APPENDIX 12Y

SPECIAL 29 (HUAPAI NORTH) ZONE – URBAN DESIGN GUIDELINES

1.0 INTRODUCTION

The following urban design guidelines are to be utilised by landowners and planners at the early planning stages of land development and also by Resource Consent Processing Planners when assessing applications for development concept plans, subdivision and land use. Many of the concepts are general urban design principles and others are more specific to the Huapai/Kumeu context.

2.0 THE DESIGN PRINCIPLES

The urban design principles have been divided into the following categories for ease of reference:

2.1 Context & Site Appraisal
2.2 Density
2.3 Layout
2.4 Built Form
2.5 Landscape Design
2.6 Sustainable Principles
2.7 Local Shops

For ease of reference a checklist has been included after each section. This gives guidance to any assessment, however, the entire section should be read for a full understanding of the urban design concepts.

2.1 Context & Site Appraisal

Historically, the Kumeu-Huapai area has been an important river and portage route for Maori and others involved in trade. Throughout the nineteenth century the area has seen the development of smaller land holdings involved in a wide variety of farming and market gardening activities. More recently (since the 1950's), the area has become well known for its vineyards, horses, orchards and exotic food production. From this background the local population has developed a strong sense of community and independence.

The Outline Plan for Huapai provides the framework for future development but does not replace the need for the constituent developments to evaluate and understand the context for the development and site character. Understanding the relationship of the development to its neighbours and broader community should ensure that the design response is sympathetic to the physical and social environments. The following points highlight the issues that should be taken into account BEFORE generating a design solution.

What is the character of the setting of the site e.g. to what extent is the site visible on approach and what is the outlook?

- What is the surrounding landscape like as well as the pattern of surrounding development?
- How is the site approached and what connections are there to the broader locality?
- What are the site boundaries like and how will the proposal relate to neighbours – privacy/views?
- Does the site have natural features such as trees, hedgerows and water courses that can be used to inform the design and add maturity and richness to the final scheme?
- What is the landscape form (contours) like and how does this influence the design approach.
- Are instances of cut and fill able to be minimised and groundwater and natural water courses protected from sediment and contamination.
- Are there natural habitats and watercourses to be protected?

Huapai North greenways/watercourses seek to reinforce the natural topography and generally should not be significantly modified as they form the backbone to Huapai North and link the Huapai Reserve with the River

In addition to the basic structure of streets, public spaces and infrastructure taking account of the natural landforms and ecosystems, the landscape treatment within the subdivision can reinforce the natural setting and provide a sense of place and character within the development. The development is intended to be a rural garden village scheme relative to the surrounding parklands and green corridors while also being a community with a heart in the form of its own small local shops and park. The Kumeu River and Riverhead Forest form dominant features within the outer edges of the development and over time connecting green corridors will enhance the rural character of the Kumeu-Huapai area. As such, it is intended that the scheme will optimise both the physical and visual connectivity with the river and forest.

Checklist:

✓ / X

(a)	Does the proposal work with existing contours and topography rather than undertake extensive earthworks?	☐
(b)	Are there any existing features such as view shafts or vegetation that are able to be retained to add to and enhance the character of the area?	☐
(c)	Are natural watercourses retained and protected where possible?	☐
(d)	Does the development reflect the existing character and setting of the site?	☐
(e)	Is appropriate connectivity provided, and does the development respond to the setting of the site?	☐

2.2 Density

Within the Special 29 Zone the Council has identified a range of housing densities for different policy areas. The purpose of this approach is to achieve an overall development that relates well to the rural environment of Huapai but also creates additional housing choice for a variety of needs and desires. The majority of the allocation of housing density sits within the 700m^2 – 900m^2 section size, as this is the most common size to the surrounding area and therefore in design terms provides the characteristic development 'grain'. Larger 'transitional' areas of 1500m^2 plus to reflect the more historic rural village sites are located adjoining the rural edge. There are other areas within the Plan however that advocate a higher density approach for sites 450m^2 – 600m^2. These locations have been selected to take advantage of areas of extensive open space, along main streets and within walking distance of the Huapai town centre. It is considered that density greater than this will have adverse effects on the rural village character of the area.

Sustainable subdivision emphasises a more site-responsive design and an urban structure which encourages more walkable neighbourhoods, offering people the opportunity to be less dependant on cars and more able to meet their needs at a local level.

Whatever the defined policy area and corresponding density the proposal is located within, there are similar questions that must be answered by the successful design.

Sketch elevation showing different housing densities but where the same proportional relationship of building to site area has been applied.

Those lots 450m^2 – 600m^2 in site size are able to create an active edge to the Huapai Reserve and other selected areas within the Huapai Medium Intensity Residential Policy Area providing passive surveillance to these areas.

Checklist:

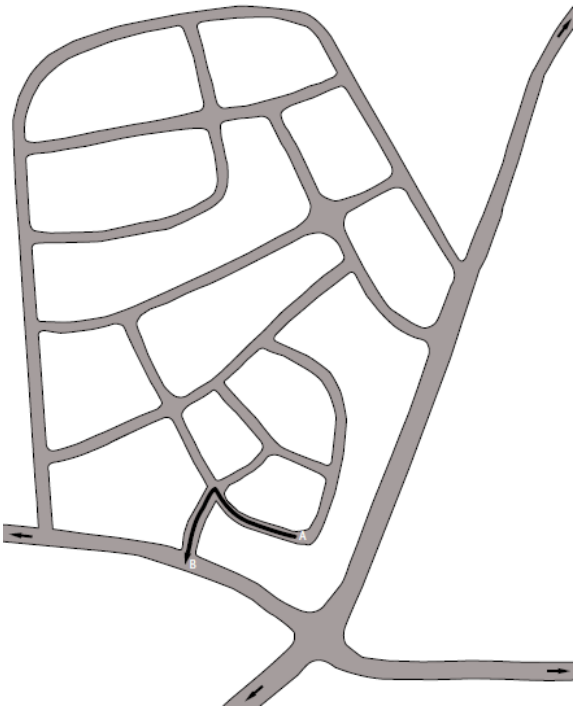
✓ / X

(a) Are areas identified for sites less than 600m^2 located so that all sites front areas of open space? ☐

