SELWYN DISTRICT COUNCIL
RESIDENTIAL DEVELOPMENT

DESIGN GUIDE

DECEMBER 2024

CONTENTS

HOW TO READ THIS GUIDE

The Residential Development Design Guide is intended as a supplementary document to the provisions in the Selwyn District Plan and linked to the Engineering Code of Practice. The guide is to be read online and uses hyperlinks to corresponding documents and explanations.

Title page image courtesy of Hughes Development

1.0 DOCUMENT STRUCTURE

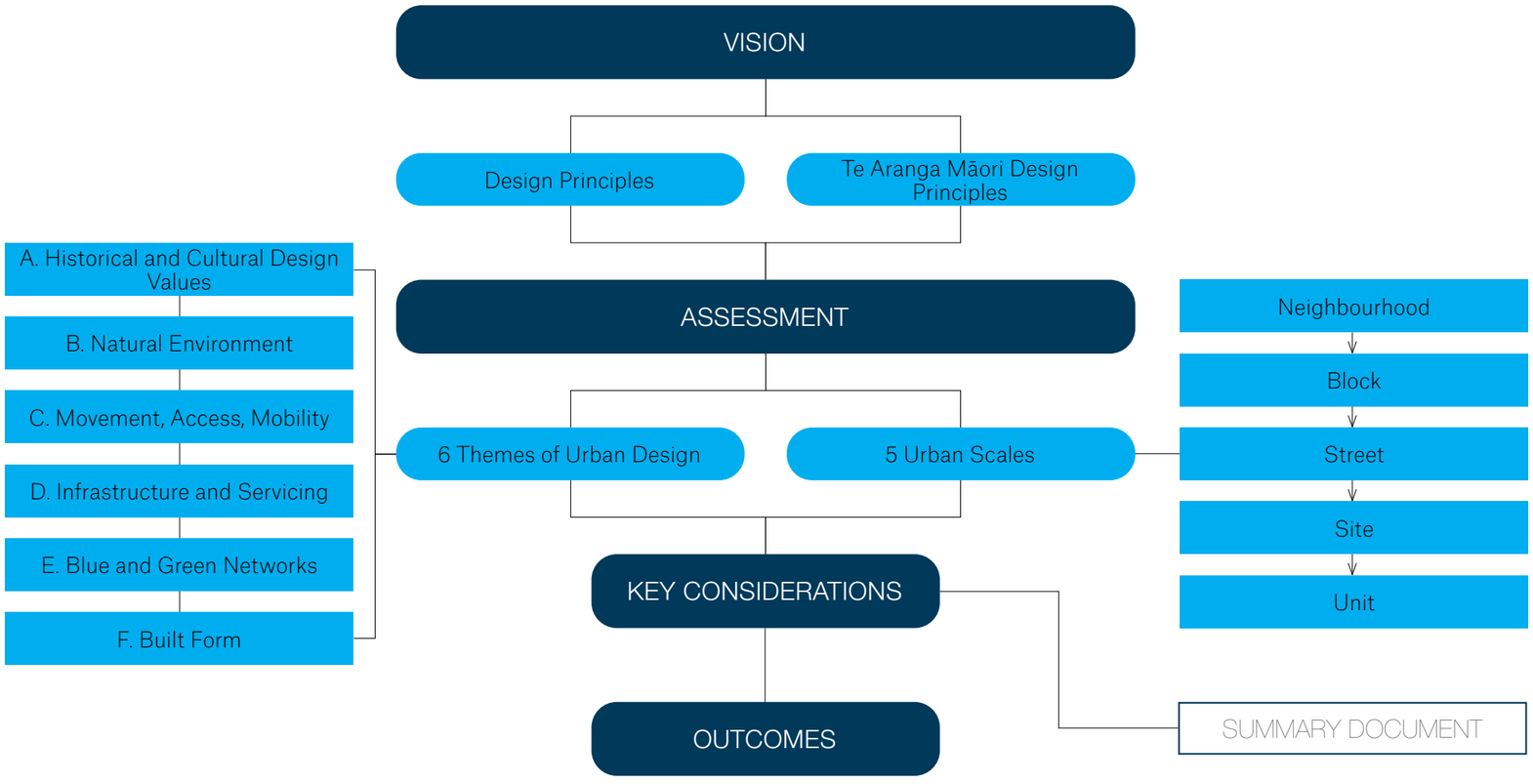
DOCUMENT STRUCTURE

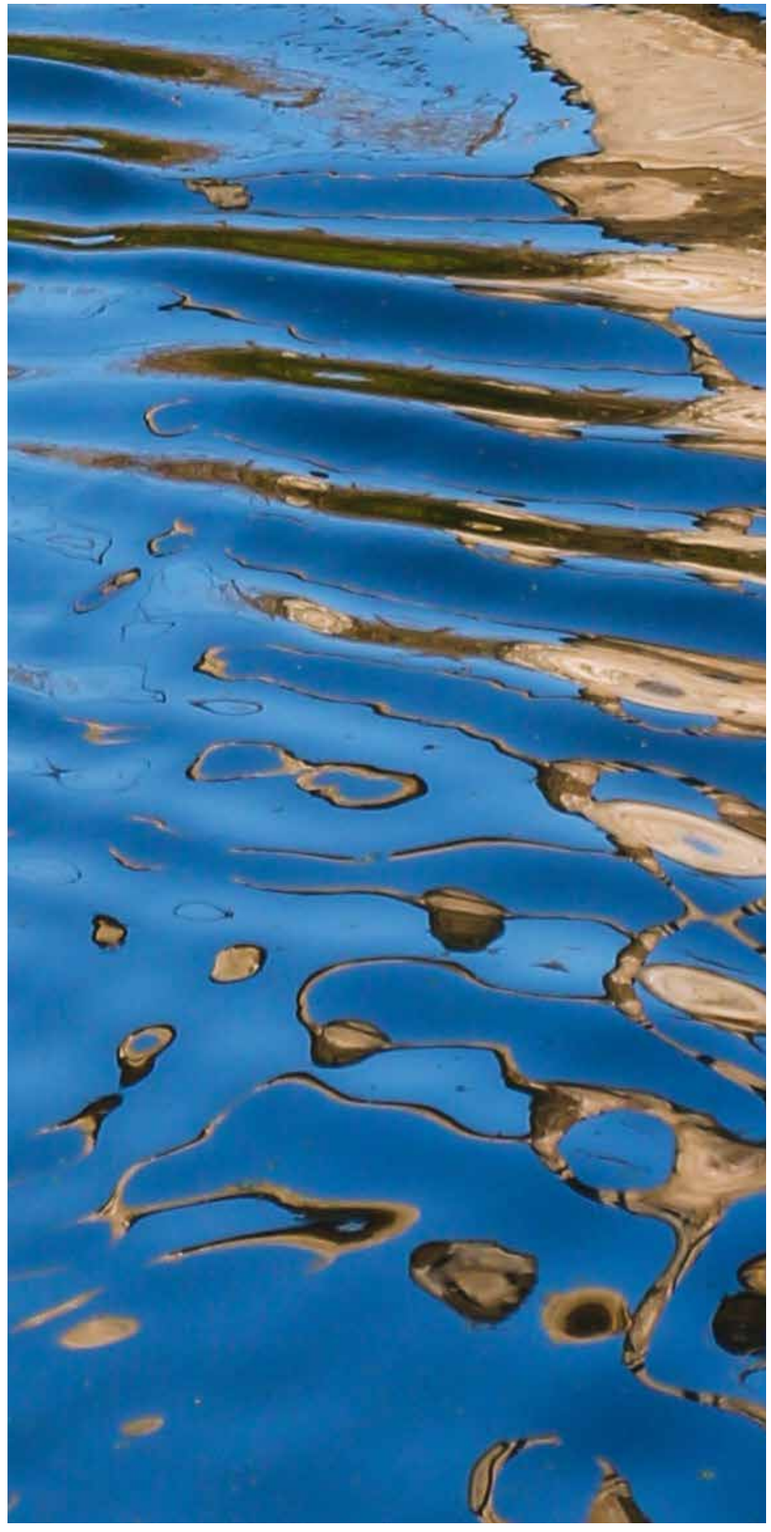
The following diagram illustrates the structure of the document and the corresponding chapters.

This guide is using Future Selwyn's vision for Selwyn's urban areas. Best practice design principles describe what development in Selwyn is going to strive for. Mana whenua's approach to take care of the environment is reflected in Te Aranga Māori Design principles - both are to be considered when developing in Selwyn's urban areas. The principles are then to be used and incorporated into an Urban Design assessment.

The design process below outlines the steps to be taken within a collaborative design project that aims to achieve a cohesive outcome for Selwyn's urban communities.

This Assessment in this Guide uses themes to address matters under different urban scales, concluding in the outcomes visible on the ground. Key considerations for each scale are identified and form part of a separate summary document (Selwyn District Residential Development Guide Summary).





1.1 INTRODUCTION

At the time of writing this design guide, Selwyn District was the fastest growing district in New Zealand.

This growth in population and urban expansion brings challenges and opportunities. The key opportunity is to build on the positive attributes that make Selwyn such a great place to be.

Development in the District depends on land availability and resources. Although Council is making significant progress in responding to the District's current and future needs by using a long-term, district-wide approach when planning for services, assets and facilities, there is opportunity for Selwyn to develop in a more integrated, holistic way.

Urban areas need well-designed places for an increasingly diverse population to interact and enjoy. Success is highly dependent on buy-in from innovative private investors. When specifically designed for site and individual circumstances, urban areas will be successful and will achieve a balance between a range of social, economic, cultural and environmental factors.

This design guide aims to be a tool to promote high quality urban design and create a better built environment for the future.

The urban design principles, tools and ideas in this guide have been adapted to the Selwyn context.

1.2 PURPOSE OF THIS GUIDE

The purpose of this guide is to give developers and designers guidance on processes and best practice urban design with outcomes that benefit the overall community.

The guide is also intended to be a useful framework to Council staff in its assessment and decision making on applications under the District Plans.

The guide's role is to provide a bridge between policy expectations and practical application.

The guide is a non-statutory document that works in conjunction with the provisions set out in the Selwyn District Plan and other strategic planning framework documents, such as Future Selwyn, Structure Plans, Area Plans and Outline Development Plans (ODPs).

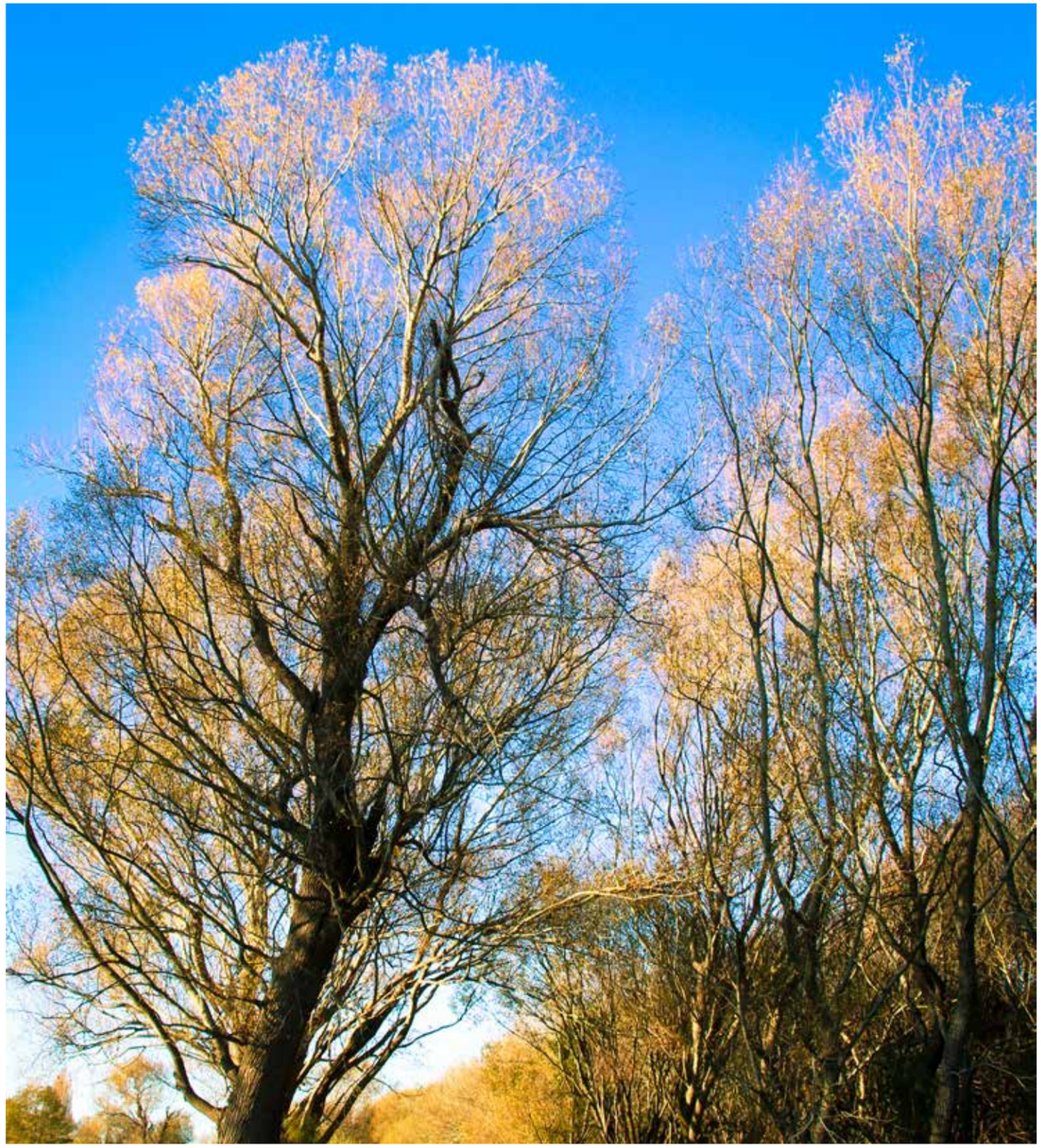
image courtesy of Hughes Development

1.3 COVENANTS VS. DISTRICT PLAN

Developers who may wish to impose additional controls over their development can use covenants that sit outside the District Plan or development guide provisions.

Covenants might apply to various aspects, such as a building style or fencing to ensure a particular character for the area or subdivision is upheld by individual developments.

While a covenant can be more stringent than a district plan rule, developers must ensure that covenants do not contravene the District Plan provisions.



1.4 DESIGN PROCESS

Urban Design is a collaborative process involving all stakeholders and professionals with different expertise working together to achieve a cohesive outcome.

This guide looks beyond regulatory requirements and supports best practice outcomes.

An efficient design and consenting process derives from early Council engagement and the clarity of Council's expectations as expressed within these guidelines.

Consider a pre-application meeting with Council staff where all these aspects can be discussed collaboratively. Include discussions with Council and affected parties early in the process to avoid possible issues later; be diligent to discuss servicing and costs.

Consult with the Council's Infrastructure and Property Department to establish key design parameters including the need and size of any reserves and reserve contributions. Ask the Council's Infrastructure Department for advice on street classification and standards, existing traffic movements, intended connections and any strategic plans for the site.

Council's Water Services Team will also be able to advise you on available services or any long-term plans for reticulation.

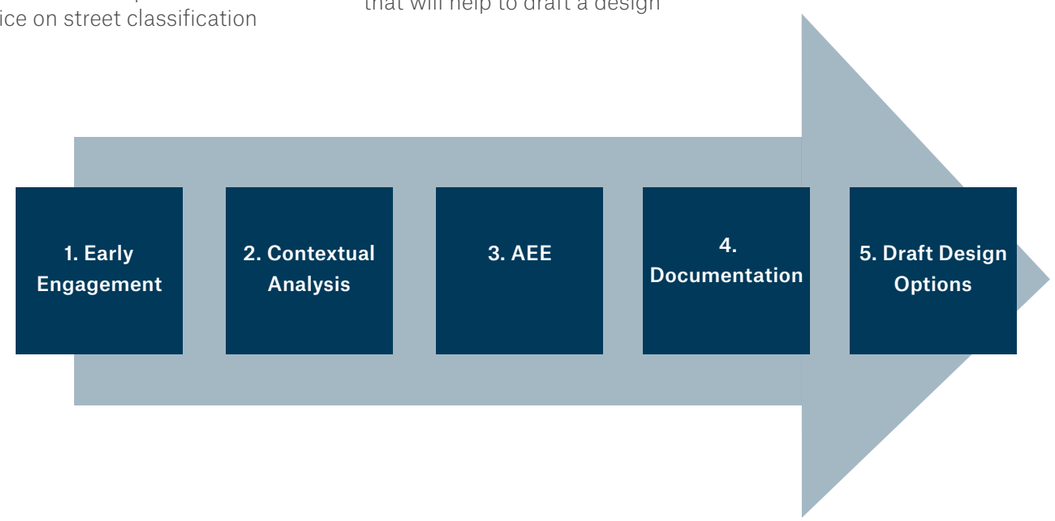
All subdivisions need to either align with Selwyn's global stormwater consent or might need to obtain their own stormwater discharge consent from Environment Canterbury.

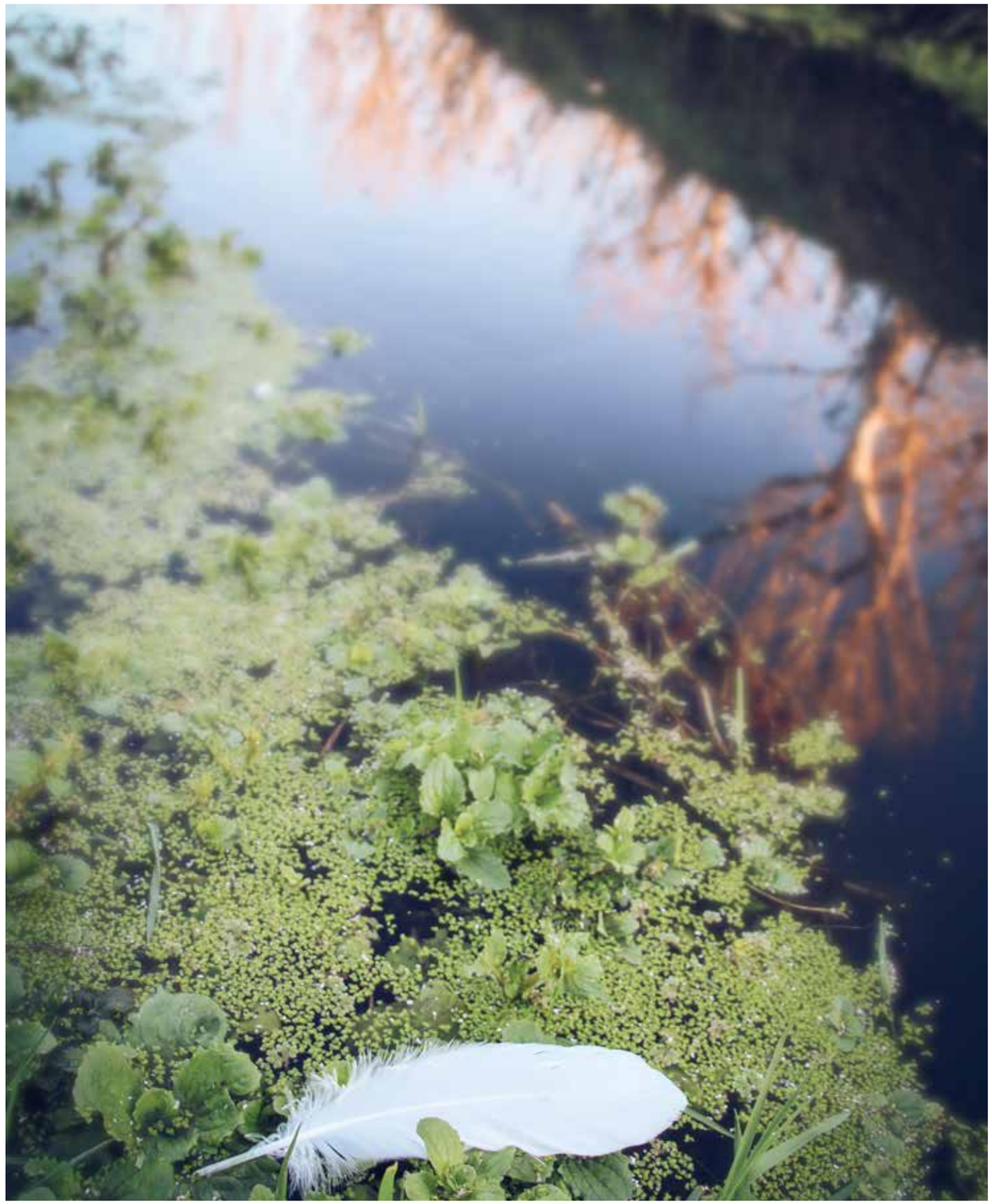
Identify and include discussions with community groups, neighbours, interest groups etc. to ensure all issues have been identified early on.

Critically reviewing a completed subdivision after it has been occupied will help to identify what worked well and where there is room for improvement thus contributing to the knowledge of best practice for urban development in the Selwyn context.

Assessments and documents that will help to draft a design statement, and which Council expects as part of a subdivision and landuse consenting process, are:

1. Engage early, and continue to engage with mana whenua, throughout the entire process. Mana whenua for Waikirikiri Selwyn are Ngāi Te Ruahikihiki ki Taumutu and Ngāi Tūāhuriri. Contact can be made with mana whenua through the Te Taumutu Rūnanga office.
2. A contextual analysis of the proposal depending on scale of the project (neighbourhood-unit scale).
3. An Assessment of Environmental Effects (AEE) according to the District Plan and other planning requirements.
4. The documentation of consultation and engagement with stakeholders.
5. Bringing it all together in flexible Draft Design option(s).





1.5 VISION FOR SELWYN'S URBAN AREAS

Residential growth at various densities (depending on location, serviceability and land availability) will occur in the District's 22 identified urban areas.

65% of this growth is expected to continue in the townships of Rolleston, Lincoln and Prebbleton, which sit within the 'commuter belt' of Christchurch. These townships have land and services readily available for development. Other townships are anticipated to grow at a slower speed.

Commercial growth will be focused in the larger key activity centres of Rolleston and Lincoln. With the continued development of the Rolleston Town Centre, there will be the opportunity of destination shopping for residents and visitors from outside the District.

Selwyn 2031 is Council's District Development Strategy which assists Council to plan for future growth and ensure that commercial and residential land is available for future development, along with Council infrastructure and services.

"To grow and consolidate Selwyn District as one of the most liveable, attractive and prosperous places in New Zealand for residents, businesses and visitors."

-- Source: Selwyn 2031

Image: *Te Whāriki, Lincoln embedding cultural history of the District*

Image: *Cave Stream Scenic Reserve, Castile Hill. Acknowledging heritage value of importance of the District*

1.6 DESIGN PRINCIPLES FOR SELWYN'S URBAN AREAS

Irrespective of development type and context, there are a number of design principles that are considered 'best practice'. These principles relate to qualities and particular characteristics displayed in a successful thriving urban environment and what this means within the Selwyn context.

When applied correctly, best practice design can add substantial economic, social, cultural and environmental value to any development.

Development in Selwyn will be:

1. WELL-RESEARCHED

Development identifies and acknowledges the cultural background of a place in order to understand its character, feel and heritage, where a communal sense of place can be established, and where open space and visual amenity qualities are well-respected.

