ITEM No …2……..

REPORT TO: **CITY GROWTH AND INFRASTRUCTURE COMMITTEE – 16 FEBRUARY 2026**

REPORT ON: **DUNDEE STREETS AHEAD DESIGN GUIDE**

REPORT BY: **EXECUTIVE DIRECTOR OF CITY DEVELOPMENT**

REPORT NO: **2-2026**

1 PURPOSE OF REPORT

1.1 This report seeks approval to adopt a revised road development guide entitled "Dundee Streets Ahead – Design Guide" that provides up to date design guidance for street design within the city.

2 RECOMMENDATION

2.1 It is recommended that the Committee:

a approves the draft "Dundee Streets Ahead Design Guide" presented in Appendix 1;

b delegates the Head of Sustainable Transport & Roads to carry out further consultation on the draft guide with key stakeholders and to finalise with changes as appropriate;

c notes that once finalised, the adopted document will be a material consideration in the determination of planning applications. It will also be considered in the review of the Local Development Plan; and

d authorises the Head of Sustainable Transport & Roads to update the document as required in accordance with changes in design standards and best practices.

3 FINANCIAL IMPLICATIONS

3.1 The adoption of the revised design guide does not result in any direct financial impact on the council.

4 BACKGROUND

4.1 The Council's current roads development guide, Dundee's Streets Ahead, was published in 2005. It set out the city's requirements for high-quality development and innovative street design, serving as a key reference for developers and their design teams seeking Planning Approval and Road Construction Consent.

4.2 Since 2005 design standards have evolved and an update is now necessary to reflect changes in national design standards. The document included in Appendix 1 of this report reflects current best practice in street design and placemaking and aligns with the Council's wider ambitions around climate action and sustainable development and ensures consistency with national policy such as National Planning Framework 4 (NPF4).

4.3 The revised document provides clear, up-to-date guidance that aims to:

a promote high-quality design through early and collaborative engagement in the planning and approvals process;

b establish a framework for street design based on five core principles: safety, equity, accessibility, sustainability and climate resilience;

c support the SCOTS National Roads Development Guide while outlining local variations specific to Dundee, such as parking standards and road specifications; and

d offers guidance on securing Road Construction Consent and Planning Consent for new infrastructure in the city.

4.4 Some of the key revisions include:

a streamlined documentation with clear references to current policies and design standards;

b enhancements to cycling infrastructure in line with national guidance such as Cycling by Design;

c improved pedestrian accessibility, including an increase in minimum footway width from 1.8m to 2m; and

d updated technical details and specifications to align with design standards and best practice.

4.5 Key stakeholders, including accessibility groups, developers and their design teams, were consulted at various stages throughout the preparation of the document. The feedback received during this process has been used to shape the revisions and inform the draft presented in Appendix 1. Further consultation with these stakeholders will take place before the document is finalised and published on the council website.

5 POLICY IMPLICATIONS

5.1 This report has been subject to an Integrated Impact Assessment to identify impacts on Equality & Diversity, Fairness & Poverty, Environment and Corporate Risk. A positive impact on one or more of these issues was identified. An appropriate Senior Manager has checked and agreed with this assessment. A copy of the Integrated Impact Assessment showing the impacts and accompanying benefits of/mitigating factors for them is attached to this report.

6 CONSULTATIONS

6.1 The Council Leadership Team were consulted in the preparation of this report.

7 BACKGROUND PAPERS

7.1 None.

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4 February 2026

APPENDIX 1

Streets Ahead

DESIGN GUIDE

Dundee City Council
www.dundeecity.gov.uk
CHANGING FOR THE FUTURE

Contents

1 Introduction

Dundee City Council has a vision of the city as "a vibrant and attractive city with an excellent quality of life where people choose to live, learn, work and visit." To achieve this, the streets and built environment should be functional, resilient and adaptable to meet spatial and movement demands, whilst also positively creating environments within which people, communities and businesses can thrive.

This document has been compiled to set the requirements for the design and construction of all development related transportation infrastructure in Dundee. It replaces the previous Road Standards document, "Streets Ahead". It has been updated to align to current guidance and standards relating to street design and placemaking. It also reflects the City Council's ambitions for the Dundee streetscape, with a refreshed approach to the opportunities and challenges facing the city area, both currently and into the future. A new set of Core Principles are introduced which provide a framework for street design and help to ensure these opportunities and challenges are at the forefront of design. **The five Core Principles are safety, equity, accessibility, sustainability and climate resilience.**

Purpose of the Document

The purpose of this document is to provide up-to-date guidance and:

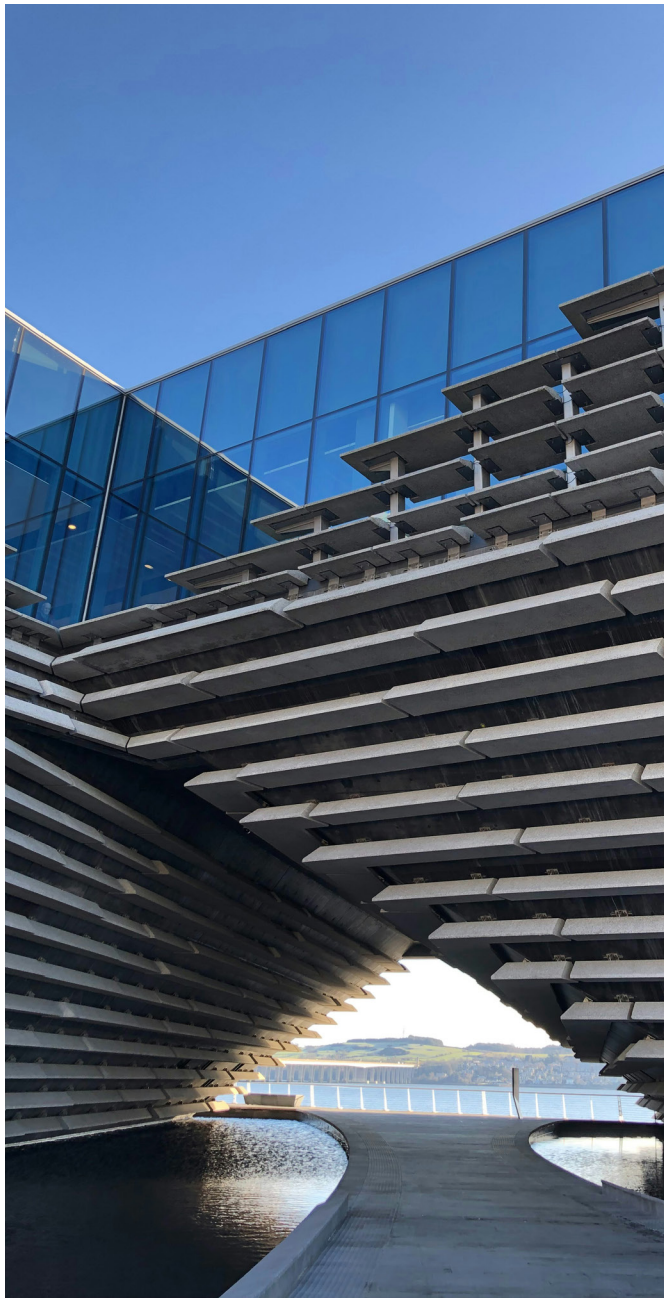
- Deliver high-quality design through a collaborative approach to the planning and approvals process and early discussions between all parties;
- Provide a framework for street design which focusses on the five Core Principles of safety, equity, accessibility, sustainability and climate resilience;
- Support the **SCOTS National Roads Development Guide** and explain local variations for Dundee, such as parking standards and road details;
- Give an overview of subject areas that the City Development department is responsible for managing; and
- Provide guidance on how to obtain Road Construction Consent and Planning Consent for all road infrastructure in Dundee.

Document Structure

The Dundee Street Design Guide provides the principles of street design, including the Dundee Approach, the importance of engagement and collaboration, and the street typologies. It also provides design guidance for a series of elements which are applied in the design of streets and spaces.

It is supported by a series of Technical Appendices which provide additional detail for a number of topics:

- Appendix A - Technical Drawings
- Appendix B - Street Hierarchy Technical Table
- Appendix C - Construction Detail
- Appendix D - Procedures
- Appendix E - Parking Standards
- Appendix F - Transport Assessment



2 The Dundee Street Design Approach

A Vision for Dundee

In 2019, Dundee declared a Climate Emergency, recognising the serious and accelerating environmental, social and economic challenges faced by climate change. One of the four themes of the **Climate Action Plan** is Transport, with measures to “encourage active travel through walking, cycling and public transport and deploy sustainable alternatives to decarbonise transport”. We have made a commitment to deliver a transport network which prioritises sustainable and active modes of travel, with the aim to make the city's streets safer and more usable for Dundee's residents and visitors. We will also support the decarbonisation of transport systems and reduce the need for travel through the Core Principles outlined below.

The purpose of this guidance document is to help support these ambitions.

The Dundee Local Development Plan outlines a vision for Sustainable and Accessible Transport, whereby **"Dundee will be better connected to its region, the rest of Scotland and beyond. It will be a City that encourages sustainable movements through careful consideration of land use, planning and the promotion of active and sustainable travel".** It is also the vision of the City Plan 2022-2032 that **“Dundee will be a greener city, made up of strong communities where people feel empowered, safe and proud to live”**

Our Street Design Approach

The design of our street network has a significant impact on how a place looks and feels. It can determine how vibrant and successful a place might be, how communities interact and socialise, and how resilient our neighbourhoods are to a changing climate. Our streets have a significant, and often overlooked, role in establishing a sense of place and reinforcing local character, as well as providing connections to family, friends, communities, businesses, nature and where we live. They have a huge influence on our lifestyle and behaviours and also have a wider role in helping address social inequalities, accessibility, sustainability and the climate resiliency of our environments.

In Dundee, we aim to make active travel the most convenient method of travel around the city for users of all abilities through direct, safe and attractive routes, whilst also recognising the wider role of streets. Good street design can help to reduce the dependency on cars by supporting sustainable alternatives and encourage developments which prioritise walking, wheeling, cycling and public transport for everyday travel.

Whilst it is appreciated that there are people who rely on the use of their car, there is a need to provide suitably designed infrastructure which prioritises active and sustainable modes, rebalancing street space to reduce the dominance of motor vehicles. By reallocating space, this creates healthier and more active communities and helps to reduce the need for car ownership, leading to a reduction in emissions and congestion.

Core Principles

At the heart of the Dundee Street Design approach are five Core Principles, which form the foundation of the guidance provided in this document. The Core Principles should be applied through all stages of a project lifecycle, from inception right through to design and delivery.

Safety

Good street design plays a critical role in ensuring safety for all users. The integration of high-quality and well-designed active travel infrastructure and sustainable transport networks are essential for reducing potential conflict between users, reducing the likelihood of incidents, and promoting safer movement throughout the city with a greater sense of security. Physical design measures such as clear pedestrian corridors, effective separation of user zones, and well-designed crossings also help to directly contribute to user confidence, safety and movement. The Tayside and Central Scotland Regional Transport Strategy emphasises the need to reduce car dependency and improve public transport and active travel options to enhance road safety and reduce emissions. This document will help to establish the design standards to which development must adhere to ensure that user-safety is prioritised on all streets in Dundee. As a core principle, safety will be a priority of this document and the guidance which it provides.

Equity

The City Plan 2022-2032 and **Walking and Cycling: the benefits for Dundee**, both outline the inequalities Dundee faces in terms of income, education, health and child poverty. Journey patterns and daily mobility needs can be shaped by gender, and marginalised groups are often disproportionately affected by barriers and challenges to movement. Inequity in transport can make journeys frustrating, uncomfortable, unsafe or inaccessible. However, many marginalised groups are also often those with lower levels of car ownership.

Equitable street design can help to reduce social and health inequalities by removing some of the barriers to transportation and ensuring movement is available to all regardless of age, ethnicity, gender, income or car ownership. It can support access to economic prospects and unlocking high-quality networks which integrate active travel with reliable and convenient public transport services. Increasing the number of people choosing to travel around the city by walking, cycling and wheeling is an important factor in improving the city's wellbeing by supporting healthy lifestyles, and the positive mental health impacts which are associated with it. Street design can also help to encourage community cohesion and social connectivity. We seek to deliver a street network which is equitable and fair for the people of Dundee.

Accessibility

Under the **Equality Act 2010**, public authorities have a Public Sector Equality Duty (PSED). In carrying out their functions, including street design, they therefore have a statutory duty to eliminate unlawful discrimination, harassment and victimisation, to advance equality of opportunity between people who share a protected characteristic and those who don't, and to foster good relations between people with different protected characteristics.

Protected characteristics are age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. Good street design considers the needs of all users while also paying specific attention to those with protected characteristics.

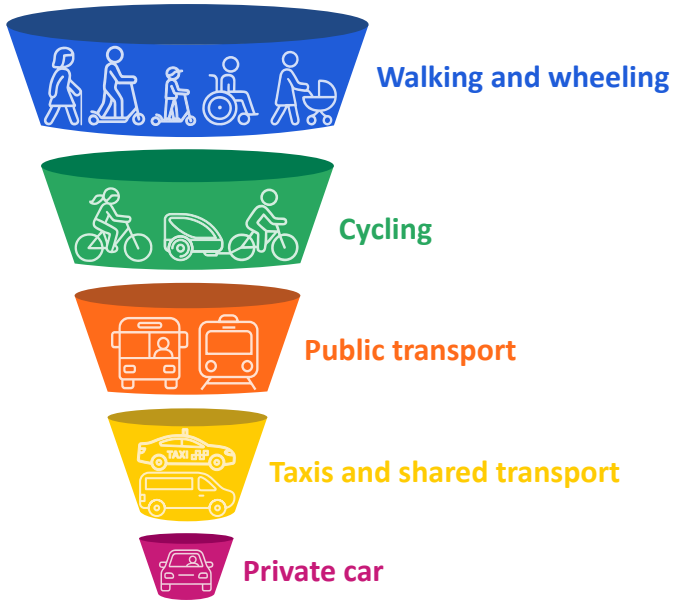
Designing streets with accessibility in mind requires a broad understanding of the needs and perspectives of all users, including those with protected characteristics. It means removing barriers and designing for all forms of human diversity. It also means designing streets which are well connected. Key to achieving accessible streets is engagement with a broad range of users to understand the experience of moving through street spaces. We are committed to inclusive design and delivering a street network with the highest accessibility standards in place.

Sustainability

Our streets should be sustainable in the broadest sense, not only referring to design principles and approach, but also the use of construction materials, drainage regimes and ongoing maintenance requirements. For example, it is Council policy to encourage conservation and facilitate the use of reclaimed and marginal materials wherever possible, to obtain environmental benefits and to reduce the pressure on natural reserves.

Whilst sustainable transport objectives are more fully expressed regionally in the **Tactran Regional Transport Strategy**, and locally within the **Local Development Plan** and **Sustainable Transport Delivery Plan 2024-2034**, it is the guidance set out in this document which will control the delivery of these sustainability objectives. We are committed to the principles of sustainable development and working towards a sustainable future; our **City Plan for Dundee 2022-2032** aligns with the **UN Sustainable Development Goals (UNSDG).**

All development must therefore follow the principles of the sustainable transport hierarchy as presented in the **National Transport Strategy**, which encourages walking, wheeling and cycling over motor transport. This prioritisation must be established at the project outset and considered through the project lifecycle.



Climate Resilience

Our streets offer a huge opportunity to embed climate resilience into the built environment by designing, building and maintaining spaces which can adapt and withstand the impacts of our changing climate. The adoption of blue-green infrastructure can provide shade and shelter, support biodiversity, mitigate the impacts of flooding and capture air pollutants. Construction techniques can be adopted to withstand the impacts of climate change and create a more resilient environment for our transportation systems to function.

We recognise the role of blue-green infrastructure on streets and, in partnership with Scottish Water under the “Water Resilient Dundee” (WRD) framework, aim to jointly plan and sustainably manage water in the city and respond to the impacts of climate change, providing resilience to future flood risk. Increasing integration of this blue-green infrastructure with the street network is one way to help ensure resilience in the city. We will seek to embed climate-conscious design across Dundee, helping to ensure our communities remain liveable and robust under the threat of a rapidly changing climate.

Planning Policy

This guidance document builds on and complements existing transport policies and strategies at the national, regional and local levels.

Scottish Government Policy

A common theme of current national policy is delivering high quality, sustainable places which meet the health and wellbeing needs of the people who use them. Key policy documents and programmes include the **Local Development Plan**, the recently updated **National Transport Strategy** and **Cleaner Air for Scotland** document, and the **National Planning Framework 4 (NPF4)**.

NPF4 promotes a design-led approach that prioritises people over vehicles, encouraging active travel, inclusive access, and integration with green infrastructure. It sets expectations for developments to support climate change mitigation and adaptation, enhance connectivity, and foster vibrant, adaptable communities. In terms of street design, it guides planners and developers to create environments that are safe, welcoming, and resilient, emphasising features such as active frontages, natural surveillance, coherent layouts, and infrastructure that supports pedestrians, cyclists and public transport users.

Street design should meet the six qualities of successful places, as detailed in **Designing Places: a planning policy document for Scotland** that sets out government aspirations for design and the role of the planning system in delivering these. Development is likely to be supported where it is designed to be high-quality; distinctive; safe and pleasant; welcoming; adaptable; resource efficient; and easy to move around and beyond.

The Society of Chief Officers for Transportation in Scotland's (SCOTS) **National Roads Development Guide** supports **Designing Streets** and provides technical guidance and infrastructure requirements including Local Authority variations, such as parking standards and road specifications.

Development Plan

The National Planning Framework 4 and the Dundee Local Development Plan make up the development plan for Dundee. This guide interprets and applies policies set out in NPF4 and the Dundee Local Development Plan 2019 and provides more specific advice. The Council's wider development objectives are clearly set out in the Dundee Local Development Plan 2019 and its supporting documents.

National

- Planning (Scotland) Act 2019
- National Transport Strategy and Cleaner Air for Scotland
- National Planning Framework 4 (NPF4)
- SCOTS National Roads Development Guide
- Designing Streets

Local

- Dundee Local Development Plan
- Tayside and Central Scotland Regional Transport Strategy
- Dundee Sustainable Transport Delivery Plan 2024-2034

The Dundee Context

Dundee's Sustainable Transport Delivery Plan 2024–2034 establishes a strategic framework for creating a more accessible, low-carbon, and inclusive transport system. It aligns with both national and regional policies and provides a comprehensive overview of the current transport and mobility context within the city.

The plan aligns with national and regional strategies and responds to Dundee's unique spatial and social context. As a compact city with a high proportion of short trips (over 50% under 2km), Dundee is well-positioned to shift towards sustainable and active travel. The strategy supports this transition through targeted investment, infrastructure upgrades, and behavioural change initiatives.

Walking and Wheeling

Enhancing safety, accessibility, and comfort for pedestrians and wheelchair users is a top priority.

Dundee's compact urban form supports walkability, and we are actively improving pedestrian infrastructure. This includes the rollout of 20mph zones, School Streets, and safer crossings. The city's topography presents some challenges, but these are being addressed through inclusive design and route planning. The Dundee Green Network also plays a vital role, offering attractive, green corridors that encourage walking and wheeling for both everyday journeys and leisure.

Cycling

A growing network of high-quality cycling infrastructure is making active travel more viable and appealing.

The city is expanding its cycling infrastructure through the Green Circular and the proposed Active Freeways - segregated, high-quality routes connecting key destinations like schools, workplaces, and district centres. Investment in secure cycle parking, including on-street hangars and facilities in multi-storey flats, supports this growth. These efforts aim to normalise cycling as a safe, convenient, and everyday mode of transport.

Public Transport

Improving reliability, integration, and user experience is central to public transport reform.

Dundee has a dense bus network, with most homes within 400 metres of a frequent service. However, post-pandemic ridership decline and congestion-related delays remain challenging. The city is addressing these through bus priority corridors and the development of mobility hubs - interchanges that integrate buses, bikes, car clubs, and taxis. These hubs are designed to make public transport more seamless and attractive.

Mobility as a Service (MaaS)

Digital platforms will simplify multimodal travel and reduce reliance on private cars.

Dundee is advancing MaaS solutions that allow users to plan, book, and pay for journeys across multiple transport modes via a single app. This includes integration with digital ticketing systems and real-time information. MaaS supports a more flexible, user-centred transport system and encourages modal shift by making sustainable options more convenient.

Electric Vehicles (EVs)

Dundee is a UK leader in EV infrastructure and innovation.

The city boasts one of the highest densities of public EV chargers in the UK and operates a large fleet of electric council vehicles. Future plans include expanding on-street charging and community-based charging, supported by public-private investment. Dundee's leadership in this area supports national decarbonisation goals and positions the city as a model for others.

Green Infrastructure and Street Design

Green corridors are central to a sustainable, climate-resilient street network.

The Dundee Green Network - comprising 59 parks, nature reserves, woodlands, and watercourses - enhances quality of life and supports active travel. There is ambition to ensure that high quality, multi-functional green infrastructure is delivered in new development which is well connected into the existing network to be enjoyed, cared for and valued. Much of the Green Network is interconnected by walking and cycling routes, creating a widespread opportunity to embed green infrastructure as part of the Dundee movement network.

3 Working Together

Consultation and Co-operation

Street design should be based on balanced decision-making and must adopt a multidisciplinary collaborative approach. It should involve a wide range of contributors and a collaborative process of partnership and co-operation between all relevant parties from the outset.

Dundee City Council recognises that a creative and collaborative approach is required to achieve design-led streets which is underpinned by the Core Principles: safety, equity, accessibility, sustainability and climate resilience.

We welcome an open and collaborative approach with developers and their advisors. We are committed to working in partnership to deliver high-quality transport infrastructure and recognises that successful street design depends on considering all elements together, from the outset and throughout the design process.

Developer Engagement

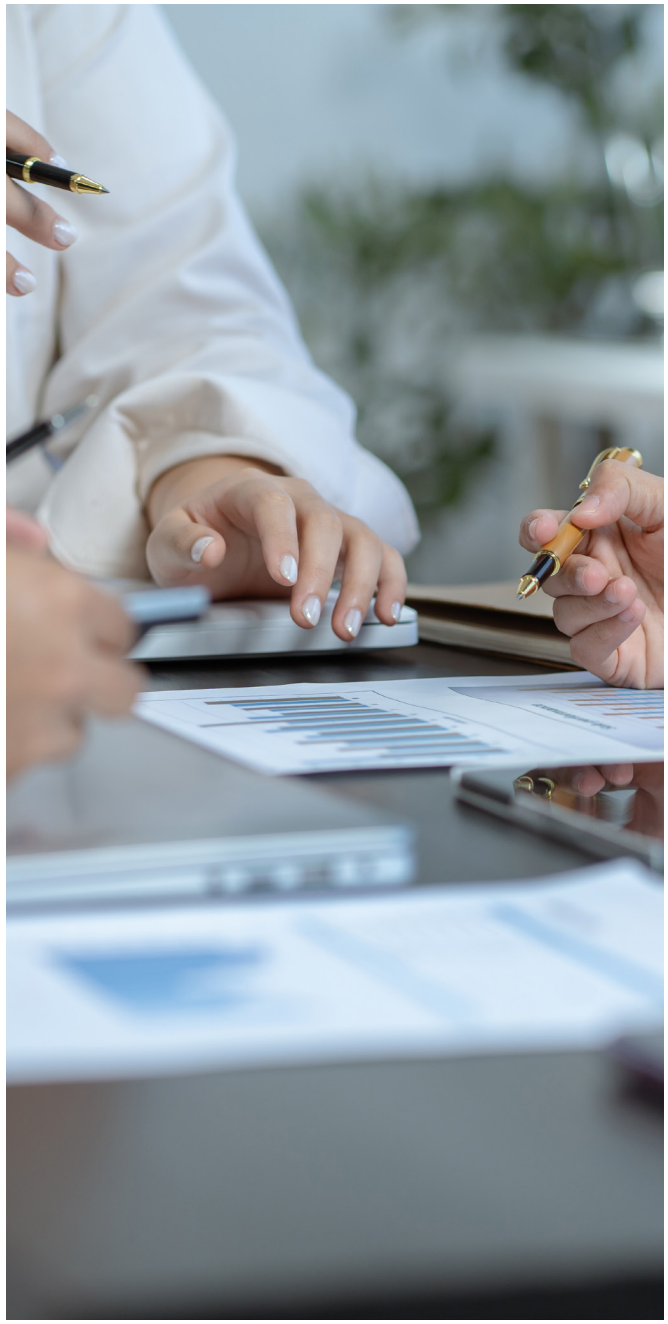
Dundee City Council encourages early engagement on design issues through the pre-application advice service. Getting advice prior to formal submission of a planning application allows for a better understanding of how our planning policies will be applied to development before too much time and money is spent on a project and helps to identify potential problems early and find solutions.

Successful outcomes to working in partnership requires co-operation to achieve common objectives. In bringing forward your proposals for discussion, we ask that:

- you try to understand the wider objectives of Dundee City Council and develop your plans to assist with their delivery.
- information is supplied in the requested formats in order that we can process your enquiry with maximum speed and efficiency.

The City Development Department are happy to share experience with others as new infrastructure is developed in Dundee. Equally, the opportunity to learn from the experience of others elsewhere in delivering transportation infrastructure initiatives can be a useful tool.

This design guide seeks to allow a degree of flexibility for creating unique and bespoke places, and design innovations are supported so long as they embody the five Core Principles.



Involving the Public

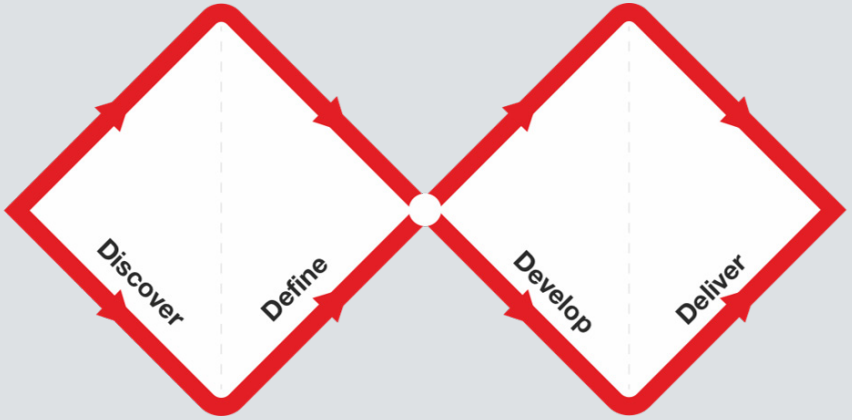
Communities play a vital role in street design: residents, businesses and other stakeholders have a unique insight into the barriers and opportunities for transport infrastructure. Involving and working with the community ensures that diverse needs, preferences, and aspirations of residents are considered, and creates a platform for collaborative decision-making. Consultation and engagement with communities, user groups and other interest groups should be undertaken from the earliest stages of design and delivery.

Third parties undertaking engagement with communities and stakeholders should, where appropriate, allocate sufficient time and resources to deliver engagement programmes alongside delivery programmes. Engagement programmes should be planned and proportionate to the scale of the project being undertaken. Structured and well-resourced engagement programmes will frequently lead to positive benefits for the parties undertaking the scheme by allowing potential projects risks to be identified and mitigated. Good engagement can also enhance the social value of schemes by providing wider benefits for the community by improving local empowerment and ownership of the scheme in the community and allowing for more tailored design outcomes that match community aspirations.

Double Diamond approach to Engagement

The Double Diamond Approach (The Design Council) outlines a staged approach to engagement process. This can be used a simple outline for planning engagement.

The following is an adapted version of how the Double Diamond Approach has been used in Dundee on the Stobswell Pocket Place project.



Discover	Define	Develop	Deliver
The first diamond is used to help discover both the problems and opportunities that the project should address. It involves spending time with people and speaking about the issues that affect them	The second diamond takes the information gathered from the first phase to define specific responses and is commonly used to develop agreed design objectives to structure and refine the engagement and design process.	The third diamond encourages people to respond to the clearly defined problems, and design outputs, seeking inspiration from elsewhere and co-designing with a range of different people.	This phase may involve testing out different solutions at small-scale, rejecting those that will not work and improving the ones that will.

Other Resources

Authorities or other agencies, and their designers and practitioners should carry out appropriately diverse engagement when considering, developing and introducing schemes. There are many existing resources and guidelines available which can support community engagement for street design. These provide access to methods and tools for engagement. It is encouraged that these documents and methods are referred to as part of any street-design process.

See further information:

- Engagement Overlay to the RIBA Plan of Work. RIBA
- Double Diamond Approach. Design Council
- National Standards for Community Engagement
- Transport Scotland- Best Practice Guidance on Community Engagement
- Sustrans Places for Everyone- Community Engagement Guide 2022
- Guidance on Inclusive Design for Town Centres and Busy Streets
- Understanding accessibility requirements for public sector bodies

Some of the key considerations for engaging with the public are summarised below.

Inclusive Engagement

Integral to engagement is ensuring everyone can participate and be heard, and organisers must make a conscious effort to design processes that are open, accessible, and welcoming to all, including children and young adults. This includes choosing fully accessible venues and/or going to meet the stakeholders directly e.g. visit the local Primary School, creating safe and respectful spaces, and actively promoting diversity so that no single group dominates the conversation. Mapping out who has a stake - whether residents, demographic groups like older or disabled people, or local organisations - helps ensure a broad and representative range of voices are included.

However, inclusion also requires proactive outreach, especially to those who are often underrepresented or disproportionately affected. Tailored engagement approaches with people with protected characteristics or representative groups for people with protected characteristics should be actively considered on all projects envisaging major changes to physical street layouts and public transport provision.

People aren't hard to reach, but they are often seldom heard.

Inclusion should ultimately promote equality and representation, and tools like Equality Impact Assessments (EqIAs) can help designers to evaluate scheme designs against gathered feedback and improve the inclusivity of further engagement processes. By embedding these practices, engagement becomes not only more equitable but also more effective in shaping transport solutions that work for everyone in Dundee.

Accessibility

It is also important to ensure that venues and material (both printed and digital) are accessible for all users, including those with mobility impairments, visual impairments, cognitive impairments, non-visible impairments, or learning disabilities, deafness or impaired hearing. Wheelchair accessible venues must always be provided, along with opportunities for online participation to enable engagement from members of the public who may find it difficult to attend in-person meetings.

See further information

- Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure
- Understanding accessibility requirements for public sector bodies

Inclusive and Future-Focused Design

To support the creation of streets that are resilient, equitable, and responsive to the needs of all users, the following principles should be embedded in the design and engagement process:

Climate Adaptation and Resilience

Climate resilience should be explicitly addressed during engagement. Communities can provide valuable insights into local climate-related challenges, such as flood-prone areas or heat-vulnerable spaces. Including climate adaptation as a theme in community discussions helps prioritise sustainable and resilient design solutions.

Intergenerational Engagement

Children, young people, and older adults often have different needs and perspectives on street use. Engaging with schools, youth groups, and older people's forums ensures that designs reflect the needs of all age groups and promote intergenerational equity.

Co-Design and Participatory Design

Involving communities in co-design, not just consultation, can lead to more meaningful and locally tailored outcomes. Participatory design workshops, particularly in residential or community-sensitive areas, help ensure that the voices of local residents are embedded in the design from the outset.

Digital Engagement Tools

Digital platforms such as interactive maps, online surveys, and virtual town halls can broaden participation, especially for those unable to attend in-person events. These tools complement traditional engagement methods (face to face, workshops, co-design and focus groups) and improve accessibility, allowing a wider cross-section of the community to contribute to the design process.

Winning Hearts and Minds

It is our belief that through engagement and consultation, most needs can be met. It is rarely possible to satisfy everyone's concerns, but the aim must be to try to win the hearts and minds of the majority.

The over-riding objective is to make Dundee a better place for everyone; for those who work here, shop here, play here and live here. It is essential that all those involved in the development process in Dundee are encouraged to adopt this ethos and endeavour to ensure that this approach is adopted in all cases. After all, **Working Together** will achieve the desired objective…a better Dundee.

Case Study: Stobswell Pocket Place

Stobswell Pocket Place has helped to transform Craigie Street and key surrounding areas in Dundee into a series of socially valuable assets for the community. Stobswell Forum, Dundee City Council and Sustrans worked extensively with the community and stakeholders over two years to develop a series of concept designs for the Stobswell area primarily focussed on Craigie Street but also extended to Langlands Street, Park Avenue, Arthurstone Terrace and Balmore Street.

Initial engagement sessions were held online with the community due to COVID restrictions. These sessions were used to identify issues and opportunities for improvement. A project website was also set up to support the project. This allowed the partners to gather more feedback on issues in the area and was used alongside the engagement process to showcase the design development process.

Subsequent engagement sessions were held on site and were used to develop the design objectives for the projects and showcase and refine the potential design solutions. Local artists were also commissioned to develop supporting proposals to enhance the character of the scheme design by drawing on local heritage.

The scheme, including artworks, was delivered in 2023 by Dundee City Council with funding support from Sustrans and additional design expertise on sustainable urban drainage systems provided by Scottish Water. Following installation, a final event was held with the community to celebrate the schemes completion.

The completed scheme showcases the potential to respond to local issues and develop valuable new urban spaces that enhance social value, improve active travel and bring biodiverse, climate resilient spaces into our cities. Qualitative monitoring undertaken pre and post scheme delivery has highlighted positive benefits in the sense of improved community cohesion and a sense of local empowerment arising as a result of the engagement process.

This scheme received national recognition for the quality of the engagement process and public space by winning both the Scotland Loves Local Awards 2023 (Streets and Spaces category) and Scottish Planning Innovation Awards 2023-2024 (under the People category).

4 How to use this document

The purpose of this document is to set out a framework for street design and consolidate key design principles from existing guidance and standards documents, distilling best-practice guidance which is relevant to the Dundee context. It captures any local variations and nuances from these wider documents, ensuring the approach reflects the opportunities and challenges facing Dundee.

This design guidance document makes reference to various national and local guidance, and it should be read in conjunction with these. It is intended to provide a holistic overview of the elements of successful street-design, whilst acting as a companion to these wider standards and best practice documents.

A list of relevant general publications is summarised below. Additional technical documents are signposted throughout the guidance, highlighting where these should be referred to for further information and technical detail.

- Designing Streets
- Dundee Local Development Plan
- National Planning Framework 4
- Sustainable Transport Delivery Plan 2024-2034
- National Roads Development Guide
- City Plan for Dundee 2022-2032
- National Standards for Community Engagement
- Cycling by Design

Who should use this document?

Dundee City Council is responsible for ensuring that new streets meet certain design standards, along with aspirations for the city and its citizens. This guidance therefore establishes Dundee City Council's benchmarks for the design of streets and places in Dundee.

This guide should be used in projects relating to analysis, engagement, detailed planning, design, construction, operation and maintenance of Dundee's streets. It will be considered during the issuing of formal approvals.

It is intended to be used by everyone involved in the design and determination of streets in Dundee. This includes (but is not limited to) Dundee City Council, developers and land holders, design and planning consultants, engineers, community groups and stakeholders, and all people involved in street design.

It is expected that this document will predominantly be used for the delivery of new streets, yet it is also applicable to the retrofit of existing streets and places.

Applying this document

Dundee City Council have a statutory obligation to ensure that all implemented designs are safe and maintainable. In some cases, it may be necessary to be prescriptive. However, the strict application of the standards contained in this document may not always be entirely appropriate, and the Council reserves the right to vary requirements to cater for differing circumstances. For design aspects not fully covered by this document, reference should be made to the appropriate national guidance and standard documents.

Dundee City Council serves as the local Roads Authority for the city while the department of City Development oversees broader development functions. In the interests of pedestrian and traffic safety, the design standards outlined in this document should apply to all new transport infrastructure constructed in Dundee.

Where a third party wishes to construct a new item of infrastructure, the procedures described in this document must be followed. In particular, before commencing construction work, the City Development Department must be notified of this intention and have the opportunity to discuss the proposal, inclusing potential departures from standard. Failure to give notice will be taken to indicate that the new infrastructure is to remain unadopted.

This document does not relieve the developer/ designer of any duty of care. It will remain the responsibility of the designer to ensure appropriate regulations and standard professional and legislative practices are followed. Dundee City Council will not accept such responsibility on the developer's behalf.

The Development Process

Although the development process can be simplified into the following stages, each of these are explained in more detail in **Appendix D - Procedures**.

Concept Stage
may involve discussions with the City Development Department prior to formal submissions

↓

Planning Consent
may involve both outline and detailed stages

↓

Roads Construction Consent

↓

Road Safety Audit procedures

↓

Implementation

↓

Maintenance and Adoption

5 Dundee Street Types

The Function of the Street

This chapter sets out the street types which form the Dundee Street Hierarchy, and the different forms and functions of these streets.

Streets are more than just corridors for movement - they are vital public spaces that shape the character, accessibility, climate resilience and sustainability of our communities. Every street has a dual function in supporting both place and movement.

- Place refers to the street's role as a destination and social space - supporting local communities, fostering social interaction, and contributing to a positive sense of place.
- Movement refers to the street's function in facilitating the flow of people, goods, and services - whether by walking, cycling, public transport, or private vehicles.

Defining a clear street hierarchy and establishing different street types can help to ensure that a street is designed with an appropriate balance between its place and movement functions. Street design must consider place before movement.

Designing appropriately for place and movement functions is explained in the **National Roads Development Guide – 1.6 (Road Network and Context)**.

The Dundee Street Hierarchy

The Dundee Street Hierarchy includes five distinct hierarchical classifications. This hierarchy helps to provide an understandable transition from the higher-speed, higher vehicle capacity routes (Category 1 and Category 2), to residential streets with lower vehicle volumes and speeds(Category 3, Category 4 and Category 5). Typically, the place function is likely to be greater in the lower Category streets, however the movement and place functions will vary across all street types. Two other street types are identified which fall outside of the category: Driveways & Private Accesses, and Streets in Industrial Areas.

Developers should refer to the **Street Hierarchy Technical Table (Appendix B)** for the recommended design attributes of each Street Type. Every opportunity should be taken to ensure that all streets are designed to be as Safe, Sustainable, Equitable, Climate Resilient and Accessible as possible. New developments should adopt the hierarchy to help ensure a clear and legible network is provided for all modes.