(b) Do sites within those areas identified for Low Intensity Residential development maintain a site size equivalent or close to 1500m^2 and retain the rural village character of the area? ☐

2.3 Layout

Conventional post-war subdivision has increasingly been designed to accommodate cars, disadvantaging pedestrians and in turn, perpetuating the need for more car dependence. Sustainable design acknowledges that people need to drive and park cars but that streets can be designed to encourage not deter pedestrians, which also makes it safer and more convenient for people walking to catch passenger transport. A street network that is more connected makes a place easier for a pedestrian to navigate, by providing a choice of routes to move between designations, creating shorter and more direct journeys than is acceptable by car.

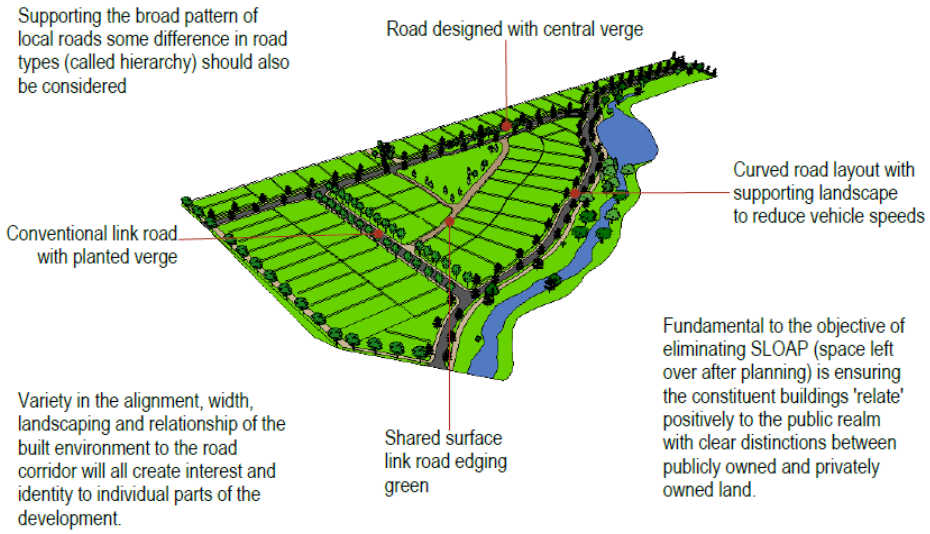


☒ Getting from point A to point B in this type of layout is lengthy and therefore time consuming for the pedestrian. With this sort of layout high levels of car

☑ This layout creates more convenient connections reducing the reliance on cars and encouraging walking for short trips

Road layouts that allow multiple routes and real choice for all modes of transport, with residential blocks generally of no greater than 120m length, remains the best approach to avoid adverse effects and provide for wellbeing.

Supporting the broad pattern of local roads, some difference in road types (called hierarchy) should also be considered. The indicative road widths provide the pattern for the main local roads but there will, below this layer, be smaller roads which service development clusters. Variety in the alignment, width, landscaping and relationship of the built environment to the road corridor will all create interest and identity to individual parts of the development as well as help to reduce vehicle speeds.



The number of dwellings that the road serves as well as the intended road speed will assist in decision making on the minimum road widths, footpath widths, proposed tree planting, the use of swales and whether traffic calming measures are required. Swales also add to the character of roads. The sketches attached to this urban design guidelines show a variety of road types that together form a hierarchy. These include the following road types:

- Linkage Road
- Collector Road
- Neighbourhood Road
- Local Road
- Greenway Road

The location of these road types within the Huapai North area are outlined on Appendix 9, Figure 3 to the District Plan Maps. At one end of the hierarchy, the linkage road is a wider road which incorporates wide reserve areas to provide an area of high amenity between Matua Road and the local shops area. At the other spectrum of the hierarchy, the greenway road is a narrower road which fronts areas of open space.

In addition to the road 'hierarchy' the layout of the houses or local shops will strongly influence the character of the development and create points of visual interest within the broader development. The integration of housing layout, road hierarchy and landscaping (see later section) is crucial to achieving a coherent form of development and avoiding 'left over spaces'. Such areas are often referred to as 'Space Left Over After Planning' (SLOAP) and are characterised as areas which neither rest comfortably as part of the public realm (publicly owned) or private. Thoughtful design will eliminate these areas and ensure that all parts of the proposal rest somewhere within the spectrum of public – privately owned space.

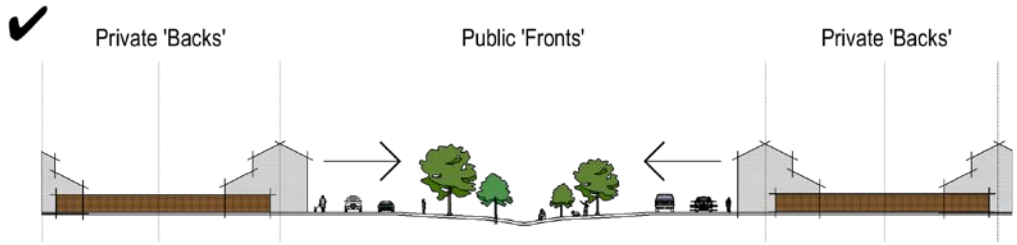
Fundamental to the objective of eliminating SLOAP is ensuring the constituent buildings 'relate'

positively to the public realm with clear distinctions between publicly owned and privately owned land. Positioning buildings so they overlook public areas including roads guarantees not only a measure of overlooking and therefore perceived security for pedestrians but also an understandable built edge for people. Developments which do not 'address' the street are confusing, especially for visitors and deliveries, and are contrary to the established character of our settlements. The drawings and photographs below illustrates the approach of positioning houses where their 'front' addresses the street and clearly defining ownership and responsibility.

