



S. Griffen

Mumae.

Boffa Miskell is proudly a Toitū carbonzero® consultancy

DOCUMENT QUALITY ASSURANCE

BIBLIOGRAPHIC REFERENCE FOR CITATION:

Boffa Miskell, 2024. Medium Density Residential Design Guide. Report by Boffa Miskell Limited for Central Otago District Council.

PREPARED BY: Stephanie Griffiths

Urban Designer / Senior Professional

Boffa Miskell Ltd

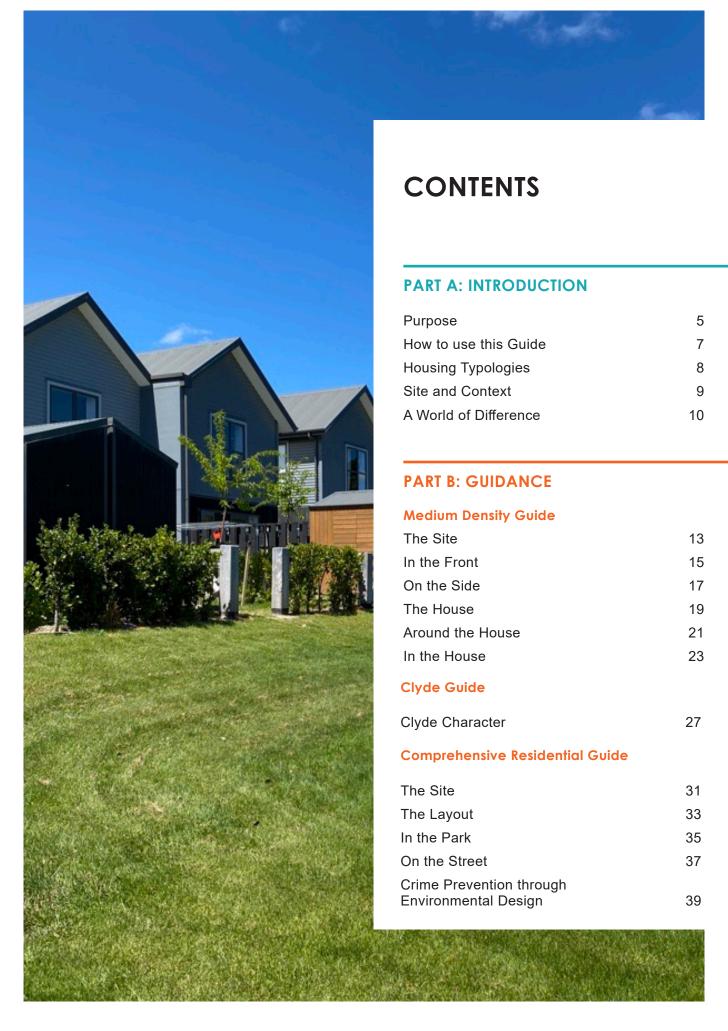
REVIEWED BY: Tim Church

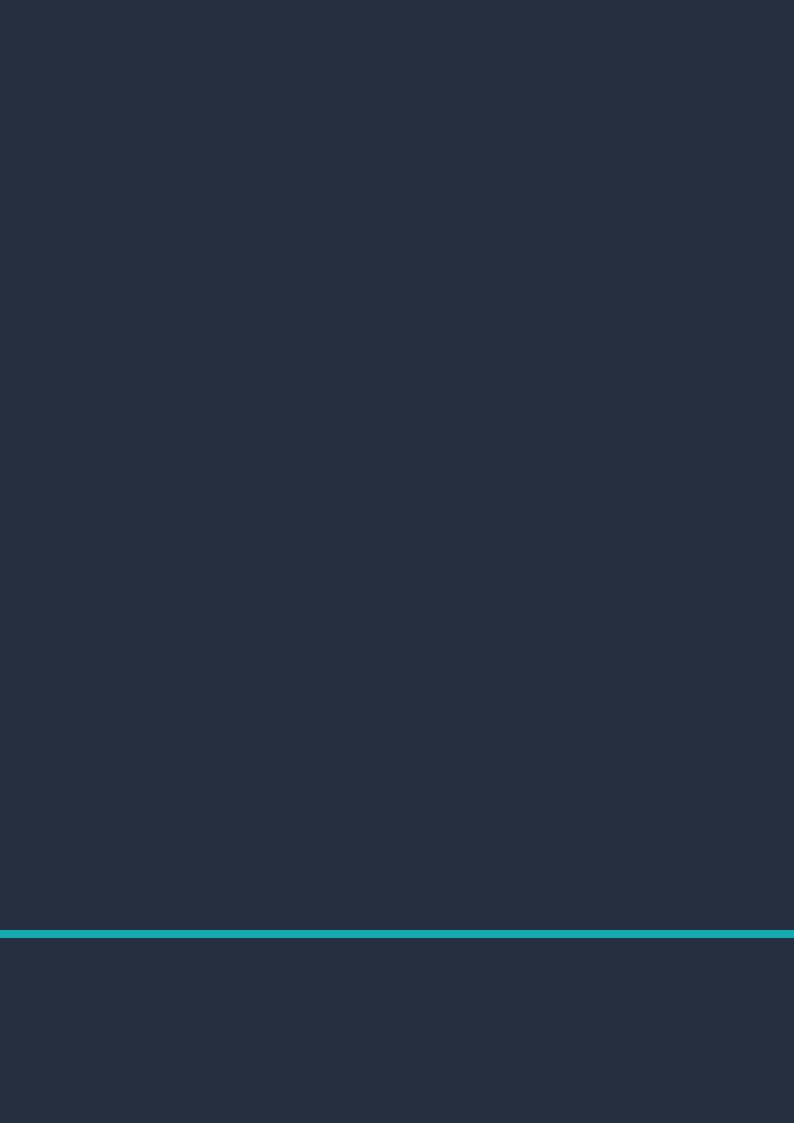
Urban Designer / Associate Partner

Boffa Miskell Ltd

STATUS: [FINAL] Revision / version: B Issue date: June 2024

MEDIUM DENSITY RESIDENTIAL DESIGN GUIDE \mid CENTRAL OTAGO DISTRICT COUNCIL





PART A INTRODUCTION

PURPOSE

PURPOSE OF THE GUIDE

This guide is for anyone undertaking a residential development within the Medium Density Residential zone in Central Otago District. It will help you achieve good quality housing that respects neighbours and is well integrated into the neighbourhood.

WHAT IS MEDIUM DENSITY HOUSING?

"Medium-density housing means comprehensive developments including four or more dwellings with an average density of less than 350 m² per unit. It can include stand-alone dwellings, semi-detached (or duplex) dwellings, terraced housing or apartments within a building of four storeys or less. These can be located on either single or aggregated sites, or as part of larger master-planned developments." - Ministry for the Environment

Medium density housing is reasonably new to our District, allowing for more housing diversity to suit a range of lifestyles, needs and affordable living options for the community. Our 30-year spatial planning, developed with the community, indicates that our towns will need to progressively change over time to accommodate future growth and be more resilient to change, while protecting the other important qualities of our District. As such, more compact forms of housing will likely become a higher proportion of future new developments in our towns. It is important that this is done well, in a way that can enhance our towns and contributes positively to the community.

In addition to providing greater housing choice, medium density housing has wider benefits for the community to:

- increase the urban vitality, maintaining community safety and bringing more life to our town centres:
- encourage more active walking and cycling, improving our health and reducing car dependency; and
- achieve efficient use of existing urban land and more cost-effective infrastructure.