2. WELL-INTEGRATED

New development becomes part of the established community and considers the existing surrounds, including the built and natural environment and historic and natural features. Development is designed in context to protect and reflect local topography, climate, vegetation, Ngāi Tahu and European history and culture.

3. WELL-CONNECTED, ACCESSIBLE AND INCLUSIVE

Development follows a clear roading hierarchy, uses universal design aspects and access requirements, includes all modes of transport, supports direct linkages between destinations, and creates a safe and legible pedestrian and cycling network for all community members.

4. WELL-SERVICED

Higher density is concentrated along identified trunk service where reticulation is available and/or upgrade of existing services is economically achievable. Access is provided to fibre and other key telecommunication services.

5. WELL-BALANCED

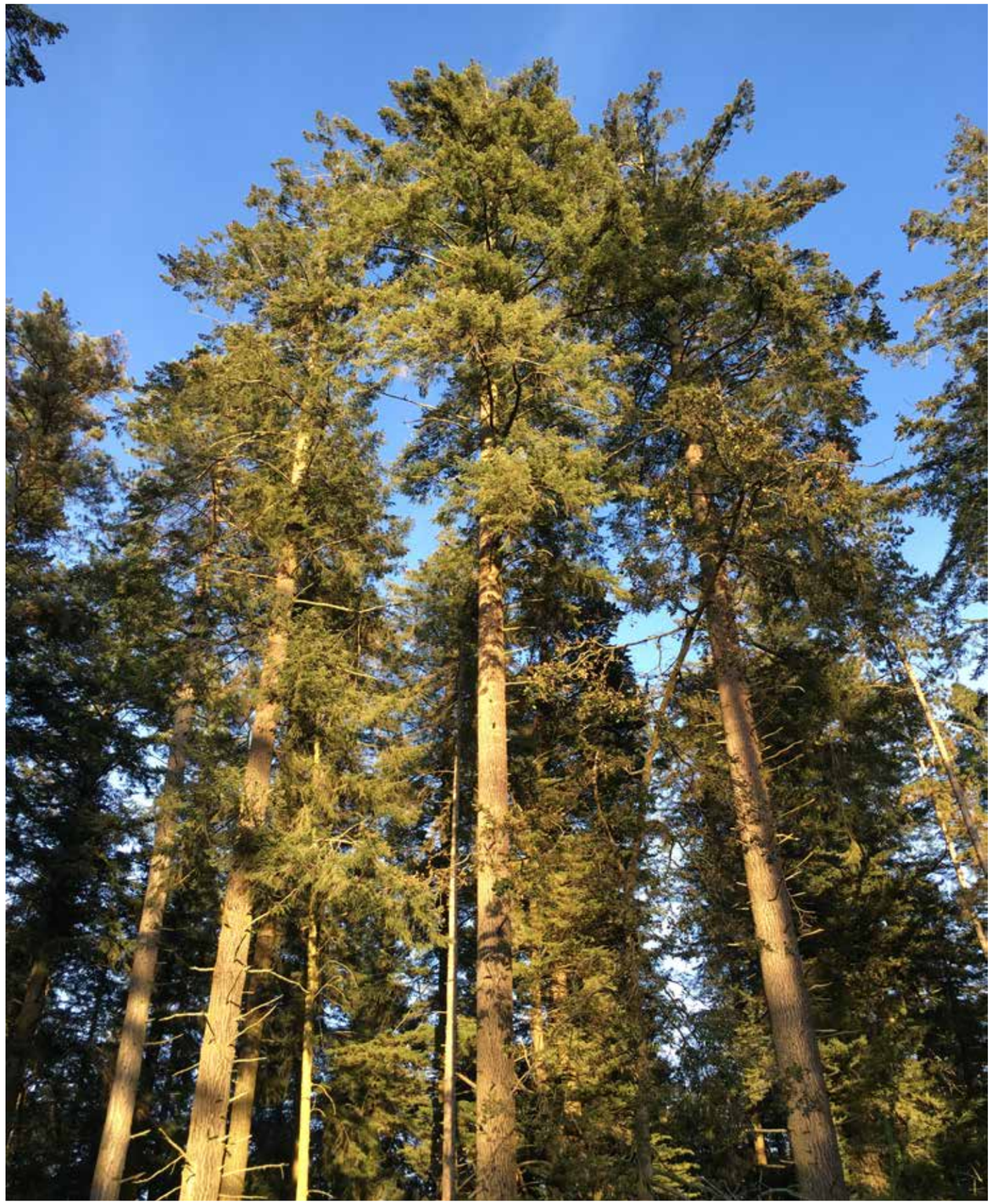
Development allows for choice and diversity both in built form and section size to reflect demand and needs. Landuse mix, site sizes and building types are flexible and adaptable to change.

6. WELL-DESIGNED

Built form is characterised by variety, modulation, and articulation, to create attractive, interesting, and appropriate communities, sites, and housing typologies that follow the lifemark philosophy.

7. WELL-COLLABORATED

Development promotes a collaborative approach including shared access ways, amalgamation of lots, services and other measures to get a resource efficient and effective outcome.



1.7 TE ARANGA MĀORI DESIGN PRINCIPLES

Te Aranga Māori Design Principles provide direction of what needs to be integrated into the design process and how to intentionally use these principles to preserve Māori culture within the built form. Aspects of these principles have been applied to matters of urban design within the various scales within this guide.

The following principles and values should be considered when developing urban developments in Selwyn.

VALUES	PRINCIPLES
Rangatiratanga Chieftainship right to exercise authority	**1. Mana** The status of iwi and hapū as mana whanua is recognised and respected
Kotahitanga Unity/togetherness	**2. Whakapapa** Māori names are celebrated
Katiakitanga Guardianship and stewardship	**3. Taiao** The natural environment is protected, restored and/or enhanced
Wairuatanga Sprirituality	**4. Mauri Tū** Environmental health is protected, maintained and/or enhanced
Manaakitanga Hospitality, kindness	**5. Mahi Toi** Iwi/hapū narratives are caputured and expressed creatively and appropriately
Whanaungatanga Relationship/sense of family connection	**6. Tohu** Mana whenua significant sites and cultural landmarks are acknowledged
Mātauranga Knowledge/wisdom	**7. Ahi Ka** Iwi/hapū have a living and enduring presence and are secure and valued within their rohe

Image: *Taken from Te Aranga Māori Design Principles*

1.8 THEMES OF URBAN DESIGN

For the purpose of this guide, a structure has been developed to assess relevant urban design matters. The design matters are grouped under the following 6 themes, and will be referred to as the 6 themes of Urban Design throughout the guide.

The 6 themes of Urban Design have been threaded through the 6 different urban scales.

The key aspects of each theme are outlined in the following pages.

Historical and Cultural Design Values

Natural Environment

Movement, Access, Mobility

Infrastructure and Servicing

Blue and Green Networks

Built Form and Character

Historical and Cultural Design Values

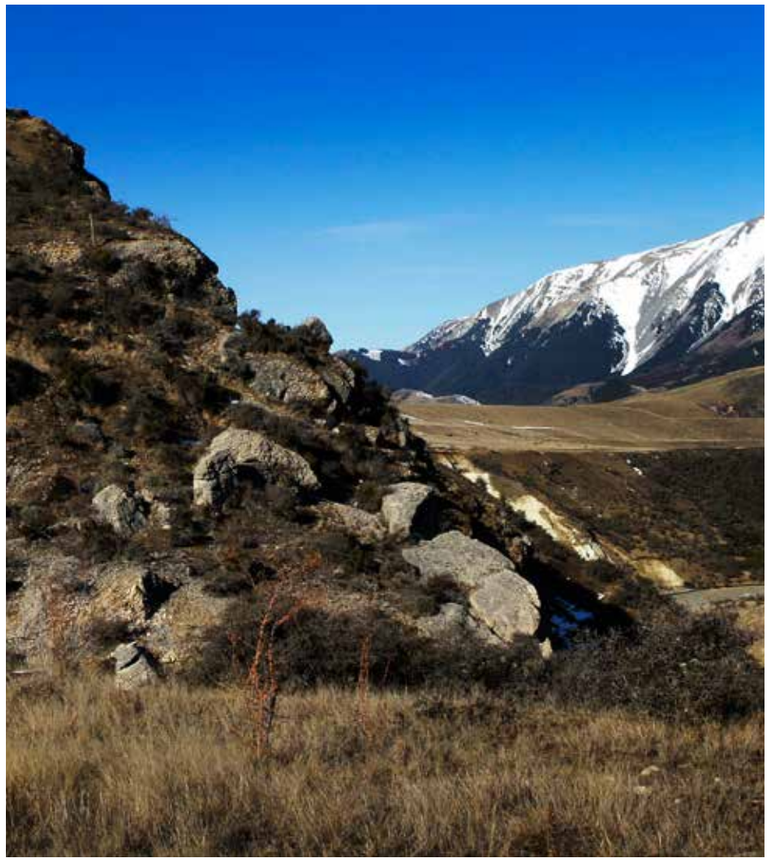
1. Human occupation over the past 600-1,000 years has assisted in shaping Selwyn's landscapes, adding an important layer of cultural and historic heritage.
2. The landscape within the Selwyn District is of immense significance to mana whenua Ngāi Te Ruahikihiki and Ngāi Tūāhuriri, and the neighbouring hapū and rūnaka. The two legal entities representing the hapū are Te Taumutu Rūnanga and Te Ngāi Tūāhuriri Rūnanga. The entire landscape from Kā Tiritirio Te Moana the Southern Alps, down each of the main rivers of Waimakariri, Waikirikiri Selwyn and Rakaia, to Te Waihora Lake Ellesmere and its associated coastal dunes and wetlands, as well as the adjoining parts of Te Pātaka o Rākaihautū Banks Peninsula was utilised, and remains significant to mana whenua. The landscape still retains the early remnants and traditions of migrations, settlement and mahika kai.
3. Numerous pā, kāika, nohoaka and urupā (settlements and burials) as well as wāhi pakaka (battle sites), mahika kai (food gathering sites), ara tawhito (ancient trails) are spread across the district. The trails form a network that highlight both the traditional lifeways of Ngāi Tahu, Ngāti Māmoe and Waitaha as they settled within this landscape.
4. In particular, it is the waterways of the district that provide its lifeblood, both traditionally and contemporarily, as well as the key travelling/transport routes linking the east and west coasts, that were critical to pounamu trade and traditional food and resource procurement.
5. Te Aranga Māori Design Principles provide a framework that can be used as an interpretation of built form, public art, experimental purpose and signage wayfinding.
6. By recognising this framework it acknowledges Māori perspective and refers to the traditional approach when working with land. It gives developers and designers direction of what they need to integrate into their design process and intentionally use these principles to preserve Māori culture within the built environment.

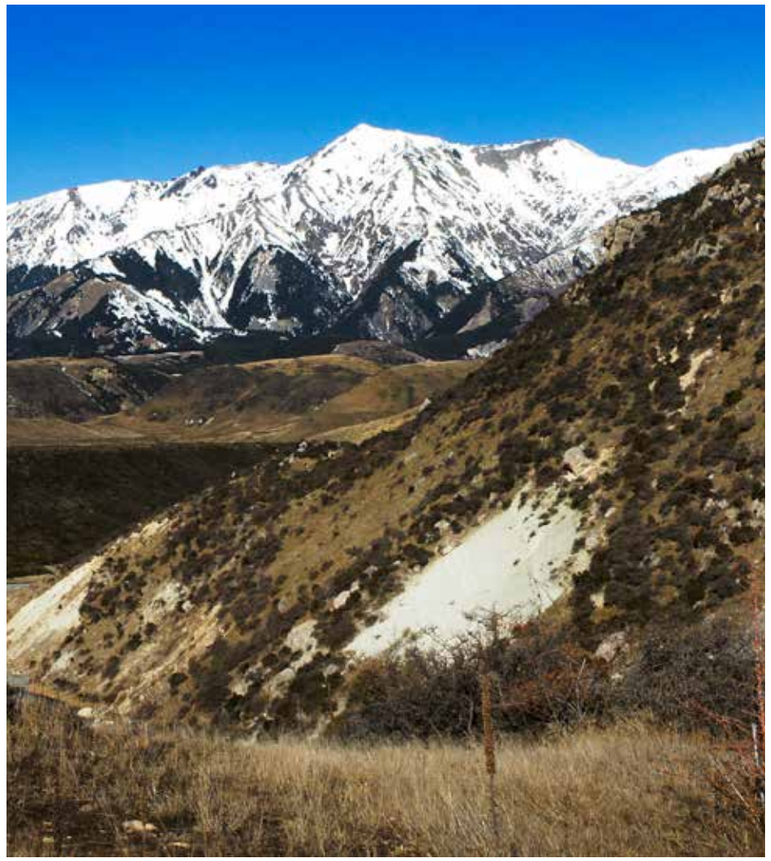
Image: *Plantings at Whakaora Te Waihora, Selwyn District*

Image: *Rakaia Gorge, Selwyn District*

Natural Environment

1. The natural setting, created by landform, existing vegetation and waterways as well as other natural features, provides a distinctive basis for new development.
2. The way to design and layout developments should be guided by the underlying topography. Following existing contours will naturally create better drainage patterns, while also reducing earthwork costs. Incorporating and beautifying natural features, such as waterways, into neighbourhood designs creates a point of difference and acknowledges Selwyn agricultural past.
3. Contributing to Te Mana o te Wai improves water quality of surface waterbodies while enhancing people's awareness of and connection to water. Acknowledgement of ki uta ki tai (ecological connectivity across catchments, from the mountains to the sea) in particularly in respect to Te Waihora.
4. Using eco-sourced vegetation sourced vegetation will not only provide food for native fauna, but will also enhance the local identity of a place. Following the principle of taiao and enables active kaitiakitaka within public space.
5. On-site stormwater management can enhance the amenity and distinctiveness of a development and can provide habitats and ecological benefits.
6. Retaining natural elements can also provide a successful outcome for residents when views and positive outlooks are maintained. Having access to natural sunlight and fresh air are commodities that are essential to health and well-being.
7. The character and the setting of the area, as well as the people living in or near the area in which the development sits are all important aspects. Bringing nature back into the urban environment and thinking about the energy and feel of a place should be part of all design considerations.
8. Character and identity are not the result of a statement feature at the entrance to a new subdivision, but a reflection of the past and present of what makes a place special.





Images: *Selwyn's spectacular "backyard"- Cave Stream, Castile Hill*

Movement, Access, Mobility

1. In recent years there has been a noticeable shift in thinking what transport entails by considering alternatives beyond what private motor vehicles can provide. Council has the opportunity within its planning framework to think beyond using conventional engineering standards and work across disciplines to look at innovative approaches, best practice and make meaningful changes for the better.
2. Roads and streets have a very different purpose and function. The focus in this design guide is on streets within urban boundaries. Streets are public space that integrates both form and function in an attractive manner.
3. Council acknowledges the different street user needs by applying the One Network Framework. One pivotal change to provide people with more travel choices is to incorporate different transport options, including (mobility) scooters, making them part of the land use and subdivision planning and design process from the outset.
4. To get neighbourhoods that are better for walking, cycling and public transport they need to be designed accordingly for those outcomes.
5. Designing streets with the adjacent landuse in mind helps to identify the elements needed for a pleasant, functioning, long-term outcome. Getting the transport movement function properly integrated affects land uses and activities, density, and safety.
6. A successful development results in an outcome when residents have access to a bus service within 5 minutes' walk of their home. Research shows that most car trips undertaken are those under 2km long, and involve single occupant vehicles in urban areas, which is viewed as unsustainable and inefficient and can add to congestion.
7. Providing the right kind of route to fit the mode and journey will result in people wanting to walk or cycle because it's convenient, easy and attractive with the benefit of being healthier.
8. Transport systems in urban areas especially need to be designed so that they are safe, attractive to use, support healthy lifestyles and social interaction, while minimising impacts on the environment by improving air and water quality and reducing noise. They also need to fit for all members of the public, young, old, able or impaired.
9. Council is supportive of Universal Design. Universal Design is an approach to environment and design to meet the needs of all people. A barrier free environment is the outcome of a Universal Design approach. Council has signed an accessibility charter, which places extra emphasis on making towns accessible to everyone.

Image: *Creating transport system that are safe and support a healthy lifestyle.*

Image: *Streets have place and form functions.*

Infrastructure and Servicing

1. Providing services in the form of potable water, sewage, and stormwater services to the boundary of a property is an fundamental part of Council's responsibilities. Council infrastructure is expected to be safe and efficient, and designers are encouraged to engage with Council planners and asset managers early in developing concept design. Designers are encouraged to check early to ensure Council reticulation and capacity is available to service new properties.
2. New infrastructure expected to be vested in Council is required to meet Councils engineering standards as set out in the Engineering Code of Practice.
3. Electricity and communication services are provisions that have to be planned for at the same time. The key is good planning and liaison with the service providers early in the process. Connecting to these services within the private section falls to the developer. Council follows the One Water Strategy, which sets healthy waterways, healthy people/ whanau and integrated water, and land development as goals.
4. Council delivers potable water to more than 19,000 households, most of it on an unrestricted supply. Water is not an unlimited resource and Selwyn households have a very high usage -over 1,000 litres per day, per household.
5. Increased pressure on the use of water and the benefits of sustainable disposal mean that the Council is placing increasing importance on the responsible use of water.
6. All new connections to water supply require Council's approval. The Engineering Code of Practice contains information on water connections, and requirements for temporary water supply during construction operations.
7. Most new development will be able to connect to the Council owned and operated sewerage system. If properties don't have access to Council's reticulated system they must have a private septic tank and pressure system installed.
8. On-site systems will need consent from Environment Canterbury, in addition to Council's approval.
9. The first point of call should be to the Infrastructure Department as limitations to all or any of the above services might affect the type and density of proposed development.

Images: *Recycling station, Arthur's Pass.*

Images: *Everybody's responsibility- keeping public reserves tidy.*

Blue and Green Networks

1. Public open spaces within new development contribute to a linked network of reserves, green corridors and other public facilities, which together play a key role in establishing and maintaining the identity, visual interest and character of urban areas.
2. An open space network can serve a range of functions including providing settings for recreation and physical activity; facilitating public access; improving amenity values; preservation of significant landscapes and ecological values; providing community focal points for local neighbourhoods; and allowing opportunities for social and cultural connections.
3. While some open spaces are provided for functional purposes, others may primarily have an aesthetic purpose. Often this is according to factors such as size, location, and the type of facilities provided, and helps to ensure diversity within a network. Larger green spaces can function as an urban playground (with open playing fields, children's play equipment etc), while others may be designed as 'pocket parks' providing amenity values, reducing the visual impact of roads and hard surfaces, and creating habitats for local flora and fauna. Smaller green spaces work well for passive recreational purposes, especially when linked with a wider open space network.
4. Where required, the provision of land for storm water management can form part of the open space network where these spaces, as well as serving the functional purpose for storm water control can provide for walking opportunities, improved amenity and enhanced ecological values.
5. It is important to set a high standard of quality open space, ensuring the overall objectives for green and blue networks are established at the outset of planning a development. This will include the early identification of appropriate reserve provision, pedestrian connections, and linkages between open spaces, access to and location of watercourses and wetlands, integration of spaces for storm water attenuation and structures, and protection of existing natural habitats and valued vegetation. Associated infrastructure design should be compatible with these objectives. Each reserve must be correctly classified according to its primary purpose.
6. Street trees are often an underestimated element in an urban street environment. Once established and matured, they have many functional benefits such as: providing shelter, ameliorating surface and air temperatures, adding seasonal interest, emphasising the hierarchy of a road (promenade) and helping to way finding (leading towards destinations). The District contains a number of trees that are, for various reasons (size/age, position in landscape or cultural/ heritage) of special value and under protection. The District lists them as notable trees requiring them to be incorporated and protected within any new design proposal.
7. Besides what is being proposed within a new development, it is important to consider the incorporation and preservation and enhancement of existing landscape features, such as vegetation, natural or manmade watercourses and landforms, and features of historic, ecological and geographical significance.
8. Water race networks are one of the oldest European features in Selwyn. The primary objective of providing water to stock has in recent years changed as areas become more urbanised. Their purpose can be to provide a point of difference with ecological value, hence are a resource and an opportunity. Please consult with the surface engineers from the Council's Infrastructure and Property Department on the best approach. Where water races are retained as amenity features, their design needs to address the impact of designs and modifications on upstream and downstream users, as well as allowing for access and maintenance.
9. When designing the layout of a development, consider and consult with experts for possibilities to combine both blue and green functions. For example, the treatment of stormwater within the overall provision of green space, while retaining functional space for recreation.
10. If designed appropriately, the combination of wide linear parks along water courses or along off-road cycle paths can provide a useful recreational space with added visual interest.
11. Consult with the Council's Open Space and Strategy Department to establish needs and wants within any new development including reserve contributions.

Image: *One of Selwyn's oldest European features - water race, West Melton.*

Image: *Ellesmere Road storm water reserve- recreational and ecological values combined.*

Built Form

1. Built form in Selwyn is characterised by variety, modulation, and articulation to create attractive, interesting, and resilient communities. Detail orientated design thinking will need to retain perceptions of space, emphasising the meaning and functions of the environment.
2. Within larger developments variation in building typologies needs to be provided to reflect diverse community needs, and to cater for different family compositions, socio economic and ethnic groups, and changing demographics. An element of housing affordability could be incorporated within higher density-built form. Typologies that enable chance interaction and strengthen social networking are supported.
3. Houses should be created that have a distinct form that is both striking and contemporary, while being sympathetic to the natural surroundings.
4. Housing typologies that follow the lifemark philosophy, allowing people to age in place are supported. When designing, keep the end user experience in mind. Build long-term resilience in terms of adaptability within the built form enable future reconfiguration.
5. Externally, the form of the house and the materials utilised should reference the district's vernacular architecture, using roof shapes and typologies that 'fit' within Selwyn. Give priorities to building materials that suit Selwyn specific conditions and are locally sourced, reducing the carbon footprint one built at a time.
6. In the context of terrace housing, regular gaps will provide visual and physical breaks, while setbacks, height differences, and varied architectural forms create rhythm across the street elevation.
7. Apply care and attention to quality-of-life measures and mauri tu, such as access to clean air and sunlight.
8. Retaining some aspects of privacy is important, while acknowledging that living closer together requires a willingness and opportunity for communal areas.
9. When evaluating built form, look at the objective components, such as structure and geometry then at subjective visual quality such as aesthetics and variety and lasty how these together create a sense of place (identity, security).
10. Built form should be resilient and able to respond to site conditions (e.g. appropriate floor heights and foundations). Aim for a symbiotic relationship between built and natural environments.
11. Build for a high home star rating. Buildings that use sustainable energy efficient solutions are healthier, warmer, and more environmentally friendly. Houses that are designed as homes with passive energy gain in mind contribute to lower global energy emissions.
12. Climate mitigation and adaption needs to be factored in when designing homes. Consider in-built methods to save water, such as grey-water recycling systems or rainwater collection systems. Allow for change response within built environment. Green infrastructure and sustainable practices are supported.
13. Aim for a smaller carbon footprint and insulation ratings well above New Zealand Building Code minimum standards. Utilise going 'up' as a way as a way to make better use of land and retain permeable space on-site.

