



Residential Design Outcomes

How to achieve quality residential developments

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How to achieve quality residential developments

The Western Bay of Plenty District is a high growth area and to meet expected demand there is a need to provide for increased density throughout the urban areas within the District.

Development is expected to occur in new growth areas (greenfield), as well as through re-generation of existing developed areas (brownfield) and through infill. It is expected that this growth will occur at higher densities than traditionally experienced in the Western Bay District with densities of 15-20 dwellings per hectare and higher. In order to ensure that these increased densities deliver desirable, attractive, safe and liveable communities, it is essential that new development is well designed. The Residential Design Outcomes provides the design framework for new development to facilitate the delivery of high-quality residential development.

A high-quality urban environment will result in an efficient, connected, and compact urban form which supports sustainable growth, helps to conserve productive farmland, and provides for a healthy and diverse community.

Having positive residential design outcomes helps create great neighbourhoods and a vibrant and resilient community.

The outcomes and guidelines described in this document are intended to be used by applicants and Western Bay of Plenty District Council to assist in the design and review of new development proposals and are applicable for greenfield, brownfield and infill development.

Residential design aims

The intent of the Residential Design Outcomes is to facilitate the delivery of high-quality design for residential development within the district, in order to:

- Retain and respect the natural landform characteristics of the area.
- Provide an integrated planning approach to subdivision, which ensures the effective use of land.
- Provide a good level of amenity in private and public spaces. This means ensuring public spaces such as roads and parks are attractive environments to be in, easy to access and enable people to interact together. Private amenity relates to the quality of living on individual sites, including access to sunlight, outdoor living areas, and privacy.
- Establishing a walkable and cyclable urban environment, that connects to commercial centres, community facilities such as schools, parks, and reserves, enabling people to undertake trips without having to rely on use of a car.
- Minimise the adverse effect of earthworks and retaining structures on the natural character and visual amenity of the surrounding area.

- Put a people-centric lens on residential development, considering not only the impacts of design on the future residents of a development, but also on the neighbours and communities in which they are built.
- Deliver quality housing at densities of 20 dwellings per hectare and higher with dwellings that respond appropriately to their context.
- Improve liveability through appropriate subdivision and optimised building layout and design.
- Encourage the provision of a range of alternative housing options for people of all ages, demographic backgrounds, and family configurations.

Using the document

The Residential Design Outcomes is intended to be used as a reference to assist in understanding and interpreting the outcomes sought by the District Plan for residential development. Section Two contains ten urban design topics, and a description of how good design outcomes can be achieved. Each topic describes design responses and the outcome that Council is aiming to achieve to meet to the objectives, policies, and assessment criteria in the District Plan.

It is expected that all new residential development applications will be able to achieve the overall intent of the outcomes sought detailed in Section Two. It is however acknowledged that every application will be different and not all the design guidelines will be relevant to each proposal. Each development will be assessed on its merits considering its context and specific attributes, with a degree of flexibility in relation to how the design outcomes are achieved. What is most important is that the intent of each outcome is achieved through the design and that this is clearly demonstrated in the proposal.

The ten topics with associated outcomes are:

- Site and Context
- Earthworks
- Subdivision
- Infill Subdivision: Retaining the Existing Dwelling on the Site
- Public Domain Interface
- Movement Networks, Access and Parking
- Private Residential Amenity
- Interface with Neighbouring Sites
- Safety and Security
- Sustainability

Topic 1: Site and context

Outcome:

A development that successfully considers the underlying site characteristics and surrounding context to:

- Promote and maximise its ability to be sustainable, functional, and attractive
- Reflect the topography of the area, maintaining the character of the landscape; and
- Establish linkages to adjoining lots
- Contribute to improving the amenity and desired future character of brownfield and infill areas as they change over time
- Establish the desired future character of greenfield areas.

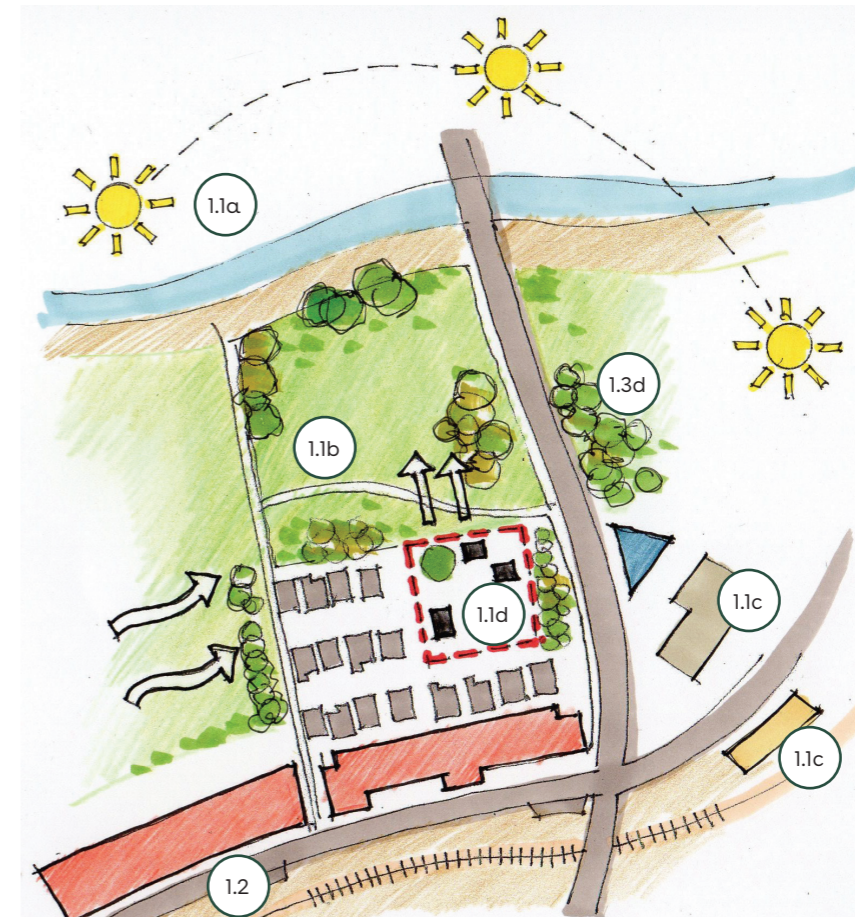
Explanation

Context can be defined as the character and setting within which a proposed development will sit. It is influenced by underlying topographical, environmental, physical, economic, cultural, and social factors. When considering the context of a site, it is important to understand the desired future character of an area. Understanding the unique opportunities and challenges contained within each site enables a design to capitalise on a site's strengths, such as views and vistas, established vegetation and greenery, and develop a plan to overcome any potential constraints such as topography, floodplains and access.

Establishing and understanding the site context before beginning to design is important. It enables decisions to be made which maximise opportunities presented by the site's development while managing the response to any site constraints. The context should be considered as part of subdivision, earthworks, and land use development stages, and is relevant to all development scenarios - greenfield, brownfield and infill.

Design guidelines:

- 1.1 Identify and demonstrate consideration of the environmental, cultural, historical and community context and identify opportunities that contribute to the neighbourhood's wider sense of place. This includes:
 - a. Micro climatic factors such as wind direction and solar orientation.
 - b. Existing site features such as topography, vegetation (mature trees and landscapes), environmental corridors and water / drainage systems, areas of planned open space.
 - c. Nearby listed heritage items and sites of cultural significance; and
 - d. Visual connections / views to prominent cultural landmarks, the harbour, coastline, and other natural or built areas of significance.
- 1.2 Consider how the development links to surrounding movement networks (bus, vehicle, cycle, walking) and to existing / proposed local attractors (such as local shops, community, education and health facilities, walking and cycling trails, transit stops, parks, open spaces and other natural features).
- 1.3 Respond to the character of an area through a design theme that promotes:
 - a. Appropriate building orientation and solar access (optimising sunlight and minimising overshadowing - particularly for indoor and outdoor living areas).
 - b. Compatible and cohesive architectural style (looking at details such as: roof pitch, degree of openness, building materials, upper level set-backs and design styles).
 - c. Compatible fencing and boundary treatments (looking at details such as: fence height, materials, landscaping, and pedestrian entrance configurations and how these work with any earthworks, batter slopes and retaining walls).
 - d. The retention of mature trees and stands of vegetation.
- 1.4 Prioritise the use of materials that relate to, or take cues from, the surrounding built, natural or cultural environment and are locally sourced wherever possible.

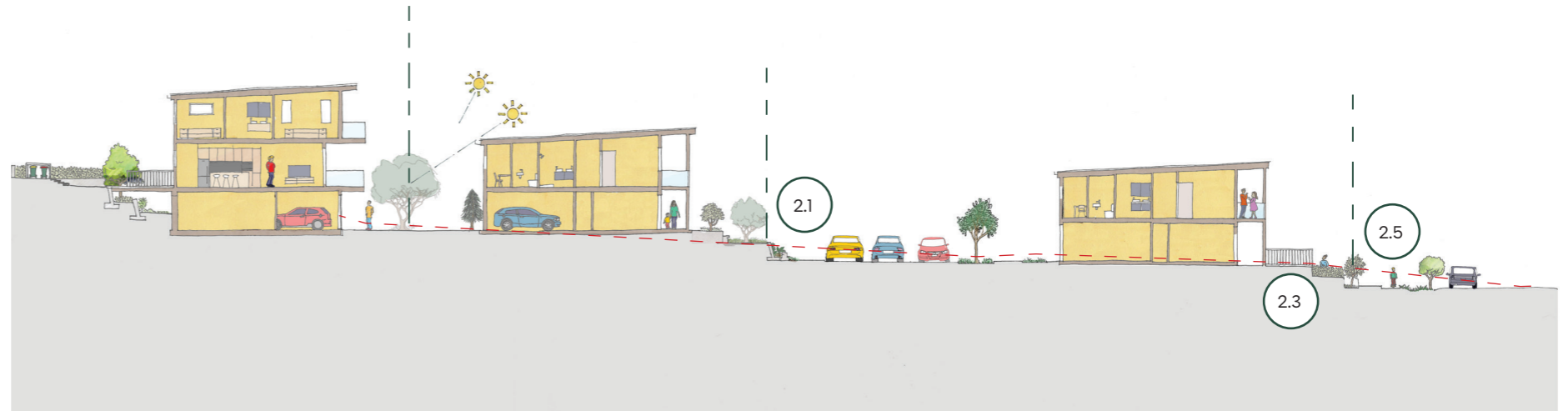


Topic 2: Earthworks

Outcome:

Development that works with the existing contour and topography of the land to enable quality residential development by:

- Minimising the need for extensive earthworks through good comprehensive design; and
- Creating liveable environments by limiting the heights and dominance of retaining walls.