There is often competition for space between walking, wheeling, cycling, public transport and motor traffic modes on an individual street or link. Reallocation of space in favour of sustainable modes will help to resolve these issues at the street level, but this may also be supported by taking a strategic network approach to the planning of each mode's network

While the street types and configurations recommended here (with the exception of Driveways & Private Accesses) will be adopted by the council for the purposes of maintenance, other solutions which achieve the same purposes will be considered on their merits, should they be in accordance with the Core Principles. The City Development Department, Sustainable Transport and Roads Division should be consulted on issues affecting all levels within the hierarchy.

Category	Description
5	Access Streets
5	General Streets
4	Local Distributor- Type 2
4	Local Distributor- Type 1
3	District Distributor
2	Principal Roads
1	Trunk Roads
Other	Driveways and Private Accesses
Other	Streets in Industrial Areas

Streets and Roads

As per "Designing Streets", a clear distinction can be drawn in functional terms between roads and streets as follows:

Streets have important public realm functions beyond those related to motor traffic. (e.g Category 3, Category 4 and Category 5).

Roads are thoroughfares whose main function is to facilitate the movement of motor traffic. (e.g Category 1 and Category 2).

Speed Limits

Dundee City Council supports 20mph speed limits within new residential developments and through the planning process requires new residential road networks to be designed to limit motor traffic speeds. Therefore, streets which fall under Category 5 and Category 4 must be designed for a 20mph speed limit. To facilitate longer distance travel within cities and movement of goods/ freight, it is recognised that higher speed limits on higher order roads may be required on Category 3, Category 2 and Category 1 routes. The **Street Hierarchy Technical Table (Appendix B)** should be referred to for appropriate speed limits.

Street Types

Each street type is summarised on the following pages, with additional technical detail provided in the **Street Hierarchy Technical Table (Appendix B)**.

Category 5 Streets

Category 5 streets should be people-focussed environments for communities to spend time in, with low traffic volumes and low traffic speeds, achieved through the adoption of a variety of traffic calming measures. These streets have a high place function and serve as a backdrop for community activity and should encourage social interaction. These streets are unlikely to be bus routes. Waste access and servicing is typically on-street, coordinated with dwellings and must avoid obstructing pedestrian or social spaces. Swept path analysis with an appropriate design speed is required for all street developments to ensure safe and functional vehicle movement.

Category 5 Access Street

Access Streets can be conventional or partly shared use in nature. Priority should be given to walking, wheeling and cycling. Access streets should preferably be designed as loop roads to enhance local connectivity, while ensuring that they do not encourage significant through traffic. A surface change is encouraged to indicate a transition onto this Street type for users. Although layouts with more than one access / egress point are preferred, cul-de-sac layouts may be considered a form of Access Street and should refer to the same design principles.

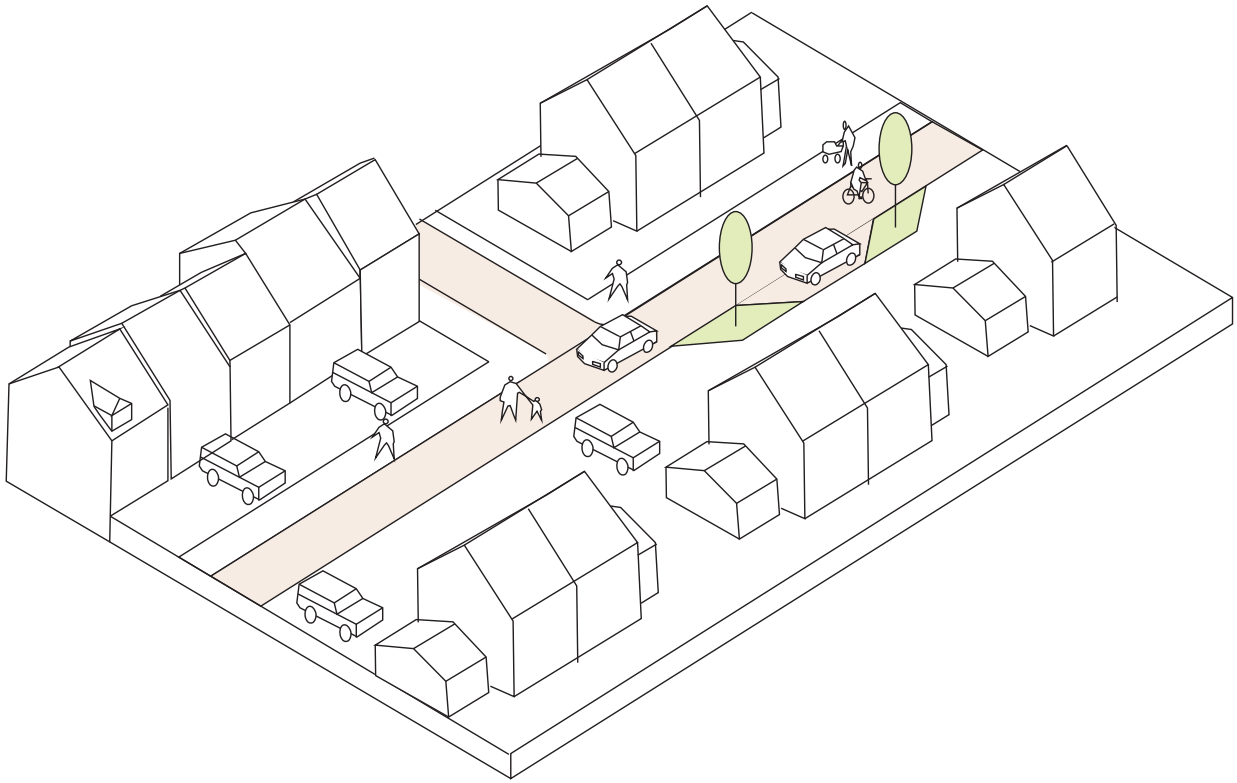
Where shared or level surface streets are proposed, alternative means for visually impaired people to navigate must be provided. It is encouraged that these are designed in collaboration with representatives from disability groups and / or access panels. An audit of such areas which indicates clear regard and consideration to disabled users and equalities legislation during design is required to support such street proposals.

The design principles identified in the **National Roads Development Guide 2.2.6 (e) Shared Surfaces** must be referred to when considering such schemes.

Access Streets should allow for direct servicing, waste collection and winter maintenance at dwelling frontages. Given low traffic speeds, refuse vehicles must have forward entry and exit without requiring lengthy reversing. Layouts should ensure turning heads or looped configurations, with more than one access / egress point, to support efficient collection operations.

Access Streets can give direct access to dwellings and typically serve a smaller number of homes. Because speeds and traffic volumes are low, joint use of shared areas by vehicles and pedestrians is to be encouraged in developments of up to 20 dwellings.

Access Streets should allow for direct servicing and waste collection at dwelling frontages. Given low traffic speeds, refuse vehicles must have forward entry and exit without requiring lengthy reversing. Layouts should ensure turning heads or looped configurations to support efficient collection operations.

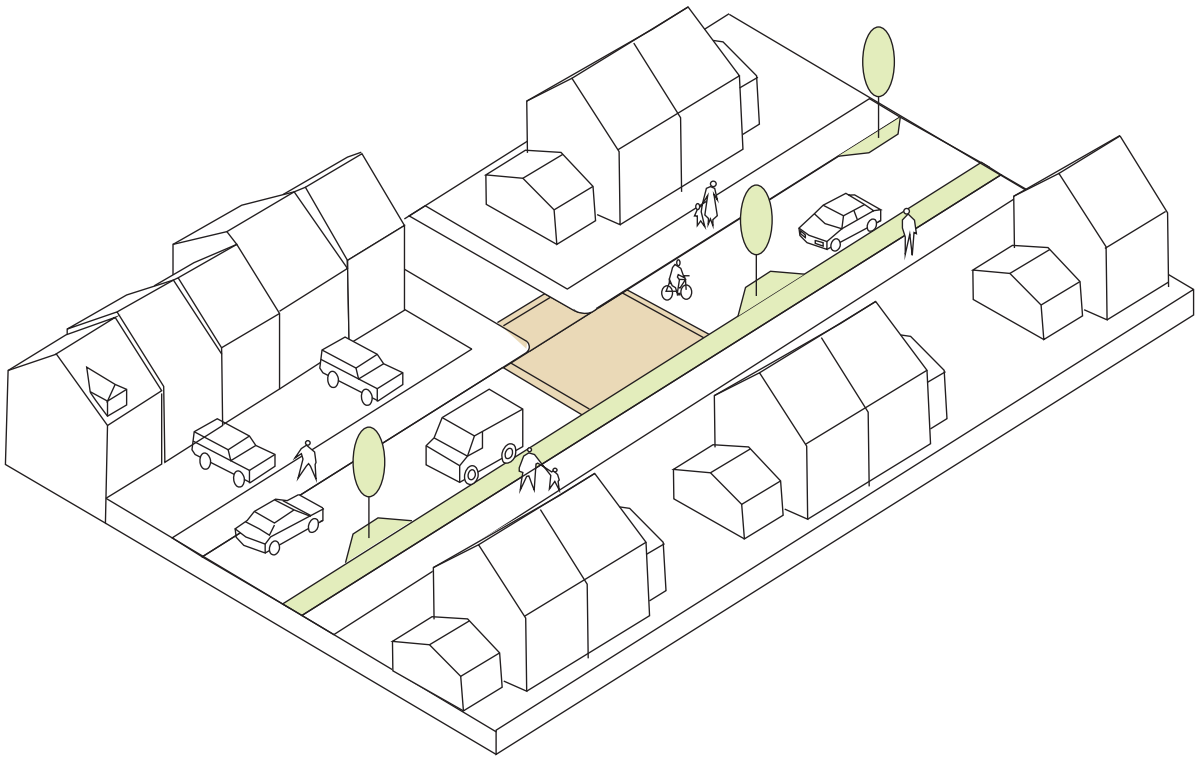


- 3m single track carriageway
- Opportunities for placemaking encouraged
- Typically shared surface/partially shared surface street.
- Tight junction radii to support low vehicle speeds
- 10mph design speed
- Opportunities for greening
- Direct access to properties for vehicles
- Local widening of carriageway to 5.5m to enable passing
- Low traffic volumes and speeds support mixed use carriageways, shared by pedestrians, vehicles and cyclists (mixed traffic street)

Category 5 General Streets

General Streets can help to connect Access Streets to Category 4 routes. General Streets should be designed to have a tight geometry to encourage low-vehicle speeds and should feel comfortable for cycle users to share the carriageway space with vehicles. Street furniture which supports the pedestrian experience, including benches, and opportunities for placemaking are desirable and encouraged along General Streets.

These typically serve smaller sized residential developments and can provide direct access to individual dwellings given the low vehicle speeds (subject to appropriate design measures being implemented to allow bus travel and bus stop provision).



- Minimum carriageway width of 5.5m
- Opportunities for placemaking encouraged
- Occassional on-street parking is permitted
- Compact street geometry with narrow carriageways, tight bends, and build-outs to promote low vehicle speeds
- 20mph speed limit
- Verges are desirable where appropriate (minimum 1.0m)
- Mixed traffic street
- Opportunities for greening
- 2.0m minimum footway width on both sides of carriageway
- Regular street trees and low level planting are desirable and could be accommodated in build outs

Category 4 Streets

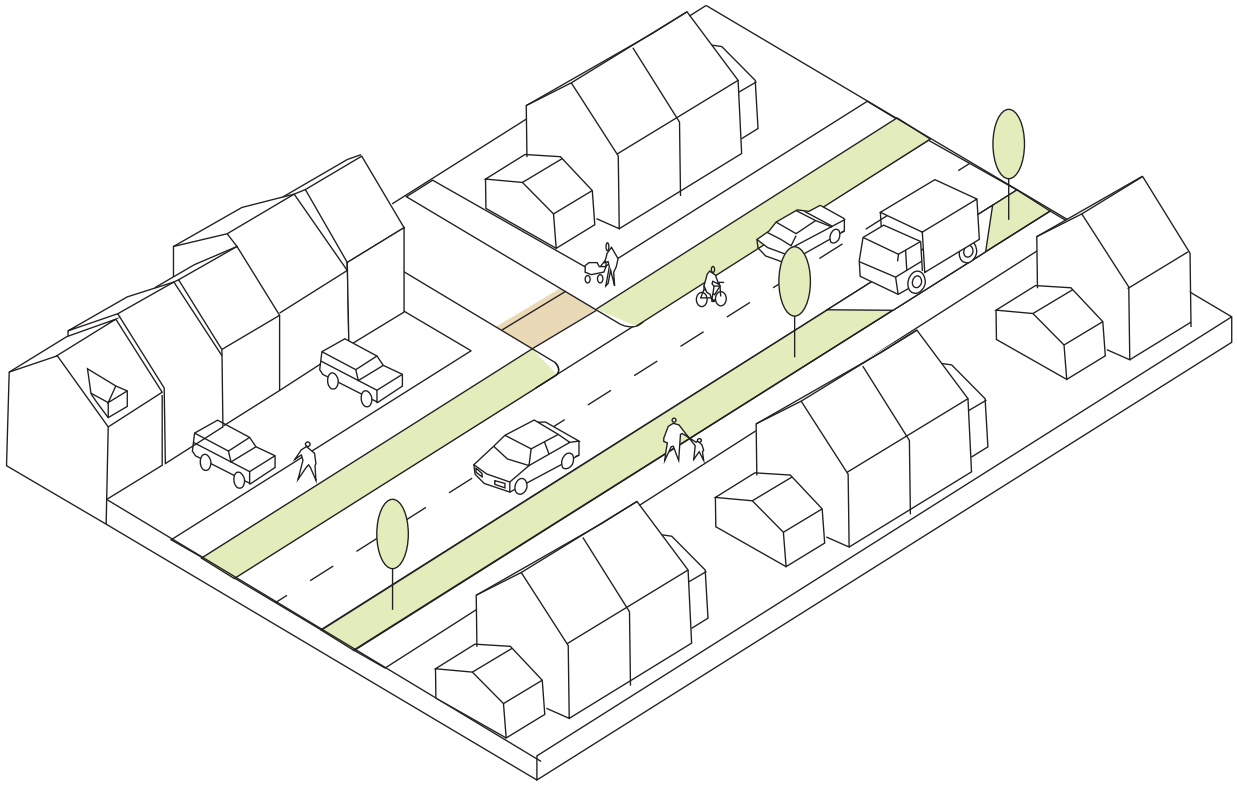
Category 4 streets are the main streets which provide structure for new developments and act as neighbourhood spine roads. They provide the primary vehicular access to the area, and link with Category 5 street types to form the backbone of a permeable network of streets for pedestrians and cycle users. Category 4 streets perform more of a movement function than the Category 5 streets, yet the place function is still high. Any alterations to road geometry will require a swept path analysis assessment to be conducted for the largest vehicle expected to ensure safe manoeuvring.

There are two types of Category 4 routes; Type 2 Local Distributors are likely to be looped within neighbourhoods with minimal through traffic, therefore are slightly more pedestrian dominated environments than Type 1 Local Distributors (where through traffic may be more likely), however, both should feel people focussed. **These streets could be bus routes.**

Category 4 Local Distributors (Type 2).

Local Distributors (Type 2) help to distribute traffic within housing, industrial or business areas, and tend to operate on a looped layout with a minimal level of through traffic. The lower traffic volumes mean direct access can still be provided to dwellings. Bus routing may occur along these streets, and segregation may be required for cycle users depending on vehicle speeds and volumes. Servicing and waste collection should be facilitated along dwelling frontages, using laybys or designated areas to avoid disruption to general flow.

These streets typically serve medium sized residential developments and are likely to carry a low number of commercial vehicles per day in each direction.



20mph speed limit

Opportunities for greening

Minimum carriageway width of 5.5m

Cycling may be accommodated on a mixed traffic street, depending on traffic volume and speed. Refer to Cycling by Design Figure 3.2.

2.0m minimum footway width on both sides of carriageway, increasing to 2.6m or more in areas with higher pedestrian activity

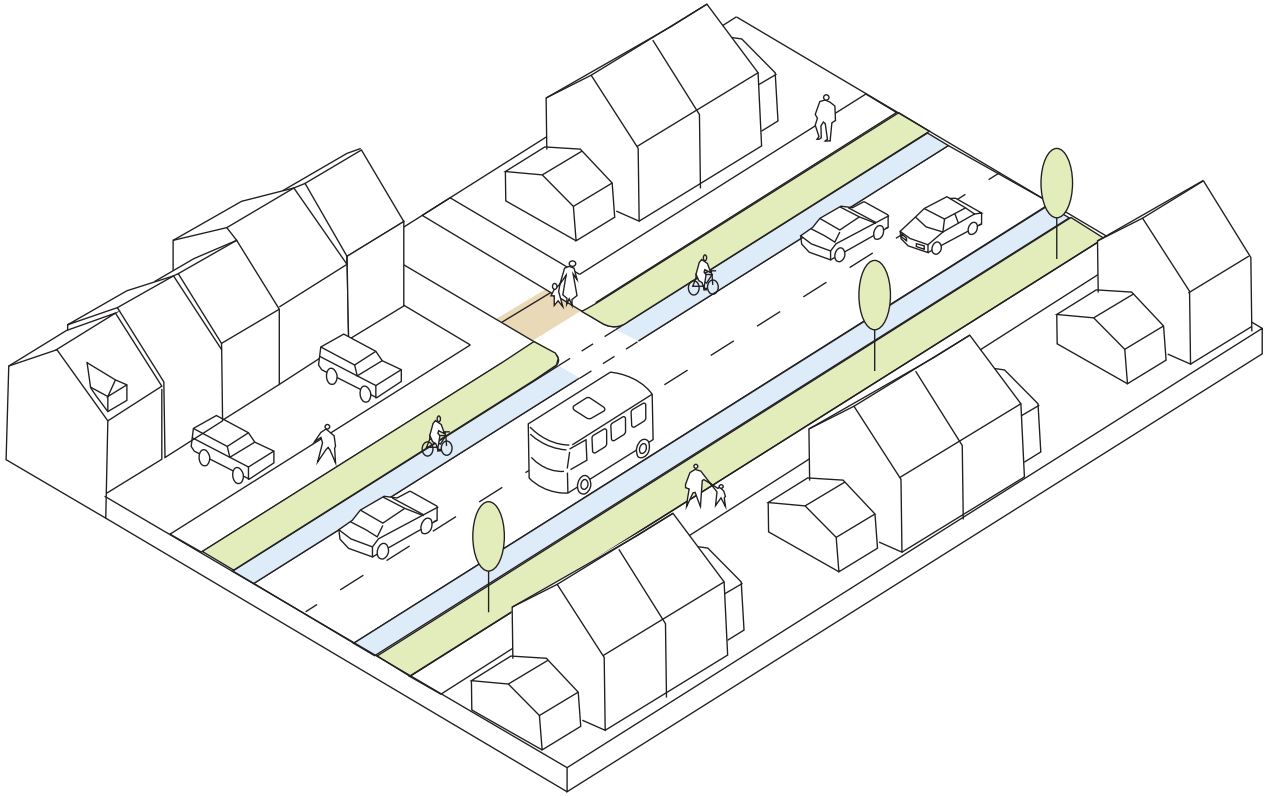
2m minimum verge width

Servicing and waste collection should be facilitated along dwelling frontages, using laybys or designated areas

Category 4 Local Distributors (Type 1)

Local Distributors (Type 1) help to distribute traffic within housing, industrial and business areas and are likely to carry more through traffic than Local Distributors (Type 2). These are multi-purpose streets and potential bus routes. These streets require robust servicing strategies including off-street loading bays where appropriate. Loading should be time-limited and coordinated with movement patterns.

These streets typically serve up to 1,000 dwellings and are likely to support some commercial vehicle movement.



2.0m minimum footway width on both sides of carriageway, increasing to 2.6m or more in areas with higher pedestrian activity

Cycle segregation is likely to be required. Cycling by Design must be referred to

20mph speed limit

Opportunities for greening

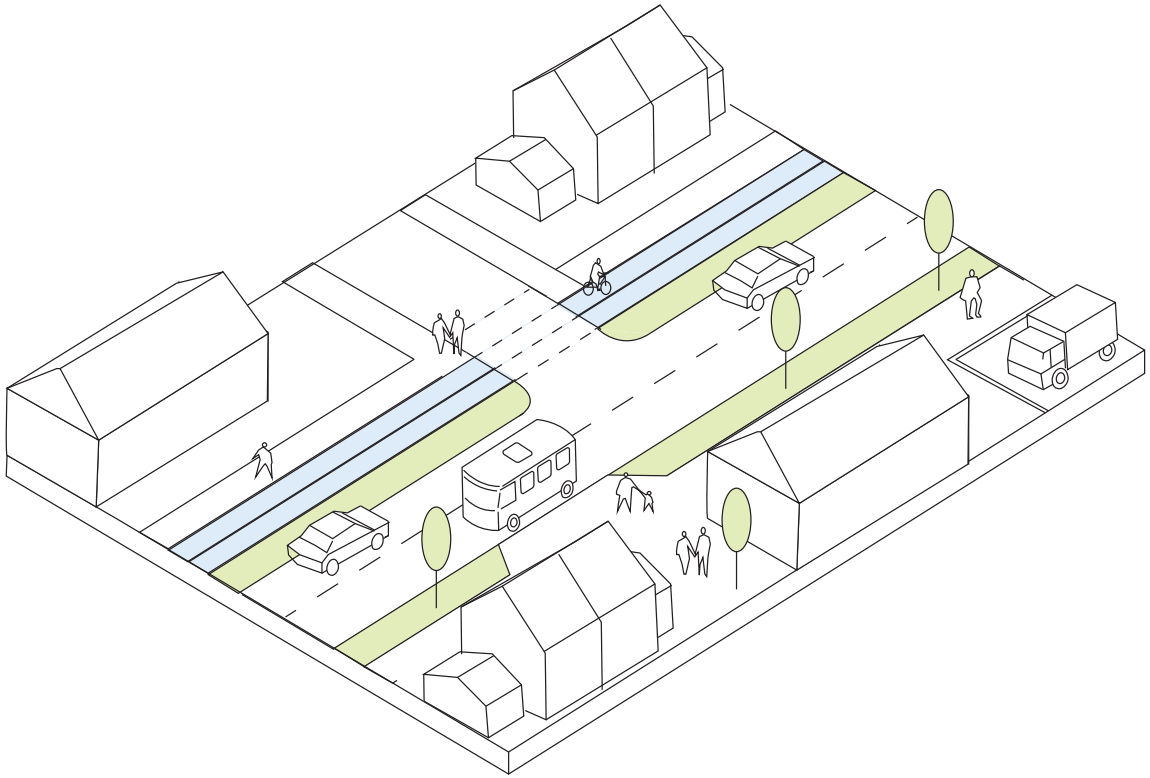
2.0m minimum verge width

Absolute minimum of 6.5m carriageway width for two-way bus routes

Category 3 District Distributors

District Distributors will generally carry a large volume of traffic, including commercial vehicles, and will likely provide a link between different environmental areas or district centres. Efforts should be taken to reduce the impact of these streets on the local communities which they travel through. They are likely to carry bus traffic, and cycle lanes will most likely require segregation / an off-road alternative due to vehicle speeds or volumes. District Distributors should be supported with appropriate crossings to reduce severance between communities; implementation of such infrastructure will require swept path analysis to verify feasibility. Waste access and servicing should be off the main carriageway wherever possible, using rear access lanes or integrated service roads. Loading must be restricted to off-peak times and coordinated with traffic management strategies to prevent conflict with general and bus traffic.

Design of these roads will normally be the responsibility of the Executive Director of City Development.



30mph speed limit

Opportunities for greening

Any on street parking should be accommodated in widened areas

Cycle segregation is likely to be required. Cycling by Design must be referred to

Waste access and servicing should be accessed away from the main carriageway so not to interrupt flow

Absolute minimum of 6.5m carriageway width for two-way bus routes

2.0m minimum footway width, to increase to 2.6m or more in areas of higher pedestrian activity

Principal Roads (Category 2) and Trunk Roads (Category 1)

Trunk Roads and Principal Roads carry large volumes of traffic and are crucial corridors for the movement of goods and the economy across the Dundee City Area. These roads will generally carry high volumes of commercial vehicles per day in each direction and form the primary network for motorised vehicles into and around the city. Bus routes are likely along these street types. Servicing on these corridors should be strictly managed, with off-road service areas or rear access strategies. Service yards, loading docks or access lanes should be incorporated into development proposals adjacent to these routes.

The design of Principal roads will normally be the responsibility of the Executive Director of City Development. The design of Trunk Roads is the responsibility of Transport Scotland. Trunk Roads and Principal Roads should be designed to the standards set out in the Design Manual for Roads and Bridges.

Any departures from standards must be approved by the Head of Sustainable Transport and Roads. Developers will be required to provide full justification for such departures, particularly for Category 1 and 2 roads.

Where relevant, junctions on Trunk Roads and Principal Roads should be easy to cross for pedestrians and cycle users to support connectivity and reduce severance between communities. Regular signalised crossing points for pedestrians and cycle users are expected along desire lines and connecting points of interest. **Reference should be made to the Roads Department's Pedestrian Crossing Assessment Process.**

Other Street Types

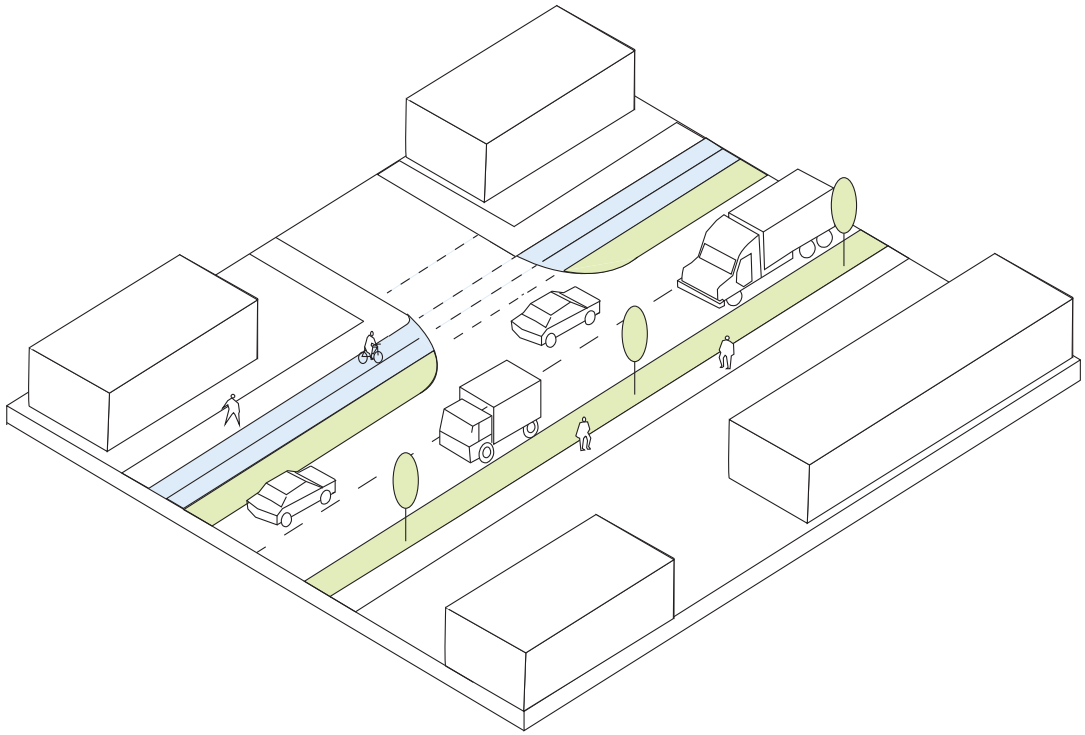
The following street types fall outside of the Street Hierarchy.

Streets in Industrial Areas (Other)

By the nature of their land-use, these routes will attract larger vehicles and are therefore dictated by greater swept path analysis and turning movements. These routes have a higher movement function; however designs must ensure these are still attractive and comfortable environments for pedestrians and cycle users. It will also be important to ensure public transport is integrated and an attractive option for accessing these employment sites. Green infrastructure, such as street trees and grass verges, play an important role in softening these environments.

It is encouraged that street network should be looped, with more than one access / egress point, to avoid the requirement for large turning heads and minimise the requirement for reversing vehicles. The street layout should also seek to be segregated from residential streets to minimise the mixing of residential and industrial traffic, whilst still supporting pedestrian and cyclist permeability and access to employment. Swept path analysis will be required to justify any proposals for on-street parking or loading activities. This is not encouraged due to the potential risk of obstruction of larger vehicles. As per the National Roads Development Guide, where vehicles are to be loaded or unloaded while parked parallel to the kerb in service roads, parking bays, 3 metres wide and at least 3 metres longer than the vehicles using them, should be clearly designated. The width of the service road should be increased accordingly.

Abnormal load movements may occur around industrial areas in Dundee. Where this is the case, due protocol should be followed regarding the notification of the highway, police and bridge authorities.



- 20mph speed limit
- Opportunities for greening
- Cycle segregation is likely to be required. Cycling by Design must be referred to
- Requires a robust servicing strategy for loading vehicles
- Regular street trees and low level planting are encouraged
- Street geometry should reflect the larger vehicle types
- Minimum carriageway width of 7.3m
- 2.0m minimum footway width

Driveways and Private Access

Where a development comprises five houses or less and is not capable of further development, and if the Executive Director of City Development considers that no public right of passage is necessary for general servicing of the development, the way providing access to the development will be considered to form a Driveway or Private Access. Whilst no application for RCC is required, developers must secure planning consent for these street types.

Whilst Driveways & Private Accesses may introduce a different standard to the adoptable street network, the following should be taken into account:

- Drainage
- Access Rights
- Future maintenance liabilities
- Public liabilities
- Street cleansing
- Lighting
- Servicing
- Passing places

New housing developments, regardless of size, must integrate with existing walking and cycling networks, and ensure connectivity to local services and public transport.

6 A Connected Dundee

Introduction

Streets should be easy to move around for all users and connect well to existing movement networks. Development proposals will be supported where they are part of well-connected networks which make moving around easy and reduce car dependency. New streets should connect well with existing streets and with walking and cycling networks and link into and develop the green infrastructure network across the City.

The movement network for new developments should be based on the Sustainable User Hierarchy (see pg 10) and prioritise the movement of pedestrians, cycle users and public transport.

Walking, wheeling and cycling routes should be useable prior to the first occupation of a new development.

A Connected Dundee supports each of the Core Principles.

Safety

- Encourages permeable street design and the reduction of isolated cul-de-sac streets, supporting passive surveillance.
- Encourages early implementation of pedestrian and cycling infrastructure ensuring safe routes are available from the outset.

Equity

- Promotes inclusive access by ensuring streets are easy to move around for all users, regardless of age or ability.
- Encourages walkable neighbourhoods with safe, direct routes to key services and facilities, helping all residents meet daily needs without reliance on a car.
- Supports traffic reduction around schools and neighbourhoods, contributing to healthier, more resilient urban environments.
- Improves walking access to public transport from development sites

Sustainability

- Reduces car dependency by prioritising walking, wheeling, cycling, and public transport, and encourages compact development patterns that support efficient land use and reduce emissions.
- Integrates green infrastructure and supports liveable neighbourhoods to enhance environmental quality.

Accessibility

- Requires permeable, well-connected street layouts that link to existing networks and reflect natural desire lines.
- Ensures active travel routes are usable from the first occupation of new developments and facilitate connection with public transport routes and infrastructure e.g. bus stops.
- Discourages impermeable layouts for active travel, by facilitating modal filters in cul-de-sacs and promoting continuous movement for those walking, wheeling and cycling, and using public transport..

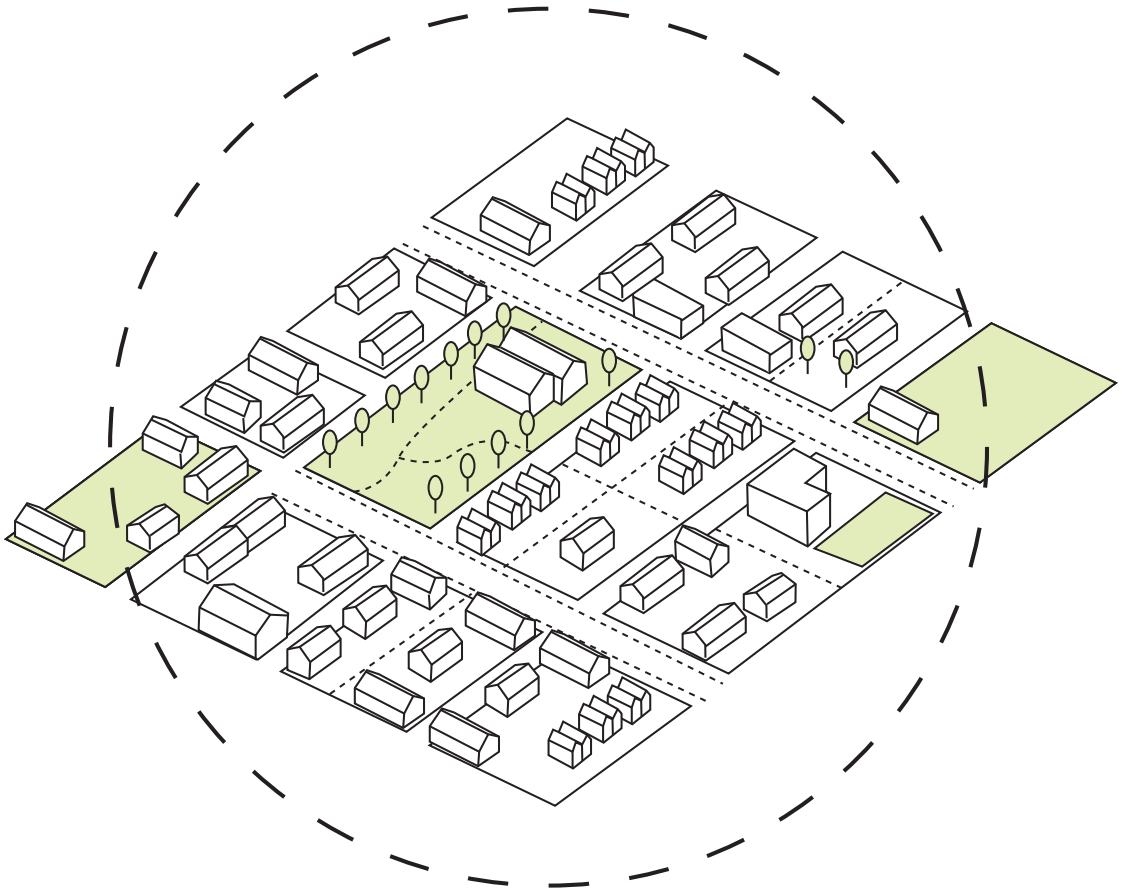
Climate Resilience

- Promotes modal shift to sustainable transport, reducing greenhouse gas emissions.

Connectivity and Layouts

Designs must include a clear and permeable street hierarchy that connects to the existing street network and provides good internal and external connectivity, reflecting the **Street Hierarchy (Chapter 5)**. Impermeable layouts which incur additional walking, wheeling or cycling distances will not be supported.

Walkable neighbourhoods are encouraged. Residents must be able to have quick, easy, and safe access to a range of facilities and services from their home through walking, cycling or public transport. Residential layouts should encourage walking and cycling through the provision of high-quality routes. Developments and streets should be structured around a compact layout which allows walking and wheeling access to local amenities. Development proposals should contribute to local living including 20-minute neighbourhoods.



Open space as a focal point

Good pedestrian connectivity across development parcels

High quality walking and cycling routes

10-minute each way, 20-minute round trip walk to neighbourhood amenities

Space for future network connections

Permeable street layout with good connectivity

Green infrastructure opportunities

Promoting use of public transport by facilitating connections with public transport routes (bus/rail)

Layouts should encourage walking and cycling through the provision of high-quality routes which provide access to local amenities.

Residents must be able to have quick, easy, and safe access to a range of facilities and services from their home through walking, cycling or public transport.

Opportunities to connect development with neighbouring communities and facilities must be maximised and major connectivity gaps beyond the site boundary should be identified and addressed through new links including footways, bridleways, cycle routes or enhancing existing 'desire lines'.

Layouts should not prevent future connectivity and avoid the creation of ransom strips between development parcels. Where potential for future connectivity exists, such as where an adjacent site is allocated for development or redevelopment, provision should be made in the site layout for a potential future access point.

Pedestrian and cycle networks should be as convenient, safe and as pleasant as possible by careful attention to the design and layout of routes. The active travel network should reflect natural desire lines and be more attractive for pedestrians and cycle users to use than the vehicular route.

Chicane-type barriers on pedestrian and cycle links are to be avoided and will not be supported. If there is a demonstrable road safety requirement to slow cycle users on approach to a street, designing the links to incorporate horizontal deflection is a more desirable outcome. If space is constrained and there is other option, chicane barriers may be included provided that they leave at least 1.5m clear space between the panels and the edge of the path, there is no overlap between the panels and there is at least 3m between panels.

Liveable Neighbourhoods

Liveable neighbourhoods create safe pedestrian and cycle networks by allowing through-movement for walking, wheeling and cycling and bus movement, whilst restricting the through movement of motor traffic. This is achieved by the tactical placement of modal filters and other traffic management measures that restrict motor traffic movements and make travelling through the neighbourhood by sustainable modes more convenient. Opportunities taken to identify the placement of modal filters on existing streets will be supported. Onward connections for pedestrians and cycle users must be supported with "except pedestrians" or "except pedestrians and cycles" supplementary plates on "no through road" signage to **TSRGD diagram 816**.

Cul-de-sac

Permeable layouts are encouraged. Where there is a risk of through-traffic, modal filters are encouraged as a way to achieve filtered permeability for pedestrians and cycle users. Cul-de-sac layouts are strongly discouraged, unless proven to be the only viable layout option. These are permissible only by exception.

In exceptional circumstances where a cul-de-sac is permissible and exceeds 60m in length, provision should be made to allow small commercial vehicles to turn every 100m approximately. Turning facilities should be provided at the end of such roads for large industrial vehicles to ensure that any vehicle that enters may leave in a forward gear.

Character

Street design must be influenced by the existing context and character of the area, with consideration of terminating vistas, surrounding street structure, landmark buildings and enclosure ratios. Local design guides, character assessments, and conservation area appraisals must be referred to in the design of new developments.

Street design must be influenced by the local character of the area.

Schools

Developments should incorporate measures that reduce traffic around schools, helping to create a safer and more welcoming environment for children to walk, wheel, and cycle. Design approaches should aim to minimise conflict between vehicles and pedestrians, particularly during peak times when large numbers of people and cars converge outside school gates.