1.9 DESIGN SCALES

The spatial extent of the urban environment varies, but is commonly divided into 5 scales, referred to as urban scales.

The 5 urban scales range from the broad neighbourhood scale as the largest entity to the smallest scale of a unit.

The type of development affects what scale is appropriate for assessment. Some matters will seek outcomes that are strictly site or unit specific, whereas others will have to be considered across scales. An element of repetition within the scales is expected.

The following table outlines the different scales and their potential application:

URBAN SCALE	APPLICATION EXAMPLES
NEIGHBOURHOOD	■ Plan changes, large scale masterplanned subdivisions with an Outline Development Plan
BLOCK	■ Medium scale subdivisions that may or may not have an Outline Development Plan; application to determine stormwater basins
STREET	■ Landuse, transport and roading, parking, landscaping, access, street trees, refuse and services
SITE	■ Small scale subdivisions, two-lot without Outline Development Plan, landuse for fencing, garaging, landscaping, outdoor living space
UNIT	■ Landuse and subdivision for housing, active frontage

1.10 DESIGN OUTCOMES FOR SELWYN'S URBAN AREAS

In Selwyn, the past is acknowledged, future development and growth is encouraged.

As part of the process, mana whenua cultural and historic values need to be respected. The heritage that is of importance to the district as a whole and aspects that make Selwyn a popular destination needs to be retained, while acknowledging change is inevitable.

This guide has been informed by the Mahaanui Iwi Management Plan and guidance contained in other relevant documents including the Te Aranga Strategy 2008.

The urbanisation process, and shift from rural villages to more urbanised townships, is a challenging balancing act that is best achieved gradually.

Changing densities need to be considered alongside changing expectations and values.

The design outcomes sought by the application of this guide are structured around cultural, historical, social, natural and physical outcomes that tie in with District Plan provisions.

Key outcomes form the basis of what is expected.

Image: *Selwyn's growth from village to town*

1. Ngāi Tahu culture and traditions relating to land, water, wāhi tapu and wāhi taoka are recognised and protected.
2. Density and development are focused on ensuring natural systems and processes are integrated.
3. Landuse and transport are planned in synergy. Transport choice is provided within roading networks and identified transport corridors.
4. Infrastructure provisions are efficient and cost effective and they tie in with Council's asset planning.
5. Public green space is easily accessible, distinct and provides amenity and outlook to residents and the wider public. Private Green Space along the public/private interface positively contributes to the amenity and open character of the area.
6. New development consciously expresses 'Selwyn', and therefore has an identity and character that is unique to the District.
7. Local and cultural heritage and community characteristics that reinforce a sense of place and identity are celebrated and part of acknowledging tohu.

2.0 CONTEXT

This chapter focuses on providing background information on Selwyn, its identity and characteristics, and the natural and urban settings that form the basis for a built environment.

To cater for residential housing in the Selwyn District many sites across the District, but predominantly within the commuter belt of Christchurch, need to be developed.

In Selwyn this largely translates to undeveloped sites of greenfield land within identified urban boundaries of the District. As the ability to develop large landholdings decreases and community facilities and infrastructure within the larger centres increases, there is potential for infill or intensification development.

2.1 THE SELWYN CONTEXT

The Selwyn District is unique in terms of its unprecedented growth and subsequent challenges to accommodate the uptake of land and expansion of urban fabric.

While trends change time, the characters below help to set a baseline for part of the design process and best practice for development.

2.1.1 CHARACTERISTICS OF DEVELOPMENT IN SELWYN

1. Strong greenfield dominance usually at the township fringes. Multiple landowners and odd-shaped sections have resulted in limited infill in older parts of larger townships. Demand for urban amenities in larger subdivisions has seen the inclusion of neighbourhood centres.
2. Under-provision of commercial development, which is now playing catch-up with residential development.
3. New era in terms of land prices with land in Selwyn doubling post COVID. Opportunity to increase density with a change in typology by going ‘up’ not ‘out’. Price point as one reason to buy in Selwyn - e.g. more land for the same price as in Christchurch.
4. Service limitations in some areas that affected growth are now being rectified, increasing development options in smaller townships, outside the commuter belt.
5. Land banking has affected townscape and urban form, large areas that are zoned for residential development remain undeveloped such as Darfield. In contrast there is limited zoned land available in popular areas close to Christchurch.
6. The character of the two largest townships has significantly changed in size and composition, becoming highly urbanised areas.
7. Housing demand will likely put pressure on highly productive land unless new approaches are found.
8. The dominating housing typology is a single-story, 4-bedroom standalone house.
9. Areas developed as part of the Housing Accord (HASHA Act 2013, COVID-19 Recovery Act 2020) have got the highest density and have incorporated smaller 2–3 bedroom units with single garaging. Overall, there is a lack of variation in housing typologies, in particular semi-attached or attached typologies in the District.
10. Other housing typologies include ‘senior lifestyle’ housing and retirement villages in the larger centres.
11. Public transport is limited, some townships are not connected to the public transport system and rely on private operators. This is particularly troublesome, as for example, Darfield and Leeston have an older demographic.
12. Internal migration has been the biggest driver for new residents in Selwyn. The population age composition for 2023 shows that Selwyn is ‘younger’ than the rest of the country (66% of the population is between 15-64 years, with people 65+ forming the smallest age group).
13. The rural heritage and influence of the primary sector is strong, with farming remaining the dominant land use in the District. However, for many people moving into the District, there is also the expectation for urban services and facilities, which is part of the overall rural-urban transition process.

2.1.2 SELWYN'S UNIQUE IDENTITY

The Selwyn District encompasses a diverse range of environments and covers approximately 650,000 ha of land. 54% of this land consists of the relatively flat Canterbury Plains and undulating foothills which are home to the majority of Selwyn's population of 81,300 (2023).

LOCATION

Selwyn's greatest asset is its natural diversity and its location, which allows the District to both enjoy a range of natural habitats, while having the amenity and services of urban townships close by. The SH1 motorway provides additional connectivity to Christchurch by reducing travel times, particularly for townships situated en-route (e.g.. Rolleston, Dunsandel).

LIFE-STYLE

The appealing lifestyle of living in a semi-urban setting with the accessibility of the rural hinterland and mountains for recreational purposes is a real draw card for people settling in the District. Stable employment options in the District within an easy commuting distance to the large metropolitan area of Christchurch has contributed to the growth and wealth of the District.

2.1.3 LANDSCAPE AND NATURAL SETTING

Selwyn's landscape is diverse, featuring the shores of Te Waihora Lake Ellesmere, the steep high country, the undulating Malvern Hills with the patchwork pattern of the Canterbury Plains in-between.

LANDSCAPE

Comprising a central portion of the eastern South Island, the Selwyn District is one of the larger districts of the Canterbury Region and is broadly contained by two large braided rivers, the Waimakariri River to the north and the Rakaia River to the south.

The landscapes of the District are amongst some of the most diverse in the country, from the rugged and isolated mountains of the main divide in the north-west to the low, settled and highly modified plains in the south-east.

LANDFORM

At a broad scale, the landforms of the Selwyn District are extremely legible and expressive of its formative past. The transition from the flat modified plains through the foothills and downlands to the limestone basin and high divide ranges are very evident and provide a profound sense of place to each unique landscape.

In order to protect these unique features, development designs need to:

- Protect the natural heritage, including notable trees and water races.
- Protect the soil quality, especially for sensitive and protected habitats.
- Manage hazards, such as flooding and earthquakes.
- Utilise local materials to fit in with the character of the area.

Image: *Ellesmere Road storm water reserve.*

2.1.4 THE SELWYN VERNACULAR

To create a strong identity locally sourced materials that are representative of Selwyn and are readily available and grown or managed in a sustainable manner, should be favoured. By choosing local materials and colours that reflect local history, heritage, and 'backyard', an environment that has depth and meaning for future generations can be provided.

ROOF SHAPE

Housing in Selwyn needs to remain distinct from metropolitan areas. Roof shapes, such as pitched roofs is one aspect that can instil some of the natural shapes of Selwyn landscapes (mountain peaks) within buildings and urban form.

MATERIAL

Locally sourced materials can include the use of local gravel as a concrete aggregate, local river stones as cladding or features (gabion walls) or locally grown timber (Macrocarpa).

Selwyn is known for its rich clays that are made into natural kiln fired clay bricks. Re-constituted or re-claimed brick and glass are also an option that instils character and speaks 'Selwyn'.

COLOUR

Selwyn's agriculture forms the District's backbone. Visually crops and fields change with the season providing colourful inspirations.

The same goes for Selwyn's beautiful backyard with national parks and mountain peaks that are rich in natural tones and hues, all which can be incorporated into house design and built form.

DETAILING

Selwyn's connection to the railways can be expressed in incorporating detailing in the design in form of repurposed railway sleepers, iron detailing or the alignment of pathways.

Gabion walls can be a great feature as retaining walls in reserves or public space.

Image: *Using locally sourced timber cladding.*

Image: *Sunflower fields, Altonbrook Farm, Southbridge*

Image: *Gabion wall as a feature, Te Whāriki, Lincoln.*

Image: *Timber cladding, St. Patricks Church, Lincoln*

3.0 THE NEIGHBOURHOOD

KEY CONSIDERATIONS

The Neighbourhood scale looks at a wider area as part of a township. Neighbourhoods consist of a mixture of landuses that are compatible with residential uses including community services and facilities.

3.1 NEIGHBOURHOOD DESIGN ELEMENTS

1. Reserve/sportsfields
2. Footpath/cycleway
3. Reserve/stormwater
4. Neighbourhood Centre
5. Pre-school
6. Medium density residential housing
7. Public reserve
8. Primary school
9. Public reserve
10. Community gardens

3.2 INTEGRATED NEIGHBOURHOOD

TOPOGRAPHY AND ECOLOGY

OUTCOME

Development that follows the natural landform.

WHY?

Working with the natural elements and their limitations, rather than opting for artificial solutions will have long-term benefits as the Selwyn community grows.

HOW CAN THIS BE ACHIEVED?

1. Work with the grain of the land.
2. Identify amount of land and most suitable locations for stormwater management, having regard to land levels, soil conditions, hydrology, public safety, and adjoining and down gradient landowners.
3. Protect riparian margins to lessen the effects from stormwater run-offs, reduce sediment loads, and retain a high aquatic biodiversity.
4. Plan drainage systems, including waterways, that collect and dispose (in a controlled manner) of surface and ground water from proposed development. Stormwater catchments need to work with overland flow paths, wetlands and streams. Focus on stormwater management rather than immediate discharge.
5. Reviving existing landscape features, such as ecological areas, mature trees, or distinctive contours, provides opportunities to enrich public open space. These can include natural and man-made elements (watercourses, streams, boundaries).
6. Retain existing topsoil which can be useful later on for landscaping, streets, and open spaces.
7. Use indigenous, eco-sourced plant species within public links and spaces to provide food for native fauna and to enhance local identity.

Image: *Reviving existing landscape feature- Liffey Springs, Lincoln*

WORKING WITH THE ELEMENTS

OUTCOME

A development that is designed for sun, shelter, and outdoor living.

WHY?

Correctly aligned and designed neighbourhoods will be able to be resilient in response to challenging weather conditions and climate change.

HOW CAN THIS BE ACHIEVED?

1. Create neighbourhoods that incorporate natural and physical elements to counteract exposure to prevailing winds.
2. Avoid wind tunnels from Selwyn's prevailing easterly by avoiding long, linear east-west roading patterns, by deliberately curving secondary streets and give preference to north-south oriented streets.
3. Consider underlying ground conditions and water levels for proposed public planting and street trees for long-term health and low maintenance, and to determine appropriate building levels.
4. Incorporate areas of group tree plantings for shade and amenity within public places.
5. Minimise natural hazards, such as flooding, by designing with hydrological processes in mind.
6. Identify areas within the site that need to be free of any built environment. Areas prone to flooding can become part of stormwater management areas and green links. Overhead powerlines and pylons need to be kept separate from built form.
7. Ensure that the principle of Mauri Tū is followed by considering climate change implications and protecting, maintaining and enhancing environmental health.

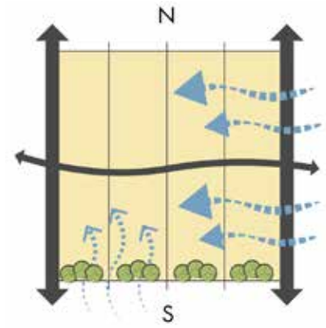


Image: *Avoid wind tunnels from Selwyn's prevailing easterly by avoiding long, linear east-west roading patterns; for example by deliberately curving secondary streets and give preference to north-south oriented streets.*

Image: *Ellesmere Road storm water reserve, Lincoln.*

3.3 CONNECTED NEIGHBOURHOOD

NETWORKS FOR EVERYONE

OUTCOME 1

A legible grid of local streets and crescents that links with the wider movement network on a multimodal basis.

WHY?

A well connected street network increases accessibility for residents and allows for safer and more efficient movement of all types of traffic also enables more efficient infrastructure provision, and is more adaptable to changes, such as retrofitting and intensification over time. In Selwyn, long-term roading connectivity is particularly important to incorporate future growth within identified development areas and changes in levels of service over time.

HOW CAN THIS BE ACHIEVED?

1. Adopt the use of Outline Development Plans (ODPs) where possible to establish the basic transport framework including strategic and main connections from the outset.
2. Be simple and logical in terms of street designs and layout, so that it is easy legible layout for people to navigate.
3. Avoid a proliferation of culs-de-sac in preference to roads and streets that logically connect together. This improves access resilience for servicing and in times of emergency.
4. Make allowance for longer term growth by providing future roading connections to undeveloped adjoining sites by extending key streets to site boundaries.
5. Identify existing and logical potential access points for all transport modes. Connect to adjacent streets and reserves with footpath and cycleways.
6. Make allowance for a bus service along major routes and in proximity to higher density housing and community facilities. This will enhance access to the services and encourage use of sustainable transport.
7. Plan and consult with Environment Canterbury about potential (future) public bus routes and bus stop locations.
8. Work with your neighbour(s). Working with adjacent and surrounding properties might achieve a better integrated development and transport outcomes.

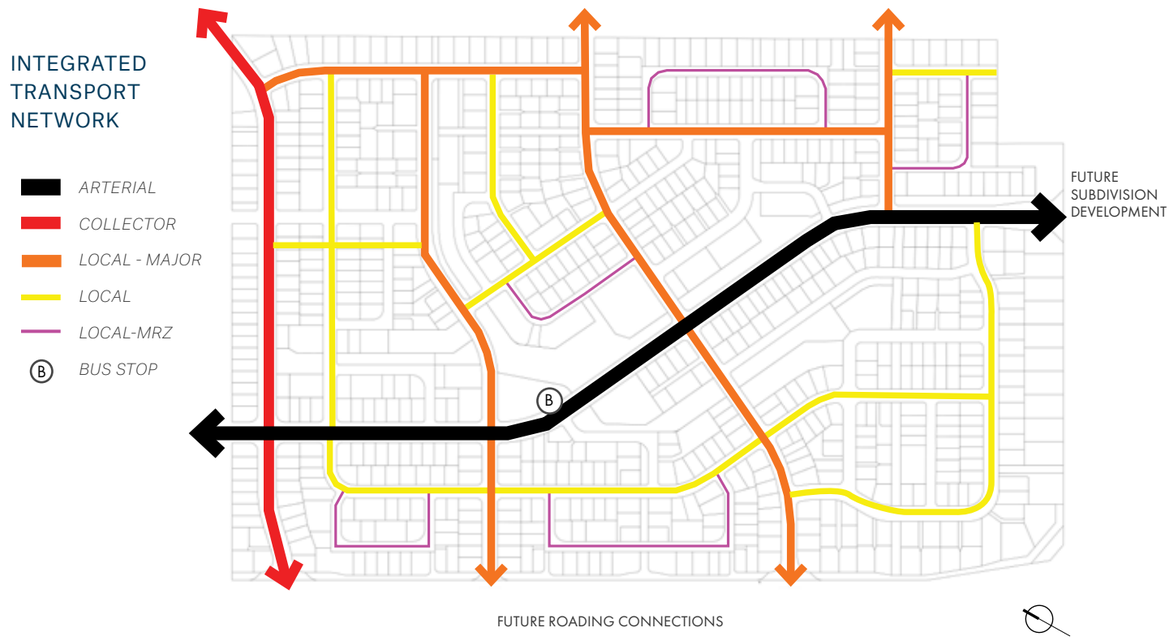


Image: *Identify existing and logical potential access points for all transport modes; connect to adjacent streets and reserves.*

Image: *Create an integrated cycling and walking network*

3.3 CONNECTED NEIGHBOURHOOD

OUTCOME 2

A well connected pedestrian and cycling network.

WHY?

A well connected, legible network of footpaths and cycleways increases accessibility, while an attractive environment encourages people to walk or bike in favour of using cars. In Selwyn, longterm pedestrian and cycling connectivity is particularly important to link within and to future development areas.

HOW CAN THIS BE ACHIEVED?

1. Analyse and understand existing links between local destinations, making allowances for future connections in strategic locations, and ensure these provide logical connections in accordance with the relevant Outline Development Plan.
2. Include main walking and cycling connections across wider areas.
3. Identify desire lines for pedestrian and cycle ways ensuring connection with existing networks.
4. Incorporate safe crossing points along desire lines. People walk and cycle if it is attractive and convenient, so ensure paths are designed to feel safe, connected, and interesting.
5. Consider installing cycle parking facilities in strategic locations, such as near bus stops or at the entrance to reserves to ease the transfer between modes.
6. Incorporate cycling facilities within the roadway, but also provide safe alternative choices, such as separate cycleways alongside busy streets and intersections and alternative off-street short cuts (for example through reserves). This applies in particular where busier streets and higher speed limits make it less suitable for biking and walking in the street corridor.
7. Provide direct pedestrian routes to enable legibility for residents and visitors. Design footpath with all members of the public in mind, choosing width and surfaces that are easy and safe to use.

OUTCOME 3

An integrated, effective and safe movement and transport approach.

WHY?

A purpose-built movement network and environment which is appropriately designed and executed avoids fragmented, after the fact adjustment to layout and design and saves costs in the long run.

HOW CAN THIS BE ACHIEVED?

1. Use Outline Development Plans for identifying intended types of landuse and the proposed roading hierarchy.
2. For large, new greenfield development without Outline Development Plans, develop flexible masterplans where transport and landuse can be linked from the start.
3. Use the roading hierarchy identified in District plans as guidance when designing new streets that link with the existing network.
4. Use the Engineering Code of Practice (ECoP) to provide consistent design framework parameters for the different street hierarchy and One Network Framework (ONF) classifications.
5. Incorporate national Crime Prevention Through Environmental Design (CPTED) principles at all urban scale levels;.
6. CPTED is a strategy to improve the quality of life by reducing crime and the fear of crime. One of the principles of CPTED is passive surveillance ('see and be seen').

Image: *Consider installing cycle parking facilities in strategic locations, such as near bus stops or at the entrance to reserves to ease the transfer between modes.*

Image: *Incorporate safe cycling facilities for all cyclists.*

Image: *Include main walking and cycling connections across wider areas.*

3.4 WELL-SERVICED NEIGHBOURHOOD

WATER SUPPLY

OUTCOME

Reliable, potable and efficient water provisions.

WHY?

Connections to the Council's water system provides a reliable, potable, water source. Solutions for multiple uses of precious water will reduce overall consumption.

HOW CAN THIS BE ACHIEVED?

1. Consult with the Council's Water Services team early in the process to determine if reticulation is available, and if capacity is available to meet future likely demand, including firefighting requirements.
2. The ideal time to ensure the opportunities presented by the development area are capitalised upon is when planning the subdivision design.
3. Avoid installing temporary infrastructure that will not vest in Council (such as irrigation systems in grass berms).
4. Refer to Part 7 of the Engineering Code of Practice for detailed design guidance on water supply assets to vest in Council.

WASTEWATER SYSTEMS

OUTCOME

Sustainable sewer disposal that fits with the Council's strategic service plans.

WHY?

Applying the correct method to dispose of wastewater has long term communal benefits.

HOW CAN THIS BE ACHIEVED?

1. Contact the Infrastructure and Property team at Council at early concept stage.
2. Familiarise yourself with the One Water Strategy and the Wastewater Activity Management Plan that applies to your site in terms of planned infrastructure. Determine if a reticulated wastewater system is available to the boundary and its capacity by consulting with Council's Asset Manager on the Council's sewer system.
3. Consult with Environment Canterbury if your land has no reticulated services available. The most appropriate solution depends on-site specific factors, such as soil conditions. A consent might be required. Lack of reticulation affects section sizes required for example for on-site dripper-fields, therefore, affecting the number of units that can be built.
4. Council will consider alternative technologies on a case-by case basis. Examples include vacuum wasterwater collection systems and reticulated septic tank gravity and pressure systems.
5. Refer to Part 6 of the Engineering Code of Practice for detailed design guidance on wastewater assets to vest in Council.

Image: *Selwyn's water system-providing healthy, potable water.*

Images: *The Pines Resource Recovery Park designed to accommodate the district's growth.*

3.5 RECREATIONAL NEIGHBOURHOOD

A GREEN NETWORK

OUTCOME

An interlinked network of greenspaces that can be accessed on foot or by bike or other non-motorised transport.

WHY?

Walking and cycling has a enormous health benefits. Encouraging people to go for a walk or a bike ride can be promoted by providing inviting and attractive environments and routes.

HOW CAN THIS BE ACHIEVED?

