



Ministry for the
Environment
Manatū Mō Te Taiao



People+Places+Spaces

A design guide for urban New Zealand



The front cover shows views of Cathedral Square, Christchurch, an aerial view of Christchurch and Great South Road in Otahuhu, Auckland.

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Foreword



People, Places and Spaces: A design guide for urban New Zealand reflects the Government's commitment to sustainable development in New Zealand's urban areas. Sustainable development encompasses social inclusiveness, economic prosperity and environmental quality, and is therefore a foundation for a positive future for all New Zealanders.

But why a guide on urban design? Because over 83 percent of our population live in urban areas. Because it is critical to ensure that our urban environments work for us, and support a high quality of living. Because the quality of our urban areas is another factor that can give us a competitive edge to retain skilled Kiwis thinking of heading overseas to live, or to attract people here – Kiwis thinking of returning, investors, skilled immigrants, tourists.

We have much to celebrate about our towns and cities – often stunning physical locations, and a strong built heritage as witnessed by Napier's art deco, Oamaru's whitestone, and Arrowtown's gold rush buildings. Our 'do-it-yourself' approach underlies what traditionally has been an informal and reasonably inclusive approach to living. Increasingly, too, we are celebrating the diversity of our urban populations, Maori and Pakeha, and our place in the Pacific. The more recent cultural and ethnic groups who have arrived and are now part of our community add to that richness.

But we also face some very real issues, such as urban form that reduces the attraction of walking, cycling or public transport, and inefficient transport systems that can add to business costs, raise transport emissions and make it difficult for unemployed people to access work.

Good urban design helps create great places to live, work and play. It has much to offer – including more varied lifestyle, work, transport and recreation options. More effective and efficient urban areas that work better for us, and use less energy and water. That make it easier to access friends, work, and leisure activities. That feel safer and support both physical and mental health, through making walking and cycling real options.



We all have a role to play – from the public to iwi, the transport planner to the stormwater engineer, economist and urban designer, the planner to the local and central government politicians.

Urban design is about both process and outcomes. About involving people and communities, iwi and all the diverse professionals and sectors that create the fabric of our urban areas. About creating places that we want to use and that work well, and that celebrate the natural environment, our built and cultural heritage, and strengthen both local and national identity. About promoting development that fits in with the street and the community. About protecting and enhancing our economic competitiveness by ensuring our urban areas are easy, efficient places to work and do business in, and contain transport costs. Urban design is about creating the urban futures we want to be a part of.

This guide on urban design has links to other government programmes on transport, climate change and energy. The *Energy Efficiency and Conservation Strategy*, launched in September 2001, seeks to substantially improve our energy performance. There are significant energy gains to be made not just by improving the performance of our buildings (with attendant health benefits), but by making our towns and cities more accessible. This guide also links to Ministry for the Environment work on urban amenity indicators.

The challenge for us all is to build on the positives of our richly diverse urban areas, to re-create them, to ensure they are socially inclusive, economically prosperous and environmentally responsible. To fulfil the promise of sustainable development.

This guide outlines both urban design and process principles to achieve good urban outcomes and support sustainable development. I commend the guide to you. My hope is that it will support a more informed discussion in New Zealand about the role and value of urban design, and help us all to enhance our towns and cities.



Hon Marian Hobbs

MINISTER FOR THE ENVIRONMENT

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Executive Summary

The need for an urban design guide

The purpose of this guide is to give all people interested in more liveable and prosperous urban areas – professionals, councillors, business people and the wider community – a taste of what urban design is, and how to achieve better urban design. Urban design aims to make our towns and cities more economically prosperous, socially inclusive and environmentally friendly, while also making them look and work better for people.

New Zealand has become an urban society, yet we have not given much thought to the design of our towns and cities. We are seeing the erosion of the quality of public spaces and values that underpin liveable towns and cities, threats to the ability of some urban areas to compete for jobs and investment, and the loss of what is distinctive about our urban environments. Increasingly, we want our settlements to reflect Maori as well as Pakeha culture, our Pacific setting, and the range of ethnic groups that now make up our communities.

In today's world, urban design is a key factor in determining the fortunes of our towns and cities.

What is urban design?

Urban design is about making the connections between people and places, between public and private space, between the natural and built environment, between movement and urban form, and between the social and economic purposes for which urban space is used.

Urban design is as much about urban structure (the relationship between spaces, roads and the density and range of activities) as it is about the design of a specific place. Urban structure is important because no matter how good the detailed design of a place may be, it cannot overcome structural deficiencies. Much bad urban design stems from poor urban structure and an inadequate analysis of the placement of a development.



Urban design projects range from contributing to national-level projects to reduce greenhouse gas emissions and improve energy efficiency, to regional strategies like Auckland's Regional Growth Strategy, to local projects to improve a street, park, centre, or access to a particular feature, like the Whangarei Town Basin development.

A comprehensive approach

New Zealand settlements are relatively young, and a suburban, car-oriented pattern predominates. Adapting this pattern to more diverse lifestyle and economic trends, while achieving good design outcomes, is a complex task. Creating successful urban places involves:

- understanding the urban context
- ensuring there is a community-led definition of vision and values
- bringing together different sectors, the public and professional groups involved in place-making
- taking a place-based analysis of options and solutions
- developing plans that reflect urban design, planning, urban economics and community values
- combining public and private endeavours.

Successful urban design processes have to be:

- integrated and comprehensive
- consultative and transparent
- viable and deliverable.

Urban design principles

Urban places we enjoy – like Tamaki Drive and Broadway, Newmarket, both in Auckland, Courtenay Place in Wellington, Oxford Terrace in Christchurch, Trafalgar Street in Nelson and Bluff Hill in Napier tend to have similar qualities in terms of how spaces, streets and activities are arranged. While the landscapes and building styles may differ, the success of these areas comes down to the following common design principles.



Consolidation and dispersal

Greater density influences many fundamental qualities we like about urban places, like vibrancy and ‘hubbub’, while also affecting how we consume resources like land, and the need to travel. In central Christchurch, Wellington and Auckland, and at New Lynn, Waitakere City, intensification has helped add life to these centres.

Integration and connectivity

Urban places that are joined together with others in a complex web of spaces and streets, rather than being isolated pods, are easier and more enjoyable to get around, especially on foot. They facilitate movement and exchange. At Sturges Road (in Waitakere City), a connected street network is leading to more people walking than in adjacent, conventionally designed suburbs. In Christchurch, the old university-turned-art-centre and the museum have good linkages to the rest of the city centre.

Diversity and adaptability

A diversity of activities brings a place to life, and providing for choices through a mix of buildings means a place can adapt to changing needs. The historic whitestone warehouse area in Oamaru and Dunedin’s grand old railway station are examples of how older areas can change and adapt to new uses. The Botany Town Centre in Manukau is a new example of the value of a diversity of building styles and activities.

Legibility and identity

Buildings and places that help people get around by marking key points, framing views and vistas, celebrating important places, and reflecting local identity make for urban areas that are special. In some places, New Zealand cities do well in celebrating landscapes – like New Plymouth town centre, with its new connections to the coastline.



Environmental responsiveness

Environmental responsiveness helps to reduce the environmental 'footprint' of the city, while improving amenity and recreational opportunities. It also involves improving water and energy efficiency, reducing waste and protecting urban biodiversity. The restoration of urban waterways in Christchurch is an example of the synergy between natural and urban objectives.

Degrees of urban intensity and different project levels

When applying these design principles it is important to think about the different spatial 'layers' a city or town has – from the regional structure of suburbs and town centres, down to public and private lot design. We also need to think about the degree of urban intensity. In central areas we would expect a site to have many more internal and external connections than one on the edge of a city, away from important transport routes, for example.

Achieving better standards of urban design

Achieving better standards of urban design is a long-term process. We need:

- interested participants aware of urban design and its value
- leadership that recognises the need to improve how we design urban places, large and small
- integrated urban policy that recognises the importance of the quality of our urban areas to economic, environmental and social life
- a wider range of delivery mechanisms than we have at the moment, especially tools to promote positive design outcomes rather than just to stop bad outcomes.

Cities like Wellington, Waitakere, Christchurch and Timaru are putting effort into good urban design, and are reaping the rewards. If we pay enough attention to urban design, we can improve our quality of life and create distinctive and valued urban environments.



Chapter one

Purpose and Structure of the Guide

The purpose of this guide is to provide a broad overview of urban design processes and principles that are appropriate for New Zealand. It is aimed at regional and local councils, developers, infrastructure providers and professional groups involved in the planning and management of urban areas, as well as members of the wider community.

This guide builds on the Government's commitment to sustainable development – that is, development that is economically sustainable, socially inclusive, and environmentally responsible. It links to a number of government programmes, including climate change, transport, the *National Energy Efficiency and Conservation Strategy*, as well as government initiatives for managing waste and biodiversity. The Ministry's work on urban amenity indicators is also relevant.

The approach we take to the management of our built environment integrates urban design with planning, urban economics and infrastructure, and acknowledges the links between the public and private sectors. At times particular projects may be urban design led. From villages, small towns and provincial cities to our main metropolitan centres, and from the design of individual buildings and neighbourhoods to the layout of new suburbs and regional transport networks, we all have an interest in better urban design.

Councils: this guide acknowledges the value of being strategic and developing a clear vision of what your community wants for urban areas in the future. It will help you to mount a case for good urban design, highlight the importance of integrating planning and urban design concerns, and the possible role of specific design guides. It also provides pointers on how urban design can contribute to national and local strategies covering issues like sustainable development, energy efficiency and climate change.



Developers, their advisors, infrastructure providers and professional groups: this guide will help you understand the range of issues covered by an urban design approach, how an urban design approach can add value to your work, and how you can contribute to good urban design. When developers lift their sights from their own development, they can often see ways to enhance the value of both it and the wider area, often for no extra expense or effort. Infrastructure providers, and the professional groups that support them, can have a substantial impact on our urban form and how it works. For example, those planning and implementing stormwater and transport schemes have important roles to play. If you are aware of the likely impacts of your projects, and are open to working in cross-disciplinary groups and ways, you are also more likely to take those impacts into account.

The community: this guide is intended to help you understand what value can be added by good urban design, and how better urban design can be achieved, so you can consider urban design issues in your community and contribute to their resolution.

We hope this guide will spark interest in the role of urban design in making our urban environments more sustainable and liveable. We also hope it will lead to a wider-ranging debate about New Zealand urban areas, what we value about our towns and cities, and where we would like New Zealand urbanism to go.



Chapter two

Urban Design and its Value

To a large extent urban design has to work with what already exists. In this chapter we set out the New Zealand urban context that urban design must respond to, along with the purpose of urban design and its economic and social value.

The New Zealand context

We are an urban society – over 83 percent of us live in towns and cities – and we are beginning to realise that our towns and cities are more than just places in which to live or work. Increasingly, they define who we are as a nation, and where we have come from.

While some of our colonial towns were laid out with an eye to how they could promote public pride and prosperity, the majority of our urban development has occurred in a low-density, car-oriented way, focusing on suburban, family lifestyles, often without much consideration of urban design.