This can include the implementation of School Streets, traffic calming interventions, and other strategies that prioritise pedestrian safety and comfort. Developers should also consider active travel routes to and from schools within their design proposals, including where the school is located outside the development boundary. Supporting safe and convenient movement for children and families is essential to encouraging sustainable travel behaviours and improving public health.

An example of traffic calming and control measures outside a school entrance.

7.1 Facilities for Pedestrians.

Introduction

Under the Sustainable Transport Hierarchy, pedestrians (referring to those walking and wheeling) should be considered first, and private motor vehicles last. Streets should therefore be designed to actively promote walking and wheeling and adopt a place and person-led approach to design.

Measures to enhance the pedestrian experience - including the adoption of safe crossings, pedestrian priority, reduced vehicle speeds and noise, inclusive design and surfaces, assistive technology, reduced street clutter, appropriate vehicle parking solutions, and effective management of loading/unloading, deliveries, and refuse services - are strongly supported by Dundee City Council. These measures should be treated as a priority in all development proposals.

When it comes to designing facilities for pedestrians, accessibility should be prioritised in the design process when taking account of potentially conflicting issues.

Development should integrate with the existing and planned Active Travel Network identified in the **Dundee Sustainable Transport Plan**, including the Active Freeways and Green Circular routes, and seek to connect with these and align with the Core Principles, where possible.

Safety

- Applies appropriate crossing types, traffic calming, and visibility standards to reduce collision risk and improve user confidence.
- Incorporates features such as adequate footway widths, detectable kerbs, and step-free access to support safe movement for people of all abilities.

Equity

- Promotes inclusive design that considers the needs of all users, including disabled people, older adults, and children, to provide an equitable pedestrian network.
- Sets out infrastructure width and crossing requirements which enhances personal safety and security for all user groups

Sustainability

- Supports walking and wheeling as primary modes of transport, reducing reliance on private vehicles and aligning to the Sustainable Transport Hierarchy.
- Encourages integration with Dundee's Active Travel Network, including Active Freeways and Green Circular routes.

Accessibility

- Sets clear standards for footway widths, gradients, kerbing, and tactile paving to ensure routes are usable by all.
- Emphasises the importance of smooth, level crossings and continuous footways, especially at junctions.
- Encourages rest points, accessible seating, and safe, well-lit environments to support comfort and dignity for all.

Climate Resilience

- Advocates for durable, low-maintenance materials that ensure long-term usability and reduce environmental impact.

Footway Widths

The integrity of walking and wheeling infrastructure must be protected by ensuring pavement space is not taken over by other activities, obstacles or utility infrastructure.

Footway and footpaths should be made as wide as practicable with a minimum width of 2.0m. The minimum width should be extended to 3.0m in areas of identifiably higher levels and volumes of pedestrian activity (such as adjacent to schools, shops, bus stops). Where obstacles exist, the absolute minimum width should be 1.5m, but for a maximum length of 3.0m only.

Route Quality

Pedestrian route quality is defined by the consistency, comfort, and safety of the walking environment. High-quality footways should be smooth, well-drained, and free from defects or obstructions that could impede movement or pose a hazard. Surfaces must be firm, slip-resistant, and suitable for all users. Adequate lighting, clear wayfinding, and logical connections to surrounding infrastructure enhance usability and personal security, particularly during hours of darkness. Consistent maintenance is essential to ensure pedestrian routes remain safe and accessible throughout their lifespan.

It's important to consider both the total and effective footway width. The effective width refers to the usable space available for walking, excluding areas impacted by the edge effect, such as proximity to walls, fences, kerbs, or street furniture, which can discourage pedestrians from walking close to the edge. To ensure comfortable and accessible movement, especially for those using mobility aids or walking in groups, designers should account for these edge effects and provide additional width where necessary.

Wider footways are supported where large numbers of pedestrians need to be accommodated.

Wider pedestrian corridors are supported where large numbers of pedestrians need to be accommodated, such as at transport hubs and busy crossing points.

Table 7.1 details appropriate widths for footpaths, footways and pedestrian areas.

Table 7.1: Minimum Footway and Footpath Widths

Footways on District Distributors	2.0m or 2.6m (in areas of high pedestrian activity)
Footways on Local Distributors (Type 1 & Type 2)	2.0m or 2.6m (in areas of high pedestrian activity)
Footways on Other Roads	2.0m
Footpaths on major segregated routes	3.0 metres
Footpaths on minor segregated routes	2.0m-3.0m metres
Shared footway/ footpath/cycleway	3.0m metres (minimum)

Designs must have reference to Inclusive Mobility Guidance and DMRB "CD143 Designing for walking, cycling and horse-riding".

Dundee City Council are prepared to consider adopting remote footpaths (not adjacent to carriageways) where there is a substantial community use. These footpaths shall be at least 2.0m wide. Steps are undesirable but where they are unavoidable, special provision must be made for maintenance vehicles and wheelchairs.

Where suitable, the footpath shall be made shared use and the footpath shall be at least 2.5m wide and preferably 4.0m wide according to **Cycling by Design**.

The footpath shall be suitably lit to the satisfaction of the DCC lighting team.

Verges

It is desirable that pedestrians be separated, where possible, from the carriageways of main roads, of Categories 1, 2 and 3 in the interests of safety. Normally, one 2.0m wide footway should be provided behind a soft landscaped margin of at least 2m in width. If sufficient space is not available for this, the width of the margin may be reduced to between 2m and 1m provided the margin is hard landscaped for economy of maintenance. Where space is even more restricted a 1.5m wide footway may be considered.

Where possible, consideration should be given to the potential of verges to support carriageway drainage in the form of SuDS or swales. Reference must be made to the **DCC Sustainable Drainage Strategy** and Chapter 7.4 Green and Blue Infrastructure of this document.

Footway Gradients and Crossfalls

The desirable maximum longitudinal section gradient of adoptable footways is 1 in 20 (5%), with justification provided to Dundee City Council where this gradient is exceeded. Where steeper gradients may occasionally be permitted, they will be subject to the provision of a handrail on at least one side and landings at 10m intervals. The maximum gradient should not exceed 1 in 12.5 (8%). Where site constraints prevent this, specific approval must be sought with the City Development Department. Footway crossfalls should normally be 1 in 40 to ensure adequate drainage while maintaining accessibility. Where steeper gradients are employed, handrails should be provided on at least one side of the facility. Steps should be avoided for the use of prams and wheelchairs.

Kerbing

Kerb upstands between cycleways and pedestrian footways should have an upstand of at least 60 mm to be fully detectable by blind and partially sighted users. The kerb facing the cycle track should be a Splay / Battered kerb (45 degree face) as this presents less of a danger to cyclists of catching their pedals, allowing them to utilise the full width of the cycle track. Where a long run of driveway accesses occurs, bullnose kerb should be installed continuously rather than only at individual accesses to maintain a smooth, accessible pedestrian route.

Crossings

All crossings should be designed to carefully support safe use by all street users. The most appropriate type of crossing should be identified by considering traffic speeds, traffic volumes and composition, pedestrian numbers, pedestrian needs and desire lines.

Developers must install double-transition kerbs at all pedestrian crossing points to ensure a smooth and accessible change in kerb height. These units help maintain compliant gradients, support inclusive mobility requirements and deliver consistent, high-quality tie-ins.

All crossings must meet the requirements of the **Traffic Signs Regulations and General Directions (TSRGD) 2016 (as amended) Traffic Signs Manual Chapter 6**, included the recommended accessibility features.

Designs should have consideration for Table 4-1 in **Cycling by Design** (Selection matrix for road crossings) for a preliminary guide to suitable road crossings.

All crossings should be smooth, level and accessible. The surface materials must meet the guidance in **Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure**.

Conditions should be reviewed to determine whether changes can be made to volume, speed and road space provided to other traffic, before segregation and formally defined at-grade crossings are provided.

Side Road Crossings

Development proposals should incorporate features which encourage drivers to give priority to pedestrians and turn cautiously into junctions, including raised entry treatments and continuous footways. Continuous footways are encouraged to further enhance pedestrian safety and priority, but only in appropriate circumstances. Continuous footways should be supported with other treatments to limit vehicle speeds. Radii should be minimised to assist pedestrians where possible. It is desirable for continuous crossings to be adopted on one-way (rather than two-way) streets, where traffic volumes and speeds are appropriately low, preferably 20mph, with an absolute maximum of 30mph. Layout of side road crossings are to be discussed and alternatives agreed as early in the design process to ensure the design is appropriate for the location being considered.

Living Streets – Inclusive Design at continuous footways outlines a series of recommendations for continuous footways and should be referred to understand the complexity of their application for users with visual impairments.

An example of a continuous footway along Monifieth Road.

A continuous crossing in Broughty Ferry, located along National Cycle Network Route 1.

Uncontrolled

Uncontrolled crossings are most likely to be suitable in conditions of low use and low motor traffic speed. Where motor traffic speed or volume is high, other options should be considered.

Uncontrolled crossings should be supported with traffic calming features which can support pedestrians to cross the road, such as traffic signs and road markings and dropped kerbs. Appropriate visibility at uncontrolled crossings is essential.

Uncontrolled crossings must have smooth, shallow gradients and dropped kerbs to ensure safe and accessible use for wheelchairs, pushchairs, and all pedestrians.

An uncontrolled crossing supported with tactile paving. The crossing distance is reduced by the build-out of the carriageway. Bollards help to prevent vehicle overrunning.

Controlled Crossings

Parallel and Zebra crossings are most likely to be suitable where traffic volumes and speed are low on the through route and where there is demand for those most at risk to be given priority over larger vehicles. Parallel and Zebra crossings should not be installed on roads with an 85th percentile speed of 35 mph (56 kph) or above without speed reducing measures to slow traffic, in accordance with Traffic Signs Manual Chapter 6.

Cycling by Design Chapter 4.4 Parallel and Zebra crossings should be referred to for appropriate design layouts.

Signal Controlled Crossing

Signal-controlled crossings are generally suitable in urban areas where user volume is relatively high. Signal controlled crossings should not be provided where the 85th percentile speed of motor traffic is greater than 40mph (64 kph).

A signal controlled crossing located along Monifieth Road, supported with green infrastructure.

Central refuges

Where central refuge islands are provided at a crossing, they must be a minimum of 1500mm in width to be able to cater for wheelchair users, but preferably 2000mm in width. In some cases, central refuges can can endanger cyclists by creating pinch points on the carrirageway. Any refuges must be designed so that traffic lanes between 3.25m-3.9m to avoid this. Where centre refuge islands are proposed, advice should be sought from DCC City Development Department, Sustainable Transport and Roads Division early in the process

Underpasses and footbridges

Underpasses and footbridges are generally discouraged in new developments due to their limitations in delivering inclusive, accessible and attractive active travel routes. These structures often present barriers such as steep gradients, poor natural surveillance and indirect alignment, which can deter use, particularly among vulnerable user groups.

If developers consider such infrastructure necessary, they must engage with the City Development Department to justify its inclusion and ensure appropriate design standards and consents are met.

Guard railing

Caution should be exercised in making a decision to install guardrails. These should only be installed where there is no option to redesign the street or road to remove the hazard. An assessment procedure is provided in **Local Transport Note LTN 2/09 Pedestrian Guard Railing** which should be performed. It is encouraged that alternatives to guardrailing (such as hedgerow, stone walling, other barrier treatments which may have less of a visual impact) are explored. However, where there is no feasible alternative to installing guardrails, **Inclusive Mobility 4.4 Guard Railing** must be referred to.

Tactile Paving

The use of Tactile Paving is to be in accordance with national guidance, including the **Department for Transport Guidance on the use of Tactile Paving Surfaces**. Tactile paving shall be provided at uncontrolled crossing locations only within the city centre and at individually approved locations outwith the city centre. Exemptions will be considered in residential areas with low pedestrian footfall. These exceptions must be documented with justification for agreement with DCC officers.

Tactile paving must be used in the city centre

Inclusive Design

Pedestrian facilities must be accessible, safe, and usable for all, regardless of age, ability, or circumstance. Developers are expected to align their designs with the inclusive parameters set out in this section and the referenced standards, including **Inclusive Mobility (2021)**, in support of Dundee City Council's commitment to delivering inclusive, equitable public spaces for all users. Greater priority to overcoming barriers to walking and wheeling for must be afforded for disabled people.

In support of inclusive street design, ensure all routes are well-lit and reduce dark and blind spots, and better maintain streets and paths (including cutting back vegetation) to help foster a sense of safety. Ensure street-design seeks to increase footfall and surveillance where appropriate.

Rest Points

Inclusion of rest points is important to inclusive footway design, supporting accessibility and comfort for all pedestrians, particular people with mobility impairments. **Inclusive Mobility, 2021** recommends the walking distances shown below.

Wheelchair user **150m**	Visually impaired **150m**	Walking stick and cane **50m**	Mobility impaired without a walking stick **100m**

The **Street Hierarchy Technical Table (Appendix B)** should be referred to for the appropriate frequency of seating according to each street type. Seating must incorporate supportive features such as armrests and backrests to assist those with limited mobility or balance challenges and include adjacent clear space to accommodate wheelchair users and enable inclusive social interaction. Rest points must be located in safe, well-lit areas, clear of pedestrian flow and potential hazards. The frequency of rest points should increase in response to land form, with additional seating provided where the street follows a steep gradient.

Street Furniture

Street furniture should serve a clear and practical purpose. It must be thoughtfully integrated into the overall street design and align with the surrounding environment through the use of a considered and cohesive palette of materials.

Street furniture should be positioned to retain at least the minimum footway width recommended in Table 7.1 Minimum Footway and Footpath Widths.

All proposed elements must incorporate strong tonal and colour contrast with their immediate surroundings to ensure maximum visibility, particularly for people with visual impairments.

Street furniture should be reduced to a minimum and grouped together to reduce visual clutter and causing obstructions. It must not be located within visibility splays at junctions.

Details of proposed street furniture and associated maintenance must be discussed and agreed with the City Development department at an early stage.

Street furniture must not create obstructions, such as obstructing access to cycle parking.

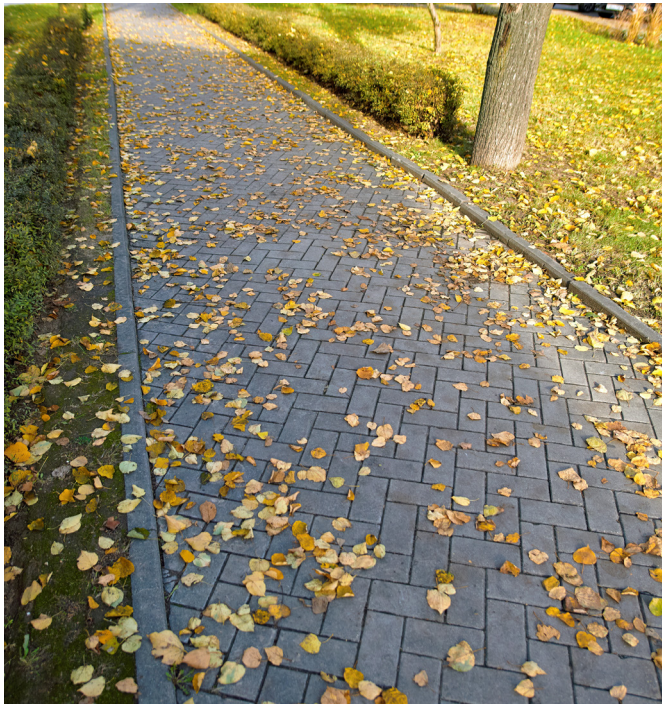
Materiality

Materials used should have properties which support accessibility such as slip resistant paving with sufficient tonal and colour contrast and be durable. Social spaces should be identifiable and separated from areas required for movement with clearly identifiable delineation.

Maintenance

To maintain consistency, durability, and visual coherence across the public realm, third parties undertaking excavation or works within the footway must reinstate the construction using materials that match the original in type, quality, and finish.

The maintenance of pavements should be given greater priority to ensure accessibility, including mending paving, cutting back overgrown foliage, sweeping up leaves, and the provision of accessible routes during roadworks, which includes safe access to nearby dropped kerbs.



See Also

- LTN 2/09 Pedestrian Guardrailing
- Traffic Signs Manual Chapter 6
- Guidance on Inclusive Design for Town Centres and Busy Streets
- Inclusive Mobility- Using Tactile Paving Surfaces
- Walking for Everyone Report
- Inclusive Design at Continuous Footways
- Inclusive Design at bus stops with Cycle Tracks
- Outdoor Access Design Guide

7.2 Facilities for Cycle Users

Introduction

All cycling infrastructure should be designed with the following outcomes in mind: safety, coherence, directness, comfort, attractiveness and adaptability. Infrastructure should also be accessible for those who wish to use it, with neither its design nor its positioning creating hazards or obstructions for vulnerable pedestrians.

Designs in new developments and for new road schemes should meet or exceed the highest level of service, as set out in **Cycling by Design** (Transport Scotland, 2021), along with aligning with the Core Principles:

Safety

- Minimises conflict between users by selecting cycle track types and layouts that provide appropriate separation between cycle users, pedestrians, and motor vehicles, based on speed, traffic volume, and footfall.
- Reduces collision risk through measures such as physical protection from traffic, controlled parking near cycle lanes, and clear surface markings to improve visibility and user awareness.
- Locates and designs cycle parking to avoid pedestrian hazards, maintain sightlines, and include features (e.g. tapping rails) that protect visually impaired users.
- Ensures access features such as bollard spacing, contraflow widths, and obstruction-free layouts accommodate all cycle types safely.

Equity

- Promotes inclusive cycling infrastructure that accommodates non-standard cycles (e.g. handcycles, tricycles) and users with disabilities, helping to unlock the network and its health benefits for all.
- Supports placemaking and integration of cycleways into the urban environment, contributing to healthier, more resilient and social communities.
- Outlines design requirements which improves the personal safety and security of cycle users.

Sustainability

- Encourages cycling as a primary mode of transport, reducing reliance on private vehicles and lowering emissions.
- Supports integration with Dundee's wider cycling network and Sustainable Transport Delivery Plan.
- Requires provision of e-bike charging facilities to support low-carbon transport options.

Accessibility

- Infrastructure must be suitable for a wide range of users and cycle types, with clear guidance on dimensions and spacing.
- Avoids access control measures, ensuring routes remain open and usable for all.
- Requires cycle parking to be conveniently located and accessible, including in retrofit and constrained urban environments.

Climate Resilience

- Promotes active travel infrastructure that reduces car dependency and supports a shift to low-emission transport.
- Encourages durable, adaptable infrastructure that can respond to future mobility needs and environmental challenges.
- Mandates the provision of high-quality cycle routes designed to remain safe and usable during severe weather conditions.

Types of Cycle Tracks

Cycle tracks can vary in their level of separation between pedestrians, cycle users and motor vehicles.

When identifying an appropriate type of cycle track, Dundee City Council expects developers to consider:

1) The level of protection and interaction between cycle users and motor vehicles
2) The level of protection and interaction between cycle users and pedestrians
3) The potential to enhance the surrounding environment and introduce placemaking and green blue infrastructure

Cycle links should be developed in accordance with the requirements set out in **Cycling by Design** (Transport Scotland, 2021) .

Stepped cycle track

Cycle track at footway level

Shared cycle track

Cycleway Gradients

New cycle links will often be constrained by existing topography. Although this may be unavoidable in some locations, providing cycle links on steep gradients will not provide the highest level of service for all users, and alternative routes should be considered where practical.

When designing with gradient in mind, **Cycling by Design (specifically Table 3.5)** and **Inclusive Mobility: Making Transport Accessible for passengers and pedestrians** should be referred to for the most up to date guidance.

Route Quality

All routes of the cycle network must be well-lit and well-maintained. Consideration should be given to assessing the lighting conditions on new or upgraded routes. Improvements to lighting alongside cycling infrastructure have been shown to lead to improvements in the perception of safety; and increase the likelihood of the facilities being used by groups for example women and young people who may feel more threatened by poorly lit facilities.

Coloured surfacing of cycle lanes and cycle tracks adjacent to the road carriageway is recommended. A red coloured surface is preferred for cycle links across Scotland to improve the consistency of application and understanding by all users. Proposed coloured surfacing must be discussed and agreed with the City Development Department at an early stage.

Accessibility of Routes

It is important that cycle routes be designed to cater for a significant number of cycle users and be suitable for 'non-standard' cycles, such as recumbent cycles, tricycles, handcycles and any other cycle that might be specially adapted for a disabled user.

There should be a presumption against the use of access-controlled measures unless there is a persistent and significant safety issue or personal security concern raised by unwanted access, including motor traffic or motorcycle access. Where bollards are used to prevent access for motor vehicles the minimum distance between bollards should be no less than 1.5m. If access-controlled measures are required, they should be installed as per **Outdoor Access Design Guide** and **National Cycle Network - Accessibility Fund: Improving access to the National Cycle Network for everyone** (Sustrans, 2023)

Cycle lanes should only be considered where alternative higher quality facilities like cycle tracks cannot reasonably be provided and conditions on the adjacent carriageway present a significantly low level of risk to cycle users. Where cycle lanes exist (as either advisory cycle lanes or mandatory cycle lanes), parking should be tightly controlled and enforced to prohibit drivers from stopping, parking or waiting within the cycle lane.

Contraflow Cycling

As per **LTN 1/20**, there is a presumption in favour of contraflow cycling on one-way streets unless there are safety, operational or cost reasons why it is not feasible. Consideration should be given the entrance and exit points from contraflow cycle lanes so that users are protected from potential impacts arising from vehicles turning into or exiting side roads. Where speed is low in urban areas, contraflow cycling can be adopted so long as the following minimum carriageway widths are adhered to:

- 2.6m with no car parking
- 3.9m based on car passing cycle, no car parking
- 4.6m with car parking on one side of the road
- 6.6m with car parking on both sides of the road

Contraflow cycle provision

Connectivity to wider routes

Effective cycle infrastructure is not just about creating new routes - it's about ensuring they integrate seamlessly with existing networks. A well-connected network of cycle infrastructure enhances accessibility, encourages more people to cycle, and supports safer, more efficient journeys. Developers must take into account the existing and planned network as per Dundee City Councils Cycle Network Plan, currently available within the **Sustainable Transport Delivery Plan**.

Future developments are to be assessed and checked by a relevant officer within the Dundee City Council's Sustainable Transport team. Guidance will be provided to aid the developer to provide suitable cycling facilities. It is recommended that developers implement this guidance to ensure proposals align with DCC best practice and enhance connectivity throughout Dundee. To ensure that new developments meet or exceed the requirements of **Cycling by Design**, new developments must include a Design Review as per **Cycling by Design** for review by Dundee City Councils Sustainable Transport Team.

Wider connections should be identified along cycle routes

Cycle Parking

The provision for cycle parking is to be considered on all developments throughout Dundee.

The **Parking Standards (Appendix E)** specifies the appropriate cycle parking provisions for different land uses which have been set out by Dundee City Council.

Cycle parking and storage must be provided in accordance with the requirements set out in **Cycling by Design**. It should be prominently located to maximise accessibility and convenience for users. Cycle parking and storage must be located as close/convenient as possible to the primary entrances of the development. Locating cycle parking in places where it is overlooked by

people will enhance the physical safety of the site and enhance cycle security.

In retrofit or City Centre locations Dundee City Council will consider alternative provision should this be proven to be unachievable. It is important to ensure pedestrian desire lines remain unobstructed and access for deliveries is maintained where required when selecting the location of on-street cycle parking.

New developments are required to incorporate e-bike charging facilities as standard or as part of any space allocated to cycle storage.

The following cycle parking and storage options should be considered and evaluated relative to the environment and site-specific conditions:

Cycle Stand

Sheffield stands are the recommended type for short stay cycle parking as they provide two locking point for cycles. All cycle stands must be designed in accordance with **Cycling by Design (Figure 6.2)**

A lone cycle stand or the end stands in a group should include a tapping rail 150mm above ground level to reduce the risk of people with visual impairments colliding with the stand.

Cycle stands located alongside a cycle route

Two-tier Stand

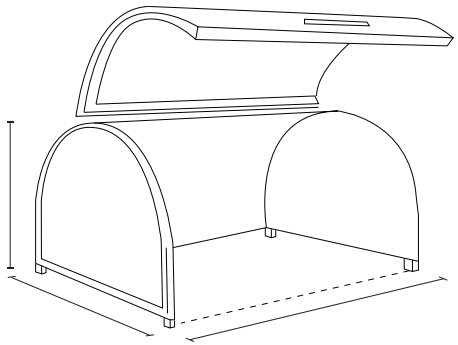
An effective solution for high-capacity medium and long stay cycle parking.

The two-tier stand should have a minimum height of 2700mm and the spacing of troughs should be minimum 400mm. A minimum aisle width of 2500mm is required to allow cycles to be loaded/ unloaded.

For ease of use and accessibility, the lower tier of a two tier stand should be made up of Sheffield cycle stands.

Cycle Hangars

Utilised when existing developments have no access or space for cycle storage within the building's footprint and offer secure parking which will be protected from the elements. Cycle Hangars have typical dimensions of 2500mm width, 2000mm length and 1400mm height and can accommodate up to six cycles.



A cycle hangar

Indoor Space within residential developments

Secure, private indoor storage spaces for cycles must be provided in accordance with **Table E1 (Appendix E)**. This should be at ground floor with level access to the street, but there may be flexibility in the case of buildings with lifts.

Adequate signing to indicate the location of any cycle parking must be provided.

Visitor cycle parking (residential)

Developments must provide for short-stay visitor cycle parking. These should be located at frequent intervals, and can be provided in small clusters along the street on each side of the carriageway, or adopted as traffic calming features. Developers may be asked to contribute to the provision of cycle parking at important locations within the immediate area.

Cycle parking at employment sites

Proposed development should incorporate secure, covered cycle parking in prominent locations, which is clearly signed. This should be as close to building entrances (within 50m) to encourage sustainable commuting. Any cycle parking should avoid being located in loading bay areas for safety reasons.

Short-stay cycle parking should also be provided close to the building entrance.

Developments must incorporate integrated facilities for cycle users including showers, changing rooms, drying areas and lockers.

See also:

- Designing Streets
- Cycling by Design
- Outdoor Access Design Guide
- A Guide to Inclusive Cycling (2019)

7.3 Integrating Public Transport

Public transport planning should be considered early in the design process. To support early adoption of public transport, suitable bus routes and infrastructure should be in place from the outset of development and take into account the Core Principles, as shown below.

Public transport routes should also link seamlessly with active travel routes to enable onward and continuous journeys.

Local centres, schools, clinics, care homes, shops, and other key destinations should be located along direct, accessible routes that can be efficiently served by bus services.

Where the scale of a new development does not permit internal bus routing, developers must ensure safe and convenient access to existing public transport services by providing appropriate footways and crossing facilities.

Safety

- Specifies minimum carriageway and lane widths to reduce conflict between buses, cycle users, and other vehicles.
- Requires safe turning radii and swept path allowances to prevent buses from encroaching on pedestrian areas or opposing lanes.
- Mandates pedestrian crossings near stops, with dropped kerbs and tactile paving, to protect vulnerable users.
- Ensures footways at stops are wide enough to prevent crowding and keep passengers clear of moving traffic.
- Outlines requirements which ensures the personal safety of users at bus stops

Equity

- Ensures all homes are within walking distance of bus stops, improving access for all users.
- Encourages early engagement with operators to meet diverse community needs.

Sustainability

- Prioritises public transport in new developments to reduce car dependency.
- Supports integration with Mobility as a Service (MaaS) to encourage flexible, low-carbon travel.

Accessibility

- Requires stops and crossings to meet inclusive mobility standards.
- Designs must accommodate safe, direct access to key destinations.
- Ensures footways at stops are wide enough for waiting passengers and pedestrian flow.

Climate Resilience

- Promotes early adoption of public transport to reduce emissions from private vehicles.
- Encourages compact, connected layouts that support efficient, low-impact transport networks.
- Supports long-term modal shift through integrated planning and infrastructure.

Bus Routes

The minimum carriageway width for two-way bus operation in new developments should be 6.5 metres.

Shared bus and cycle lanes should be a minimum of 4.6m width unless there is a parallel segregated cycle route. Lane widths between 3.2m and 3.9m should be avoided, to mitigate the potential for unsafe overtaking.

Any roundabouts or turning circles likely to be used by buses making a 360° turn should have a 24m diameter outside swept circle and a minimum inside diameter of 8m to allow for tracking of rear wheels.

It is important to provide turning facilities when a large housing estate is growing even although the route may only be partially established. A service can then be provided and extended in pace with the development. Such turning facilities can take the form of a temporary adaptation of the developing road system.

Bus Stops and Shelters

To ensure accessibility, development should extend no more than 200 metres from a bus route, placing all homes within 400 metres of a bus stop. Stops should be spaced approximately 400m apart.

Bus stops should have a bus stop cage, with clearways , clearly marked on the carriageway. Cage sizes should facilitate space for the bus to safely enter, manoeuvre, align against the raised kerb and safely exit. Swept path analysis should be used to demonstrate an appropriate size has been used. Bus stop laybys should not be used in new developments as they disrupt efficient bus service operations and reduce pedestrian safety. Instead, buses should be accommodated within the live carriageway, accepting that they may temporarily hold general traffic while passengers board and alight. To support accessible boarding, the kerb height should be raised to 160mm over a minimum length of 2.0 metres. A bus stop pole must be installed in accordance with Dundee City Council's specification. In some cases, a bus shelter - with integrated power supply and realtime passenger information - may be requested as an alternative. The specification for bus shelters will also be provided by Dundee City Council. Bus shelters shall be implemented in accordance with the requirements set out in i**nclusive Mobility A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure**.

A pedestrian crossing should be provided in close proximity to bus stops or key pedestrian routes. Each crossing must include a dropped kerb with appropriate tactile paving that complies with accessibility standards described in **Chapter 7.1 Facilities for Pedestrians**.

Footways at bus stops must be sufficiently wide to accommodate waiting passengers while maintaining clear pedestrian movement along the route. Localised widening at stop locations may be required to meet this need, especially in areas with high footfall or constrained existing footway width

Designers are encouraged to consult with local bus operators and Dundee City Council to understand the most appropriate bus vehicle requirements when planning and designing bus stops.

Upon review by the Sustainable Transport Team, the developer may be required to provide cycle parking at new bus stops or existing bus stops adjacent to the development which will see increased use. This will be especially relevant in more outlying areas where people may cycle to bus stops from within a development to continue their onward journey

Bus shelters must maintain a clear pedestrian footway.

Bus Operators

In planning major new housing developments, road layouts, widths, corner radii, and footway placement should support efficient bus operations. Bus routes must be direct, quick, and connect key residential, commercial, and service areas. While services will typically follow District and Local Distributor Roads, other roads may be used if suitably widened.

Mutual benefit can be obtained from regular informal contact between the developer, the City Development Department and the bus operators. To ensure coordinated planning, timely notification should be given of significant residential development proposals that may require new or extended bus services.

See also

- Inclusive Mobility
- Local Transport Note 1/24: Bus User Priority

7.4 Green-Blue Infrastructure

Introduction

Green-Blue infrastructure is an integral element of Dundee's development and is central to the health and well-being of residents and communities. It is also an essential part of achieving climate resiliency across the City. Development proposals that include new or enhanced blue and/or green infrastructure must provide effective management and maintenance plans covering the funding arrangements for their long-term delivery and upkeep, and the party or parties responsible for these.

Dundee City Council encourages the provision of green-blue infrastructure and innovative and creative SUDS which minimise the effects new developments have on the natural water cycle.

Early engagement on green-blue infrastructure should involve all relevant stakeholders to ensure integrated, deliverable solutions. This typically includes Dundee City Council (Roads, Traffic, RMP and Environment departments), Scottish Water, SEPA and the affected utility providers. Involving these parties from the outset supports coordinated design, effective drainage strategies and long-term asset management.

Safety

- Integrates landscaping and green infrastructure in ways that preserve visibility, prevent obstruction, and maintain clear sightlines for pedestrians and cycle users.
- Requires minimum clearance heights for vegetation and careful placement of street trees and verges to avoid physical hazards and ensure safe passage.
- Mandates robust surface water drainage and SuDS design to prevent flooding, reduce pollution, and protect public health during extreme weather events.

Equity

- Enhances quality of life by integrating green spaces and natural features into all communities, supporting health and well-being.
- Promotes shared responsibility for maintenance, with clear expectations for developers and residents.

Sustainability

- Supports the use of Sustainable Drainage Systems (SuDS) to manage surface water in an environmentally responsible way.
- Encourages integration with the Dundee Green Network and nature-based solutions to enhance biodiversity.
- Promotes long-term maintenance and funding strategies to ensure infrastructure remains effective and resilient.

Accessibility

- Outlines the requirements of landscaping and tree placement to maintain clear, safe pedestrian and cycling routes.
- Emphasises the importance of visibility and safety in the design of green infrastructure adjacent to movement corridors.
- Increased tree placement offers more solar shade for people moving about in street

Climate Resilience

- Central to Dundee's strategy for adapting to climate change, particularly through flood risk management and stormwater control.
- Promotes water-resilient design through SuDS, blue infrastructure, and natural flood management.
- Encourages early integration of drainage and green infrastructure in development planning to future-proof communities.

Green Infrastructure

Green infrastructure can play a role in making streets pedestrian, cycle and vehicle friendly. It can provide visual interest, and can encourage lower vehicle speeds by limiting excessive forward visibility (whilst maintaining appropriate driver sightlines).

Street design proposals should aim to integrate nature-based solutions. Well-designed blue and green infrastructure can deliver multiple benefits to the street environment, including storm water management, capture of pollutants, and enhanced biodiversity.

New development should contribute to the Dundee Green Network where appropriate through the integration of green infrastructure and the creation and/or improvement of green infrastructure within development sites or in the local area.

When designing landscape features these should aim to enhance biodiversity, provide solar shading and manage storm water. If designed well, they can also significantly encourage pedestrians and cycle users through providing an attractive and comfortable environment that encourages activity.

When preparing a design, the applicant shall refer to the following documents for best practice relating to the incorporation of green infrastructure:

- Green Infrastructure: Design and Placemaking
- Trees in Hard Landscapes: A Guide for Delivery
- Trees in Townscapes: A Guide for Decision Makers
- CIRIA SUDS Manual C753 201
- Technical Guidance Surface Water Drainage Design and Flood Risk Assessment requirements June 2020
- Scottish Government Water-resilient places-surface water management and blue-green infrastructure: policy framework
- DCC Green Network
- Water Resilient Dundee

Landscaping

Landscaping within developments should aim to create an attractive, welcoming streetscape through the thoughtful use of both hard and soft treatments. These elements should be integrated appropriately to enhance the character of the public realm, support placemaking, and contribute to a cohesive and well-considered environment.

Landscaping provision within the highway boundary, including roundabouts, should be integral to the conceptual and detailed design of the highway. It must be consistent with the wider development and the surrounding landscape context.

All landscaping must be completed before submitting the roads and footpaths etc, for adoption by the Council. Consideration should be given to layout and height of planting to ensure pedestrians and cycle users can see and be seen and no personal security issues are created. To avoid compromising road safety, planting within landscaped areas should not exceed 500mm above road level.

Opportunities to integrate landscaping along the street are encouraged

Street Trees

Seek to retain existing trees, taking a flexible, accommodating approach to pavement and kerb design. Engagement with landscape architects and arboriculturists is encouraged where feasible.

The Highways Act 1980 requires that trees and other vegetation do not obstruct the passage of users. Dundee City Council requires a minimum clearance over any part of a footpath of 2.3m and 4.5m over the carriageway.

Limited planting of new trees may take place within visibility splays, but only where this would not significantly compromise forward visibility. Within visibility splays and forward visibility envelopes, ground cover shrub planting up to a maximum potential growth height of 0.6m is considered acceptable. Developers must engage at the planning stage with the City Development Department when selecting street tree species, to ensure canopies do not spread over the adopted road, root protection measures are agreed in advance, and conflicts with existing utility locations are avoided.

Verges

The **Street Hierarchy Technical Table (Appendix B)** must be referred to for appropriate verge dimensions.

All grass verges adjacent to the highway should include a hard-paved mowing strip. Where possible, the adoption of Sustainable Drainage Systems (SuDS) (such as filter strips) as an alternative to grass verges is strongly encouraged. Grass should not be used where vehicles or pedestrians are likely to overrun. In such areas the design should be amended, for example; to include planting, shrubs, or bollards to prevent overrunning.

Green verges can be supported with bollards to prevent overrunning

Maintenance and Accessibility Considerations

Solar shading from street trees and other green infrastructure is encouraged as a way to build climate resilience. Consideration should be given to maintenance arrangements of landscaping adjacent to pedestrian corridors, to avoid undergrowth and thickened shrubbery taking over the paved surface and tree canopies drooping to head height. Pavement grills for street trees should be considered carefully where they are in proximity to the pedestrian corridor.

Blue Infrastructure

Scottish Water and DCC recognise the need to develop new ways to manage intense rainfall and stormwater flooding to create future-proofed, flood-resilient communities. The Water Resilient Dundee (WRD) partnership aims to jointly plan and sustainably manage water in the city of Dundee to help the city respond to climate change now and for future generations. Proposals for applications must comply with **The Water Environment (Controlled Activities) (Scotland) Regulations 2011** as amended which states that buildings, roads, yards or any other built developments, or construction sites for such developments that drain to the water environment must be drained by SUDS.

Designs which do not effectively manage surface water run-off, or support the ambitions for Dundee to become a water-resilient city, shall be refused through the planning process.

Development proposals which create, expand or enhance opportunities for natural flood risk management, including blue and green infrastructure, will be supported.

Sustainable Drainage Systems (SuDS)

Sustainable Drainage Systems (SuDS) are a well-recognised method of managing surface water in an environmentally friendly and economical manner, delivering multiple benefits in line with the CIRIA SuDS Manual. When designed appropriately, SuDS manage water quantity by controlling runoff and reducing flood risk, improve water quality by filtering pollutants before they reach the water environment, enhance amenity through attractive, usable green spaces, and support biodiversity by creating and connecting habitats. Streets should use appropriate SuDS techniques as relevant to the context in order to minimise environmental impacts and support climate resiliency.

Surface water discharging to the water environment from new development must be treated by SuDS except for single houses or where discharge is to coastal waters. All proposals should presume no surface water connection to the combined sewer system.

The design of an integrated sustainable urban drainage system needs to be considered by the developer at an early stage to ensure the benefits of such a system are fully realised within the proposed development.

