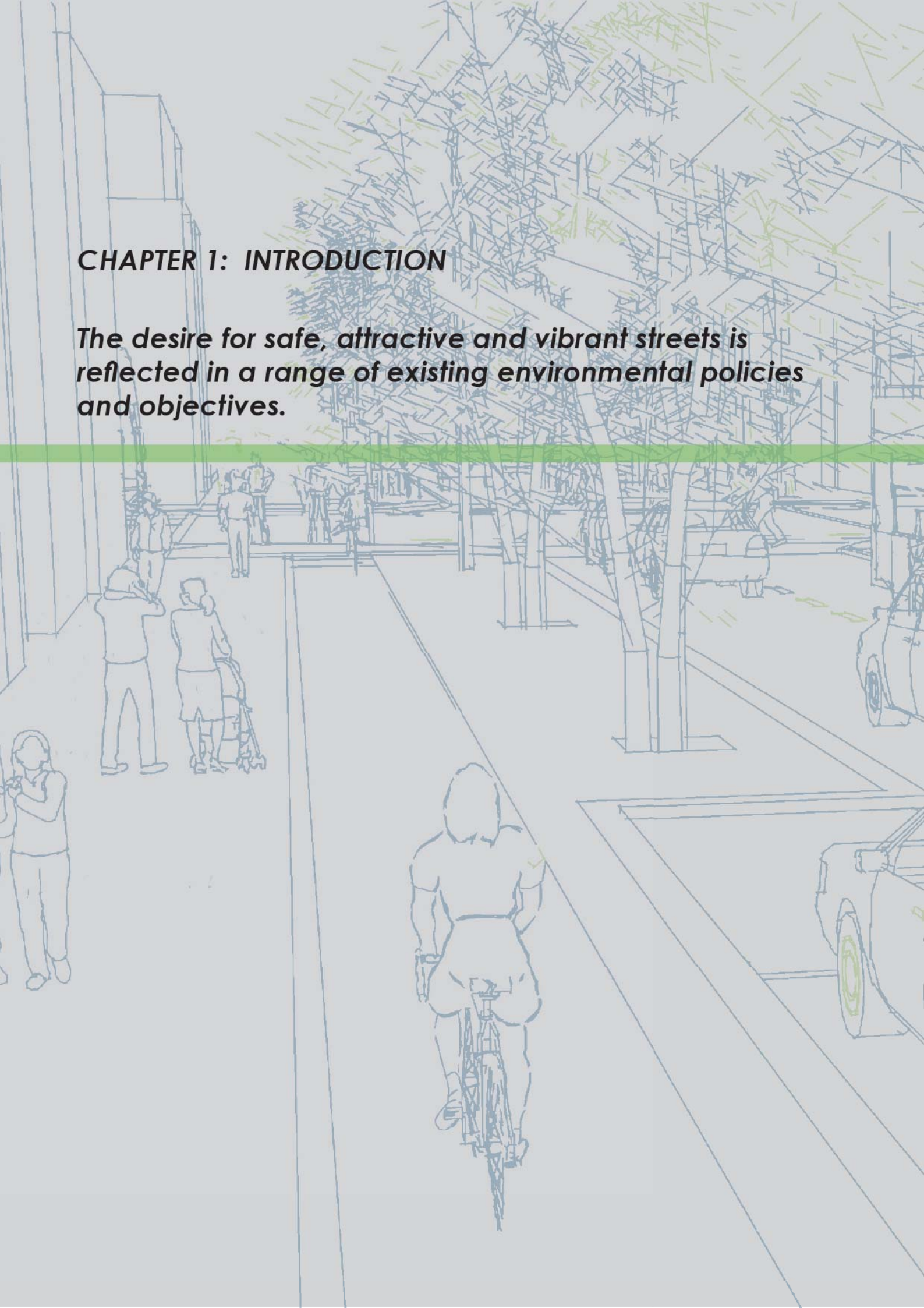


CHAPTER 1: INTRODUCTION

The desire for safe, attractive and vibrant streets is reflected in a range of existing environmental policies and objectives.