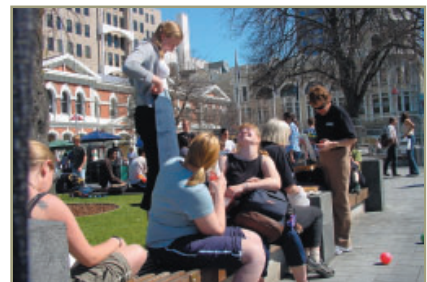
Through this informal process, parts of our towns and cities now reflect the values we hold as a community, including:

- the love of our strong landscapes – harbours, streams, bush-covered ridges and coastal plains
- an inclusive mix of people and cultures
- the sense of neighbourliness and the domestic scale of our suburbs
- the desire to play and have fun
- the sense of stability and prosperity that comes from well-organised and vibrant town and business centres.

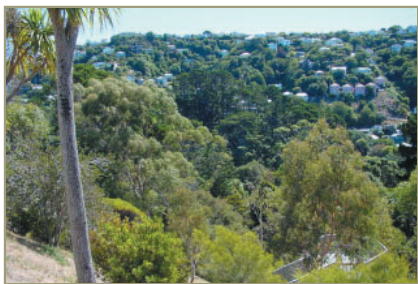
But often these values have been overlooked for various reasons.

Today our towns and cities are more complex, and they face many challenges to their liveability and economic vitality. These changes bring with them a host of additional design issues.

Increasingly the fortunes of our towns and cities are being driven by changing lifestyles – ageing, stable populations in places like Dunedin, the growth of retirement sunbelts in Nelson and Tauranga, and the development of cultural activities in Wellington are just a few examples.



New Zealand cities reflect our values – the love of the outdoors, being with friends and family, and the unique history and landscapes of our towns and cities, as illustrated here in an overhead view of Christchurch, Cathedral Square in Christchurch and private suburban life.



Urban design aims to make New Zealand towns and cities more sustainable, so that they are successful places for businesses, better for the community and are more environmentally friendly. This may involve working at a strategic level, such as the Auckland Regional Growth Strategy or a town centre regeneration scheme. Initiatives could also range from the design of large public spaces, small urban elements or neighbourhood-based projects, as illustrated above at Wellington's Civic Square, Nelson's Trafalgar Street and suburban Wellington.

We want our cities to reflect our society. There is a growing desire for the built environment to express our identity as a culture that is distinctive from Britain, the United States or other countries, and that incorporates Maori and other cultures.

How we use our urban environment has also changed. We are beginning to enjoy urban as well as suburban lifestyles. The role of the house and home is changing as we change. Shopping is a favourite pastime, education is big business and cafés have reinvented the main street. Business is no longer just conducted in an office building downtown or in a warehouse in an industrial area. We now also work from home, in the car, or at the café. These diverse trends mean our towns and cities fulfil a much wider range of functions than in the past.

We also face many international challenges. As globalisation takes a greater hold on social and economic trends, the importance of towns and cities in supporting sustainable development – environmental, economic and social well-being – is made clearer. Internationally, towns and cities that lose their distinctiveness, use land and resources inefficiently, and are socially dysfunctional are missing out in the global race between cities to stay competitive and liveable.

The purpose of urban design

The purpose of urban design is to make our towns and cities more sustainable, while also making them look and work better for people.

The global imperative of sustainable development means urban areas need to be more:

- socially inclusive
- economically prosperous
- environmentally friendly.

Urban design is about how we physically achieve these goals.



In New Zealand, urban design is also about how we give expression to the importance of Maori as well as Pakeha culture and our diverse heritage – our sense of identity – through the design of places. And it is about the growing recognition of our location as a Pacific nation, and reflecting this in buildings and spaces.

To achieve these aims, urban design considers both the structure of a town and city, and the design of specific places.

The types of urban spaces we enjoy – like Tamaki Drive and Broadway, Newmarket, in Auckland, the main street of Wanganui, Courtenay Place in Wellington and Oxford Terrace in Christchurch – meet a variety of needs. These places:

- are used by all members of society
- are responsive to their natural environment
- are economically successful and have adapted to changing needs
- are easy to understand and get around
- have a mix of activities and densities
- combine traffic with pedestrians, and are accessible and well connected to surrounding areas
- have buildings that respond positively to adjoining public spaces
- have attractive and actively used outdoor areas.

These qualities stem from a structure of activities, streets and places that provide a setting where people and businesses naturally want to be. Good urban design means it is not always necessary to make large investments in the landscape treatment of public and private development, or to build iconic statements to make a place successful. Urban design enables a wide range of people and businesses to participate in urban life in a way that uses resources efficiently.



In New Zealand, there are good examples of development adding economic and social value. Well-designed commercial areas with a mix of activities and building styles add to the quality of the city while also being commercially successful, such as The Chancery development in central Auckland (top). Town centre upgrades create better community hubs, vital for an inclusive society, as at Blenheim (middle). Residential areas that are designed to provide both good-quality public and private environments hold their value, as at Harbour View in Waitakere (bottom).

The value of urban design

Urban design is worth the effort, by adding value through:

- providing a better setting for the lives of all people who live in or visit our towns and cities
- giving private developments a marketing edge over competitors
- helping individual developments and neighbourhoods hold and increase their economic value
- increasing the economic competitiveness of towns and cities by making them more efficient places to work and do business in, by reducing transport costs, and supporting more intensive use of land and space
- underpinning the competitiveness of a city by helping to create high-quality living environments that attract and retain skilled people
- supporting more transport choices
- making towns and cities that are more distinctive, and that more fully demonstrate our identity as a Pacific nation
- addressing issues such as climate change, energy efficiency and biodiversity
- making urban areas more socially inclusive and safe, with less crime and other social problems
- helping to provide healthier homes that are warmer and more useable, and healthier lifestyles through local areas being attractive for walking and cycling to work, for leisure or health
- reducing and avoiding adverse effects of urban areas on ecological resources, such as less air and water pollution and more efficient use of resources like land and water.

Good urban design does not have to mean extra costs for a developer or a community. Cities are altered all the time. Urban design is more a matter of making sure these adjustments are done in a way that supports the overall liveability of a city. Where there are extra costs, increased economic and social value can offset these costs.

Working with the 'nuts and bolts' of a city, good urban design can produce a robust framework for a centre or site that fits with development opportunities, directing market forces to outcomes that are both economically and socially successful.



Chapter three

A Comprehensive Approach

In this chapter we look at the overall approach urban design takes to creating successful and memorable places. We also cover common urban design issues typically encountered in urban design exercises.

Urban design contributes to a comprehensive, integrated and vision-led approach to how towns and cities are managed. It involves making the connections between people and places, between past and present, between public and private space, between the natural and built environment, between movement and urban form, between planning, infrastructure and urban economics, and between the social and economic purposes for which urban spaces are used.

Integrating process and design

The key to creating successful urban spaces is combining good processes with sound design, planning and other ideas. In other words, the steps we follow to develop a design for a building, space or wider area and to implement it are as important as the specific design ideas themselves. Urban design is not just one stage in the planning process, or something that can be tacked on at the end to make the final product a bit more attractive or acceptable.

Recognising the interdependence between process and design is crucial to achieving worthwhile outcomes in our urban environments. It is important to avoid developing visions for towns and cities that will never be built, or good processes that result in a poor built environment.

The need to match good processes with sound design principles is expressed in the diagram on the right. It shows how the needs of the community, the special qualities of a place and urban design principles can be combined through participatory, design-based exercises.

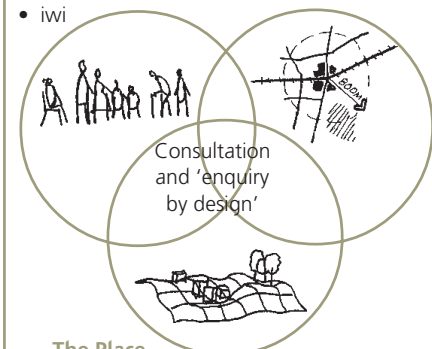
A community-based and place-based design approach

Urban Design and Development

- sustainability
- urban economics
- town form implications
- development economics
- infrastructure assets

The Community

- interest groups
- individuals
- iwi



The Place

- natural environment
- built environment



The importance of processes means urban design is as much a state of mind as it is a set of design principles. Design principles are used to help identify what is special about a place and what needs fixing. They are not a predetermined set of actions to be used without considering the place or the community.

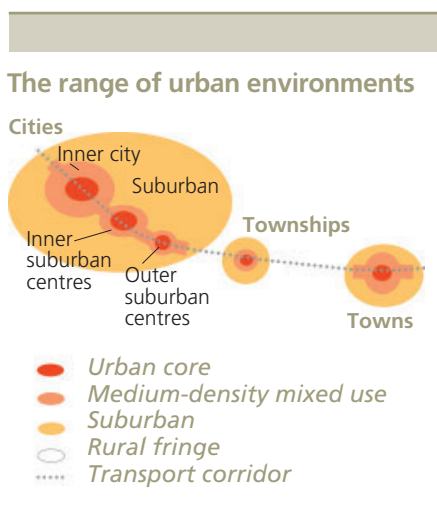
Successful urban design involves an approach that:

- understands the urban context
- ensures there is a community-led definition of vision and values
- brings together different sectors, the public and professional groups involved in place-making
- emphasises a place-based analysis of issues and options
- develops plans that use an urban design approach that builds on planning, urban economics and community values
- responds to different cultural issues
- combines public and private endeavours.

Understanding the urban context

Urban design involves considering the full range of urban environments we live, work and play in – from inner city areas and suburban centres in our metropolitan areas, to separate towns and smaller settlements. It also addresses the full spectrum of urban activities, from commercial, industrial areas to residential, mixed-use and business areas.

Urban design is not just about how we develop the central areas of our towns and cities, or plant trees in suburban town centres and upgrade the footpaths. It can contribute to making all parts of the urban environment more liveable and prosperous by ensuring each bit of development fits into the wider urban picture. The diagram on the left shows, in a simplified way, that a range of urban environments require urban design input – not just central city areas.





A Community-based approach

Urban design is built on community values. Communities can be complex – with Maori, Pakeha, and a range of socio-economic groups – so it is important to find out what the values and needs of the different groups in the community are. This can be done through surveys, meetings, focus groups and other exercises, before design solutions are developed and then tested, again with the community, as well as with other interested parties.

It is also evident that many of our towns and cities are in a transition phase. The suburban lifestyles and industrial and service activities that have underpinned them for the past 50 years are changing. This transition is causing debate within communities about what people value about their living and working environments, and how an area should develop. For example, in Queenstown there is ongoing debate about the balance between growth and protection of the natural environment. Part of the resolution of this debate is likely to involve how to better design buildings and development so they fit the landscape and support the public realm.

Urban design can help facilitate these debates about the future of our urban environments.

Bringing together different sectors, the public and professional groups

Achieving high standards of urban design is as much – if not more – about people, their skills and passions as it is about principles, organisations and rules. This means involving not only the community, as indicated above, but also different sectors and professional groups. They need to come together to integrate their ideas. When different professionals work in isolation the result is often a partially functional city where the individual bits work, but overall outcomes are compromised and there is no overall ‘soul’ to the place.

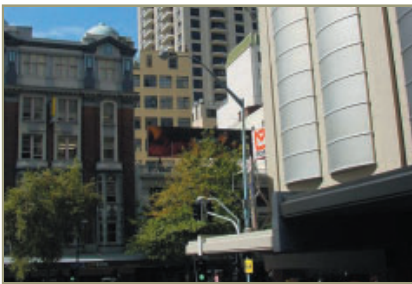


It is vital that the community is involved in urban design projects, and at various stages of the process. These projects may range from regional strategies down to the detailed design of a place. They may also include parks, main streets and art works, such as these in Dunedin (top) and Picton (middle). An example of public involvement is this consultation session at Hamner Springs (bottom).