SuDS should be designed so that the water level during a 1:200 year rainstorm event plus allowances for climate change and future urban expansion is at least 600mm below finished floor levels.

All reasonable steps must be taken to ensure the surface water discharge will not result in the pollution of the receiving water environment.

A schedule detailing inspection and maintenance arrangements for the entire drainage system must be prepared in accordance with **DCC Technical Guidance Surface Water Drainage Design** and **FRA Requirements 4.3.9 / Appendix 5**.

Early dialogue with DCC Environment teams is encouraged to ensure appropriate maintenance of SuDS features are agreed.

The **CIRIA SuDS Manual (C753) 2015** covers the planning, design, construction and maintenance of SuDS to assist with their effective implementation. It provides detailed, technical guidance on a broad range of drainage topics. This manual must be referred to by developers for the technical expectations of drainage in street design.

Applicants must ensure that the Surface Water Drainage Design & Flood Risk Assessment Technical Guidance is referred to for the design of surface water drainage/SuDS and the preparation of Flood Risk Assessments associated with new development sites within the Dundee City Council boundary.

See further information:

- DCC Technical Guidance Surface Water Drainage Design
- FRA Requirements- Section 3

Swales can help to mitigate surface water run off

SUDs along the carriageway

Foul Water

The design of any open bodies of water shall comply with the **R.O.S.P.A guidance**.

Certain categories of. run-off may be categorised as 'High Risk' in terms of water quality and these areas will discharge to the 'Foul Water' sewers with the agreement of Scottish Water.

Separate discussions should take place with Scottish Water on all matters relating to Foul Drainage.

Surface Water Drainage

Surface Water Drainage

a) Surface water drainage may be designed to accept roof water and surface water draining from within the curtilage of the adjacent property, together with the surface water from the road. In these particular circumstances the developer must comply with the requirements of the City Development Department.

b) Where, in exceptional circumstances, a positive connection to a suitable surface water outfall cannot be provided for carriageway drainage the City Development Department may permit the use of a suitably designed soakaway system. Soakaways must be positioned outwith the carriageway or footway areas and be easily accessible for cleaning.

c) The size and gradient of surface water pipe lines should be calculated using a recognised method. The minimum pipe size is 150mm diameter.

Channels

a) Channel gradients should not be flatter than 1 in 200. Where the grade is necessarily flatter than 1 in 200 (sags, crests, etc.) special measures will be necessary and advice should be sought from the City Development Department.

b) Footway drainage should be provided by offlets through orover the edge kerb or, where suitable, by gully.

c) Unconventional layouts may lead to the choice of channels with cobbles inverts and other variations from the specification and sizes, and these should be discussed with the City Development Department.

d) Bedding for cobbles and concrete blocks should be Class 30/10 concrete.

Gullies

a) The spacing of gullies has been determined in accordance with DMRB CD 526. The spacing may require to be reduced according to the road layout e.g. junctions, sags, crests, etc. and advice should be sought from the City Development Department.

b) The Design Criteria is as follows:-

- Rainfall of 50mm/hour
- Crossfall of 1 in 40 (2.5%)
- Manning's Roughness Coefficient (n) of 0.010
- Width of Channel flow of 0.5m

For large, irregularly shaped areas, the empirically derived formula of one gully for each 200sq.m. of catchment may be used. Additional gullies or storm gratings will be required where gradients are steeper than 1 in 20 or flatter than 1 in 200.

c) A gully should be positioned, irrespective of design spacings, as follows:

1) Just upstream of the tangent point at road junctions.
2) Short of the point where adverse camber is removed when applying super-elevation.
3) At any local low point.

d) Gully Pots should be externally trapped where connected to a foul sewer. They should be set on a 150mm bed of 22.5/20.0 concrete and surrounded by 150mm of the same concrete. Any under-building or raising pieces should be to the approval of the City Development Department. Where, for local geographical reasons, untrapped gullies could be used, the prior approval of the City Development Department and other interested bodies must be obtained, e.g. River Authority.

e) Gully gratings and frames should be of a robust D400 specification, with a standard clear opening of 600×600mm

f) Where requested by the City Development Department, gully gratings should be captive.

g) Gully connections should be brought to within 1m of the surface at the gully joint, and all pipes within 1m of the surface should be surrounded with 150mm of 22.5/20.0 concrete.

Other

For all other drainage features pertaining to street design, reference must be made to the **CIRIA SuDS Manual (C753) 2015**.

Maintenance

The Council will apply planning conditions or Section 75 obligations to planning permissions to make suitable provision for the long-term maintenance of green infrastructure (including open space and landscaping associated with Sustainable Drainage Systems) in new housing developments, based on the following options:

1) Green and blue infrastructure may fall under the future maintenance responsibilities of different departments within Dundee City Council. Early discussion and agreement with the relevant teams must be sought early in the design process. This is subject to appropriate agreements with the developer over the landscaping scheme and annual maintenance, including payment of a commuted sum to cover annual maintenance costs; or

2) a developer may lay out the green infrastructure, transfer the land to a suitable third party, and either:

   a) pay a commuted sum to cover maintenance costs; or

   b) hand over the maintenance costs to residents of the new development.

This latter option should be clearly set out in the sale agreement so residents agree to effectively share the cost of maintaining green infrastructure on an annual basis.

Maintenance arrangements for all planted areas need to be established at an early stage and must be approved with Dundee City Council.

The ongoing improvement of green infrastructure through developer contributions may be considered.

See also

- Green Infrastructure: Design and Placemaking
- CIRIA SuDS Manual C753 201
- Technical Guidance Surface Water Drainage Design and Flood Risk Assessment requirements June 2020
- Scottish Government Water-resilient places-surface water management and blue-green infrastructure: policy framework
- DCC Green Network
- Trees in Hard Landscapes: A Guide for Delivery
- Trees in Townscapes: A Guide for Decision Makers
- Water Resilient Dundee
- DMRB CD 526 - Spacing of Road Gullies
- DMRB CG 501 - Design of Highway Drainage Systems

7.5 Street Lighting

All street lighting must be designed in accordance with the current edition of **BS 5489-1:2020.**

Street lighting plays an important role in establishing the sense of safety and personal security when using a street and its attractiveness to users. Development proposals must be designed to incorporate safety measures and ensure the safety of all users.

Safety

- Detailed requirements that developers must follow to ensure the apparatus installed is safe and complies with regulations.
- Placement of lighting columns avoids obstructing pedestrian or cycle movement, maintains sightlines, and ensures safe maintenance access.
- Lighting is required to adequately illuminate carriageways, footways, crossings, cycle routes, and traffic calming features to improve visibility and pedestrian safety.

Equity

- Transparent developer obligations: Clearly defines responsibilities, processes, and Council oversight, helping ensure all developers are held to the same standards.
- Statutory safety compliance: Mandating adherence to health, safety, and electrical regulations supports fairness and public well-being.
- Damage accountability: Ensures developers are responsible for repairs and hazards they cause, protecting public interests.

Sustainability

- Adaptive lighting technology: Promotes efficient use of energy resources and lower operational emissions over the asset's lifecycle.
- Material specification controls: Use of approved, date-marked equipment helps track lifecycle performance and supports sustainable asset management.
- Minimised ecological impact: Cycle route lighting considerations encourage balancing infrastructure with biodiversity preservation.

Accessibility

- Design integration with footways and cycle paths: Prioritises clear pedestrian and cycle user movement without obstruction.
- Lighting uniformity at crossings: Enhances visibility and supports mobility for vulnerable road users (e.g. those with sight or mobility impairments).
- Developer guidance to prevent street furniture disputes: Protects equitable access to shared outdoor spaces.

Climate Resilience

- Energy efficiency through smart systems: Reduces the carbon footprint and supports long-term resilience against energy resource scarcity.
- Resilient infrastructure planning: Provisions for safe maintenance access and regulated installation methods protect assets from climate-driven disruption.

Locating Street Lighting

Lighting should be planned as an integral part of the street layout design and should illuminate both the carriageway and footway.

Street lighting should be integrated into the street furniture landscape, whilst providing adequate illumination. The impact of street lighting columns should be assessed in terms of its impact on visibility.

Lighting columns should be placed so they do not obstruct pedestrian movement on footway, with a preference for columns to be located either at the rear of the footway or wall mounted. Columns must never be located in the carriageway space.

Lighting columns proposed in remote locations must be sited with consideration for safe and practical maintenance access.

Adaptive and Energy Efficient Lighting

The application of adaptive lighting throughout a public lighting installations operational life will bring significant revenue savings in the form of energy and carbon consumption reduction.

Lighting of Crossings

The approach to crossings and the carriageway crossing area should be illuminated to a uniform level.

Active Travel Route Lighting

Lighting provision for off-carriageway active travel routes, including footways, shared paths and cycle tracks, should comply with highway standards to support user safety and accessibility. The lighting design must carefully consider the availability of nearby electrical infrastructure, energy consumption, potential light pollution, and ecological sensitivity.

In urban settings, lighting is essential to ensure visibility and personal security for people walking, wheeling and cycling, especially during hours of darkness. In contrast, routes located outside built-up areas and primarily intended for recreational use are generally not expected to require lighting, except where specific safety concerns exist, such as at designated crossings, junctions or where the route runs adjacent to a carriageway.

Lighting columns must not be placed within a cycle track or footway. If space for the placement of the columns is limited, they must be placed as far back on the footway/cycle track as possible.

Guidance on the lighting of cycling infrastructure is provided in the **Institution of Lighting Professionals, Professional Lighting Guide 23: Lighting for Cycling Infrastructure**.

Lighting for Road Humps

There must be an adequate system of carriageway lighting in the vicinity of a road hump. **Minimum standards are specified in chapter 4 of the Road Hump (Scotland) Regulations 1998**.

Requirements for New Developments

The installation provided will, in all respects, be acceptable to the Council and must be designed and constructed to comply with the current **Regulations for Electrical Installations (18th Edition), BS7671** published by the Institution of Electrical Engineers, London and the **British Standards Institution and (BS 5489), Code of Practice for the Design of Road Lighting**.

The Street Hierarchy shall determine the lighting and type requirements subject to any amending requirements which shall reasonably be required by the Council's Street Lighting Partnership (SLP) team.

If the developer chooses to utilise the Council's own internal design service, the developer shall supply the most up to date agreed road layout showing constraints, such as driveways and trees and elevations showing windows and other features which may interact with street lighting and any potential electric vehicle charging points.

Whether the design is undertaken by the Developer or the Council, the Developer must arrange a meeting with the Council's Street Lighting Section to agree conditions and have the design brief approved. It is the Developer's responsibility to consult the Council's Sustainable Transport & Roads Division to determine any requirements for illuminated signage which must be included as part of the design and discussions.

Street lighting and electric vehicle (EV) charging assets must be designed and installed independently due to differences in their earthing arrangements, whilst complying with the requirements of the IET Guide To Highway Electrical Street Furniture.

All street lighting designs must be approved by Dundee City Council before construction consent is granted.

The Developer must advise all potential house purchasers of the position of street furniture to avoid future disputes. Once a design has been agreed, any changes at the request of the Developer or a purchaser must be approved by the Council's Street Lighting section. All costs associated with agreed design amendments and changes in position will be borne by the developer.

In instances where the lighting associated with a modification or new development involves work on existing contiguous Council equipment, this work will be carried out by the Council at the Developer's expense. This includes equipment which is to be removed as a result of the development. It is the Developer's responsibility to inform the Council that work is about to begin and to arrange for the Council to make safe and remove any redundant equipment before any site work is started. Developers must provide the council with a minimum 30 days' notice in advance for removal of existing equipment.

It is the Developer's responsibility to ensure all site operatives are aware of any Council street lighting equipment and cables on or adjacent to the site. In accordance with the requirements of the **New Roads and Street Works Act 1991 (NRSWA)**, the Developer must take all necessary precautions to prevent damage to such equipment and to safeguard public and worker safety during activities in its vicinity. Any damage to, or hazard involving, street lighting equipment caused by site operations must be reported immediately to Dundee City Council's SLP team.

Specification – General

When details of the street lighting have been agreed, the Developer's contractor must arrange a prestart meeting with the Council's lighting representative to ensure that the contractor fully understands all installation requirements.

All associated electrical works shall be carried out by a competent NICEIC registered electrical contractor.

A programme of works shall be provided before the start of any works. In addition, to allow for inspection, the contractor shall inform the Council's SLP as follows:

(a) 48 hours' notice before the Developer intends to commence setting out column positions.

(b) 24 hours' notice before any track excavation is backfilled.

(c) 48 hours before erecting columns and pulling cables through ducts.

(d) 48 hours before test and inspection prior putting the system into operation.

Developers who fail to give adequate notice of intention of works may be required to carry out excavation of finished works at their expense to prove that the installation has been installed to the City Development Department's specification.

Prior to commencement of work affecting the existing road a "Consent to Execute Work in the Road" under Section 56 of the Roads (Scotland) Act 1984 must be obtained from the Network Manager. "Permission to Place and Maintain Apparatus in/under the Road" must also be obtained, when necessary, under Section 61 of the same act. The Roads Authority must give 28

days' notice of their intention to grant permission to those statutory undertakers likely to be affected and the developers must take this into account when programming the works. Any deviations from the scheduled programme of road lighting works must be notified to the City Development Department immediately.

All work shall be carried out in a good workmanlike manner using proper tools, equipment and methods of working and in compliance with all legislation and codes of practice following from the Health and Safety at Work Act 1974. Traffic Management requirements in accordance with the Code of Practice under the New Roads and Street Works Act 1991 must be adhered to at all times. Failure to comply with statutory safety requirements will result in immediate suspension of the works. It is recommended that the developer employs only lighting contractors on the Council's current approved list of contractors for that category of work. A list will be made available on request.

Material Specification

The developer will provide all equipment and materials in accordance with the Council's road lighting material/equipment specification. Lanterns, lamps, photosensors and columns should be permanently marked with the date of installation.

Work Specification

The developer will carry out all works in accordance with Dundee City Council road lighting works specification and standard detail drawings.

Developer's Responsibility

The developer is to ensure that the street lighting is installed, inspected, inspected, tested and commissioned as houses/ development progresses. All testing activity must be witnessed by a representative of the Council's SLP team to verify compliance. Notification of any street lighting commissioned should be passed to the City Development Department along with any partial test certificates. This will allow the street lighting to be added to the normal street lighting inspection regime.

The Developer will be required to sign an undertaking to comply with all terms and conditions of the Construction Consent relating to street lighting. Two copies of this undertaking will be issued with a letter approving the design, one of which must be signed and returned the Street Lighting Section. The Construction Consent will not be valid until this signed undertaking is received by the Street Lighting Section.

Record Information

A developer who does not use Dundee City Council's design service, must submit a completed Design Certificate (signed by the designer) along with a detailed plan, specification and bill of quantities for the approval of the Executive Director of City Development.

A detailed "As Built" drawing complying with the requirements of the Street Lighting Section must be passed to the City Development Department by the developer. This drawing must show the accurate location of underground cables, cable access chambers, ducts and columns together with details of the make and type of the equipment provided as soon as all or part of the site is completed and at least 5 working days prior to inspection and testing. If requested, the Street Lighting Section will prepare the "As Built" drawing at the developer's expense.

Inspection of Works

The City Development Department will inspect the work during various stages of construction. It is the Developer's responsibility to inform the Street Lighting Section when these stages are reached and to give notice of the need for inspection. In accordance with **Section 140(6) of the Roads (Scotland) Act 1984**, Dundee City Council - the City Development Department will recover the costs of these inspections from the

developer. Any deviation from the specified work or materials found during the inspections must be rectified. The contractor shall provide the lighting representative with platform viewing facilities free of charge to inspect lanterns etc. both at the start of maintenance and adoption inspections. Any inspection equipment provided must have a current safety certificate and be operated by a suitably qualified operator in accordance with recognised safety standards and the instructions of the equipment manufacturer. Where Dundee City Council's SLP is awarded the contract for street lighting installation, all inspection will be included as part of the contract and at no additional cost.

Commissioning of Installation

Prior to bringing the system, or any part of it, into operation it must be tested. The Developer will however ensure that street lighting for the development, or any part of it, is brought into operation as soon as properties are ready for occupation, as far as is reasonably practical. After first commissioning of the complete system, the system will enter a "maintenance period" of one year during which time maintenance, energy costs and damage liability will remain the responsibility of the Developer. At the end of the maintenance period, the Developer will arrange for a final inspection and test under the same conditions as the initial test. If a period of more than 18 months elapses the entire system must be retested. If the developer has purchased or provided the luminaires, it is their responsibility to ensure that the warranty for such is transferred to Dundee City Council before adoption takes place.

Routine Inspection

The Developer will inform the City Development Department as soon as any new street lighting is brought into operation so that it can be added to the inspection list where routine safety checks will be conducted.

Notwithstanding this, the developer will be responsible for the maintenance of the installation until adoption by the Council.

Notice of incorrect operation of any part of the installation found during the course of regular inspection will be passed to the Developer by the Executive Director of City Development and all necessary repair works must be carried out by the Developer at his cots within five working days of receipt of notice. (Emergencies are excluded and these will be dealt with immediately by the Council with the costs being recharged to the Developer).

Electricity Supply Services

Provision of unmetered electricity supply for private developments shall be arranged by the Developer who should liaise directly with SSE.

All costs of electricity before and during the maintenance period will be met by the Developer.

Where Dundee City Council is contracted to install the lighting system, it will remain the responsibility of the Developer to arrange for the electrical supply, but the Developer will not be responsible for energy costs following testing and commissioning. Systems installed by Dundee City Council will be adopted immediately after testing and commissioning without the need for a maintenance period.

Security

The developer will ensure that adequate insurance is available to cover all claims resulting from faulty workmanship, installation, plant and equipment associated with the installation during the period for which the developer has responsibility.

Damage

The developer will also be responsible for making good damage to the lighting installation by unknown persons during the one-year maintenance period.

Adoption

One year after receipt of acceptable record information and satisfactory completion of design, construction, installation and test certificates, the developer may apply to the Council for adoption of the lighting installation.

The Developer should then submit a final completed certificate for an inspection and test which has been witnessed by a representative of Dundee City Council's SLP.

After approval, the Executive Director of City Development will recommend to Dundee City Council that future maintenance of the lighting installation covered by the Construction Consent will be the responsibility of the City Development Department.

It should be noted that any phasing of the works which results in the use of a common control pillar or tying into an existing streetlight maintained by the Developer, then adoption of the whole installation will not take place until the last streetlight is installed and has successfully completed its maintenance period.

A well lit street with good natural surveillance.

7.6 Junctions

Safety

- Junction layouts, gradients, and crossfalls must meet national geometric and visibility standards to ensure predictable, low-risk movements for all users.
- Visibility envelopes, stopping sight distances, and clear sightlines between drivers and pedestrians are required to prevent collisions.
- Carriageway widening, curve radii, and gradient limits are specified to maintain vehicle stability and safe navigation of bends and junctions.
- Gate positioning, planting controls, and junction spacing are regulated to avoid obstructions, blind spots, and unsafe access points.

Equity

- Standardised junction types and layout guidance ensure consistent treatment across developments, promoting fairness in road design.
- Visibility requirements for all users, especially the emphasis on pedestrian visibility, support safer environments regardless of age or ability.

Sustainability

- Use of existing national design standards (DMRB) minimises resource duplication and supports efficient, tried-and-tested geometric layouts.
- Guidance on tree and shrub planting promotes responsible landscaping and integration of green infrastructure within street environments.

Accessibility

- Visibility provisions at junctions and crossings enhance safety for all users, including pedestrians and those with mobility or sensory impairments.
- Crossfall and gradient guidance ensures footways and roads are navigable, particularly for wheelchair users, pushchairs, and people with reduced mobility.
- Controls on gate placement prevent obstruction of footways, preserving clear pedestrian access and ensuring inclusive movement.

Climate Resilience

- Gradient and curve design recommendations reduce the likelihood of water pooling, surface degradation, and vehicle loss of control during adverse weather.
- Sight distance and visibility checks strengthen junction safety during low-visibility conditions such as fog, snow, or rain.

Junctions – General

The selection of junction type should reflect both the functional classification of the road and the nature of the development it serves. Standard layouts appropriate to a range of access scenarios are illustrated in the **Technical Drawings (Appendix A) figures 21 to 26**.

All junctions must demonstrate compliance with applicable geometric standards, visibility requirements, and layout principles to ensure safe and efficient integration with the public road network. Developers are recommended to engage with the City Development department for junction design's which deviate from the illustrated layouts.

Junctions between private accesses and public roads are considered private in nature and will not be adopted for maintenance beyond the point of connection with the public road.

Gates shall be set back to allow all vehicles to sit completely off the road and footway when the gates are closed. Gates should open inwards so as to cause no obstruction to the public road or footway.

Visibility Requirements

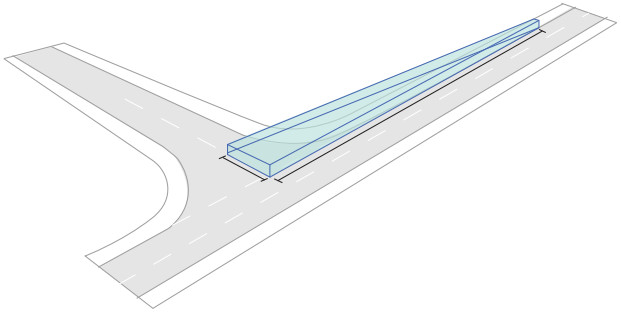
At all junctions and footway crossings, a visibility envelope should be provided in accordance with the requirements set out in **DMRB CD 123: Geometric design** of at-grade priority and signal-controlled junctions.

NOTES

1 Full forward visibility must be provided in accordance with **DMRB CD109: Highway Link Design** at locations which involve right turn manoeuvres across the on-coming traffic lane.

2. It is essential in locations where pedestrians emerge onto the road that the view between the pedestrian and motorist is similarly unimpeded. In certain situations, pedestrian barriers may be appropriate.

Stopping Sight Distance and Full Overtaking Sight Distance for all new development roads shall be assessed in both horizontal and vertical planes in accordance with the requirements set out in **DMRB CD 109: Highway Link Design**.



Based on the requirements in **DMRB CD 109** and **CD 123**, the 'y' distances for different categories of road are given in the Tables below.

Visibility Distance			
Type of Major Road	Design Speed kph	Desired Visibility Distance	
		X metres	Y metres
Primary Distributor	100	9	215
	95	98	160
	70 (min)	9	120
District Distributor	60	9	90
	50	9	70
Local Distributor	50	9	70
Minor Road	50	9	60

X distances are modified according to the type of junction as given below

Type of junction	X distance (metres)	
	Desirable	Minimum
A&B	2.4	2.4
C&D	6.0	2.4
E	9.0	4.5

Planting Adjacent to Public Roads

In addition to sight line requirements, tree and shrub planting is subject to statutory controls under Section 92 of the Roads (Scotland) Act 1984. Any planting within 5m of the edge of a carriageway of a public road or a prospectively maintainable road requires permission from the Council.

Gradients and Crossfalls

The desirable range of longitudinal gradient for public roads lies between 6% and 1% but these limits may be exceeded over short distances where site conditions make this necessary. Gradients out with the above range will always require specific approval and where footways are adjacent to the carriageway the particular requirements of pedestrians must be considered.

At side road junctions, the gradient over the first 10m of the side road should not exceed 1 in 30 particularly where the higher categories of road or types of junctions are concerned. This may be relaxed to 1 in 15 over the first 10 metres for junction types C, D and E on road categories 1, 2 and 3. This shall be regarded as the absolute maximum gradient.

For junction types A and B on road categories 4 and 5, a gradient of 1 in 10 should be regarded as the absolute maximum however, care should be taken to avoid sharp changes in gradients where vehicles may bottom.

Carriageway crossfalls and superelevation's should normally be 1 in 40 and a maximum of 1 in 20 where the desirable curve radii can be achieved. Footway crossfalls should normally be 1 in 40 and verges and service strips 1 in 20.

Junction Spacing

All junctions between roads should be formed at right angles except in special circumstances where other design considerations cannot be met. The junction spacings should be as in the following table.

Carriageway Widening on Single Track Roads

The need for widening on curves depends upon the radius and the length of curve. The table below shows the increased widths required on 90° bends, on single track roads having a basic 3.5m width. The widening shown is that required to minimise the risk of overriding kerbs or verges. For radii of less than 15m on single track roads a 4m width should still suffice provided the deflection is no more than about 45°. If the deflection is 90° a width of 5.5m is required on the bend with a minimum radius of 10m.

Curve Radius (metres)	Road Width Required (metres)
15	4.0
30	3.5
45	3.3
60	3.2
75	3.1
150	3.0
300	3.0

See also

- DMRB CD 109 Highway Link design
- DMRB CD 123: Geometric design of at-grade priority and signal-controlled junctions.

7.7 Safety in Design

The guidance given in this document and the materials specified do not diminish the responsibility of the developer and designers to ensure that due regard is given to health and safety issues through the whole life of the development.

The Developer shall ensure that issues of 'buildability' and 'maintainability' are adequately addressed. This shall include responsibilities under the Health and Safety at Work Act and subsequent regulations such as the CDM (Construction (Design and Management)) Regulations.

7.8 Vehicle Tracking and Turning

Safety

- Turning facilities must allow vehicles to exit in a forward direction to avoid reversing hazards and reduce collision risk.
- Designs must accommodate the largest vehicles expected to use them regularly to ensure safe manoeuvring.
- Clearance strips around turning areas protect pedestrians, infrastructure, and vehicle movement.

Equity

- Standardised design types (residential, industrial, car, and bus) promote fair and consistent treatment across developments and user groups.
- Inclusion of service and emergency vehicles ensures that all areas, regardless of scale or socioeconomic context, receive safe and reliable public services.
- Clearance strip provisions around turning heads support equitable access for pedestrians, including those using mobility aids.

Sustainability

- Discouragement of overscaled industrial turning heads unless necessary helps reduce land take and excess hard surfacing, preserving greenspace where possible.
- Turning heads which are designed to provide adequate manoeuvrability and minimise operational risk. Ensuring all vehicle types can be accommodated while promoting the efficient and sustainable use of land and resources.

Accessibility

- Footway-based clearance strips improve pedestrian safety and allow adequate space for movement, particularly helpful for wheelchair users, pushchairs, and visually impaired individuals.
- Avoidance of reversing manoeuvres on public roads protects vulnerable road users and preserves a comfortable environment for all modes of travel.

Climate Resilience

- Turning head geometry and clearance requirements support effective drainage and maintenance access, helping prevent water pooling and surface degradation.
- Overhang margins and verge design offer space for potential vegetation and permeable surfaces that can contribute to runoff management and biodiversity.

Turning Heads

Road layouts should be designed to avoid the need for service vehicles to reverse on the public road. This objective can be achieved by incorporating loop roads connected to Local Distributor Roads or by providing turning circles of adequate dimensions at the ends of all cul-de-sacs.

Where space constraints prevent the provision of a turning circle, a turning head must be provided. The design of any turning facility must accommodate the swept path of the largest vehicle expected to use it regularly. In residential areas, this includes refuse collection vehicles, delivery vans, and emergency service vehicles; in industrial, commercial, or retail settings, provision should be made for articulated vehicles up to 15 metres in length. Parking must not be permitted within turning heads to ensure unobstructed manoeuvring space for service and emergency vehicles.

Turning Head Types

There are three main types of turning heads categorised in accordance with their use.

Standard Turning Head

The standard turning head for a residential area is designed for the turning of most service type vehicles found in residential areas, see **Technical Drawings (Appendix A) figures 2 to 5**.

Industrial Turning Head

The industrial type turning head is for use in industrial and commercial areas. It should be noted, however, due to the large size of turning head required and the associated difficulty in turning large vehicles that service of access roads in commercial and industrial areas are better looped where possible, see **Technical Drawings (Appendix A) figures 9 to 12**.

Clearances

A 2.0m clearance strip, formed as a verge or footway and included within the adoptable road, must be provided around all turning heads. For industrial turning heads this requirement remains unless otherwise specified. In exceptional cases, and subject to approval from the City Development Department, a reduction from the standard 2.0m width may be considered; however, no reduction is permitted at the ends of T-shaped turning heads or on circular turning heads.

Bus Turning Heads

The turning requirements for buses should be based on industrial turning heads.

Alternative Turning Heads

Less formal turning head shapes may be acceptable on minor roads and access streets, as shown in **Technical Drawings (Appendix A) figures 13 to 16**, provided they retain standard turning dimensions and include a 2.0m wide overhang margin.

Minimum Turning Heads for Cars

The minimum turning head accommodates a 4.9m car and includes a 0.5m clearance strip. Enlarging the area is encouraged where feasible to improve manoeuvrability.

Turning heads are required where direct access is onto Category 1 to 4 roads. They are desirable to ensure vehicles can enter and exit in a forward direction, thereby enhancing safety and maintaining the free flow of traffic.

Passing Places

Where physical constraints prevent compliance with the dimensions, see T**echnical Drawings (Appendix A) figure 18**, particularly at critical locations such as bends where intervisibility is essential, the City Development Department must be consulted.

7.9 Traffic Signs and Road Markings

Safety

- Guidance on the details of traffic signs and road markings to ensure safe movements for pedestrians, cycle users and vehicles.
- Minimum mounting heights, lateral clearances, and pole placement standards prevent obstructions and protect pedestrians, cycle users, and vehicles.
- Specifications for materials, illumination, and vandal resistance maintain sign legibility and reliability in all conditions.

Equity

- Standardised sign and road marking specifications apply equally across residential, industrial, car-oriented, and bus-served areas, ensuring consistent levels of safety and service quality city-wide.

Sustainability

- Use of long-life materials such as galvanised steel poles and thermoplastic road markings reduces maintenance frequency and whole-life environmental impacts.

Accessibility

- Road markings and signage layouts compliant with national standards provide predictable and understandable environments for all users, including those with cognitive or sensory impairments.
- Restrictions on pole placement and sign location maintain clear pedestrian routes and reduce potential obstructions.

Climate Resilience

- Guidance on sign placement, verge design, and turning head geometry allows for adequate drainage, maintenance access, and reduced risk of water pooling or surface deterioration.
- Coordinated design of illuminated signs with street lighting enables more efficient infrastructure planning and resilience to weather and operational stresses.

General

Road Markings and Traffic Signs are to be provided by the Developer and should be in accordance with **Traffic Signs Regulations and General Directions (2016) and the Traffic Signs Manual**.

The final details of markings and signs are to be agreed with the City Development Department.

'Traffic Sign' means any object or device (permanent or temporary) for conveying to road users, or any specified class of traffic on roads, warnings, information, requirements or prohibitions of any description, as specified in the Road Traffic Regulation Acts.

Unless otherwise stated the 'mounting height' refers to the distance between the bottom of the sign face and ground level below the sign.

Traffic Sign Specification

The size, colour, type, and method of illumination for all traffic signs must comply with the requirements set out in the **Traffic Signs Regulations and General Directions (TSRGD)**, including any subsequent amendments or supplementary guidance.

The design, construction, siting, and mounting of signs must comply with the **Traffic Signs Manual**.

Sign faces shall be installed in accordance with the MCHW and be compliant with the in the **Traffic Signs Manual**. Signpost and foundation shall be designed to BS EN 12899-1 and Eurocode 7. Passively safe posts are acceptable where required to BS EN 12767.

Where signs are positioned above footways or other pedestrian areas, a minimum mounting height of 2.3m is recommended. A minimum clearance of 2400 mm shall be maintained over any cycle track or shared cycle track/footway. Where there is no likelihood of pedestrians or cycle users passing beneath the sign the mounting height may be reduced to 1.5m.

On the central islands of roundabouts, the mounting height of the combined signs to diagrams 515 and 606 may be reduced to 1m measured from the kerb level to the bottom of centre chevron.

Traffic signs greater than 0.3 sq. m in area shall not be fixed to street lighting column.

The minimum lateral clearance of any part of a sign to the carriageway shall be 0.5m. On a higher speed roads with speed limit greater than 40mph, the minimum lateral clearance of any part of a sign to the carriageway shall be 1.2m.

Supporting poles should be located to avoid obstructing the footway and a minimum effective footway width of 1.5m must be maintained past the sign poles.

Where illuminated traffic bollards are required, they shall be base lit and vandal resistant.

Only Transport Scotland or the Local Roads Authority may cause or permit traffic signs to be placed on or near any public road. Accordingly, proposals for the erection of a traffic sign or signs must be submitted to the Executive Director of City Development for approval by the Council. The City Development Department may at the same time give advice as to the extent, colour, type, size, siting details, and materials to be used and of the costs to be borne by the requesting body.

Pedestrian and Cyclist Signage

The developer may be required to include pedestrian and/or cyclist signage within or adjacent to the development. Any such sigage will be consistent with exisitng directional signage in Dundee according to guidance given by Dundee City Council's relevant Outdoor Access Officer and Sustainable Transport Department. Onward connections for pedestrians and cycle users on dead-end roads must be supported with "except pedestrians" or "except pedestrians and cycles" supplementary plates on "no through road" signage to TSRGD diagram 816

Directional Signing

Illuminated traffic signs and bollards require to be designed in conjunction with street lighting.

Proposed details of the electrical layout, design, and materials used require to be agreed with Street Lighting Section of the City Development Department through a meeting with their representative and a design brief drawn up.

Permission for signs would normally only be granted from the nearest main A or B class route.

Permission would be dependent on the number of visitors, the degree of difficulty in finding the attraction from that route, the proportion of non-local visitors and the extent of existing signs at the junctions.

Directional signage

Tourist Signing

Dundee City Council policy will apply.

Temporary Signs

Proposals for the erection of temporary direction signs must be submitted to the City Development Department for approval / refusal on behalf of the Executive Director of City Development. The Sustainable Transport & Roads Division may at the same give advice as to the extent, colour, type, and siting details.

Signs for special events of short duration (not more than 7 days) should not be erected more than 48 hours before an event, and taken down immediately thereafter, unless the Sustainable Transport & Roads Division agrees beforehand that there are exceptional circumstances.

Advertising Signs

Advertising signs intended to guide or direct road users are considered traffic signs and controlled as indicated above. Such signs are generally not permitted within the road boundary.

Consent may be required for other advertising signs, and their location and design should be agreed with the Planning Team to ensure compliance with pedestrian and road user requirements.

Road Markings

The size, colour and type of road markings should be in accordance with the **Traffic Signs Regulations and General Directions (2016)**, and any additions and amendments thereof

The use and layout of road markings must also comply with the Traffic Signs Manual. All permanent road markings should be laid in thermo-plastic screed.

Only Transport Scotland or the Local Roads Authority may cause or permit road markings to be placed on any public road. Accordingly, proposals for provision of road markings must be submitted to the Sustainable Transport & Roads Division of the City Development Department for approval on behalf of the Executive Director of City Development. The Sustainable Transport & Roads Division may at the same time give advice of the use and layout of road markings.

Traffic signs

7.10 Servicing and Loading

All developments - whether residential, commercial, industrial, or mixed-use – must incorporate servicing and loading arrangements that uphold DCC's core principles. This section outlines guidance integrating service vehicle access, refuse collection, emergency response, and infrastructure maintenance into site layouts in a way that protects the public realm and supports long-term functionality.

Safety

- Segregating servicing from public areas reduces conflict between vehicles, pedestrians, and cycle users, lowering collision risk.
- Forward-entry and exit requirements for service vehicles prevent dangerous reversing movements on public roads.
- Designing for the largest expected vehicles ensures safe manoeuvring without encroaching on pedestrian or traffic space.
- Emergency access standards guarantee unobstructed routes, adequate widths, and hydrant placement for rapid response.

Equity

- Protects public safety by separating service zones from pedestrian areas.
- Ensures consistent emergency access across all developments.
- Promotes shared stewardship of public infrastructure and landscaped strips.

Sustainability

- Encourages off-street servicing to reduce traffic impact and emissions.
- Minimises waste handling distances to improve collection efficiency
- Supports low-maintenance landscaping that aids visibility and infrastructure access

Accessibility

- Adopts inclusive design standards for roads, ramps, and pedestrian zones
- Provides safe turning areas and clear movement paths for service vehicles
- Aligns refuse handling distances with national best practice for ease of access

Climate Resilience

- Anticipates future transport changes through proactive infrastructure placement

Servicing to Commercial Developments

Servicing provisions should be considered across all development types, including business, retail, commercial, and industrial. Wherever feasible, service areas should be located off-street and positioned to the rear of buildings. While it is appreciated that adequate rear access may be difficult to achieve in the redevelopment of some gap sites using existing roads, generally the long-term aim should be to segregate servicing from pedestrian areas and the public road.

Service areas must be of sufficient size and configuration to ensure that all vehicles can enter and exit in a forward direction. Turning and reversing movements must be confined to areas off the public road and away from pedestrian and cycling activity. Measures should also be incorporated to prevent indiscriminate parking within service areas, maintaining clear access routes and operational efficiency at all times.

Loading Bays: General

The maximum dimensions of goods vehicles is 12m x 2.55m for a rigid wheelbase and 16.5m x 2.55m for articulated vehicles. Loads on platforms may overhang by 0.3m on each side and, allowing for doors opening, the basic design module for loading bays is 3.3m wide and of variable length depending on the type of vehicle. While there is no regulation governing maximum height, most vehicles do not have a greater overall height than 4.95m. 5.1m headroom is recommended and is necessary for prospectively maintainable roads. Cycle links should not be halted where there is a requirement for kerbside loading. The interface between cycle infrastructure and loading areas should be developed in accordance with Cycling by Design.

Side Loading Bays

Service road carriageways should have a nominal width of 7.3m for two-way operation and this should be widened to 12m where there are service bays on both sides of the carriageway. Where the circulation within the services area is one-way, these dimensions can be reduced to 6m and 9m respectively.

End Loading Bays

The minimum dimensions for an end-on loading bay is 12m x 3.5m for a rigid wheelbase and 17m x 3.5m for articulated vehicles. **Figures 34 and 35 show typical layouts**.

The total depth required can be reduced where vehicles are parked at an angle with a saw-tooth loading deck, but this arrangement is only appropriate when used with one-way circulatory service roads.

The depth of the bays will have to be increased to the dimensions shown in brackets to accommodate articulated vehicles up to 15m long.

Where bays are interrupted by columns supporting overhead structures, the spacing should be a multiple of the 3.5m module plus the thickness of the column.

Servicing Roads and Ramps

The gradient of straight ramps should not exceed 1 in 10 with a transitional grade of 1 in 20 at the break of slope. Care should be taken with headroom, where ramps are involved, to allow for the bridging effect of long high vehicles. The clearance at breaks of slopes may require to be considerably greater than the nominal 5.1m.

