an audit trail which could subsequently be used as evidence in court.

Suggested procedures include the following key steps:

- set clear and concise scheme objectives;
- work up the design against these objectives; and
- review the design against these objectives through a quality audit.

Balanced decisions

A suggested framework from *Highway Risk and Liability Claims (2009)* which accords with those set out in *Designing Streets* is:

Vision – there should be an overall vision for an area that reflects local and national policy and, where appropriate, the views of the local community

Objectives/Purpose – there should be a robust understanding of what the scheme is intended to do. This will normally include balancing:

- movement and place;
- risk and opportunity; and
- ensuring sustainability.

Design – this should be worked up against the objectives

Quality audit – this is a review of the design against the objectives set

What are the issues regarding disability discrimination?

Road and planning authorities must comply with the Disability Equality Duty under the *Disability Discrimination Act 2005.* This means that in their decisions and actions, authorities are required to have due regard to six principles, which are to:

- promote equality of opportunity between disabled persons and other persons;
- eliminate discrimination that is unlawful under the 2005 Act;
- eliminate harassment of disabled persons that is related to their disabilities;
- promote positive attitudes towards disabled persons;
- encourage participation by disabled persons in public life; and
- take steps to take account of disabled persons' disabilities, even where that involves treating disabled persons more favourably than other persons.

Those who fail to observe these requirements will be at the risk of a claim. Not only is there an expectation of positive action, but the duty is retrospective and local authorities will be expected to take reasonable action to rectify occurrences of non-compliance in existing areas.

The Disability Rights Commission (DRC) has published a *Statutory Code of Practice on the Disability Equality Duty*[53] and it has also published specific guidance for those dealing with planning, buildings and the street environment.

What are the adoption and maintenance issues?

Key considerations

- The quality of the environment created by new development needs to be sustained long after the last property has been occupied. This requires good design and high-quality construction, followed by good management and maintenance.
- Authorities are encouraged to adopt a palette of suitable local and natural materials which allow for more creative design whilst being practical to maintain.
- Resource efficiency and sustainability should be addressed through the use of appropriate materials and systems including SUDS.
- The inclusion of planting (in particular street trees) is encouraged within the street environment.

Roads adoption – legal framework

Provision of roads for new developments is controlled and consented by the local roads authority through the Roads Construction Consent (RCC) process, governed by Section 21 of the *Roads (Scotland) Act 1984*. For the purposes of adoption, all streets are deemed to be roads under this Act.

Under the terms of the RCC, having first secured technical approval of the designs from the local authority, the developer is obliged to construct roads over which there is a public right of passage to an agreed standard. Expenses will be payable by the developer to the roads authority to cover its reasonable costs in inspecting the construction of the works and associated testing.

The Roads (Scotland) Act 1984 sets out the obligations of the developer to construct the roads and maintain them for a set period of normally 12 months. Following the satisfactory discharge of these obligations, the new roads can be offered to the roads authority for adoption. If the road is adopted, it will in the future be maintainable by the roads authority.

Road Bond Security

Where Roads Construction Consent is granted relative to roads associated with housing development, the granting of the consent will require the deposit of sum or surety (Roads Bond) sufficient to meet the cost of constructing the road. The purpose of this bond is to enable the roads authority to meet the cost of constructing or completing the construction of the roads, should the developer fail in his responsibility to do so under the terms of the granted RCC.

Before any roads works commence on such a housing development, the developer will normally be required to have both the Roads Construction Consent and the Roads Bond in place.

Thus, before any construction begins, the developer will normally be required either:

- to secure the payment of the estimated cost of the road works under the requirements of the *Roads (Scotland) Act 1984;* or
- to make an agreement with the road authority under terms of the Act and provide a Bond of Surety.

Private streets

Where a developer wishes streets to remain private, some roads authorities have incorporated conditions into the planning approval to require the developer to design, construct and to make arrangements for the future maintenance of the new streets to a standard acceptable to the authority. This agreement may still require the submission and approval of an RCC under the terms of Section 21 of the Act.

Landscape features adoption

Maintenance arrangements for all planted areas should be established at an early stage, as they affect the design, including the choice of species and their locations. The approval and maintenance of proposed planting within the road boundary will be required to comply with Sections 50 and 51 of the *Roads (Scotland) Act 1984*.

Alternatives to formal adoption may require innovative arrangements to secure long-term landscape management. These may include the careful design of ownership boundaries, the use of covenants and annual service charges on new properties.

What is adoptable?

The roads authority has considerable discretion in exercising its powers as to whether to grant a Roads Construction Consent under Section 21 of the Act.