Explanation

The management of earthworks is important in establishing a well-designed, high amenity environment. The design of earthworks and how it relates to subdivision is highly important in achieving an urban neighbourhood that is easy to navigate, walkable, safe, and attractive. Large scale retaining walls should be avoided and where possible retaining walls should be located away from frontages to ensure an attractive streetscape and to maintain sightlines between pedestrians, cyclists and vehicles egressing from dwellings. Retaining a slope with a series of low retaining walls forming planted terraces can enable great views and passive surveillance while protecting privacy, if it is designed thoughtfully at a human scale. This is important at all scales and particular care needs to be taken when developing existing sites as to not adversely affect the amenity of adjacent dwellings.



Large scale retaining interface between properties and the street can result in poor legibility, and reduces passive surveillance of the street creating unsafe environments and reduced amenity.

Design guidelines:

- 2.1 Design earthworks to reflect the existing contour of the site. This means following the general rise and fall of the land and not carrying out extensive cutting/filling. Do not set out to completely level the site. Earthworks should maintain the hydrology of the site and work with natural drainage patterns.
- 2.2 Understand the outcome sought for the subdivision and approach earthworks in a comprehensive manner, minimising the need for secondary site earthworks to be carried out post subdivision to enable the construction of dwellings. Earthworks should:
 - a. Consider the proposed road network and design this to work with the topography i.e. do not force a rigid grid pattern onto a heavily contoured site. Roads should, where possible, run along the contour, rather than against it.
 - b. Orient and size lots to work with the contour of the land and minimise the need for retaining walls.
 - c. Consider any adjacent properties and minimise the effects of earthworks on the amenity of existing dwellings.
- 2.3 Where retaining walls are required, design these to minimise visual dominance. If additional height is required, walls should be stepped with adequate space to allow planting that screens the walls.
- 2.4 Ensure earthworks are designed to manage risks associated with erosion and sedimentation.
- 2.5 Where retaining walls are anticipated adjacent to a street, these should be low and ensure the safety of pedestrians and cyclists, taking into account sight lines between driveways and the footpath.



Large scale retaining walls result in poor quality shaded living conditions reducing on site amenity and may result in complications if maintenance is required in the future.

Topic 3: Subdivision

Outcome:

Subdivision that sets up the long-term success and resilience of an area by:

- Setting out the road pattern and block structure that responds to the landscape and supports a well connected neighbourhood; and
- Lot shapes, sizes and orientation that enable a variety of housing typologies, provides for good quality residential amenity and maximises solar access

Subdivision of existing allotments is addressed in more detail in Topic 4 - Infill of existing sites

Explanation

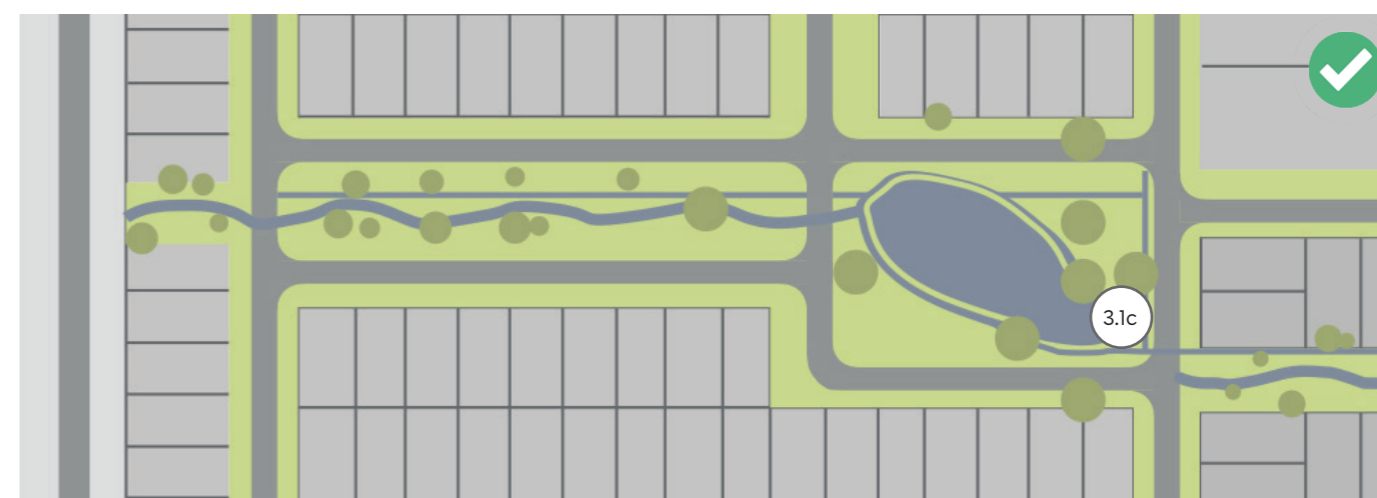
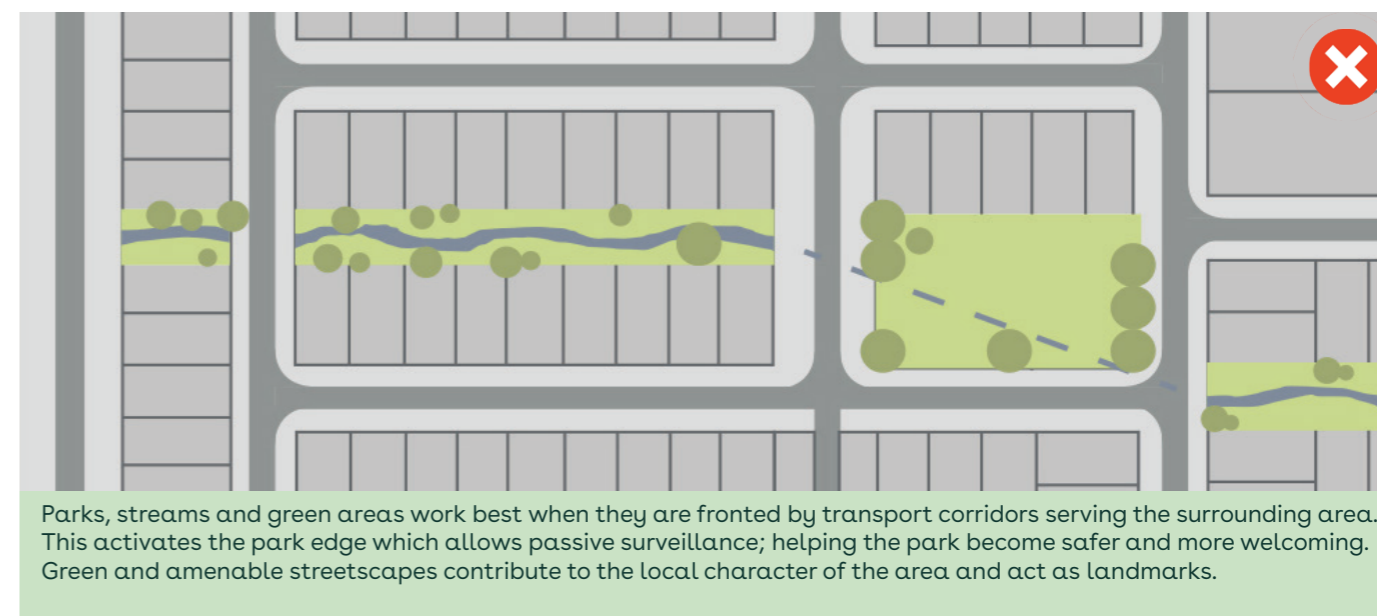
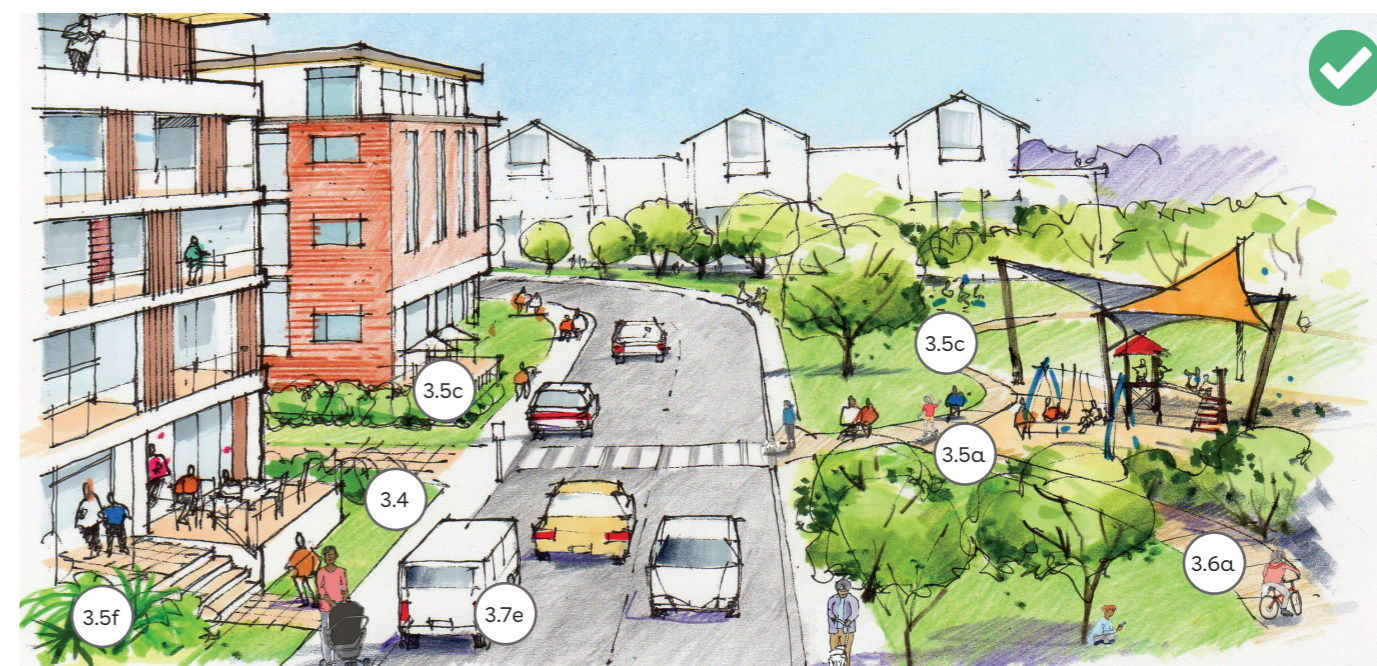
A well-designed development considers, and works with the topography and context of the site to establish a block pattern that enables a high level of amenity, maximises connectivity and enhances safety, amenity, and local character.