The range of people and groups involved includes resource management, town planning, traffic and transport planning, landscape architecture, iwi representatives, architects, surveyors, community planners, artists, ecologists, property and development consultants, infrastructure providers, developers, builders and real estate agents.

A place-based approach



Urban design ensures that the qualities that make a place special and make it tick are identified and respected. Much of the poor development that occurs in our towns and cities results from little or no analysis of how a development relates to activities on adjacent sites, or to the wider neighbourhood. This leads to development that may be out-of-scale or out-of-character.



Understanding local ecological and environmental conditions, the type and character of existing development, the make-up of the community and its businesses, and transport and movement patterns are usually the first steps in an urban design study. It is also necessary to understand the history and heritage of an area, including the cultural heritage of iwi and hapu.

Equally, though, our young towns and cities mean we also have to think about future character, so understanding the community's aspirations is also important.

A place-based approach means delivering benefits to the range of urban environments in New Zealand, such as revitalised small towns like Ohakune (top), more vibrant inner cities such as in central Auckland (middle), and enhanced recreational uses where natural areas interface with a city centre, as in Christchurch (bottom).

Design-based approach

Urban design builds on the community's values and vision for an area, and its sense of place. Urban designers typically follow a vision-led, design-based approach to formulating ideas and concepts. Through the process of design the many uses to which spaces are put, and the wide range of values the community wishes to see reflected, can be resolved. The result is often a visual representation of how a place or area may look in the future. Design-led concepts take a variety of forms and cover a variety of scales, from design frameworks for suburbs or town centres to design briefs for individual sites.



In New Zealand over the past 30 years we have tended to present plans as sets of objectives and policies, and have down-played their role in presenting a picture of how a neighbourhood or area could be. A vision for an area creates a powerful rallying point for people to agree on what the future for their area should be, and what actions could be taken to achieve this vision.

A culturally responsive approach

Urban design provides a powerful way of incorporating a Maori perspective in the layout and use of urban areas. The relationship between the built form of our towns and the natural qualities of our harbours and streams, and how wastes are treated, should reflect the desire of Maori to see the spirit (or mauri) of a place sustained and nurtured, for example.

In addition, cultural images and symbols can be incorporated into the design of spaces, helping to tell the story of the history of the place and its importance to a community, for example, Katikati township with its mural history design on its main street. Recent immigrants are further adding to the richness of our towns and cities, and their needs and values must also be acknowledged.

Combining public interest with private initiative

Urban design provides a way to harness the short-term financial considerations of private development with the longer-term, broader policy goals of the public sector.

In today's complex, consumer-driven world, seeing through substantial changes to our urban environments requires the co-ordination of a wide range of people and organisations involved in place-making activities.

Urban design helps develop a framework for central and local governments to act in partnership with the community and the private sector to bring about substantial change in the urban environment. Large, state-funded redevelopment schemes are a thing of the past. Good urban design helps identify the best public actions to unlock the market forces needed to create great urban places.



New Zealand has a rich array of cultures that are increasingly being addressed in a culturally responsive way. Examples include the meaningful use of cultural symbols in urban spaces, like Quay Park in Auckland (top), facilitation of cultural activity at Otara, Manukau (middle), and the respectful treatment of areas of exceptional natural beauty, Coromandel (bottom).



Common urban design issues

While each community is different, common themes run through many of the urban design projects undertaken in New Zealand. These can be used as a checklist for communities to consider the issues that are important in a particular area.

Retaining the landscapes and history we value

- Are natural features and their history celebrated in the layout and development of your area? Improving access to the coastline and rivers, making open spaces more accessible and safe, and capturing the benefits of views and outlooks to local landmarks are common concerns.
- Do traffic and roads dominate newly developing suburban areas?
- Is there too much of a single land use?
- Do intensive styles of housing need to be better integrated with existing housing?
- Does new development relate well to historic buildings and features? Are these re-used?
- Does a sense of place need to be created?
- Are open spaces more an afterthought than a central part of the design of a suburb?
- In areas subject to intensification pressures, does new housing maintain levels of privacy, amenity and overall quality?
- In areas of existing low amenity, are there features (such as reserves) that should be strengthened or upgraded so they improve the whole neighbourhood?

Reinventing the economic base of our towns and cities

- Towns and cities have always been market places. Our changing economy and the knowledge society demands that cities and towns are also high-quality living areas, where the best possible lifestyle opportunities are available to retain skilled workers who could live in any number of cities. How does your town rate in providing for this dynamic?
- How efficient is your city in supporting and extending the benefits that businesses derive when they are concentrated together – the intangible qualities associated with the ‘buzz’ of cities and their fast exchange of ideas, goods and services?
- Declining towns and town centres may need a re-design if they are to compete with newer centres. Does this apply to your town?



Reducing the environmental footprint of our urban areas

- Does the layout of your town or city facilitate getting around without a car? Reduced greenhouse gas emissions are achieved by land use and roading patterns that promote walking, cycling, shorter vehicle trips and more use of public transport.
- Are more compact forms of housing well designed? Community acceptance of less land-hungry housing, which is more energy efficient and can help protect other resources, is heavily dependent on their design. Solar orientation for passive heating of homes depends on how streets and lots are laid out.
- How efficient is water use, both in buildings and outside? Does stormwater treatment need to be improved? Low-impact stormwater techniques to protect water quality need to be designed so these features can have an amenity function as well as a stormwater treatment role.

Improving accessibility and reducing transport costs

- Are there enough street connections? Towns and cities work best when places are connected and accessible. Roads should be a statement of civic quality and pride, not just a channel for traffic. They should integrate communities and improve our enjoyment of getting around an area by foot or bike.
- Is land use and transport integrated? Supporting passenger transport is an important objective in our larger towns and cities. Whether a city is contemplating a rail-based transit system, or a flexible bus-based system, land uses and transport have to be designed together if the investment is to be successful.
- Is it easy for the disabled, including those in wheelchairs, to get around? Are the needs of pedestrians and cyclists taken into account?

Enabling cultural expression

- Are there special cultural heritage features or qualities that should be acknowledged? The process of design and the use of images, visuals and models to explore concepts means communities quickly see if the special qualities of their area are being acknowledged.



- What local materials could be used in the design of places? The design of civic areas, streets and plazas – the types of material and vegetation used and how they are laid out – can reflect cultural issues, promoting a sense of place.
- How could local artists / communities have a role in the actual design?

Increasing safety and improving health

- What places feel unsafe? Crime and the fear of crime can be partly addressed through urban design, especially by providing for movement through an area and by requiring development to look over public spaces so that there are 'eyes on the street'.
- Does the urban environment make walking and cycling safe and pleasant?
- Do high walls and fences dominate streets, making them feel unsafe when you walk down them? Is there enough shade from harsh summer sun?

Developing an inclusive society

- Is there a range of housing in the area? Design is critical to a community's acceptance of affordable housing into its neighbourhood.
- Do people feel isolated and cut off from services and shops? Isolation that affects people without ready access to a car, or who live by themselves, can be partly overcome through good regional and neighbourhood design.
- Can a range of people easily participate in society? Does a lack of transport choices limit people's access to employment, health facilities, public places and functions? Does the design of public meeting places, including streets and parks, mean that some groups or cultures feel excluded?

Enhancing the quality of the public realm

- Are public spaces such as reserves, town squares and streets safe and attractive? Public spaces are needed for the public life of a city, providing a 'third space' between home and work, especially as residential section sizes shrink.
- Are private, controlled spaces like malls reducing the ability of some groups to be involved and undermining the value of public space?



Chapter four

Process Principles Guiding Urban Design

In this chapter we describe the principles and practices commonly used to guide urban design. Basically, successful urban design projects stem from good leadership, sound policy, robust design processes, skilled participants and achievable outcomes. The main process principles are summarised below, and then described in detail in the rest of the chapter.

THE PROCESS PRINCIPLES		
Principle	Issue	Purpose
Integrated and comprehensive	<ul style="list-style-type: none"> ■ Leadership ■ Skills ■ Policy ■ Organisations 	To ensure urban design projects cover social, economic and environmental issues and are integrated with wider strategies and programmes related to the urban environment.
Consultative and open	<ul style="list-style-type: none"> ■ Community engagement ■ Right issues ■ Right team ■ Contextual analysis 	To ensure design processes respond to real needs and involve the community.
Viable and deliverable	<ul style="list-style-type: none"> ■ Resolved designs ■ Range of techniques ■ Appropriate regulation 	To ensure urban design projects deliver outcomes that are achievable and realistic, helping to make towns and cities better places to live in.



Integrated and comprehensive

If we want to provide a sound framework on which to design an area or site, the processes used must be integrated and comprehensive. Strategic and urban development policy needs to make it clear that all relevant social, economic and environmental issues should be taken into consideration. A strong policy framework for an urban area – what the key community values are that should be respected, and where and how the city should grow – helps to set the scene for the design of a site or neighbourhood.

If we don't have such a framework it is often difficult to make the many linkages that good urban design requires between a specific site and the wider area. What roading connections are needed? Where should reserves be located? What are the opportunities for a new neighbourhood centre?

The lack of a clear urban strategy means that private development does not have a reference point, so it is often difficult to judge the urban design merits of a development project. This means opportunities can be missed to add to the fabric of the city, and resource consent processes are lengthened.

Waitakere City has developed a comprehensive and integrated urban strategy that helps inform the detailed design work carried out for the main urban centres in the city. The strategy has also helped shape district plan provisions, resource consent applications and investment in its town centres. Westland District Council is preparing strategies to guide tourist development and to respond to the natural hazard risks in the Franz Joseph and Fox Glacier townships.

Palmerston North City Council is preparing an urban design strategy for the city which sets out the urban qualities the community would like to see, while Christchurch City Council is preparing neighbourhood plans for the renewal of specific older residential areas.



INTEGRATED AND COMPREHENSIVE PROCESSES: Success factors and barriers

Success factors	Barriers
Recognising the need for and benefits of urban design and being able to communicate these benefits in a relevant way	Little focus on urban issues and urban design at national, regional and local levels, and on the importance of towns and cities in social and economic life
Leadership and commitment to good processes and outcomes	Lack of leadership in the public and private sector on the need for good urban design; insufficient understanding of the commitment needed to create great places
Having the skills – technical urban design, relationship building and communication	Lack of training and limited awareness and/or experience of council staff, architects, planners, developers and other professionals
Integrated visions and policy frameworks for urban areas that mesh with other council visions and plans	Few clear, city-wide urban frameworks which set a structure for the consideration of individual sites and precincts
Integrated organisations that ensure actions are co-ordinated across an organisation, including auditing to achieve outcomes	A ‘silo mentality’ (rigid structure) in councils and other organisations restricting integration of land use and traffic planning and architecture

Consultative and open

Most successful design projects stem from robust design processes. While the design flair of an individual can create buildings and places of inspiring quality, as we have been stressing, in many cases good design is more a matter of process. Processes that establish clear needs and outcomes, have a good analysis of the context, have the right mix of participants, and integrate ideas and concepts, lead to good outcomes.

Collaborative design processes work best for some types of urban design projects, such as workshops and charrettes, interactive, design-based consultation exercises looking at how a town centre or a neighbourhood could be improved.