Curved service roads/ramps particularly where two-way operation is involved, should be widened to allow for the swing of the inner rear wheel and the gradient of such ramps should be eased to 1 in 14.5 on the inner kerb line.

Reference should be made to the Department of Transport guidance document, **Inclusive Mobility - A Guide to Best Practice on Access to Pedestrians and Transport Infrastructure**

Emergency Access

Designs must consider the operational needs of emergency services, ensuring unobstructed access at all times. Routes intended for occasional emergency vehicle use should have a minimum carriageway width of 3 metres. For site-specific guidance or comments on individual development proposals, consultation should be undertaken with the Police, Fire, and Ambulance Services.

Junction design should be informed by the nature of the proposed development and the classification of the adjoining road, with due consideration given to emergency vehicle access requirements.

Building Standards (Scotland) Regulations recommends a minimum clear width of 3.7m for carriageways and reinforced paths to allow for the operation of fire tenders. The design of new roads as part of a development must consider the need for emergency access to all buildings.

The location of all fire hydrants must be confirmed with Scottish Water and positioned to prevent obstruction, such as a vehicle parking directly over them.

Refuse Collection

Refuse collectors should not be required to manoeuvre two and four wheeled containers more than 15m and 10m respectively to refuse collecting vehicles in line with **BS 5906:2005 – Waste Management in Buildings**. Refuse collection vehicles are a maximum of 12m long and 2.5m wide with a maximum turning circle requirement of 24m .

Screening of waste points can help to reduce the visual impact

Gully Emptying

The location of gullies on narrow Minor Roads should have regard to the effect gully emptying vehicles have in blocking the carriageway when clearing the gullies.

Winter Roads Maintenance

The operation of winter maintenance vehicles should be kept in mind in planning the layouts and gradients of Minor Roads and Loop Roads.

Grit bins must be provided on all new residental roads on suitable hard standing at a location to be agreed with the City Development Department.

The developer must arrange for the grit bin to be serviced until the formal adoption of the roads/ footways/footpaths.

Verges, Visibility and Service Strips

Where verges, visibility splays, and service strips border private gardens, householders and tenants should be made aware of Council and statutory undertaker rights. The aim is to promote integration between public and private landscaping by encouraging residents to maintain service strips up to the paved edge.

Considered landscaping can aid Statutory Undertakers - such as cobbles or setts - to highlight the location of key infrastructure elements like stopcocks, hydrants, and manhole covers, improving visibility and access.

Demarcation of service strips should be in the form of 152 x 51mm precast concrete heel kerbs laid with 51mm face flush with the ground surface level at spacings to be agreed with the City Development Department.

Traffic Noise

A developer must consult the City Development department to determine the requirements for dealing with external noise.

Traffic noise from the following sources should be taken into account:

a) Existing roads
b) New roads being constructed as part of the proposed development
c) Alterations to the road system to accommodate the proposed development
d) Any alterations or additions to the road system likely to be undertaken by the Roads Authority within a five year period or included in an approved Structure Plan or Local Plan

The developer should also check with Transport Scotland whether or not there are any trunk road proposals which should be taken into account in designing for traffic noise.

When incorporating existing roads into a new housing development, the City Development Department must be consulted to ensure adequate noise mitigation measures are implemented

See further information:

- Building Standards (Scotland) Regulations
- BS 5906:2005 – Waste Management in Buildings.

7.11 Statutory Undertakers

Safety

- Early coordination and planned layouts reduce the risk of unsafe retrofitting, service clashes, or emergency access issues.
- Install and protect services to prevent leaks, damage, or hazards, especially for gas, water, and electricity.
- Maintain clear, unobstructed access to all service routes, hydrants, and critical infrastructure for safe operation and emergency response.

Equity

- Requires secure easements where public roads or open spaces are insufficient, ensuring fair access for statutory undertakers
- Encourages trench-sharing agreements between undertakers to reduce disruption and promote coordinated service delivery
- Highlights the need to avoid obstructing fire hydrants, ensuring equitable emergency response access across all areas

Sustainability

- Prefers laying services outside carriageways to reduce installation and maintenance costs and environmental disruption
- Advises against planting species near water mains that may cause damage, promoting long-term infrastructure health
- Supports trench-sharing to minimise excavation and reduce resource use

Accessibility

- Promotes ready access to service routes for maintenance and emergencies, including lorry access to key installations
- Recommends ducting for branch crossings to facilitate easier upgrades and repairs
- Specifies corridor placement for sewers to maintain safe working zones and reduce interference with pedestrian routes

Climate Resilience

- Notes that vegetation can obscure leak detection and damage infrastructure, encouraging resilient planting strategies

The **New Road and Street Works Act 1991 gives Statutory Undertakers** the right to lay apparatus in public roads and other land. If the adopted road or public open spaces are insufficient for Statutory Undertakers needs the secure easements must be provided for other routes.

All developments must incorporate utility servicing as a fundamental component of site planning. To ensure efficient delivery and long-term maintainability, servicing infrastructure should be considered from the earliest design stages, not retrofitted or treated as secondary to other layout elements. Detailed advice on providing for utilities in new developments can be found in Street Works UK Guidance.

Early coordination with statutory undertakers is essential to confirm capacity, routing, and access requirements. Developers must ensure that utility layouts are compatible with road gradients and drainage corridors, and that sufficient space is reserved for future-proofing and potential service expansion.

While it is preferable to minimise installation and maintenance costs and the disruption which can be caused by repairs by laying services outside carriageways, there will be some situations where the use of carriageways for this purpose cannot be economically avoided. In this instance, even though services usually follow the side of the carriageway from which most dwellings are served, branch crossings may be required, and these must be ducted if required by the utility service. Similarly, there may be situations where no verges or footways are provided alongside carriageways and where services must unavoidably be situated under the carriageway, or within private curtilages, with safeguards which are acceptable to the Statutory Undertakers.

The vertical and horizontal configuration of carriageways, footways, verges and footpaths may be constrained by requirements such as those for the length and diameter of sewers, water pipes, and gas pipe bends, the need to avoid dead ends for electricity and water services, and the need to lay gas services so that leakages will not cause a hazard.

Water and gas are less flexible than other services as individual pipes tend to be several metres in length and, if bends are sharp, special radius pipes are required, resulting in reduced pressure, and extra cost is incurred. Water and Drainage Authorities are particularly concerned about the proximity of plants to their mains as roots are attracted to them. Certain species of tree can be particularly harmful to water mains. An additional problem is the difficulty of detecting leaks if mains lie underground covered with plants and shrubs.

Certain Statutory Undertakers sometimes have local agreements to share the same trench with an agreed horizontal clearance between the services.

Ready access must, of course, be available at all times to all parts of service routes for maintenance and in cases of emergency. Lorry access will be needed to some places such as electricity substations, telecommunication junction boxes, and gas governor house installations. Fire hydrants must also be situated to suit fire requirements and the possibility of vehicles being parked on top of them must be avoided.

Where possible, sewers under carriageways should be confined to a corridor 1.5m from kerb line to allow working space and safety zones required under the **Safety at Street Works and Road Works Code of Practice**.

Grit bins shall be removed upon adoption of the new roads. The timing of removal shall be agreed in coordination with Roads Maintenance Partnership to ensure continuity of maintenance operations and avoid service disruption

8 Traffic Calming

Traffic calming is an effective method for managing vehicle speeds that are excessive and/or not suitable for the character and function of a given road. It helps ensure that driving behaviour aligns with the surrounding environment and intended use of the street and measures should be incorporated into the development of category 4 and 5 roads (see Chapter 5 Dundee Street Types).

Traffic calming also helps to discourage through traffic from using inappropriate routes. When planning such measures, it is important to assess the potential displacement of traffic onto adjacent streets. This may require extending traffic calming interventions beyond the initial site to ensure area-wide effectiveness and mitigate unintended impacts.

Where traffic calming measures are proposed on existing roads that affect the wider area, the City Development Department must be involved. Formal consultation is required in accordance with statutory procedures outlined in the **Roads (Traffic Calming) (Scotland) Regulations 1994** and the **Road Humps (Scotland) Regulations 1998**.

This section details the City Development Department's recommended approach to traffic calming design and implementation.

Safety

- Encourages slower vehicle speeds, reducing the risk and severity of collisions for all road users.
- Improves safety for pedestrians and cycle users by creating more accessible and predictable street environments, especially in active travel zones.
- Sets strict design standards for traffic calming features, including height limits, placement, and signage, to prevent hazards and ensure regulatory compliance.

Equity

- Ensures traffic calming measures reflect the character and function of streets, promoting fair treatment across neighbourhoods.
- Requires consultation with diverse stakeholders, including emergency services, community groups, and road users.
- Avoids placing disruptive features (e.g. rumble devices) near residential properties to protect quality of life.

Sustainability

- Encouraging continual slow speeds rather than start/stop vehicle behaviour, reducing brake pollutants.
- Encourages signage-only 20mph zones to minimise physical interventions and long-term maintenance.
- Promotes infrastructure resilience by reducing wear from aggressive driving and heavy vehicles.

Accessibility

- Designs traffic calming features to maintain comfort for cycle users and pedestrians (e.g. sinusoidal humps).
- Avoids obstructive vertical features near crossings and bus stops to preserve mobility access.
- Requires clear signage and layout to ensure safe navigation for all road users.

Climate Resilience

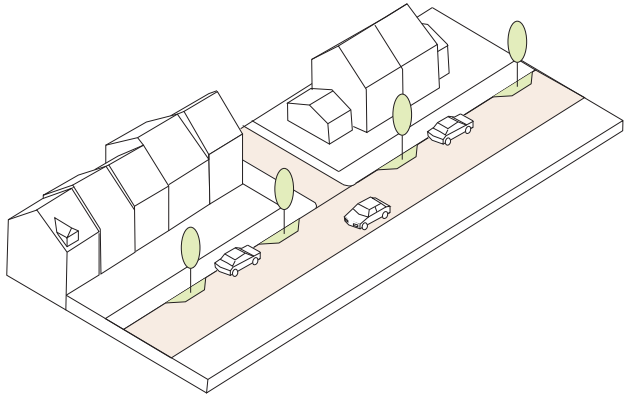
- Supports reduced vehicle speeds and volumes, lowering emissions, noise pollution and pollutants from vehicle brakes.
- Encourages area-wide interventions to prevent traffic displacement and environmental stress on adjacent streets.
- Integrates traffic calming into broader sustainable mobility strategies aligned with long-term urban resilience goals.

Horizontal Deflections

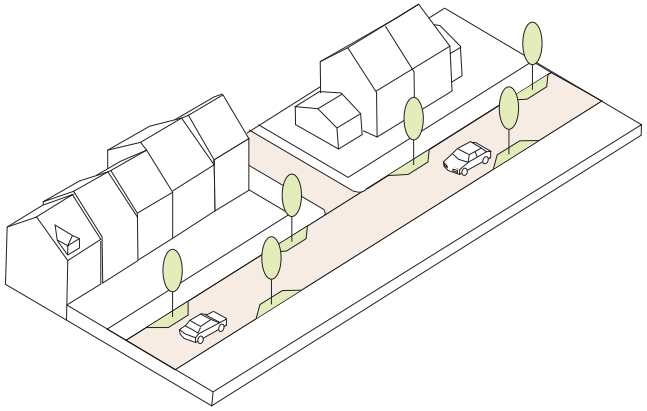
Dundee City Council prioritises horizontal traffic calming measures due to their effectiveness in enhancing road safety, maintaining user comfort, and supporting long-term infrastructure resilience. These features encourage slower driving speeds while improving conditions for active travel by creating safer and more accessible environments for pedestrians and cycle users. Horizontal deflections also minimise disruption to emergency services, reduce maintenance demands, and align with the Council's objectives for inclusive, sustainable urban mobility.

The City Development department adheres to the definitions of traffic calming measures as set out in the **Roads (Traffic Calming) (Scotland) Regulations 1994**:

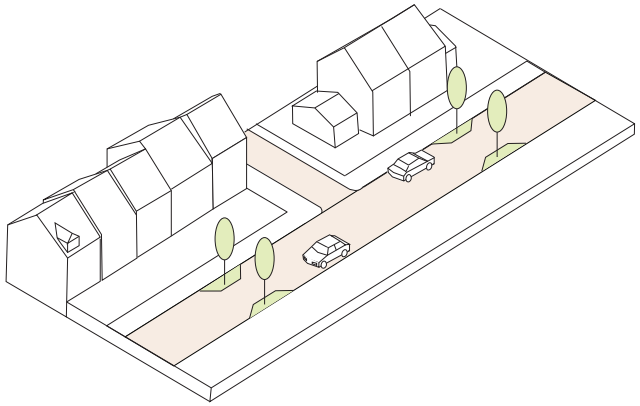
1) 'build-out' – an extension of, or a work adjacent to, the verge, footway or cycle track as a means to narrow the carriageway on one side.



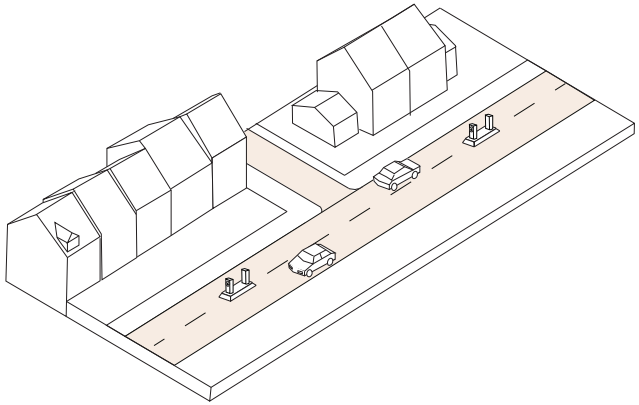
2) 'chicane' - a series of two or more build-outs constructed on alternate sides of a carriageway and not opposite one another.



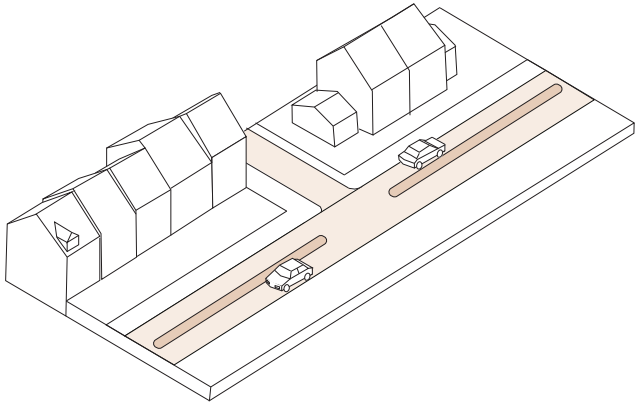
3) pinch-point' - build-outs constructed on both sides of the carriageway opposite one another



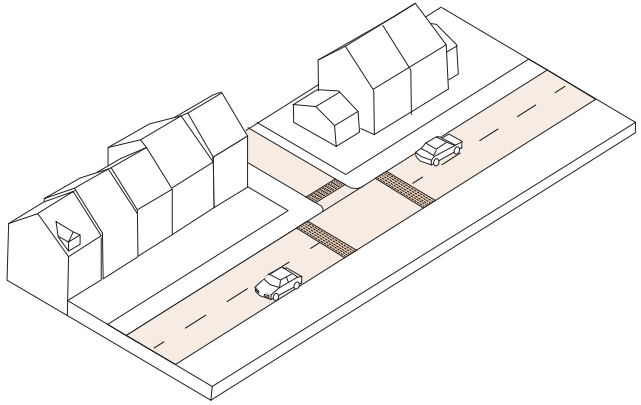
4) ‘island’, for the purpose of traffic calming only and not as a pedestrian refuge. - a work without facilities for pedestrians constructed in a carriageway to reduce carriageway width or to deflect the flow of vehicular traffic.



5) ‘overrun area’ – an area of carriageway so constructed of textured or coloured material as to appear to narrow that carriageway.



6) ‘rumble device’ – a part of the carriageway constructed of materials intended to generate noise or vibration in a vehicle passing over it. Rumble devices can be up to 20mm in height, but no vertical face should be greater than 6mm.



7) ‘gateway’ – aspect of traffic calming scheme intended to convey to drivers that they are about to enter a section of road which is different in character where they should reduce their speed.

Traffic calming features may be used in combination to enhance effectiveness. All such measures must comply with the **Roads (Traffic Calming) (Scotland) Regulations 1994** and the subsequent 1999 Amendment, enacted under powers provided by the Traffic Calming Act 1992. Any works that do not conform to these statutory requirements will be treated as illegal obstructions in the road.

Vertical Deflections

Vertical traffic calming measures serve as an alternative approach when horizontal solutions are unsuitable or insufficient for managing vehicle speeds.

Road humps must comply with the **Road Humps (Scotland) Regulations 1998** created under the Roads (Scotland) Act 1984. Works that do not conform to the regulations will be treated as illegal obstructions in the road.

Build out and raised table

Where speed humps are to be incorporated, these must be sinusoidal in profile and cover the full width of the carriageway to reduce the impact on cycle user comfort. Table 8.1 below presents the City Development Department's guidance on suitable traffic calming interventions across different levels of the road hierarchy.

Table 8.1 Traffic calming interventions

Examples	Type	Typical Hierarchy Category
Road humps	Sinusoidal Ramps (Hump may be round or flat-top)*	4,5 (excludes bus routes) 4,5 (excludes bus routes)
Speed tables		Bus routes (3) [4 or 5 if buses or coaches] Bus routes (3), 4,5 as part of speed reducing measures [check for length of buses]
Narrowings	Pinch points Build-outs Traffic calming refuges (non-pedestrian)	4,5 3,4,5 3,4,5
Chicanes		4,5
Mini-roundabouts		3 (bus routes),4,5
Visual effects	Road markings Surface treatment	3,4,5
Road closures		4,5
Gateways		4
20mph limit	Zones Mandatory limit	4 (type 2) School frontages

Notes

1 Dundee City Council City Development Department should be consulted on all traffic calming proposals.

2 Typical categories are shown. City Development Department reserve the right to re-assess appropriate measures if necessary.

*3 Sinusoidal Ramps to be designed as per LTN 1/20 Figure 7.8**

20mph Zones

Dundee City Council utilises 20mph zones as a strategic form of traffic calming, aimed at enhancing road safety, reducing the perception of excessive vehicle speeds, and supporting active and sustainable travel. The approach emphasises a signage-only method without extensive physical measures, aligning with public support from a 2016 consultation.

All new development roads, particularly housing, must be designed to achieve a maximum vehicle speed of 20mph with appropriate signage and lining provided. A TRO must be promoted for the 20mph zone/area and be in place prior to formal adoption.

20mph zone

Key Points

There are a number of key points which the City Development Department would draw to the attention of all developers intending to implement traffic calming schemes in Dundee. These points (in no particular order of significance) are as follows:

a) Dundee City Council City Development Department should be consulted on all traffic calming proposals.

b) Consideration should be made of the spacing of traffic calming features and resulting speeds between features especially where 20mph may be envisaged in the future.

c) Build-outs and pinch points can be used to narrow the road to single carriageway operation and require a priority traffic management system. Such measures can be effective under moderate, balanced traffic flow conditions.

d) Low flows without opposing traffic on wide street corridors may result in aggressive driver behaviour.

e) Chicanes are less effective on routes where access is required by large vehicles.

f) Where required, asphalt speed cushions are preferred over manufactured speed cushions.

g) No vertical face of any traffic calming feature should exceed 6mm.

h) Bus operators are opposed to the use of road humps on bus routes as they can result in passenger discomfort and increased vehicle maintenance. Objections may also be received if humps are placed on diversion routes. Similarly, humps should not be used on routes commonly used by emergency services. Where necessary, any vertical deflection should be appropriately designed.

i) Road humps should not exceed 100mm which is the maximum permitted height stated in the regulations

j) A road hump must be at right angles to the centre of the carriageway

k) Where speed sushions/traffic calming are proposed near to or adjacent to a controlled crossing, agremment must be sought from DCC Sustainable Transport & Roads Division on the proposed location and type

l) Overrun areas should be designed to comply with the tolerances shown in the traffic calming regulations and sited away from pedestrian crossing points.

Signing

Warning signs, as prescribed by the TSRGD must be installed at appropriate locations deemed necessary by the Roads Authority to provide adequate advance notice of road humps - except where the humps are constructed on roads designated as 20 mph zones.

Traffic calming features must be accompanied by warning signs unless they are visually self-evident or located within a designated 20 mph zone, as outlined in the **Road Humps and Traffic Calming (Scotland) Amendment Regulations 1999**.

See further information

- The Road Humps and Traffic Calming (Scotland) Amendment Regulations 1999
- The Roads (Traffic Calming) (Scotland) Regulations 1994
- Road Humps (Scotland) Regulations 1998

9 Parking and Electric Vehicle Charging

The availability of parking of all types (active travel, public transport, taxi and private vehicle) can be a major determinant of travel mode choice and can have a significant impact on the way a place looks and functions. Ultimately, development should be prioritised in locations which can be accessed by sustainable modes and spatially designed to reflect the sustainable travel hierarchy with a reduction in car dominance and a minimal amount of space dedicated to car parking. To help promote more sustainable modes of transport, there is a growing requirement to increase parking provision for other modes of personal transport, such as bicycles, electric mopeds, motorcycles, service vehicles and EVs.

Dundee City Council will actively continue to address the issues raised by continued growth in car traffic and associated parking infrastructure requirements. These will be treated in policy terms within a wider context, with the policy setting the context for what is permissible in design terms. Development proposals which are ambitious in terms of low / no car parking will be supported, particularly in urban locations which are well-served by sustainable transport modes and where they do not create barriers to access by disabled people.

This chapter outlines the Councils approach to parking provision in Dundee.

Safety

- Prevents obstruction and injury by prohibiting pavement parking, enforcing minimum footway widths, and requiring step-free access to disabled and EV parking spaces.
- Reduces collision risk through careful placement of parking bays, ensuring visibility near junctions, maintaining clear carriageway widths, and avoiding overhanging vehicles.
- Improves personal security by requiring well-lit, overlooked courtyard parking and discouraging designs that facilitate antisocial behaviour or car crime.

Equity

- Can significantly improve equity on streets by addressing disparities in access, mobility, and public space usage.
- Helps ensure a fairer allocation of public space.
- Provides improved connectivity with public transport and wider MaaS development opportunities.
- Help reduce the need for car ownership and reduce financial burden around transport provision.

Sustainability

- Encourages low/no car developments and shared mobility options like car clubs.
- Supports EV infrastructure and parking for alternative transport modes (e.g. bikes, mopeds).

Accessibility

- Ensures accessible parking for disabled users with step-free access and safe connections to footpaths.
- Promotes inclusive design by avoiding pavement parking and maintaining clear pedestrian routes.

Climate Resilience

- Promotes permeable surfaces and SuDS in parking areas to manage runoff.
- Supports EV charging infrastructure aligned with net-zero goals and integrated into the public realm.

General

All forms of parking should be clearly identifiable yet suitably integrated into the public realm. Parking should not dominate the street scene nor dictate the overall layout of the site. Parking for all modes should be accommodated by a variety of means to provide flexibility and adaption in the future, and to lessen visual impact. Underground, internal and undercroft parking is encouraged and should be considered in all developments to enhance the place making options.

The Transport (Scotland) Act 2019 introduced three new parking prohibitions nationally. These ban parking on pavements, at dropped kerbs at known crossing places and also double parking. Development should therefore design to mitigate the potential or possibility of pavement parking.

Dundee Residents Parking Permits

Where a house or flat is newly built, or formed by sub-division of an existing property, the responsibility for the provision of parking lies with the developer unless specifically agreed otherwise by Dundee City Council in advance of the sub-division works taking place.

Dundee's existing controlled parking zones are documented on the Council's Traffic Regulation Order portal. Residents who live in any new postal address that has been established will not automatically be eligible for a resident parking permit unless the address has been approved and actioned by Dundee City Council. Approval will be given in accordance with the order.

Shared use provision

The Council supports shared-use parking provision, especially in Dundee's urban areas, whereby parking spaces can be shared with alternative uses so long as this does not create conflict between users. Proposals for shared use parking must be supported with a parking appraisal and agreed with Dundee City Council.

Park and Choose

Park & Ride sites have evolved to Park & Choose facilities. These support connectivity with a range of alternative transport services which can be accessed including active travel route connections. Park & Choose Facilities should be considered and provided in-line with **Local Development Plan Policy 57** (Transportation Interchanges).

Accessibility / parking spaces for disabled people

Adequate parking provision should be made to meet the needs of disabled people and must be designed to be accessible for all users. Disabled parking provision should be conveniently located and clearly signed with step free access via appropriately position dropped kerbs, and parking should not reduce the width of the adjacent footway to less than 2m.

It should ensure close proximity to destinations and link safely with footpaths. Any parking machines and control equipment should be positioned so that it can be operated conveniently by all users, including access for wheelchair users from the side and the rear.

Parking Standards

The amount and nature of parking will depend upon the type and location of the development.

Designers must refer to Dundee City Council's parking standards which are outlined in **Appendix E - Parking Standards** to ensure they are providing appropriate provision. Any deviation from the Parking Standards will require justification..

Car Parking

Car Parking is expected to be of a high quality by providing for all members of the community, incorporate sustainable features such as permeable surfaces or sustainable drainage systems, have safety and security designed in and provide for the charging of electric vehicles. Car parking must be informed by a design-led approach, which is well-integrated with a high-quality public realm.

Parking Bays

a) The recommended car parking bay measures 2.5m by 5.0m.

b) Where a proposed parking bay has a fence, wall or other obstruction along its longitudinal boundary the width shall be increased to 3m.

c) Where parking is parallel to the direction of flow, a bay size of 2.5m x 6.0m is recommended.

d) Where parking bays are provided for disabled or parent & child spaces, the minimum bay width should be increased to 3.3m.

Parking angled to the carriageway will not be permitted where the City Development Department considers that the extra manoeuvring required will endanger cycle users, passing traffic or impede free traffic flow. Where such parking bays are permitted, they shall be located to the rear of the heel line of the footway out with the road boundary.

Residential Car Parking Design

In Dundee, the **Local Development Plan Appendix 4** identifies residential parking requirements appropriate for three distinct character areas: City Centre, Inner City & Central Broughty Ferry, and Suburban. The residential Car Parking requirements for each character area identified in the LDP and the **Appendix E - Parking Standards** must be adhered to.

The relationship between pedestrian access to dwellings and the road network should desirably be such that it is easier and more convenient to use the designated parking areas than to park casually on the street. This applies mainly to communal parking areas although consideration should also be given to this matter where individual dwellings have parking spaces within the curtilage.

Parked vehicles can be particularly intrusive in the residential environment and it is desirable for there to be an element of screening of the actual parking spaces either by the judicious use of landscaping or by setting them behind the building line.

Visitor parking within a residential development must be provided within individual property curtilage. Remote visitor car parking bays are not acceptable.

On street parking

On-street vehicle parking may be required to meet demand. Where required, informal on-street parking arrangements are encouraged, such as the widening of the carriageway (but not at the expense of narrowing the footway), with incorporated buildouts and the adoption of a different surfacing material/colour to help differentiate from the carriageway.

On-street parking should be evenly distributed throughout a development and should be well integrated within the design. Consideration should be given to the proximity of junctions/speed restraints/frontage parking and bus routes.

On-street vehicle parking must not restrict access to footpaths and cycleways.

Bus routes within residential developments will require a minimum clear passage which must be available where on-street parking is proposed. [Refer to the Street Design Technical Table].

The visual impact of on-street parking should be broken up by limiting on-street parking to groups of around five spaces. The incorporation of shrub and tree planting, designed where possible to form part of a SuDS, is encouraged to soften the appearance of vehicles and enhance the streetscape. The detailed design and specification should avoid compromising personal safety or facilitating car crime.

Effectively integrated on-street parking can contribute to road safety (by helping to slow vehicle speeds). When incorporated into a scheme, it should be supported by a 20mph speed limit to help aid pedestrian and cycle user safety.

Where parking bays are proposed on road categories 4 and 5, they should be set not less than 20 metres from any junction.

On-street parking and cycling

Designs must refer to the appropriate layouts presented in **Cycling by Design Chapter 3.11 On-street parking and loading** for proposals where a cycle link is required to pass on-street parking. Where such arrangements are proposed, a physical buffer strip should be provided between the parking and the cycle track to protect cycle users from vehicle overhang and opening doors. The buffer should be a minimum of 0.5m wide, with 1.0m preferred where space permits, and may incorporate kerbs, verge strips, or planting. Cycle tracks running alongside on-street parking should be one-way and provided on both sides of the carriageway in the same direction as the adjacent traffic flow to maximise safety and visibility.

Courtyard parking

Communal parking places in some areas are subject to antisocial behaviour which is detrimental to their use by residents who prefer to keep their cars in view. Parking courts must be well-lit, secure, and benefit from natural surveillance from surrounding dwellings to ensure they feel safe and are practical for residents. Wherever possible, they should be overlooked by multiple homes to create a sense of ownership and deter anti-social behaviour.

Courtyard spaces should be less than ten spaces. If there are more spaces, the courtyard layout should be broken up.

On-plot parking

Where individual garages, or carports, are provided adjacent to buildings they shall be set back a minimum of 6 metres from the heel line of the footway, verge or service strip.

On-plot parking should be designed so the front garden is not overly dominated by the parking space. The conversion of front gardens to parking spaces should generally be avoided.

Parking within the front curtilage should generally be avoided, however may be suitable in restricted situations when integrated with other parking solutions.

Driveways should be sufficiently long for either 1 or 2 cars, but not an intermediate length that would lead to overhanging of the footway or shared surface.

Garages

Garages adjacent to buildings shall be set back a minimum of 6 metres from the heel line of the footway, verge or service strip. This provides space for car washing purposes, allows garage doors to be opened while the car is in the drive and allows adequate sightlines. The minimum garage size to be considered appropriate for car parking is:

- 7.0m x 3.0m (internal dimensions)
- Associated minimum clear door access dimension: 2.1m wide x 1.98m height
- Provision for electric vehicle charging facilities should be provided with a garage space.

Motorcycle parking

a) Motorcycle parking should be clearly signed.
b) Motorcycle parking should have dropped kerb or level access, and should be on a solid, level surface.
c) Anchor points should be provided for security. These should not present a trip hazard to other road users or pedestrians.

Electric Vehicle Charging

A Scottish Government objective in reaching net zero is to phase out the need for new petrol and diesel cars and vans by 2030. The installation of EV charging infrastructure across the city can help to support the public, and businesses, make the switch to battery electric vehicles.

Low or zero-emission vehicle charging points must be provided in a safe and convenient location, with alignment to building standards. EV charging units should be integrated into the design of the dwelling or parking area to minimise visual impact. For example, by aligning with green infrastructure and street furniture. They should not be located on key corners along the street or public realm wherever possible. Parking standards for EV provision relating to specific development types are set out in **Appendix E**.

On-street EV charging

For on-street EV charging, a minimum 2m clear footway must be maintained to ensure safe passage for wheelchairs, mobility scooters, those with limited vision, and pushchairs. Private on-street EV charging provided by cables crossing the footway is not acceptable. Charging units may be placed on build-outs (kerb extensions between or at the ends of parking bays) provided cables do not create trip hazards. Units must be set back at least 500mm from the kerb edge to avoid obstruction.

Off-street

For off-street parking, EV bays must be at least 2.4m wide, protected against collisions, and positioned to prevent obstruction or trip hazards. Layout plans should clearly indicate EV charging points and cable-ready sockets. EV bays should be clearly signed and marked exclusively for electric vehicle charging.

Shared Mobility

Car Clubs

Car Clubs and other forms of shared mobility provide a solution for drivers requiring only occasional usage. Developers are encouraged to consider the potential for car club bays (either signed bays or unallocated bays) which could provide neighbourhood-based short-term car hire within designs, particularly in urban, higher-density locations. Guidance for Car Clubs is available from CoMoUK. This must be discussed with Dundee City Council.

10 Adoption and Maintenance

This chapter outlines the responsibilities of developers in delivering infrastructure that is both adoptable and maintainable by Dundee City Council. It highlights the procedures for achieving formal adoption of roads and footways and sets clear expectations for the long-term upkeep of all street assets.

Safety

- Ensures safe infrastructure handover by requiring a one-year maintenance period before adoption, allowing defects to be identified and resolved before public use.
- Maintains clear and hazard-free routes through vegetation management, winter treatment, and routine inspections of carriageways, footways, and drainage systems.
- Reduces long-term safety risks through the use of durable, modular materials and standardised construction details that minimise failure, vandalism, and maintenance disruption.

Equity

- Clear procedures for asset adoption ensure consistency and transparency across developments, benefiting all stakeholders equally.
- Developer obligations for defect repair and maintenance reduce disparities in infrastructure quality between newly built and older public spaces.
- Funding mechanisms for green infrastructure (commuted sums or resident contributions) create options to ensure upkeep regardless of ownership models.

Sustainability

- Use of low-carbon, durable, and context-sensitive materials helps minimise environmental impact over the asset lifecycle.
- Modular street furniture design allows components to be easily replaced, reducing waste and extending infrastructure longevity.
- Standardised construction and coordinated material use limit resource consumption and streamline future maintenance efforts.

Accessibility

- Vegetation management requirements maintain safe head height and width for pedestrian use, prioritising ease of passage.
- Maintenance access provisions ensure infrastructure is installed with sufficient clearance for safe inspection, supporting continuous accessibility.
- Street layout considerations during early design stages promote long-term usability for all road and footway users.

Climate Resilience

- Drainage infrastructure guidance includes flood prevention and SuDS upkeep to reduce climate-related disruption.
- Winter treatment protocols (gritting and snow clearance) help ensure year-round mobility during adverse weather.
- Design standards that support ongoing maintenance contribute to infrastructure adaptability in response to changing climate conditions.

Adoption

In Dundee, newly constructed roads and footways intended for adoption by the Council are subject to a mandatory one-year maintenance period, during which the developer remains fully responsible for all maintenance costs and activities. This period begins once the works have been completed to the satisfaction of Dundee City Council and a provisional certificate of completion has been issued. The developer must monitor the condition during this time, and only upon successful completion of the maintenance period - and resolution of any outstanding issues - will the road/footway be formally adopted into the public network.

Procedures (Appendix D) outlines the process which developers must follow to achieve adoption of infrastructure assets within Dundee. It sets out the steps both prior and post construction, guiding developers to understand their responsibilities.

Maintenance – General

This section outlines the key role of street maintenance within Dundee City Council's broader commitment to delivering safe, accessible, and sustainable public infrastructure. Maintenance is a critical component of street design. Proactively considering maintenance during the early design stages helps to ensure streetscapes remain safe, attractive, and functional in the long term.

Through its Roads Maintenance Partnership with Tayside Contracts, Dundee City Council oversees a broad array of infrastructure assets. The scope of the maintenance partnership includes:

- Carriageways, footways and cycle tracks: Routine inspections, resurfacing, and defect repairs
- Signage: Operational checks and replacements
- Drainage infrastructure: Gully cleaning
- Street furniture: Preservation of visual quality and accessibility
- Winter treatment: Gritting and snow clearance to maintain safe passage

The purpose of this section is to outline clear expectations for the maintenance of assets, supporting long-term performance and minimising disruption to users.

Carriageways & Footways

As previously stated, carriageways and footways constructed as part of a new development are the responsibility of a developer for one-year maintenance period. Throughout this year, the developer must address any defects, carry out routine upkeep, and respond promptly to any issues raised by the Roads Maintenance Partnership.

Carriageways and footways constructed as part of new developments must be built to the Council's approved standard construction details as found in **Construction Detail (Appendix C)**. This standardisation supports not only technical approval and future adoption but also streamlines maintenance operations. Any departure from the standard construction details will require approval from the City Development Department.

Landscape / Vegetation

Developers must ensure long-term maintenance of green infrastructure in new housing developments - either by arranging adoption by Dundee City Council with a commuted sum or by transferring land to a third party with funding provided via a lump sum or resident contributions, clearly defined in sale agreements.

Vegetation within 5m from the edge of road carriageway and that interfacing with footway and cycleways must be managed to maintain sightlines and to prevent obstruction and injury. All overhanging branches and foliage must be cut back to maintain a clear head height suitable for pedestrian and cycle use.

Drainage

Drainage infrastructure must be designed to enable ongoing maintenance that reduces flood risk, protects public health, and preserves environmental quality. Proposals must include clear maintenance strategies, detailing access provisions, expected upkeep activities, and frequency.

Street Furniture & Lighting

Street furniture and lighting installations must be designed to minimise long-term maintenance burdens and facilitate safe, efficient access for inspection, repair, and replacement. All components - such as benches, bins, bollards, signage, and lighting columns - should be modular where possible, allowing parts to be easily swapped without specialist tools or excessive disruption. Materials must be chosen for durability and resistance to corrosion, vandalism, and weathering, to reduce the frequency of upkeep. Asset registers and maintenance records must be integrated into the project handover documentation to support ongoing upkeep and future inspection regimes.

Materials

Designs will be encouraged to incorporate quality approved sustainable materials that are low carbon, visually attractive, require minimum maintenance, and are in keeping with the specific local character of the area. Developers are encouraged to engage with the City Development department to confirm suitability of any non-standard materials proposed.

The future maintenance of materials should be considered, with the number of different materials used being minimised. On larger sites, where several developers may be present, this will require a co-ordinated approach, especially at the interface between different elements of the site.

Maintenance Access

To ensure efficient street maintenance, developers must position all infrastructure to allow unobstructed access. This includes placing lighting, drainage, signage, and street furniture with sufficient clearance to enable safe inspection, cleaning, and repair. Drainage systems must remain fully accessible, and infrastructure must avoid conflict with trees, parked vehicles, or other obstructions.