A roads authority can be required to adopt a road constructed in accordance with an RCC. The streets put forward for adoption must be constructed to the agreed standard and will be subject to a 12 month period of use as a road whilst being maintained to the agreed standard by the developer.

Roads authorities have tended to only adopt streets that serve more than a particular number of individual dwellings or more than one commercial premises. Two to three dwellings is often set as the lower limit, but some authorities have set figures above this.

Design standards for Road Construction Consent

Roads authorities are now encouraged to take a flexible approach to road adoption in order to allow greater scope for designs that respond to their surroundings and create a sense of place. It is recognised, however, that roads authorities will need to ensure that any future maintenance liability is kept within acceptable limits.

One way of enabling designers to achieve local distinctiveness without causing excessive maintenance costs will be for roads authorities to develop a limited palette of special materials and street furniture. Such materials and components, and their typical application, could, for example, be set out in local design guidance and be adopted as a planning policy.

Clear cases must be made where the adoption of designs are sought that differ substantially from those envisaged in a local authority's design guide or *Designing Streets*. Developers should produce well-reasoned design arguments in relation to this.

Roads authorities would normally be expected to adopt:

- residential streets, combined footways and cycle tracks;
- footways adjacent to carriageways and main footpaths serving residential areas;
- Home Zones and level surface streets;
- land within visibility splays at junctions and on bends (in some cases);
- street trees;
- any verges and planted areas adjacent to the carriageway;
- structures, i.e. retaining walls and embankments, which support the road or any other adoptable area;
- street lighting;
- gullies, gully connections and road drains and other road drainage features;
- on-street parking spaces adjacent to carriageways; and
- service strips adjacent to level surface streets.

Private management companies/factors

Any unadopted communal areas will need to be managed and maintained through private arrangements. Typical areas maintained in this way include communal gardens, shared off-street car parking, shared cycle storage, communal refuse storage and composting facilities and sustainable energy infrastructure.

Approval processes for new streets

The design and approval of new streets is governed by both planning and roads legislation. The design process must therefore recognise both sets of requirements. *The Roads (Scotland) Act 1984* is the primary legislation for new roads, and all new roads must receive RCC under Section 21 of that Act prior to construction. Previous practice applied by most local authorities dictates that the formal RCC approval process only starts with the granting of planning permission, or at least with the agreement of the final planning layout. The process thus results in a 2-stage (planning and roads) approval process that not only significantly extends the overall statutory approval process and delays commencement of development construction but, by more rigid application of engineering requirements at this 2nd stage, can lead to a dilution of overall design quality.

Street design requires an integrated approach to approval, involving collaboration between planning officers and RCC engineers. In this way, roads colleagues will be satisfied with the fundamentals of the development proposal, and can approve it in principle concurrent with the granting of planning permission. RCC engineers will have an important role to play as consultees in the planning application process. It is as a consultee that the roads authority can ensure that an appropriate 2-stage approach is adopted. The roads authority should be satisfied that sufficient information has been provided with the planning application to ensure that a subsequent RCC reflecting the design will not alter the details approved under the planning permission. These discussions should take place as early as possible – before a layout is worked up and a planning application submitted. It is important that any principles that have been agreed at this point in the design process are not revisited later, unless there has been a significant change in circumstances.

Planning policies should set the overall benchmark for the design quality of any new development, which includes the new streets as a key part of the public realm. This is why local authorities should have specific planning policies on street design ideally within the development plan, or as Supplementary Planning Guidance (SPG). Planners and road engineers should work together to ensure policies are up to date and allow for the most appropriate street patterns.

The flow chart contained in Part 3 of this document shows how a more integrated system should operate, and the key design decisions which would need to be taken, and signed off, at each stage.

Adoption of SUDS

Adoption issues will need to be clarified at an early stage in the design process, with the likely adopting authorities; Scottish Water, local authority and potential private bodies. The amendments to Section 7 of the *Sewerage (Scotland) Act 1968* published within *SUDS for Roads,* focus on adoption of SUDS at a regional level by encouraging a collaborative approach to shared systems between local authorities and Scottish Water. It is important for a continuous, team-based approach to this matter.

Appendix 5 Street Types summary tables

Street types exist because the functions and users vary across different streets. Some of these factors that vary the greatest between different types of street are summarised in the street matrices below for each user environment.

Examples:

Social environment	• Overall demand for place features
Walking environment	• Fabric: Footway • Furniture: e.g. Seating
Cycling environment	• Layout: Cycle lanes
Public transport environment	• Furniture: Bus shelters
Carriageway environment	• Layout: Carriageway width

The table in Section B5 of the main document summarises the key elements of design policy for each street type. Again, this table highlights the design aspects with the greatest variation between different street types.