These processes allow for constant testing and refining of design ideas and concepts in an interactive way, involving many people. In other cases, more focused processes may be required to design a building or public feature.

The following diagram shows the typical consultative process used in an urban design project.

THE TYPICAL STAGES OF A CONSULTATIVE PLANNING AND DESIGN PROCESS, BASED ON COMMUNITY INVOLVEMENT

Establishing and responding to real needs

- establish whether a project is the appropriate mechanism – will it respond to real strategic and local needs?
- formulate clear goals
- establish whether the project and its goals have political support



Selecting a project team

- select a project champion
- select a project co-ordinator
- ensure there is wide representation on the team from within the council
- use consultants with the appropriate approach, skills and experience



The Project

Project plan

Scope of the project, consultation plan, design/strategy process and delivery stage

Pre-design consultation

Focus groups, press releases, surveys, etc.

Scoping the issues

See the issues matrix (page 37 and 59)

Site analysis

Constraints and opportunities

Enquiry by design stage

Workshops, charrettes, etc.

Feedback

Encouraging, receiving and responding to feedback

Formalising the outcomes

Documentation with implementation strategy for ongoing use



Delivery

Implementation strategy

Sub-projects, budgets, programme, district plan changes, etc.



The range of community involvement techniques used in New Zealand is wide – from informal workshops, focus groups and surveys, to hands-on design workshops (Heathcote Valley, Christchurch, Auckland City Liveable Communities Strategy), charrettes (Waitakere City Council, New Lynn) and major design reviews and frameworks (Wellington waterfront). And there is plenty of experience to call on. However, each process needs to be tailored to the individual circumstances of the community and place.

CONSULTATIVE AND OPEN DESIGN PROCESSES: Success factors and barriers

Success factors	Barriers
Community engagement that fully explores values, options and solutions, and ensures people understand what is likely to happen	Incomplete or arms-length consultation with communities, which means they do not understand the issues and the solutions
Establishing well-defined issues that are relevant to the place and help define options and on-the-ground solutions	Insufficient and/or not placed-based analysis of issues and options eg, identifying traffic as a problem but not which specific intersections are congested or which sections of road are hard to cross
Good contextual analysis that sets the site and area in context	Looking at sites or areas in isolation from surrounding land uses and the urban context
Having the right team with the right mix of skills to cover the relevant issues	Not having a multidisciplinary team with the right range of skills

Viable and deliverable

There is no one right way to implement urban design. Specific strategies need to be developed for each area or community. These strategies may be a mix of statutory, non-statutory and project-related techniques.

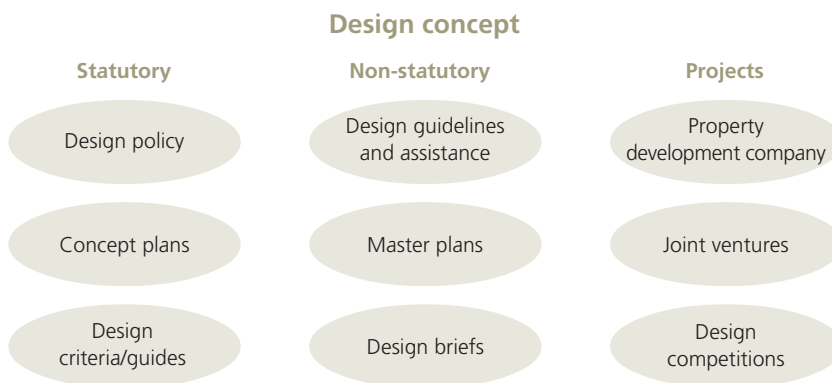
Our existing tools for managing our urban areas, such as district plans under the Resource Management Act (1991) and asset management plans under the Local Government Act (1974), have generally not focused on the interrelated issues thrown



up by urban design. There is growing experience with district plan guidelines and assessment criteria that cover urban design matters, although their success has been mixed. Where the urban structure supports good site design, and councils have the skilled staff needed to interpret how the guides relate to a specific site, these tools can positively shape development as in Wellington.

Regulatory controls therefore have to occur within a framework of plans that acknowledge the role of urban design and promote good outcomes through a variety of means, as illustrated in the following diagram.

THE RANGE OF IMPLEMENTATION TECHNIQUES



To influence development positively we need a wider range of tools, including design briefs for specific sites, pre-development agreements, private/public partnerships, and gap funding to help leverage good design outcomes. Australia also makes use of redevelopment agencies. We have only limited recent experience with some of these tools, although some councils are now using property companies to deliver good design outcomes.

Equally we cannot ask private development to smarten up its act if the public realm we want private development to support is run-down and ugly. We need high-quality public spaces (roads, parks and community buildings) which people will want to live near or open their shop onto.



Examples of district plan-related design initiatives include Wellington City’s District Plan guidelines for the central city and multi-unit housing (and its design against crime approach), and the medium-density housing guidelines used by North Shore, Waitakere and Manukau Councils. Manukau City has integrated catchment management and urban form planning in the proposed Structure Plan for the Flat Bush area.

Non-statutory implementation techniques range from informal design guidelines and concepts, to specific council-funded projects. North Shore City has put out a *Good Solutions Guide* for medium-density housing. Many councils have instigated main-street or similar projects (Invercargill, Wanganui, Timaru, Hastings, Napier, Gisborne, Rotorua and Whakatane, for example), which have helped revitalise their town centres and improve the overall quality of life for their residents. Some councils, like Dunedin and Palmerston North, deliberately use investment in public facilities like libraries and art galleries to generate spin-offs in terms of creating a sense of place, while Waitaki District has redeveloped Oamaru’s old chief post office as its head office.

VIABLE AND DELIVERABLE PROCESSES: Success factors and barriers

Success factors	Barriers
Resolved designs that provide practical and grounded solutions to problems	Incomplete, hasty or unco-ordinated design exercises, and a lack of trained and skilled people
Good-quality public spaces, and good-quality private development	Limited examples of great public spaces and private development of a very high standard
Picking the right delivery mechanism – being able to influence the development of a town or city positively	Having few delivery mechanisms from which to choose, and a squeeze on resources, time and money
Having the right regulatory bottom line – making it easy for people to do the right thing, and trained and skilled staff to negotiate good outcomes	Excessive compliance and transaction costs associated with better ways of designing roads and activities, no or limited control over bad design of development, or incorrect or inadequate assessment criteria, and a lack of skilled staff

Chapter five

Design Principles: An Overview



This chapter describes the design principles and how they are applied at different project levels, such as urban design approaches for a whole town or region, or designs for a specific place. The design principles are summarised below. The following section then briefly describes how these principles achieve the aims of urban design.

URBAN DESIGN PRINCIPLES		
Principle	Elements	Purpose
Consolidation and dispersal	<ul style="list-style-type: none"> ■ Development patterns ■ Intensity 	To promote higher-intensity development around existing or new nodes and lower density on the periphery. This allows local communities, businesses and public transport to be strengthened and resource efficiencies achieved, while reducing environmental impacts on peripheral areas.
Integration and connectivity	<ul style="list-style-type: none"> ■ Movement networks ■ Building interfaces 	To promote development that is integrated and connected with its surrounding environment and community. This facilitates ease of access, economy of movement and improved social interaction.
Diversity and adaptability	<ul style="list-style-type: none"> ■ Mixes of uses ■ Flexibility of buildings 	To promote choice through the provision of a diverse mix of compatible activities and uses, so built environments can adapt over time. This facilitates the ability to respond efficiently to social, technical and economic changes.



Principle	Elements	Purpose
Legibility and identity	<ul style="list-style-type: none"> ■ Town form ■ Visual character 	To promote environments that are easily understood by their users, and that display a strong local identity and appropriate visual character. This facilitates an enhanced usage, enjoyment and pride in local places.
Environmental responsiveness	<ul style="list-style-type: none"> ■ Ecosystems ■ Green network ■ Urban water ■ Waste ■ Energy 	To promote urban environments that are responsive to natural features, ecosystems, water quality, reduced energy usage and waste production, and balance the spatial needs to achieve this with those required for urbanisation. This facilitates improved ecological outcomes.

Consolidation and dispersal

Consolidation is one of the most important steps in helping to revitalise declining centres and bringing life to low-density, single-use areas. It creates critical mass and brings vitality to an area by supporting more business and service activities, greater street life and more movement. This makes areas safer and gives them a special ‘buzz’.

Consolidation also:

- makes walking, cycling and passenger transport more likely
- reduces the amount of land consumed by buildings and activities
- makes better use of existing infrastructure
- can reduce development pressures on areas where intensification is not desirable, such as areas of special character
- can help avoid development in areas where there are environmental or infrastructure constraints on development
- can help improve energy efficiency.

Consolidation can also increase the number of cars in an area, and specific design responses are needed to deal with this.



Dispersal, or making sure the right activities end up in the right locations, can support consolidation; for example, locating low-density activities like industrial estates and large open spaces away from areas where concentration is desirable. Dispersal can also help to separate out incompatible activities, and make efficient use of transport networks.

Integration and connectivity

Connected street systems give people choices. Having roads that are joined together in a network, rather than ending up in cul-de-sacs, makes it easier for all people – children, teenagers, the elderly, as well as other adults – to get around their neighbourhood. This helps integrate communities and overcome isolation.

Connected street patterns:

- facilitate movement and exchange while spreading traffic loads
- make places safer and more alive by bringing activity and passive surveillance to an area
- make walking and cycling more enjoyable and convenient
- reduce dependence on motor vehicles
- help ensure traffic and roads do not divide communities.

Ensuring new areas are designed with a high degree of connectivity, and improving connectivity within existing urban areas by adding new links and completing missing links, helps support the concentration of activities and a greater diversity of activities.

Diversity and adaptability

The range and style of buildings and activities a place has – including the mix of activities within a building, street or area – influences the look and feel of the place. Places that have a diversity of buildings and activities:

- have a greater sense of activity
- support big, small, new and established businesses
- adapt more easily over time to changing economic and social trends
- make communities more inclusive through supporting a range of incomes
- support passenger transport.



It works both ways. In town centres and business areas, residential activities support activity after-hours. In residential areas, small businesses can prevent the place becoming a dormitory suburb, reducing some of the negative effects of dispersal.

Legibility and identity

Legibility refers to how easy a space is to understand and use. Legibility helps people to understand how to get around a town or city, by marking landmarks and points of activities and framing views and vistas. It also involves identifying what is public space and what is private space, and making people feel safe because they understand where they are and where they are going.

Identity helps people feel they belong to an area. Urban spaces that provide an identifiable and memorable character have a strong 'sense of place'.

Environmental responsiveness

Designing urban areas so they reduce the impacts of urban activities on the environment – such as mitigating stormwater pollution, improving energy and water efficiency and reducing greenhouse gas emissions – makes these areas more sustainable.

Environmental responsiveness is also a key way of developing character and identity. The strong natural landscapes our towns and cities are set in are an important influence on their distinctiveness.

Reflecting the appropriate degree of urban intensity

Urban design approaches have to adjust to the degree of intensity of the place under consideration. This does not mean rigidly zoning or categorising the urban environment. It means bringing about an awareness of the context in which the principles have to be applied.