Appendix A

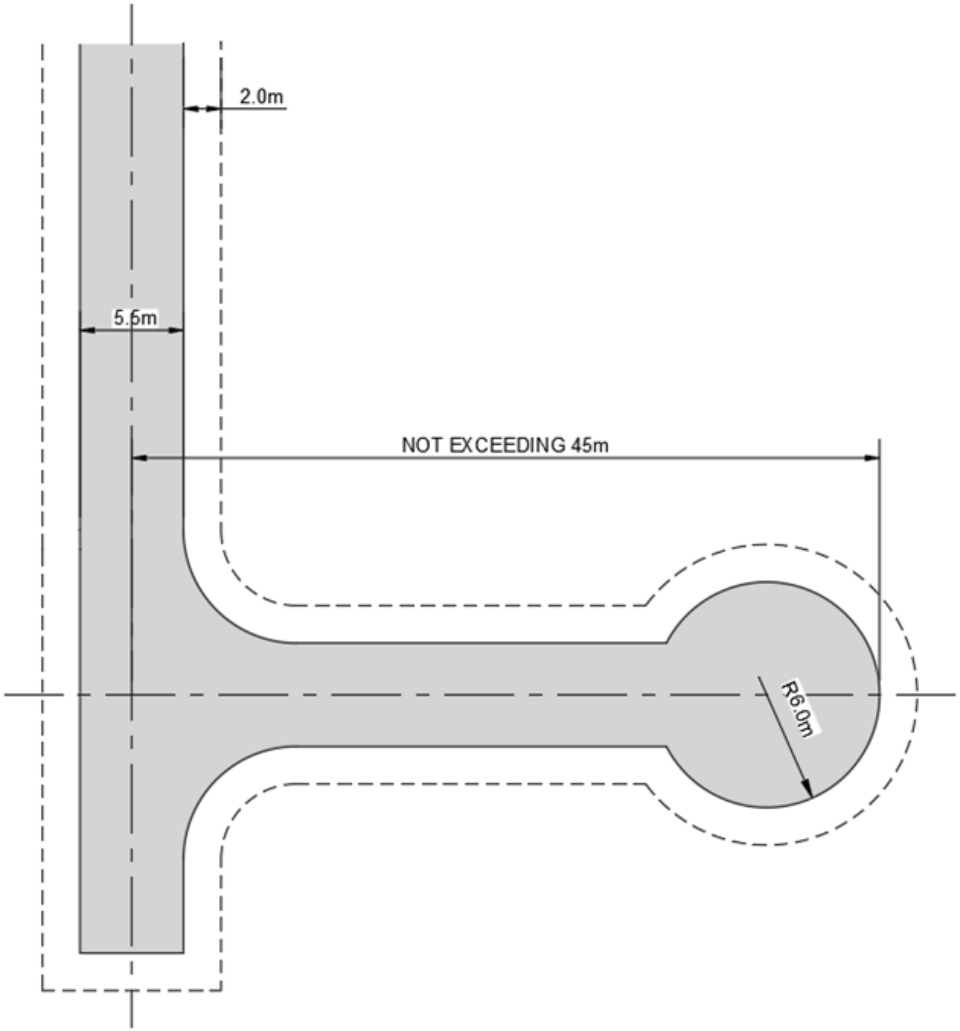
TECHNICAL DRAWINGS

Figure	Description	Date Published
1	Turning Head in Short Culs - De Sac and Courtyards	Dec 2025
2	Standard Turning Head - Simple T Hammerhead	Dec 2025
3	Standard Turning Head - Simple Y Hammerhead	Dec 2025
4	Standard Turning Head - Turning Circle	Dec 2025
5	Standard Turning Head - Offset Hammerhead	Dec 2025
6	Minimum Turning Head – Offset Hammerhead	Dec 2025
7	Minimum Turning Head – Hammerhead	Dec 2025
8	Minimum Turning Head– Y Hammerhead	Dec 2025
9	Turning Head for Industrial Areas – T Hammerhead	Dec 2025
10	Turning Head for Industrial Areas – Offset Hammerhead	Dec 2025
11	Turning Head for Industrial Areas – Turning Circle	Dec 2025
12	Turning Head for Industrial Areas – Offset Turning Circle	Dec 2025
13	Alternative Turning Head – T Hammerhead	Dec 2025
14	Alternative Turning Head – Y Hammerhead	Dec 2025
15	Alternative Turning Head – Turning Circle	Dec 2025
16	Alternative Turning Head – Offset Hammerhead	Dec 2025
17	Junction Between Minor Road and Short Culs-de-Sac or Access	Dec 2025
18	Passing Place	Dec 2025
19	Passing Place Combined with Garage Access & Visitor Parking	Dec 2025
20	Ramp Position at Junction Between General Roads and Minor Roads or Short Culs-de-sac	Dec 2025
21	Junction A	Dec 2025
22	Junction B	Dec 2025
23	Junction C	Dec 2025
24	Junction D	Dec 2025
25	Junction E	Dec 2025
26	Junction F	Dec 2025
27	Parking Layout – 45° to the Aisle	Dec 2025

Figure	Description	Date Published
28	Parking Layout – 60° to the Aisle	Dec 2025
29	Parking Layout – 90° to the Aisle	Dec 2025
30	Parking Layout – Garages at 90° (One-side only)	Dec 2025
31	Parking Layout – Garages at 90° (Two Sides)	Dec 2025
32	Right Angled Parking Areas	Dec 2025
33	Loading Bays – Two Way Service Road	Dec 2025
34	Loading Bays – Angled Bays	Dec 2025
35	Loading Bays – Perpendicular Bays	Dec 2025
36	90° Curve on a Service Ramp	Dec 2025
37	Precast Concrete Road Kerb - Half Batter Pattern	Dec 2025
38	Precast Concrete Road Kerb - Bullnose Pattern	Dec 2025
39	Precast Concrete Edging – Flat Top	Dec 2025
40	Precast Concrete Road Kerb - Splay Pattern	Dec 2025
41	Precast Concrete Road Kerb - Inverted Pattern	Dec 2025
42	Whin / Granite Sett Kerb	Dec 2025
43	Stone Road Kerb – Full Upstand	Dec 2025
44	Dropped Kerb Arrangement	Dec 2025
45	Footway Construction – Full Depth	Dec 2025
46	Carriageway Construction (General) – Full Depth	Dec 2025
47	Carriageway Construction (Industrial) – Full Depth	Dec 2025
48	Footway Resurfacing	Dec 2025
49	Carriageway Resurfacing	Dec 2025
50	Carriageway Reinstatement	Dec 2025
51	Carriageway Tie-in	Dec 2025
52	Insitu Concrete Trapped Street Gully	Dec 2025
53	Insitu Concrete Trapped Footway Gully	Dec 2025
54	Dished Drainage Channel	Dec 2025
55	Filter Drain	Dec 2025
56	Soakaway Trench	Dec 2025

Turning Head in Short Culs-de-sac and Courtyards

Figure 1



Standard Turning Heads

Figure 2

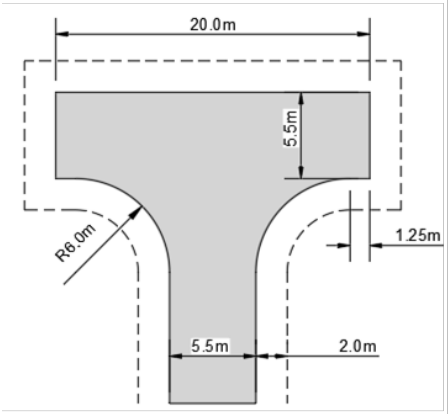
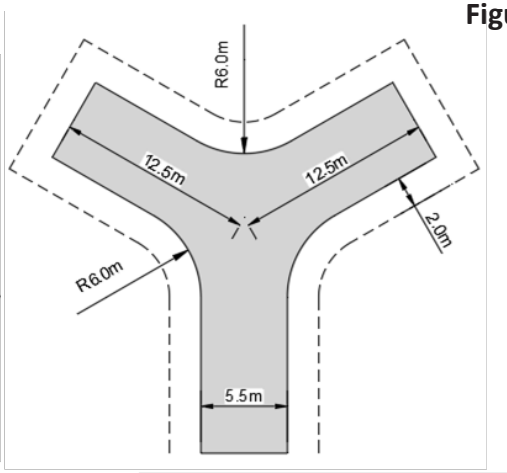


Figure 3



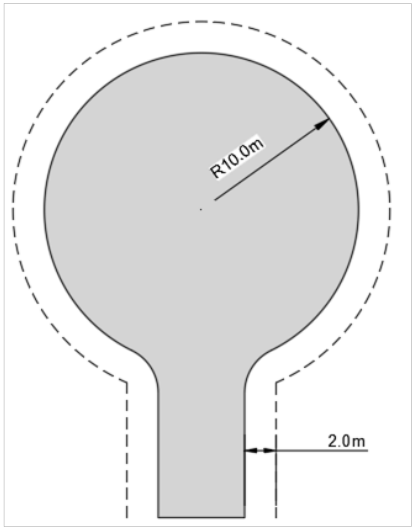


Figure 4

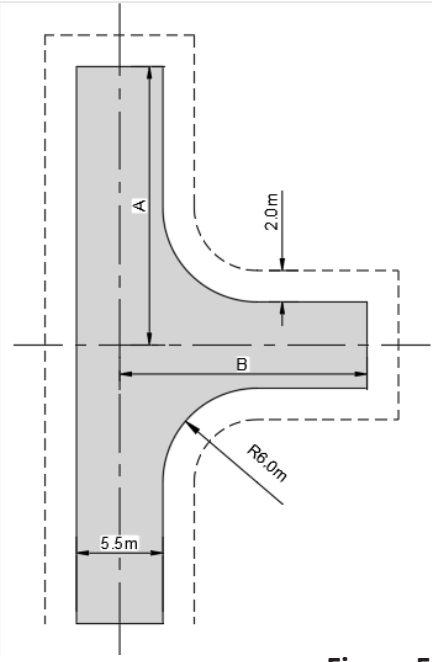


Figure 5

Minimum Turning Heads for Cars for Private Accesses

Figure 6

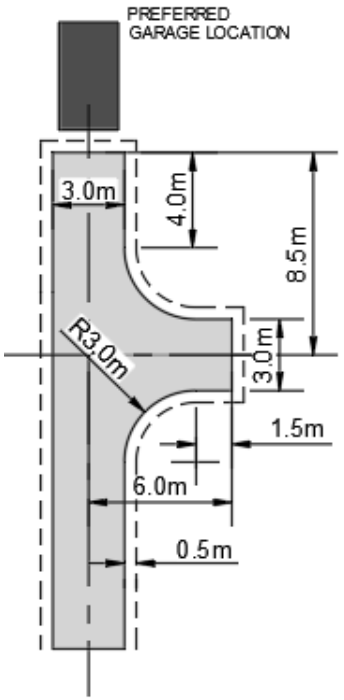
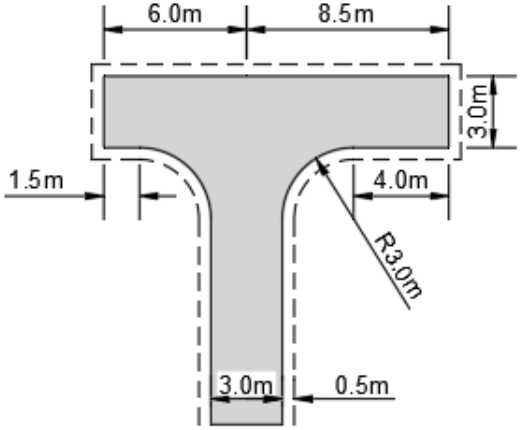


Figure 7



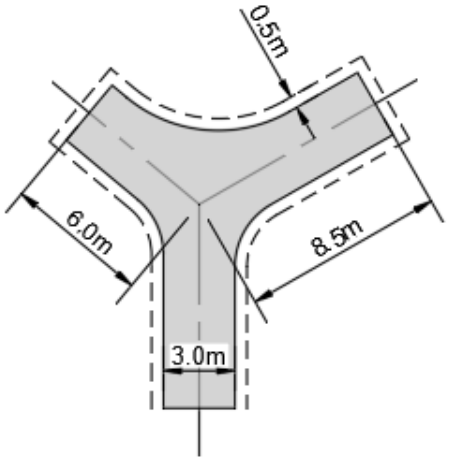


Figure 8

Alternative configurations may be used provided the arms of the T are dimensioned 6m & 8.5m and no angle between the arms is less than 90.

Where possible the preferred location for a garage would be on the longer leg

Turning Heads for Commercial and Industrial Areas

Figure 9

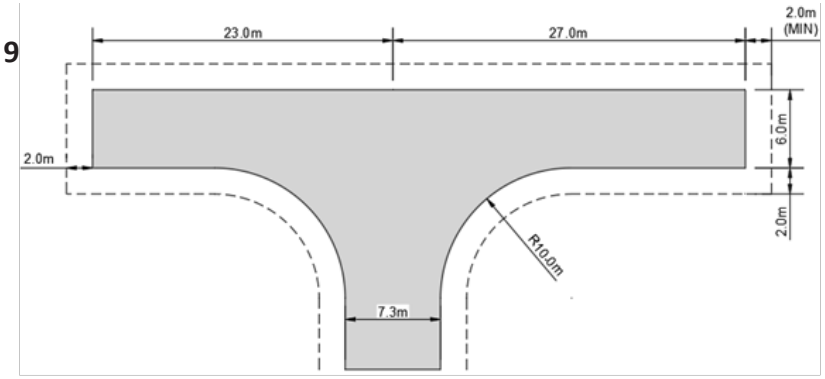


Figure 10

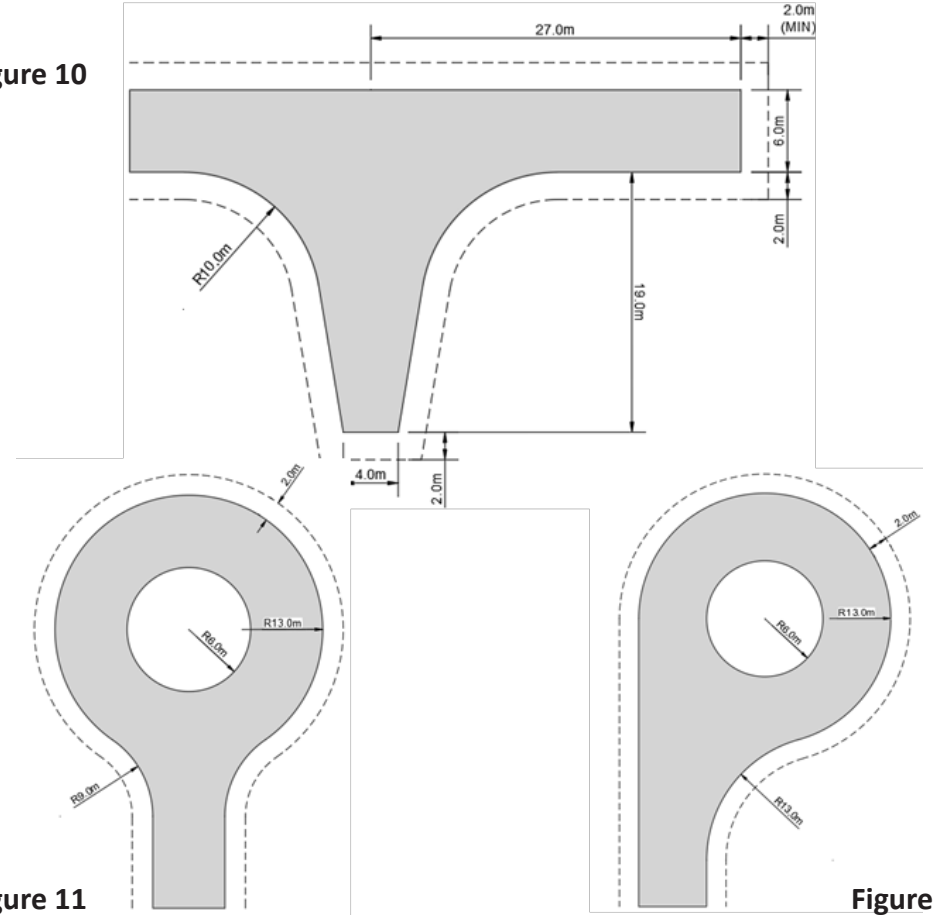


Figure 11

Figure 12

Alternative Turning Heads in Short Culs-de-sac and Minor Roads

Figure 13

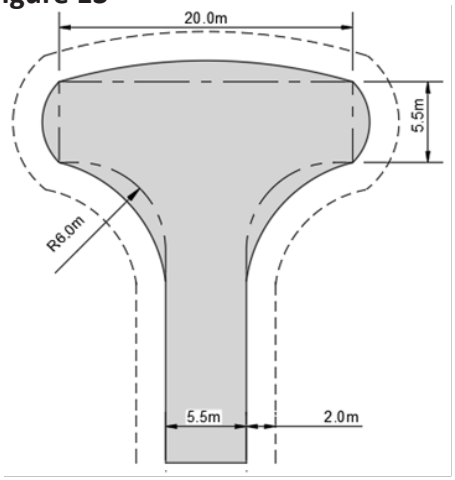
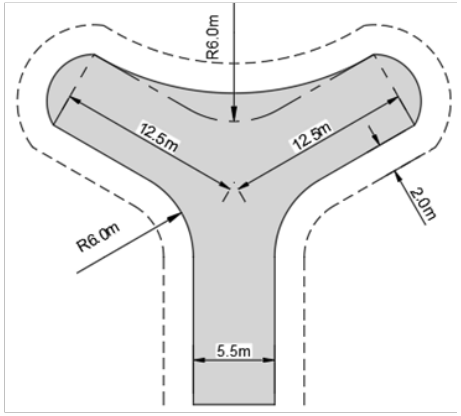
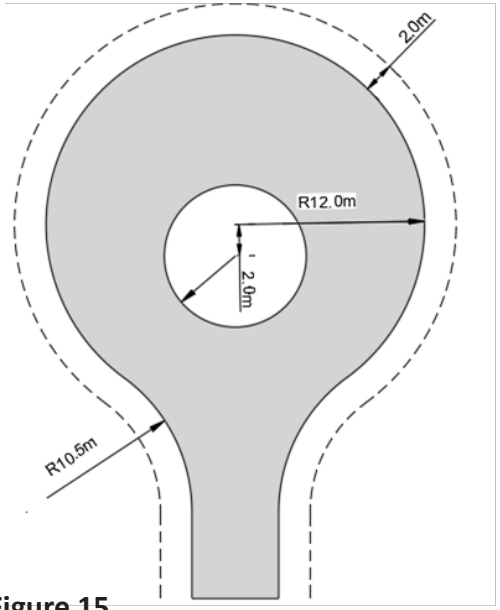


Figure 14





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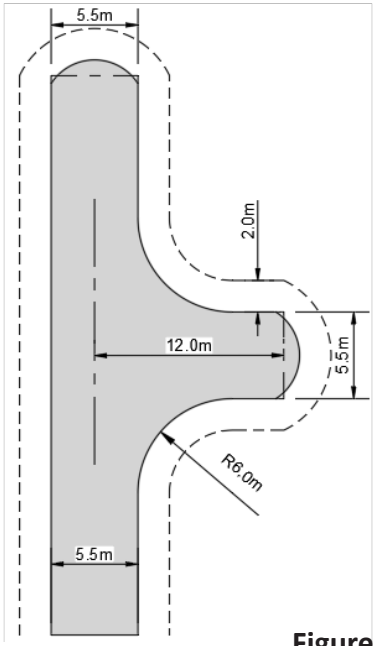
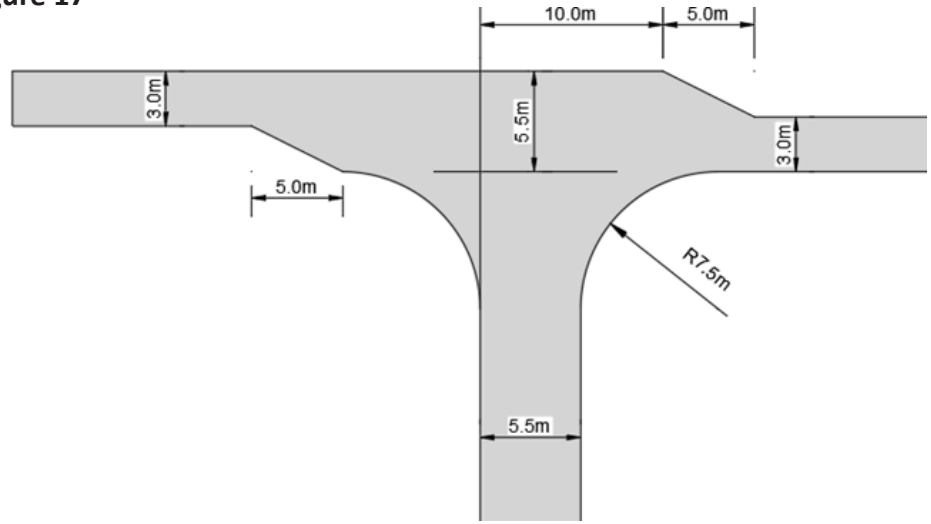


Figure 16

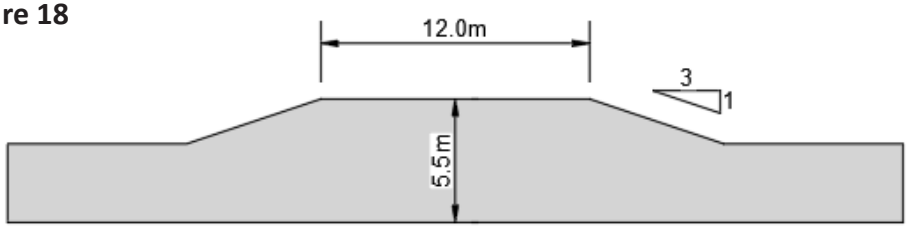
Junction Between Minor Road and Short Culs-de-Sac or Access

Figure 17



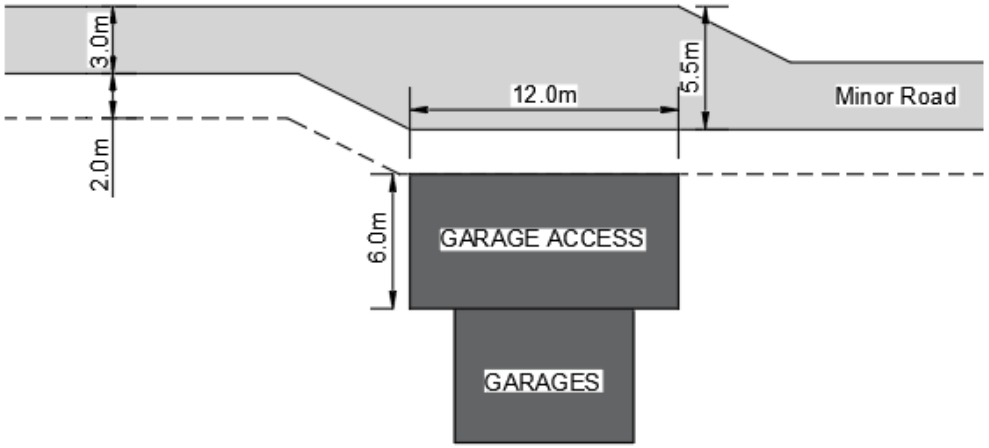
Passing Place

Figure 18



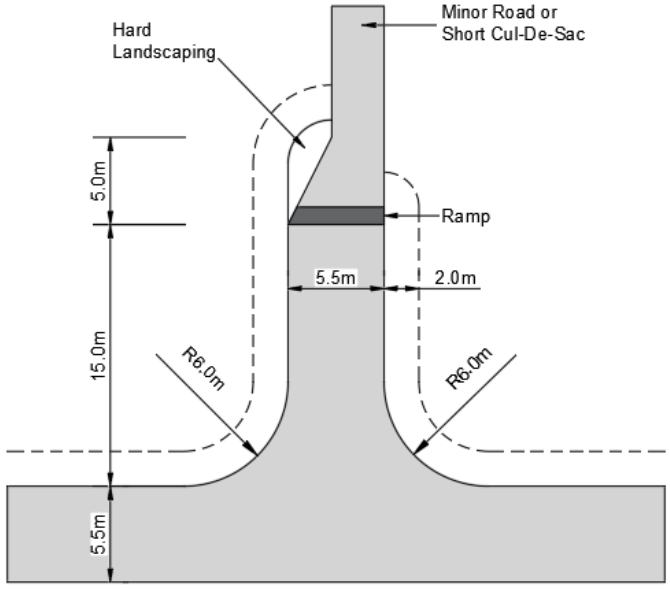
Passing Place on Minor Roads Combined with Garage Access & Visitor Parking

Figure 19



Ramp Position at Junction Between General Roads and Minor Roads or Short Cul-de-sac

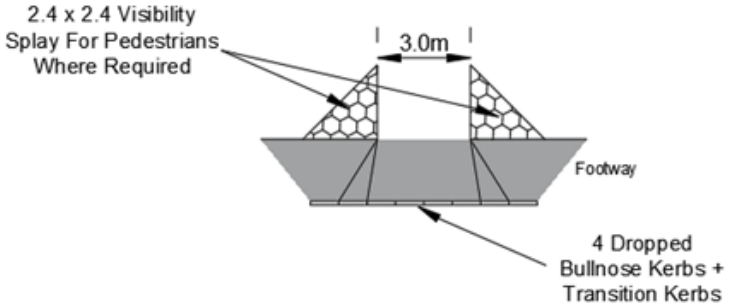
Figure 20



Junction Types

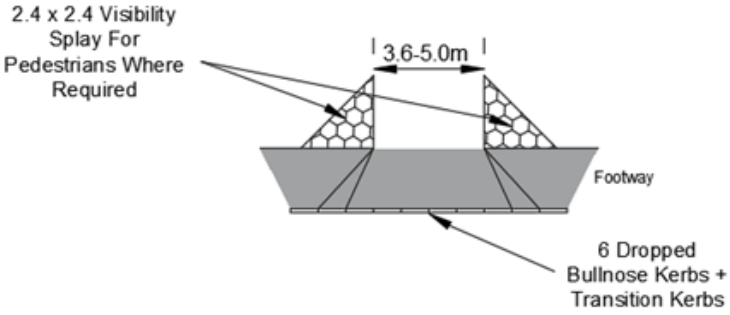
Type A

Figure 21



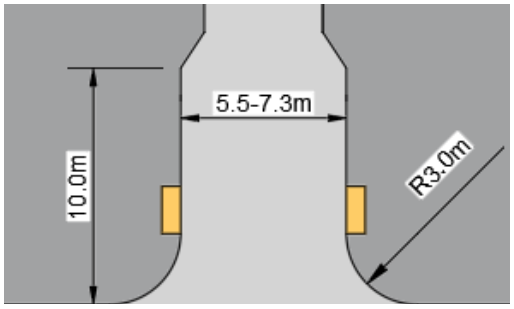
Type B

Figure 22



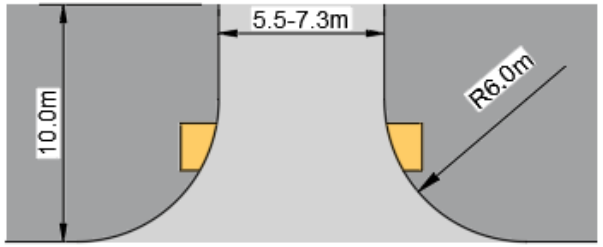
Type C

Figure 23



Type D

Figure 24



Junction Types

Type E

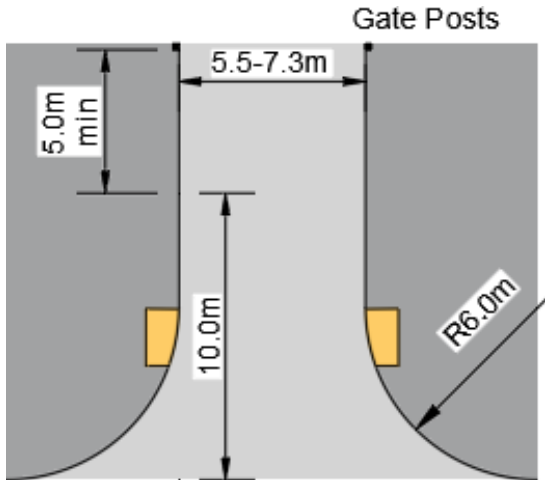


Figure 25

Type F

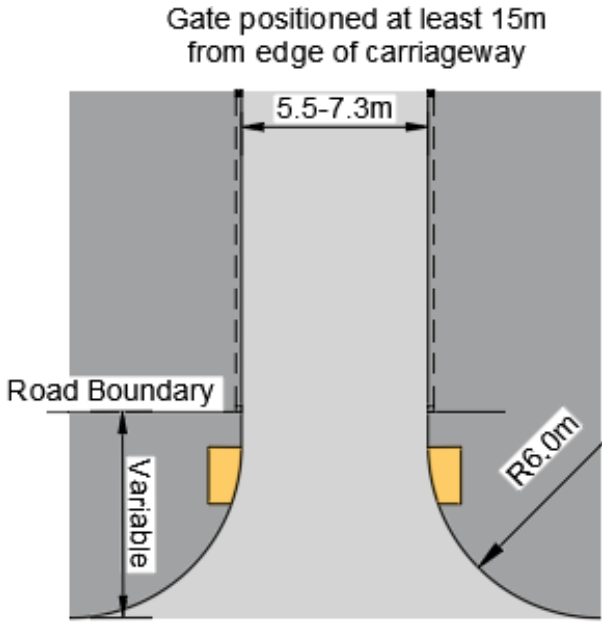
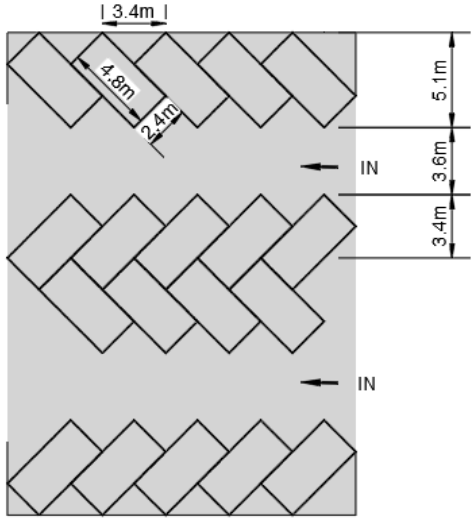


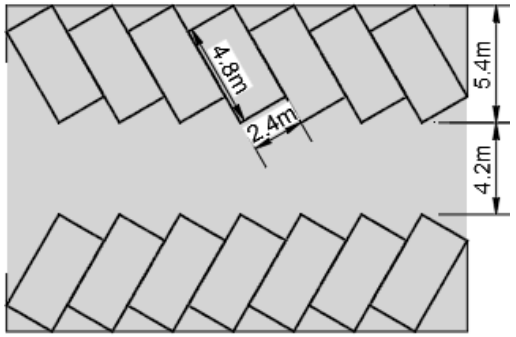
Figure 26

Parking Layouts



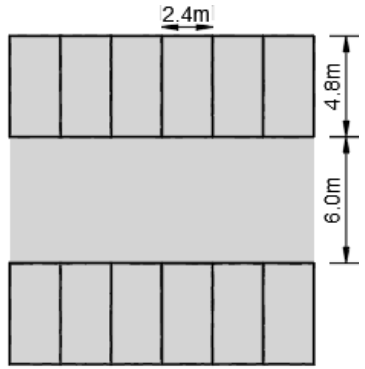
45° To The Aisle

Figure 27



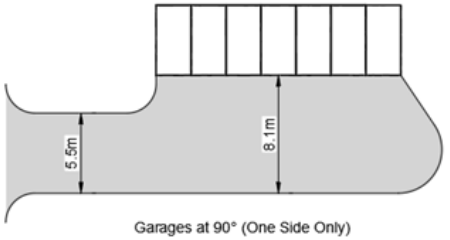
60° To The Aisle

Figure 28



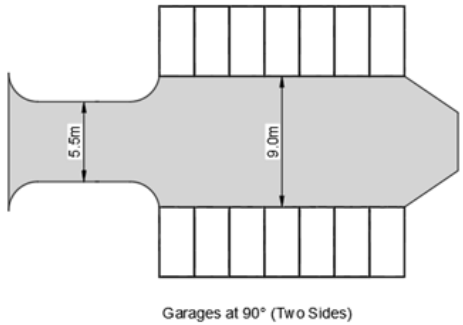
90° To The Aisle

Figure 29



Garages at 90° (One Side Only)

Figure 30

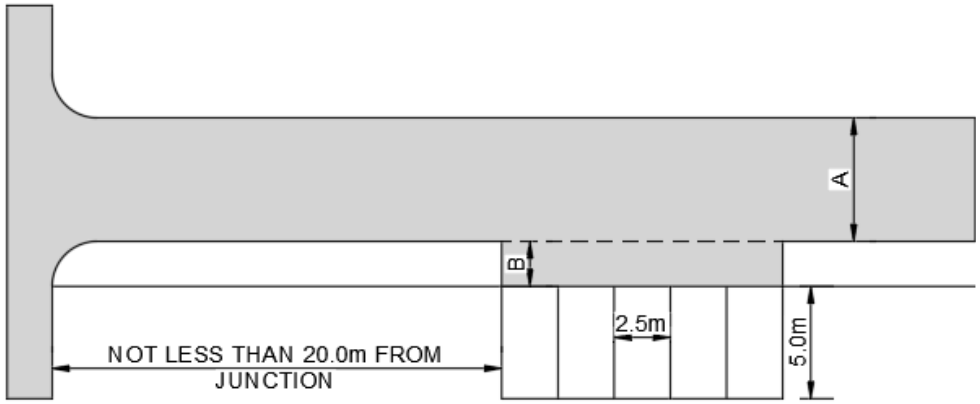


Garages at 90° (Two Sides)

Figure 31

Right Angled Parking Areas

Figure 32



Road Type	A	B
General Road	5.5m	2.0m
Cul de Sac	5.5m	2.0m
Minor Road	3.0m	3.5m

Loading Bays

Figure 33

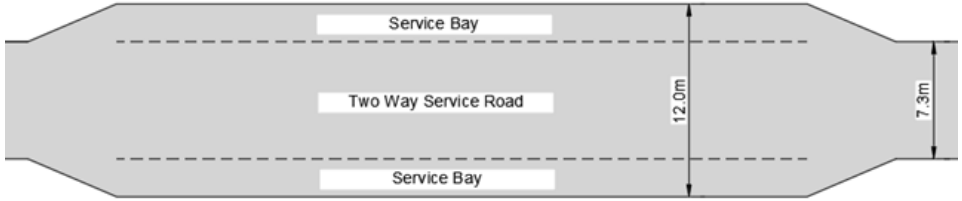


Figure 34

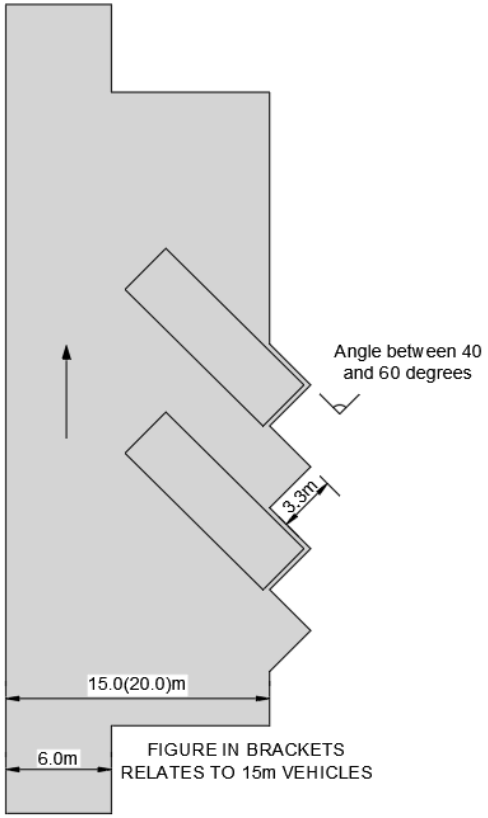
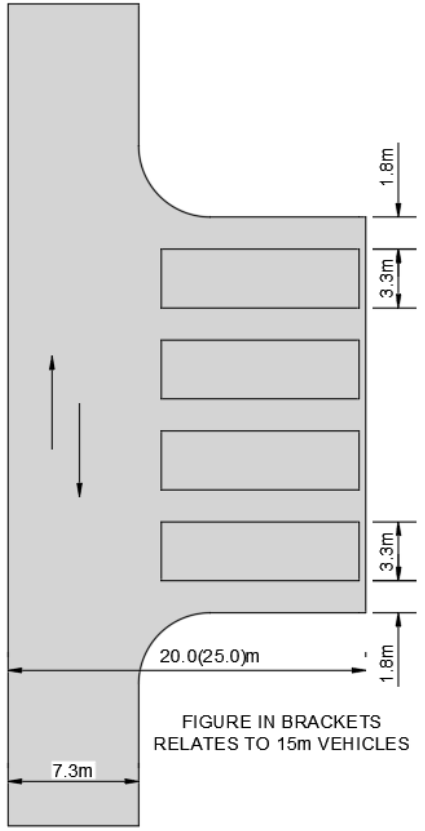
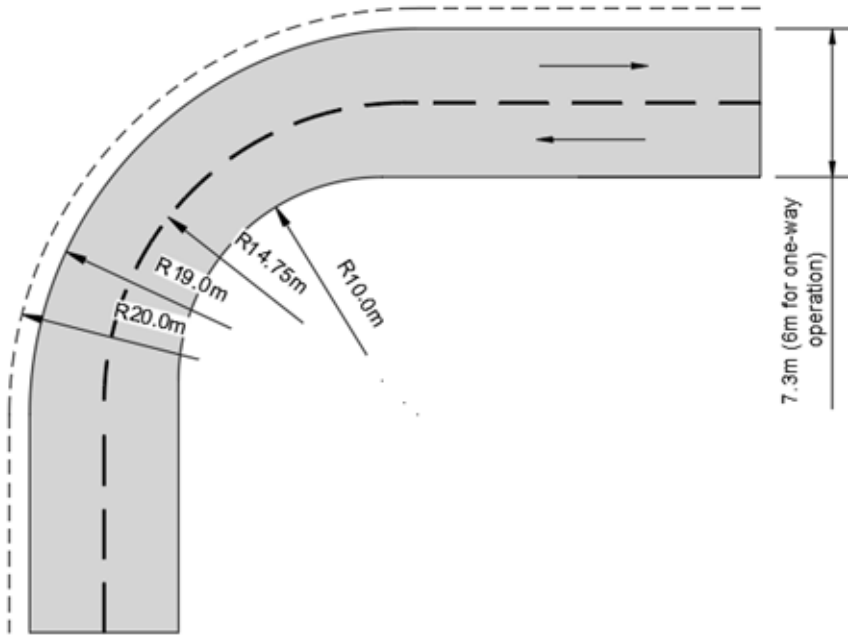