5.1 Social environment

Place importance **will** be very high in shopping streets. Socialising places **will** be of higher quality, with more frequent and more sizeable provision where there are more pedestrians.

Table: ***Overall demand for place features***	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	Very Low	Low		High	Very High
Secondary					
Local		Medium		Medium	High
Service			NA		

5.2 Walking environment

Paving flags **will** be used in shopping streets and high density residential street where there are higher numbers of pedestrians. Asphalt **will** be used for footways in other streets.

Table: ***Fabric - Footway***	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	Asphalt with white chips			Paving Flag/ Asphalt with white chips	Paving Flag
Secondary					
Local					
Service					

Seating **will** be provided in shopping streets and in other streets where there are higher number of pedestrians and on preferred pedestrian routes. In general, other furniture provided for pedestrian comfort will follow this trend.

Table: Furniture - Seating provision	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	Very Low	Low	Low	Medium	Very High
Secondary	NA	Very Low			High
Local			Very Low	Low	Medium
Service					

5.3 Cycling environment

No specific cycle lanes will be provided on quieter streets. Advisory cycle lanes will be provided (as a minimum) on strategic and secondary streets.

Table: Layout - Cycle Lanes	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	Min = Advisory/ Consider = Mandatory or Separated				
Secondary					
Local	Shared Carriageway				
Service					

‘Consider’ where traffic volumes are high consideration for further separation is recommended

5.4 Public transport environment

Larger bus shelters **will** be provided where there are public bus routes on shopping, high density residential and employment streets.

Minimum Requirements - May change due to – 1/ footprint available, 2/ Special Place (Interchange), 3/ Specialist Style Shelter

Table: ***Furniture - Bus Shelters***	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	2 Bay		3 Bay	4 Bay	
Secondary					
Local	Not Required				
Service	NA				

Discussion with Public Transport team required to agree style/type

5.5 Carriageway environment

Carriageways on Strategic streets **will** be at least 6m wide. Carriageway widths on other streets **will** be reduced to a minimum. Where the street is a bus route, the carriageway **will** be an absolute minimum width of 6.25m.

- Two way main vehicle lane width (m)
- Widths do not include space for cycle lanes, bus lanes & on street parking or loading
- Narrow widths permissible over short lengths, e.g. introduce traffic calming

Table: Layout - Carriageway Width	No frontage	Residential (low density)	Employment (non high street)	Residential (high density)	Shopping/ high street
Strategic	6.0 - 7.3	6.0 - 7.0			
Secondary	5.5 – 7.3	5.5 – 7.0			
Local	4.5 – 6.0				
Service					

Appendix 6 Equalities

The guidance is subject to an ongoing human rights and equalities assessment. Initial findings from internal workshops are summarised below.

Human Rights - positives

RIGHTS	WHERE GOOD STREET DESIGN CONTRIBUTES
RIGHT TO HEALTH	• NEW PUBLIC SPACES, INCLUDING GREENERY AND WATER • ACTIVE TRAVEL • URBAN GYMS • ACCESS TO HEALTH FACILITIES • BECALMED PUBLIC REALM • HAPPY STREETS
RIGHT TO INDIVIDUAL, FAMILY AND SOCIAL LIFE	• PROVISION OF SEATING AND RESTING PLACES/'TALKSCAPES' • FREEDOM OF ASSOCIATION WITH ETHICAL/ENVIRONMENTALLY (UN-)FRIENDLY LIFESTYLES AND TRANSPORT CHOICES • PROVISION OF TOILETS • WALKING AND CYCLING GROUPS AND ACTIVITIES
RIGHT TO LEGAL SECURITY	• SIGNAGE AND MARKINGS SHOWING REGULATIONS, E.G. PARKING, SPEED, LANES
RIGHT TO PHYSICAL SECURITY	• SAFER PLACES THROUGH LAYOUT AND LIGHTING • DECREASED CONFLICTS AND INCREASED RESPECT BETWEEN STREET USERS – ALL TRANSPORT MODES CATERED FOR AND NORMALISED