The subdivision layout creates the framework that supports achieving high quality urban design outcomes.

Design guidelines:

- 3.1 Subdivision is required to identify and responds to topographical features of the area such as slopes, natural features, (including gullies, wetlands and streams), and any areas of natural habitat that need to be protected. Take the opportunity to showcase these features and create areas of amenity that add to the character and sense of place of the subdivision by:
- Locating and orientating the road corridor to work with and reflect the topography and slopes, rather than against them.
 - Maximising any views and vistas and consider how these can be used to create a sense of place and connection in the area.
 - Providing public roads along gullies and wetlands to activate these spaces.
 - Considering how areas of natural habitat can best be protected and the need to manage effects on these areas.

- 3.2 Identify the most suitable locations for stormwater management devices by considering and working with the natural drainage patterns of the area.
- 3.3 Provide a range of lot sizes to enable the construction of a variety of dwelling sizes and typologies, ensuring housing choice and the creation of a diverse community. A range of housing size and typologies enables people to remain in the community in housing that suits their current stage in life.
- 3.4 Focus areas with a higher density around nodes of activity such as the town centre and adjacent to public transport routes to support their viability.
- 3.5 Establish attractive, high amenity neighbourhoods through the provision of open space that:
- Provides residents access to a neighbourhood park in a central location, ideally within a maximum 5-10 minute walk from their house.
 - Connects areas of open space with the wider green network, where possible.
 - Locates open space in flat areas that maximise the usability of the space.
 - Provides green spaces that are of a sufficient size to be usable. Refer to Council's Open Space Policy.
 - Are safe by designing subdivision to front 50% of the perimeter with streets and enabling passive surveillance from adjoining development by limiting the heights of fences.
 - Provides for landscaping and planting (especially in the road reserve and road frontage) that supports biodiversity in the area and aligns with Council's preferred plant species list.



3.6 Establish a connected and legible block pattern that promotes walking through:

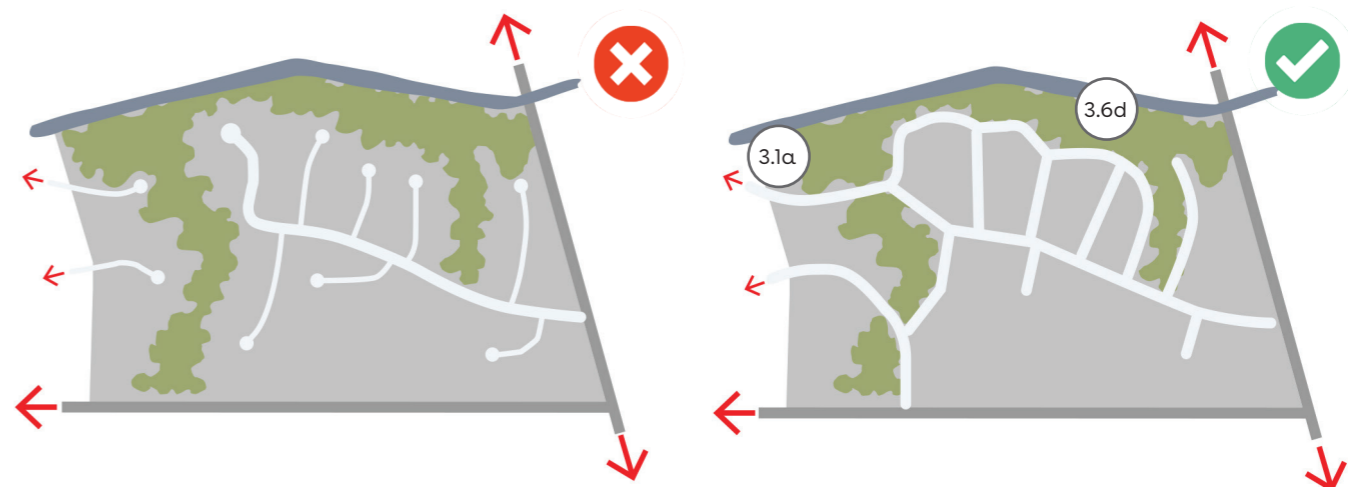
- a. Identifying key destinations located or planned in the area such as schools, neighbourhood shops, community facilities and parks and consider how the subdivision can provide connection to these destinations.
- b. Establishing a small block size that enables easy movement for pedestrians and the shortest route possible. An average block length of 200m with a depth of around 60m, based on a grid pattern works well.
- c. Considering how mid-block connections and linkages can be provided to improve walking and cycling connectivity. Ensure these are designed to be safe and easy to navigate using the principles of Crime Prevention Through Environmental Design (CPTED).
- d. Designing a simple street layout that is easy for people to understand with a clear street hierarchy. This means ensuring it is legible, logical, and connected.
- e. Minimising the use of rear sites, right of ways and cul-de-sac where possible. This ensures a block pattern that is logical, connected and easy to navigate.
- f. Ensuring development is well connected with adjacent development sites and provides the opportunity for future development to connect in and integrate with the site.
- g. Considering how active modes are provided for within the street hierarchy and design transport corridors to have speeds appropriate to their anticipated use and context.
- h. Ensuring road cross-sections, walkways and cycleways are designed for universal access, enabling their use by people of all ages and abilities.

3.7 Provide for safe and attractive streets by:

- a. Designing the road corridor to have sufficient space to provide for walking and cycling movements, on-street parking, street trees, stormwater management, services such as rubbish collection and the movement of vehicles.
 - i. Ensure a design speed that reflects the intended use of the street corridor.
 - ii. Ensure footpaths are of a sufficient width to allow access to people with pushchairs, wheelchairs, and mobility scooters to travel in both directions.
- b. Minimising the frequency of vehicle crossings by ensuring blocks are designed to be able to accommodate rear lane access in areas where higher building intensity is envisaged i.e. terraced houses.
- c. Ensuring the design of the street corridor considers the location of vehicle crossings and on-street parking in the initial design to avoid the loss of anticipated carparking once dwellings are constructed.
- d. Considering the provision of services and how these will be maintained and accessed.
- e. Designing local roads to be low speed environments that enable easy and safe access for people walking and people on bikes. Where suitable, consider shared spaces and living streets.

3.8 Arrange the road pattern to enable the creation of high amenity residential dwellings by:

- a. Orienting roads in a north/south arrangement where possible, to maximise access to sunlight and daylight for dwellings.
- b. Creating a block structure that encourages buildings to front the street with back yards to the rear, to maximise on-site privacy.
- c. Minimising the use of rear lots and rights of way in order to provide a well connected and easily walkable neighbourhood.
- d. Considering the future built form that is to be located on these sites and ensure allotment sizes are appropriately sized.



A continuous street layout provides a legible street layout that activates adjoining parks and green areas.

Topic 4: Infill Subdivision: Retaining the existing dwelling on the site

Outcome:

Infill development of existing sections provides for well-designed residential dwellings that are sympathetic to existing buildings on site and maintain or enhance the amenity of existing on-site and neighbouring residents.

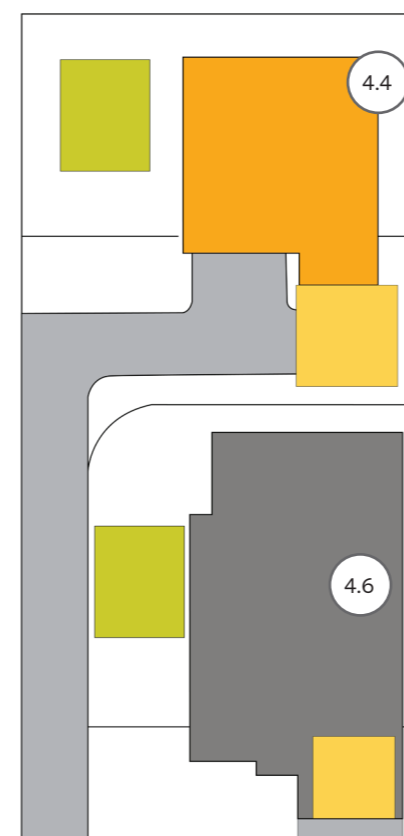
Explanation

When designed well, higher density residential development can provide for additional housing to accommodate growth in a way that complements and integrates with the surrounding neighbourhood. Development that retains the existing dwelling on the site can be a good way to efficiently use land and create diversity in the built form and reference to the existing character of an area. When considering the development of existing properties, it is important to consider the impact new buildings can have on the level of amenity enjoyed by the existing residents. When considering infill development on a site that will retain the existing dwelling, care should be taken to consider how any new dwellings can be placed to achieve good quality outcomes for new and existing residents. When designing and providing for infill development on a site, reference should be made to the wider Residential Design Outcomes in this document and the guidance below.