Figure 35



90° Curve on Service Ramp

Figure 36

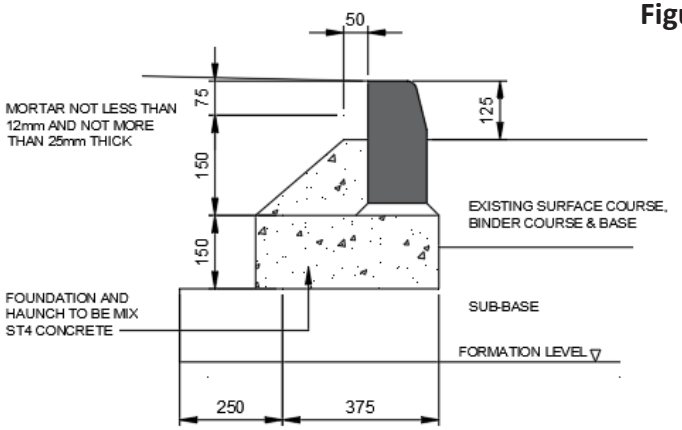


Kerbing

All dimensions shown are in mm

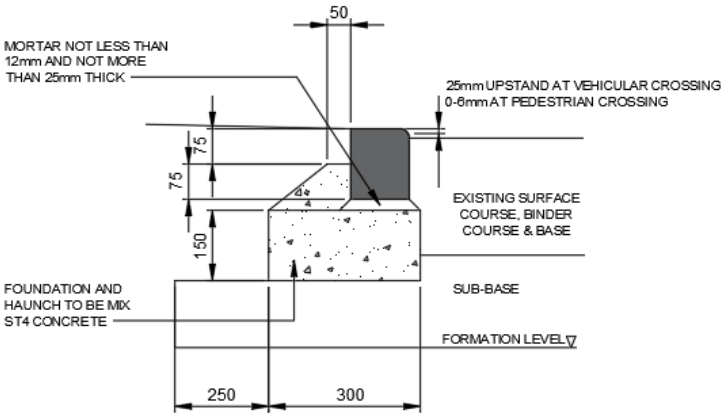
Precast Concrete Road Kerb - Half Batter Pattern

Figure 37



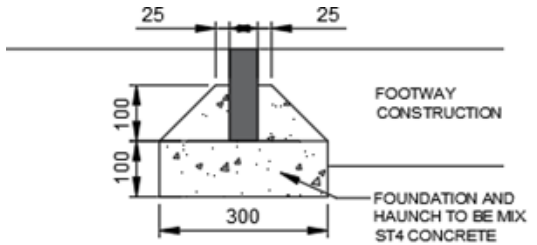
Precast Concrete Road Kerb - Bullnose Pattern

Figure 38



Precast Concrete Edging – Flat Top

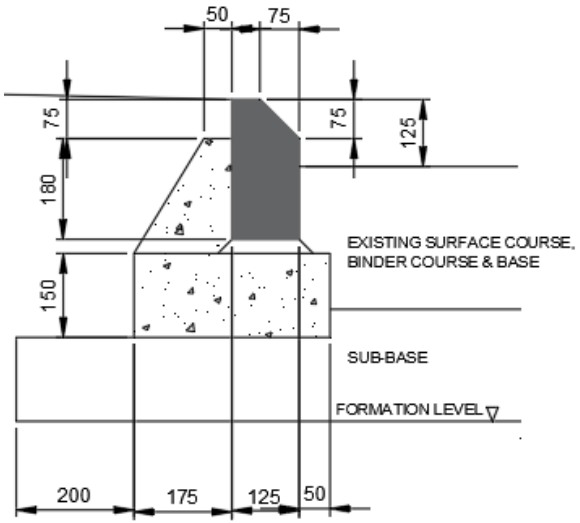
Figure 39



All dimensions shown are in mm

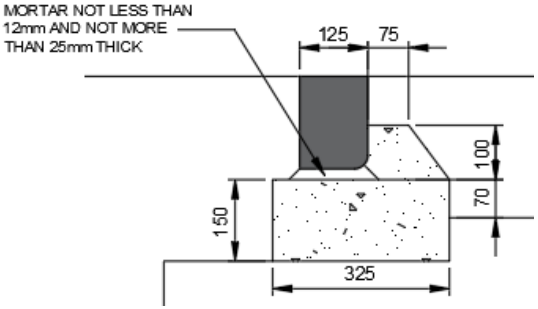
Precast Concrete Road Kerb - Splay Pattern

Figure 40



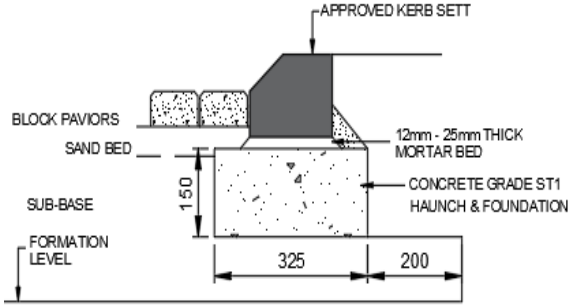
Precast Concrete Road Kerb - Inverted

Figure 41



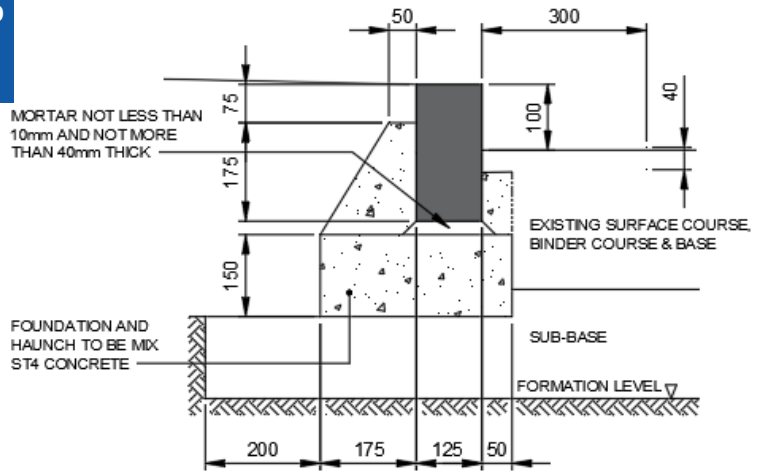
Whin / Granite Sett Kerb

Figure 42



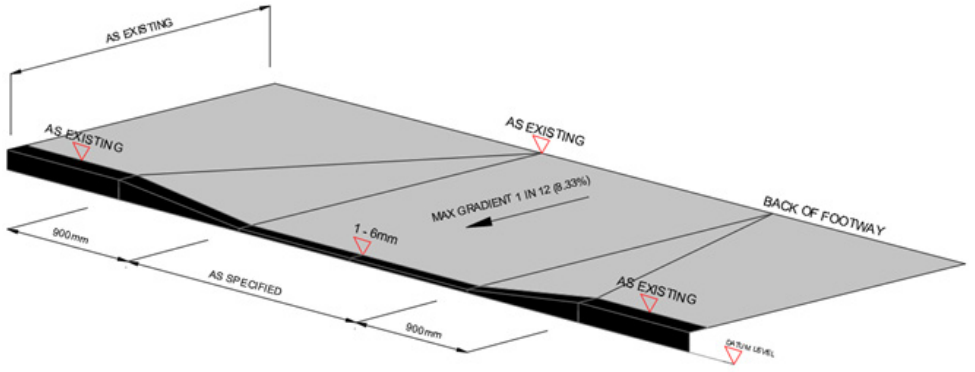
Stone Road Kerb – Full Upstand

Figure 43



Dropped Kerb Arrangement

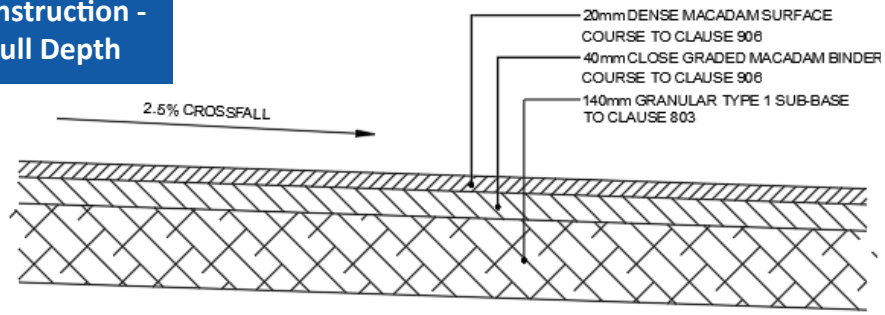
Figure 43



All dimensions shown are in mm

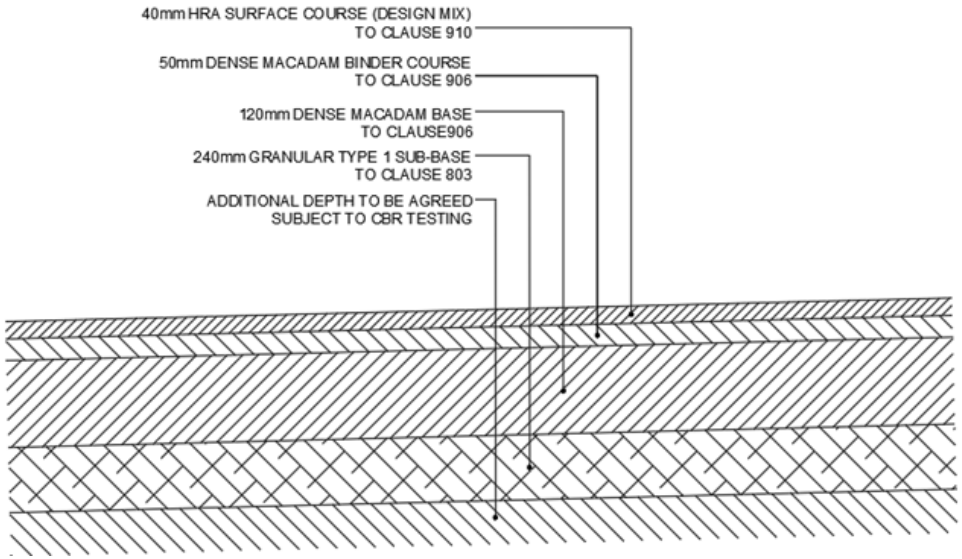
Footway Construction - Full Depth

Figure 45



Carriageway Construction (General) – Full Depth

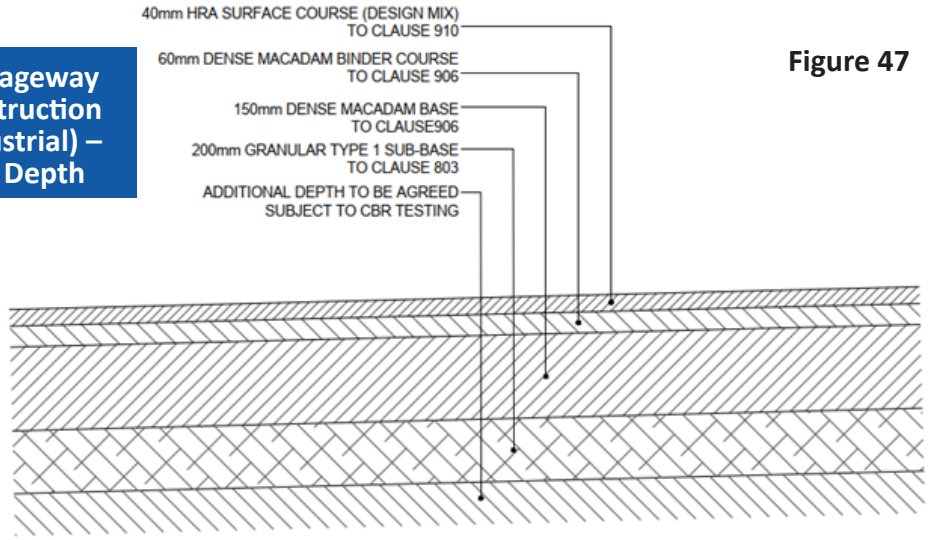
Figure 46



Construction Make-ups

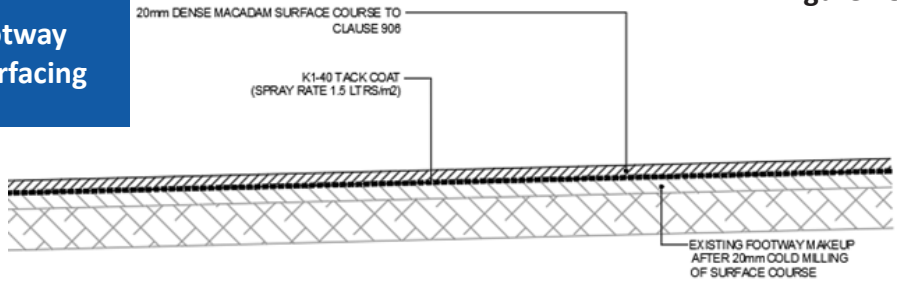
Carriageway Construction (Industrial) – Full Depth

Figure 47



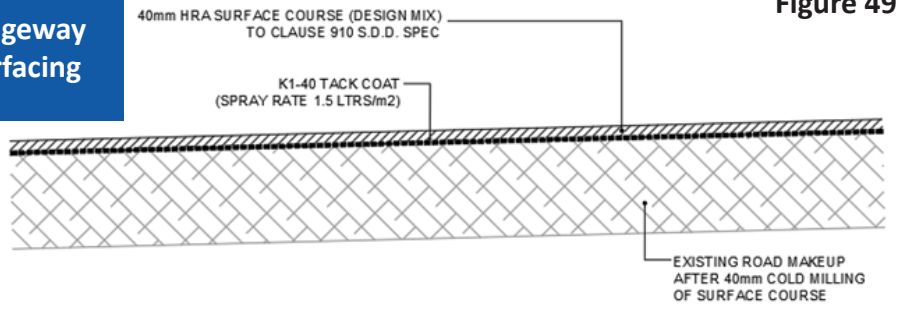
Footway Resurfacing

Figure 48



Carriageway Resurfacing

Figure 49

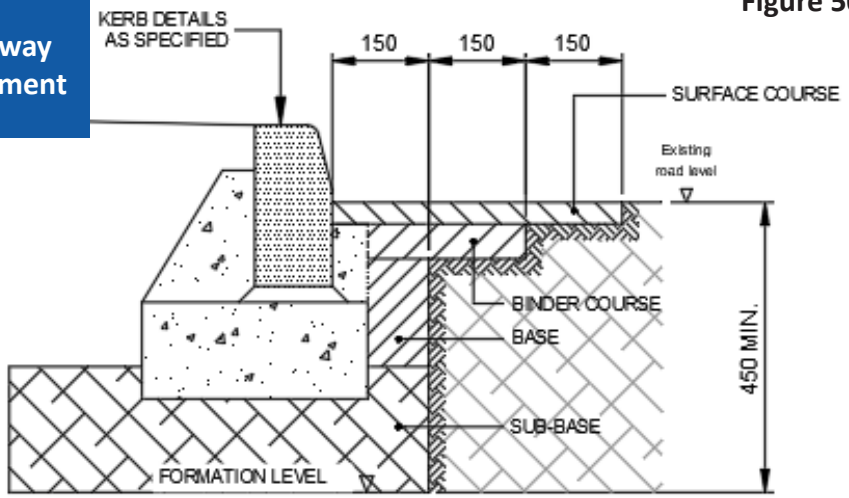


Construction Make-ups

All dimensions shown are in mm

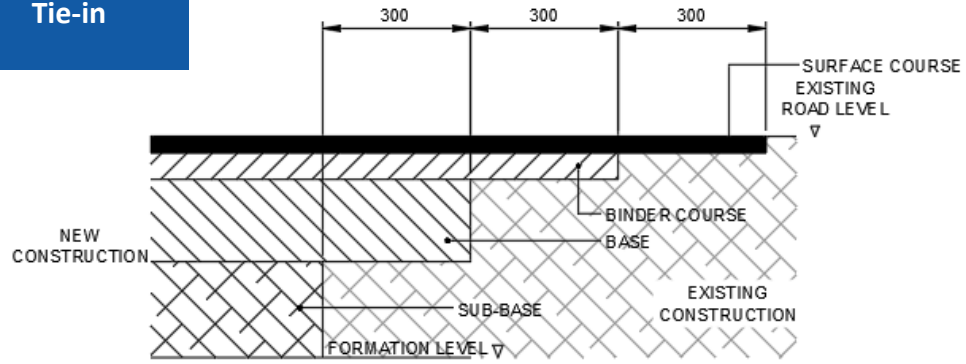
Carriageway Reinstatement

Figure 50



Carriageway Tie-in

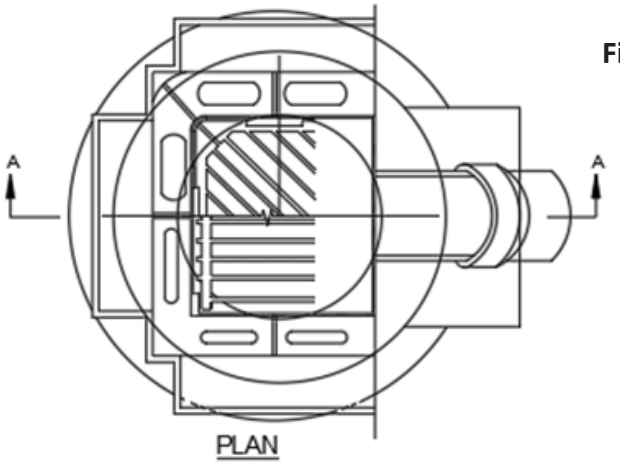
Figure 51

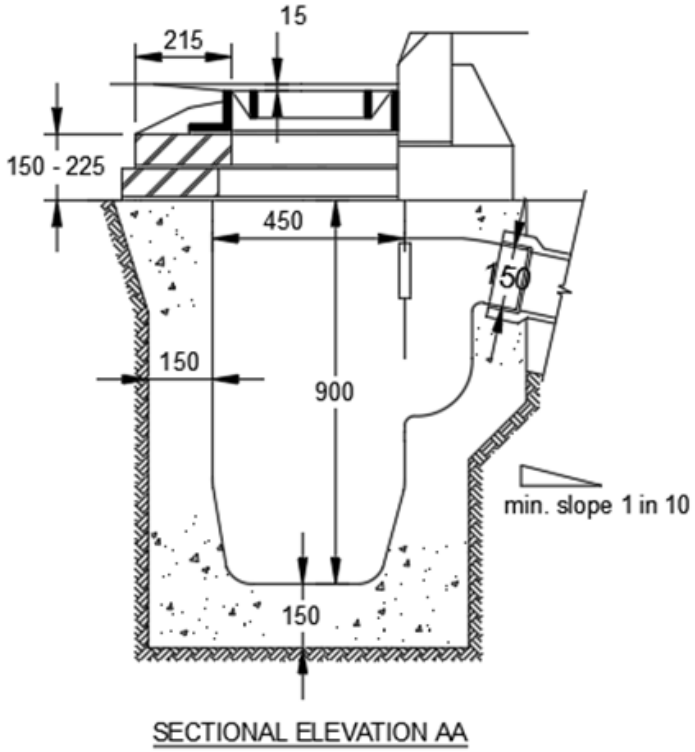


Drainage

Insitu Concrete Trapped Street Gully

Figure 52

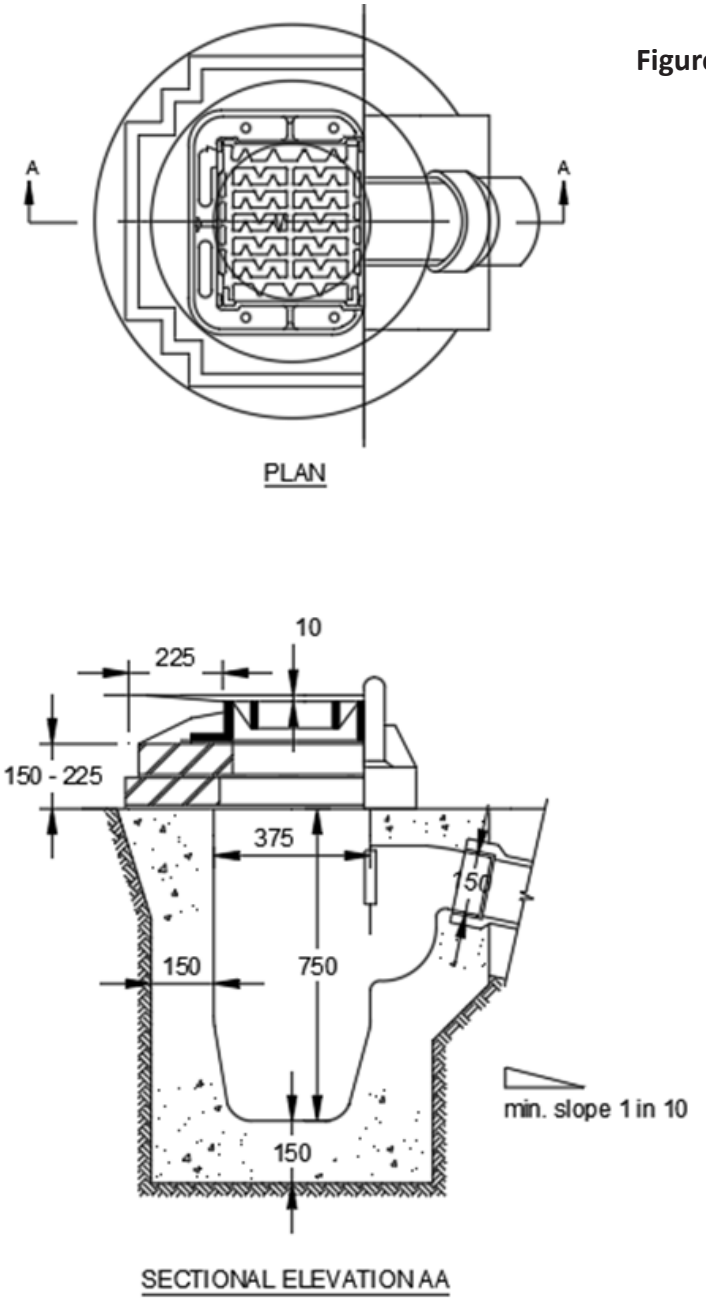




All dimensions shown are in mm

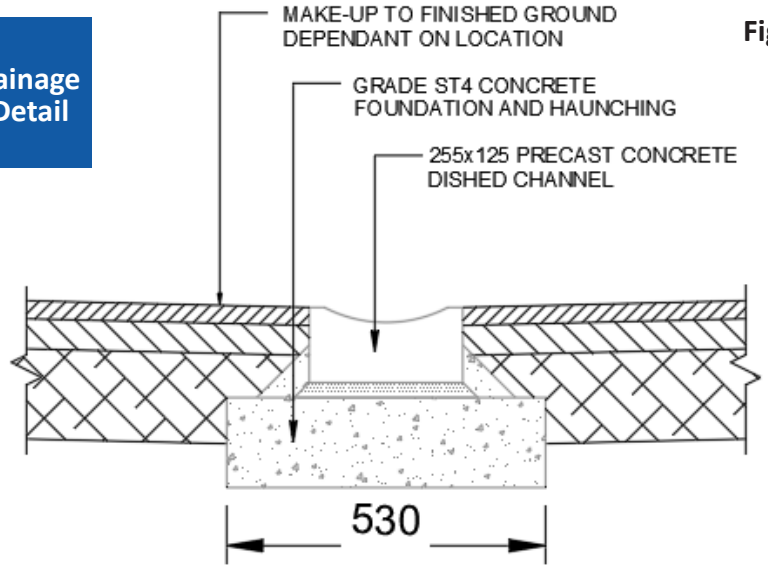
Insitu Concrete Trapped Footway Gully

Figure 53



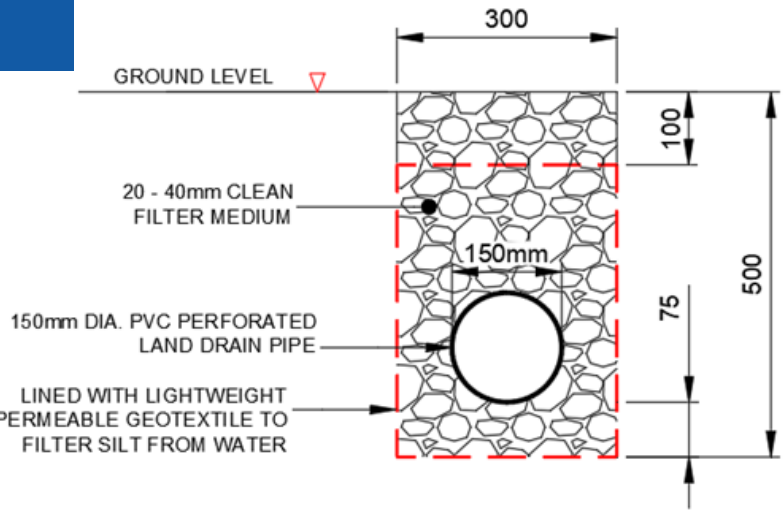
Dished Drainage Channel Detail

Figure 54



Filter Drain Detail

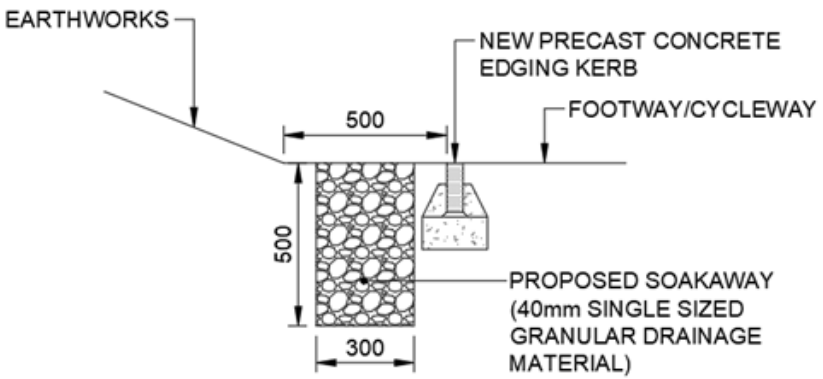
Figure 55



All dimensions shown are in mm

Figure 56

Soakaway Trench Detail



Appendix B

STREET HEIRARCHY TECHNICAL TABLE

Table B - Street hierarchy

	5 Access Streets	5 General Streets	4 Local Distributor- Type 2	4 Local Distributor- Type 1	3 District Distributor	2 Principal Roads	1 Trunk Roads		Other Streets in Industial Areas	Other Driveways and Private Access
Number of Dwellings Served	Up to 50 dwellings. Likely to have direct access to dwellings.	Up to 200 dwellings. Likely to have direct access to dwellings.	Likely to carry between 10-100 commercial vehicles per day in each direction. Likely to have direct access to dwellings.	Up to 1,000 dwellings. Likely to carry 250 commercial vehicles per day in each direction. Direct access suitable only where vehicles can access / egress a driveway in a forward gear.	Likely to carry between 250-1,000 commercial vehicles per day.	Generally carry 1,000+ commercial vehicles per day in each direction.Direct frontage access should be avoided.	Generally carry 1,000+ commercial vehicles per day in each direction		Will serve industrial, employment and business sites. Likely to attract large vehicle numbers.	Less than 5 dwellings. Agreed with the Director of City Development Department.
Street Arrangement	Typically a shared surface / partially shared surface carriageway. Streets should seek to take the form of loop roads and have double access points. Cul de sacs are only permissible by exception. Where these streets meet higher order street a short length of surface 3.0m wide must be provided between the junction with the major road and the entrance to the first dwelling.	Should take the form of a loop. Cul de sacs are only permissible by exception. Layouts should discourage through-traffic.	The layout should be designed to discourage major through traffic.	The layout should link the development with the surrounding street network. Cul de sac arrangement should be avoided. At least two vehicle access points on the layout are encouraged.	The layout should avoid unnecessary junctions or turning movements that could disrupt flow. Connections to Local Distributor Roads and Access Roads should be clearly defined and appropriately spaced. Provision for public transport, cycling, and pedestrian movement should be incorporated into the design.	The layout should prioritise the movement of high volumes of traffic and designed to minimise interruptions to traffic flow. Signalised junctions or roundabouts may be used where necessary, but should be designed to accommodate large vehicles and maintain forward visibility.	Design to DMRB Standards		The layout should be provided in a system of loops to avoid the formation of large turning heads. Layout should seek to be self contained and segregated from residential traffic, whilst still supporting pedestrian and cyclist permeability.	A length of 50m should be the maximum permitted length without suitable passing places. Requirement for refuse vehicles to get within (25m) of drive ends / communal storage and for emergency vehicles to get within 45m of all front doors.
Street Geometry	Designs should seek to adopt narrow carriageway widths, single track working, and small radius bends to support low vehicle speeds.	Designs should seek to adopt a tight street geometry including narrow carriageway widths and small radius bends to support low vehicle speeds.	No specific information required.	No specific information required.	No specific information required.	No specific information required.			Street geometry should reflect the larger vehicles and be informed by swept path analysis.	A standard turning facilitiy (or appropriate alternative) should be provided at the end of the access.
Typical carriageway widths	3.0m wide single track carriageways local widening to 5.5m to enable passing, deliveries or visitor parking. Mixed traffic space.	Minimum carriagway width of 5.5m.	Minimum carriagway width of 5.5m Shared bus and cycle lane widths must be below 3.2m or above 4.0m, as per Cycling by Design.	Absolute minimum of 6.5m for two-way bus routes Shared bus and cycle lane widths must be below 3.2m or above 4.0m, as per Cycling by Design	Absolute minimum of 6.5m for two-way bus routes.	Absolute minimum of 6.5m for two-way bus routes.			Minimum carriageway width of 7.3m	Minimum carriageway width of 3.0m. Carriageways must be widened locally to 5.5.m at house entrances.
Design Speed	Absolute maximum design speed of 30kph.	30kph.	50kph	50kph	Based on below	Based on below			50kph	Absolute maximum design speed of 30kph.
Speed Limit	20mph	20mph	20mph	20mph	30mph	30mph			20mph	10mph
Servicing / Loading Requirements	Direct servicing and waste collection at dwelling frontages Fire Appliance (8.68m)	Servicing and waste access are typically on-street, coordinated with dwellings and must avoid obstructing pedestrian or social spaces. Fire Appliance (8.68m)	Servicing and waste collection should be facilitated along dwelling frontages, using laybys or designated areas to avoid disruption to general flow. Single-decker bus (12.0m)	Require robust servicing strategies including off-street loading bays where appropriate. Loading should be time-limited and coordinated with movement patterns. Single-decker bus (12.0m)	Waste access and servicing should be off the main carriageway Single-decker bus (12.0m)	Servicing on these corridors should be strictly managed with specific service areas. Articulated Goods Vehicle (16.48m)			Require robust servicing strategies including off-street loading bays where appropriate. Loading should be time-limited and coordinated with movement patterns. Articulated Goods Vehicle (16.48m)	Direct servicing and waste collection at dwelling frontages. Fire Appliance (8.68m)
Bus Requirements	Bus infrastructure is unlikely to be required on this street type.	Bus infrastructure is unlikely to be required on this street type.	Bus infrastructure may be required on this street type.	Bus infrastructure is likely to be required on this street type.	Bus infrastructure is likely to be required on this street type.	Bus infrastructure is likely to be required on this street type.			Bus infrastructure may be required on this street type.	Bus infrastructure is unlikely to be required on this street type.

	5 Access Streets	5 General Streets	4 Local Distributor- Type 2	4 Local Distributor- Type 1	3 District Distributor	2 Principal Roads	1 Trunk Roads		Other Streets in Industial Areas	Other Driveways and Private Access
Cycleway provision	Low traffic volume and vehicle speeds mean streets should support cyclists using the carriageway (mixed traffic street). Cycling by Design, including the requirement for a design review, must be adhered to.	Low traffic volume and vehicle speeds mean streets could support cyclists using the carriageway (mixed traffic street).Cycling by Design, including the requirement for a design review, must be adhered to.	Segregation may be required, depending on traffic volume and vehicle speed. Cycling by Design, including the requirement for a design review, must be adhered to.	Segregation is likely to be required. Cycling by Design, including the requirement for a design review, must be adhered to.	Segregation is likley to be required. Cycling by Design, including the requirement for a design review, must be adhered to.	Detached or Remote Cycle Track may be required. Cycling by Design, including the requirement for a design review, must be adhered to.			Segregated provision is likely. Detached or Remote Cycle Track may be required. Cycling by Design, including the requirement for a design review, must be adhered to.	Low traffic volume and vehicle speeds mean streets should support cyclists using the carriageway (mixed traffic street). Cycling by Design, including the requirement for a design review, must be adhered to.
Footway (or pavement) width	Shared surface likely to be appropriate. Min:2.0m clear width where footways are deemed necessary.	Min: 2.0m clear width (on one or both sides of the carriageway), subject to the level and type of pedestrian usage.	Min: 2.0m clear width (both sides of carriageway). 2m absolute minimum, to increase to 2.6m or more in areas of identifiably higher levels of pedestrian activity (adjacent to schools, shops, bus stops, railway stationsetc) or if shared with cyclists.	Min: 2.0m clear width (both sides of carriageway). 2m absolute minimum, to increase to 2.6m or more in areas of identifiably higher levels of pedestrian activity (adjacent to schools, shops, bus stops, railway stations etc) or if shared with cyclists.	Min: 2.0m -2.6m clear width(both sides of carriageway) 2m minimum to increase to 2.6m or more in areas of identifiably higher levels of pedestrian acticity (adjacent to schools, bus stops,railway stations) or if shared with cyclists. There should be good separation from the carriageway. Asbolute minimum of 1.8m.	Min: 2.0m -2.6m clear width(both sides of carriageway) 2m minimum to increase to 2.6m or more in areas of identifiably higher levels of pedestrian acticity (adjacent to schools, bus stops, railway stations) or if shared with cyclists. There should be good separation from the carriageway. Asbolute minimum of 1.8m.			Min: 2.0m clear width	1.5m footway / service strip and 0.5m overhang strip (hard landscaped where appropriate). Dutch kerbs are encouraged at the access / egress points of this street type. OR No footway or service margin is required, with services being located in the driveway.
Resting points	There must be no more than 150m between resting points. Frequency should increase in relation to land form and steep gradients.	There must be no more than 150m between resting points. Frequency should increase in relation to land form and steep gradients.	There must be no more than 150m between resting points (ideally 50m in busy areas). Frequency should increase in relation to land form and steep gradients.	There must be no more than 150m between resting points (ideally 50m in busy areas). Frequency should increase in relation to land form and steep gradients.	There must be no more than 150m between resting points (ideally 50m in busy areas). Frequency should increase in relation to land form and steep gradients.	There must be no more than 150m between resting points (ideally 50m in busy areas). Frequency should increase in relation to land form and steep gradients.			There must be no more than 150m between resting points (ideally 50m in busy areas). Frequency should increase in relation to land form and steep gradients.	
Verge Width	Desirable, where appropriate. 1.0m minimum.	Desirable, where appropriate. 1.0m minimum.	2.0m minimum	2.0m minimum	2.0m minimum	2.0m minimum			2.0m minimum	1.5m service strip with 0.5m overhang strip (hard landscaped where appropriate)
Vertical Alignment: Longitudinal Section Gradient	Desirable: 1 in 20 (5%) Absolute maximum: 8%	Desirable: 1 in 20 (5%) Absolute maximum: 8%	Desirable: 1 in 20 (5%) Absolute maximum: 8%	Desirable: 1 in 20 (5%) Absolute maximum: 8%	Desirable: 1 in 20 (5%) Absolute maximum: 8%	Desirable: 1 in 20 (5%) Absolute maximum: 8%			Desirable: 1 in 20 (5%) Absolute maximum: 8%	Desirable: 1 in 20 (5%) Absolute maximum: 8%
Vertical Alignment: Crossfall	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)			Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)	Desirable: 1 in 40 (2.5%) Absolute maximum of 1 in 25 (4%)
Vehicle parking solutions	On-plot parking.	Occassional on-street parking. Predominantly on-plot.	On-street parking as required.	On street parking should be accommodated in widened areas.	On street parking should be accommodated in widened areas.	Parking unlikely to be appropriate			On-street parking as required.	On-plot parking.
Street tree planting / greening opportunities	Street trees are desirable where appropriate, and could be provided on build-outs.	Regular street trees and low-level planting is desirable, and could be accommodated in build-outs on the carriageway. Community parklets could be adopted.	Regular street trees and low-level planting is desirable, and could be accommodated in build-outs on the carriageway. Community parklets could be adopted.	Regular street trees and low-level planting should be accommodated in build-outs on the carriageway (between parking). Parklets could be adopted outside shops or other popular areas for pedestrians.	Regular street trees and low-level planting should be accommodated along verges.Where space allows, tree planting and greening should be adopted on the separation between cyclists and vehicles.	Regular street trees and low-level planting should be accommodated along verges.Where space allows, tree planting and greening should be adopted on the separation between cyclists and vehicles.			Regular street trees and low-level planting should be accommodated along verges.Where space allows, tree planting and greening should be adopted on the separation between cyclists and vehicles.	
Distance between speed restraint features	30m-40m	30m-40m	60m	60m	60m-80m	For most measures, a spacing of 60 to 90 metres would be appropriate. On strategic routes, a spacing of between 100 and 150 metres may be preferable if humps or raised junctions are used.			120m	

	5 Access Streets	5 General Streets	4 Local Distributor- Type 2	4 Local Distributor- Type 1	3 District Distributor	2 Principal Roads	1 Trunk Roads		Other Streets in Industial Areas	Other Driveways and Private Access
Appropriate speed restraints	Speed control bends, carriageway narrowing, build-outs, ramps / tables, no centre- lining, vertical elements (trees, bollards and street furniture), contrasting textured surfacing, speed cushions, parking, building alignment, minimal use of traffic management features, visual narrowing via edge strips.	Speed control bends, carriageway narrowing, build-outs, ramps / tables, no centre- lining, vertical elements (trees, bollards and street furniture), contrasting textured surfacing, speed cushions, parking, building alignment, visual narrowing via median strips.	No specific information required.	No specific information required.	No specific information required.	No specific information required.			No specific information required.	No specific information required.
Stopping Sight Distances	11m (20m)	25m (20m)	50m (35m)	50m (35m)	(90m)	(120m)				No specific information required.
Minimum forward visibilities	As above.	As above.	As above.	As above.	As above.	As above.				
Minimum centreline radius	Based on vehicle tracking requirements of service vehicles in current use.	20m or based on vehicle tracking requirements	80m	80m						

Appendix C

CONSTRUCTION DETAIL

Dundee City Council
City Development
CHANGING FOR THE FUTURE

FORM CC1

For Official Use Only:

Ref No:			/				RCC

APPLICATION FOR CONSENT TO CONSTRUCT A NEW ROAD OR TO EXTEND AN EXISTING ROAD

In Terms of Section 21 of the Roads (Scotland) Act 1984

IMPORTANT: PLEASE READ THE ATTACHED GUIDANCE NOTES BEFORE COMPLETING THIS FORM.