This guide helps provide a good starting point when establishing medium density housing within or next to our existing towns.

To recognise our strengthening bicultural relationships, the guide also draws on kaupapa Māori design. An understanding of specific knowledge, considerations and protocols associated to kāinga (home), builds on concepts of whānau (family) and hāpori (community). As part of this, it considers multi-generational housing approaches that can be more socially and culturally fit for purpose.

Applying this guide will contribute to the wellbeing of the community, including residents, and can help add value to the development. Good-quality design need not cost more, instead it can:

- enable developers to tackle difficult sites and add value;
- improve our liveability and wellbeing of residents;
- · positively shape public perception;
- support and encourage environmental, social and cultural outcomes; and
- create places reflective of Central Otago's unique identity.



RELATIONSHIP TO DISTRICT PLAN

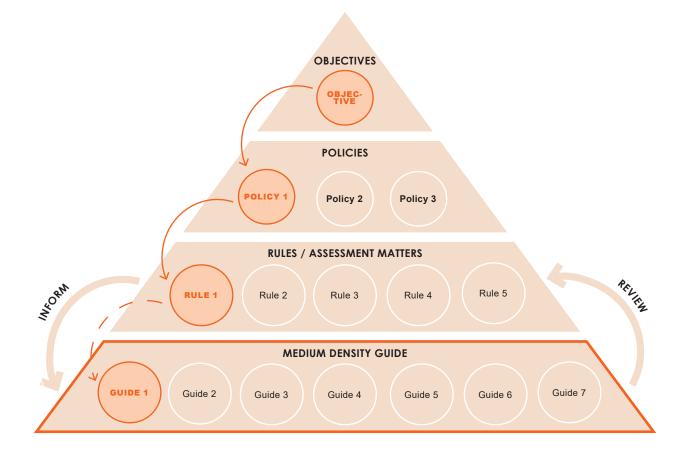
The Central Otago District Plan sets out high-level objectives and policies for the Medium Density Residential Zone that provide for good quality living environments within these more intensive development areas – large or small.

Medium density housing is typically more diverse and complex than other forms of residential development. There can be many ways of achieving good quality living environments and they often require more creative design solutions that are hard to standardise. This means that the District Plan provisions under these objectives and policies contain a mix of both (quantitative) rules and (qualitative) matters of discretion.

This guide focuses on supporting your understanding and interpretation of the matters of discretion, including those for comprehensive residential development and the Clyde character area.

The Guide will also be considered in the Council's reviews of resource consent applications and how they respond to the matters of discretion, in the round, and any specific non-compliance with the rules.

The Guide will also be considered in the Council's reviews of resource consent applications and how they respond to the matters of discretion, in the round, and any specific non-compliance with the rules.



HOW TO USE THIS GUIDE

This guide closely relates to the Medium Density Residential Zone provisions, particularly the matters of discretion. The key words or concepts within each matter of discretion are picked-up and explained in more depth throughout the guide.

The matters of discretion cover the various attributes of medium density housing developments. These are divided across six themes, from understanding the context of the site through to design of buildings and landscape. These are listed below:

1. The site: A part of the community

2. In the front: A welcoming address

3. On the side: A good neighbour

4. The house: A well-configured building

5. Around the house: An integrated landscape

6. In the house: A liveable home.

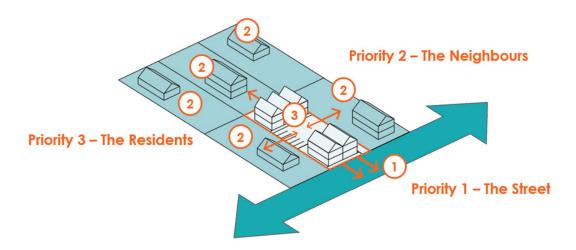
The themes are broadly prioritised. The top priority is focused on providing a good relationship with the wider community (i.e. 1 and 2). The second priority is respecting the neighbouring properties, including their ability to develop like you the future (i.e. 3 and 4). Priority three is with the residents of the development who are able to make an informed choice to live there (i.e. 5 and 6).development.

Under each theme, key design elements are described and illustrated. Review each of these design elements to see whether they have been addressed in your development. The guide further prioritises all or part of some design elements that will need to be considered in Council's review of resource consent applications. These are highlighted under each theme and contain terms like 'should'. Whereas others describe potential ways of achieving these or encourage other helpful considerations that may add value to the development.

The design elements listed under each theme are intended to give flexibility, while ensuring the development contributes positively to the natural and built environment. The illustrations are examples of a good design solution, but not necessarily the only one. In most developments there will be some competing or conflicting design elements. You may have to balance outcomes or trade off ideals to achieve the best design overall that addresses the various site challenges and brings the most benefits.

Each site and its context are different and will need a tailored approach to development. This is especially important in the Clyde Character Area and there is an additional section of the guide that helps respond to its more distinctive qualities.

The Medium Density Residential Zone is broadly split across existing urban areas and new growth areas. While most of the design elements are relevant to infill developments on established lots within towns, there are additional design considerations when masterplanning more comprehensive developments on larger, brownfield or greenfield sites. An additional section of the guide addresses the configuration of streets, blocks and open spaces.



HOUSING TYPOLOGIES

The Medium Density Residential Zone is the highest density provided for in our District. Common qualities of medium density housing, include:

- Vibrant urban living with opportunities for a diversity of informal social contact;
- Proximity to town centres / neighbourhood shops, community facilities and pocket parks;
- · Accommodates smaller household sizes;
- Most affordable through efficient use of land and comprehensive construction techniques;

- Lowest maintenance 'lock and leave' homes that allows most time for local recreation and social activities:
- Reduced reliance on cars with ability to walk and cycle to more destinations; and
- Limited garage and car parking spaces on site with more comprehensively managed parking in common areas or on-street.
- Limited garage and car parking spaces on site with more comprehensively managed parking in common areas or on-street.

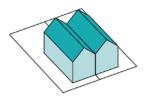
There are four medium density housing typologies typically used in developments, being: compact detached house, semi-detached houses, terraced houses and low-rise apartments.

LOWER DENSITY HIGHER DENSITY

COMPACT DETACHED HOUSES

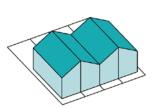
Compact detached houses of one to two stories, containing inter-connected smaller buildings, on small sites. They have yard spaces on four sides with narrower front setbacks, side yards and moderately sized private back yards. If provided, car parking can be located on the side or accessed by common driveway or a rear lane. This typology is most appropriate in the Clyde Character Area, where they can respond well to the scale of historic cottages in the town.

SEMI-DETACHED HOUSES



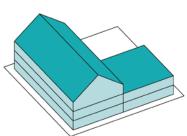
Semi-detached houses consist of two homes side by side, sharing one common wall, and up to three stories in height. They have yard spaces on three aspects with narrower front setbacks and moderately sized private yards on the side or back. If provided, car parking can be in garages between them, on either side or accessed by common driveway or a rear lane.

TERRACES



Terraced Houses consist of three or more homes located side-by-side, sharing common walls between them, and up to three stories in height. They have yard spaces on two sides with narrower front setbacks and smaller sized private yards at the back. Terrace-end homes are like semi-detached houses. Due to narrower frontages, if car parking is provided it tends to be positioned at the back, accessed by common driveway or a rear lane. It is often consolidated into a common car parking area.

LOW RISE APARTMENTS



Low-rise apartments consist of multiple homes sharing common floors and walls between them. They can be up to three stories without providing a lift, but more accessible for some residents with one, and tend to have a common entrance and circulation areas. Ground level apartments can have private courtyards with upper-level homes having balconies. Communal spaces, indoor and out, are often provided for efficient use of shared facilities. If car parking is provided it tends to be positioned at the back, accessed by common driveway or a rear lane, and consolidated into a common car parking area.