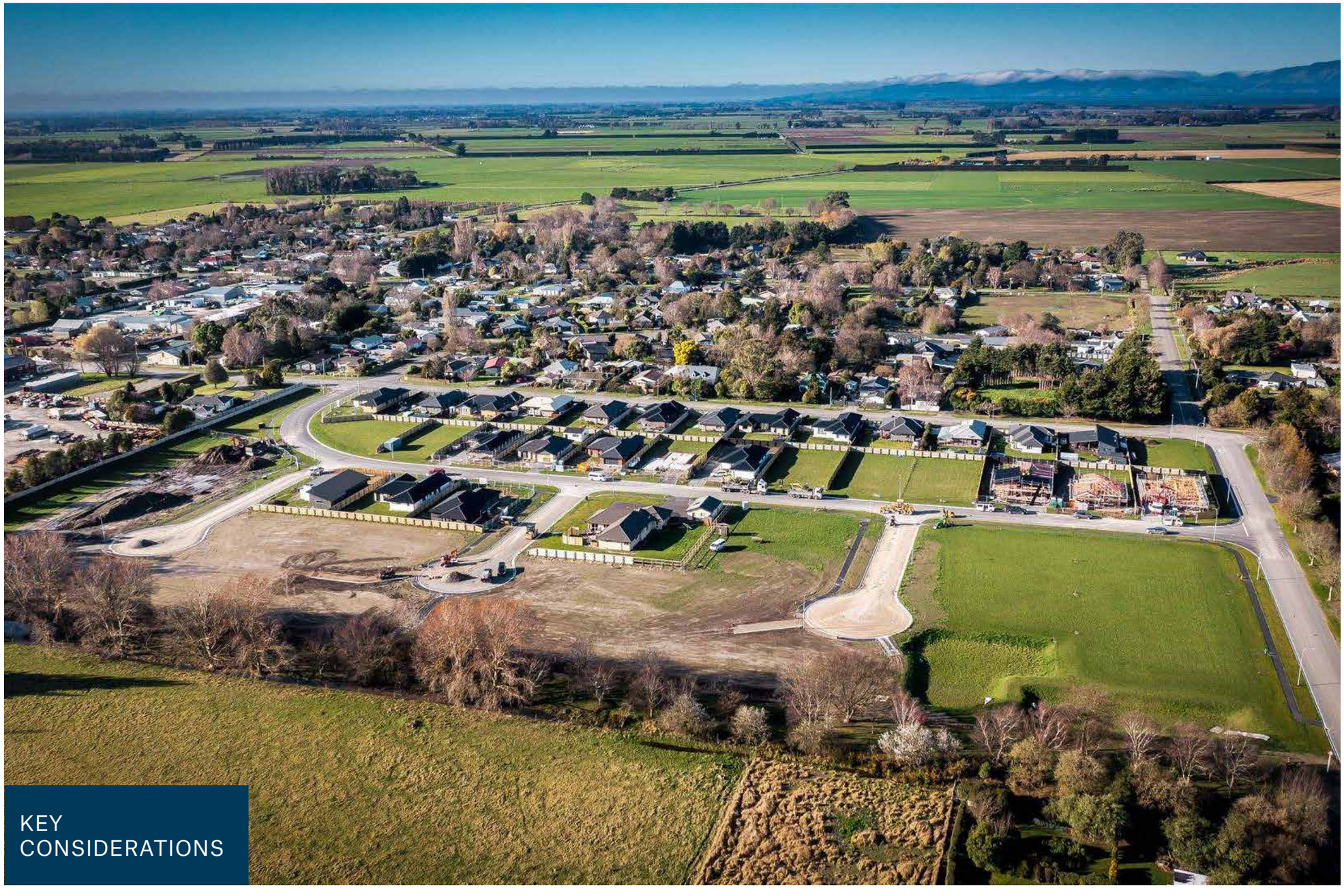
1. Acknowledge the health benefits of active movement options and make this a priority of your community design.
2. Locate open spaces and green links to ensure they contribute to and compliment wider transport networks by providing alternative routes. Make them as attractive as possible by integrating landscape design and CPTED principles.
3. Establish the purpose and location of green space in prominent locations, such as along main routes, at the entrance to a development, at the centre of a subdivision or at the end of a viewshaft.
4. Establish useful, larger sites with the correct shape for active recreation purposes.
5. Utilise smaller pockets of green space ('pocket parks') for passive recreation space and aesthetic value.
6. Consider the design of streets to slow vehicle speeds to encourage more use of linked walking and cycling and access and interaction with green spaces.
7. Allow for access to natural resource to maintain mana whenua ahi kā and kaitiakitaka.

Image: *Creating inviting walking environments Liffey, Lincoln.*

Image: *Accessible, multi-usable green space, Faringdon Rolleston.*

Image: *Recreational fun for the younger ones in the community, Falcons Landing, Rolleston.*

4.0 THE BLOCK



KEY CONSIDERATIONS

The Block scale refers to sites within a north-south and east-west roading grid. To achieve a permeable, walkable environment, a perimeter block is ideally no more than 800 metres.

4.1 BLOCK DESIGN ELEMENTS

1. Align pedestrian and cycling routes with surrounding neighbourhoods.

2. Avoid rows of sites within identical configuration.

3. Create mid-block walking and cycling connections of 6-10m of overall reserve width.

4. Incorporate public spaces as amenity features and utilise them as focal points.

5. Use public space, such as streets, as buffers to mitigate potential reverse sensitivity issues.

6. Ensure block layout works practically for refuse collection, maintenance and emergency services.

7. Place larger sites on corners to mitigate multiple street frontages.

8. Align higher density areas along reserves or where community services or public transport are readily available.

9. Create walkable blocks with a perimeter of 600-800 metres.

10. Place larger lots at the interface with adjacent established landuses.

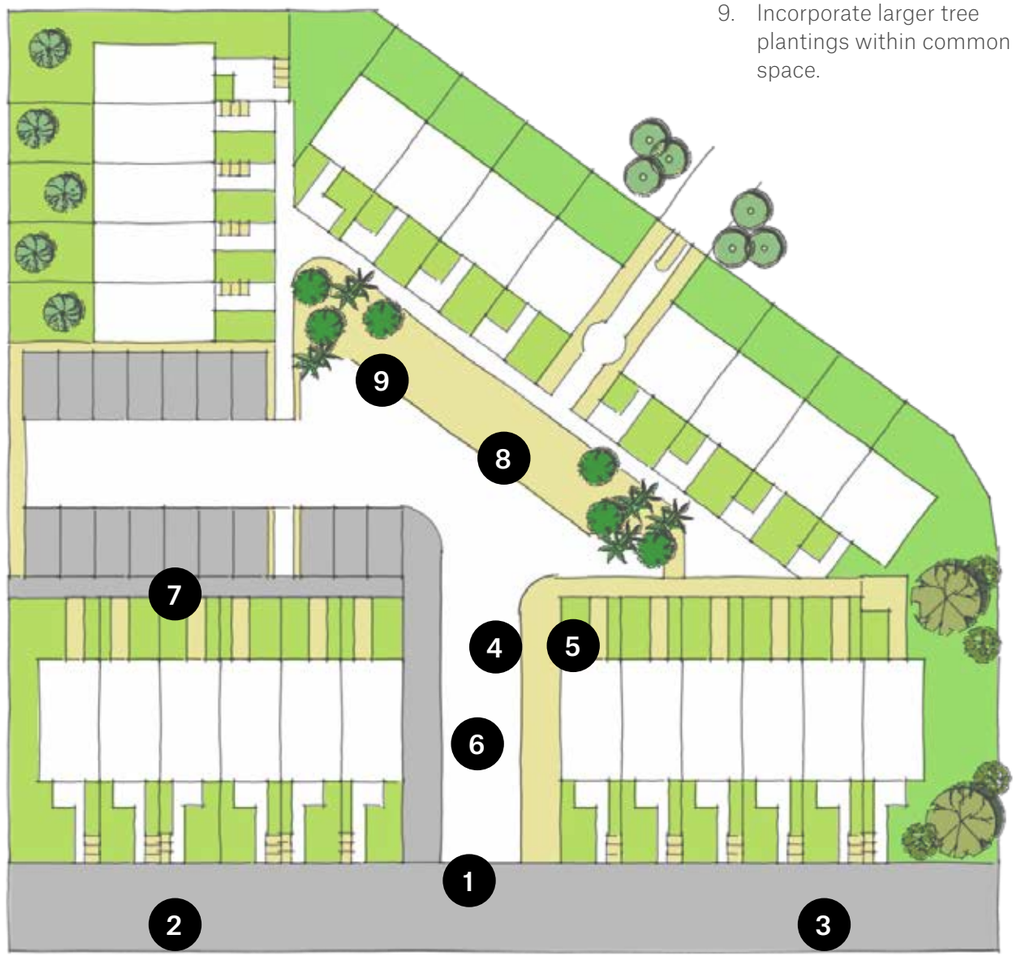
11. Ensure footpath connections to the wider network are provided and linked with.

12. Limit the use of culs-de-sac which do not allow internal block permeability.

4.2 PERIMETER BLOCK DESIGN ELEMENTS

1. When choosing a site for a perimeter block development, choose one that is ideally accessed off the south to get north (west) facing outdoor living spaces.

2. Ensure that street facing façade treatments are varied, interesting and in keeping with the Selwyn vernacular. Ensure attached typologies are built in blocks of no more than 6 units to retain an appropriate scale.



3. Ensure units address the street by having front doors and letter boxes at the public street interface.

4. Ensure safety within the site by avoiding areas of entrapment, provide sufficient lighting at pedestrian level and enable passive surveillance by minimising solid structures such as fences.

5. Ensure pedestrian accessibility and safety around the site.

6. Ensure that there is a gap of no less than 6 metres between adjoining built form. This gap provides a viewshaft and can be used as an accessway.

7. Ensure that each unit has storage and service space and that there is additional communal storage provided on-site.

8. Create dedicated waste collection areas to avoid large amounts of bins on the berm on collection day.

9. Incorporate larger tree plantings within common space.

4.3 CHARACTER ENHANCING BLOCK DESIGN

LOCATION

OUTCOME

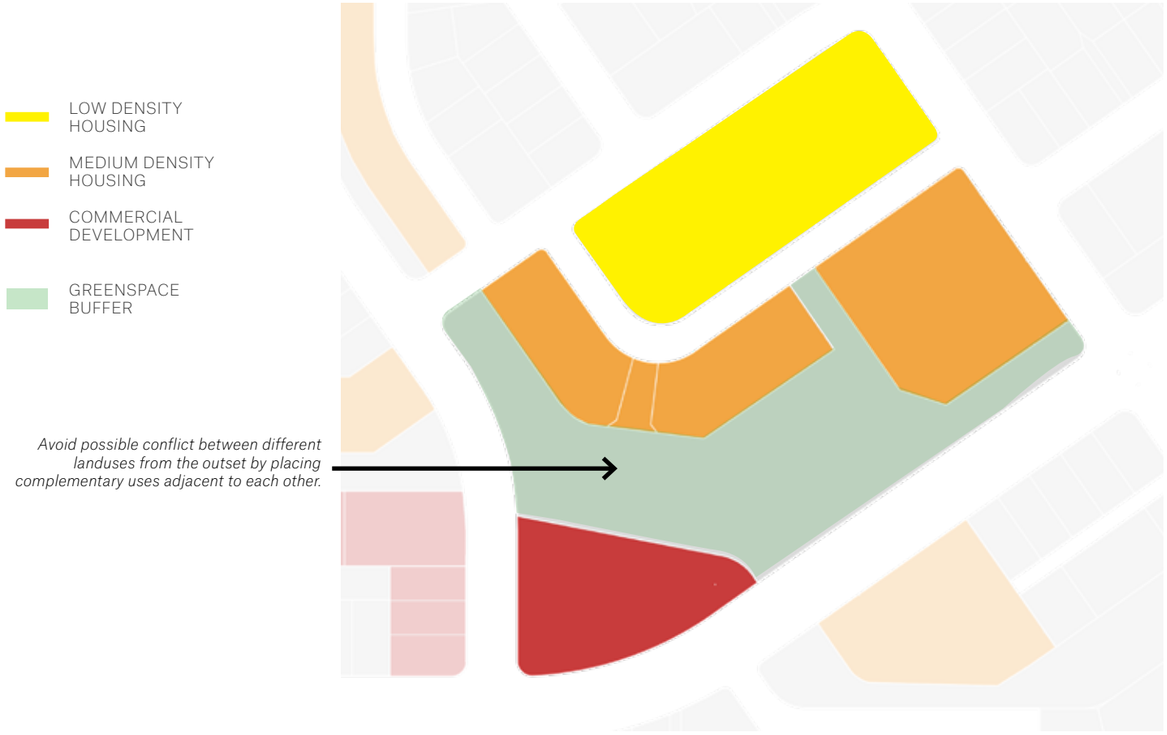
The right landuse for the right location.

WHY?

Complimentary landuses create positive outcomes and prosperity in the long-term.

HOW CAN THIS BE ACHIEVED?

1. Choose the right site for your development within a block-location. Inter-relationship of landuses, transport networks, and open spaces and services are key.
2. Determine what types of developments are appropriate and how can these be integrated with the wider urban structure.
3. Avoid possible conflict between different landuses from the outset by placing complementary ones adjacent to each other. If necessary, reverse sensitivity can be mitigated by using appropriate separation measures, such as roading or landscaping buffers, adapting section depths and widths, or stipulating building platforms.
4. Place businesses, public open spaces, and services along main routes and close to key intersections, which will allow them to benefit from passing traffic and act as buffer between the main street and residential areas.
5. Choose blocks that are in walking distance to amenities, including open spaces and community facilities, or are situated on a bus route for higher density residential developments.
6. Make allowance for longer term growth and future development areas.



Avoid possible conflict between different landuses from the outset by placing complementary uses adjacent to each other.

Image: *Place businesses, public open spaces, and services along main routes and close to key intersections, which will allow them to benefit from passing traffic, without any amenity loss.*

4.3 CHARACTER ENHANCING BLOCK DESIGN

CHARACTER AND IDENTITY

OUTCOME

Different areas of development that reflect the past and present, identifying and celebrating local character.

WHY?

Local character is not solely about shapes, colour and material, but also about how the built environment feels and functions, and how well it fits with the existing elements of the area. Considerate design can form a new neighbourhood, which has its own character and sense of place, yet is well integrated with the existing township.

Acknowledge the Māori world view of the wider significance of tohu-use cultural landmarks and associated narratives to inform spatial orientation and design responses. Allow for a wider connection to a place, tell the story of our ancestors.

Incorporate heritage trails and markers that follow the principle of mahi toi and ensure that iwi/hapū narratives are captured and creatively and appropriately expressed through language, technology, and public art.

HOW CAN THIS BE ACHIEVED?

1. Consider early consultation with the Heritage New Zealand Pouhere Taonga to preserve any natural and archaeological features on-site.
2. Local character can be reinforced by identifying local patterns of land use, and design of the open space and streetscapes.
3. Do your research about your land- there might be an underlying historic story that wants to be celebrated.
4. Ensure new development contributes, not imitates, with a design that locals can identify with.
5. Detailed elements, such as paving, street furniture, or mature trees, especially in the case of a master planned community, can create a special character and specific identity. Ensure that the choice of elements follows a consistent 'theme' that is in context with the land, site and its natural and cultural history.
6. Consider character assessment findings for your particular area, such as zone characteristics and identity forming features.
7. Ensure whakapapa by telling traditional stories through design, art, cultural markers and interpretation panels.
8. Make provisions for manaakitanga within the urban realm to uphold the ana of Ngāi Tahu whānui and acknowledging ahi kā within urban areas.

Image: *Sculpture Garden, Tai Tapu.*

image courtesy of Tai Tapu Sculpture Garden

Image: *Do your research about your land- there might be an underlying historic story that wants to be celebrated.*

4.4 WALKABLE BLOCKS

A walkable block is defined as the shortest distance which is possible to be walked entirely around on publicly accessible land.

Create the ability for access to a bus route within a 400-500m (5min walk) radius.

Create walkable blocks with a perimeter of 600-800 meters (6-8min walk) to ensure there is connectivity and choice of routes through to local shops, community facilities and public transport.

For technical details, such as street and footpath widths, street lighting, kerbing etc, follow the Council's Engineering Code of Practice.

BLOCK DESIGN AND CONNECTIVITY

OUTCOME

Block design that supports a legible informal roading grid for ease of walking and navigating.

WHY?

A compact, legible layout of blocks in a grid achieves efficient connections. A grid also provides a simple structure allowing access which will increase walkability and avoids back tracking.

HOW CAN THIS BE ACHIEVED?

1. Design a well-defined perimeter block, avoid dual street frontages. Ensure that the front of properties face fronts of other properties (front to front and back to back), which will create attractive semi-public frontage with private space to the side or rear.
2. Build an informal grid which has predominantly north-south orientation, avoiding need for south facing sections.
3. An informal grid is a traditional layout with the use of a combination of sinuous streets and crescents or a clustered layout so that some irregular lot shapes with varying housing types and roof lines are accommodated.
4. Limit rear lots and accessways to form a legible, safe network without the need for back-tracking.
5. Good outcomes include blocks with a low number of back sections.
6. Prefer crescents over culs-de-sac as crescents contribute to a walkable network. When culs-de-sac are used, design them short (<60m) and straight, or with a reserve that includes a footpath and cycleway at the end of it. These measures allow for end-to-end views.
7. Link footpaths and cycleways through to adjoining developments to provide attractive route alternatives.
8. Consider a layout that is accessible for all users, including physically and visually impaired, disabled or elderly, using wheelchairs or mobility scooters.
9. Contact and consult with BarrierFree to ensure all developments meet best practice for an accessible urban realm and facilities.

4.5 SERVICEABLE BLOCK DESIGN

TRANSMISSION LINES

OUTCOME

Placement of buildings on-site in safe distance to any existing transmission towers.

WHY?

The structure and the transmission lines can be a safety hazard as well as an amenity issue for adjacent housing.

HOW CAN THIS BE ACHIEVED?

1. Familiarise yourself with Transpower advice on safe separation distances and access requirements in general.
2. The NZECP34:2001 is a regulation under the Electricity Act and compliance with its provisions is mandatory. The safety distances specified differ depending on individual circumstances such as topography and the voltage of line.
3. Adhere to the mandatory Electricity Regulations 2003 which define a safe separation distance for trees growing under overhead lines.

STORMWATER MANAGEMENT AND DETENTION

OUTCOME

Location specific stormwater solution that is resilient and focuses on management.

WHY?

Stormwater should be viewed as a resource not just a by-product of development. It can provide for a variety of uses and add value to a development.

HOW CAN THIS BE ACHIEVED?

1. Assess the risk around climate change and higher intensity rainfalls that require different ways to manage stormwater treatment and disposal.
2. Design to minimise stormwater runoff by minimising impervious surface areas as much as possible, and discharging to ground on-site where ground conditions permit.
3. Consider stormwater catchments with emphasis on treatment on-site. Look for opportunities to combine function and amenity, such as dual-use stormwater basins, reserves and playgrounds detention and 'play space'.
4. Design to minimise flood hazard and construct for resilience by choosing low carbon options.
5. Consider stormwater management and low impact design solutions early in the site planning process, as they will influence design and layout of the remainder of the site.
6. Consider options to harvest rainwater collectively in retention ponds.
7. Use a multi-tiered approach to stormwater management that combines the natural ability of Papatūānuku to filter and cleanse stormwater with the use of advanced treatment systems.
8. On-site options include the use of swales, rainwater tanks, basins and ponds, wetlands and riparian planting, which adds amenity and provides natural habitats.
9. Refer to Part 4 of the Engineering Code of Practice for detailed design guidance on stormwater assets to vest in Council.
10. Incorporate indigenous biodiversity and ecological values into the stormwater management system.
11. Incorporate Taiao to help achieve sustainability, resilience, natural character and the goal of increasing the use of natives within public spaces.

Image: *Educating future generation on the importance of water.*

Image: *Ellesmere Road Stormwater Reserve.*

4.6 RECREATIONAL BLOCK DESIGN

The formula of 1.2ha reserve per 1000 population has worked in the past and is based on national guidelines.

Understanding the likely demographics of the locality as a guide to the types of public green spaces to be provided is recommended.

A distribution criteria of 500 metres will generally be applied to ensure reserves are located within easy walking distance of residents.

Design open spaces according to their purpose. Dimensions and placement need to work for the intended use (links between 6-12m wide, reserves 50m minimum width).

Image: *Plan for purpose and avoid creating unuseable space.*

A BALANCED DEVELOPMENT

OUTCOME

Providing the correct amount and type of public open blue and green space in the right location.

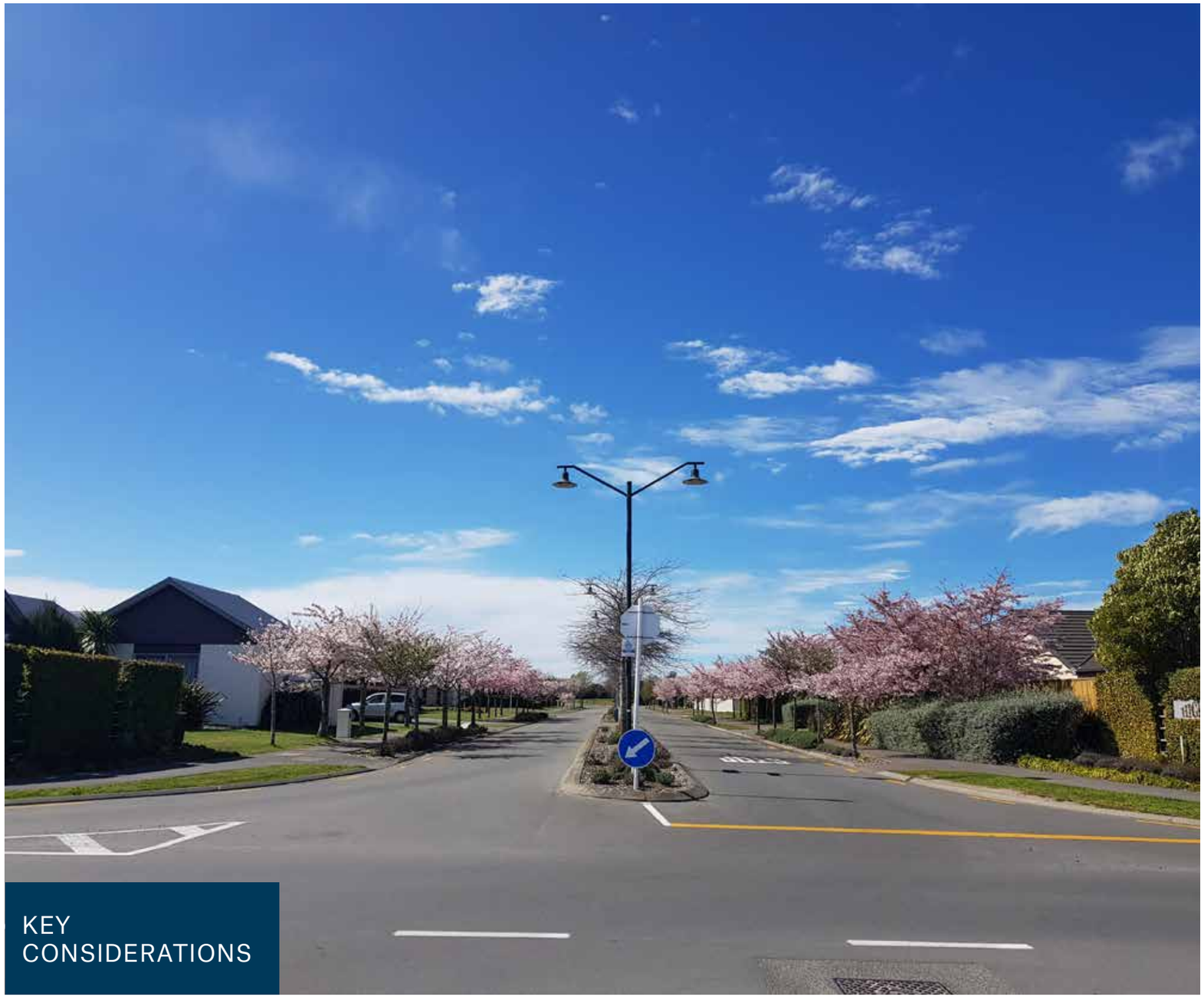
WHY?

A network of different public green spaces has numerous health benefits for the community and visually adds to the wider outlook. Balance the amount and type of reserves between providing amenity and the ongoing cost on the community to deliver and maintain those spaces.

HOW CAN THIS BE ACHIEVED?

1. Please refer to the set of criteria to determine the suitability of land to be acquired by Council as reserve.
2. Locate and distribute green space in accordance with proposed density. The higher the density the more reliance there is on reserves and streetscapes to balance the built environment. Providing open space improves amenity values and quality of life and contributes to the natural environment.
3. Consider locating reserves at the end of a viewshaft, to create a focal point, at rural boundaries, at the entrance to a new development, or at the end of cul-de-sac heads to improve connectivity.
4. Use body corporate structures for communal open space areas that provide a setting for shared facilities (BBQ, gardens etc.) on-site. These communal spaces need to read as 'private'.
5. One large open space supported by a number of smaller pocket parks throughout a larger subdivision is recommended.
6. Understand the types and size of public green space in surrounding neighbourhoods that may also service the development.
7. The sustainability over time of the public green space network is paramount and the provision of space for recreational, amenity, and other values must be balanced against the long terms cost of ownership and affordability to the community.
8. Follow the principle of Taiao by integrating the park network to act as corridors and patches for indigenous wildlife.