1 I/we: _____

2 Hereby apply for consent to construct ..... metres of new road.

3 At _____

_____

Adjoining: _____

4 And I/we herewith deliver and deposit plans and sections thereof.

5 I/we confirm that under Section 21(2)(b) of the Roads (Scotland) Act 1984, I/we shall by notice intimate my/our intentions to the owners of all land which would front, abut or be comprehended in the new road or the extension of the existing road; and a list of names and addresses of such persons upon whom such notice has been served is attached herewith.

I/we also confirm that I/we shall by notice intimate my/our intentions to such other persons, if any, as the Authority may, for the purposes of this application specify.

6 Signature of Applicant: _____

Address of Applicant: _____

_____

Date Signed by Applicant: _____

Return to: developmentroads@dundeecity.gov.uk, or

Traffic & Transportation, Sustainable Transport & Roads Division, City Development Department, Dundee City Council, Dundee House, 50 North Lindsay Street, Dundee, DD1 1LS

Guidance Notes For Application For Consent To Construct A New Road Or To Extend An Existing Road

1	Insert Name of Applicant/Developer.
2	Specify approximate length of new road in metres.
3	Specify name of new road or development, together with name of the existing public road to which a connection is to be made.
4	It will facilitate consideration of the application if it is accompanied by Autocad and pdf versions of all drawings listed below submitted by email to developmentroads@dundeecity.gov.uk. a LOCATION PLAN – Scale 1:1250 or 1:2500 b LAYOUT PLAN - Scale 1:500 showing (i) curve radii of the road alignment, and junctions, (ii) carriageway, footway and footpath widths, (iii) vehicular access crossings to properties, (iv) the position of swales, gullies, manholes and sewers relative to the connection or discharge points, (v) the position of services, (vi) road markings and signing, (vii) garage/hard-standing levels and access gradients. c LONGITUDINAL SECTION along roads giving the vertical alignment details of gradient, vertical curves and rate of changes of the vertical alignment with chainages related to the layout plan. d TYPICAL CROSS SECTION through each type of road, showing widths of carriageway, footways and/or verges, crossfalls, construction depths and materials used, kerb and edge details and details of swales, overflows and gullies and their connections. In addition, details of footpaths remote from the carriageway and of vehicular access crossings should be given. e LONGITUDINAL SECTION along drains and sewers showing levels, diameters and gradients of pipes. Additional information will be necessary where the carriageway construction thickness, in most cases the sub-base, is varied according to ground conditions. Generally the thickness of sub-base can be finally decided during excavations for the surface water sewers, but trial pits can be dug to a depth not less than one metre below formation before construction commences. The location of trial pits, logs of the strata and the results of tests taken should be submitted. Details relating to design, specification, supply, siting and installation of street lighting are required.
5	Details of all parties to be intimated of the application **MUST** be agreed with the Executive Director of City Development prior to any formal notification.
6	The application form **MUST** be signed by the **APPLICANT** not the agent.

FORM CC2

Dundee City Council
City Development
CHANGING FOR THE FUTURE

ROADS (SCOTLAND) ACT 1984 - INTIMATION OF APPLICATION FOR CONSTRUCTION CONSENT

In Terms of Section 21(2)(b) of the Roads (Scotland) Act 1984

To: _____

_____

(insert here name and address of person to whom intimation is to be made)

1 Notice is hereby given that application is about to be made by:

_____

(insert name of applicant)

to Dundee City Council as Local Roads Authority for Construction Consent for a new road at:

_____

_____

(insert brief description of proposed road construction works)

2 Plans and other particulars relating to the application may be inspected at the office of the Executive Director of City Development, Dundee House, 50 North Lindsay Street, Dundee, DD1 1LS.

3 If you wish to make any representations in regard to the application, you should do so in writing within 28 days of the date hereof. Representations must be addressed to the Executive Director of City Development, Dundee House, 50 North Lindsay Street, Dundee, DD1 1LS.

4 Dundee City Council is obliged to consider any written representations made within 28 days before deciding whether to grant or refuse Construction Consent.

Signature of Applicant: _____

Address of Applicant: _____

_____

Date: _____

FORM CC3

Dundee City Council
City Development
CHANGING FOR THE FUTURE

ROADS (SCOTLAND) ACT 1984 - INTIMATION OF APPLICATION FOR CONSTRUCTION CONSENT

In Terms of Section 21(2)(b) of the Roads (Scotland) Act 1984

Application for Consent to construct a New Road at:

_____

_____

I/We hereby declare that on the ……..20…… the foregoing application for Construction Consent was, by notice duly intimated to the following persons all being owners of land which would front, abut or be comprehended in the proposed construction works or as specified in agreement with the Roads Authority.

Name	Address

Signature of Applicant: _____

Date: _____

Appendix D

ROAD CONSTRUCTION CONSENT

TECHNICAL APPROVAL PROCEDURES

General

The following notes on procedures for obtaining approval to the layout of new roads, the adoption of new roads, and alterations to existing roads are included for the guidance of prospective developers. They also give some indication of the relationship between these procedures and the planning procedures.

Prospective developers should note that THE GRANTING OF PLANNING PERMISSION DOES NOT PLACE AN OBLIGATION ON THE LOCAL ROADS AUTHORITY TO EITHER PERMIT THE FORMATION OF A NEW ROAD OR ADOPT A NEW ROAD.

Planning Procedures

Applications for planning permission are made to Dundee City Council as the local planning authority. In the case of developments affecting Trunk Roads, the Council is also required to consult Scottish Ministers who, through the Scottish Executive, are empowered to recommend a course of action for the Council to follow for planning applications for developments located within 67m of the centre line of a trunk road and/or connecting thereto or having a traffic impact on the Trunk Road network. If the recommendation is not followed the application is submitted to the Scottish Ministers for a decision as to whether to "call in" the application.

Developers are advised to supply four copies of drawings during the planning processes for the use and retention of the City Development Department.

Road Safety Audit

While planning permission requires the examination of planning issues such as the Development Plan and other material considerations a part of the planning process and associated procedures relates to safety issues. This is delivered by undertaking a Road Safety Audit at various points in the process. Further information on Road Safety Audit procedures is provided later in the document. Reference Should also be made to the separate publication, Dundee City Council -Road Safety Audit Procedures available from the City Development Department.

Permission in Principle

Developers may obtain Permission in Principle, from the Council. Permission in Principle is sought when the developer wishes to obtain consent for the outlines or principle of the development before drawing up a detailed scheme. Following the granting of Permission in Principle, a further application must be made to the Council for approval of the detailed scheme within specific time periods. For major developments, a higher level of information may need to be agreed at this Permission in Principle stage.

Much time can be saved if a developer consults the City Development Department from the earliest stages in the planning process. In determining a Permission in Principle application where it is known that roads are to be maintained by the Council, the City Development Department will need to consider:

- The characteristics of the adjacent road hierarchy based on the volume, type and destinations of vehicular traffic using it
- How traffic patterns are likely to change in the foreseeable future
- The volume and type of all traffic likely to be generated by the proposed development
- The likely distribution of this generated traffic proposed access and parking arrangements
- The safety of all road users
- The adequacy of the adjacent road network and identified any problem areas, including the capacity of the existing road storm water drainage system
- Any proposed new street lighting and/or alterations to existing street lighting
- Any proposed new road structures and/or alterations required to existing road structures
- Any restrictions on road access to the site including location, sight distances, gradients etc
- Possible extensions or alterations to bus services

The possible implication under the Noise Insulation (Scotland) Regulations 1975.

Transport Assessment and Transport Statement

In some circumstances a Transport Assessment (TA) will be required to support a planning application for development - These studies are the responsibility of the planning applicant. Typical threshold values for which a TA may be required are given below :-

- >1000 m2 retail floor space (gross)
- >100 trips in/out combined in peak hour
- >100 parking spaces provided
- where access is from a route carrying >5000 vehicles Annual Average Daily Flow
- other special circumstances

It should be emphasised that in order to avoid any wasted effort, consultation should be sought with the City Development Department at an early stage, and this consultation may be continued throughout the process.

The format of TAs should follow the guidelines in the relevant documents produced by The Scottish Executive. The preparation of Travel Plans should also follow current Government guidance.

Approval of Reserved Matters

Every outline planning permission is granted subject to a condition preventing the start of the development until approval of specified 'reserved matters' is obtained from the Council

Reserved matters can be any matters relating to the siting, design or external appearance of a building, its means of access or landscaping of the site in respect of which details were not given in the application for outline planning permission.

An application for full or detailed planning permission is appropriate where the developer has decided on all or most of the details of the proposed development and these details can be submitted to the Council for approval. If approved the development can proceed and be completed without further planning applications being submitted to the Council.

Detailed Planning Permission

The developer may subsequently wish to change some details and, depending on the nature of these changes, a further planning application(s) may be required. It is therefore recommended that in the submission of a detailed planning application, early meetings should be arranged with the City Development Department to discuss:

a) the classes of road which it might be necessary to provide
b) the location of existing or proposed community facilities, such as shops and schools relative to the development
c) the location and treatment of particular problem areas external to the site
d) desire lines for pedestrian movements
e) the location of pedestrian routes, crossing facilities, Cycle facilities and any public transport requirements
f) the location and amount of parking provision
g) appropriate housing types for different types of road
h) specific provision regarding traffic noise
i) satisfactory arrangements for the disposal of road surface storm water, which in certain instances may require early consultation with Scottish Water and SEPA
j) specific provision regarding road structures

Statutory Undertakers

As well as making provision for pedestrian, cycle and vehicular movements, a major function of residential roads is to provide routes for underground services. These services are an essential part of the layout as a whole and their efficiency and safety considerations must be matters of prime concern. Those who provide such services must be consulted at the earliest stage of developing the brief, their requirements co-ordinated in the layout, and agreement reached on the balance to be struck between their needs and other housing objectives.

The Statutory Undertakers will wish to deal with one road manager so that they are assured of the protection of the New Roads and Street Works Act 1991. It should be noted that the Local Roads Authority will only become the road manager once the section of road is added to the List of Public Roads. Until that time the Developer will act as road manager.

Roads Construction Consent (RCC) to construct a new road

Under Section 21 of the Roads (Scotland) Act 1984 any person who wishes to construct a new road or extension of an existing road in Dundee, before commencing, must obtain consent from the Local Roads Authority. Application Form CC1 is available on the Dundee City Council website.

Appropriate application Form CC1 is available Executive Director on the Dundee City Council website.

Drawings to be Submitted

RCC applications to form a new road, amend or extend an existing road, should submitted electronically in Autocad and pdf format. Drawings required are:

a) LAYOUT PLAN – Scale 1:500 showing (i) curve radii of the road alignment and junctions, (ii) carriageway, footway and footpath of verge widths, (iii) vehicular access crossings to properties, (iv) the positions of gullies, manholes and sewers and drains relative to the connection or discharge points, (v) the position of services, (vi) road markings and signing, (vii) garage/ hardstanding levels and access gradients.

b) LONGITUDINAL SECTION along roads giving the vertical alignment, details of gradient, and rate of changes of the vertical alignment with changes related to the layout plan.

c) TYPICAL CROSS SECTION through each type of road, showing widths of carriageway, footways and/or verges, crossfalls, construction depths and materials used, kerb and edge details and details of gullies and their connections. In addition, details of footpaths remote from the carriageway and of vehicular access crossings should be given.

d) LONGITUDINAL SECTION along drains and sewers showing levels, diameters and gradients of pipes. Additional information will be necessary where the carriageway construction thickness, in most cases the sub-base, is varied according to ground conditions. Generally, the thickness of sub-base can be finally decided during excavations for the surface water sewers, but trial pits can be dug to a depth not less than one metre below formation before construction commences. The location of trial pits, logs of the strata, and the results of tests taken should be submitted.

e) ROAD LIGHTING – details relating to design, specification, supply, siting and installation are required (see Section 7.0)

f) SIGNING OF ROADWORKS (see Section 7.2.11)

g) HIGHWAY STRUCTURES – details relating to design, specification and construction. Technical approval is required for new structures or works to existing structures (see Appendix A).

Consultation

Processing of RCC is subject to payment of a fee. Review of any application cannot start until payment has been received by the City Development Department.

It is recommended that discussions on the RCC begin early in the process and, if possible, these discussions run concurrently with the associated planning application.

Notice to Affected Parties

Developers should note that in conjunction with applications for RCC, notice must be intimated by the applicant to the following:

a) the owners of all land which would front, abut, or be comprehended in the new road or extension of the existing road

b) such other persons, if any, as the Local Roads Authority may, for the purpose of the application, specify

Procedures for Construction Consent

The Local Roads Authority shall consider any written representations, made to them within 28 days of the date of intimation, by any person whom an application has been intimated under the procedures stated above, and may thereafter:

a) grant RCC either without consent or subject to conditions

b) refuse RCC.

Before granting the consent subject to conditions, or refusing consent, the Local Roads Authority will allow the person applying for the consent an opportunity to be heard by them.

Duration of RCC

A condition of RCC will be that the construction will be completed within a period of 3 years from the date on which the consent is granted. The Local Roads Authority may subsequently by notice extend the period.

Appeal Regarding RCC

An applicant for RCC may appeal to the Secretary of State within 28 days of the date of the intimation to him of a decision of the Local Roads Authority:

a) refusing their application
b) granting it subject to conditions other than a condition that the construction be completed within 3 years of the date on which the consent was granted

Offences in Relation to Construction of New Roads

Under Section 22 of the Roads (Scotland) Act 1984 a person (other then a Roads Authority) commits an offence, which is triable either summarily or on indictment

a) If they construct a new road or an extension of an existing road without RCC
b) If they contravene, or fail to comply with a condition imposed by a RCC

Where a condition imposed by a RCC has been contravened or not complied with, the Local Roads Authority may, by notice served on the person holding the consent, require him to bring the new road into conformity with the RCC within such reasonable period as they shall specify in the notice.

Powers of the Local Roads Authority

Under Section 23 of the Roads (Scotland) Act 1984 the Local

Roads Authority may stop up or temporarily close any new road which another person has constructed

a) without RCC
b) in contravention of, or non-compliance with, a condition imposed by a RCC

Stopping up or temporary closure may take place whether or not proceedings are pending under Section 22 of the Roads Scotland Act 1984 but shall be ended if in any such proceedings it is found

a) in a case where the stopping up or closure took place on the basis that there was no RCC, that there was such consent
b) in any other case, that there was no contravention of, or failure to comply with, the RCC condition to which the proceedings relate

Following the issue of a consent, developers may wish to propose that their new roads be adopted upon completion for future maintenance by the Local Roads Authority. Before considering adoption, it is essential that the City Development Department is satisfied that their construction will be in accordance with the consent and the standards described in this document. Accordingly, the following procedure must be observed.

Use of Recycled Materials

Where the developer intends to use re-cycled materials there will be a requirement to provide the Council with a certification notice confirming suitability of the material for the intended purpose. It is recommended that the developer should make early contact with the Council if this approach is to be used.

Commencement of Works

Following receipt by the developer or their contractor of RCC from the Local Roads Authority, they should give at least seven days prior notice in writing to the Executive Director of City Development of the commencement date for roadworks or recommencement date following a suspension of works, together with the name of their agent or person responsible for the works.

The Executive Director of City Development or their representative will regularly inspect various stages of the works and will require at least forty-eight hours notice of the commencement of certain operations. The Executive Director

of City Development requires the above arrangements to ensure that they may finally make a recommendation to Council, in appropriate circumstances, to take the new roads onto the List of Public Roads.

FAILURE TO COMPLY WITH THE ABOVE MAY DELAY THE ADOPTION PROCEDURES.

Programme of Works

The programme for construction should be intimated in writing to the City Development Department and should take account of the following broad categories of work which have to be co-ordinated.

a) All work within the area of carriageway construction such as drainage and sewerage works, and any service cross- connection ducts.
b) Carriageway construction including preparation of formation, laying sub-base, kerbing, gullies and roadbase. Pavement course shall be suitable for use by constructional plant.
c) House construction and installation of statutory undertakers' plant.
d) Installation of street lighting.
e) The surfacing of carriageways, construction of footways, road signing and marking.
f) Construction of highway structures.

Completion of Works

A substantial completion certificate will be issued when roadworks, or a reasonable part thereof, have been completed in accordance with Council standards. The developer will be responsible for all costs of maintenance during the following year. If the roadworks have performed satisfactorily under usage during the one year maintenance period, they will normally be recommended for adoption by the Local Roads Authority.

Formal Adoption of Public Roads

The developer should make a formal application for the adoption of new roads one year after receiving a substantial completion certificate. The application should be accompanied by copies of all "as built" drawings. A final inspection will be made and any defects agreed and made good by the developer, whereupon the City Development Department will then add the said roads to the Council's List of Public Roads.

Security for New Roads with Private Housings

In accordance with The Security for Private Road Works (Scotland) Regulations 1985 (as amended), prior to the construction of private housing associated with new roads a Developer must lodge a security, in form of a bond or deposit, with the Local Roads Authority to cover the cost of providing the roads to the standard laid down in the RCC. The sum will be based on the estimated cost of the outstanding roadworks at the commencement of building works. The Local Roads Authority is empowered to release part of the security as the work on the new road progresses subject to retention of at least 10% of the total amount of the original security. This must be released when no longer required, if house building proposals are abandoned, or when the road has been added to the Council's List of Public Roads.

Alterations to Public Roads

A formal application must be made to the Council when a developer wishes to stop up, divert, raise, lower or otherwise alter a length of public road including the conversion of an existing public road to a footpath using Sections 12 and 68 to 74 of the Roads (Scotland) Act 1984. This should be done as soon as detailed planning permission has been granted.

Prior to this, the Developer should consult the City Development Department, Emergency Services, Statutory Undertakers and any other persons or bodies with an interest therein, as to the problems, if any, of the proposed public road alterations in order to check their feasibility.

Developers should note that the period required for processing each Order can be twelve months or more depending upon variable factors such as whether or not objections to the proposals are lodged, the nature of the objections, alterations to original proposals to satisfy objectors and others,

and the number and complexity of proposed Orders already awaiting process. A developer should, accordingly, bear this important factor in mind when preparing their building programme and when considering their contractual obligations.

In the case of a development which has received planning permission, an alternative procedure for the stopping up or diversion of a public road may be carried out by the Council under Sections 202, 207 and 208 of the Town and Country Planning (Scotland) Act 1997.

Site Works Affecting Public Roads

The Local Roads Authority should be consulted before any work is carried out on or adjacent to an existing public road. Application should be made to the City Development Department.

Road Safety Audits

Road Safety Audit can be defined as the evaluation of road schemes during design and construction to identify potential safety hazards that may affect any type of road user before the scheme is opened to traffic and where possible to suggest measures to eliminate or mitigate those problems. The Council is fully committed to preventing road accident casualties occurring and the Road Safety Audit procedures aim to ensure that safety is "designed in" to any road scheme. A Road Safety Audit is undertaken at various stages on all designs for new roads and any alterations to existing roads.

Road Safety Audit is a formal procedure from concept to completion of the design, resulting in signed Road Safety audit Reports at each stage of the design.

The basis of the procedure is that safety practitioners involved in accident investigation and prevention (AIP) use their accumulated knowledge of common safety issues to try to ensure that accident causation factors are not repeated in new and altered road layouts

Road Safety Audit Stages

The following gives details of the Road Safety Audit stages and provides a guideline to when they are required as part of the Planning Procedures.

- Stage F, Feasibility safety audit, may be required on appropriate development schemes prior to outline planning consent.
- Stage 1 safety audit shall be undertaken at the completion of preliminary design and before deemed planning consent.
- Stage 2 safety audit shall be undertaken on completion of the detailed design and prior to RCC being granted.
- Stage 3 safety audit shall be undertaken when the scheme construction is substantially complete, preferably before the works are opened to traffic and prior to a certificate of substantial completion being issued.

Stage 1 and Stage 2 Road Safety Audits may be combined where appropriate, with the agreement of the Executive Director of City Development or appropriate nominee.

Full details of the road safety audit procedures to be followed are given in a separate publication, Dundee City Council - Road Safety Audit Procedures, available from the City Development Department. These are based on the procedures for road safety audits detailed in the industry standard, GG 119.

Lighting

All lighting needs to adhere to BS5489-1:2020 design of road lighting. These conditions require to be met in order to satisfy the Executive Director of City Development as per the relevant condition of the RCC and as such form part of the general conditions for adoption by Dundee City Council for future maintenance.

The number and distribution of test locations shall fully define ground and subgrade conditions across the site. Groundwater table, if present, should be controlled so that it does not rise above 300mm of the formation level. No frost susceptible material will be permitted within 450mm of the finished road surface. Possible contamination should be considered to BS 10175.

Geotechnical Considerations

Sustainable Transport and Roads Division may request the submission of a geotechnical report to support the assessment process with the site investigation works to comply with BS 5930. A factual ground investigation report shall include borelog/trialpit log and test results with a location plan showing the proposed road alignment and all testing points. The investigation should additionally determine the suitability of the underlying soils for any intended SuDS features.

The number and distribution of test locations shall fully define ground and subgrade conditions across the site. Groundwater table, if present, should be controlled so that it does not rise above 300mm of the formation level. No frost susceptible material will be permitted within 450mm of the finished road surface. Possible contamination should be considered to BS 10175.

A subgrade with a CBR value less than 2% requires special treatment with its subbase and capping design undertaken to CD 225. CBR testing is only relevant in natural soils and cannot be used for pavement design in fill materials as by their nature fills are random and highly variable in density. For pavement construction on fill materials, unless the fill material is equivalent or better than the specified capping material, a full capping layer is required. The use of recycled material for capping layer is encouraged and guided by European Standards. In situ CBR testing shall be conducted prior to construction and the testing results are to be agreed by the roads authority to confirm that the ground conditions correspond with design assumptions.

The formation, subbase and road surface shall be constructed true to level, with deviations not exceeding the tolerances specified in the MCHW.

Appendix E

PARKING STANDARDS

Parking Standards

Table E1 - Parking Standards

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Residential						
City Centre and District Centres (Houses and Flats)	To be assessed based on local provision	1 per bedroom plus one. In houses an electric charge point for cycles must be provided. In flats one of every 6 spaces provided must have an electric cycle charge point	1 space per dwelling. (exemptions may be made for conversions or where provision is impractical and a permit system for local car parks can be implemented) 0	1 electric vehicle charger per dwelling	1 space per 25 flats. Houses must have provision to park a motorcycle off-street.	Servicing provision to be included and assessed on the basis of local availability. Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.
All other areas: Houses, fewer than 3 bedrooms	0	1 per bedroom plus one, with an ability to charge electric bicycles	at least 1 in-curtilage space per dwelling. 50% of houses should have an additional garage or space for one	1 electric vehicle charger per dwelling	Houses must have provision to park a motorcycle off-street.	Visitor/servicing provision to be included and assessed on the basis of local availability. Where availability of on-street parking is already acknowledged as a problem, additional visitor/service space should be provided at a standard equivalent to not less than 30% of all spaces provided as part of the development.

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
All other areas: Houses, 3 or more bedrooms	0	1 per bedroom plus one, with an ability to charge electric bicycles	at least 2 in-curtilage spaces per dwelling plus one for every two additional bedrooms. 50% of houses should have an additional garage or space for one	1 electric vehicle charger per dwelling	Houses must have provision to park a motorcycle off-street.	Visitor/servicing provision to be included and assessed on the basis of local availability.Where availability of on-street parking is already acknowledged as a problem, additional visitor/service space should be provided at a standard equivalent to not less than 30% of all spaces provided as part of the development.
All other areas: Flats	to be assessed based on local provision	1 per bedroom plus one. In houses an electric charge point for cycles must be provided. One of every 6 spaces provided must have an electric cycle charge point	A minimum of 150% car parking with at least one space dedicated to each flat	1 electric vehicle charger then one charger for every 5 spaces provided	1 space per 25 flats	Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.
Sheltered housing	1 space per 20 beds	1 space per 10 beds. One of every 6 spaces provided must have an electric cycle charge point	1 space per two dwellings	a minimum of 1 electric vehicle charger		Where availability of on-street parking is already acknowledged as a problem this should be increased to 1 space per dwelling

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Nursing homes	1 space per 20 beds	1 space per 10 beds. One of every 6 spaces provided must have an electric cycle charge point	1 space per 6 residents plus 1 space per 2 staff members	a minimum of 1 electric vehicle charger		
Student Housing	1 space per 20 beds	1 space per bed	1 space per 5 beds. Disabled: 1 space or 12% of total capacity, whichever is greater.	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	1 per 25 beds	

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Retail						
Food: less than 1000sqm	A miniumum of 1 then 1 per 200sqm	1 per 200sqm	3 spaces per 100sqm. Disabled: 3 spaces or 6% of above whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger		Variations may be made if the development is within or immedeately adjacent to the City Centre or District Centres
Non-food: less than 1000sqm	A miniumum of 1 then 1 per 200sqm	1 per 200sqm	3-7 spaces per 100sqm (dependant upon site specific assessment). Disabled: 3 spaces or 6% of above whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	a minimum of 1 space if located outwith the City Centre or District Centres	
Non-food: greater than 1000sqm	1 per 250sqm	1 per 250sqm	1 spaces per 20sqm. Disabled: 3 spaces or 6% of above whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	a minimum of 1 space plus 1 per 1000sqm or part thereof	

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Business						
Offices	A miniumum of 1 then 1 per 300sqm	A miniumum of 1 then 1 per 200sqm	1 space per 30sqm. Disabled: 2 spaces or 5% of the total number of spaces, whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	a minimum of 1 space if located outwith the City Centre or District Centres	Variations may be available within the City Centre
General Industry	A miniumum of 1 then 1 per 300sqm	A miniumum of 1 then 1 per 200sqm	1 space per 100sqm. Disabled: 2 spaces or 5% of the total number of spaces, whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	a minimum of 1 space plus 1 per 1000sqm or part thereof	
Storage / Distribution	A miniumum of 1 then 1 per 300sqm	A miniumum of 1 then 1 per 200sqm	1 space per 100sqm for staff and visitors. Disabled: 2 spaces or 5% of the total number of spaces, whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	a minimum of 1 space plus 1 per 1000sqm or part thereof	

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Hotel						
City Centre and district centres	1 per 50 bedrooms	1 per 10 bedrooms	1 space per 2 bedrooms or by permit agreement to existing car parks	where 10+ car parking spaces are provided, one of every five spaces should have an electric vehicle charger		where a hotel has a restaurant - the restaurant cycle parking standards will apply in addition to those provided for staff/residents
Outwith City Centre and district centres	1 per 50 bedrooms	1 per 10 bedrooms	1 space per bedroom. Disabled: 3 spaces or 5% of the total number of spaces, whichever is greater	where 10+ car parking spaces are provided, one of every five spaces should have an electric vehicle charger	a minimum of 1 space	where a hotel has a restaurant - the restaurant cycle parking standards will apply in addition to those provided for staff/residents
Educational						
Schools / Nurseries	1 per 50 students	minimum of 1 per 5 staff.	3 spaces per 5 staff members	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	1 per 5 car parking spaces	Provision within the site or directly adjacent should be made for service bus parking. An additional space within the curtilage should be reserved for a minibus
College / University	1 per 50 students	minimum of 1 per 5 staff.	1 space per 2 staff members plus 1 space per 15 students	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	1 per 5 car parking spaces	

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Health						
Health Centres / Hospitals	1 per 50sqm	minimum of 1 per 5 staff	2 spaces per consulting room plus 1 space per staff member. Disabled: 3 spaces or 6% of all vehicle parking spaces, whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	1 per 5 car parking spaces	additional space to be provided and reserved for service and emergency vehicles
Assembly / Leisure						
Cinemas/ Theatres (Outwth City Centre and district centres)	1 per 30 seats	1 per 5 employees	Outwith city and district centres: 1 space per 6 seats. Disabled: 3 spaces or 6% of all vehicle parking spaces, whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	City centre and district centres: zero.	Variations may be made for developments located within the City Centre or district centres
Stadiums	1 per 200 seats	1 per 5 employees	1 space per 15 seats. Disabled: 3 spaces or 6% of all vehicle parking spaces, whichever is greater	where 10+ car parking spaces are provided, one of every ten spaces should have an electric vehicle charger	1 per 5 car parking spaces	Special provision required for separate coach parking
Public Houses (City Centre)	to be assessed based on local provision	1 per 75sqm	City centre: zero			Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.

Development type/class	Cycle Parking		Car Parking	Electric Vehicle Provision	Motorcycles	Other Notes
	Visitor short stay*	Residents/staff (long stay - secure and covered)				
Public Houses (Outwith City Centre)	to be assessed based on local provision	2 per 75sqm	Outwith City Centre: 1 space per 100sqm. Disabled: 3 spaces or 6% of above, whichever is greater			Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.
Hot Food Takeaway (City Centre)	to be assessed based on local provision	1 per 75sqm	City Centre and district centres: zero			Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.
Hot Food Takeaway (Outwith City Centre)	to be assessed based on local provision	2 per 75sqm	Outwith city centre and district centres: 1 space per 10sqm. Disabled: 3 spaces or 6% of above, whichever is greater		1 per 5 car parking spaces	Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.
Restaurants (City Centre and district centres)	to be assessed based on local provision	1 per 75sqm	City Centre and district centres: zero			Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.
Restaurants (Outwith City Centre and district centres)	to be assessed based on local provision	2 per 75sqm	Outwith city centre and district centres: 1 space per 5sqm. Disabled: 3 spaces or 6% of above, whichever is greater	where 10+ car parking spaces are provided, one of every six spaces should have an electric vehicle charger	1 per 5 car parking spaces	Developer may be asked to contribute to the cost of providing cycle parking for general public use in the vicinity of the development.

Appendix F

TRANSPORT ASSESSMENT

Integrated Impact Assessment

Committee Report Number: 2-2026

Document Title: Dundee Streets Ahead Design Guide

Document Type: Other

Description: Dundee - Streets Ahead was originally published in 2005, providing key information on the Roads Standards that should be adopted across the local authority area. Since then, there have been significant updates to the policy context, including the publication of the second National Transport Strategy in 2020 as well as to National design guidance such as Roads for All (2013), National Roads Development Guide (2014), Designing Streets (2010), Cycling by Design (2021) and Inclusive Mobility (2021). These documents recognise the change in the approach to designing streets to put pedestrians first and recognise the needs of people with protected characteristics.

The Streets Ahead document is being updated to reflect these changes in National Policy and Design Standards.

Intended Outcome: improve design guidance to best serve the needs of the local community and create environments suitable for travelling by any mode.

Period Covered: 01/03/2026 to 01/04/2028

Monitoring: the document will be reviewed every two years, or sooner if there are significant changes to design standards or national policy

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EQUALITY, DIVERSITY AND HUMAN RIGHTS

Impacts & Implications

Age: Positive

Approximately 16% and 18% of Dundee's population are under 16 or older than 65 respectively and therefore are key to take into consideration during the design process.

Positive Impacts: an increased standard of footway width will support older people with mobility aids as well as children when travelling on foot to have a greater level of manoeuvrability.

Reduction in acceptable gradient for active travel facilities including crossfalls will have a positive impact on older people who are more likely to experience mobility issues.

Improvements to lighting, ensuring routes are well-lit and reduce dark and blind spots can support older people who are more likely to experience reduced eyesight. This can also support feelings of personal safety.

Improvements to crossing facilities can support young people, who are of greater risk of being involved to a road traffic accident. This can also support accessibility of crossing points for older people.

Disability: Positive

25.7% of the population within Dundee City has a disability or long-term health condition. Day to day activities are limited a lot for 11.6% and limited a little for 14.1%.

Positive Impacts: an increased standard of footway width will support disabled people in being able to travel confidently. The proposals will enable two wheelchair users to pass each other safely within the desirable minimum width. The addition of a limit on length of absolute minimum widths reduces the risk of disabled users being unable to pass each other. This can also support visually impaired users by having greater space.

Reduction in acceptable gradient for active travel facilities including crossfalls will have a positive impact on people who experience mobility issues. Ensuring a 60mm upstand is provided between footways and cycle tracks supports visually impaired users in being able to detect the difference.

Improvements to cycle infrastructure, will support disabled people who utilise bikes as mobility aids. Dundee WACI 2023 noted 7% of disabled people vs 11% of non-disabled people cycle at least once per week. This is directly correlated to infrastructure; in addition, 36% of disabled people vs 42% of non-disabled people think cycling safety in their local area is good.

Improvements to lighting is particularly important for disabled people to support personal security and range of vision for visually impaired users. Improvements to crossing facilities can support disabled users in being able to navigate streets safely.

Gender Reassignment: no Impact

Marriage & Civil Partnership: no Impact

Pregnancy & Maternity: positive

In 2023, there were 1,315 births in Dundee, the standardised birth rate was 7.7 per 1,000 population .

Positive Impacts: the proposed improvements to footway widths and ensuring access controls and other street furniture maintain at least absolute minimum footway widths will support parents with pushchairs/prams in navigating the area safely.

Cycle track improvements can also support young families who may utilise a child trailer or trailer bike. Revision of gradient and crossfalls can support pregnant women who may have reduced mobility.

Enhancement of green infrastructure can have a positive impact on the environment and emissions which can benefit pregnant women who are more vulnerable to the effects.

Race/Ethnicity: no Impact

Religion or Belief: no Impact

Sex: positive

There is a slightly higher percentage of females in Dundee 51.4% compared to 48.6% males.

Positive Impacts: improved lighting provision on the footways and cycle tracks will likely support feelings of safety for female users.

Women are among those who are less likely to cycle. The 2023 Dundee Walking and Cycling Index found that just 6% of women cycle at least once per week, compared to 14% of men.

One of the most common reasons not to cycle are concerns about cycling, therefore dedicated cycle facilities of a high level of service may have a positive impact.

Sexual Orientation: No Impact

Are any Human Rights not covered by the Equalities questions above impacted by this report? No

FAIRNESS & POVERTY

Geographic Impacts & Implications

Strathmartine:	Positive
Lochee:	Positive
Coldside:	Positive
Maryfield:	Positive
North East:	Positive
East End:	Positive
The Ferry:	Positive
West End:	Positive

Positive Implications: All areas will be affected similarly by the adoption of the revised design standards. It is unknown if any areas will be more acutely affected than others

Household Group Impacts and Implications

Looked After Children & Care Leavers: No Impact

Carers: No Impact

Lone Parent Families: No Impact

Single Female Households with Children: No Impact

Greater number of children and/or young children: Positive

Potential positive impacts from improvements to footway widths, crossing provision and lighting, which can support children and young people when travelling actively.

Pensioners - single/couple: Positive

Potential positive impacts from improvements to footway widths, crossing provision and lighting, which can support pensioners' confidence when walking or wheeling.

Unskilled workers or unemployed: No Impact

Serious and enduring mental health problems: No Impact

HOUSEHOLD GROUP IMPACTS AND IMPLICATIONS

Homeless: No Impact

Drug and/or alcohol problems: No Impact

Offenders & Ex-offenders: No Impact

SOCIO ECONOMIC DISADVANTAGE IMPACTS & IMPLICATIONS

Employment Status: No Impact

Education & Skills: No Impact

Income: No Impact

Caring Responsibilities (including Childcare): No Impact

Affordability and Accessibility of Services: No Impact

Fuel Poverty: No Impact

Cost of Living/Poverty Premium: Positive

Improved standard of active travel and public transport infrastructure may support accessibility of these transport options and be more attractive for low-income households.

Connectivity/Internet Access: No Impact

Income/Benefit Advice/Income Maximisation: No Impact

Employment Opportunities: Positive

Potential positive impact from improving accessibility of streets through the adoption of the design standards, which could support access to employment opportunities.

Education: No Impact

Health: No Impact

Life Expectancy: No Impact

Mental Health: No Impact

Overweight/Obesity: No Impact

Child Health: No Impact

Neighbourhood Satisfaction: Positive

Potential positive impact through adoption of design principles within the guidance such as footway, crossing and green infrastructure enhancements. These could contribute to neighbourhood satisfaction

Transport: Positive

Potential positive impact through enhancement to accessibility of footway, cycle tracks and public transport could support access to different low-cost modes.

ENVIRONMENT

CLIMATE CHANGE IMPACTS

Mitigating Greenhouse Gases: Positive

The provision of active travel infrastructure of an increased standard may support its uptake and have a consequential impact on reducing greenhouse emissions. The additions of green infrastructure will also support the mitigation of greenhouse gases.

Adapting to the effects of climate change: No Impact

RESOURCE USE IMPACTS

Energy efficiency and consumption: No Impact

Prevention, reduction, re-use, recovery or recycling of waste: No Impact

Sustainable Procurement: No Impact

TRANSPORT IMPACTS

Accessible transport provision: Positive

Potential positive impact through enhancement to accessibility of footway, cycle tracks and public transport could support access to different low-cost modes

Sustainable modes of transport: Positive

Potential positive impact through adoption of a higher standard of active travel infrastructure will encourage uptake of sustainable modes.

NATURAL ENVIRONMENT IMPACTS

Air, land and water quality: No Impact

Biodiversity: Positive

Inclusion of the green infrastructure will support biodiversity.

Open and green spaces: No Impact

BUILT ENVIRONMENT IMPACTS

Built Heritage: No Impact

Housing: No Impact

Is the proposal subject to a Strategic Environmental Assessment (SEA)?	No further action is required as it does not qualify as a Plan, Programme or Strategy as defined by the Environment Assessment (Scotland) Act 2005.

Corporate Risk

Corporate Risk Impacts

Political Reputational Risk: No Impact

Economic/Financial Sustainability/Security & Equipment: No Impact

Social Impact/Safety of Staff & Clients: No Impact

Technological/Business or Service Interruption: No Impact

Environmental: No Impact

Legal/Statutory Obligations: No Impact

Organisational/Staffing & Competence: No Impact

Corporate Risk Implications & Mitigation:

The risk implications associated with the subject matter of this report are "business as normal" risks and any increase to the level of risk to the Council is minimal. This is due either to the risk being inherently low or as a result of the risk being transferred in full or in part to another party on a fair and equitable basis. The subject matter is routine and has happened many times before without significant impact.