Issues for attention

RIGHTS	EXAMPLE ISSUES
RIGHT TO HEALTH	• POLLUTION – NOISE, AIR, WHITE LIGHT, WATER • PROXIMITY OF MOTORISED TRAFFIC TO BUILDINGS AND NON-MOTORISED USERS, INCLUDING EFFECTS OF REDISTRIBUTION OF TRAFFIC • STRESS AND RAGE • LINKS TO RIGHT TO STANDARD OF LIVING
RIGHT TO LIFE	• SHARED STREETS, MATERIALS CHOICES, TACTILE PAVING, GUARD RAILING • STREET MAINTENANCE AND IMPROVEMENT REGIME
PROTECTED CHARACTERISTICS	**EXAMPLE ISSUES**
AGE DISABILITY PREGNANCY	• GRADIENTS, COLOURS, AUDIBLE SIGNALS, CONTRASTS, TACTILE TREATMENTS • STOPPING AND RESTING PLACES, SPACE FOR BABIES AND EQUIPMENT
SOCIO-ECONOMIC DISADVANTAGE	• WALKING AND CYCLING OPPORTUNITIES FOR FREE/CHEAP TRAVEL

EDINBURGH
STREET DESIGN
GUIDANCE

Appendix 2

Consultation Plan

The following table sets out how consultation with stakeholders has already informed the draft version of the Edinburgh Street Design Guidance and sets out the measures that will be adopted to consult with stakeholders during the formal consultation period.

Who	What	Why	When
Phase 1- Establishing the scope of the review			
External practitioners	Best Practice review meeting	To establish the format of the guidance	2011
Internal CEC practitioners	workshop	Awareness raising/ establish key issues	2011
Project Working Group	Best practice reviews	To establish current approaches and experience from other cities etc	2011-13
Phase 2- Awareness raising/ testing			
Edinburgh Urban Design Panel	Presentation	Feedback to inform the review and development of the guidance	2013
Transport Forum	Presentation and workshop sessions	Feedback to inform the review and development of the guidance	2013
Policy and Review Committee	Presentation and workshop sessions	Feedback to inform the review and development of the guidance	2013

Scottish Government Architecture and Place Division- Designing Streets Policy	Presentation/ meeting	Feedback to inform the review and development of the guidance	2013
Internal CEC practitioners	Review of the draft guidance	Feedback to inform the review and development of the guidance	2013/14
Phase 3- Circulate Draft for Consultation			
General Public	Publish on the Council's website/ intranet Make available in Libraries Promote through range of communications- Forums and News Bulletins/ Leaders Report/ Outlook / Social Media	Awareness Raising	Start of consultation March 2014
Mail drop	Range of stakeholder groups, including community councils etc	Awareness raising	Start of consultation March 2014
Survey Monkey	Through the Council web site	Target questions	Start of consultation March 2014

Phase 4- awareness raising and reviews			
Forums and Community Councils/ Neighbourhood Partnerships	Presentations		March- June 2014
Focus groups	Groups with a particular interest, vulnerable users	Feedback on the overall guidance and specific input to key areas of the document.	March –June 2014
Edinburgh Urban Design Panel	Presentation	Feedback to inform finalisation of the guidance	March to June 2014
Phase 5- road testing the guidance			
Internal CEC practitioners	Testing the guidance	Highlight areas for review	March-June 2014

Appendix 3
Report from the meeting of the Edinburgh Urban Design Panel 27 November 2013

EDINBURGH URBAN DESIGN PANEL
Edinburgh Street Design

REPORT
of meeting held at the City Chambers on 27 November 13

Presenters

Will Garrett	City of Edinburgh Council	Andrew McBride	City of Edinburgh Council

Panel members

David Leslie	Chair – City of Edinburgh Council	Johnny Cadell	Architecture + Design Scotland
Marion Williams	The Cockburn Association	Ben Rainger	EAA
Neil Greenshields	EAA	Sole Garcia Ferarri	ESALA
Ian Thomson	Historic Scotland	Bob Bainsfair	Landscape Institute Scotland
Steve McGill	Lothian + Borders Police	Richard Llewellyn	Napier University
Hugh Crawford	RTPI in Scotland	Susan Horner	Secretariat – City of Edinburgh Council

Apologies

Jimmy Morgan	Heriot Watt University

Executive Summary

The Panel welcomes being able to input into the emerging Edinburgh Street Design Guidance at this very early stage. It should be noted that what was reviewed is not the full draft of the document and so the advice contained are not comments on the draft that will be viewed by Planning Committee in February. The Panel supports the notion of having street design guidance for Edinburgh. Based on what was presented, it does appear that the document could benefit from some refinement with the aim of making it simpler and more consistent with the Scottish Government's policy statement, Designing Streets.

Main Report

1 Introduction

This report relates to Edinburgh Street Design Guidance.

1.1 This is the first time that this guidance has been reviewed by the Panel.

1.2 No declarations of interest were made by any panel members in relation to this scheme.

1.3 This report should be read in conjunction with the pre meeting papers which provide an overview of the guidance.

1.4 This report is the view of the Panel and is not attributable to any one individual. The report does not prejudice any of the organisations who are represented at the Panel forming a differing view about the proposals at a later stage.