5.0 THE STREET



KEY CONSIDERATIONS

The street scale applies to roads, lanes, crescents and accessways. Streets are public assets that in the context of an urban environment have a transport and a place function. On a national level this is often referred to as 'complete streets'.

5.1 STREET DESIGN ELEMENTS IN SELWYN

Streets are the most visible and interactive asset of townships.

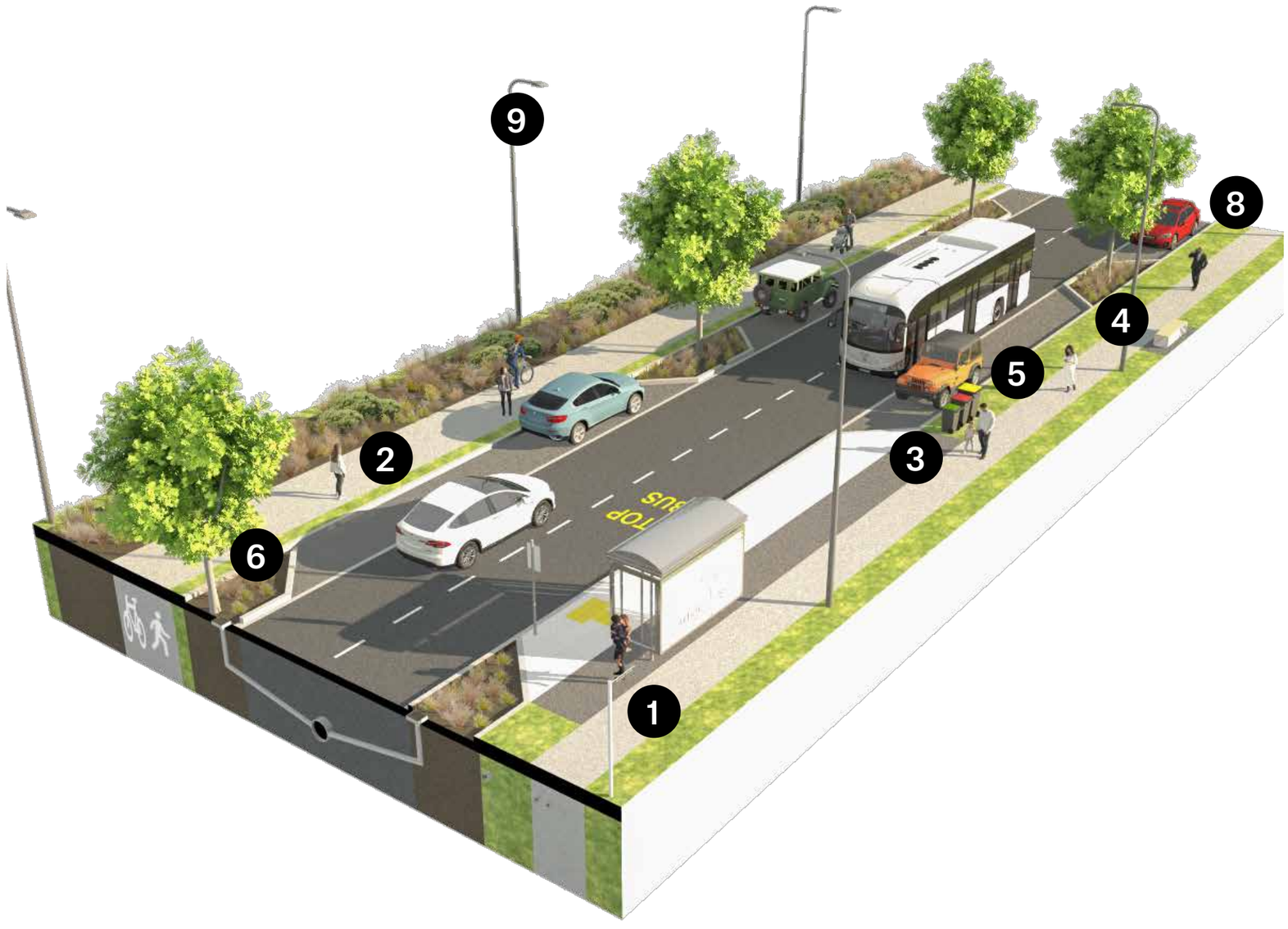
They are important public spaces for everyone that need to balance movement, access and place.

The default street type should be adaptable to all modes of transport, however in an urban context layouts need to favour the safety of pedestrians and cyclists.

Council supports the complete streets approach which acknowledges the importance of context when designing streets.

DESIGN GUIDANCE

1. Each street is unique. Council supports the principles provided within the Aotearoa Urban Street Planning and Design Guide for best practice street design.
2. Have footpaths on both sides of the carriageway. This includes shared use paths (pedestrians and cyclists) on main streets and related key cycling routes.
3. Align pedestrian routes alongside streets for visibility and safety.
4. Ensure street layout works practically for refuse collection, maintenance and emergency services.
5. Keep street corridors wider to offset narrower street frontages and smaller on-site spaces in higher density areas.
6. Provide adequate space within berm areas for bin collection without affecting pedestrian pathways.
7. Incorporate space and location for amenity features, such as street trees, and utility areas as part of the design.
8. Choose street and curb design that educates and deters discharge into drains.
9. Incorporate car parking by alternating spaces with street trees.
10. Ensure footpaths are visually segregated from parked cars using different surfacing.
11. Choose street lighting that complies with Council's street lighting requirements.



5.2 STREETS ALIGNING TO LANDMARKS

VIEWS AND OUTLOOK

OUTCOME

Streets that are aligned along key view shafts and natural features.

WHY?

A flexible roading grid that recognises and enhances natural sightlines will retain important views and contributes to Selwyn's unique character.

HOW CAN THIS BE ACHIEVED?

1. Align streets along key view axes and ensure built form complements views. This also helps with wayfinding.
2. Create a diversity of short and long views with the outlook being urban or natural. This could include views to the Canterbury Port Hills, the foothills or the Alps.
3. Use public open spaces and reserves to link views and enhance outlook of higher density private space.
4. Allow for a visual connection to significant sites and cultural landmarks thus acknowledging the principle of tohu within a development.

5.3 STREETS AS PUBLIC SPACES

NETWORKS FOR EVERYONE

OUTCOME

Functional, user-friendly and attractive streets.

WHY?

Streets are the most visible asset of Selwyn townships. They are important public spaces for everyone that need to balance movement, access, and place.

HOW CAN THIS BE ACHIEVED?

1. Design streets according to their hierarchy and be consistent in terms of appearance, width, design and level of service.
2. Reinforce the District Plan's Roading Hierarchy with streetscape design that is appropriate to context. Function (movement, access and place) depends on One Network Framework classification and landuse.
3. Choose a street layout that is appropriate for adjacent landuse. Balance traffic flow while creating a sense of place or allowing for services to operate.
4. Ensure that the street layout works for refuse collection, maintenance, and emergency services.
5. Consciously incorporate car parking as part of the street layout. This is particularly important for higher density development with limited car parking ability on-site. Ensure parks are visually integrated by alternating with tree plantings to soften urban outlook.
6. The default street type should be an adaptable street where all modes of transport can be incorporated. Design streets that favour pedestrians and cyclists. In the urban environment this includes dual footpaths.
7. Main streets and intersections need to accommodate buses, including making provision for indented bus bays and bus shelters.
8. Get your design assessed by BarrierFree on its suitability for mobility and visibility impaired users and incorporate features such as cut downs and pedestrian refuges. Council has signed up to an accessibility charter, putting particular emphasis to make Selwyn streets user-friendly for everyone.
9. Where an existing street is to be continued within a new subdivision, the design of the continuation should reflect the existing design elements, such as width and landscaping so the individual developments become integrated across a wider area.
10. Align pedestrian routes alongside streets for visibility and safety.
11. For technical details, such as street and footpath widths, street lighting, kerbing etc., follow the District Plan and Council's Engineering Code of Practice.
12. Council supports Quiet Street in a low speed, low traffic volume context.

Image: *Design streets for all users.*

Image: *Place reserves at the end of a viewshaft, to help create useable space.*

5.4 FUNCTIONAL STREETS

SERVICES

OUTCOME

Well-incorporated, accessible and future proofed services.

WHY?

Planning for the specific need and location of underground services will reduce potential access issues in the longrun and creates streets that are practical and safe to operate and maintain.

HOW CAN THIS BE ACHIEVED?

1. Design the street layout that takes account of the need for services and access to them; services conventionally follow the routes taken by streets and footpaths.
2. Choose the arrangements of multiple services accommodated in shared strips that do not clash with other infrastructure like footpaths for accessibility.
3. If necessary, consider easements to allow for services across private properties.
4. Make sure that street plantings and in particular their root system do not interfere with services by using root guards.
5. Make sure that large equipment boxes for telecommunications and power are not obscuring frontages and are ideally set into boundary walls or visually enhanced by landscaping.

STREET LIGHTING

OUTCOME

Efficient lighting.

WHY?

Incorporating adequate street lighting into the design creates safe environment for all street users.

HOW CAN THIS BE ACHIEVED?

1. The use of LED lights creates better and more efficient outcomes reducing light bleed.
2. Limit light spill to minimise effects on night sky.
3. Incorporating street lighting as part of street design and keeping with the lighting design standards in section 12 of ECoP.
4. Consider the main 3 lighting effects light spills, glare and sky glow when designing lighting schemes. Refer to NZ Transport Agency Waka Kotahi for guidance.

Image: *Design streets according to their hierarchy and be consistent. Faringdon, Rolleston.*

REFUSE AND WASTE COLLECTION

OUTCOME

Tidy and efficient removal of waste and recycling using Council kerbside collection services.

WHY?

Using the most appropriate method for rubbish collection will contribute to a high amenity streetscape.

HOW CAN THIS BE ACHIEVED?

1. Familiarise yourself with the appropriate refuse collection method for your particular development. Council's Waste Management Policy, and the Waste Minimisation and Management Bylaw 2019 applies. Waste trucks will not travel on private accessways. In these cases ensure there is a communal collection area for all properties sharing an accessway.
2. Waste collection for higher density housing may need to utilise a different methodology. Keep in mind that waste collection and waste storage are intrinsically linked. The service, including the frequency that is available, ultimately dictates size and type of storage.
3. Ensure that space within the berm is allocated for refuse and collection can occur without affecting pedestrian pathways.
4. Be particularly mindful of allocated space for rubbish bins in higher density residential areas where more bins are likely to be fitted within a narrower street frontage. This may involve having a wider grass berm on the streetside and footpaths closer to the property boundary.
5. Small lanes and ROWs with rear sections will need to present their bins on the street. Provide them with a dedicated area where bins can be placed on collection day.
6. Culs-de-sac, particularly with islands in the middle, can present refuse truck turning issues. Ensure that the design has been street tested for waste and emergency vehicles and that streetside parking does not interfere with refuse collection.
7. Streetside swales can result in lack of level ground to place bins out for collection, hence alternative space needs to be allocated as part of the development.
8. Cycle lanes should be carefully considered to ensure bin placement and collection can be achieved without the collection vehicle arm stretching across the cycleway.
9. Narrow carriageways with on street parking can mean that the refuse truck is unable to pass through. Particularly narrow streets should restrict on-street parking and incorporate parking bays instead.

Images: *Kerb side rubbish collection, Rolleston*

5.5 BLUE AND GREEN STREETSCAPE

WATERWAYS AS FEATURES

OUTCOME

An attractive streetscape characterised by reinstated and beautified waterways.

WHY?

The Selwyn Plains lack points of difference and development can tend to be flat and featureless. Water races as historical features on-site can form an attractive, distinctive element.

HOW CAN THIS BE ACHIEVED?

1. Consult with the Council's Infrastructure Team for all matters pertaining to water races, including operational matters, such as flow and cleaning regimes.
2. Establish the ecological value of the water race, if not already provided by Council.
3. Consider retaining and beautifying a water race and incorporating it as a point of difference for the development. Refer to the planting guide for water race margins.
4. Re-align water races to a prominent location, along streets and public reserves. Having a water race in a public location is a good outcome in terms of visibility and access for maintenance.

STREET TREES AS FEATURES

OUTCOME

An attractive tree lined streetscape, where people have a pleasant walking experience.

WHY?

Street trees add greenery, unity and quality to the street scene and can be used to provide a sense of identity to a place. Trees also provide a shade canopy that can cool the surrounding areas and absorb pollutants and reduce stormwater runoff, adding value to adjacent homes.

HOW CAN THIS BE ACHIEVED?

1. Trees have an important function within the urban environment including providing amenity, direction, shade, and visual variety.
2. In a higher density environment with less space on-site, tree plantings are mostly occurring at the street interface.
3. The minimum treepit requirement even for smaller species to grow successfully in Selwyn is 2 metres.
4. To counterbalance the bulk and scale of the built form, trees need to be of an appropriate height and shape to be able to soften the built form.
5. Consider landscape elements (including street trees) early in the design process. Refer to ECoP for engineering details, such as berm widths and the need for root guards to minimise damage to footpaths.
6. Seek assistance from Council's landscape architects to choose the right species and size (at planting and at maturity) to achieve trees that will grow and prosper in the Selwyn climate.
7. Consider placing trees in a way that they do not obstruct driveways, street lighting or service corridors, including footpaths.
8. If choosing between two alternatives, choose species that are low maintenance.
9. Consider irrigation needs in landscape planning. Most trees will need some form of an irrigation system to become established, either automatic or manual irrigation, for a period of up to three years after planting.
10. Time the planting when exact locations of street furniture and vehicle crossings are confirmed.
11. Avoid trees with shallow root systems in close proximity to hardscape areas, as tree roots can break footpaths surfaces. Utilise root guard when trees are within 1 metre of hardscaped surfaces.

Images: *Street trees add amenity, colour, and shelter. Oaks Lane, Lincoln and Dryden Avenue, Rolleston.*

5.6 BEST PRACTICE-COMPLETE STREET ELEMENTS FOR SELWYN

1. TREES

Incorporate trees as part of your street design to gain amenity and climate benefits including reducing urban temperatures.

Choose trees that suit the locality and space available.

Positively contribute to increasing the tree canopy in Selwyn.

2. AMENITY

Incorporate the space and location for amenity features, such as street trees, and for utility areas (stormwater management and detention) as part of the design, not as an afterthought.

Where an existing street is to be continued within a new subdivision, the design of the continuation should reflect the existing design elements and sensible transitions.

3. SIGNAGE

Street signs should be customised to suit the area and should match other street furniture. Themed street names can give a subdivision a sense of identity. Use names of local significance that are unique and easily recognisable.

Follow the principle of whakapapa by engaging with mana whenua when naming streets and public places in te reo.

The second part of a street name needs to be reflective of the function. For example, a 'crescent' will only have limited movement function and signals to the user that there might not be a through route.

8. CAR PARKING

Incorporate car parking by alternating spaces with street trees to achieve a more integrated look, ensuring on-street parking does not block waste collection, maintenance vehicles, or impede traffic flow.

Best practice seeks to separate footpath and parked cars while visually separating parking and carriageway with the use of different surfacing. Consider higher density development, where there is limited car parking ability on-site.

4. LIGHTING

Street lighting is an important character detail of an urban environment, which is needed for both street safety and people's security (see ECoP). Consider aspects such as pole colour, LED energy efficiency, and reduced light spill when choosing street lighting. Lighting infrastructure should be adaptive to future controls systems needed for implementing dark sky outcomes.

7. REFUSE/ENERGY

Ensure that the street layout works practically for refuse collection, maintenance, and emergency services.

Provide adequate space within berm areas for bin collection without affecting pedestrian pathways. Be particularly mindful of the needs of higher density residential areas.

6. SAFETY

The use of carriageway thresholds and raised platforms can reduce the speed of traffic. This, combined with lower speed limits, will enhance pedestrian and cycling safety.

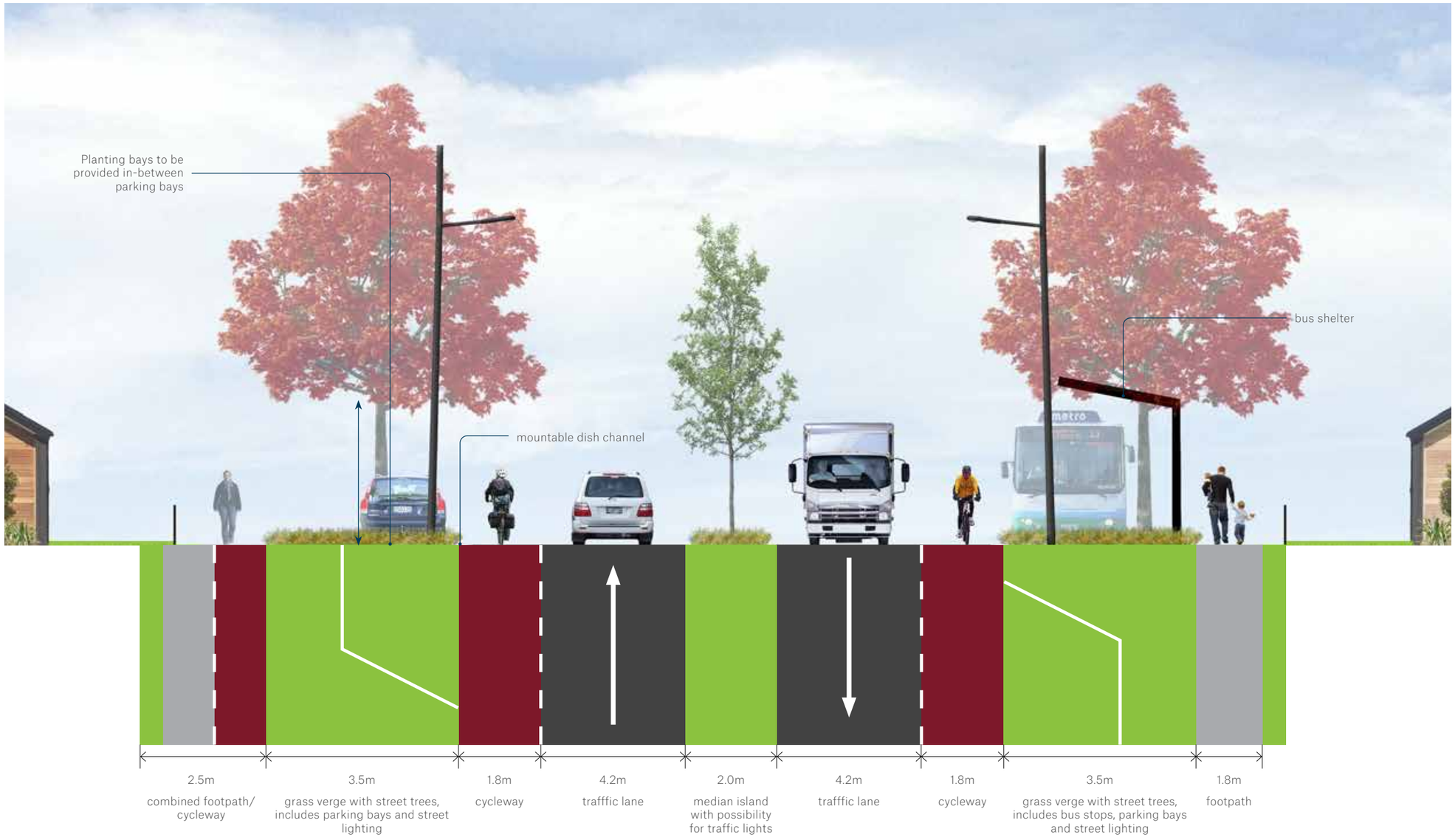
5. TYPE

The default street type should be an adaptable street where all modes of transport can be incorporated. Layouts and elements that favour pedestrians and cyclist should be a priority in an urban environment. This includes the number and widths of footpaths and pathways. To meet CPTED principles, align pedestrian routes alongside streets.

5.7 EXAMPLE OF DESIGN ELEMENTS OF AN ARTERIAL OR COLLECTOR ROUTE IN SELWYN

DESIGN GUIDANCE

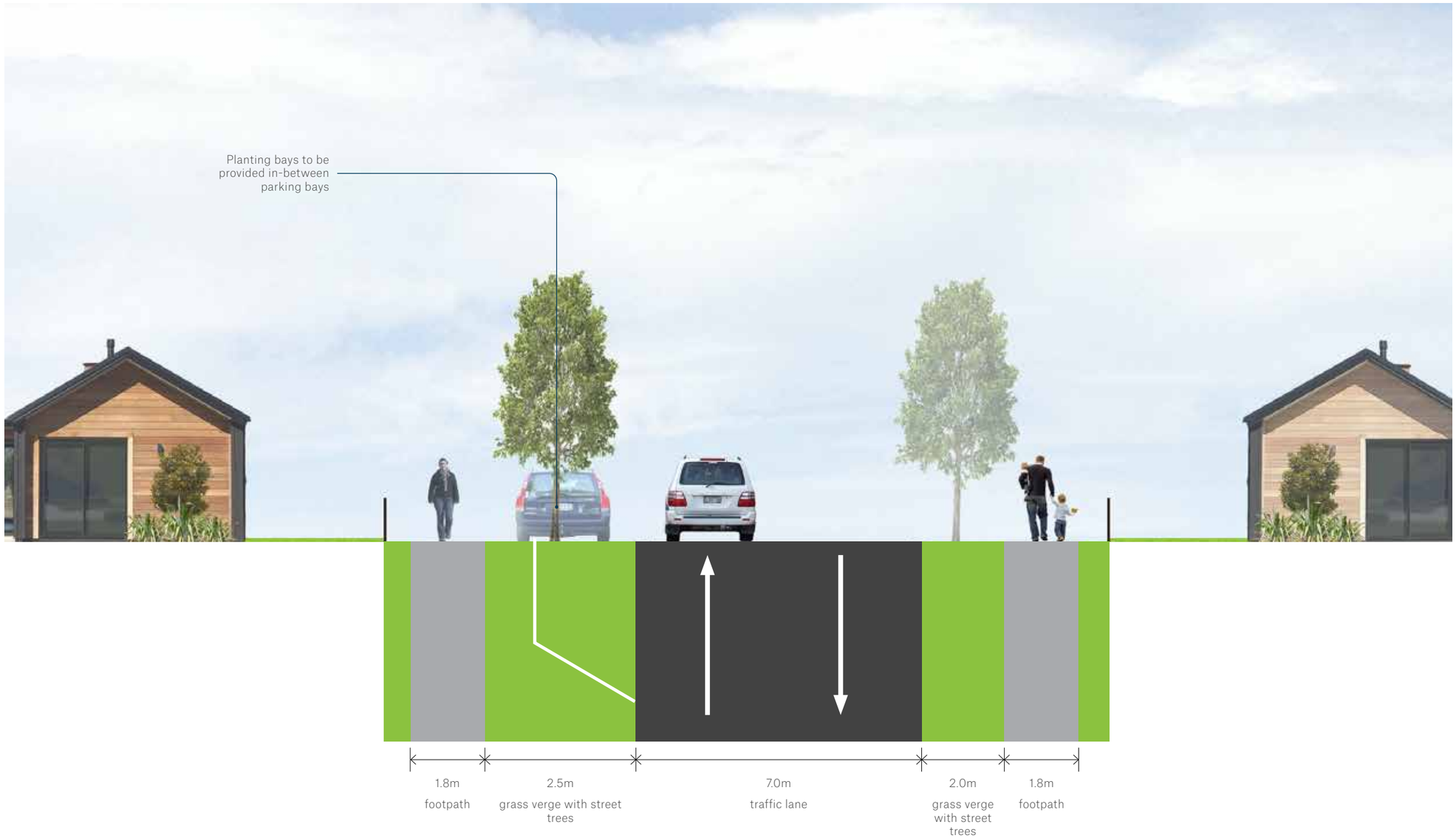
1. Arterial routes can include State Highways, which are not controlled by Council.
2. Example streets in an urban environment include Gerald and Edwards Streets in Lincoln.
3. Create dedicated, signalled pedestrian thresholds for safe crossings.
4. Each area needs to be clearly demarcated to increase safety between pedestrians, vehicles and bikes.
5. Enable space for public transport (bus stops).
6. Allow for dedicated car parking bays on both sides of the street alternating with street trees and/or rain gardens.
7. Place footpaths on both road sides.
8. Plan for cycle provisions that cater for different user types. Shared off-street footpath and cycleway space are for less confident cyclists; others can use on-street demarcated cycling lanes.
9. Allocate space for waste collection within the grass verge, so bins do not block footpaths.