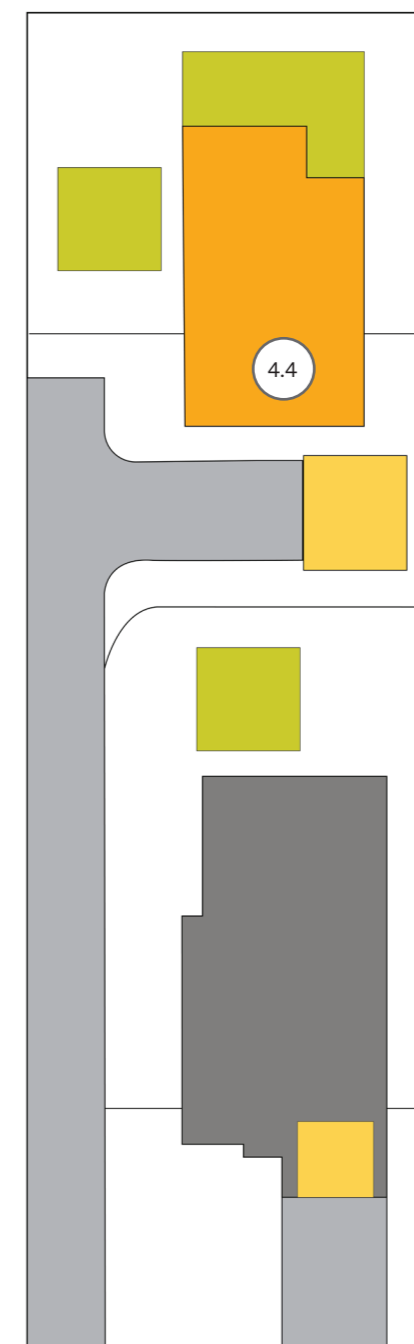
Design guidelines:

Choosing how to develop your site

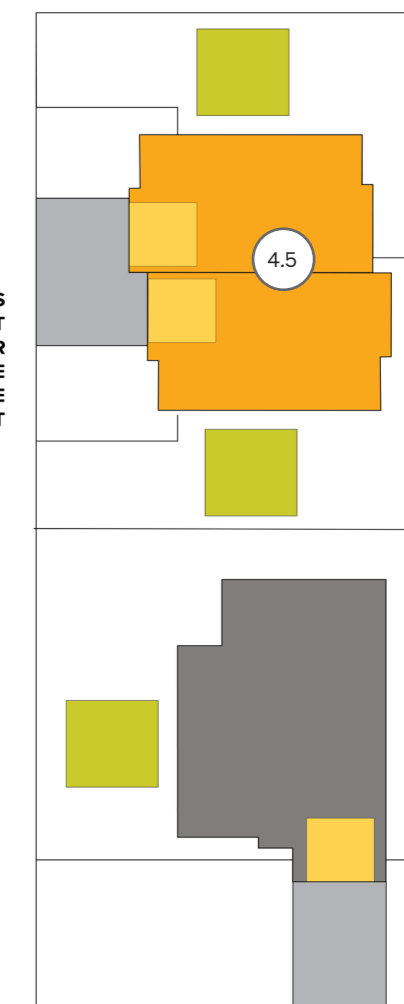
- 4.1 Choosing the right approach to infill development of a site is the foundation of providing increased density on a site that creates a high amenity development and is an enjoyable place to live. Infill development will reduce the size of the section of the existing dwelling, however it should not create a poor living environment. Simply attempting to maximise the yield of the site will not create a high level of liveability and the overall outcome needs to be considered. Some important aspects to consider are:
 - a. the size and shape of the site.
 - b. the topography of the site and any slope or earthworks that will be required.
 - c. access to the site, and how this can be provided in a way that does not compromise the amenity of the existing dwelling and is safe for pedestrians of all ages.
- 4.2 Scale the level of development on the site in proportion to the area of the site.
- 4.3 If the site is too small to retain the existing dwelling, look to re-develop the entire site.
- 4.4 Consider a single dwelling on the rear of the smaller sites, so that there is sufficient room for access, private outdoor living areas and so that the liveability of the existing dwelling is not compromised.
- 4.5 Larger sites can accommodate a duplex, providing for additional infill by taking advantage of joining the dwellings together. This can be particularly effective on a corner site, which provides for access from two road frontages.
- 4.6 More development flexibility can be created by moving dwellings that are on the site to the front or to the rear. This can be a good way of maintaining the character of an area.



STREET



STREET

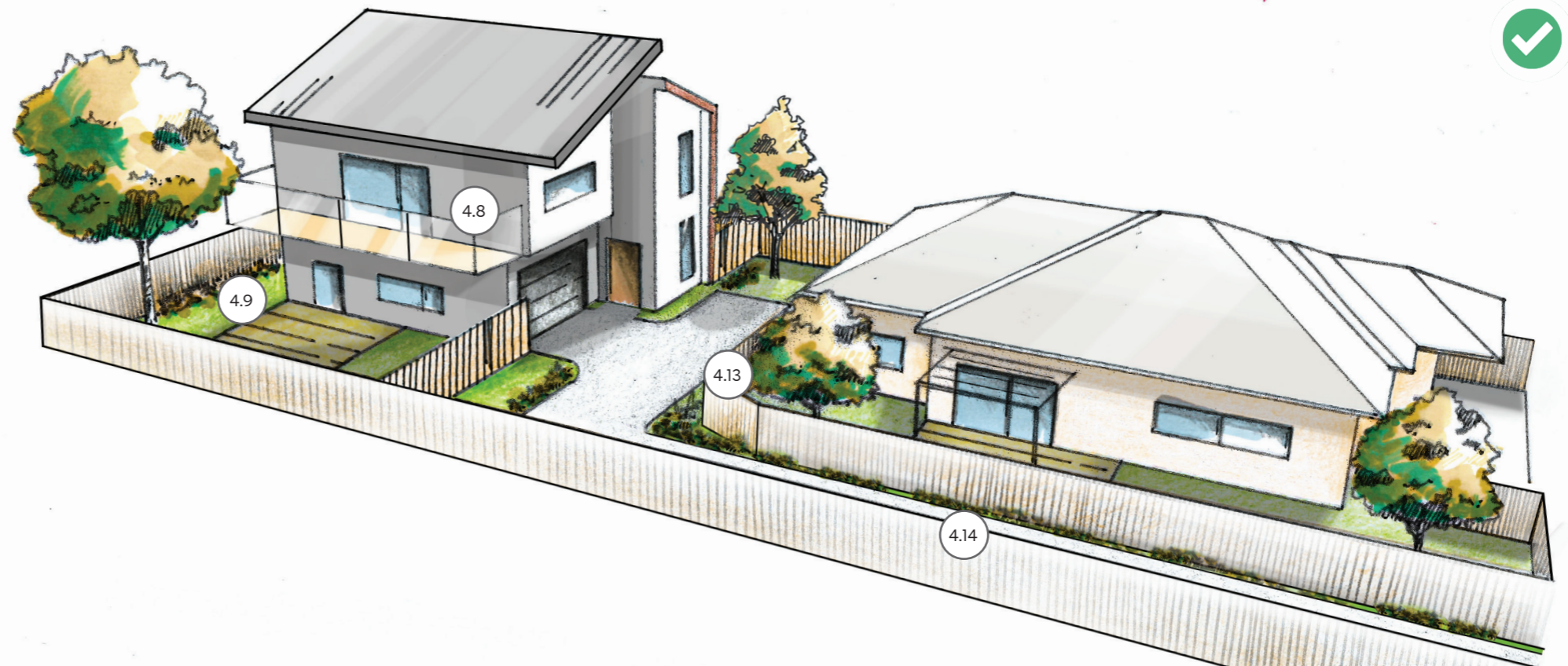


STREET



Context

- 4.7 Consider how including new buildings can maintain the amenity of adjacent dwellings by:
 - a. Locating new buildings as to not overshadow indoor and outdoor living areas.
 - b. Maintaining the privacy of adjacent units by designing windows so they do not face directly into bedrooms or indoor and outdoor living areas. This is particularly important where two or three storey buildings are proposed.
 - c. Arrange and orient dwellings to maximise on-site privacy, maintaining a “public front and private rear”.
 - d. Locating outdoor living areas away from driveways or provide screening to maintain a sense of privacy.
 - e. Consider relocating the existing dwelling on the site to provide more flexibility and achieve better design outcomes.
- 4.8 Take advantage of views and vistas available to the site, while maintaining the outlook for existing buildings where possible.
- 4.9 Respond to local climatic factors and provide appropriate solar access for indoor and outdoor living areas of new buildings and those that already exist.
- 4.10 Establish a design form that is compatible and cohesive with the surrounding area and existing dwelling on the site, considering details such as roof pitch, building materials and architectural style.
- 4.11 Establish a cohesive approach to fencing across the site and look for ways to improve the overall amenity of the site through new fencing and planting where appropriate.
- 4.12 Minimise the bulk and mass of buildings through the use of a mix of materials and variations in building line, which will provide visual interest and help reduce the scale of development.
- 4.13 Create a clear demarcation of private space at the boundary of properties using low level fencing, landscaping and clear access routes to communicate ownership.



- 4.14 Subdivision should provide for clear and obvious access to all dwellings. Where driveways are to be shared, there should be sufficient space for each site, without requiring manoeuvring over others property.
- 4.15 Where assets are to be shared, ensure there are clear expectations with regard to maintenance and ownership.

Earthworks

- 4.16 If the addition of one or two dwellings to the site requires earthworks, the design should:
 - a. Reflect the contour of the site and maintain the general drainage pattern of the site.
 - b. Design earthworks as to not impact the amenity of the existing dwelling and residents.
 - c. Minimise the use of retaining walls. Where necessary, walls should not be visually dominant or create adverse shading on adjacent dwellings.

Public domain interface

- 4.17 If additional dwellings are proposed where they will interface with the public domain, development should take the opportunity to improve the public interface of the site by:
 - a. Facing the street and providing for passive surveillance through the provision of generous and evenly distributed glazing.
 - b. Locating rooms with higher levels of activity to face the street.
 - c. Providing balconies on upper levels.
 - d. Creating a visible front entrance.
 - e. Providing landscaping that adds to the amenity of the street.
 - f. Clearly defining the boundary between what is public and what is private.
 - g. Where possible, take advantage of corner sites and provide for separate access to dwellings from different frontages, allowing infill to activate both street frontages.
 - h. Designing the front dwelling so that the garage forms no more than 50% of the width of the dwelling frontage.