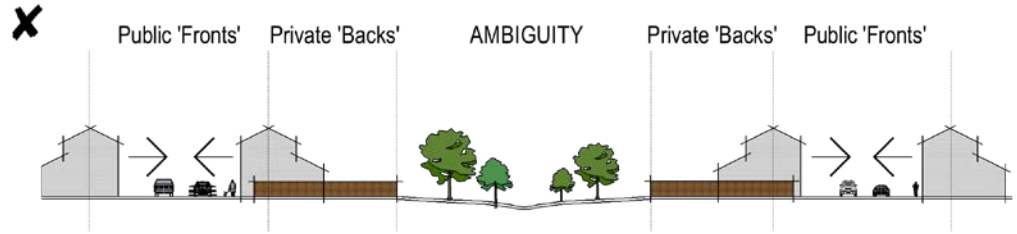
Open spaces can also critically offer a protected outlook from surrounding sites that if marketed will can add value through their guarantee of never being built-out. Where possible the integration of existing vegetation and waterways into open space and movement networks is encouraged as it builds on the character of an area.

When land uses relate well to public open spaces they provide a greater feeling of safety due to the number of potential 'eyes on the street' that act to discourage crime from occurring.

Public Fronts and Private Backs



ORGANISED – Users will have little doubt over who is entitled to use which space. Activity is focused towards public spaces offering the safest, highest-amenity environments possible.



DISORGANISED – Users are less likely to use some parts of space due to poorly defined 'ownership'. Many public spaces are treated with weak interfaces, poor lighting, and so on. Safety and quality declines, as does social interaction.

Streetscape

The design vocabulary (forms, scale, colours, rhythm, textures and materials used for buildings, signage, lighting, seating, paving, planting and other street elements) shall be developed to repeat or complement existing adjacent or adjoining residential development, while noting that excessive repetition of building forms and other features which can create visual monotony. It is therefore important that roads, buildings and other key streetscape elements provide variety and contrast.

Existing and new vegetation can be used to soften the mass of buildings as viewed from off site. A continuous planting theme of a certain species on a street or streets that form a single level in the roading heirarchy can provide an indicator of a different street environment i.e. local road v's lane or collector road. Co-ordinated street planting can also assist in the legibility of an environment and enhance a feeling of neighbourhood.

Lot Shape

Generally narrower deeper lots that allow for usable backyards are preferable to wider shallower lots that have little or no back yards.

Avoid Internal Address Driveways

Higher density housing often fills the most awkward sites left over after subdivision – commonly land locked sites in deep blocks with limited site access. Avoid dwellings that have an internal address to a driveway. In Huapai North the higher density sites (450m^2 – 600m^2), are to be located within the Huapai North Park Residential Policy Area which is located adjacent to parks and areas of amenity. These are strips of land rather than large blocks and as such will not lend themselves to large internal type developments. Rather these developments will frame the park edge and provide passive surveillance of the area.

Checklist:

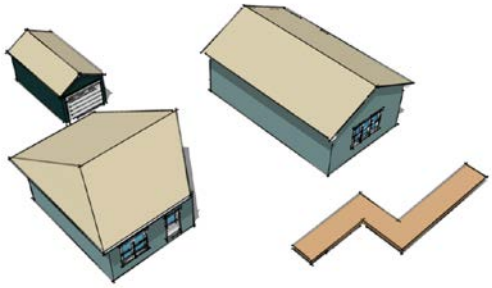
✓ / X

(a)	Are recreation amenities located so that awareness of them and pedestrian access to them is obvious and easy? Are public spaces clearly public and private spaces (backyards) clearly private?	☐
(b)	Are open spaces directly fronted by a public road, and is passive surveillance from dwellings overlooking the space provided?	☐
(c)	Is private open space obvious and prominent?	☐
(d)	If there are any natural areas or cultural features in the area, have these been incorporated into open spaces?	☐
(e)	Do roads allow views of surrounding countryside or internal green spaces to contribute to legibility and orientation around the street network?	☐
(f)	Does the proposal deliver a connected street network that provides a variety of direct routes for pedestrians along the network and includes traffic calming measures where appropriate?	☐
(g)	Is the roading network well connected and does it minimise the use of cul-de-sacs and minimise residential block length?	☐
(h)	Are walkway and / or cycle networks provided as a part of the street network and do these link with areas of open space?	☐
(i)	Does the proposal create a road 'hierarchy' to support the development of distinct character areas within the development?	☐

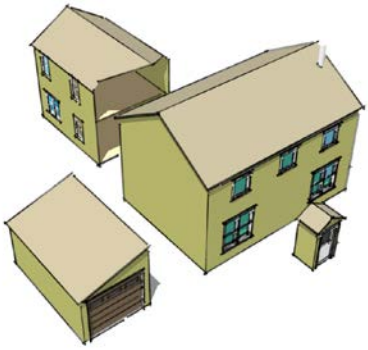
2.4 Built Form

The way that buildings relate to one another is important to create points of visual interest, develop a measure of street enclosure and provide a gentle continuity, without excessive repetition of building forms and other features which can create visual monotony.

Simple rectangular forms of building provide the built character of much of the surrounding area. These simple forms can be added to provide additional elements such as extra rooms, garages or porches and verandahs. Simplicity in building design generally produces a harmonious street scene which when combined with landscape elements people find comfortable.



Simple forms of building of relative proportion and scale can be combined to achieve generous floorspace and coherent building design.