1. INTRODUCTION

1.1 A Different Perspective

This Manual seeks to address street design within urban areas (i.e. cities, towns and villages). It sets out an integrated design approach. What this means is that the design must be:

- a) Influenced by the type of place in which the street is located, and
- b) Balance the needs of all users.

A further aim of this Manual is to put well-designed streets at the heart of sustainable communities. Well designed streets can create connected physical, social and transport networks that promote real alternatives to car journeys, namely walking, cycling or public transport.

In preparing this Manual, it was instructive to examine and learn from experience in Ireland and elsewhere. This alternative requires a shift in thinking away from recently accepted practice approaches toward more sustainable approaches (see Figure 1.1). For example, in the UK, practice has evolved through several iterations of street design guidance in recent decades.

In many communities throughout Ireland it is perceived that some or all vehicular traffic is travelling too fast and should be directed elsewhere. The impacts are seen as a threat to the safety of the community and a negative element that detracts from the attractiveness of the road or street and the comfort of those using it. In response, it is sometimes possible to install a traffic-calming ramp. Such a 'retrofit' solution may slow traffic, but only very locally. It doesn't address the broader issue of what elements of the road design or street network encourage speeding.

In order to address the overall issue, it is necessary to start with the design of the street environment and street network as a whole. This 'holistic', design-led approach has been applied successfully in the UK, much of Europe and further afield. Although there are some good individual examples of street design in Ireland (see Figure 1.2), there is a need for agreed national street design standards specific to 'urban' areas.

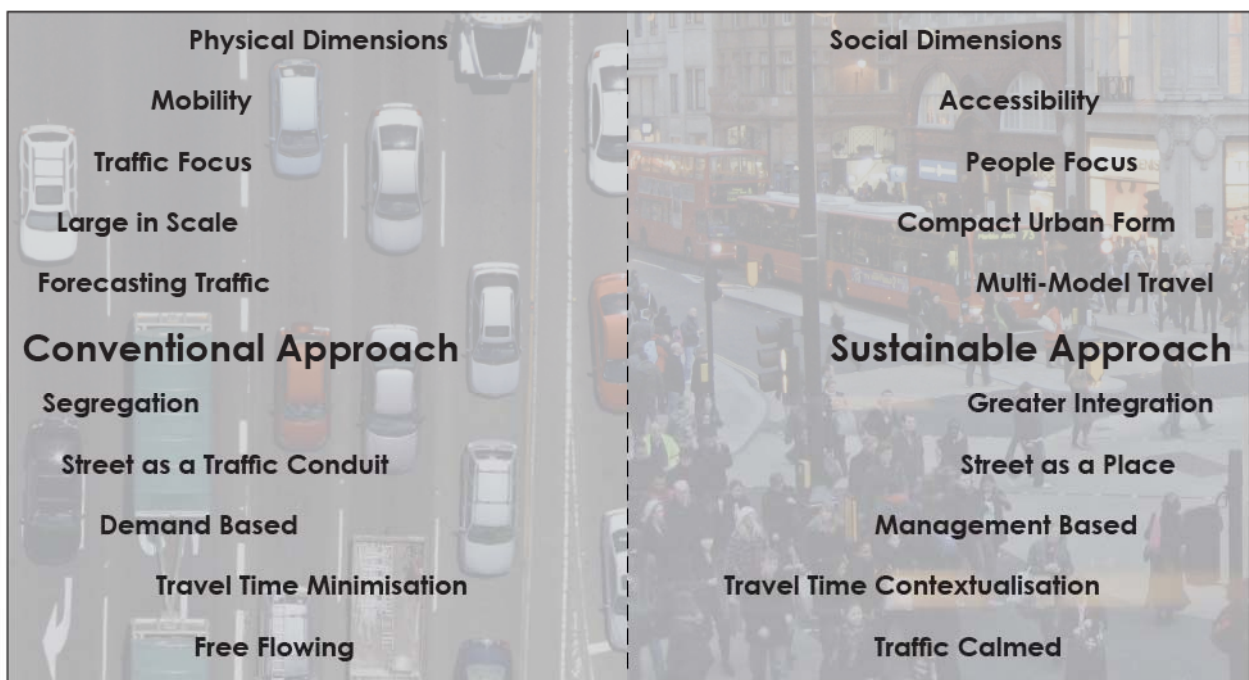


Figure 1.1: This guide will focus on shifting the emphasis of designers, as appropriate, from more conventional approaches that are concerned with the movement of traffic to more sustainable approaches concerned with multi-modal movement and streets as places.