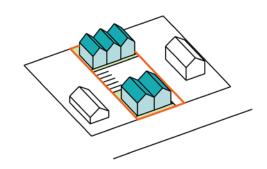
SITE AND CONTEXT

As noted above, the Medium Density Residential Zone is broadly split across existing urban areas and new growth areas. Infill developments can be established on individual lots or multiple, aggregated lots within towns. Comprehensive developments can be masterplanned on larger, brownfield or greenfield sites around towns where there are more opportunities to configure optimal lot sizes, efficient access to them and good amenity for future residents.

As developments become larger, the Council encourages developers to seek further guidance on this, particularly when considering the relationship between the public and private areas. The Council recommends developers commission professional consultants to carry out the site design or to peer review proposals.

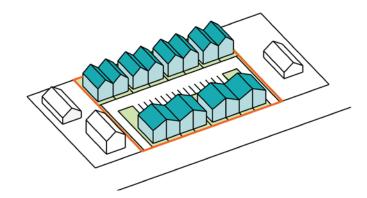
INFILL LOTS

Typical lots in Cromwell and Alexandra are approximately 1000m2 in area and are long and skinny at 20m wide by 50m deep. This means that you can either retain an existing house on the site and develop at the back or replace the house and develop the site completely. A single infill lot of this size could accommodate up to five houses, based on the minimum lot size provision, if carefully configured within the zone rules.



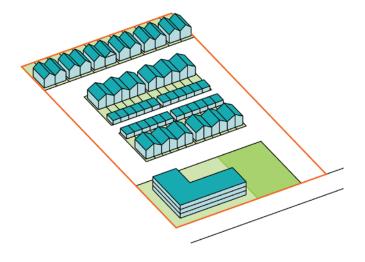
AGGREGATED LOTS

Aggregating two or more typical lots together can reduce the constraints of the zone rules and enable better development outcomes, such as more opportunities to utilise the street, increase buildings to three stories, increase access efficiencies and add internal amenity or communal facilities for residents.



COMPREHENSIVE DEVELOPMENT

In addition to the benefits of aggregating lots, the zone provisions for larger, masterplanned developments are even more enabling by also reducing minimum lots sizes. This allows greater flexibility to optimise the layout of urban blocks, streets and open spaces on the site and the maximise the inter-relationships between them and various housing typologies to add value.



A WORLD OF DIFFERENCE

Any medium density development needs to understand and reflect who we are as communities and as a place. This guide includes design considerations that can help promote and celebrate the Central Otago Regional Identity Values, including strengthening connections to the wider landscape and our cultural heritage.

There are few places in the world which will leave you with a lasting sense of difference. Central Otago is undoubtedly one of them, from its landscapes, its seasons, its people, its products and experiences. Together we must celebrate it and look after it. There will be many influences that could affect our unique Central Otago District, meaning it is important that we all make wise choices that last beyond this lifetime.

Central Otago's Regional Identity defines who we are and what we value within Central Otago District. Our regional identity is based around a set of values that build on the region's uniqueness and help to create the kind of place we can be proud of now and into the future. As individuals, developers and communities we can enhance our region by standing by our regional values.

For more information please visit:

www.centralotagonz.com/discover/ourvalues

CLYDE CHARACTER AREA

There are parts of the Medium Density Zone that sit within the wider setting of the Clyde heritage precinct. Provisions in the District Plan recognise that residential developments in the medium density zone need to be sensitively designed to respond to the smaller scale and recognised characteristics of the town centre.





PART B MEDIUM DENSITY GUIDE

THE SITE:

A PART OF THE COMMUNITY

Good design contributes to the shared environment and community. It helps achieve outcomes that respond to and enhance the natural and cultural environment, people's living experiences and the unique qualities of a site. Understanding whenua (land) is central to the physical and conceptual design of a development. This means having an early, big picture understanding of how the development will fit into your neighbourhood, immediate surroundings, and the site and how these may change in the future.

MATTER OF DISCRETION:

 How the development responds to its context and site features, including any retained buildings, existing trees and the Clyde Heritage Precinct.

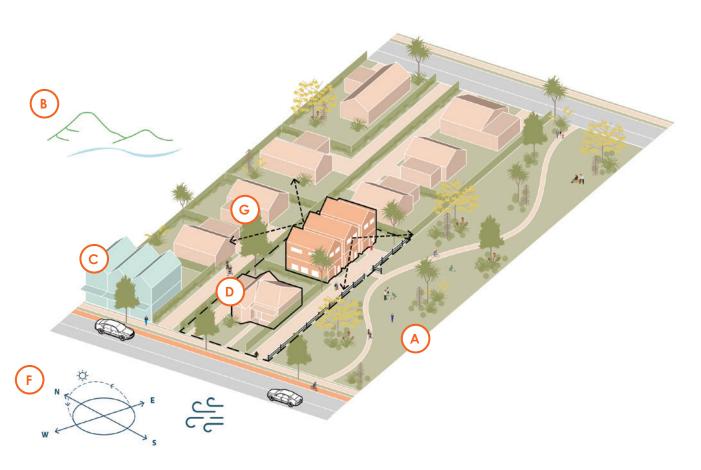
DESIGN ELEMENTS



Respond to important landscape features or sites of cultural significance nearby, such as unique landforms, waterways or heritage and natural features. This could help you select a development site or reveal opportunities to add value to the development. It should also identify potential constraints to resolve through the design process, such as having to manage neighbouring activities or natural hazard risks. These build on whakapapa by understanding the unique relationships and layers of people and place.



Consider near and distant views to prominent natural and built features. These can enhance visual connections beyond the site and can inform the best orientation of the buildings or framing of views.



- How close the development is to local centres and cycling infrastructure can help to determine site accessibility requirements. The development should respond to current or proposed non-residential activities nearby that may also influence how the development responds, such as maximising frontages to parks or minimising noise impacts of commercial activities.
- When keeping an existing house on the site, moving the house forward or back can create a better relationship between existing and new houses and the spaces around them. Opportunities to establish shared spaces can add value to both. Maintaining the liveability of the existing house(s) for the occupants should be an important consideration as part of the design process.
- If the site is on a corner, the building and landscape features should be emphasised to assist navigation around the neighbourhood.

 Remember that at least two sides of the development will be visible and accessible to the community.
- Respond to the local climatic conditions, such as prevailing winds and sun aspect. This can improve residents' comfort and help save energy.
- Keep any existing larger trees or established planting, particularly if they are native species. This can help retain a sense of maturity for a new development and provide a more liveable environment for new residents, supporting the notion of kaitiakitanga (guardianship). Where it is necessary to remove trees and planting, consider relocating or replanting elsewhere on the site.

IN THE FRONT:

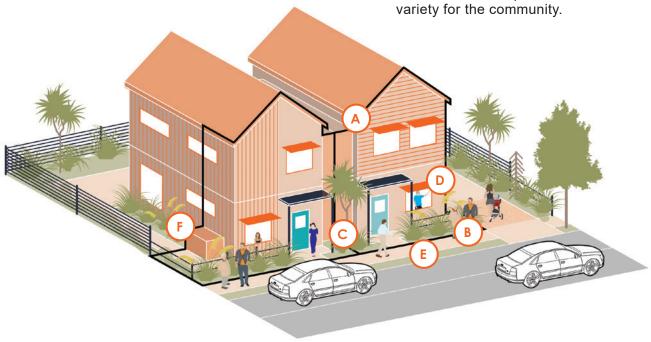
A WELCOMING ADDRESS

There are places in a development where those in the neighbourhood regularly pass by. This is mostly along the street or a park edge. It can also be alongside common areas within the development, such as communal open spaces, accessways and car parking areas. A well-designed house frontage can collectively benefit the public, visitors, and residents through improving community safety, providing convenient access and a place to welcome visitors. A good first impression enhances whanaungatanga (relationships) with manuhiri (visitors), creating comfortable, social and safe interactions that can help build enduring community connections.