Double storey building using the same design principles.

Projecting recessive secondary elements can be used to break down the scale of a larger block. Additive forms can reduce the scale of a larger block. A cluster of roofs reduces the scale of a larger block.

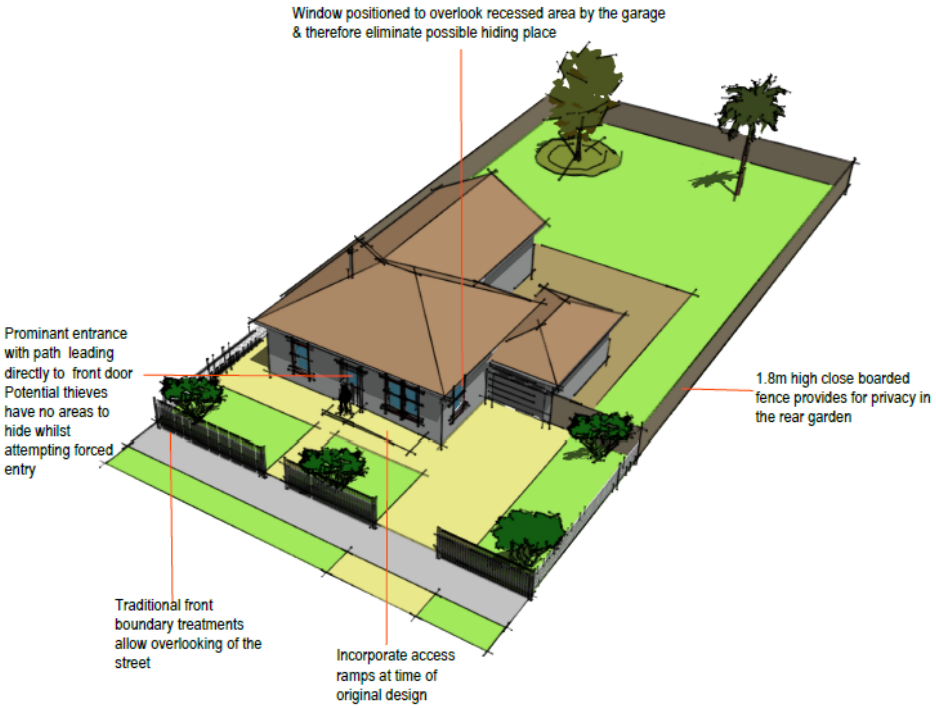
Façade Design

Largely irrespective of architectural 'style' the organisation of building facades often share similar characteristics which help in creating a logical and rhythmic street scene. Generally buildings in more urbanised locations will be organised with a vertical emphasis (in response to narrower sections) in the organisation of the buildings elevation whilst in suburban and rural areas there is more of a tendency towards balanced or horizontal emphasis. The sketches below illustrate the differences between the three approaches. With the exception of perhaps the area within the plan shown for local shops the organisation of residential facades should be balanced or horizontal in emphasis.

Connection – Front doors

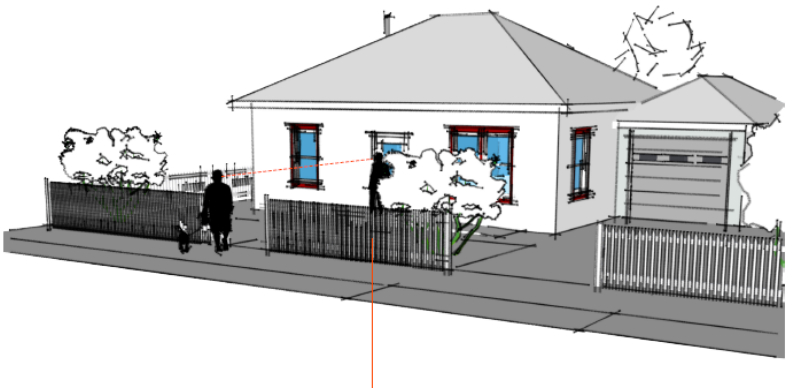
Residential properties should create adequate connection to streets and public spaces. This will ensure outcomes that convey a sense of safety, interest, activity, quality, and value. Emphasising the front door within the dwelling frontage, preferably including a canopy or other cover, helps direct visitors. A direct

path or connection between the front door and the street should be provided to reinforce this. Clearly defined approaches deny opportunity for thieves to excusably access private parts of a site looking for entry.

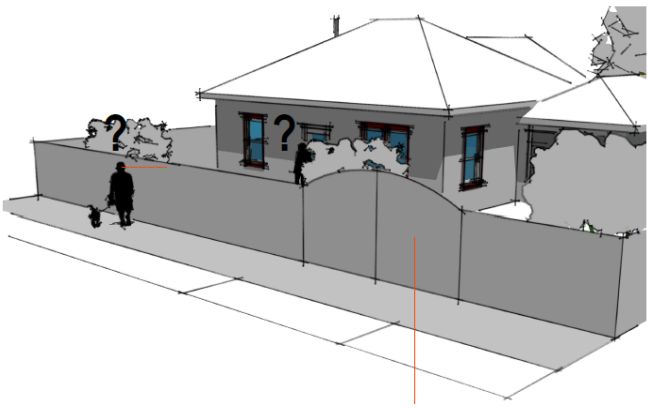


Surveillance – Active front room

Maximising the amount of glazing from an active living room (a kitchen, dining room, lounge or family room) on the front elevation helps to reinforce a sense of surveillance and security to and from the street or public space. This again helps ensure a sense of personal safety for all users. Upper floors should also have windows overlooking the space, with elements such as balconies or bay windows to add interest and articulation to the façade.



Traditional boundary treatments guarantee a degree of connection between the house and the street. This simple relationship allows for casual overlooking and for the house to be connected to the community.