Street design can be more effective in cost and efficiency, slowing traffic speeds, through understanding and addressing driver behaviour. Careful place-making will protect heritage and tourism potential whilst facilitating growth and new uses. Better quality public realm will promote civic confidence and can attract stakeholder investment, thus creating jobs. Encouraging walking and cycling, linked to easier access for a broad range of ages and abilities, will ensure liveliness and interaction on streets, thereby increasing vibrancy and improving commercial and retail activity.

The cumulative economic, social and environmental impacts of transport choices on the design of the built environment are often overlooked. A focus on improved street design will contribute to better value for money, social inclusion and reduced carbon emissions.

The sustainable urban neighbourhood is diverse, focused on identifiable centres, and walkable. Streets and roads should join rather than separate places and communities. The sustainable urban neighbourhood provides the principal building block of a viable community whether at the scale of village, town or city.

This Manual recognises the importance of assigning higher priority to pedestrians and cyclists, without unduly compromising vehicle movement, in order to create secure, connected places that work for all members of the community. Walking and cycling will improve health and well-being and will provide greater opportunities for interaction which promote neighbourliness and community growth.

This Manual focuses on streets as attractive places, whether new or existing. It seeks to encourage designs appropriate to context, character and location that can be used safely and enjoyably by the public.

This Manual is primarily intended for those built environment professions (both private and public sectors) concerned with the design of roads or streets in cities, towns and villages. It is also relevant to politicians, policymakers and community groups. Particular emphasis is placed on the importance of collaborative working and co-ordinated decision-making.

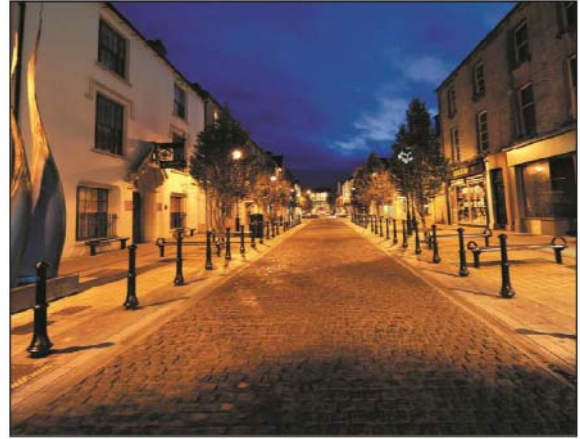


Figure 1.2: Ballina, Co. Mayo (top), Drogheda, Co. Louth (middle) and Adamstown, Co. Dublin (bottom). This Manual will build upon the many examples of streets which create positive places that serve communities in an inclusive way.

1.2 Policy Background

National planning and transport strategy seeks to achieve a hierarchy of towns, linked by efficient transport networks, underpinned by economic activity and investment. It also aims to minimise overall travel demand, reduce carbon emissions and reliance on fossil fuels. Central to this is the alignment of spatial planning and transport policy to contain suburban sprawl, linking employment to transport and encouraging modal shift to more sustainable modes of travel

To support these objectives, street layouts in cities, towns and villages will be interconnected to encourage walking and cycling and offer easy access to public transport. Compact, denser, more interconnected layouts, particularly where served by good quality bus or rail services, will help to consolidate cities, towns and villages making them viable for reliable public transport.

These objectives should be underpinned by Local Area Plans, Strategic Development Zone Planning Schemes and Land Use and Transportation Strategies. The importance of retrofitting existing streets and communities is also emphasised.