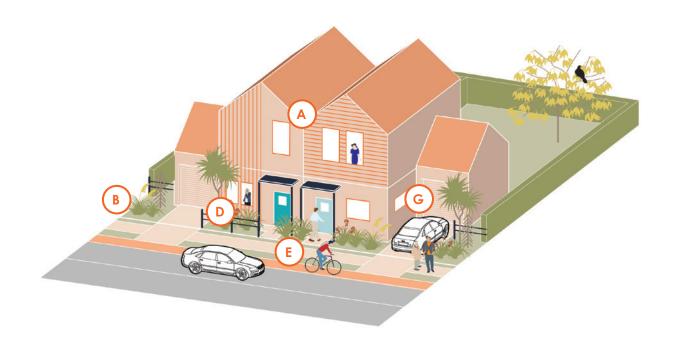
MATTER OF DISCRETION:

b. The design of road frontages and frontages to public open spaces in relation to public safety (including CPTED principles), activation, entrance recognition, access and servicing.

- Houses should orientate to key development frontages. Houses that front onto a street or park provide good opportunities to use public space for access and views, without having to provide them on site. This could free up other parts of the development for enhanced residential uses, such as larger outdoor living spaces.
- B Use low planting or visually open fencing within the front yard to create an important buffer between the street or accessway and the private home that can enhance the safety and comfort of residents. It also creates a connection with the community by allowing informal interactions between residents and the public through windows and entrances.
- Subtle variations through planting, paving, fencing and front doors are encouraged to allow front yards to feel more personalised and provide a unique identity to each home, improving the sense of ownership for residents and variety for the community.



- The frontage does not stop at the front yard; it extends into the house itself. If carefully designed, house frontages can provide a good outlook for residents, sense of community, and 'eyes on the street' for community safety. Houses should place generous windows facing the street or accessway, and locate regularly used rooms, such as kitchens or living rooms, at ground level. Rooms that need greater privacy, such as bedrooms, can be on upper levels.
- Have a clear and direct access from the street to the front door to help visitors understand where to go and enhance community safety. Aim to use targeted lighting to improve the night-time arrival. When designing the front entrance, consider providing a deep porch with protection from the sun, wind and rain.
- Any front yard services, such as bin storage, need to be balanced with the quality of visitors' experience and consideration of tapu (prohibited) and noa (common) through separation and screening. Service functions are generally best located in the side or back yard if there is good access.
- Car parking provided on-site should be located away from the front yard, while still providing good access to the street. If necessary in the front, separate the driveway from paths and locate any garages further back from main building edge to minimise the dominance of vehicles. The distance between the building and the street boundary or accessway will need to be narrow enough to discourage vehicle parking across accessways or wide enough to fully accommodate a parked vehicle.



ON THE SIDE

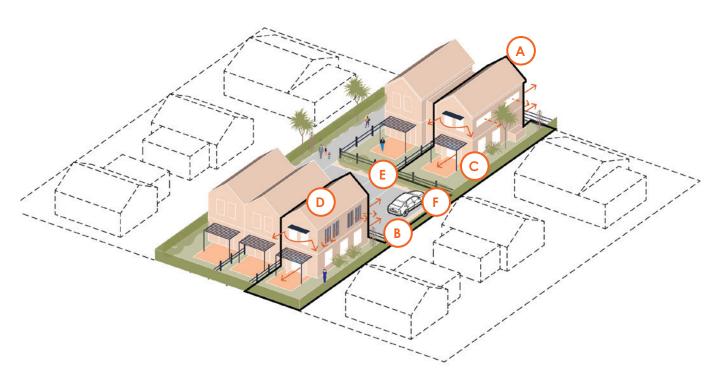
A GOOD NEIGHBOUR

The design and use of the space between residents and neighbours. including those within the development, requires careful consideration. This is important when increasing the number of houses on smaller sites. Careful design can achieve good views and privacy and minimise the need to adapt buildings and spaces later. Well-planned use of site boundaries and internal spaces can improve sunlight access to neighbours and provide for efficient pedestrian and vehicle access. Those who own adjacent sites may also want to redevelop in the future and it is good to allow them the opportunity respond in similar ways that can be respectful of both neighbours.

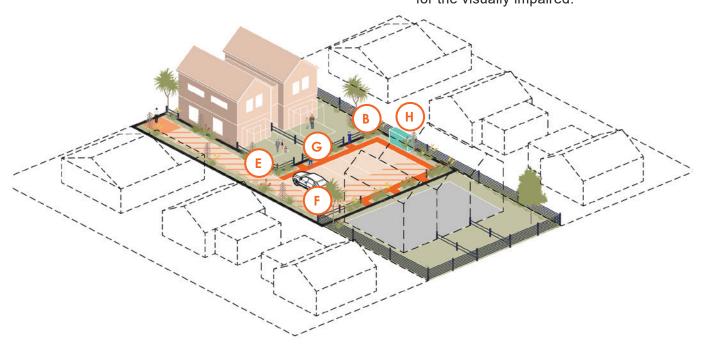
MATTER OF DISCRETION:

- c. Management of privacy, views and sunlight access for neighbours, including those on-site.
- d. The location, safety and landscape treatment of shared access and parking areas, including garages.

- Orientate houses or their outlook to the street and internal spaces within the development. This is a good way to redirect or extend views, manage privacy and access to more sunlight.
- Increasing separation between neighbours can be achieved by positioning outdoor living spaces, accessways, and courtyard car parking in between buildings. Landscaping can also provide screening between sites. This enhances privacy and outlook while providing gaps for ground-level sunlight access. Setting upper levels back can also help.
- Carefully locate key rooms to improve the outlook from indoor and outdoor spaces while balancing privacy needs. More private living rooms, can be placed at ground level to benefit from the outlook onto private outdoor living spaces and screening from trees and fence lines.



- Varying the size and position of upperlevel windows or balconies within
 the development reduces the chance
 of neighbours directly facing each
 other and adds variety to the house
 designs. Check the location of existing
 neighbouring building windows and
 outdoor living spaces as a starting point.
 Other building features can improve
 privacy by helping to shorten or redirect
 views, such as vertical fins, louvres,
 screens, strip windows, or opaque glass
 on balcony balustrades.
- Car parking should be wrapped deeper into the site away from the street and screened by buildings or landscape features. A common accessway should be used to reduce the number of footpath crossings and the extent of paving needed. If positioned along the southern or eastern boundary, this can move buildings more centrally into the site, away from the neighbour's best aspects.
- Consider a common location for car parking with clear visibility. This enables the site to be used efficiently, including providing more accessible ground level spaces for residents where garages would otherwise be. It also minimises the size of buildings within the development, allowing a greater sense of space for residents and neighbours.
- Keep pedestrian access between the street and each front door as direct as possible. Providing convenient bike, scooter and pram storage close to each house also encourages them to be used more. If accessways are shared by people and cars, they should be designed for slow speeds through their width, paving and planting. This can create a more comfortable environment for residents and neighbours.
- Future proofing for electric vehicle and bike charging points or building in charging stations at the start of a development means they will not look like an after-thought or obstruct pedestrian movement later, particularly for the visually impaired.