2 Planning Process

2.1 The guidance has been developed through workshops and consultation with various stakeholders. It is proposed that a draft guidance document will go to Planning Committee in February 2014 and then out for consultation.

3 Overview

3.1 The Panel supported the aspirations of the Guidance and the dialogues between the various professional disciplines within CEC particularly with transport planning and encouraged this particularly with respect to the design of 'place critical streets'.

3.2 It is important that the expectations for street design are clearly articulated to all involved in street design. The aim of the project in simplifying existing guidance and adhering to the ethos of the Scottish Government's policy statement, Designing Streets is laudable.

3.3 It is vitally important however that in creating a locally based document that the principles within the Scottish Government's Designing Streets Policy is not undermined.

4 How it is presented

4.1 The success of the document will depend on how it is put together and the detail of what it states.

4.2 The Panel also asked the question of 'Who is it for? and who will use it?'. The Panel were unclear who and how it will be used and whether it would make a difference to the final outcome. The Panel warned against the guidance becoming more of an internal CEC document rather than a document that would be used by design teams. The document needs to be written for the people who are using it and for those it is designed to influence. A document that is primarily for lay people needs to be written in a way that they will understand, while a document that is for professionals may be written in a more technical language.

4.3 The Panel expressed concern at how the 'street categories framework' and 'design summary specification' sections of the guidance would work and allow the delivery of good place making. It was suggested that the guidance should not refer to a 'street framework' but 'a place'. It was suggested that the headings in the 'street categories framework' were inevitably un-related to the multiplicity of localised conditions that make up actual places, high streets, mixed use areas and conservation areas are not covered, for example. The narrow categorization according to street types risks an approach that overlooks variations in neighbouring contexts, built form characteristics and mixture of land use.

4.4 While the movement / place matrix of street types does contain a broad range of streets, it is insufficient to cover every different street type in Edinburgh. If the direction provided by it is too prescriptive, this could undermine the approach set out by Designing Streets of place specific multi-disciplinary design.

4.5 The Panel also expressed concerns regarding the proposed images in the 'street categories' section of the guidance as again they do not show 'place'.

4.6 The Panel suggested that a more graphic approach to the guidance may help with its legibility. For example the Policy Statement for Scotland Designing Streets shows clearly through a diagrammatic map [page 4] the extent of where Designing Streets policy and guidance should be applied and where the road should be designed to the Design Manual for Roads and Bridges (DMRB) standard. Such an approach to the Edinburgh Street Design Guidance would help clarify where the ESDG applies and it likely to help simplify proposed matrix.

4.7 There is an argument that street design should always seek to prioritise pedestrians highly in any context – if the aims of Designing Streets are to be achieved.

4.8 The Panel were of the view that the Guidance could become overly complex, too prescriptive and most importantly not place specific. There was a concern that the Guidance should allow a Design Team to respond with an appropriate place specific design and not encourage a more engineered "tick box" approach. To avoid this, it should be written in such a way that it is not too prescriptive and advocate a multidisciplinary approach to design

5 Changing the mindset

5.1 There will be significant benefits to creating a document that changes the mindset of those involved in street design who currently advocate /a standard based approach to design. If this document can help change that, that is for the good.

5.2 The Panel acknowledged the difficulties in delivering good streets given the polarity of views to 'Place' between urban designers and civil engineers. The Panel acknowledge that this is a fundamental issue and while culture change takes time, work is underway particularly through University and college courses.

6 Other matters

6.1 Lighting is a key component of street design and the Council's expectations for it should be set out in the document.

6.2 The Panel discussed the amount of 'street clutter' within the City's historic core and suggested that as part of this Guidance it may be appropriate to identify a lead designer who is responsible for the design of the entire street. This would allow all of the elements of the street design to be coordinated ie: signage, lighting etc. as this 'clutter' can undermine the attractiveness of streets.

6.3 Many existing streets around the city could benefit from significant improvement with many in need of a radical overhaul in their design. This document should seek to address existing streets as much as it sets out requirements for new streets within the city.

6.4 It was suggested that the draft guidance should be applied to a real proposal for testing.

7 Recommendations

7.1 In developing the proposals the Panel suggests the following matters should be addressed:

- Simplification.
- The Guidance must consider 'place' before movement.
- Further consideration as to who the Guidance is for and how it will be used.
- Reconsider the graphic and imagery used in the document.
- The Guidance should come back to the Panel once further developed.