DEGREES OF URBAN INTENSITY

LESS URBAN



MORE URBAN

Rural fringe	Outer suburbs	Inner suburbs	Sub-centres	Urban core
MOSTLY CAR-DEPENDENT AREAS WITH LOW-DENSITY DEVELOPMENT	WALKABLE CATCHMENTS; MEDIUM-DENSITY RESIDENTIAL; FINE-GRAIN MIXED-USE AREAS	URBAN CENTRES; MAIN STREETS; CITY/TOWN/VILLAGE CENTRES		
Lower density where far from public transport routes	Mix of higher and lower density	Higher density		
More open space	Variable standards of open space	Less open space		
Greener open space	Multi-use	Harder open space		
Corridors and green wedges	Greens, parks	Squares, pocket parks		
Primarily residential	Residential interspersed with business centres	Primarily mixed use		
Larger urban blocks	Mixture of block sizes	Smaller urban blocks		
Lower building heights	Some high buildings	Higher buildings		
Bigger street setbacks	Mixture of setbacks	Smaller setbacks		
Most buildings detached	Some buildings attached	Most buildings attached		
Predominantly surface parking	Some parking buildings in centres	Parking inside block, decked or underground		
Less reliant on on-street parking	Maximise on-street parking	Restricted on-street parking		
Generally less transport choice	Reasonable transport choice	Maximum transport choice		



All urban areas have a range of environments, with differences in the mix and intensity of activity, the amount and quality of open space, the style of roading and how parking is handled. For example, open spaces typically graduate from being hard and highly landscaped in central areas, to being softer and more natural on the edge of the city. Design principles that require the provision of open space have to be interpreted in light of these contexts, so the type of open space provided will vary accordingly.

Examples of the range of urban environments, and the kinds of development that are appropriate, are given in the table on the left.

Applying the principles at different levels

Urban design must operate at many different levels, from large-scale sub-regional structuring through to the detailed design of a public space or building in the public realm. Whatever level you are working at, it is vital to consider the issues at least one 'level' up and down from it. The table below describes six project levels that cover the urban spectrum.

PROJECT LEVELS AND THE SCOPES OF PROJECTS AT THE DIFFERENT LEVELS			
<p>LARGE</p> <p>↓</p> <p>↓</p> <p>SMALL</p>	Project level	Scope of the project	<p>PUBLIC</p> <p>↓</p> <p>↓</p> <p>PRIVATE</p>
	Sub-regional structuring	Regional, city-wide, town-wide and village-wide	
	Development frameworks	Districts, precincts, town/village centres, neighbourhoods and activity or movement corridors	
	Site planning	Sites and subdivisions	
	Public space design	Parks, squares, reserves and streets	
	Private lot design	Private lots	
Building design	Built elements		



The table below explains the purpose of each project level in the design process, and when and how the information is used.

THE PURPOSE OF EACH PROJECT LEVEL			
Project level	Role in the design process:	When used:	How used:
Sub-regional structuring	helps to identify the intensity and function of land uses and their connection with transport networks, and key natural resources.	to determine the larger-scale elements that influence <i>development frameworks</i> and, in some instances, the planning of large sites.	vision setting; city-wide urban design and growth strategies; district plan land-use frameworks.
Development frameworks	sets the role of the site/ area in question within the context of the immediate neighbourhood, such as where the nearest centre is, its role, and connections to regional transport routes.	to inform and refine regional and sub-regional structuring; to set parameters for the planning of sites.	centre and precinct strategies; structure/ concept plans; district plan changes for specific areas.
Site planning	demonstrates how the site should respond to the needs of the proposed development, as well as the surrounding community/land uses.	to refine and inform development frameworks; to inform lot size, shape and placement.	master plans; design briefs for individual sites.
Public space and private lot design	ensures future development will respond to the surrounding existing and future public and private development context.	to respond to development frameworks; to determine building envelopes.	resource consent applications for land use or subdivision.
Building design	ensures that proposed buildings can respond to specific needs/issues, as well as meeting needs of their occupiers.	to test and refine lot shape and site planning.	resource consent applications; building plans.



Determining the issues

Before beginning a project it is important to determine the relevant issues. Some of these issues may be at a different level to that of the project. The use of an issues matrix, illustrated below, will help determine the range of issues that require further investigation. (A full-sized matrix, ready to be filled out, is provided in Appendix 2, page 59.)

The issues matrix template

Illustrated here is the template for a simple issues matrix. One matrix is used per project. The project levels are listed against the principles.

The white circles are ready to be partially or completely blackened out depending on the degree of relevance the principle has to the project.

Normally all the circles opposite the relevant project level will be white.

Project Level	Principles				
	Consolidation and dispersal	Integration & connectivity	Diversity & adaptability	Legibility & identity	Environmental responsiveness
Sub-regional structuring	●	●	●	●	●
Development framework	●	●	●	●	●
Site planning	●	●	●	●	●
Public space design	●	●	●	●	●
Private lot design	●	●	●	●	●
Building design	●	●	●	●	●

Example of an issues matrix in use

This is a hypothetical example for a project at the *development framework* level.

The full circles indicate where all issues are important and the half circles where only some issues apply. There may be some full circles outside the project level, such as the one for *integration and connectivity*. In this case it may be that the sub-regional movement network requires analysis to determine the best street network design for a town centre. The half circles could, for instance, indicate that outline designs of certain public spaces, or building footprints, are required to ensure the framework can accommodate lots of the appropriate size and shape.

Comprehensive checklists can now be prepared.

Project Level	Principles				
	Consolidation and dispersal	Integration & connectivity	Diversity & adaptability	Legibility & identity	Environmental responsiveness
Sub-regional structuring	◐	●	◐	◐	◐
Development framework	●	●	●	●	●
Site planning	◐	◐	●	●	◐
Public space design		◐	◐	◐	
Private lot design					
Building design			◐		



Chaptersix

Applying the Design Principles at Each Project Level



This chapter describes how the design principles we have been discussing can be applied at each project level. In the boxes below we take a project level and look at how each of the issues in the issues matrix affects it. Guidelines have been provided on how to handle the issue, but remember that the actions taken in any situation will depend on the specific circumstances. Remember, too, the process principles and the value of looking at the project level to either side of your project.

Further information on how the principles address the issues raised in Chapter 3 is given in Appendix 1, page 57.

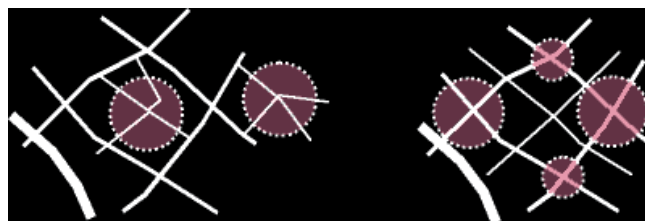
SUB-REGIONAL: Sub-regional, city-wide, town-wide and village-wide



This sub-regional structure plan for Waitakere City promotes a clear pattern of consolidation around existing, and new, passenger transport and vehicle-based nodes.

Consolidation and dispersal

- Promote a range of centres, of varying size, according to their function in the region.
- Provide strategies to manage economic growth and to revitalise declining centres.
- Increase employment and residential capacity, where appropriate.
- Focus walkable nodes on arterials and public transport so they benefit from the movement economy.



Avoid locating nodes away from the main routes.

Nodes on main routes offer more efficiency and best capture the movement economy.



Integration and connectivity

- Develop a logical structure of connected routes.
- Integrate public and private transport networks with each other, and with the land uses they serve.
- Provide effective connections and interchange opportunities between all forms of transport eg, bus, rail, taxis, ferry, cars, cycles and pedestrians.
- Ensure public transport networks efficiently serve their catchments and destinations.
- Provide long-distance cycle and pedestrian routes that offer good continuity.



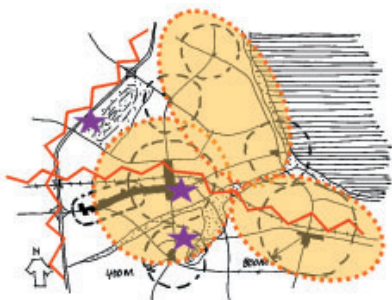
At Sturges, Waitakere, a high degree of connectivity between new developments (red) has been achieved over an extensive area. Note the road lining the stream edge.

Diversity and adaptability

- Locate new land uses where they will achieve good synergies with existing uses.
- Ensure adjacent uses are compatible.
- Seek a balance between residential, employment and recreational activities.
- Provide an appropriate distribution of amenities, such as shops, schools and parks, where the communities they serve can easily access them.



Promote a wide range of uses as indicated here by the shaded areas, along the busiest routes and in the nodes, indicated by the circles, where they will benefit from high degrees of public access and exposure.



Undertake a legibility analysis, which determines **edges** (eg, beaches, rivers, railway lines, motorways), **nodes** (eg, neighbourhoods, town centres), **landmarks** (eg, historic buildings, natural features), **paths** (eg, key routes, streams edges) or **districts** (sub-areas as defined by sectors of the community). Consider how these can be emphasised and celebrated, and, where negative, mitigated.

Legibility and identity

- Celebrate regional landmarks and natural features.
- Where appropriate, use rivers, scarps and ridgelines to define the edges of communities.
- Emphasise the visual and functional character differences between different nodes and different communities.



These significant wetlands and adjoining land at Te Atatu, Waitakere, were retained for their ecological value, water quality function and recreational benefits. Immediately adjacent is a medium-density area that is integrated with a town centre. A balance between intensification and the natural environment is maintained.

Ecological responsiveness

- Provide catchment management plans that define areas for urban concentration, and habitats and natural features for retirement for stormwater management.
- Protect ecologically sensitive areas.
- Provide green linkages between natural habitats where ecologically beneficial.
- Consider the distribution of open spaces, and the relevance of their size and function.
- Consider region-wide strategies for improved water quality which encompass rain water, wastewater and fresh water issues.
- Consider region-wide strategies for energy conservation and waste management.



DEVELOPMENT FRAMEWORKS:
Districts, precincts, town centres, village centres, neighbourhoods and corridors

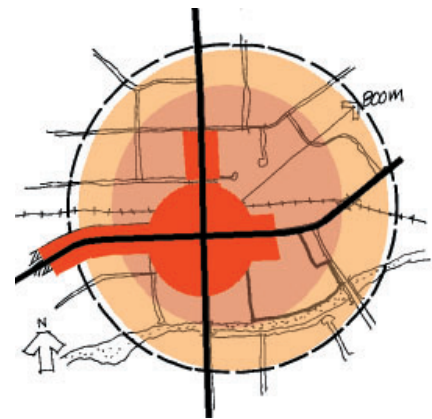
Consolidation and dispersal

- Define nodes as walkable catchments.
- Promote higher-density residential activities that achieve high standards of privacy, safety, security, private open space and visual character.
- Provide compact and efficient public open spaces near the core, larger ones towards the periphery.

Walkable nodes (see opposite)

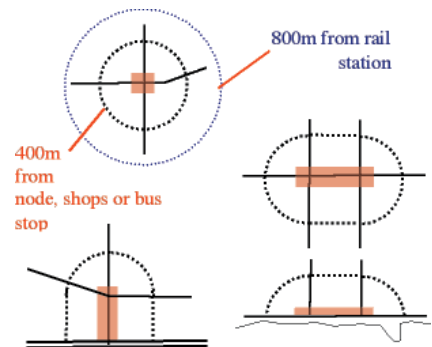
Pedestrian access should be a key consideration from the outset. We may use our cars most of the time, but ultimately we experience the world on foot. Generally people will take around five minutes to walk 400m and 10 minutes for 800m. A five minute walk to convenience shops, bus stops and other daily facilities is considered reasonable, as is 10 minutes to a railway station.