THE HOUSE

A WELL-CONFIGURED BUILDING

As the number and size of buildings on a site increase, their presence can become more noticeable. A more comfortable experience can be created by ensuring the development is more compatible with existing houses, such as by providing smaller clusters of attached houses. This can provide functional benefits by helping residents identify their individual homes, access sunlight, and improve privacy. The whare (house) concept considers multigenerational living, catering to needs of kaumātua (elderly), mātua (parents), and tamariki/mokopuna (children/grandchildren).

MATTER OF DISCRETION:

e. Configuration of building / roof forms, façade design and material use.

DESIGN ELEMENTS



Cluster houses into smaller groups and reduce larger expanses of walls. Stepping back or projecting building features forward to break up larger expanses of walls can create visual relief, while keeping the overall building forms simple. These may only need be shallow enough to cast a small shadow. The best use of this approach is to clearly identify individual houses or their key functional parts in a way that is logical and recognisable for visitors and residents.

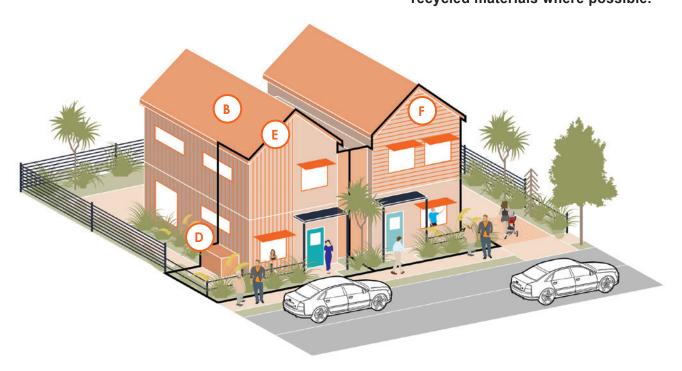


Pitched roofs can be used to reduce the perceived height of buildings and provide visual relief, while allowing opportunities for built-in living and storage spaces. They can also accommodate solar panels and reduce long-term maintenance that can affect flatter roofs.



- composed building elements that provide visual relief and interest, while serving important functions.

 For instance, porches, balconies, and screens can offer weather protection, sun shading, help identify front doors, provide private open space, enhance community safety, and protect privacy. Careful stacking and grouping of windows and their associated outlook can benefit the perception of the building while managing privacy.
- Varying forms, features and materials is not just limited to buildings. This could apply to other larger-scale features, such as fences, storage sheds and bin stores.
- **Use sympathetic or complementary** colours and materials, including those that are locally sourced. Subtle differences in colours and materials can be used to distinguish individual houses and create a sense of identity for residents. Cultural and local narratives may also provide opportunities for unique design identity. In Central Otago, use of stone, mud-brick and rough sawn timber were common historically, depending on the town, with the use of galvanised corrugated iron widespread. Generally, the characteristics of these materials are modest, organic, earthy, imperfect, weathered and rustic contributing strongly to the local vernacular.
- The materials you use are key to the long-term carbon impact of the building. Once built, it is hard to change. Use of low-maintenance details and robust materials can maintain their appearance and integrity and be more cost-effective and sustainable over time. Use sustainably sourced or recycled materials where possible.



AROUND THE HOUSE

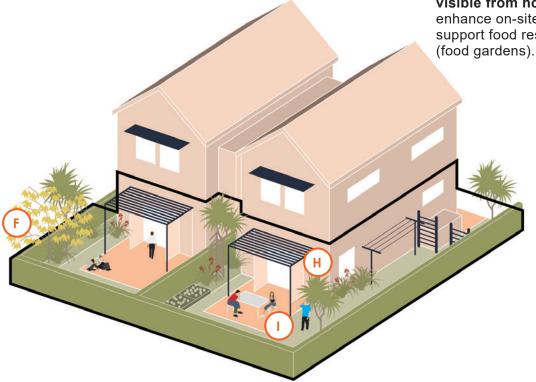
AN INTEGRATED LANDSCAPE

Once you step off the public street or park, developments typically provide residents common landscape areas and a mix of communal and private open spaces. Not all developments provide communal spaces, but a proportion of the site could be set aside for shared facilities for multigenerational living or smaller private spaces, such as balconies. Larger outdoor spaces can provide wider environmental benefits by retaining larger trees and vegetation areas for biodiversity through to stormwater management.

MATTER OF DISCRETION:

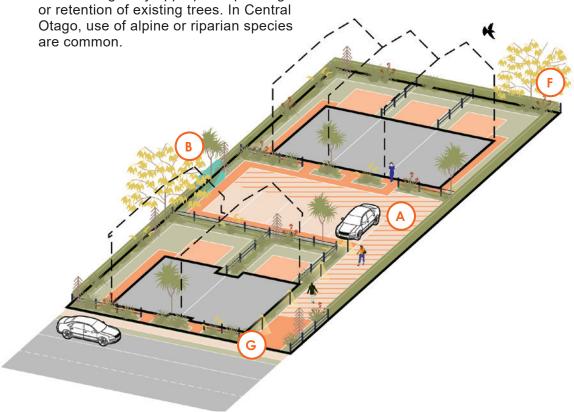
- f. The balance between hard and soft landscaping and the extent to which landscaping enhances residential amenity.
- g. The location, size and quality of private and common open spaces, including orientation, privacy, and access to internal areas.
- The location, useability and screening of service, storage and waste management areas.

- A Hard landscaping typically provides access to houses, car parking, and service areas. Consolidate into shared surfaces to increase the potential for soft landscaping and reduce heat absorption to keep the site cooler in summer.
- B Use softer planting in common areas to provide buffers around houses and screen private outdoor living spaces and boundary fences. Planting could even replace fencing, such as hedges, or used to blend boundaries for more communal outdoor living opportunities. Some consolidation of landscape areas can be helpful to keep existing trees and support new ones.
- Provide communal spaces if private spaces are small. These can be an efficient use of space and help support more diverse communities. If well located, designed, and managed, residents can comfortably interact and play safely within the site. To provide maximum benefit for residents, make these easily accessed and widely visible from houses. This can also enhance on-site sustainability and support food resilience, such as māra kai



- Balconies or roof terraces can be appropriate for smaller homes and can be used in combination with communal spaces. Upper-level outdoor living spaces are most useful when they are well-configured for tables and chairs relative to the size of the house.
- Capture or treat stormwater runoff to conserve water and prevent pollution of waterways. This is best managed at the source by collecting rainwater from the roof for irrigation, using permeable paving, and integrating swales or raingardens into the landscape design.
- Use low maintenance plant species, particularly in common areas, that are likely to stay looking good for longer, consume less water, and survive frost or drought conditions. These will often be plants that are native to the area. Mana whenua may have taonga (treasure) species which could be used or encouraged by appropriate planting or retention of existing trees. In Central Otago, use of alpine or riparian species

- External lighting enhances wayfinding and community safety. However, manage light spill to minimise impacts on neighbours, te taiao (natural environment) habitats, and visibility of the night sky.
- For outdoor living spaces, direct access to well-used internal areas can make the outdoor space an extension of the home. Ideally, these spaces have a northerly or westerly orientation for maximum sunlight and are sheltered from prevailing winds.
- Ground-level outdoor living spaces allow flexibility to configure private space for outdoor furniture, raised gardens, or other uses. When planning outdoor living space, leave sufficient utility space, such as clothes lines and garden sheds, while also considering the concepts of tapu and noa.