5.8 EXAMPLE OF DESIGN ELEMENTS OF A LOCAL ROUTE IN SELWYN

DESIGN GUIDANCE

1. Design for dedicated one-sided car parking bays, alternating with amenity enhancing planting bays/street trees/rain gardens.
2. Place footpaths on both sides of an urban street environment.
3. In low vehicle volume environments, bikes can share street space.
4. Allocate space for waste collection in the grass verge, so bins do not block footpaths.



5.9 EXAMPLE OF DESIGN ELEMENTS OF ACCESSWAYS IN SELWYN

DESIGN GUIDANCE

1. Accessways are private in nature. The maintenance and upkeep falls to the landowners or body corporates.
2. Accessways provide an access and place function for rear sections, but no through connection (see back lane).
3. Public waste collection does not occur on accessways.
4. The design configuration (e.g. width) depends on the number of sites accessed and the length of the accessway.
5. For best outcomes, accessways have a straight and short configuration, servicing a limited number of sites (see District Plan).
6. Combining adjoining sites for a comprehensive development provides better outcomes and reduces the number of separate accessways.
7. For a visual widening of the accessway, use soft demarcation methods, such as landscaping and no, or low fencing along boundaries.
8. Ensure internal safety by favouring a site configuration that favours passive surveillance and a legible front door placement.
9. Keep accessways free of clutter (rubbish bin, storage) by planning for dedicated storage areas.

Images: *Example of a accessway in a Medium Density Environment.*

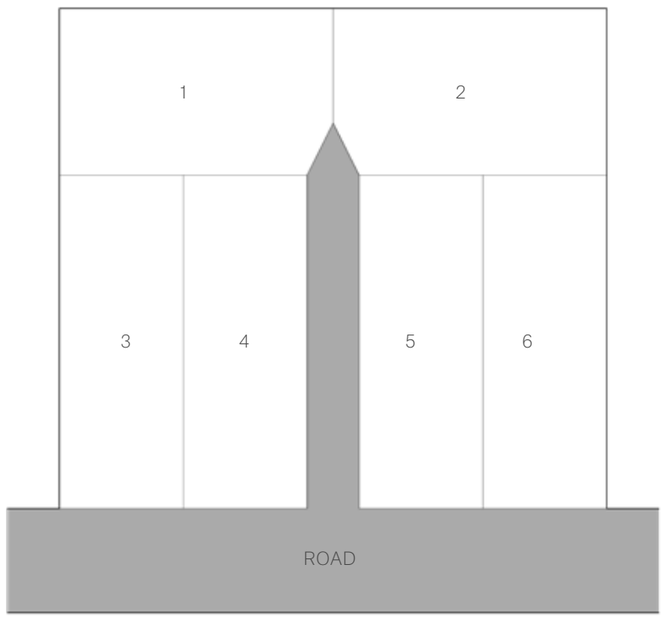


Image: *Example of a private accessway servicing two back lots.*

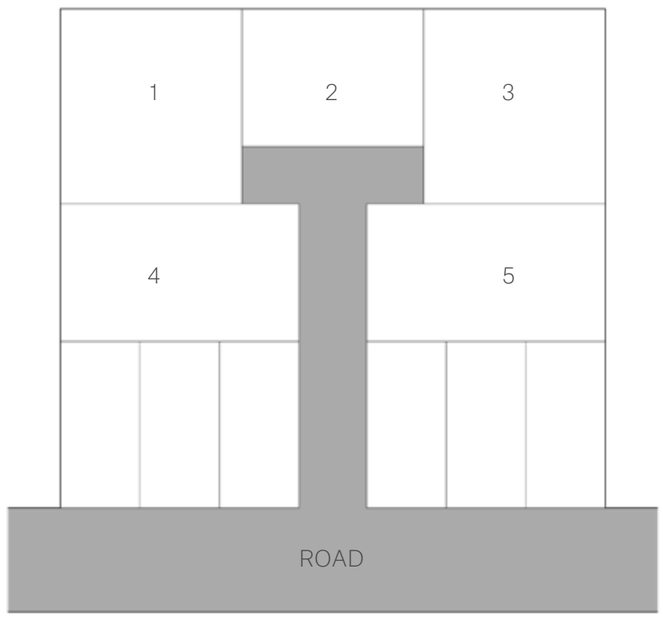


Image: *Example of a private accessway with a turning area.*

5.10 EXAMPLE OF DESIGN ELEMENTS OF CULS-DE-SAC IN SELWYN

DESIGN GUIDANCE

1. Provide access to sites and units, as well as creating a space that has a place function.
2. Choosing a short (<60m), straight configuration (end-end visibility) provides high amenity and safe outcomes in line with CPTED principles.
3. Limit the amount of units having access off culs-de-sac.
4. Ensure units address/face public space.
5. Design street as a low-speed environment.
6. Two culs-de-sac that are linked via a green space add to the wider cycling and walking network, but need to be designed for safety to limit CPTED issues.
7. Green space provides passive recreation or play space and provides visual relief amongst the built environment.

Images: *Appleton Court (Faringdon, Rolleston) and Juliet Place/Caesar Close (Rolleston Hamlet)*

5.11 EXAMPLE OF LOCAL ROUTE-SHARED SPACE/SLOW STREET/PLAY STREET

'Shared space' is a planning concept that started in 1990s in the Netherlands, as 'Woonerf', which translates as 'Living Street'. The terminology, as indicated in the header, all leads to an outcome with similar characteristics.

DESIGN GUIDANCE

1. It is important to understand that the concept in a residential context is relatively new in New Zealand. A conversation needs to be started to make sure the concept is understood by its users.
2. To achieve satisfying outcomes, a place-based approach needs to be incorporated into street design. Shared space is not just a shrinkage of a 'standard' street and a retention of all the elements at a reduced scale.
3. Shared space or 'play streets' must be designed and perceived as spaces where pedestrians, cars and cyclists have equal rights.
4. No demarcation between users, one shared surface. Adding street furniture, landscaping, and other measures, increases local amenity and assists to achieve speeds equal to 'walking speeds' of 4-10km/h. This design only works with very low volume of vehicles.
5. No parking, unless in dedicated areas.
6. If vested as public, streets needs to meet ECoP requirements in terms of waste collection and access for emergency vehicles.

Image: *Example of sharing a street* ***image courtesy of Sport New Zealand- Ihi Aotearoa***

Image: *Testing a shared space and playstreet environment in the city centre, Christchurch*

5.12 EXAMPLE OF PRIVATE ROUTE (REAR OR BACK LANES)

The 'rear lane or back lane' concept originates in the 13th century in the United Kingdom, with lanes running parallel to the main street at the other end of burgage plots.

The concept creates a private environment that provides for vehicular access, adds distance to adjacent neighbouring properties and can function as a playstreet.

The use of the backlane gets cars and garages off the street, thus enabling a better interface between units and public spaces. Subsequently the number of vehicle crossings is reduced, making it safer for cyclists and pedestrians using a footpath/cycleway.

The use of rear lanes in Selwyn is anticipated in medium density areas, along primary routes for attached building typologies, such as terrace housing on narrow sites.

DESIGN GUIDANCE

1. Choose a site that is accessed either from the south or east to avoid conflicting outcomes.
2. Restrict the number of units for each lane to create a private bespoke nature.
3. At the street interface, front of house functions, such as entrances and letterboxes must be retained.
4. Rear lanes in the residential context must be designed and perceived as private spaces, where residents (or a body corporate) take ownership and responsibility of the upkeep and maintenance of the space.
5. Create a private, high amenity environment that deters the public for using the lane as a shortcut.
6. Create a functional 'back of house' space by incorporating vehicular access, parking, service and storage, off or, within the rear lane.
7. Consider a multi-use (landscaping, lighting, storage) demarcation strip along the boundary with neighbouring properties.
8. Ensure lanes are safe (well-lit) and legible (visible from one end to the other) and meet CPTED guidelines.
9. Allocate (waste) storage areas within the lane and consider an appropriate collection method.

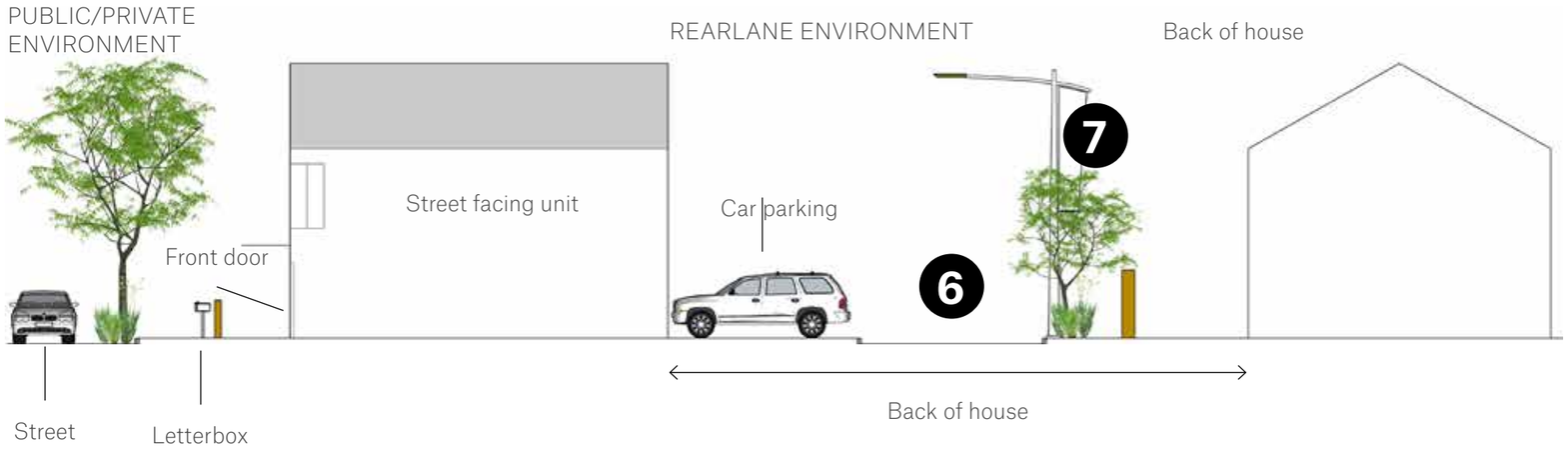


Image: *Rear lane example, Accordia Mews Cambridge, United Kingdom.*

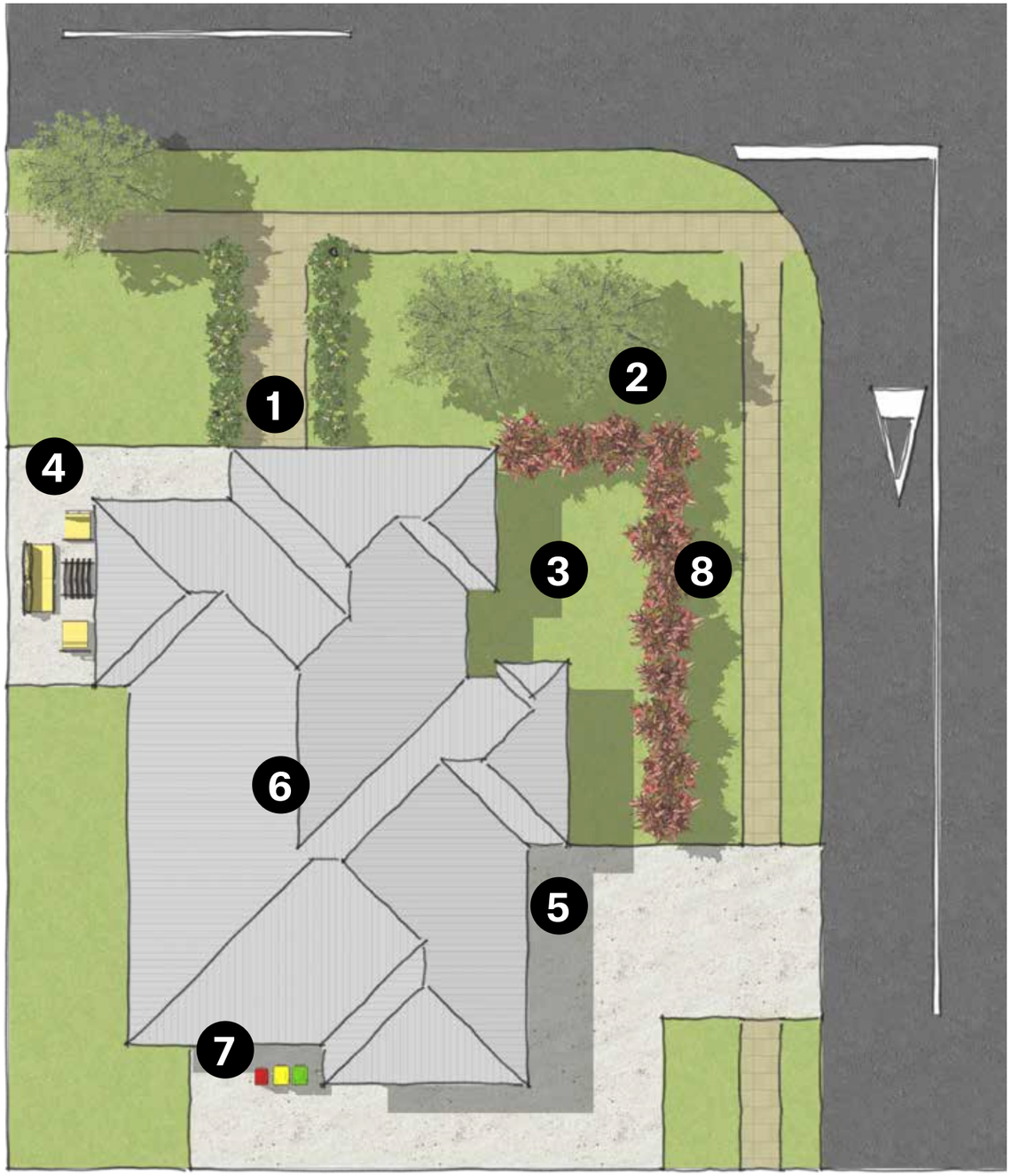
6.0 THE SITE

KEY CONSIDERATIONS

The site scale looks at a single site that can be developed in an urban context. Interface treatments are an essential part of site design.

6.1 EXAMPLE OF SITE DESIGN ELEMENTS IN SELWYN

1. Front door is visible and accessible from public space.
2. Front yard is open and landscaping and tree plantings add to the streetscene.
3. Privacy on-site is created behind or to the side of the building.
4. Private outdoor living space is placed on the sunny part of the site.
5. Garaging is integrated into built form and placed to the shady side of site.
6. Site configuration fits the built form.
7. Allocated service space is not visible from public space.
8. Berm visually forms part of the front yard.



6.2 BEST PRACTICE SITE LAYOUTS

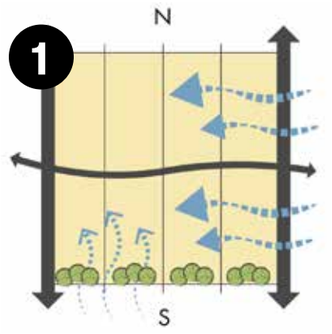
The best design is achieved when the site addresses public space, private, sunny and useable space for residents can be created and there is a positive response to known constraints.

6.2.1 ON-SITE AMENITY

On-site amenity values include historical (e.g. water races) and natural (e.g. trees) features that may have cultural meanings. Good outcomes include sites that are distinct and acknowledge existing natural or man-made site features.

WIND

1. Ensure that Selwyn's strong easterly and southerly wind directions are considered. Winds can affect a site's amenity, particularly outdoor living areas.



TREES

2. Incorporate existing mature trees and utilise them as focal point at the end of view shafts, gathering spots or natural amenity features that provide shelter, changing seasonal views, and general greenery in areas with limited vegetation.

WATER

3. Incorporate water as a key amenity feature within public space. All water sources (man-made or natural) are of importance and their retention and maintenance needs to be discussed with Council.

PLANTINGS

4. Use plantings that are suited to the residential context. If rural shelterbelt plantings cause shading and impact on outlook and views, the best solution is to remove them and replace them with species that are suited to the site.

VIEWS

5. Retain views from sites that provide a connection to the outside world via built-free viewshafts.

6.2.2 SITE CONFIGURATION

Sites where the built form has been developed according to solar orientation, and considers the way that they are accessed, provide better privacy and higher amenity outcomes overall.

STREET FRONTAGE

1. Street frontage refers to the part of the site that faces public space, which is usually also where access is from.
2. The frontage of a site determines how density gets perceived. For stand-alone housing typologies with double garaging, ensure that sites have at least 15m street frontage width along public space.
3. Internal boundary setbacks between units assists in maintaining Selwyn's open residential character and amenity.

ORIENTATION

4. The District Plan allows for a mixture of site sizes with a minimum average net site area, while also stipulating the minimum building square dimensions (see SUB-Table 1-4 in the District Plan). Both depend on the zone of the site.
5. Design sections for optimum solar gain. Narrower sites work along the western or northern side of streets. Wider frontages are required for sites along the eastern or southern boundaries.

DESIGN

6. Corner sites are particularly challenging as they have at least two areas of public/ private interface.
7. To achieve privacy, and retain passive surveillance, determine where access is located. Private outdoor living space is best placed behind the front façade of the unit, to the side or the back of the site.

ACCESS-EAST

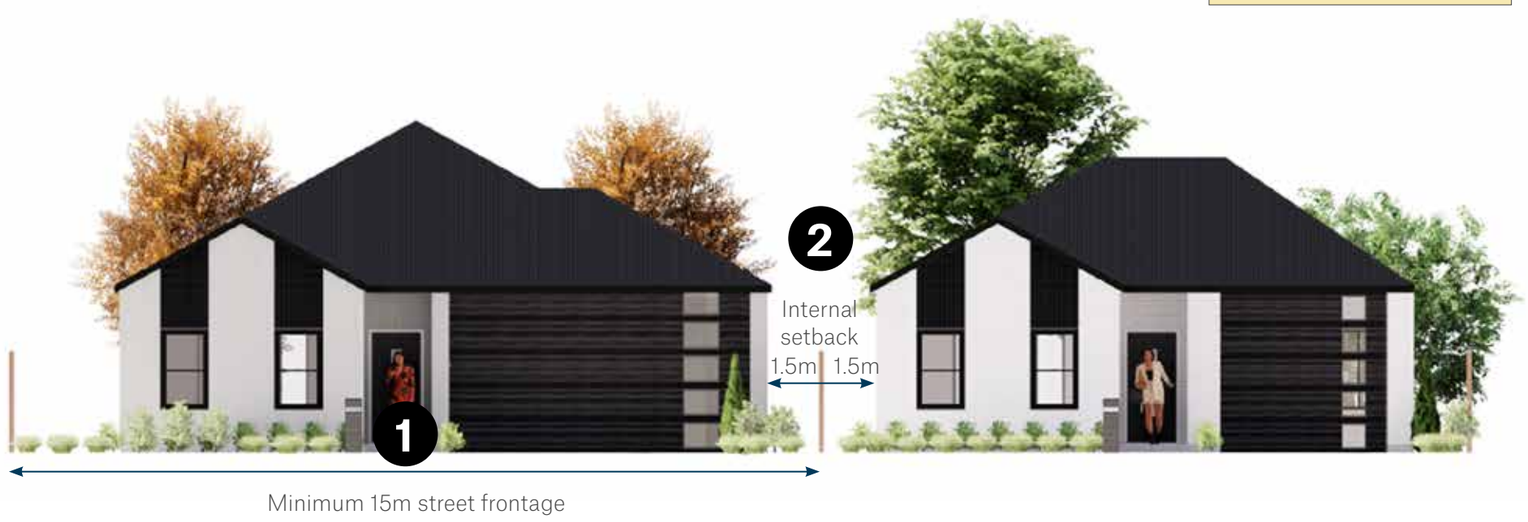
8. Small sites become challenging depending on orientation, so choose sites to develop higher density housing that are accessed off the east or south, as these sections will naturally be able to create sunny outdoor living space in the back yard.
9. Sites accessed off the east are ideal for attached housing typologies.

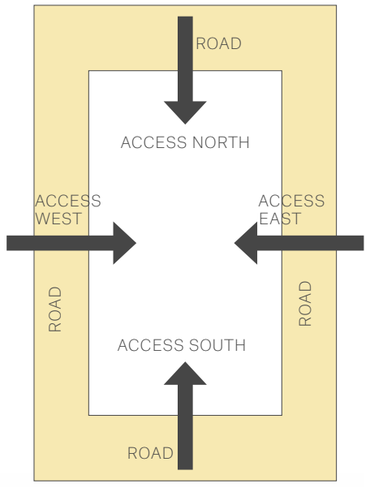
ACCESS-WEST

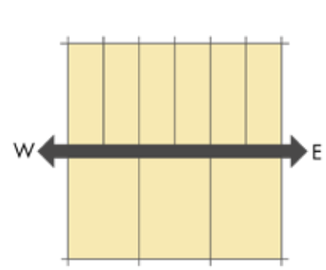
10. Rectangular shapes that have the long side along public space create areas for visitor or public on-street parking.
11. Allow for wide frontages for sites accessed off the west or on corner sites to provide good outcomes for private outdoor living space.

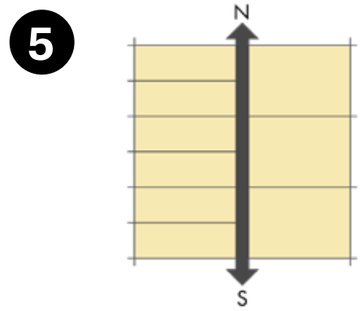
ACCESS-NORTH

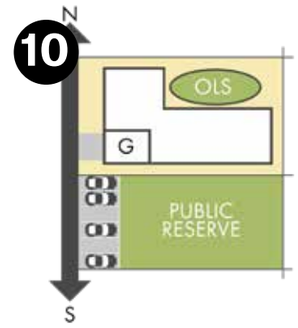
12. Sites that have access off the north benefit from a wider street frontage (>20m) to accommodate outdoor living space to the side of the building.
13. Place driveways to the east to have outdoor living space to the west. Cut outs, or a L-shaped building, provide alternative sheltered options for private outdoor living space.