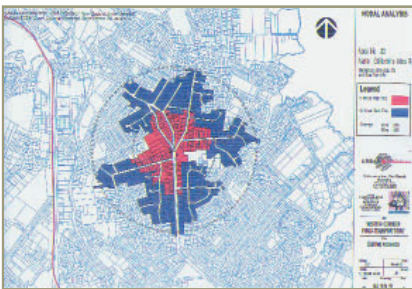
This organising device should only be used as a guide, but when overlaid with a connected movement system will help ensure that more integrated environments are created, which avoid isolated, single-use developments.



Locate higher density, and a greater range of uses, towards the core with multi-storey buildings and decked parking, where viable.

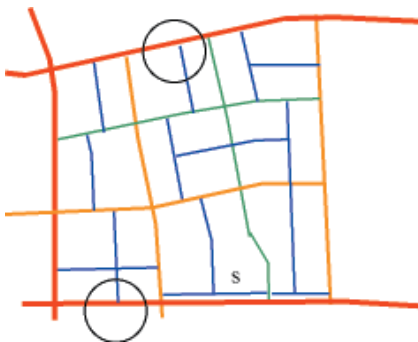
Walkable nodes





A 'pedshed' effectively measures the efficiency of pedestrian access to the centre of a node. Here the areas within 400m (red) of a bus stop or neighbourhood centre, and 800m (blue) of a town centre or rail station, are tested. The areas within actual safe walking distance (400m or 800m) of the node are shaded. These are compared with the theoretical area within the radius. Aim for 70 percent of the area or more. Efficiencies can be improved with new linkages, or by shifting the centre, as was done with the rail station at Glen Eden.

Connected street networks



Integration and connectivity

- Promote a well-connected local movement system which is well integrated with land uses.
- Locate new street linkages where they will provide safe pedestrian access to the node and public transport.
- Provide street connections to the adjoining neighbourhoods.
- Ensure busier roads and arterials still have lively frontage conditions; provide service lanes where direct access is unachievable.
- Provide traffic planning and management that balances traffic efficiency with streetscape quality, pedestrian safety and comfort.
- Locate public transport stops where they are looked over by adjacent development.

Connected street networks (see opposite)

A connected network of streets is very efficient in terms of fuel consumption and promoting good integration. They are still hierarchical, but the lowest-order street (circled) still connects with the higher-order streets. Slip roads (S) can ensure development does not back onto busy roads. The lowest-order streets can be designed to have similar slow-speed qualities to that of a cul de sac, with the added advantage of increased personal safety due to a higher presence of passing motorists.



Diversity and adaptability

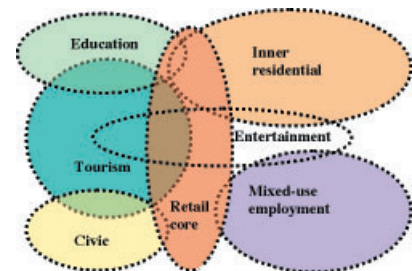
- Plan for a range of employment, residential and community uses, which co-exist in a manner that strengthens the local condition and adds diversity.
- Consider how the layout will accommodate changes in use over time.
- Promote mixed-use buildings.
- Discourage single-use clusters. Where they do occur, ensure they front onto existing streets and make good connections with the movement system.
- Develop highly connected street networks that can support a range of activities, which may change over time.



High-quality urban diversity can be achieved by strengthening traditional streets, such as this one in Wanganui. Pedestrian-friendly uses also benefit from the passing trade of a busy route. Many other such streets and nodes are under threat and are in need of revitalisation.

Legibility and identity

- Promote an urban form and movement network that is easily understood and negotiated.
- Provide a simple, legible, connected street network which avoids overly complex, contrived layouts.
- Link landmarks and nodes with strongly defined paths.
- Use contrast and differentiation in design to make each public space memorable.
- Emphasise the characteristics and history of each distinctive local character area or precinct.



Overlapping precincts

It often helps to determine which real or potential precincts exist in a mixed-use area. Consider initiatives that will strengthen them as well as emphasise the differences in use and character. Determine potential synergies – how, for instance, the night-time or weekend economy can be strengthened. The precincts should not be seen as zones. They should be overlapping and well connected with each other.



An effective green network can still be achieved in the nodes where consolidation is important. Here there may be less reliance on open space and more focus on tree-lined streets, effective small public spaces and the diversity that private planting provides, as illustrated here in Queenstown.

Ecological responsiveness

- Protect ecologically sensitive habitats such as streams and wetlands.
- Use large park areas, river or stream edges and waterfronts as opportunities to integrate ecological restoration.
- Provide for continuity of green networks where the specific movements of wildlife, or waterways, require this.
- Extend tree planting within the street network.
- Provide a diverse range of plant species.
- Allow for stormwater treatment measures.

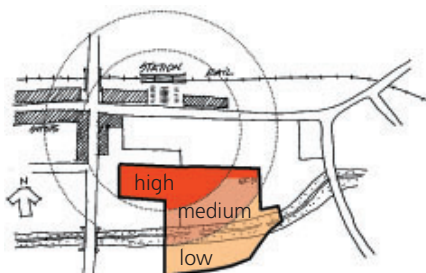
SITE PLANNING: Sites and subdivisions



High-density housing, such as these apartments, can be effective and appropriate when situated near a node such as Newmarket, and in conjunction with good amenity such as the Domain in Auckland.

Consolidation and dispersal

- Locate higher-density mixed-use activities closer to the nodal core and busy routes.
- Exploit the economic benefits offered by busy roads by fronting them with commercial and other uses that will benefit from the exposure.
- Locate community uses where they are most accessible.



When planning large sites, locate the higher densities and finer-grain mixed-use elements closer to the centre of the node.



Integration and connectivity

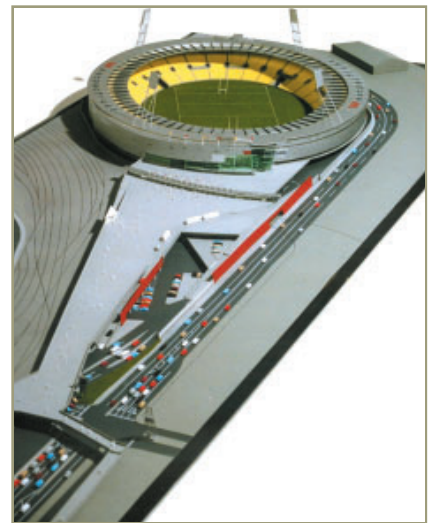
- Plan sites that are well integrated into their context.
- Aim to connect routes across and through the site to increase the public use and safety of the area. Rat running (taking short cuts) and speeding can be avoided through good design and traffic management.
- Keep block sizes as small as possible, especially towards the centre of a node, as this increases connectivity for all users.

Single-use clusters (see opposite)

Single-use clusters – such as retirement villages and office, industrial, science, leisure and retail parks – offer few of the synergies possible with mixed use, and they seldom make strong local connections. Where possible, these uses should be distributed in a manner that provides strength to the local centre.

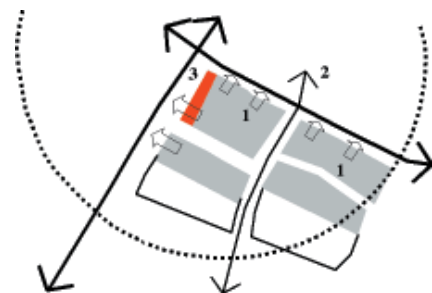
However, where large single-use sites are unavoidable they should at least:

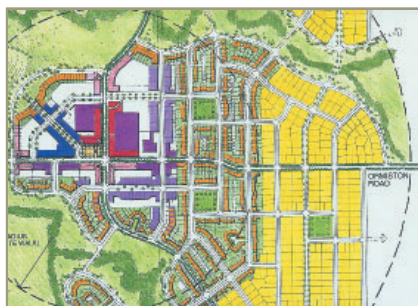
- 1 provide good interfaces with the surrounding streets
- 2 allow movement connections across the site
- 3 include facilities that are of use to locals and locate them where the public can easily gain access to them.



The WestpacTrust Stadium in Wellington is extremely well integrated with public transport, providing direct access to the railway platforms from the pedestrian concourse.

Single-use clusters





This proposed new town for Flat Bush at Manukau has robust perimeter blocks where buildings front the street and have their private spaces to the rear.



This mixed-use development in the Domain Terraces, Auckland, combines housing, offices and shops, and offers good frontage to the street.

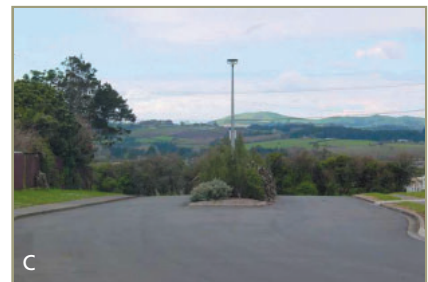
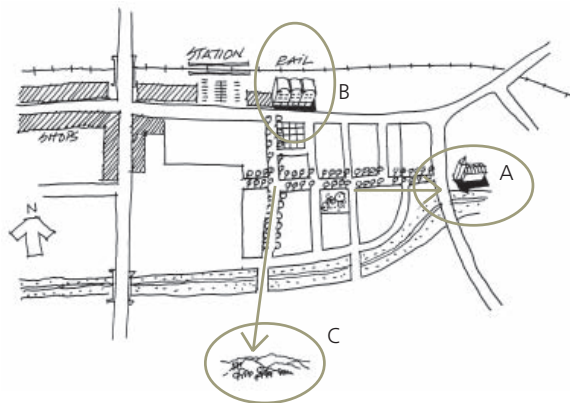
Diversity and adaptability

- Vary the density within the site.
- Allow for change over time with connected street networks, good street parking, and lot depths that allow parking behind buildings should the uses change from residential to commercial.
- Plan for a wide range of uses and consider mixed-use areas.
- Ensure uses are compatible regarding noise, odours, parking, traffic, cultural and visual issues.
- Where uses differ significantly (eg, industrial vs residential), vary those across the backs of a block – not across the street.
- Consider buffer uses such as small business units or workshops between noisy elements and residential uses.
- Consider back-lane options near the centre, which allow for the development of work spaces in the back lanes over time.



Legibility and identity

- Provide an easily understood network of connected streets and public spaces.
- Modify routes to recognise the landform and other natural features.
- Design strongly defined paths, each with a distinctive visual character.
- Distinguish between the public and private realm by ensuring buildings front streets and public spaces.



The theoretical layout on the left illustrates how aligning some routes with key landmarks can assist legibility. Landmarks could include historic or public buildings, such as this Coromandel church (A), other prominent buildings (B), natural features and vistas such as this one in Franklin (C), or other public spaces and artwork.

Ecological responsiveness

- Define natural features and habitats as public spaces fronted by development to ensure they are safe.
- Provide tree-lined streets.
- Connect green areas with reserves where the specific movement of wildlife requires this.
- Maximise the amenity value of each open space, including stormwater retention areas.
- Apply low-impact water-quality measures.
- Avoid extensive landform modifications which would radically disturb the natural character of the area or harm ecologically sensitive habitats.



The Octagon provides a tranquil retreat in the Dunedin city centre. It is important to achieve these high standards of natural amenity within compact spaces, which at the same time do not dilute the benefits of higher densities in the centre.