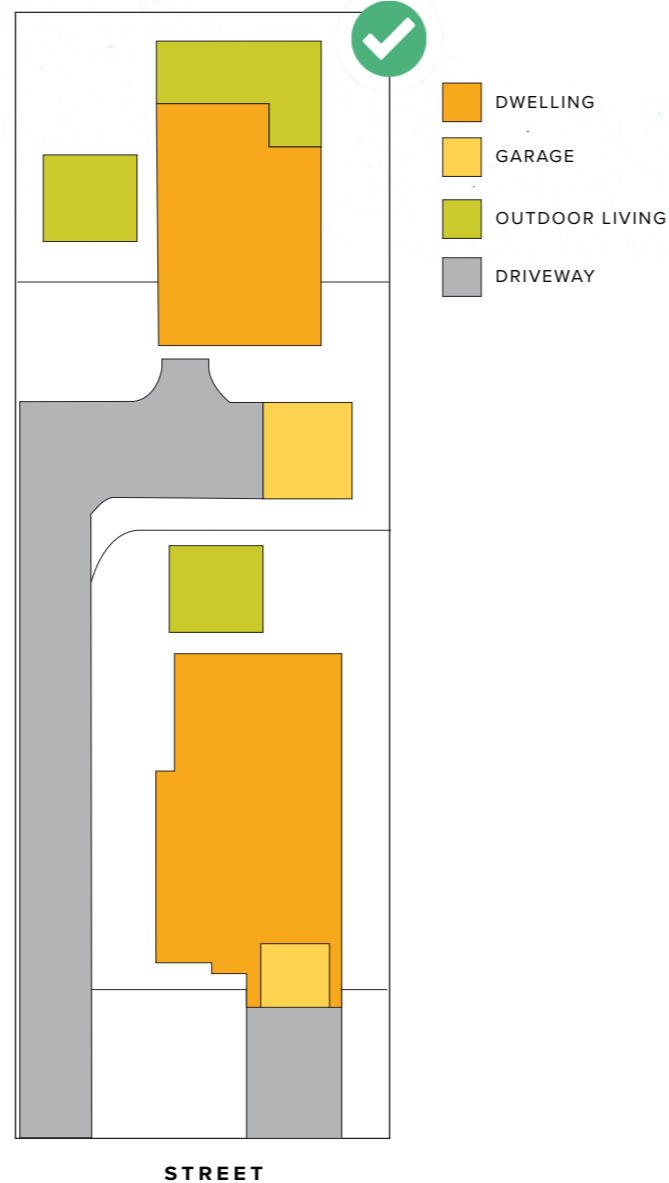
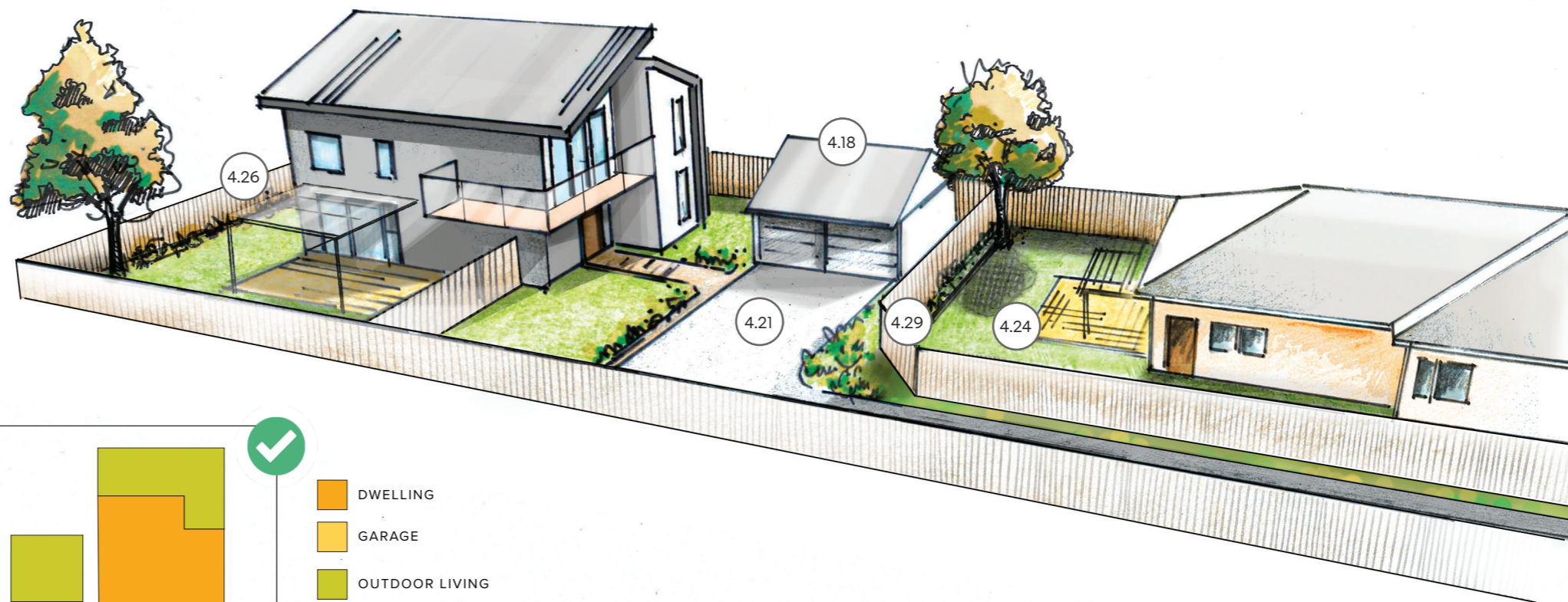


More detailed guidance is provided under Topic 5 and should be referred to.



Movement and access

- 4.18 Maintain the amenity of existing residents by providing sufficient space between the dwelling and any pedestrian or vehicle access to minimise disturbance of residents in adjacent dwellings.
 - 4.19 Establish a cohesive approach to fencing across the site and look for ways to improve the overall amenity of the site through new fencing and planting where appropriate.
 - 4.20 Create a clear demarcation of private space at the boundary of properties using low level fencing, landscaping and clear access routes to communicate ownership.
 - 4.21 Locate and design internal access ways so they are activated and overlooked by surrounding dwellings.
 - 4.22 Locating parking to the rear of existing buildings and use it to provide separation between dwellings. Consider relocating the existing building so that car parking is not located in the front yard.
 - 4.23 Where possible provide clear pedestrian access to each dwelling that is separate from any vehicle access to maximise pedestrian safety.
- More detailed guidance is provided under Topic 6 and should be referred to.



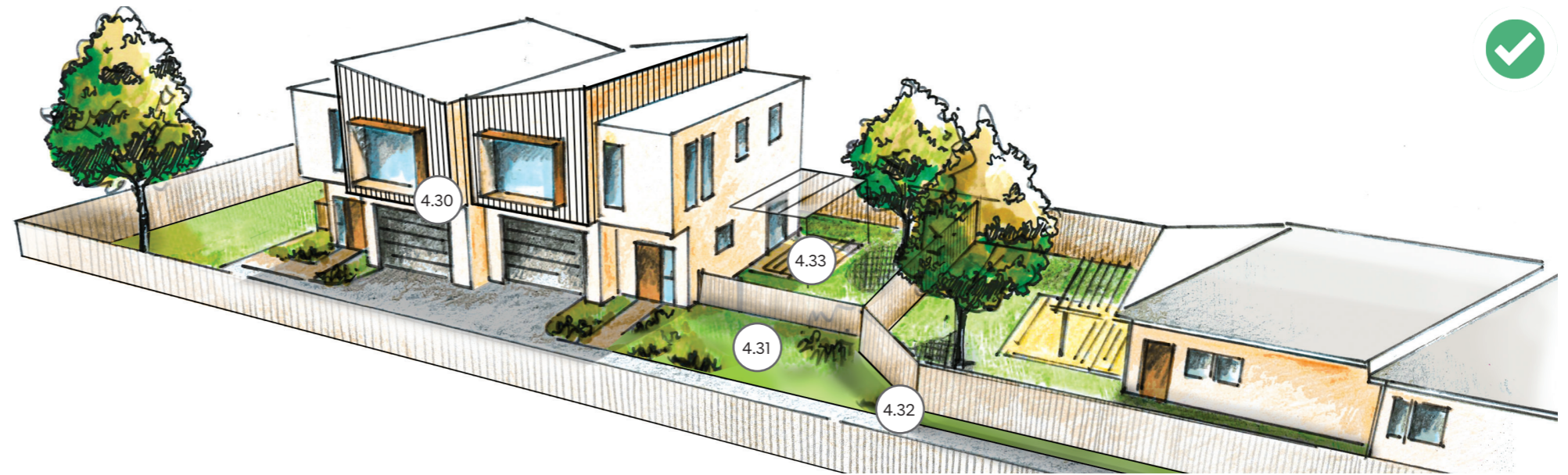
Private residential amenity

- 4.24 Arrange buildings on the site to provide privacy and amenity for all dwellings.
 - 4.25 Maximise solar access to indoor and outdoor living areas.
 - 4.26 Design new buildings to provide habitable rooms with views over the street or the private back yard.
 - 4.27 Windows should be carefully located so they do not reduce the privacy of neighbours. Off set windows or use architectural treatment to minimise direct views into other dwellings. On upper floors, windows should be arranged to limit direct overlooking of neighbouring outdoor living areas.
 - 4.28 Provide for storage of utilities such as rubbish bins in locations that will not disturb or annoy neighbours when being used or moved.
 - 4.29 Use landscaping to define areas of ownership and provide privacy on site.
- More detailed guidance is provided under Topics 7 and 8 and should be referred to.