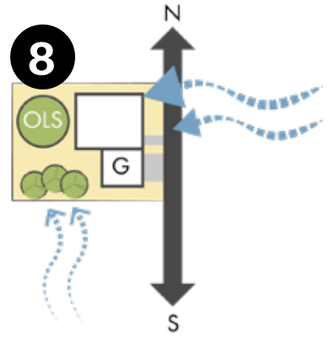


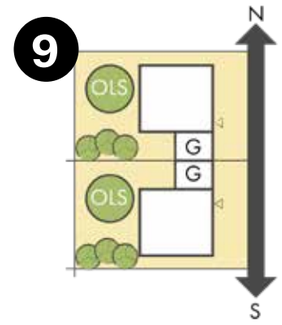












6.2.3 PUBLIC PRIVATE INTERFACE (PPI)

Public Private Interface is the area between the private front yard and adjacent public space. This can be footpaths, streets, reserves or cycleways. Boundaries between public and private areas can blur.

CLEAR FRONT AND BACK

1. Design sites to have a clear front and back.
2. Design the front yard for amenity and casual observation. A well-kept front yard visually widens the streetscape and adds amenity value in the form of greenery and interest for passing pedestrians.
3. Sites that been developed with a clear front and back positively contribute to the streetscene and will achieve both privacy and the ability for passive surveillance.

STREET ACTIVATION

4. Incorporate street activating elements, such as vehicular access, front door and glass openings facing public space to enable passive surveillance or 'eyes on the street'.
5. Choose low level soft demarcation methods in the form of plantings.

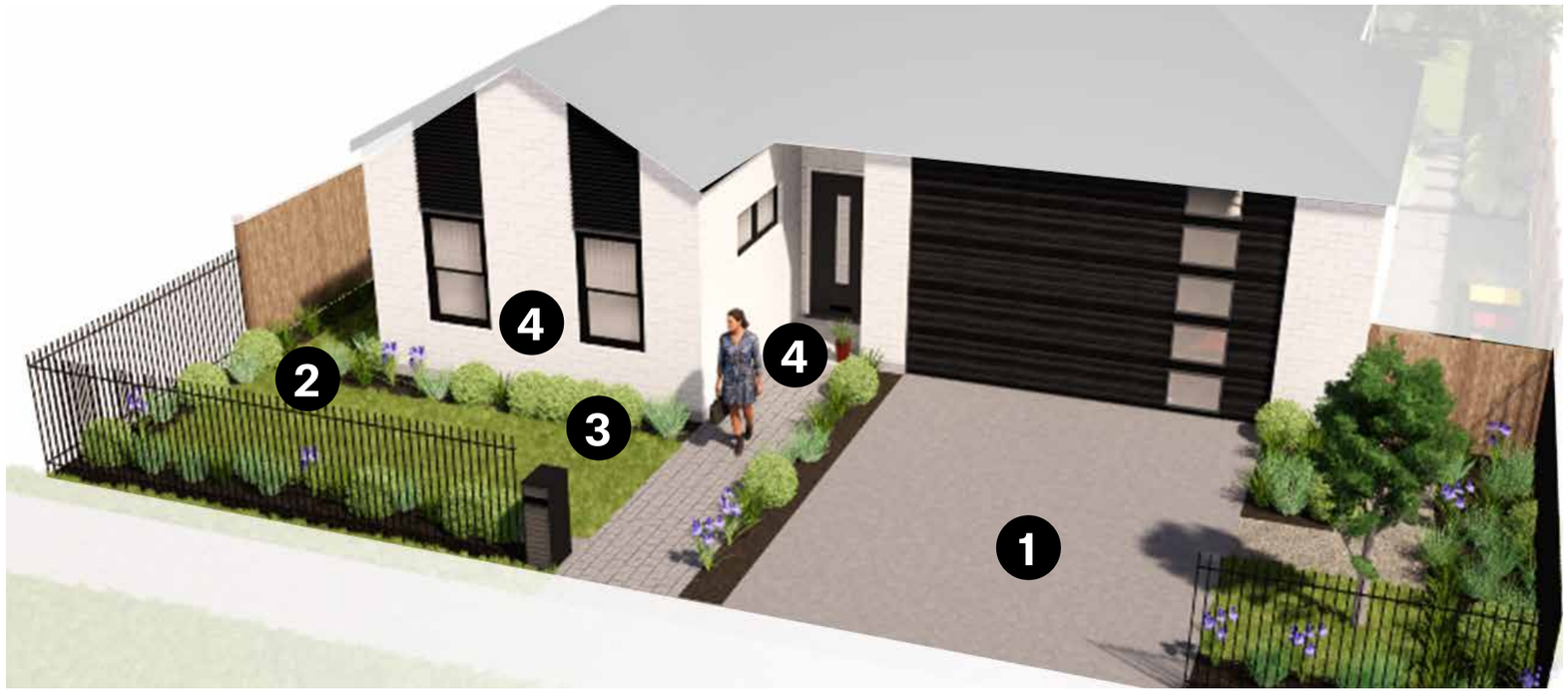


Image: *Sites that been developed with a clear front and back.*

Image: *Plantings can replace fencing in front yards visually expanding the public private interface.*

6.2.4 ACCESS AND PARKING

Vehicle crossings need to be placed as to avoid traffic flow and safety issues. Avoid multiple crossings next to each other. The correct placement creates better opportunities for private outdoor living space.

ACCESS

1. Place vehicle crossings strategically, using the shady side of the section.
2. Sites that have been developed by limiting the number of accessways, and that provide parking along public spaces create a better street interface including safer footpaths and cycleways.
3. Explore the idea of skinnier, combined driveways/crossings, e.g., in the context of higher density housing, and alternative paving methods with higher soakage rates.
4. Keep fencing and planting along driveways below driver's eye level (maximum of 1m) to optimise visibility when exiting the driveway.

PARKING

5. On most sites, on-site parking is best accommodated in garages that are integrated into the building and form part of the architectural design.
6. Parking can also occur on-site, in carports or on dedicated hardstand areas.

Image: *Example of carport garaging.*
image courtesy of Green Homes New Zealand

Image: *Example of permeable surface materials.*

Image: *Example of a tandem garage.*

6.2.5 SERVICE AREAS

1. Allocating space for service and storage areas on-site, but out of the public eye, is important to retain a high amenity within Selwyn's communities.
2. It is likely that further separation of recyclable materials at home will result in an increased number of bins per house.

PLACEMENT

3. Sites that been developed with dedicated storage (waste and other) and service space, contribute to a high amenity neighbourhood.
4. Place utility areas, such as washing lines, away from frontages and/or behind internal fencing, to retain a visually attractive streetscene.
5. Allow space on individual sites for rubbish bins in areas close to where kerbside collection is happening.
6. Choose bin enclosure areas that compliment the style of the unit(s).
7. Service space should be provided in a separate location to private OLS.

Image: *Place utility areas within side yards away from frontages and/or behind internal fencing.*

Image: *Use dedicated bin and storage enclosures, particularly in the context of Higher Density housing.*

6.2.6 PRIVATE OUTDOOR LIVING SPACE (POLS)

Achieving privacy and providing outdoor living space are important components of healthy living. Adapting to site configurations with the built form helps to design for shelter, privacy, and maximum sunshine hours.

In most residential zones, there should be a minimum of 50m^2 exclusive outdoor living space, with a minimum dimension of 4 metres at ground level. In the Medium Density Residential zone, 20m^2 is sufficient.

1. A preferred site layout is where private space is placed to the side or at the rear of the built form.
2. Placement of outdoor living space depends on orientation, point of access, site shape, size, and prevailing wind direction.
3. Sites that been developed according to solar orientation, and the way they are accessed, provide better privacy and higher amenity outcomes overall.
4. If access is off the east, consider having POLS to the north of the section. This can be achieved by a wide fronted section.
5. Design for outdoor living space that is sheltered from the easterly, which is a constant in Selwyn.
6. On corner sites with a north-facing orientation POLS may be created in front of the façade, a balance needs to be achieved between privacy and passive surveillance.

Image: *Example of a private backyard.*

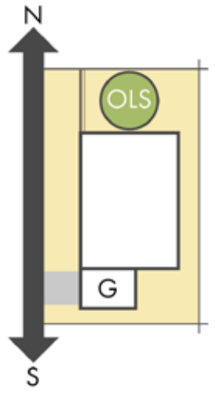


Image: *Create privacy behind the front façade with optimum orientation for sun.*

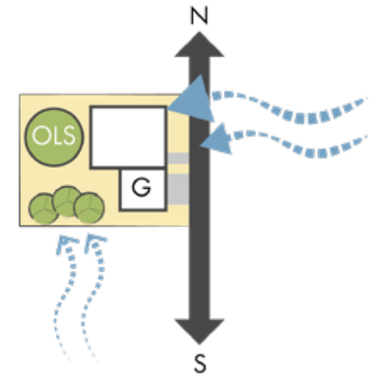


Image: *Design for Selwyn conditions and the prevailing wind.*

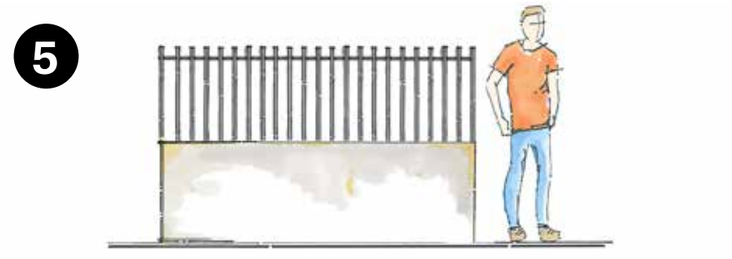
6.2.7 FENCING

Fencing that is fit for purpose and does not dominate the site can be a feature in itself. Landscaping and planting can be added as softening measures. Sites that use fencing as a way of separating private and public space, achieving both passive surveillance at the street/ reserve interface and privacy at internal boundaries, provide high amenity outcomes for residents and the neighbourhood.

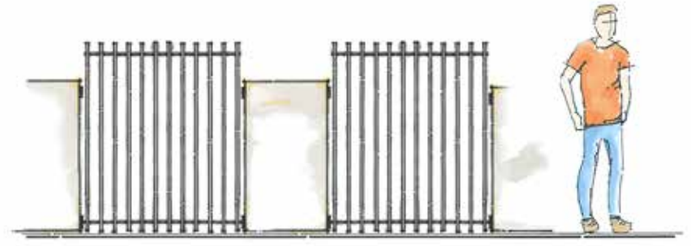
Refer to the District Plan for examples on visually permeable fences that meet above criteria.

1. Fencing in front of the front façade of a building should be no more than 1 metre in height, to allow for passive surveillance between the building and public space.
2. Low level, maintained, hedging can be an alternative solution.
3. Reduce and visually break up long fence lines with cluster plantings and segmentation within your fencing style.
4. Ensure trees are limbed up to 2m to maintain sightlines.

5. Fencing that requires to be visually permeable can be achieved by alternating vertical segments of close-board and pool-fencing or via horizontal change in material.



HORIZONTAL TRANSPARENCY



VERTICAL TRANSPARENCY

6.2.8 HARDSCAPE/SOFTSCAPE

Choosing the right plantings for the site and in particular the front yard helps to add visual amenity to the streetscene and the neighbourhood.

1. Minimise impervious paved area required for vehicle access and pedestrian movement, to reduce storm water run-off and lower embedded carbon.
2. Avoid materials that require continuous treatment (sealing, painting) for maintenance.
3. Eco-source plants where possible; use local nurseries and avoid using trees supplied from northern nurseries (warmer climates) as trees are more susceptible to colder winters.
4. Retain existing mature trees that contributing to the overall tree canopy in Selwyn's communities where possible.
5. Plant at least one specimen tree along the street frontage and within the site to support on-site and street amenity.
6. Use indigenous plantings. When planting try to adhere to a 70:30 native to exotic ratio, unless exotic is required for specific role that natives cannot provide.
7. Design with mature plant size in mind.
8. If trees are to be planted to the north side of living spaces opt for deciduous species to allow for sun in winter.
9. Ensure trees are limbed to comply with the 700-2000mm sightline rule.

Image: *Incorporate existing mature trees where possible.*

Image: *Plant the right tree for your site.*

7.0 THE BUILT FORM

KEY CONSIDERATIONS

Built form refers to buildings and structures on-site.

The unit scale looks at built form at the interface with public space.

Built form should always respond to the corresponding site.

Variation in typology and design is a way of responding to the district's demographic changes and individual needs and wants of future residents.

7.1 EXAMPLE OF DESIGN ELEMENTS OF UNITS ADDRESSING PUBLIC SPACE IN SELWYN

1. Front façade has appropriate amount of glazing to provide passive surveillance to and from public space.
2. Built form is of a scale complementary to Selwyn.
3. Stand-alone units show individual characteristics.
4. Attached typologies use a design that shows synergy while ensuring each unit retains some individuality.
5. Entrances are legible and safe. Letterboxes are at the street boundary.
6. Buildings use some elements of the Selwyn vernacular (roof shapes, material palette, colours).
7. Preference is given to locally sourced, sustainable materials.

7.2 BEST PRACTICE UNIT LAYOUTS IN SELWYN

Units are the most individual part of the urban fabric that make up Selwyn's neighbourhoods. No one size fits all, and the demand for choice and individuality is reflective in the array of housing typologies.

The best unit design outcome is achieved when built form is of high quality, responds to the site and positively contributes to the public realm.

SCALE AND VERNACULAR

1. New units might differ in height and bulk to the existing or planned environment for the area and site. Care needs to be taken to create a complimentary outcome.
2. Varied housing types and sizes that can respond to diverse housing needs and demands of the Selwyn community enable ageing in place, ultimately forming stronger communities.
3. Units that use a vernacular that speaks 'Selwyn' will blend into the neighbourhood making a distinct and positive contribution.

VARIETY

4. Along arrays of housing ensure that units retain some form of individuality. Providing a mix of housing typologies and unit sizes on a site creates variation in itself.

FRONT FAÇADE AND GLAZING

5. Ensure that the size/amount of glazing along the front façade creates an active frontage and that the use of rooms enable passive surveillance.
6. All units need to present themselves to public space in a positive, engaging way, utilising street activating elements within the façade.

FRONT DOOR

7. Ensure the entrance to units is facing public space and is clearly identifiable. Including a glass panel within the front door is a good measure to increase safety.
8. For legibility reasons have a clear pathway/line of sight from public footpath to the front door.

LETTERBOX

9. Place letterboxes next to a public street, making this the 'front of house'. This is particularly important in the context of rear lane designs.

INTERNAL LAYOUT

10. Design units so that the room closest to public space and/or overlooking public space is a living room, office or a kitchen. Bedrooms are less likely to provide passive surveillance.

GARAGING/ACCESSORY BUILDINGS

11. Place garaging or accessory buildings behind the front façade of the corresponding unit. Ensure that garages don't take up more than 50% of the ground floor façade. Some narrower units might not have any garaging.
12. In the context of short rows of terrace housing, garaging that is well integrated into the architecture, e.g. same gable, same cladding material, creates a good outcome.
13. Make the architecture and front façade of the unit the most prominent feature.

image courtesy of Brooksfield

8.0 DENSITY IN SELWYN

KEY CONSIDERATIONS

Higher density housing typologies are either smaller in footprint, on a smaller site, more than double-storey, or are of a housing typology that differs from the common stand-alone built form.

8.1 EXAMPLE OF HIGHER DENSITY DESIGN ELEMENTS IN SELWYN

Densities differ depending on context.

In the Selwyn context higher density opens up infill and intensification opportunities in the townships with older housing stock and is particularly favourable for sites in proximity to communal amenities and services (and town centres).

The success of a medium density development largely depends on acknowledging and acting upon the strong relationship between site configuration and building typology.

1. Choice and variation is expressed in building typology, unit size, height, and internal configuration.
2. Small building footprints enable multi-storey units that achieve density and no-built areas.
3. Smaller sites can result in low maintenance gardens and outdoor living space.
4. Sites need to provide for dedicated storage and service space, particularly in designs without garaging provisions.
5. A centralised (private) bin area for multiple units might achieve better outcomes avoiding a multitude of bins on the kerb on collection day. Ensure that occupants are educated so waste streams are diverted properly.
6. Built form is placed in proximity or attached to each other.
7. The design includes aspects of affordability.
8. Individual units are part of an overall design where the individuality of each unit is still expressed.
9. Architecture, layout, configuration, design, colour and/or material palette is inspired by the Selwyn vernacular (see page 22) and exemplar buildings, such as Te Ara Ātea or Selwyn Council Headquarters.
10. Units are located in proximity to community facilities and services, such as commercial centres, schools, recreation areas, or health facilities.
11. Units are located where public transport (bus, park and ride) routes are accessible and convenient.
12. Units are placed on sites that are well-connected to neighbourhood wide walking and cycling networks.

8.2 BEST PRACTICE HIGHER DENSITY

The Selwyn District Plan distinguishes between small site and comprehensive development.

The District Plan permits 'small-site development' or 'comprehensive development' and second residential units on suitably sized sites in most residential zones depending on criteria met.

8.2.1 SMALL SITE DEVELOPMENT

In Selwyn, small site development means a residential unit established on a site more than 400 m^2 and less than 499 m^2'.

Units need to be of high-quality, and form part of the immediate neighbourhood.

1. Large numbers of smaller sites can be monotonous and lead to a lack of housing size and type. Variety is key, hence why small-site development needs to be part of a mixture of housing typologies.
2. Design units to fit the section size, while retaining Selwyn's values of open space and amenity.
3. Limit the number of driveways. Explore the idea of combined driveways.
4. Keep fencing and planting below driver's eye level (1 metre) to optimise visibility when exiting/entering the driveway.
5. Stick to the building/site ratio to achieve a balance between built form/hardstand area and landscaping/permeable surfaces.
6. To achieve more living space on a small site consider going 'up'.
7. Size matters-if sites and consequently buildings get too small, they lose their permanent residential and architectural character, which affects the character of the neighbourhood.

8.2.2 COMPREHENSIVE DEVELOPMENT

The District Plan refers to comprehensive development as 'a group of 4 or more residential units that are designed, positioned and built in an integrated manner.'

1. High-quality arrays of units form a part of the neighbourhood. Comprehensively designed development can act upon the strong relationship between site configuration and building typology.
2. Ensure sufficient space is allocated to access, a planting strip, and demarcated pedestrian access.
3. Avoid long rows of the same design, arranging buildings in clusters.
4. Encourage subtle variations for legibility within the development.
5. Design buildings according to site configuration and arrange them on the site from the outset (land use to be consented prior or at the same time as subdivision).
6. Promote typologies that allow for best use of land as part of overall development.
7. A two-storey design will take up less room on-site, allow greater options for additions, provide more garden/yard area, and allow for double height interior space.

Image: *Example of comprehensive development in Christchurch.*

Image: *Example of vehicular access to the back of a site.*

8.3 BUILDING TYPOLOGY EXAMPLES FOR SELWYN

Medium density zoned neighbourhoods in Selwyn consist of stand-alone, semi-attached and attached multi-storey typologies. Developing a mixture of housing typologies that are suited to the Selwyn context ensures that there is housing variation and choice available in the community.

Ideally at subdivision stage consideration has been given to the size, depth and width of the parent site and scenarios have been tested to ensure which possible typologies will work best.

The Medium Density Residential Standards (MDRS) can be applied to the different typologies.

STAND-ALONE HOUSING

'Stand-alone', 'free-standing' or 'detached' units are a house form where one can walk around the perimeter of each wall of the unit. This typology remains to be most popular in Selwyn.

1. Stand-alone housing needs to show stand-alone characteristics to be identifiable as an individual unit.
2. Depending on orientation and layout, this typology can create an engaging street frontage along public space

DUPLEX

Duplex units mean two houses that are adjoining horizontally (side by side). Triplex is similar with the middle unit being flanked by units either side.

3. Duplex or semi-detached units are a good housing option on narrower sites. They create a built form that sits in-between an attached typology and a stand-alone unit.
4. The shared wall creates additional space to the side of buildings. The internal layout needs to consider that noise travels and rooms along internal boundaries are best suited to non-habitable ones, such as bathrooms, laundry and toilets.

TERRACE

Terrace housing or row housing are units linked by common walls. End units have a similar site layout to duplex units. Terrace housing can be two-three storeys tall.

5. Good designs outcomes are achieved where units are facing a public street, providing interaction and surveillance.
6. Building form arranged alongside streets achieves better outcomes than when aligned against internal boundaries, where effects are concentrated on neighbours.
7. Orientation is crucial to provide units with good access to sunlight and private outdoor living space behind the front façade.
8. Access from the west or south achieves good outcomes.
9. While a common design language within a terrace is anticipated, the individual unit still needs to be identifiable for legibility reasons.
10. Rows of up to 6 units, with each unit of about 6 metres in width, creates a built form complimentary to the planned urban form in Selwyn.
11. Breaks between rows allow for viewshafts that can also function as access to the rear (e.g. for parking or as a pedestrian/cycle link).
12. A gap of one unit width (approx. 6m) from wall to wall is considered a good outcome visually providing separation between built form and/or creating pedestrian and cycle access to back of house, as well enabling offset windows to retain privacy between units.

Legend.

A1	Typology Type - refer to Reference Typologies
B	Screened Bin Enclosure
C	Letterbox visible from the street
D	Front Yard Fencing
E	Side and Rear Yard Fencing
F	Front door visible from the street
G	Private Outdoor Living Space
H	Windows overlooking the street
I	Planting in front of fencing (500mm min.)
J	Utility Space (Clothesline and Shed
K	Garaging

Image: *Examples of higher density housing typologies in Christchurch that could be built in Selwyn, including standalone units, attached short terraces and court houses.*

Image: *Site design consideration for stand-alone, duplex and terrace housing.*

APARTMENT

There are many variations of apartments, all of which are vertically adjoining each other. Units of different sizes are one above the other.

13. Three storeys plus apartments will add the opportunity to create units with different configurations (1-2 bedroom units) that suit an increasingly diversifying demographic. Catering for singles, retirees and larger families need to be part of housing provisions for the community.
14. Built form should be arranged around sunny, landscaped common green space (within a perimeter block), which offsets limited private outdoor living space.
15. Apartments need to be located in proximity to community services and public transport so that the design does not rely on the provision of car parking.

Image: *An example of terrace housing on Waltham Park, Christchurch.*

Image: *Examples of terrace housing, Hastings Street, Christchurch.*

Image: *An example of a duplex on Bunyan Street, Christchurch.*

image courtesy of Brooksfield

8.4 MEDIUM DENSITY RESIDENTIAL STANDARDS (MDRS)

To comply with the government housing intensification legislation passed into law in December 2021, Selwyn introduced a new Medium Density Residential Zone in the townships of Lincoln, Rolleston and Prebbleton.

In the zone up to three residential units, each up to 12 metres in height, can be built on a site within the medium density zone without a resource consent if compliant with the Medium Density Residential Standards (MDRS), set out in the District Plan.