IN THE HOUSE

A LIVEABLE HOME

This theme contains design elements that the Council will not consider in reviewing resource consent applications. However, they are important to achieve good medium density residential outcomes and their consideration is encouraged. Designing high performing and accessible compact buildings is important to a healthy and comfortable home. A higher performing home can be achieved for little or no additional cost. Even simple approaches that allow buildings to receive heat from the sun during winter and cool naturally during summer can result in considerable cost savings for residents and a reduction on greenhouse gas emissions. Incorporating universal design principles can make homes accessible to all people of all abilities at any stage of life.

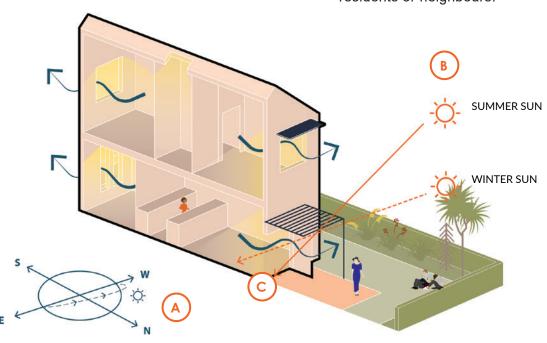
DESIGN ELEMENTS

spaces.

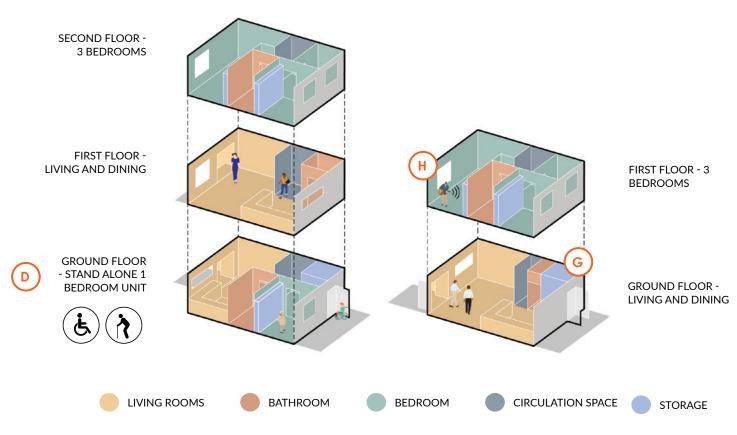
Orientating the house and key rooms for sunlight and warmth can improve energy efficiency. This is best achieved by aligning longer façades to maximise the benefits of the sun, placing main living areas on the north or west side, and providing generous ceiling heights. Skylights, atriums, or light wells enable

sunlight to penetrate deeper into internal

- Shading devices, such as deeper eaves, louvres, and balconies, help maintain indoor comfort in the summer, while still allowing sunlight to heat rooms in the winter. This reduces the need for heaters and air conditioners.
- Consider the placement of living areas and bedrooms with large opening windows on either side of the house for effective cross ventilation and passive cooling to reduce energy consumption and greenhouse gas emissions. If mechanical systems are provided, like heat pumps or extractors, place these where their noise does not disturb residents or neighbours.



- Designing for an aging population, young children, and disabled people (universal design) makes a whare future-proofed in the long term. Accessible and inclusive design means providing level access, wider doorway, and ground-level living, or provision for stair lifts. Recognising these opportunities helps support the wellbeing of residents. Consider Lifemark Design Standards for all ground floor units.
- Think about how the design and layout can allow rooms to be used or configured in different ways. The location of load bearing walls can provide the opportunity to divide or merge rooms and buildings in the future to cater for changing needs. This will assist in the spatial arrangement and flexibility of open and enclosed spaces.
- Cultural suitability and practices should be considered in the interior layout design that relate to the concepts of tapu and noa. Spaces associated with food should be separated from bathrooms, toilets, and laundries.
- Provide sufficient storage to accommodate larger items, recreational equipment, and other items, such as prams. This can increase the efficient use of indoor space and avoid larger items spilling out onto outdoor living spaces.
- For more peaceful living, consider designing interiors with good acoustic separation from external and internal noise sources. Similar household activities can be placed either side of a common wall between houses, matching noisy areas and quiet areas side-by-side. Bathrooms, storage areas, and wardrobes can be used as noise buffers within houses.





CLYDE GUIDE

CLYDE CHARACTER:

A DISTINCTIVE RESPONSE

Clyde has a history of smaller lot sizes compared to other towns in our District, particularly within and around the Clyde Town Centre that has a heritage precinct and many heritage buildings. The Medium Density Residential Zone is adjacent to the town centre and within its wider setting, and partially within the heritage precinct. The distinctive character of Clyde may be at risk if more general types of medium density housing were to occur. As such, there are specific rules for medium density in Clyde that help to manage this. While the "old town" character is not represented by one style and has many other heritage qualities, the existing historic residential character of Clyde generally contains small, detached, onestorey, multi-cellular cottages.

MATTER OF DISCRETION:

a. How the development responds to its context and site features, including any retained buildings, existing trees and the Clyde Heritage Precinct.

- Incorporate existing heritage structures on the site into the development, by adding on similar scaled house extensions, clearly delineating the junction and / or building style, or separating houses to other parts of the site. Retain established trees and allow for additional trees, gardens and lawns to be incorporated around the house placement.
- B Provide narrow frontage setbacks with low fences or hedges, so that there are still strong visual connections to the community. Orientate the broader frontage and gable roof of the house to the street, including the entrance. Place lower building forms in the front and layer the taller parts of houses behind.



- Houses should be simple structures with basic shapes and rooflines. The scale of houses should be managed through a multi-cellular and layered building approaches, not designed as one contiguous building form (e.g. sausage flats), to help to reduce the visual dominance over other heritage structures.
- Any vehicle parking and servicing areas provided should be recessed behind houses and accessed by a rear or side laneway. If garages are included, incorporate them into the multi-cellular approach of the overall development design, either as a leanto or detached form, and recessive to the primary house.





COMPREHENSIVE RESIDENTIAL GUIDE

THE SITE:

A PART OF THE WIDER CONTEXT

No site sits in isolation, whether it be a greenfield on the edge of town or brownfield in an existing urban area. It is important that development of larger sites integrate with the wider area and new developments should reinforce broader regional strategies and local spatial plans, including the Cromwell and Vincent Spatial Plans. A key to good site design is a thorough understanding of the site and its immediate surroundings. A more detailed survey of existing site features will establish various constraints to resolve through the design process. It will also reveal possible opportunities and assets of the site, which could add value to the overall development.

MATTERS OF DISCRETION:

- Provision for housing diversity and choice, relative to other residential areas.
- b. How the development responds to its context and site features, including solar orientation, views, existing buildings and vegetation, and, within Clyde Township, the Clyde Heritage Precinct.
- c. Whether the urban form is compatible with the nearby land use mix, including providing convenient access to commercial centres and community facilities.