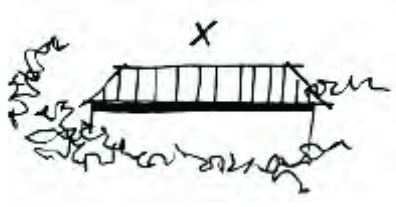


Solid fences create a barrier between the house and the street preventing casual overlooking and therefore 'policing' of the street. Such design measures whilst effective in achieving privacy, start to remove the house from its surrounding
community and can also be a target for 'tagging'.

Roof Design

Just as the overall massing of buildings should be simply organised into 'additive' elements, the roof design should follow the same organising principles. Generally this will mean that the ridge of the main roof will be parallel with the direction of the street. Gables are often an element which can help reduce the overall scale of large roofs.

Sketch showing a variety of roof types and their inter relationship with one another.

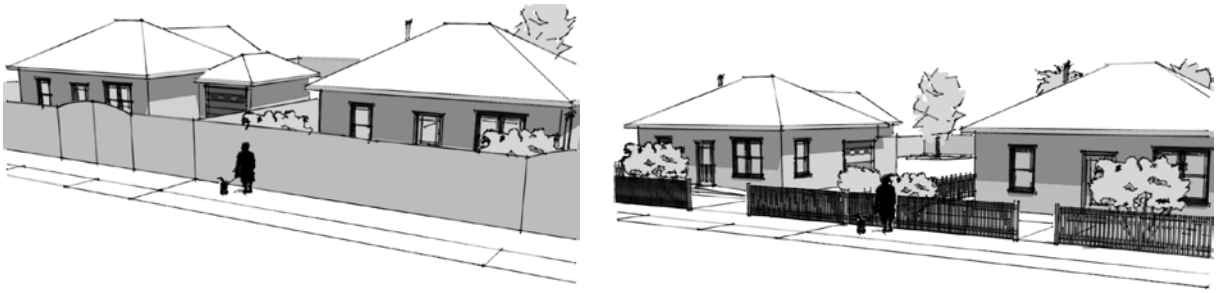


Individual gabled roofs, changes in materials and projecting elements can be carefully combined, particularly in multi unit housing, to break down the front elevation and reduce the 'bulky' appearance of buildings.

Yards and Boundary Definition

Front yard treatments (both "hard" surfaces and green landscaping) play an important role in the attractiveness of a neighbourhood. Planting and fences should contribute to a street, rather than create a hostile barrier, and ensure visitors and passers-by feel safe and welcomed, whether arriving by foot or car.

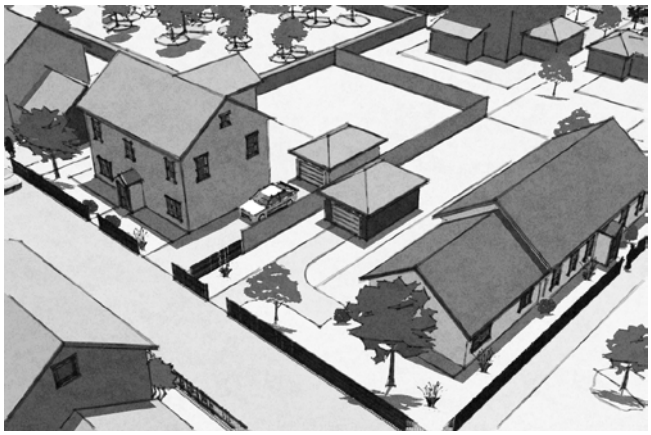
Front yard landscaping – To maintain easy visibility between the street and the house, fences should be kept below a maximum height of 1.2m. Taller side fences should stop at or behind the façade of the house, with any gates to side or rear yards also behind the line of the façade. Low front fencing can be extended perpendicular to the street to meet the side fence and/or to fence front yards or paths from driveways. Low fences at the front of the house should maximise visual permeability between the house and the street.



Single storey buildings should generally sit no less than 1.3 metres from the side boundary inclusive of eaves.

Outdoor Spaces - Private

Private outdoor spaces function best when located to the side (set back from the front elevation) or rear of a house, with the building forming a visual barrier to the public realm. Solid fences over 1m high around the sides and rear of a property are appropriate, but not for front gardens. Front boundaries should be defined by fences no higher than 1m to ensure the house still maintains a visual connection to the street.

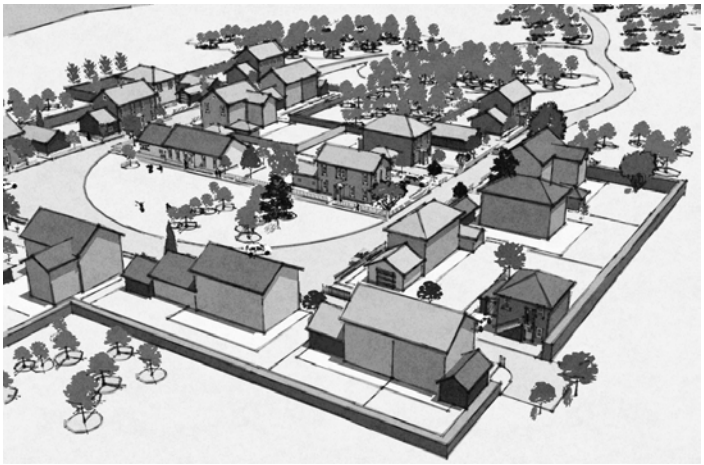


Lower boundary to the front and taller and more solid boundary definition to the side and rear of the house creates a balance between overlooking the street and having private outdoor space.

Garage location

Designing to accommodate garages and parking needs to be considered in light of not only the individual site but the collective impact on the street scene. In comparatively low density environments such as Huapai garages and parking can easily be accommodated within the section.