PUBLIC SPACE DESIGN: Parks, squares, reserves and streets



Pedestrian-friendly streets, such as this one in Mt Maunganui (top) and Onehunga, can be achieved by:

- having lower traffic speeds
- providing safe places to cross
- avoiding the use of roundabouts in high-use areas.

Lower speeds can be achieved by:

- avoiding one-way streets
- junctions with tighter radii
- reduced carriageway widths
- on-street parking
- frequent changes in street alignment, and other traffic calming measures.

Integration and connectivity

- Design public spaces and streets that effectively connect new developments into the surrounding context.
- Ensure public spaces are overlooked by adjacent developments and are bounded by streets to ensure a greater degree of personal safety.
- Design safe streets which combine the movement of public transport, private vehicles, cycles and pedestrians.
- Provide generous on-street parking for efficiency, convenience and as a means to keep the public realm active and safe.
- Design pedestrian routes with good surface conditions, lighting, signage and visual outlook. Consider techniques to reduce the space requirements for underground services without affecting their maintenance needs.
- Avoid grass berms in town/city centre areas.
- Consider techniques that allow trees to be planted in close proximity to services.



Diversity and adaptability

- Promote and design for a wide range of activities, including organised events and markets as well as informal use by individuals and small groups.
- Consider temporary access and parking needs.
- Promote well-defined, active edges to all public spaces.
- Provide co-ordinated designs for furniture and equipment which can be used in a range of different ways.
- Promote flexibility of use with simple, uncluttered layouts.
- Promote winter usage by having some areas with good drainage and hard surfaces for play activities.
- Provide effective lighting to enable night-time use.
- Design for shade, as well as solar access, shelter and views.



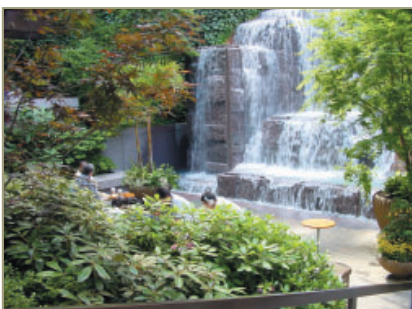
The Square in Christchurch is a robust venue for performers, art works, outdoor markets and other functions. Practical difficulties experienced with paving highlight the importance of good integration between form and function.

Legibility and identity

- Provide strong visual connections between the public spaces and the uses that front them.
- Consider the spatial relationships between a public space and the buildings surrounding it, and promote higher degrees of spatial enclosure in more intensive urban conditions.
- Use materials and visual references that reflect the local cultural context and landscape.
- Evoke the full range of senses with designs that use a variety of textures, sound effects, and fragrances.
- Provide effective signage that contributes to the visual character.
- Promote public art works.



New Plymouth's identity and location are celebrated by these promenades, which extend the street grid to the sea.

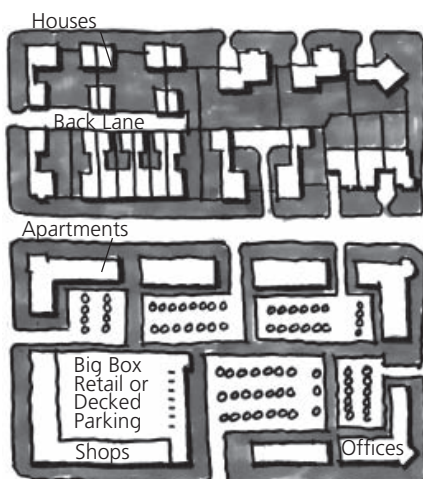


New Zealand city centres would benefit by using more compact urban parks, such as Greenacre Park in New York (shown above), which is only the size of a tennis court. It provides a tranquil landscaped setting for 50 or more users at any one time.

Ecological responsiveness

- Design public spaces that offer shade in summer, sun in winter and protection from the wind and rain.
- Promote spaces that are compact where near nodal centres and more expansive where less central.
- Promote a greater diversity of plant species, especially ones that support an array of bird and insect life.
- Use species to differentiate one space from another and to express seasonal changes.
- Allow for stormwater retention and low-impact water treatment measures, where appropriate.

PRIVATE LOT DESIGN: Private lots



Lot layouts can be planned to ensure the most active parts of buildings address the street, screening parking and blank walls.

Integration and connectivity

- Where possible, ensure lots have frontage to a public street.
- Minimise the impact of driveways by combining adjacent driveways, narrowing wider driveways where they cross the footpath, or making use of back lanes.
- Minimise the impact of parking areas by locating them to the rear of the site where possible, planting large numbers of trees, limiting paved surfaces to the minimum area required for parking and manoeuvring, and breaking large areas into small separated parking clusters.



Diversity and adaptability

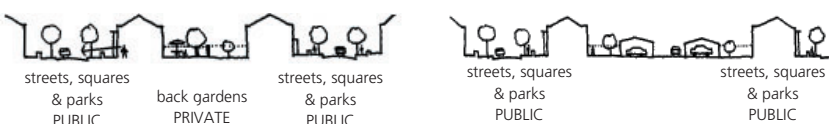
- Ensure a range of building types can be accommodated.
- Narrower lots generally make for a richer, more diverse street edge – concentrate these especially around key public spaces.
- Provide a range of lot sizes that allow for a mix of uses, building and dwelling sizes and tenure arrangements.
- Avoid streets being lined with the blank walls of large buildings. Where possible, locate smaller lots between these larger sites and the street.
- Consider lot depths that will accommodate a wide range of uses: a 30m depth will accommodate apartments and smaller format commercial uses as well as two rows of parking at the rear.



Here at Botany Town Centre, Manukau (top) and New Lynn, Waitakere (bottom) the shopping malls front the street with lively, active edges.

Legibility and identity

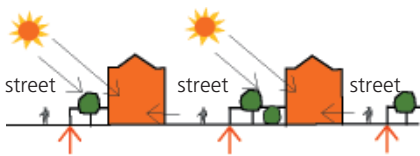
- Where possible, locate fronts opposite fronts and backs opposite backs.
- Provide private spaces to the rear or side of buildings. Residential private open space should be screened for privacy and security.
- Avoid street frontages that are dominated by garage doors by setting garages back from the house front, using single garage doors, or providing garages off a rear lane.



Design lot layouts that offer a clear distinction between the public realm and private areas.



There has been a long tradition in New Zealand of housing addressing the street in a positive manner, as illustrated by these terrace houses in Dunedin.

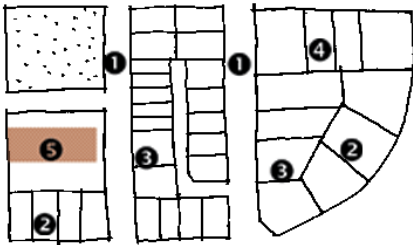


Housing developments with blank walls on one side result in poor street conditions.



Good streets can be achieved, as well as houses with good solar gain, by using long backyards, side yards or other innovative design solutions.

Designing lots for good solar access



Ecological responsiveness

- Plan lot layouts that optimise solar orientation while still creating high-quality streets with dwellings fronting both sides.
- East, west and south entry lots work well for houses, while north entry works best for apartments and smaller commercial uses.
- Include trees where possible; consider shading and possible damage to underground services.
- Incorporate on-site water-quality treatment measures where practical.

Designing lots for good solar access (see opposite)

- 1 Where there is a choice, align streets north/south.
- 2 South entry lots with north-facing backyards are ideal for terrace houses and other dwellings with living rooms at ground level.
- 3 East or west entry lots get morning and evening sun, as well as north sun if the buildings are located on the southern boundary.
- 4 North-fronting lots work well for mixed-use units with workspaces at ground level and dwellings above with decks.
- 5 North-facing apartments with balconies work well.



BUILDING DESIGN: Built elements

Integration and connectivity

- Design buildings that are well integrated with public transport facilities.
- Locate active areas opposite bus stops or rail stations.
- Design buildings to have active rooms fronting onto the public areas in front of them, so users or residents can connect with people in the street.
- Avoid blank walls on the street edge.
- Set garages back from the fronts of houses to ensure they do not dominate the street.
- Step tall buildings down to integrate with lower buildings unless these are likely to be redeveloped at a future date.

Create lively streets by ensuring parking doesn't dominate



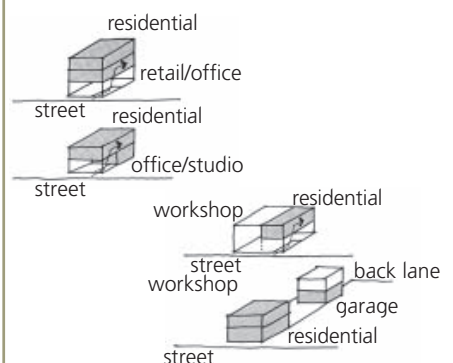
Institutional and commercial buildings can be designed to respond positively to the street edge, as at the Auckland University of Technology.



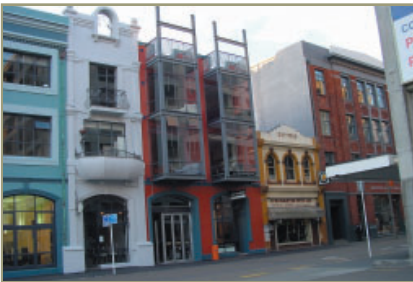
Here at Manukau, a multi-storey car park will have offices and apartments screening it from the street.

Diversity and adaptability

- Promote a range of building types that can respond to a diverse range of needs.
- Consider buildings that accommodate more than one use.
- Design buildings that can change use over time. Consider, for instance, how offices may convert to apartments, or housing into workspace. Separate entrances, higher ceiling heights, building depth, additional sound insulation, on-street parking and relationship to the street all play a role.
- Consider how any dwelling would function in a live/work situation.



Around the country a range of mixed-use combinations are being built, including all of the above options.



These new mixed-use buildings in Wellington exemplify a contemporary, yet contextual, response to a traditional setting.

Legibility and identity

- Design buildings (or groups of buildings) that provide an active frontage through windows and entrances fronting the street, narrow and varied building frontages, articulated facades, and active internal uses that communicate or spill out on the street.
- Design buildings that have a rich visual character.
- Make reference to the local character, heritage and features by complementary or contrasting design.
- Consider how the occupants may express their individual identities.
- Consider design approaches that avoid excessive repetition and inappropriate massing of buildings.
- Consider the form, materials and detailed treatment.



Private backyards or courtyards can be designed to provide considerable natural diversity and a welcome sanctuary in the urban context.

Ecological responsiveness

- Design buildings that require less operational energy.
- Minimise the use of new resources, eg, by using recycled building materials and limiting the use of energy from non-renewable sources.
- Respond to local wind, rain, soil and sunlight conditions; use natural light and ventilation where possible.
- Use appliances that conserve water and re-use rainwater.
- Use construction techniques that save energy.
- Design to reduce energy consumption through the use of daylight and passive solar gain; active solar panels; photovoltaic modules; terrace houses that require less space heating; eaves, overhangs and external screens that let sun into habitable rooms in winter and keep it out in summer; limited glazed areas to the south, where heat loss occurs during winter; and using the heat storage capacity achieved by heavyweight floors bedded on the ground.



Chapter seven

Conclusions

Ensuring New Zealand's urban areas are great places for people to live, work and play provides a very real challenge for all New Zealanders. We have much that is positive to build on – a unique geographical position in the Pacific, stunning landscapes, a temperate climate, as well as a diversity of people, culture and history that makes each settlement, town or city unique yet a part of New Zealand.