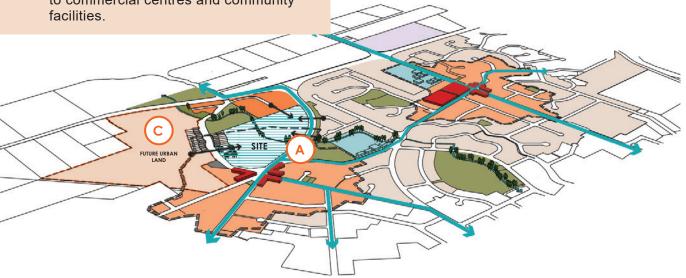
DESIGN ELEMENTS

A

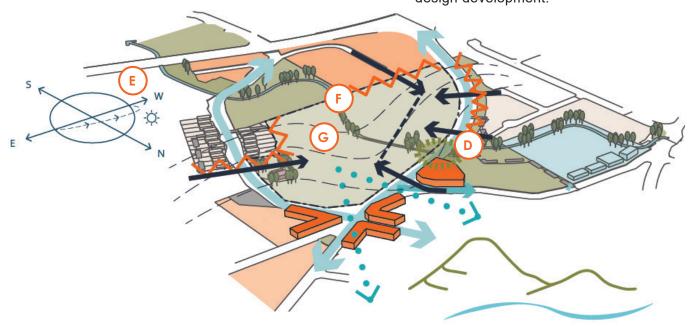
Use spatial planning documents and local observations to locate key destinations and major routes that connect to the site. This allows new developments to provide better linkages with the surrounding town and benefit potential residents wanting to access workplaces, shopping areas, schools, recreation facilities and other community services directly and easily.

An understanding of the unique characteristics of the general area is encouraged and might provide an important point of difference. These can be used to add value to a development and accentuate a sense of place, including heritage features, existing vegetation and landforms, distinctive land

uses and views.



- Current and proposed neighbouring activities and built forms should be managed through the master plan.
 Understanding the location of different housing types in the vicinity of the site could help transition the edges of a development or provide niche opportunities where gaps arise. Check if local parks are provided within comfortable reach or need to be included within the site to provide additional recreation and amenity.
- Practical links should be made to the surrounding neighbourhood, including providing links to future development. Consider matching proposed convenient routes on the site with surrounding streets and paths. Integrate cycling and walking routes into new developments to make it easier to travel to key destinations without relying on cars.
- Potential natural hazard constraints should be managed and consider climatic conditions, such as prevailing wind and sun aspect. The extreme climate in Central Otago, being the coldest, driest part of New Zealand, can mean seasons are sharply defined with summers hot and winters cold.
- Incorporate existing features of the site, such as landforms, waterways, significant vegetation and built structures. These could add maturity to the proposals, create future landmarks and maintain a connection with nature. Note short and distant views to prominent natural and built features that may enhance property values, visual amenity and aid orientation.
- G Search cultural, heritage or archaeological references that can add richness to the design and can avoid potential delays later in the development process. For larger sites, early engagement with mana whenua is important for accessing cultural values that can be followed up with more research and incorporated into the design development.



THE LAYOUT:

A RELATIONSHIP BETWEEN PUBLIC AND PRIVATE SPACES

The relationship between the public and private parts of a development is vital to coordinate the layout of development blocks, streets and open spaces on the site. Starting with a low impact approach to development limits the amount of disturbance to natural landforms and existing vegetation on-site, enabling better treatment of surface water runoff and establishment of natural habitats that can contribute to our District's biodiversity. A successful movement network can then be overlayed to provide route choice, reduce travel distances and make the development easier to service.

MATTERS OF DISCRETION:

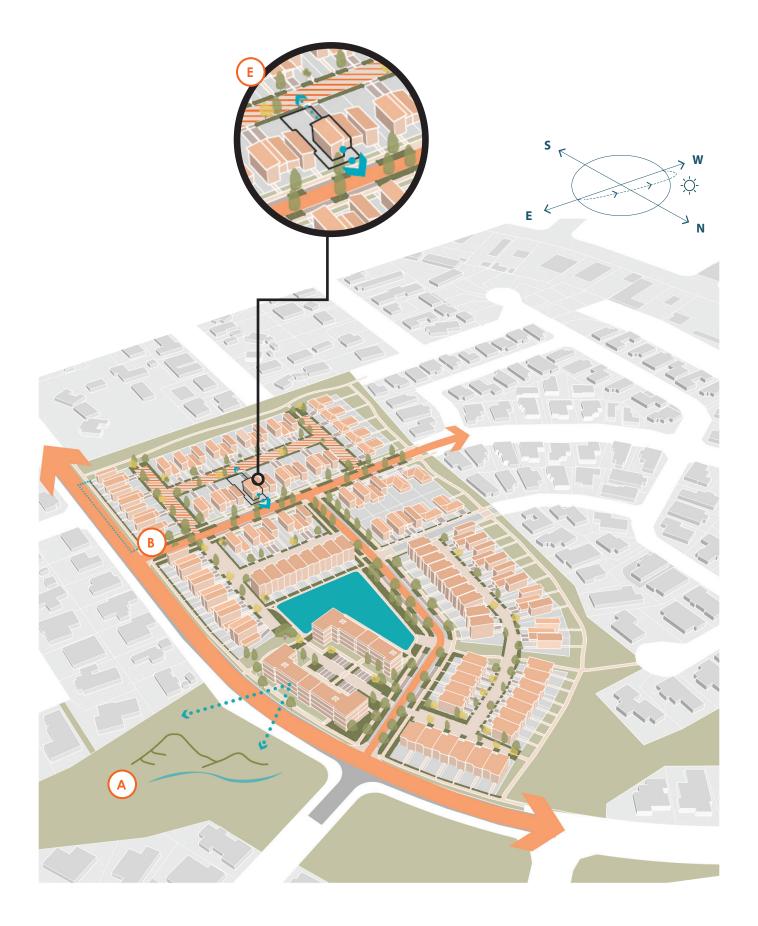
- d. The extent to which the development provides well-connected and legible movement networks, integrating all access modes, with priority for walking and cycling.
- e. Whether the configuration of blocks and lots will allow for development that can readily achieve the outcomes sought in MRZ-P1.

DESIGN ELEMENTS

The development layout should respect the natural characteristics of the site and enhance or emphasise natural features, such as responding to landforms and stream alignments. Retention of existing streams in their natural state is encouraged, enhance native vegetation along them to link them into wider open

space networks.

- A street grid pattern and clear hierarchy of routes is encouraged to allow residents to get to other parts of the town quickly and efficiently. This is also successful for accommodating a range of movement types, dispersing traffic and encouraging social interaction. Street grids could be either formal (e.g. Alexandra) or informal (e.g. Cromwell), in response to different site conditions and area characteristics. Provide as many open-ended links to surrounding streets and adjacent sites as practical to future-proof the development for further expansion of the town.
- Street alignments should help maximise the opportunity for properties to gain good sunlight access. Blocks that are generally configured running north/south, ideally with the long end of blocks within 20o of north, offer the best prospect for most houses to be energy efficient and private rear yards to receive morning or evening sun.
- Block size and shape will directly influence the walkability of a neighbourhood and should to be tailored to the mix of housing typologies. Placing lots back-to-back or with a narrow lane in between is an efficient use of street infrastructure. A 60m block depth and 150m block length is a good starting point for walkability with larger blocks benefiting from midblock pedestrian links.
- While many residents need vehicles in Central Otago, consider incorporating rear lanes into blocks when using narrower medium density lots, to prioritise housing frontages and pedestrian movement along streets and to minimise the dominance of vehicles and other servicing needs.



IN THE PARK:

A MULTI-FUNCTIONAL SPACE

Medium density residential development will increase people's reliance on streets and parks with more emphasis on providing high quality public spaces. Like streets, parks are equally multi-functional spaces, fulfilling much of the recreation, conservation, amenity and utility needs of the neighbourhood. Parks are an important element of the urban structure, adding spatial variety and amenity to a new development to supplement the local streets. The relationship with private areas within the urban blocks, particularly where public and private spaces meet, is critical to realise the full potential of streets and parks.