Location within the section however is still important with the most successful solutions ensuring that the garage door elevation is set back form the house façade (see sketch below). On larger sites garages can if carefully detailed sometimes be positioned successfully to help define the public and private realm (see sketch).



Garages are located and detailed to be subservient to the street scene.

A final consideration with regard to garages is also to consider the width of driveways. Modern two car garages can result in very wide driveways that have a detrimental effect on the street scene compromising other measures of creating pedestrian scale and enclosure.

Checklist:

✓ / X

(a) Have walls, fences and windbreaks on front boundaries been designed in such a manner that they reduce physical bulk and allow visual connection with the street? ☐

(b) Have garages been setback from the front façade of the building and designed to allow carparking on site in front of the garage? ☐

(c) Are front doors clearly visible from the street and is there a living room fronting the street with glazed areas to provide passive surveillance? ☐

(d) Have private fenced outdoor living areas been provided at the rear or side of the dwelling and has the building been set back from the side yard at least 1.3m? ☐

(e) Have generally narrower, deeper lots been provided to enable useable back yards to be created? ☐

(f) Do houses front the street and or park area rather than an internal private access? ☐

(g) Does the building design avoid garages taking up more than 35% of the building's front elevation and avoid blank frontages with only doors at ground level? ☐

(h) Is the length of rear vehicle lanes minimised and garage doors off set from the driveway or rooflines and/or materials altered to reduce visual impact? ☐

(i) Has the façade been broken down into base, middle and top sections to reduce the scale of the building and have varying secondary elements such as bay windows or projecting features and varying roof forms been incorporated to define each house? ☐

(j) Are any terraced housing blocks limited to 40 metres, does the block run along the existing contours post subdivision and does the space between the blocks include a street or an area of open space? ☐

2.5 Landscape Design

Public open space which is well-located and thoughtfully designed can add to the amenity of a neighbourhood, and provide an attraction for the wider community. Parks can no longer be arbitrary left-over spaces with limited public surveillance, but need to be visible from streets and overlooked by surrounding development. Residential neighbourhoods still require local community spaces accessible to and usable by local residents. These can be combined with natural areas and contours, but useable spaces for informal recreation need to be incorporated as well. Smaller local purpose open spaces provide visual amenity for neighbourhood and passers by, as well as gathering and playing space for nearby residents.

Crime prevention through environmental design (CPTED) provides a set of guidelines for the design and management of public spaces to reduce opportunistic crime and provide a sense of safety for users. Perceptions of safety on a street or park is greatly increased when there are windows or activities overlooking the public space – a sense of "eyes on the street" or ownership. Well-maintained public and private spaces give the impression of "zero-tolerance" for anti-social behavior and a sense of pride and community ownership, which adds to passers-by perception of a safe and welcoming place.

Public open spaces should consider the balance between conservation and active and passive recreational uses in the district, neighbourhood and local open space.

The public open space structure must be highly legible, provide a co-ordinated design vocabulary and offer an inter-connected network of spaces that link directly with the wider surrounding open space network.

Public open space should be a reflection of the historic/rural feel of the Huapai township and be accessible to all users.

Parks as focal points:

- Creating views to the surrounding countryside and internal green spaces will also contribute to greater legibility and orientation around the street network.
- The principle entrance to the neighbourhood including a significant green space will also contribute to greater legibility and orientation around the street network and reinforce the rural feel and importance of the green spaces within the community fabric.

Natural areas and cultural features:

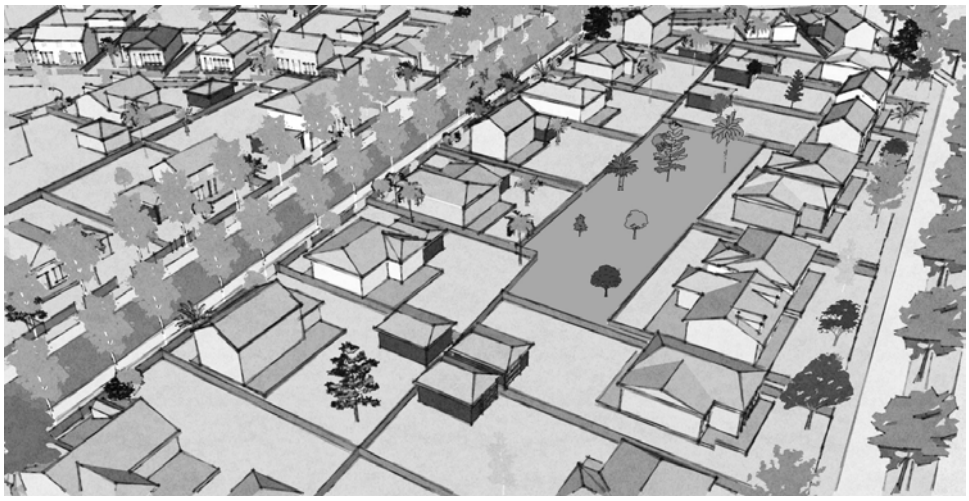
- Where the opportunity exists natural and cultural features should be incorporated into neighbourhood and district parks.
- The cultural and heritage features include places, pathways and structures of historic and spiritual significance to Maori and Europeans.
- Protection of ecological corridors being integrated into the design of pedestrian networks.

Active cross section through a green corridor.

Location of Public Open Spaces & Surveillance

Subdivisions commonly create new open spaces but other key land uses such as corner shops, community facilities, and schools will also be provided. The location and relationship of these amenities to activities and networks around them will influence how well and efficiently a neighbourhood can meet its needs.

Recreation amenities that are located so that awareness of them and pedestrian access to them is obvious and easy, provide the best opportunities for healthy lifestyles.



POOR LOCATION - Amenities like this often operate as de-facto communal private space benefiting only a few local residents (the only people who know the amenity exists).