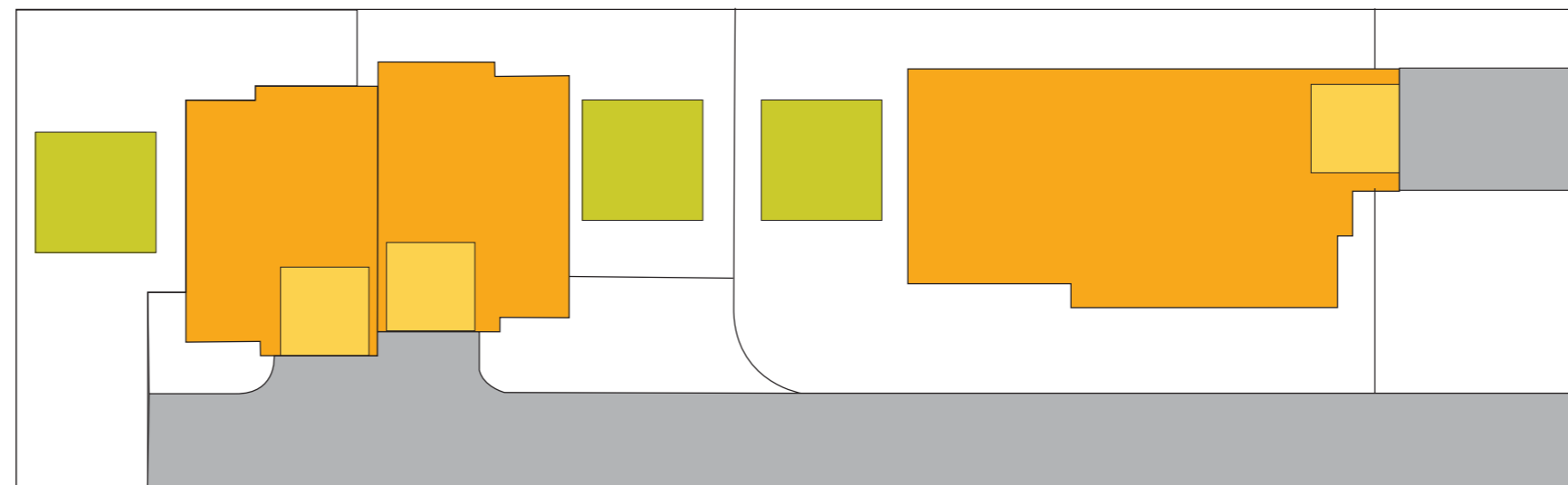
Safety and security

- 4.30 Promote passive surveillance of public and semi-public spaces, such as shared driveways through the provision of glazing and locating habitable rooms on these frontages.
- 4.31 Provide clear and obvious pedestrian routes to entrances.
- 4.32 Create a clear demarcation between public and private spaces for each dwelling, using low fencing and landscaping communicating ownership of space within the site. More detailed guidance is provided under Topic 9 and should be referred to.



Sustainability

- 4.33 Maximise energy efficiency of dwellings by optimising solar access and natural ventilation. This will minimise heating, cooling and lighting requirements. This can be achieved by:
 - Concentrating glazing on the northern façade to maximise solar access in winter.
 - Include landscaping or architectural features including eaves, awnings, or screens to prevent overheating in summer.
 - Provide windows on opposite sides of the dwelling to enable cross-ventilation.
 - Provide adequate glazing to ensure adequate sunlight for habitable rooms.
- 4.34 Consider the inclusion of sustainable water solutions such as rain water harvesting and grey water recycling. Ensure sites maintain permeable areas to enable soakage.
- 4.35 Provide features that promote use of renewable energy and reduce the need for energy use. E.g. provide outdoor drying areas that are sunny or sheltered for clothes drying, solar panels, charging points for electric bikes and cars.
- 4.36 Use sustainable construction materials and methods where possible, consider the materials life-cycle costs, durability, and maintenance requirements as well as the embodied energy contained within any existing buildings. More detailed guidance is provided under Topic 10 and should be referred to.



Topic 5: Public domain interface

Outcome:

A development that positively contributes to, and interfaces with, the adjacent public domain (be it a street, lane, parks or green areas-such as gullies).

Explanation

The street is, in most cases, the primary location from which a development is viewed. The interface between a development and the public domain is important to ensure it positively contributes to the safety, quality, amenity, and character of a neighbourhood.

Developments can achieve this through; attractive and varied built form; designs and layouts that address the public domain and encourage passive surveillance; and public-facing yards that incorporate appropriate landscape elements.

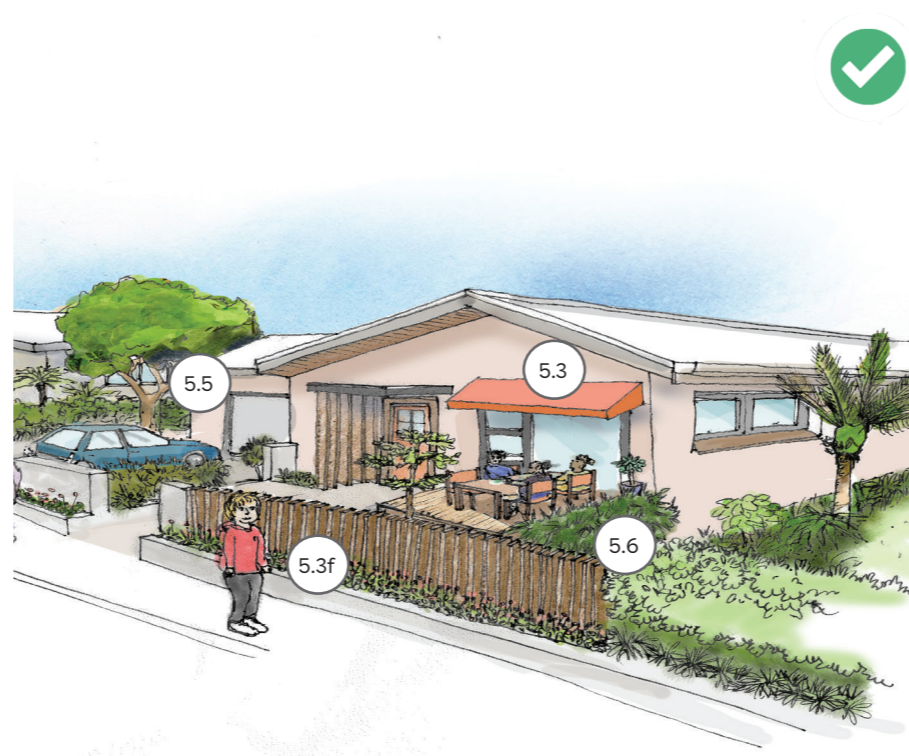
This public interface is particularly important for developments with a significant street frontage or large building bulk – as these developments have a more visible public edge.

Design guidelines:

- 5.1 Provide variations between adjacent dwellings (terraced housing) or along the front building façade (apartments). Variations can be achieved through selection of material, texture, colour, design elements and architectural features (i.e. proportion of openings, pitch, and form of roof).
- 5.2 Minimise repetition of building forms and allow for each dwelling to be recognised as unique (terraced housing). Personalisation of a dwelling may be achieved by an intervention as small as door colour, or plant species.
- 5.3 Maximise a development’s visual relationship to an adjacent street or public open space both to encourage passive surveillance, but also to anchor a development within a streetscape through:
 - a. Internal layouts which locate active areas of buildings such as habitable rooms to overlook public space.

- b. Transparent façades (generous and evenly distributed glazing) along the street frontage.
 - c. The consideration of balconies at upper levels overlooking the public domain (street / public open space).
 - d. Fencing and planting that does not obstruct views to the adjacent public domain (such as trees with high canopies).
 - e. Considered architectural design of dwellings located on corner sites so that they address and activate all adjacent streets.
 - f. A visible main pedestrian entrance from the adjacent street.
- 5.4 Consider a change in level between the footpath and ground floor of the dwelling to differentiate between public and private areas and give primacy to the residential dwelling over the street (particularly for apartments located on major roads). Any changes in level should occur on site and not impact the continuity of grade along a footpath.

- 5.5 Reduce the visual dominance of garages so living spaces and pedestrian entries have a greater connection with the street. Visual dominance can be reduced through: limiting the width of the garage door to form less than 50% of the building frontage; setting the garage back from the main dwelling façade, variations in garage design - form, colour, material, and placing the garage behind the dwelling so it does not front the public domain. As a rule of thumb, the width of a garage should be sized in proportion of the width of the dwelling frontage as follows:
- a. Dwellings with a frontage of more than 12m - Single or double garage
 - b. Dwellings with a frontage between 7.5m and 12m - Single garage
 - c. Dwellings with a frontage less than 7.5m - Vehicle access should be provided from the rear of the site. See 6.7 for guidance on rear lanes.
- 5.6 Provide appropriate landscaping that contributes to the amenity of the public domain and assists in defining the boundary between public and private - to manage access and inform the ownership and maintenance of these areas.



Topic 6: Movement networks, access, and parking

Outcome:

A development that is connected to its surrounding neighbourhood and provides a safe, attractive and easily understood network, for all modes and users.

Explanation

Developments must be connected to their surrounding neighbourhood, to the existing (or proposed) movement networks, amenities, and services. They must provide clear and safe connections for pedestrians, vehicles, mobility scooters and cyclists to navigate their way to and through a development and out to the surrounding environment. Creating a robust multi-modal movement network encourages choice of transport mode and more effectively integrates a development into its surrounds. On-site parking needs to be safe and accessible, and not adversely impact on the amenity of residents.

Design guidelines:

- 6.1 Where off-street parking is provided for residents and visitors, design it to be easily located - with clear connections to dwellings and to the surrounding movement network. Minimise effects associated with parking, such as noise and glare from headlights on adjacent dwellings.
- 6.2 Ensure safe interaction between pedestrians and vehicles by:
 - a. Providing safe turning areas to minimise the need for vehicle reversing manoeuvres
 - b. Ensuring visibility between vehicles, pedestrians, and cyclists by:
 - i. Minimising fence and vegetation heights.
 - ii. Maximising transparency of boundary treatment.
 - iii. Minimising the use of retaining walls along the front boundary.
 - c. Managing vehicle speed, where appropriate (i.e. through surface treatment - colour / materials, raised tables at vehicle entries).
 - d. Providing sufficient carpark depth so that cars do not block footpaths.
- 6.3 Provide a clearly defined pedestrian access to each dwelling at ground floor level that is separate from vehicle crossings and driveways (demarcated through materials, colours, textures or landscape treatment).