MATTERS OF DISCRETION:

f. The location, extent and quality of public open space ... taking into account servicing and maintenance requirements

DESIGN ELEMENTS

The distribution, type and size of parks provided is dependent on the size of the development and should to complement those in the wider area and add variety. Establish a hierarchy of green open spaces that provides for a range of recreational needs - formal / informal and passive / active. These should vary in scale, function and catchment population and be provided at least 400m from most homes. Smaller, 'pocket' parks can provide a focal point with added value for surrounding properties by providing a pleasant outlook and substitute for smaller private spaces.

- Locate parks adjacent to main routes or as part of the pedestrian and cycle network where they will be most used. Connect parks and reserves through green corridors or the streetscape to provide ecological linkages and pleasant connections between different open space types. Green corridors provide an ideal opportunity for additional off-street walking and cycling opportunities, particularly where they create circular routes.
- Design of parks are encouraged to be as flexible as possible by integrating them into the movement network and providing opportunities for play beyond formal equipment. The more intense the likely use of the park the higher quality the design, materials and construction needs to be. This may require more use of hard landscaping, especially along key desire lines. Use land efficiently by creating open spaces of a regular shape and relatively equal proportion.
- Use these public spaces to enhance urban ecology and surface water treatment. Incorporate swales, rain gardens and constructed wetlands to treat surface water run-off and minimise pollution of waterways.

 These can double as a host to urban ecosystems, provide for passive recreation, walking routes and visual interest. Use native vegetation sourced from the local area to create habitat opportunities and increase biodiversity.



ON THE STREET:

A SPACE FOR MOVEMENT AND PLACE

Roads have historically been classified according to their function as routes for traffic movement and manage the potential volume of traffic generated by the development and any through traffic. 'Movement and Place' thinking takes a broader consideration of these routes and uses the term 'street' to describe the multiple functions of these (linear) public spaces. When the role of a street is more than just traffic movement, design outcomes are often quite different and tend to place more emphasis on pedestrian / cycle comfort and higherquality experiences for residents. While they primarily accommodate pedestrian, cycle and vehicle access to homes or public spaces, they also provide informal social spaces, surface water treatment and add to the character and pleasantness of a development.

MATTERS OF DISCRETION:

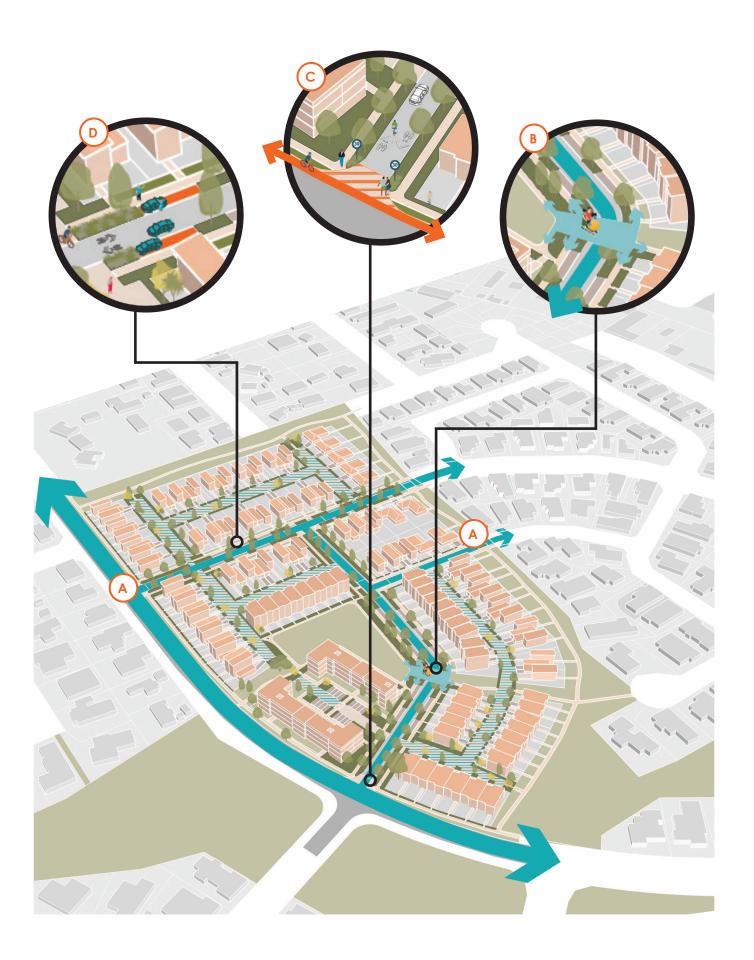
f. The location, extent and quality of ... streetscapes, taking into account servicing and maintenance requirements.

DESIGN ELEMENTS



Streets should be based on anticipated volume of use and types of activities along the street edge. Use of rear lanes is encouraged to minimise driveway crossovers and provide more continuity and priority for pedestrians accessing house frontages. Additional demand for onstreet resident or visitor car parking can be better managed with clusters of surface spaces within convenient and well landscaped areas.

- Balance the need for vehicle movement by allocating enough space for other functions, particularly walking and cycling. Dedicated cycle lanes and reduced pedestrian crossing distances should be provided on busy streets. Prioritise pedestrians and cyclists in quieter residential areas, including consideration of shared surfaces. Allow sufficient width for emergency services and service vehicles.
- Reduce the speed of traffic on local streets through appropriate safe design, including narrowing carriageway widths, tighter corners, traffic calming techniques (e.g. raised pedestrian crossings) and other streetscape treatments (e.g. trees, signage, changes in materials). Limit or appropriately design the use of roundabouts, as they can be less safe for cyclists and extend walking distances.
- Utilise street tree planting for shade, pollution control and variety of character. Trees can be incorporated between parking bays to break up the dominance of parked vehicles and provide sufficient space for trees to grow to maturity. Reduce surface water runoff and improve water quality through the provision of swales, raingardens and permeable surfaces.



CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED):

A SAFER COMMUNITY

Well-designed developments can reduce both the opportunity for crime and the fear of crime, while encouraging positive social interactions. While crime occurs for many different reasons and cannot be prevented, using Crime Prevention Through Environmental Design (CPTED) principles have a proven track record in reducing crime. Generally, well-designed developments also help improve safety by attracting people into public spaces where they increase natural surveillance.

Further information can be found on the Ministry of Justice website:

https://www.justice.govt.nz/assets/Documents/ Publications/cpted-part-1.pdf

MATTERS OF DISCRETION:

g. The Incorporation of Crime Prevention Through Environmental Design (CPTED) principles to achieve a safe and secure environment.

- Consider a mix of medium density housing types and household sizes to provide a diversity of residents that can extend activity throughout the day and into the evening.
- B The configuration of 'fronts and backs' should be managed between lots, so that public edges only need low or visually open fencing to streets and parks. Establish a narrow front yard, transition space between public and private activities to encourage those living in adjacent homes to adopt, defend and maintain the edge of public spaces.
- Ensure housing is fronting onto parks and streets, enhanced by locating main living areas along the frontage, as they are generally safer due to the informal surveillance provided by residents. Ensure there are clear sightlines across public spaces by avoiding blind corners, dense vegetation, hiding places or dark recesses, particularly adjacent to pedestrian or cycle routes.
- Establishing high quality public streets and parks are encouraged, so that can easily be maintained and appear always cared for. Provide a good standard of lighting that illuminates pedestrian footpaths along streets and through parks, in addition to carriageways. However, avoid lighting routes that will attract pedestrians into unsafe areas.