PREMIER LOCATION - The contribution open spaces and amenities can make to promoting community wellbeing is maximised when they are prominent, easy to find/use, and add to the sense of 'place'

Casual contact between pedestrians is also a key building block in achieving a sense of community. People knowing each other then helps lead to neighbours exhibiting guardianship. In turn a wider sense of public safety can be developed.

Landscaping

Open space frameworks can contribute to a sense of identity through:

- the use of species and planting combinations characteristic of the local area taking cues from existing species and patterns of vegetation.
- where contour modification is necessary for building platforms and access roads use planting to soften visual impacts.
- Use planting around building sites to screen and soften structures and to create shelter and private space.
- Developments should maintain streams, wetlands, and associated vegetation and ensure the quality and quantity of water associated with streams and wetlands will be unchanged by development retaining, where appropriate, traditional boundary markers such as old shelter belts and groups of exotic trees.
- Planting schemes should be designed to offer year round visual interest, reflect the historic, cultural and ecological characteristics of the area and achieve a high level of amenity.
- Existing trees and shrubs of appropriate form, condition and species should be retained to help provide a more established look to new development.

Checklist:

✓ / X

(a) Are recreation amenities located so that awareness of them and pedestrian access to them is obvious and easy? Are public spaces clearly public and private spaces (backyards) clearly private? ☐

(b) Are open spaces directly fronted by a public road and is passive surveillance from dwellings overlooking the space provided? ☐

(c) Is public open space obvious and prominent? ☐

(d) If there are any natural areas or cultural features in the area, have these been incorporated into open spaces? ☐

(e) Do roads allow views of surrounding countryside or internal green spaces to contribute to legibility and orientation around the street network? ☐

(f) Does development utilise local characteristics such as topography through the careful location of street, open spaces and building types to fit the existing landform? ☐

(g) Has planting been proposed to 'soften' the visual environment and to create private spaces and shelter and have landforms, suitable trees and other features been retained where possible? ☐

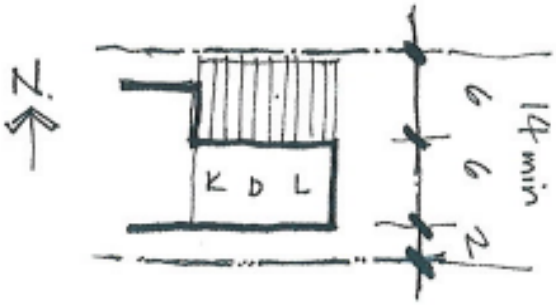
(h) Do planting schemes provide year round visual interest and reflect the historic, cultural and ecological characteristics of the area and result in high amenity? ☐

2.6 Sustainable Principles

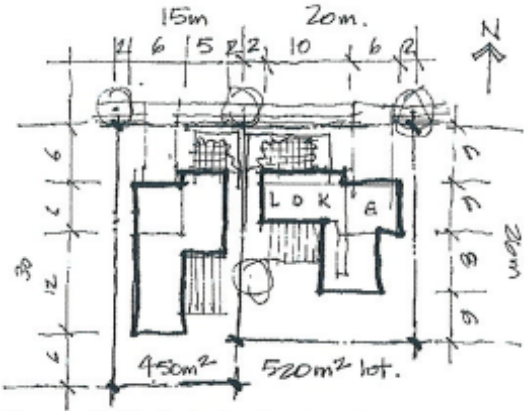
Design for climate

The layout of buildings on sites and the groupings and design of buildings themselves can have significant impact on the energy efficiency of dwellings and on internal comfort levels. Layout design should consider:

- Positioning of buildings so that the long axis extends in an east-west direction.
- Sun penetration into the living areas of the house is controlled so that this can be screened off during summer months and allowed to penetrate during the cooler months.
- Protection of east and west walls from direct sun penetration where possible.
- Where possible dwellings should be accessed from the south and have private open space and living areas with a north or north-west facing aspect.



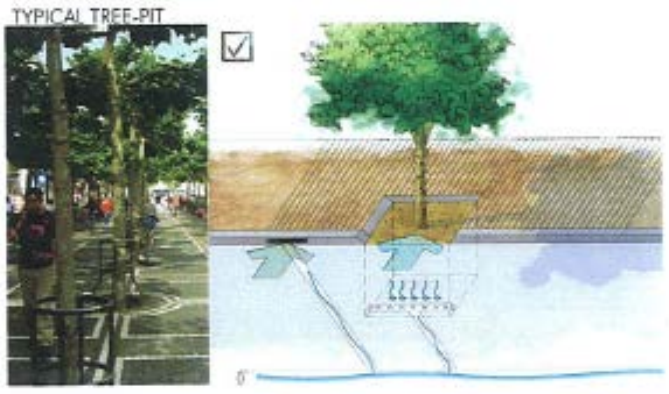
North facing side yard.