There are several possible outcomes in terms of developing and re-developing in the Selwyn District; at the time of writing this document these were largely unknown.

A large amount of Medium Density development can occur within currently undeveloped land, creating new neighbourhoods, as part of a subdivision process.

Most design issues and subsequent requirement for resource consent can be resolved if site layout and dimensions fit the intended built form and housing typology.

MINIMUM MDRS STANDARDS ILLUSTRATED

Provisions	Proposed Medium Density Residential Standards	Diagram Reference
Maximum Dwellings Permitted	3	
Maximum Building Height	11m+1m for pitched roof	1
Height in Relation to Boundary (max.)	4m+60°	2
Minimum Setbacks	Front – 1.5m Side – 1m Rear – 1m	3
Maximum Building Coverage	50%	4
Minimum Landscaped Area/Permeable Surface	20% of the developed site with grass or plants	5
Minimum Outdoor Living Space d) – dimension (GF) – ground floor (UF) upper floor	20m2 + 3m (d) (GF) 8m2 +1.8m (d) (UF)	7
Minimum Outlook Space	Principal living room - 4m x 4m All other habitable rooms – 1m x 1m	8
Minimum Glazing	20% glazing of the street-facing facade	9

Legend.

A1	Typology Type - refer to Reference Typologies
B	Screened Bin enclosure
C	Letterbox visible from the street
D	Front Yard Fencing
E	Side and Rear Yard Fencing
F	Front door visible from the street
G	Private Outdoor Living Space
H	Windows overlooking the street
I	Planting in front of fencing (500mm min.)

Image: *Minimum site layout requirement (MRZ).*

8.4.1 SPATIAL REQUIREMENT

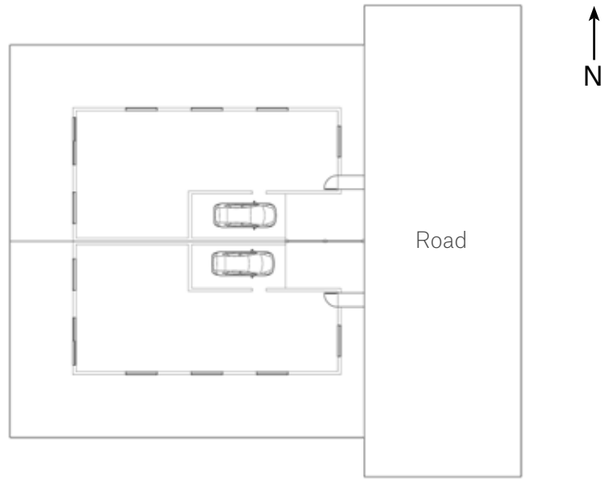
Ideally at subdivision stage consideration has been given to the size, depth, and width of the parent site and scenarios have been tested to ensure which possible typologies will work best.

The strong correlation between site size, site configuration, and housing typology is explored in the table and examples to the right.

Typology	'Parent site' size	Minimum site size	Dimensions	Example
Standalone (detached)		368m^2	Street frontage width important-12m wide for single garaging for one unit; 15m wide can accommodate double garaging.	Units need to be of sufficient size and detailing to retain permanent, individual character. Site size needs to be able to create useable space for private outdoor living space and landscaping, storage and service areas.
Duplex (semi-detached)	400m^2	200m^2	10m minimum width per site x 20-25m, depending on number of bedrooms.	Single-storey 2-bedroom unit, accessed off the east. Design features include: east/west alignment, north/west facing private outdoor living space, separate service space, kitchen facing street. Shared wall enables better use of narrow site. See example 1.
Terrace housing (attached)	1000m^2	No minimum	7.5mx20/26m deep, living rooms above garaging or no garage to create 150-200m^2 sites. 40x50m ideal if amalgamating existing lots (e.g. two ¼ acre sections).	Short 2-storey single garage terrace. Design features include: north/south* orientated, staggered alignment, larger end units, middle units with single garage only, end units with space in front of garage, separate footpath to front door, combined access to garaging for middle units, end units with internal configuration that adds to activation (kitchen, living room), See example 2.

*If sites are to be accessed off the north, sites should be around 4 metres wider than sites facing east, west or south. This allows for outdoor living space to be located to the side of the unit, set back from the street, with appropriate fencing for privacy while still allowing the building to front the street.

1



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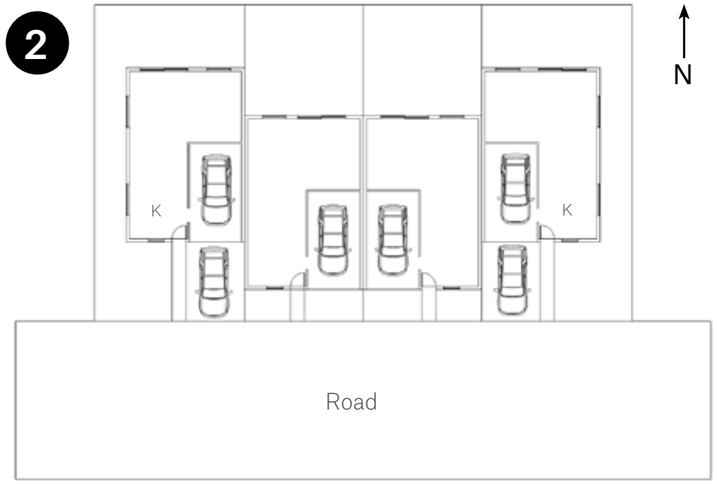

8.4.2 BUILDING HEIGHT

1. A possible visual dominance of new builds can be reduced by splitting built form into shorter rows, having regular breaks, and using architectural detailing. Visual prominence is not an issue in itself, if of high quality.
2. If buildings exceed the standard, the building needs to be assessed in context of the wider neighbourhood to determine the visual effects (shade modelling can assist).
3. The way a façade is designed and articulated at ground (pedestrian) level matters is important.

8.4.3 HEIGHT IN RELATION TO BOUNDARY

The space provided between built form via recession planes contributes to a sense of openness, allows views of the sky and enables light penetrations and airflow between buildings.

1. While the standards allow for a 60 degree recession plane at 4 metres, if applied in the South Island, the standard, has a different, more adverse effect, in terms of access to sunlight for adjacent properties than in the North Island. It is for this reason, a 50 degree recession plane at 3 metres is considered more appropriate for Selwyn.
2. A more location specific approach and understanding achieves better outcomes for Selwyn.
3. Consider shadow modelling for multi-storey housing to demonstrate shading effects.

8.4.4 WINDOWS TO THE STREET

Windows and glass openings within the front façade of units facing public space are a tool to increase safety in neighbourhoods, by enabling passive surveillance, as well as meeting national CPTED guidelines by providing eyes on the street.

The standard requires a 20% glazing in the front façade of buildings, excluding the gables and garages.

However, the amount of glazing is just one aspect to achieve a good design outcome. Other aspects are:

1. Consider how proposed fencing could affect the effectiveness of glazing.
2. Consider the proposed placement of any glazing (preferably at ground floor, but upper floor can be added within façades).
3. Consider the height of glazing and the visibility at eye level (between 0.8-1.2 metres in height).
4. Ensure the visibility of glazing is not obstructed, tinted or frosted.
5. Assess the use of rooms facing the street (and if windows are permanently covered to create privacy, e.g. in the case of a bedroom).
6. Ensure that there a clear path from the street to the front door. Having the front of house addressing the street positively contributes to the streetscene.
7. Assess the site in context. Is there good surveillance from the opposite side of the street?

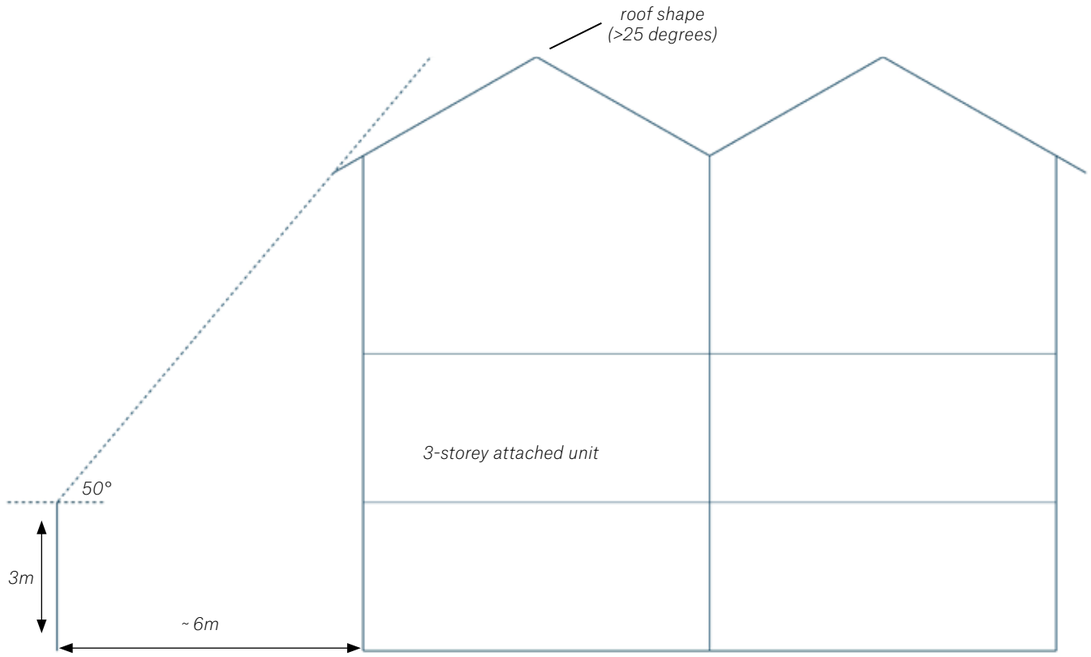

Image: *Illustration of the preferred recession plane.*

Image: *Illustration of recession planes under the MDRS.*

8.4.5 ROOF SHAPE

Gabled and hipped roofs are the most common roof types in Selwyn. Roof angles are an integral component of the roof shape, with a flatter pitch being reflective of a more urban character.

1. A roof shape with a pitch of 25-28 degrees reflects Selwyn's natural landscapes and agricultural structures.
2. Ensure variety within the roofline of multi-unit development by including gables or using drop-downs in the roofline.

Image: *Consider shadow modelling for multi-storey housing.*

8.4.6 SETBACKS

Setbacks create a visual separation between built form.

The purpose of setbacks depends on location (front, side or rear).

FRONT SETBACKS (FRONT YARD)

1. Front setbacks form part of the front yard, with the ability to positively contribute to the street scene with landscaping and tree plantings.
2. For trees to grow, there should be sufficient root space, as well as canopy space for the mature tree. A minimum width of 2 metre is recommended (see page 43 and 59).

INTERNAL SETBACKS (SIDE YARDS)

Retaining internal setbacks between units assists in maintaining Selwyn's open residential character and amenity. However, if the setback becomes unuseable space (less than 1.5 metres) then a preferred outcome is to omit the setback and place buildings (garages) on the boundary (e.g. zero-lot line developments).

Internal setbacks create site layouts where units have access to natural sunlight and sufficient air circulation, both important quality of life indicators.

Side setbacks can also be used as service space, and depending on orientation and access or for creating outdoor living space to the side.

3. A 1.5 metre internal setback provides space for the storage of rubbish bins, allows enough width for maintenance, and a path around the building.
4. Three metres between units is considered an appropriate outcome to retain a level of spaciousness, when viewed from public space.

REAR SETBACKS (BACK YARD)

Rear setbacks are important to allow for privacy and create the opportunity for outdoor living space. They need to be of sufficient depth to minimise privacy effects between neighbours.

5. A 4 metre rear setback provides space for private outdoor living space.
6. Private outdoor living space needs be accessible from what is defined as the principal living room and needs to be of usable dimensions (minimum dimension 4metres).
7. Space for service and storage areas need to be allocated separately on-site, in locations that are not visible from public space, but easily accessible.
8. To respond to limited exclusive private space and avoid overlooking neighbours consider the internal layout of adjoining units and sites.

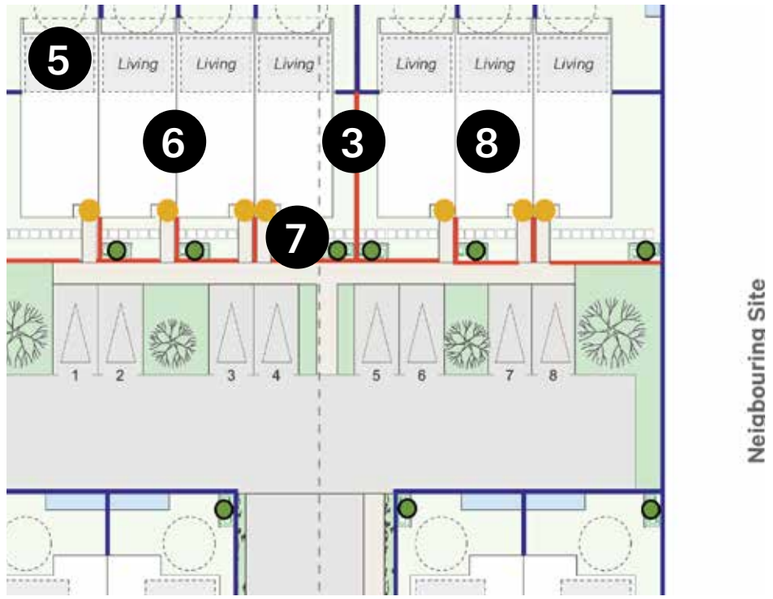

Image: *Example of outdoor living space and separate service space within a medium density comprehensive development.*

Image: *Example of a front yard bin enclosure.*

8.5 INTENSIFICATION EXAMPLES FOR SELWYN

Intensification means development whereby the existing house is removed from a site and replaced with two or more units.

Intensification is likely to happen in areas where housing stock has reached the end of its life span; this includes the older parts of townships, which still have quarter acre sized sections.

Sites ideally need to be in proximity to public transport and in walking distance (5-10min, 500 metres) of community services.

Site dimensions of 40m wide x 50m deep result in sections suitable for intensification. Better outcomes are achieved if two 2000m^2 sections are developed side by side and served by a common accessway.

Suitable typologies include 2-storey duplex or stand-alone town houses.

EXAMPLE 1- FREE-STANDING

1. Replacing an existing stand-alone unit with one or more stand-alone units is not considered the best use of valuable land. With an alignment happening between land value vs. building costs the single-storey stand-alone typology might no longer be an economical option.
2. Creating fee simple sections with site sizes below 368m^2 in combination with single-storey housing can results in unuseable space which impacts everyday uses, such as outdoor living and storage.
3. The neighbourhood character gets negatively affected if units get too small and simple with minimal architectural detailing and variation in place.

EXAMPLE 2- DUPLEX

4. Replacing a single unit with four units is considered a better use of land than replacing an existing unit like for like.
5. The duplex typology has benefits for narrow sites. By merging building or garage walls space can be gained to the side of the units on sites that would otherwise be unable to accommodate all design elements.

EXAMPLE 3-MIXED TYPOLOGIES

A good use of land that also contributions to the variation and choice of housing is mixing typologies on-site.

6. Placing 2-storey duplexes along the street front and having taller, 3-storey, terraces at the back, is a design response to blend new development at a higher scale than the existing environment.
7. Placing duplex units along the street provides a strong interface.
8. The façade design enables a high level of passive surveillance.
9. A front door that is facing the street and letterboxes arranged along the street frontage provide good legibility.
10. Pitched roofs and locally sourced cladding materials reference the local vernacular.
11. Views into the site provide a high level of legibility to back units.
12. Low level planting and landscaping add amenity along public/private interface.
13. Built form with integrated garaging at the street interface and a separate internalised car parking area for rear units is a good outcome.
14. Visible and direct entrance areas reduce areas of entrapment.
15. Bin storage areas for each unit are screened from public view.
16. A dedicated footpath that is separated or demarcated from the driveway creates safe and legible access to the back units.

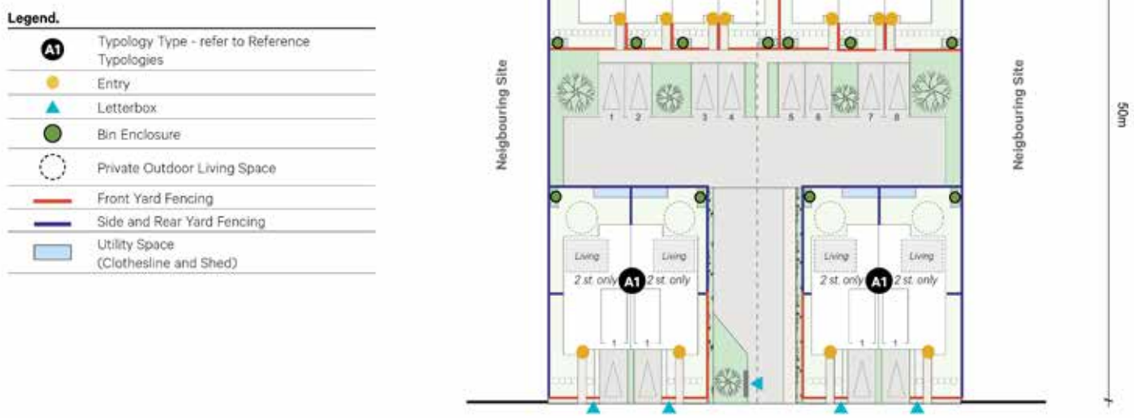

Image: *Site layout for Intensification example.*

Images: *Artist impression of intensification examples.*

8.6 INFILL EXAMPLES FOR SELWYN

Infill means additional development on a site where the existing house remains on-site. A typical example for infill is establishing a minor residential unit (MRU) in addition to a principal residential unit on-site. The District Plan permits MRUs, if certain criteria are met.

Design characteristics of MRUs include:

- small footprint (max. 70m^2)
- simple built form
- shared access (connection to main residential unit, within 10m)
- serviced via existing network for main residential unit.

A good example for infill is where the existing house addresses the street and there is a strong legibility to the back unit.

Images: *Artist impression of infill example where the front unit is retained.*

8.7 ALTERNATIVE HOUSING IN SELWYN

With further growth and changes in demographic trends there is a need to broaden views on housing and look at the various housing forms that will cater for people. Te ao Māori perspective in urbanism in Selwyn needs to work collaboratively with communities on (housing) solutions. There is also a need to explore affordable living solutions.

Council is open to better understand what is required to enable housing forms such as intergenerational living and co-housing.

1. Co-housing, Peterborough Street, Christchurch
2. Papakainga housing example
3. Co-housing, Sieben Doerfer, Tuebingen, Germany.

DEFINITIONS/LINKS/REFERENCE MATERIAL

A

Accessway	The area of land that provides access between any boundary and the net area of the site or sites it serves. Accessway includes any rights of way, access lot, access leg or private road.
Active Frontage	In relation to buildings where the ground floor level features glazing, windows or doors which allow views into the premises. It refers to that part of the all of the building with unobscured glazing occupying the entire area between 1m and 2m in height, as a minimum.
Amenity Values	Means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes (Section 2 of the RMA).

B

Barrier Free Movement	Designed or planned so that people with disabilities are not prevented from using something. Me he manu motu I te mahanga (championing a more liveable world). Barrier Free is an organisation to advocate, train and provide technical advice to create accessible designs.
Building Coverage	Means the percentage of the net site area covered by the building footprint.

C

Comprehensive Development	A group of four (4) or more residential units that are designed, positioned and built in an integrated manner. Comprehensive development applies where all required land use and subdivision consents are submitted concurrently or where the required land use consent for comprehensive development is submitted and approved prior to a subdivision consent being submitted for the same.
Council's One Water Strategy	Council strategy that focuses on water supply, wastewater and surface water including stormwater and flood management.
Council's waste policy	https://www.selwyn.govt.nz/services/rubbish-recycling-And-organics/waste-policy,-strategy-and-plans.
Crime Prevention through Environmental Design (CPTED)	National guidelines for crime prevention through environmental design in New Zealand Guidelines outline how urban planning strategies can reduce the likelihood of crime and deliver numerous social and economic benefits in the long-term.

E

Engineering Code of Practice (ECoP)	https://www.selwyn.govt.nz/property-And-building/resource-consent/subdivision/code-of-practice.
Environment Canterbury (ECAN)	https://www.ecan.govt.nz/.

F

Frontage (Primary)	Any facade of a building which provides the pedestrian access to on-site public space, or a road, or other area where the public have legal right of access.

G

Garage	A building, or part of a building designed or used for housing motor vehicles and other miscellaneous items. A garage includes any carport.
Green pedestrian/ cycle link	A 6-10metre landscaped link that connects between public spaces, designed to provide direct and safe connections for pedestrians and cyclists.

DEFINITIONS/LINKS/REFERENCE MATERIAL

H

Homestar Ratings	Homestar is New Zealand's leading holistic sustainability certification for new home design and construction.

L

Low Impact Design (LID)/Water Sensitive Design (WSUD)	Low Impact Design is a stormwater management approach that manages runoff at the source using green infrastructure. This approach promotes water quality and restores natural hydrological processes within an urban context. Christchurch Waterways, wetlands and drainage guide, Ko Te Anga Whakaora mō Ngā Arawai Rēpō (WWDG) (2003) Part A and B.

M

Mahaanui Iwi Management Plan	https://www.mahaanuikurataiao.co.nz/iwi-management-plan/
Minor Residential Unit	A self-contained residential unit that is ancillary to the principal residential unit and is held in common ownership with the principal residential unit on the same site.

P

Passive and Active Recreation	Passive recreation refers to low intensity recreation activities, which have limited noise and light impacts and are minimally disruptive to natural environment, such as walking and nature study. Active recreation refers to activity that usually requires equipment at a prescribed place, site or fields, including swimming, tennis, football.
Presentation to the Street	Measures to enable passive surveillance along public space through building placement, room allocations and amount of glazing.
Private Outdoor Living Space	An area of open space for the use of the occupants of the residential unit or units to which the space is allocated.
Public Spaces	Areas that are open to the public, including streets, car parks, footpaths, reserves.

S

Service Areas	Areas within a site used for storage and maintenance of the site and its occupants, including bin storage, sheds, washing lines.
Small Site Development (DP)	Means a smaller residential units built on sites that are a minimum of 400m^2 and a maximum of 499m^2.
Street Hierarchy and Classification	https://eplan.selwyn.govt.nz/review/rules/0/492/0/0/0/178.
Surveillance (passive)	The ability to casually observe public space from a private property (e.g., views from a unit onto a footpath).

T

Te Mana o Te Wai	Recognising and providing for the mana and relationship of Iwi with freshwater. Essential Freshwater Te Mana o te Wai factsheet (environment.govt.nz).

W

Waste Minimisation and Management Bylaw 2019	https://www.selwyn.govt.nz/__data/assets/pdf_file/0006/118482/20211125-FINAL-with-amendments-SDC-Waste-Management-and-Minimisation-Bylaw-2019.pdf.
Water Races	Historic man-made features that are part of a network system, originating from the need to provide water to stock across Selwyn with a secondary purpose for firefighting resources and irrigation. In the urban context water races become important features as part of a landscaped reserve system providing relief to the built form. Link to ECoP, Development Contribution Policy, District Plan, Planting Guide for water race margins.

PLEASE GET IN TOUCH IF YOU HAVE ANY
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