A further aim is to ensure compact, connected neighbourhoods based on street patterns and forms of development that will make walking and cycling, especially for local trips, more attractive. The context for the preparation of this Manual is set by the following Government policy documents:

Traffic Management Guidelines (2003)

The *Traffic Management Guidelines (TMG)*, jointly published by the Departments of the Environment and Transport and the Dublin Transportation Office (now part of the National Transport Authority or NTA), address a wide range of issues, in the urban context, relating to street design and parking.

In 'Balancing conflicting priorities and making the right choices', it is recognised that there are many different objectives, modes and users to be considered in managing the transport network. The TMG seek to promote more sustainable alternatives to the private car and acknowledge the role of streets in urban areas as living spaces that serve many functions in addition to traffic movement:

'It is only in the last few decades that the car has come to dominate every street. Streets are (or ought to be) living spaces, an integral part of the community and the focus of many activities that link together people's lives. The way in which streets are managed and used promotes or discourages a sense of community and makes them an attractive or unattractive place to live...This imbalance must be reversed if urban communities are to revive and prosper. Planners and engineers must take the lead in this process.'

In relation to the layout and design of residential and commercial areas, the TMG further acknowledge deficiencies in the design process:

'...layouts have been dictated by road hierarchy considerations based around the movement and parking requirements of motor vehicles. Design consideration for motor vehicles has come to dominate the shape and layout of developments. This has often been to the detriment of other road users and there are many examples where the road design and speed of traffic has discouraged pedestrian and cycle movement because of concerns over safety. It has also led to the creation of areas that are too similar and lack their own sense of local identity.'

The Guidelines recommend that new developments should address these issues, through the development plan and development control processes and they include some useful suggestions in relation to specific matters such as permeability and access to public transport.

Significantly, the TMG suggest that local authorities publish guidance on how new housing and/or commercial developments are to be designed, including 'guidance on general layout and design of residential/commercial roads and footways/cycleways'.¹ A number of relevant UK design guides are referenced that 'could form the basis for such guidance. They would need some modification to reflect local and national differences in layout and design of housing, use of materials, local parking and garage use etc. to achieve a sense of local identity.'

¹ To date, with the exception of the *Adamstown Street Design Guide (2010)* prepared by South Dublin County Council, no such local guidance manuals have been published.

Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009).

This guidance document was published by the Department of the Environment and is accompanied by the Urban Design Manual. It replaced the Residential Density Guidelines (1999) and focuses on sustainable residential development, including the promotion of layouts that:

- Prioritise walking, cycling and public transport, and minimise the need to use cars;
- Are easy to access for all users and to find one's way around;
- Promote the efficient use of land and of energy, and minimise greenhouse gas emissions;
- Provide a mix of land uses to minimise transport demand.

Specifically, in relation to the design of residential streets, the Guidelines reference the UK *Manual for Streets* (2007) and detail principles that should influence the layout and design of streets in residential areas. These principles include:

- Connectivity and permeability;
- Sustainability: Priority should be given to the needs of walking, cycling and public transport, and the need for car-borne trips should be minimised;
- Safety: Streets, paths and cycle routes should provide for safe access by users of all ages and degrees of personal mobility;
- Legibility: It should be easy for both residents and visitors to find their way in the area; and
- Sense of Place: Streets should contribute to the creation of attractive and lively mixed-use places.

The Guidelines also include recommendations in relation to streets, 'Frontage-free streets (such as distributor roads) are not recommended, as they can be unsafe for pedestrians (especially after dark) and can result in a hostile environment.' The Guidelines further recognise that 'most residential streets can successfully combine low to medium traffic movements with a pleasant residential setting, including on-street parking and the design of such streets from the outset should limit traffic speeds within the range of 30-50 km/h, without the need to resort to the use of remedial measures such as speed ramps.'