There are good and bad, old and new examples of urban design in this country. Nearly all our urban areas could be improved by processes that are informed by urban design. And urban design processes and principles are relevant to all levels of development – from the small scale subdivision, to town centre redevelopment, city or region-wide visions, and infrastructure or growth strategies. The urban design principles outlined in this report have the potential to help us enhance the liveability of existing urban areas, and to create new urban areas that work better for us. The process principles help by highlighting success factors that make a difference.

Urban design has much to offer – including more varied lifestyle, work, transport and recreation options. Improvements in urban form can result in more efficient transport networks, with improved opportunities for public transport. Higher density, well-connected, mixed-use development provides different lifestyle, work and transport options to more traditional, often low-density suburbs. Both have a place. Urban design can also help ensure that regardless of the house style we choose, our homes can be healthier and more resource efficient, using less water and energy.

A key task is to improve awareness of what urban design is and how it can add value. Urban design is not just for urban designers. It is for all people with an interest in urban areas – from individuals to the community, iwi and hapu, sector and professional groups, developers and sociologists, bankers and academics, planners, economists and engineers. A wide range of people and organisations can have a marked influence on our urban areas. If they are aware of their impacts, and open to working in cross-disciplinary groups and processes, they are also more likely to take these impacts into account.



It is critical that education and training, which cut across single disciplines, recognise the value of cross-sectoral disciplines so as to promote holistic solutions.

Better community understanding of urban design and greater community involvement in urban design processes offer some very real advantages, for example, people more able and willing to express what they like about their area, what does not work, and what they would like to see, including possible trade-offs.

Both central and local government have important roles to play. Central government policy and funding of transport, climate change policy, the *Energy Efficiency and Conservation Strategy*, all have a part to play – as does this guide, and other Ministry for the Environment work (for example, on urban amenity indicators).

Local government has a vital role: councils are responsible for leading, creating and implementing the vision of the future their particular community wants. Where that vision is built on a sound understanding of urban design principles, planning and urban economics; is carried out in partnership with the community, Maori, business and other sectors; and has a wide and innovative range of delivery mechanisms, it is more likely to succeed. This includes ensuring council practices support rather than hinder innovative commercial, housing and stormwater developments, for example, and that both councillors and staff are provided with relevant training.

This guide provides a broad overview of urban design processes and principles appropriate to New Zealand. It seeks to increase awareness and discussion of the role and value of urban design, what we value about New Zealand urban settlements, and how we would like our towns and cities to develop. The value and competitive edge generated by urban design based on sustainable development principles has much to offer: more liveable urban communities, increased expectations of communities being more liveable, and increased interest and debate on urban issues.



Appendixone

How the Principles Address the Issues

The following table demonstrates how the principles address the urban design issues outlined in Chapter 3.

	Consolidation and dispersal	Integration and connectivity	Diversity and adaptability	Legibility and identity	Ecological responsiveness
Retaining the landscapes we value	<ul style="list-style-type: none"> protects existing character areas and creates new areas of high amenity fits the urban area to the landscape, protecting regionally significant landscapes from encroachment 	<ul style="list-style-type: none"> supports amenity and character through keeping areas active and alive, and not 'backwaters' helps to provide view shafts and access to landscape features improves the relationship of private development to public areas 	<ul style="list-style-type: none"> ensures urban areas can regenerate themselves, helping to maintain high levels of amenity over time 	<ul style="list-style-type: none"> ensures existing amenity is retained and new development creates memorable places 	<ul style="list-style-type: none"> creates urban areas with very high amenity and value – properties that are close to natural areas have higher values
Reinventing the economic base of our towns and cities	<ul style="list-style-type: none"> improves productivity of businesses and supports the networks that businesses rely on for the exchange of ideas and knowledge increased density supports a wider range of local activities and enterprises helps town centres and business areas to regenerate by increasing their catchment through increased density 	<ul style="list-style-type: none"> enables the efficient exchange of goods and services, helping businesses to be more efficient helps to 're-ignite' development pressures in declining areas through new and improved links 	<ul style="list-style-type: none"> helps buildings adapt to changing needs, reducing set-up costs for small to medium-sized businesses 	<ul style="list-style-type: none"> helps to 're-brand' a declining area, creating a new or better profile 	<ul style="list-style-type: none"> can upgrade the image of a run-down area
Improving equity and reducing marginalisation	<ul style="list-style-type: none"> saves on land, infrastructure and transport costs, making places more affordable to live and work in 	<ul style="list-style-type: none"> makes an area more 'democratic' – all people can access services and activities and not be isolated 	<ul style="list-style-type: none"> helps to ensure a range of households and businesses (wealthy and not so well off) can locate in an area, making the community more balanced 	<ul style="list-style-type: none"> supports places that are inclusive, and that can be used by people from all walks of life and levels of physical ability 	<ul style="list-style-type: none"> makes sure open spaces can be accessed by all people, and that shade is considered in their design



	Consolidation and dispersal	Integration and connectivity	Diversity and adaptability	Legibility and identity	Ecological responsiveness
Enabling cultural expression	<ul style="list-style-type: none"> provides a range of opportunities for a variety of social and community facilities to meet different cultural needs 	<ul style="list-style-type: none"> enables people to access different precincts and areas within the city which have different cultural flavours 	<ul style="list-style-type: none"> helps buildings and places to respond to a variety of cultural needs 	<ul style="list-style-type: none"> encourages building design and architecture to reflect cultural influences 	<ul style="list-style-type: none"> green areas can be designed (respect for waterways, materials, plants) to reflect cultural issues
Increasing safety and health	<ul style="list-style-type: none"> gives a place 'life', making the area safer and enjoyable to use, especially by people who are concerned about safety makes places more pleasant places to walk around 	<ul style="list-style-type: none"> creates safety – places that have little movement through them can have higher rates of crime due to a lack of informal surveillance encourages walking, through small connected blocks leading to neighbourhood activity centres 	<ul style="list-style-type: none"> supports activity and walking by creating activity during the evening and the weekend, making places that are safer and not 'dead' after hours 	<ul style="list-style-type: none"> makes more interesting and safer streets, where buildings address and overlook the street and do not have high fences or blank walls 	<ul style="list-style-type: none"> ensures streams, parks, bush areas and coastlines within urban areas, are integrated with development to make these areas safer; and that outdoor spaces consider sun impacts
Improving accessibility and reducing transport costs	<ul style="list-style-type: none"> supports public transport by increasing density and arranging strings of nodes along public transport corridors 	<ul style="list-style-type: none"> reduces distances that need to be travelled between activities, reducing transport costs 	<ul style="list-style-type: none"> supports mixed-use development, increasing local services and reducing the need to travel; this supports more walking and cycling 	<ul style="list-style-type: none"> makes driving, walking and cycling more pleasant 	<ul style="list-style-type: none"> enables the adverse effects of transport such as water and air pollution, and community severance to be managed effectively
Improving the public realm	<ul style="list-style-type: none"> creates critical mass, making the public realm more busy 	<ul style="list-style-type: none"> creates movement patterns that makes the streets, and the public areas they lead to, safer and more accessible 	<ul style="list-style-type: none"> supports public spaces, creating safe and busy areas at all times of the day and night 	<ul style="list-style-type: none"> helps form active 'edges' where buildings address and open out to the public area, creating vitality 	<ul style="list-style-type: none"> ensures coastline and streams are key public spaces, and are part of the public realm
Reducing the environmental footprint of urban areas	<ul style="list-style-type: none"> reduces the rate at which land is consumed for urban activities improves energy efficiency of buildings through sharing walls 	<ul style="list-style-type: none"> reduces the need to travel, and therefore the amount of pollution generated from vehicles supports walking and cycling 	<ul style="list-style-type: none"> supports mixed use, reducing the need to travel and making more compact forms of growth more lively and interesting 	<ul style="list-style-type: none"> distinctive building styles can also be energy and water efficient 	<ul style="list-style-type: none"> assists in the mitigation and treatment of stormwater through incorporating treatment facilities into the urban fabric incorporates green corridors and additional wildlife habitats



Appendix two

Issues Matrix Template

Before beginning a project it is important to determine the relevant issues. Some of these issues may be at a different level from that of the project. The use of an issues matrix, illustrated below, will assist in determining the range of issues that require further investigation. Its use is considered briefly in Chapter 5.

Project Level	Principles	Consolidation and dispersal	Integration & connectivity	Diversity & adaptability	Legibility & identity	Environmental responsiveness
Sub-regional structuring		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Development framework		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site planning		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public space design		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private lot design		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building design		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Websites



All of the web sites listed below have many links to other resources. Covered here is a selection of the most useful web sites for day-to-day information on urban design.

Cyburbia (the urban planning portal) and Planetizen

www.cyburbia.org/index.html

This portal lists a multitude of planning and designs related subjects. Also see:

www.planetizen.com/oped/

Department of Transport, Local Government and the Regions

www.detr.gov.uk

This site has the latest UK Government policy and research relating to urban development. Especially useful are the Regeneration and Planning sites.

Energy Efficiency and Conservation Authority

www.eeca.govt.nz

Contains the *National Energy Efficiency and Conservation Strategy*. Also useful is their Sustainable Transport Network Newsletter.

New Urban News

www.newurbannews.com/

Newsletter covering the new urbanism, smart growth and traditional neighbourhood development.

Newurbanism.org /Congress for the New Urbanism

Two web sites dedicated to new urbanism:

www.newurbanism.org/

www.cnu.org/

Particularly useful are the CNU Reports and the full text of the CNU Charter on the CNU site.



Quality of life – New Zealand cities

www.bigcities.govt.nz/

Useful review of economic, social and environmental conditions in New Zealand's six largest cities.

Resources for urban design information

www.rudi.net/

Comprehensive UK resource including full text of the journal *Urban Design Quarterly*, city profiles and case study information, discussion pages, information about urban design courses and practices, and other items of interest to those involved in urban design.

Smart Growth Network

www.smartgrowth.org/

The Smart Growth Network encourages metropolitan development that is environmentally, fiscally, economically and socially smart.

Terrain Magazine

www.terrain.org/

A regular magazine full of detailed articles on New Urbanism, the environment and planning.

Urban Design Group

www.udg.org.uk/

Also includes the quarterly journal of the Urban Design Group.

Urban Land Institute

www.uli.org

Lots of information and resources on the use and development of urban land.

About the Ministry for the Environment



The Ministry for the Environment works with others to identify New Zealand's environmental problems and get action on solutions. Our focus is on the effects people's everyday activities have on the environment, so our work programmes cover both the natural world and the places where people live and work.

We advise the Government on New Zealand's environmental laws, policies, standards and guidelines, monitor how they are working in practice, and take any action needed to improve them. Through reporting on the state of our environment, we help raise community awareness and provide the information needed by decision makers. We also play our part in international action on global environmental issues.

On behalf of the Minister for the Environment, who has duties under various laws, we report on local government performance on environmental matters and on the work of the Environmental Risk Management Authority and the Energy Efficiency and Conservation Authority.

Besides the Environment Act 1986 under which it was set up, the Ministry is responsible for administering the Soil Conservation and Rivers Control Act 1941, the Resource Management Act 1991, the Ozone Layer Protection Act 1996, and the Hazardous Substances and New Organisms Act 1996.

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