- 6.4 For apartment buildings, provide a separate and conveniently accessible pedestrian access for residents from the primary street frontage.
- 6.5 Provide obvious and level pedestrian through-site links (where appropriate) - to connect to a bus stop, adjacent public open space, or internal communal open space (particularly for larger developments or developments on corner sites).
- 6.6 Encourage driveways of adjacent sites to be consolidated to minimise the number of vehicle crossings on the street front.
- 6.7 Rear access lanes are a good approach to minimising conflicts between pedestrians and vehicles and creating positive street frontages. If frontages are less than 7.5m in width, vehicle access and parking should be encouraged to be located to the rear of the site with vehicle access provided via a rear lane. Rear lanes should be designed to:
 - a. Be safe, low speed environments.
 - b. Service a maximum of 6 - 8 dwellings, so they are of a length that is suitable to provide easy pedestrian access to the street, for rubbish removal, cycle access etc. without having to travel through the building.
- 6.8 Provide suitable space for street trees and landscaping in the road reserve and design vehicle crossings with this in mind.



Development where garaging and parking dominating the streetscape results in an unpleasant street environment that has low amenity and reduces pedestrian safety.

Topic 7: Private residential amenity

Outcome:

Development provides for increased density housing while maximising a sense of privacy and prioritising a high quality of life for residents.

Explanation

With increased density, there is potential for the private amenity (enjoyment of own space) of residents to become compromised. Greater density developments must therefore carefully consider the provision of functional and attractive private spaces for individual dwellings. Providing attractive places for retreat and social gathering within a development will enhance the availability of choices and quality of life for future residents and increase the desirability of more intensive housing models.

Larger, multi-unit developments (such as apartments) should also consider the provision of communal open spaces - to provide opportunities for recreation and social interaction and create a sense of identity and belonging for residents.

When considering infill development, aim to maintain or improve the level of amenity enjoyed by the existing dwellings.

Design guidelines:

- 7.1 Maximise northern aspect and minimise southern aspect dwellings to optimise solar access - particularly for primary indoor and outdoor living spaces.
- 7.2 Establish a site layout and building design that enables habitable rooms to have a high-quality outlook over the street, areas of open space, or the back yard.
- 7.3 In larger developments provide communal open space that is:
 - a. Activated or overlooked by adjacent dwellings, lanes, or streets.
 - b. Accessible for all residents.
 - c. Providing a level of amenity which is suitable for its scale (i.e. seating, play structures, shade, vegetable gardens).
- 7.4 Encourage the provision of personal or shared storage space to accommodate the resident's lifestyle requirements that is accessible and screened from the street / neighbours (this would ideally be provided within a garage or internally within a dwelling).

- 7.5 Maintain or enhance the privacy and access to sunlight for outdoor and indoor living areas of existing dwellings.
- 7.6 Provide appropriate landscaping that:
 - a. Encourages the protection of existing mature vegetation, where possible.
 - b. Is designed in conjunction with, and helps to shape, the environment on site (e.g. screening of any car-parking, providing an individual identity for units).
 - c. Utilises appropriate plant / tree species that:
 - i. Enable sunlight penetration during winter months.
 - ii. Are well suited to local conditions.
 - iii. Are native wherever possible.
 - iv. Assist in the re-establishment of local biodiversity and ecological corridors or contribute to existing ones.
 - v. Are of an appropriate height for their location (enable passive surveillance and do not conflict with streetlights).
 - vi. Reinforce / compliment surrounding street tree networks.
 - vii. May be utilised by residents as a food resource (i.e. fruit trees).



Landscaping in the front yard would provide privacy as well as amenable open space. Where outdoor living areas are provided without consideration of how they will be used, it often results in poor outcomes as residents establish other ways of improving their living environment.



Topic 8: Interface with neighbouring sites



Outcome:

A development that considers and successfully provides for the amenity values of adjacent dwellings, properties, and sites.

Explanation

Increased density residential development results in a higher number of dwellings (and therefore people) occupying a space. With a greater number of people living closer together, privacy can become compromised. As such, the layout of a development and the architectural design of dwellings can greatly impact aural and visual privacy. Developments should seek to maximise daylighting, outlook, and privacy not only for an individual dwelling but also for adjacent dwellings and properties.

This is particularly important when multi-unit housing is being integrated into existing low-density residential neighbourhoods – so that the amenity values of established dwellings are respected. Placing the privacy and amenity of the neighbour on par with your own privacy and amenity will create design outcomes that soften the interface between adjacent dwellings.



Design guidelines:

- 8.1 Offset windows to avoid primary living room windows having a direct line of sight into the primary indoor or outdoor living areas of adjacent dwellings.
- 8.2 Orient and screen windows and balconies on upper levels to limit direct overlooking of adjacent dwellings or their outdoor living spaces.
- 8.3 Use hard and soft landscaping at ground floor level to act as a visual screen between neighbouring dwellings – retaining privacy and outlook (consider the mature height, seasonal changes, and potential shading impacts of species).
- 8.4 Design the layout of dwellings, balconies, outdoor living areas, vehicle access and service areas to maximise compatible configurations and minimise any acoustic impacts on neighbouring dwellings.
- 8.5 Provide appropriate screening of service areas (e.g. storage, waste, utility boxes) so that they are well integrated and not visually dominant when viewed from neighbouring dwellings, properties, or the public domain (streets, open spaces).
- 8.6 Screen and locate any communal waste storage areas so that they do not result in potentially adverse acoustic or odour impacts on neighbouring properties.



Topic 9: Safety and security

Outcome:

A design that promotes the safety and security of residents and visitors within a development whilst also contributing to the (real or perceived) safety of adjoining streets and public spaces.

Explanation

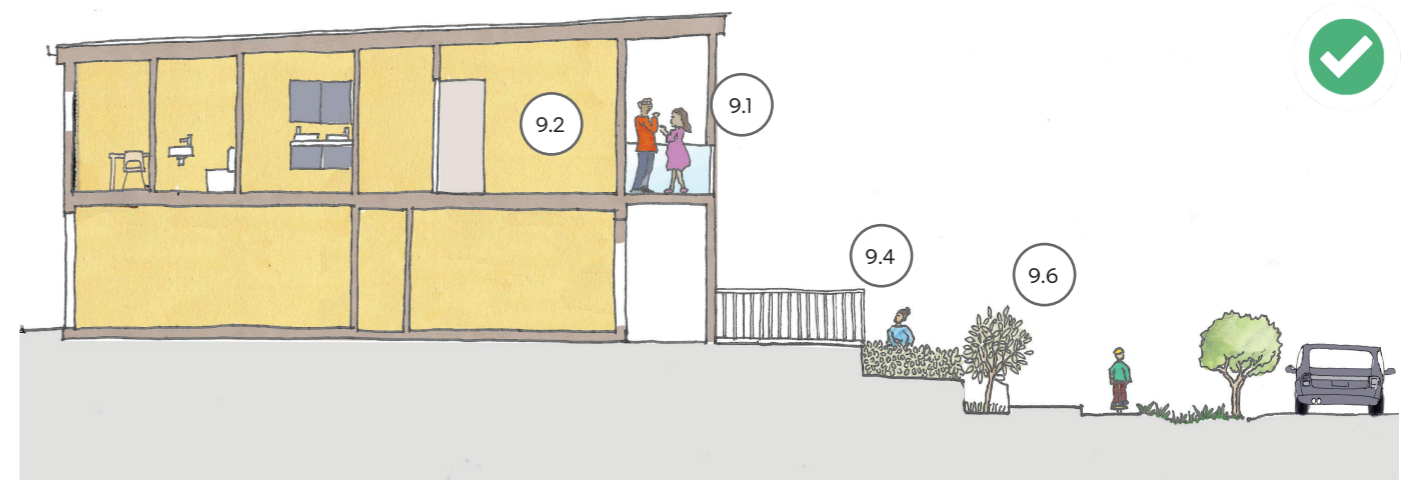
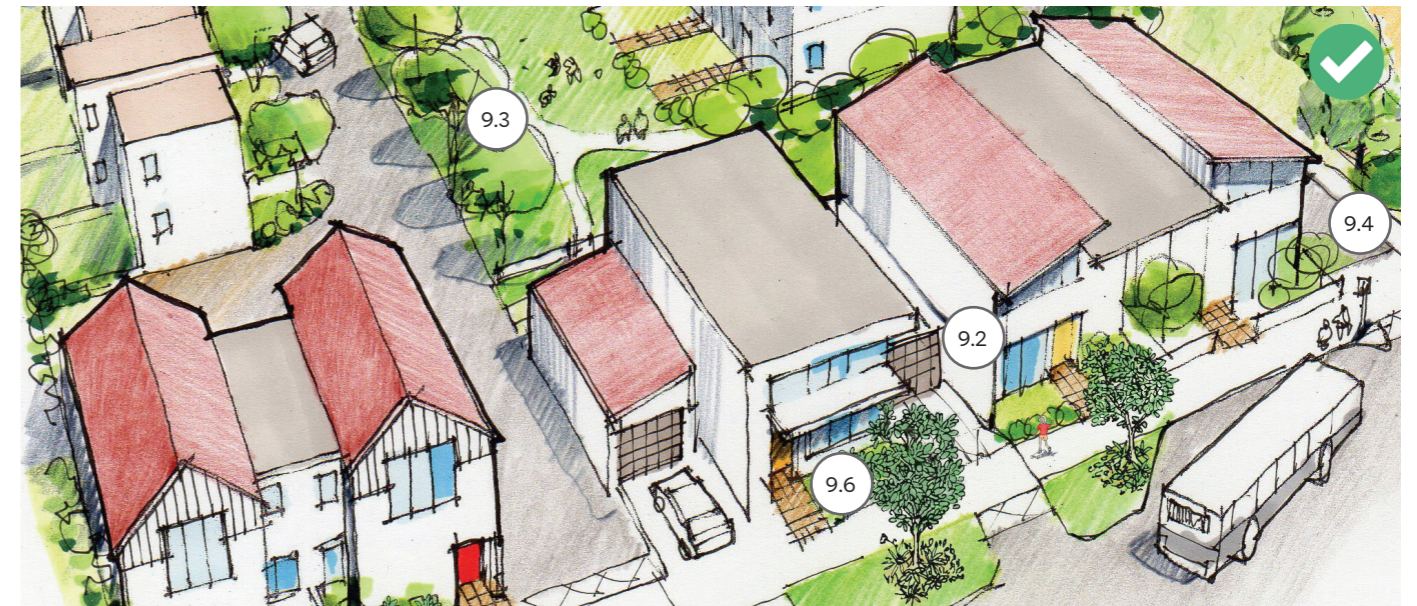
The design of new developments should incorporate Crime Prevention Through Environmental Design (CPTED) principles to contribute to the real and perceived safety of people – both within and around the development.