The Guidelines also make recommendations in relation to cul-de-sacs (they should not dominate residential layouts); shared priority 'homezones' and pedestrian and traffic safety. There is also a useful series of urban design checklists that include the following in relation to street design:

- Does the design of residential streets strike the right balance between the different functions of the street, including a 'sense of place'.
- Will the development:
 - prioritise public transport, cycling and walking, and dissuade the use of cars?
 - ensure accessibility for everyone, including people with disabilities?
 - include measures to ensure satisfactory standards of personal safety and traffic safety within the neighbourhood?
- Will the plan ensure a compact and easily walkable form of development that will make walking and cycling, especially for local trips, more attractive than using the car?
- Has the design sought, where possible, to create child and pedestrian-friendly car-free areas, especially in higher density schemes, through the careful location of access streets and parking areas?

*Smarter Travel - A Sustainable Transport Future
A New Transport Policy for Ireland 2009-2020*

This document was published by the Department of Transport. It sets out five key goals as follows:

- (i) to reduce overall travel demand;
- (ii) to maximise the efficiency of the transport network;
- (iii) to reduce reliance on fossil fuels;
- (iv) to reduce transport emissions; and
- (v) to improve accessibility to public transport.

To achieve these goals, key targets include objectives that future population and employment growth will predominantly take place in sustainable compact forms, which reduce the need to travel for employment and services and alternatives such as walking, cycling and public transport will be supported and provided to the extent that these will rise to 55% of total commuter journeys to work.

Further to outlining actions to reduce travel demand, it is targeted that in Ireland around 200,000 people will switch to cycling and walking by 2020.

The document specifically identifies the preparation of a 'Design Manual for Streets', 'which will outline practical design measures to support and encourage more sustainable travel patterns in urban areas', as key actions to encourage smarter travel.

The document details a range of 'Actions' in relation to the integration of land use planning and transport policy. It is recognised that this cannot be achieved solely in relation to new development and the significance of retrofitting is highlighted:

'We will require local authorities to prepare plans to retrofit areas towards creating sustainable neighbourhoods so that walking and cycling can be the best options for local trips, for example to reach local facilities such as shops and schools'.

The document includes a vision to create a strong cycling culture in Ireland and ensure that all cities, towns and villages will be cycling-friendly and that cycling will be a preferred way to get about, especially for short trips. There is also a commitment to creating a culture in Ireland that encourages people to walk as a matter of routine. Measures to ensure this include:

- Reprioritising traffic signals to favour pedestrians, instead of vehicles;
- Reducing waiting times and crossing distances at junctions;
- Ensuring that 30 km/h zones are designated in central urban areas which also continue to accommodate motorised traffic;
- Widening footpaths where there are high pedestrian flows, particularly close to public transport nodes;
- Clearing footpaths of unnecessary street furniture, e.g. rationalisation of signage poles etc.;
- Improving the surface quality of footpaths;
- Providing appropriately designed safe, well-lit, direct, continuous routes.

Draft Planning Guidelines: Local Area Plans 2012

This guidance document and its companion guide, the *Draft Manual for Local Area Plans (2012)*, was published by the Department of the Environment in June 2012.

The LAP guidelines set out the range of requirements for the making of LAPs, including their content. Many of these requirements are concerned with placemaking and the design of streets and street networks, including:

Within existing areas

'promoting compact, walkable communities and neighbourhoods where local people can continue to enjoy access to established community facilities by the utilisation of undeveloped brownfield sites and/or derelict lands in preference to peripheral car-dependent development'.

'promoting smarter travel by encouraging/promoting development along existing public transport corridors and improving the pedestrian and cycling environment through better infrastructure and, in particular, creating shorter routes to educational, retail, employment or other facilities'.

'improving the public domain by providing active frontage to all public spaces and routes, thus promoting streets which encourage pedestrian activity and are safer by benefiting from passive surveillance'.

Within new areas

'providing compact, walkable neighbourhoods incorporating a variety of house types with mixed tenure'.

'designing in active streets and designing out anti-social behaviour through urban masterplanning, encouraging good mixture of uses and adaptability of buildings'.

'measures to encourage local people to adopt healthier, smarter ways to travel around their local communities, especially walking and cycling'

The *Draft Manual for Local Area Plans* provides more detailed measures to achieve these goals. In relation to street design, this includes:

'Create or enhance a distinctive hierarchy of streets, spaces and landscapes within an integrated structure'.

'Ensure priority for pedestrians, cyclists and public transport'.

'Set out the nature and hierarchies of public transport'.

'Optimise areas of high accessibility to public transport in terms of density and intensity of use'.

'Promote shared, safe movement routes for all users and avoid duplication or separation of main movement routes'.

'Set out the general movement function of routes and spaces within the route hierarchy'.

1.3 Application of this Manual

The principles, approaches and standards set out in this Manual apply to the design of all urban roads and streets (that is streets and roads with a speed limit of 60 km/h or less), except:

- (a) Motorways.
- (b) In exceptional circumstances, certain urban roads and streets with the written consent of Sanctioning Authorities.²

This Manual cannot account for every scenario (particularly when retrofitting existing streets) that a designer may face, the application of principles, approaches and standards contained herein requires a degree of flexibility. This is provided to designers, within a limited framework, via the use of the following terminology:

For the purposes of this Manual:

- **'Shall' or 'must'** indicates that a particular requirement is mandatory;
- **'Should'** indicates a recommendation. Where designers fail to meet a recommendation, they must clearly document the reasons as to why and propose a series of mitigation or compensation measures.
- **'May'** indicates a clarification, option or alternative course of action.

The Manual introduces a set of principles, approaches and standards necessary to achieve best practice in urban roads and street design. Implementation of the principles approaches and standards will be achieved through actions at national and local level.

At the national level:

1. The Department of Transport Tourism and Sport (DTTS) and the Department of Environment, Community and Local Government (DECLG) has introduced this Manual as a key step in implementing the policies on promoting the use of more sustainable transportation proposed in *Smarter Travel* (2009) and the policies on sustainable living contained in the *Guidelines on Sustainable Residential Development in Urban Areas* (2009).
2. DTTS and DECLG will work with local authorities in assisting with technical aspects of the implementation of the Manual on an on-going basis, learning from experience within Ireland and internationally.

At city and county level:

1. Local authorities shall facilitate the implementation of the principles, approaches and standards to road and street design set out in the Manual in carrying out their development planning functions under the Planning Code.
2. City and County development plans shall reference this Manual in order to facilitate the implementation of the policies for sustainable living contained in the *Guidelines on Sustainable Residential Development in Urban Areas* (2009). Local Area Plans and also other non-statutory plans should also reference the principles, approaches and standards within this Manual, where appropriate.
3. Local authorities should facilitate the adoption of the multidisciplinary approach to consultation where appropriate and shall use the relevant standards in the Manual when assessing planning applications which relate to or impact on urban roads and streets.

² Sanctioning Authorities include:

- (i) The National Roads Authority in respect of urban national roads. The NRA shall consult with the NTA in respect of such roads which lie within the Greater Dublin Area
- (ii) The National Transport Authority in respect of urban non-national roads within the Greater Dublin Area.
- (iii) The Department of Transport, Tourism and Sport in respect of urban non-national roads.

4. In the case of applications for planning permission and development consents to planning authorities and An Bord Pleanála, applicants and their agents shall:
 - Utilise, as appropriate, the multidisciplinary design teams advised in this Manual.
 - Carefully examine their development proposals which relate to or impact on urban roads and streets to ensure that they are consistent as far as is practical with the principles, approaches and design standards of this Manual.
 - Engage with planning authorities at an early stage, utilising the arrangements for pre-planning application consultation with regard to any issue that may arise in relation to the application of design approaches set out in the Manual.
5. In the case of local authority own development in relation to the design of urban roads, streets or networks,³ local authorities shall:
 - Facilitate as appropriate the multidisciplinary design teams advised in the Manual.
 - Ensure that the principles, approaches and standards of this Manual are applied as appropriate.

³ Including development made under Part 8 of the Planning and Development Regulations, 2001.