There are four key linked principles being: 1. Surveillance – people are present and can see what is going on. 2. Access management – methods are used to attract people and vehicles to some places and restrict them from others. 3. Territorial reinforcement – clear boundaries encourage community ‘ownership’ of the space. 4. Quality environments – good quality, well maintained places attract people and support surveillance.

Safety and security must be incorporated into all elements of the design, be it the dwelling itself, areas of public open space or movement networks. If a development has a strong visual relationship with the adjacent public realm and with internal spaces and networks, it will foster a sense of safety for future residents and a positive contribution to the surrounding streetscape.

Design guidelines:

- 9.1 Promote passive surveillance of adjacent streets, public spaces, and any areas of internal communal open space (laneways, gardens, shared driveways and access ways) through the design of the dwelling’s internal layout, window placement and balcony location.
- 9.2 Locate main living areas along the street frontage to further activate this edge and enable opportunities for passive surveillance.
- 9.3 Provide visible, direct and accessible pedestrian routes through a development that are well lit and open ended.
- 9.4 Include appropriate landscaping to maximise opportunities for passive surveillance and support a sense of safety – for residents, visitors and those passing by (i.e. select species that will not grow to obstruct the outlook from dwelling windows, landscaping that will not create potential areas of entrapment).
- 9.5 Locate and design communal open spaces and car-parking so they are activated and overlooked by surrounding dwellings and (internal / external) movement networks.
- 9.6 Create a clear demarcation of private space at the boundary of properties using low level fencing, landscaping and clear access routes to communicate the difference between what is public and what is private.



The windowless garage wall fronting onto the street results in no passive surveillance for pedestrians, a lack of legibility for visitors and if replicated along the street; a monotonous streetscape.

Topic 10: Sustainability

Outcome:

A design that maximises water and energy efficiency and promotes the use of sustainable systems and materials to minimise impacts on the natural environment.

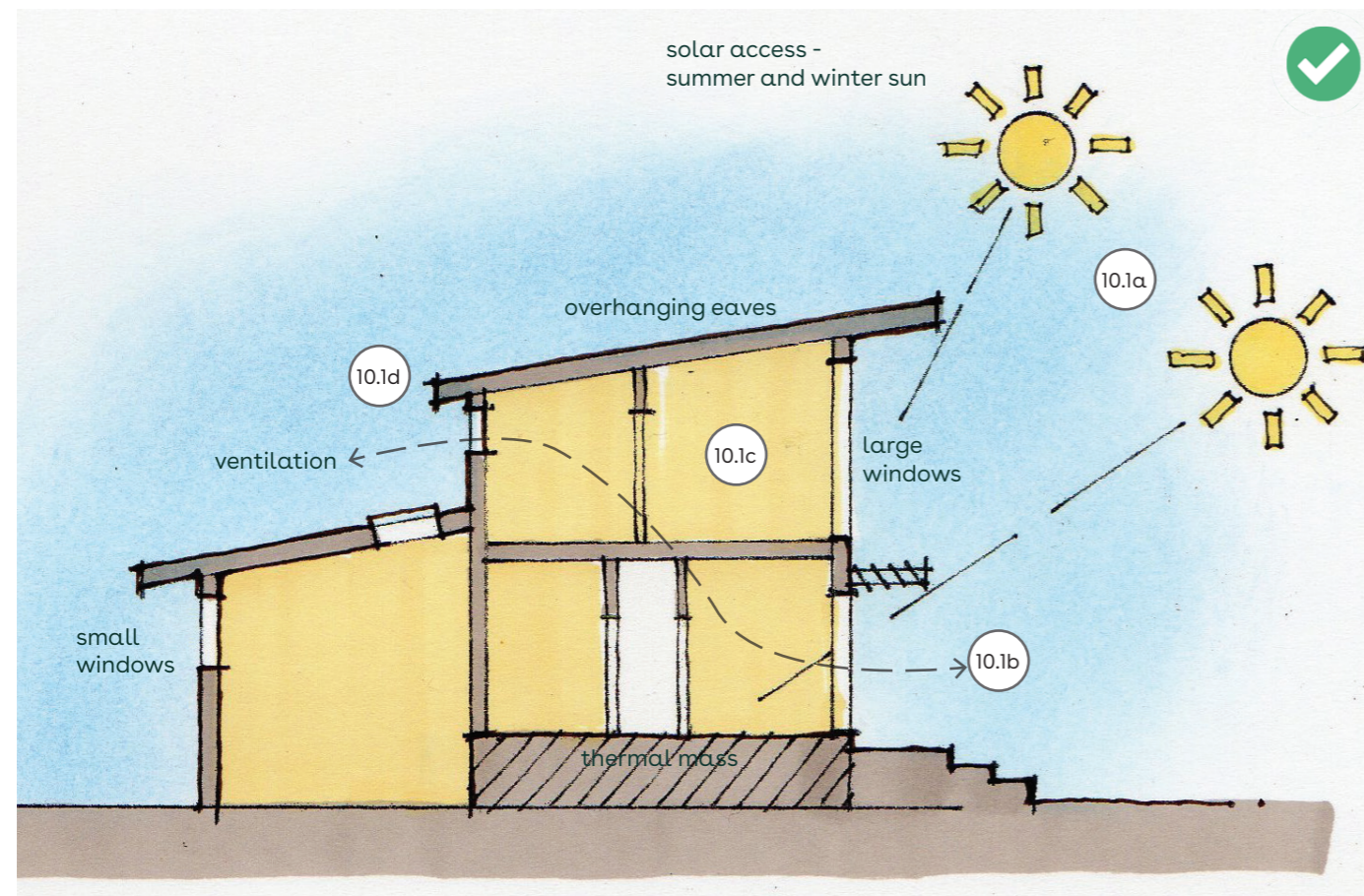
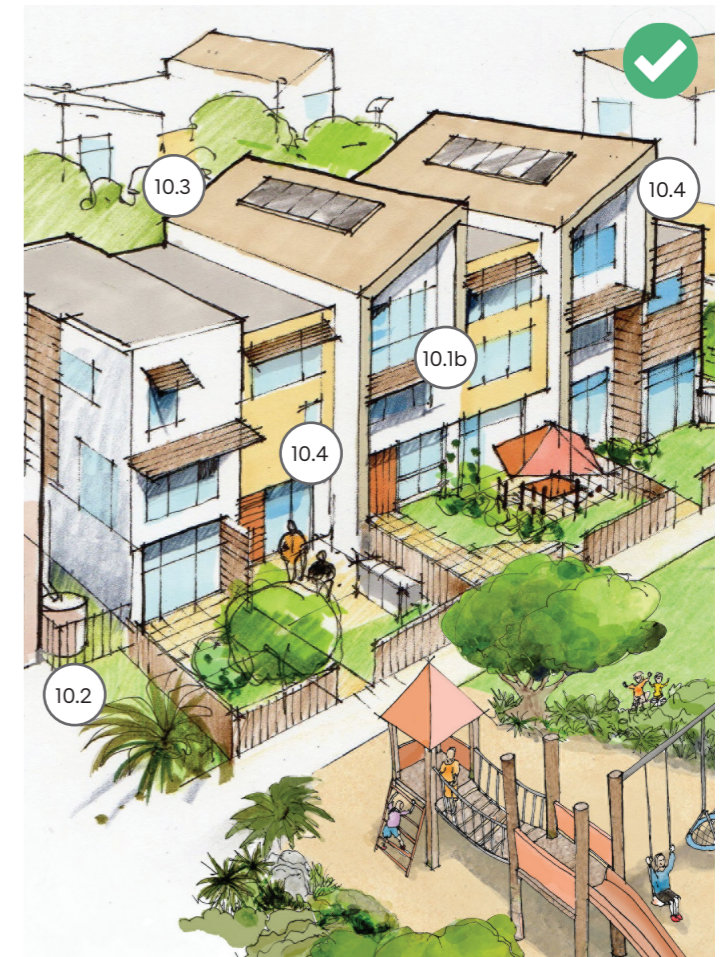
Explanation

Developments should minimise impacts on the natural environment and consider resource use and recycling both during construction and as part of the on-going life of the project. Maximising energy efficiency and promoting sustainable water management systems and sustainable construction materials not only minimises impacts on the natural environment but can also reduce the reliance on technology and overall operating costs.

Design guidelines:

- 10.1 Orient and design dwellings to optimise solar access and natural ventilation – minimising heating, cooling, and lighting requirements. This can be achieved by:
- Concentrating glazing on the dwelling’s northern facade to maximise solar access in winter. b. Using landscaping and architectural features such as eaves, awnings, or screens to prevent overheating of northern / western elevations in summer.
 - Enabling each habitable (and preferably non-habitable) room in the dwelling to receive adequate daylight to reduce the need for artificial lighting.
 - Locating opening windows on opposite sides of the house to enable cross ventilation and consider stack ventilation.

- 10.2 Consider incorporating sustainable water solutions including rainwater harvesting and grey water recycling. Ensure sites maintain permeable areas to enable soakage.
- 10.3 Promote a design that supports the use of renewable energy and reduces the need for energy use (e.g. providing residents with sunny or sheltered areas to dry their clothes, charging points for electric vehicles, solar panels).
- 10.4 Use sustainable construction materials and methods where possible, considering the materials potential to impact on the environment, life-cycle costs, durability, and maintenance requirements as well as the embodied energy contained within any existing buildings.
- 10.5 Promote sustainable operational systems on-site through consideration of potential areas that could be used for activities such as composting, or for worm farms, apiaries (to provide local bee habitat), or chicken coops.





**Western
Bay of Plenty**
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