North facing front yard

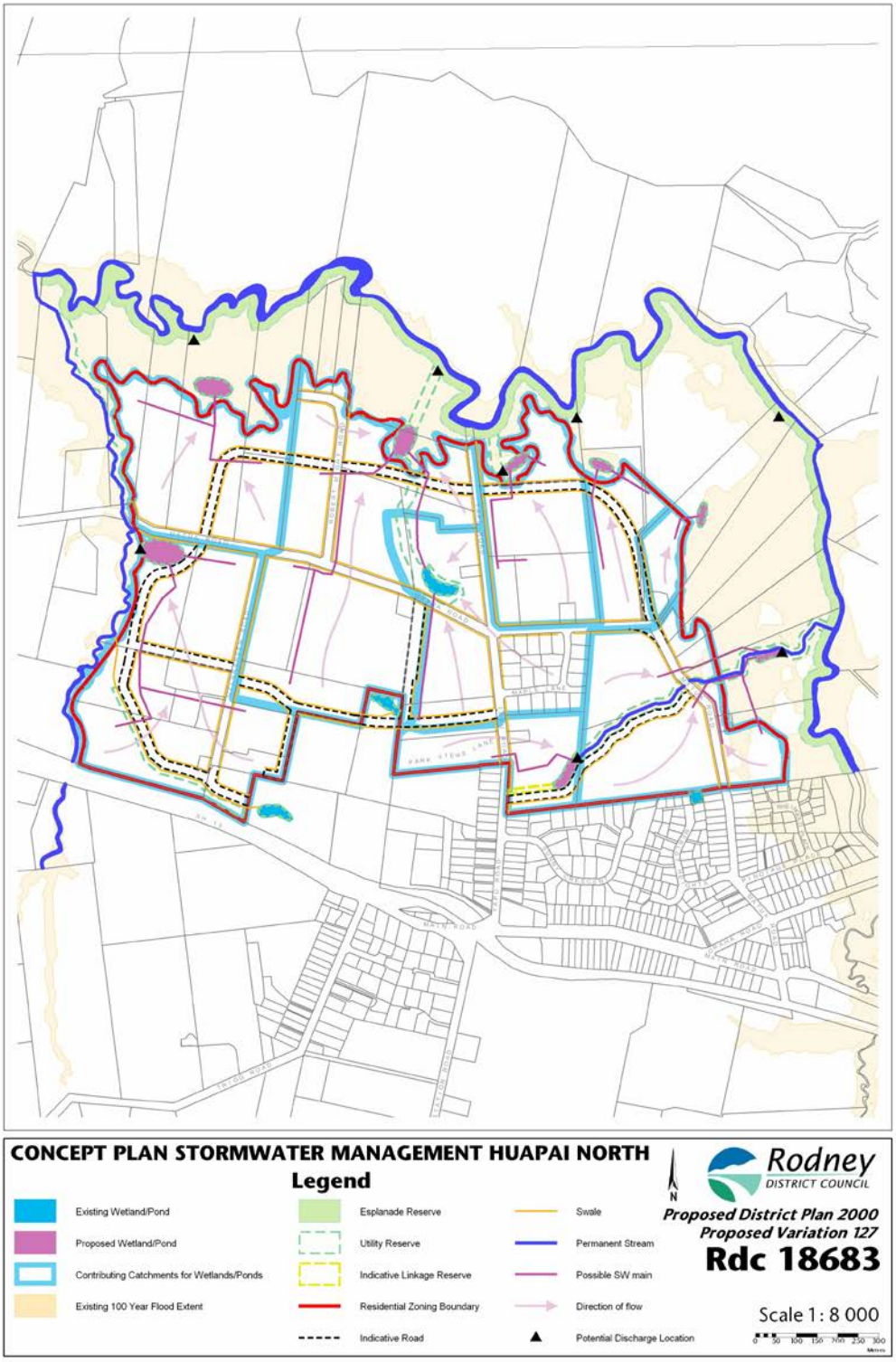
For detached houses, lots with north facing rear yards can be narrower as the living spaces can be located along the back of the house. Lots with north facing side yards should be wider than 14 metres to allow for living spaces a minimum 6 metres wide outdoor space.

North facing front yards are the most difficult sites to plan as the sunny side of the house faces the public street. A 15 metre wide site should be the minimum to allow for double garaging, side yards and outdoor terrace connected to a living space. A 20 metre wide site will allow the kitchen, dining and living spaces to open to both the front and back yard.



Stormwater discharge should be carefully managed to avoid (often cumulative) problems of flooding, the erosion or pollution of water bodies and our coastal environment. They can help reduce heat build-up in denser urban areas. Water systems should attenuate stormwater flow / volume and optimise interception, detention and removal of waterborne pollutants prior to downstream water discharge. This can include making vehicle carriageways as narrow and permeable as operationally practical.

It is important for landowners to work together to discharge stormwater into a catchment management pond that serves a number of properties. The plan below shows a likely arrangement of catchment management ponds and the land which they could serve.


CONCEPT PLAN STORMWATER MANAGEMENT HUAPAI NORTH
Legend
Existing Wetland/Pond
Proposed Wetland/Pond
Contributing Catchments for Wetlands/Ponds
Existing 100 Year Flood Extent
Esplanade Reserve
Utility Reserve
Indicative Linkage Reserve
Residential Zoning Boundary
Indicative Road
Swale
Permanent Stream
Possible SW main
Direction of flow
Potential Discharge Location
Rodney
DISTRICT COUNCIL
Proposed District Plan 2000
Proposed Variation 127
Rdc 18683
Scale 1: 8 000

Water sensitive urban design is becoming increasingly critical for managing both the quality and quantity of stormwater, reducing the impact on streams and waterways and the receiving environment.

A range of techniques are available that can collectively provide significant mitigation. Some relate to site treatments including swales, permeable paving, or rain gardens. Others relate to building elements, including water tanks for the re-use of captured water by washing machines and garden irrigation. The overall cost for low impact infrastructure is typically comparable with traditional piped services. The main difference is that low impact solutions pay for improved 'off site' environmental betterment with the 'on site' cost of more regular maintenance needs. Planted roofs offer the additional benefit of improved insulation of buildings resulting in lower heating costs.

Every engineered asset needlessly created will add to the overall maintenance cost of the environment for users. While energy efficiency initiatives can at face value increase development costs, they will typically pay for themselves over time. The positive externality of improved environmental outcomes may also justify the use of low-impact design being considered as a positive effect and cumulatively significant mitigation in the resource management process.

Checklist:

✓ / X

(a) Have buildings been positioned so that the long axis extends in an east-west direction? ☐

(b) Where possible are dwellings accessed from the south and have private open spaces and living areas with a north or north-west facing aspect? ☐

(c) Are lots with north facing side yards wider than 14 metres to allow for outdoor living spaces? ☐

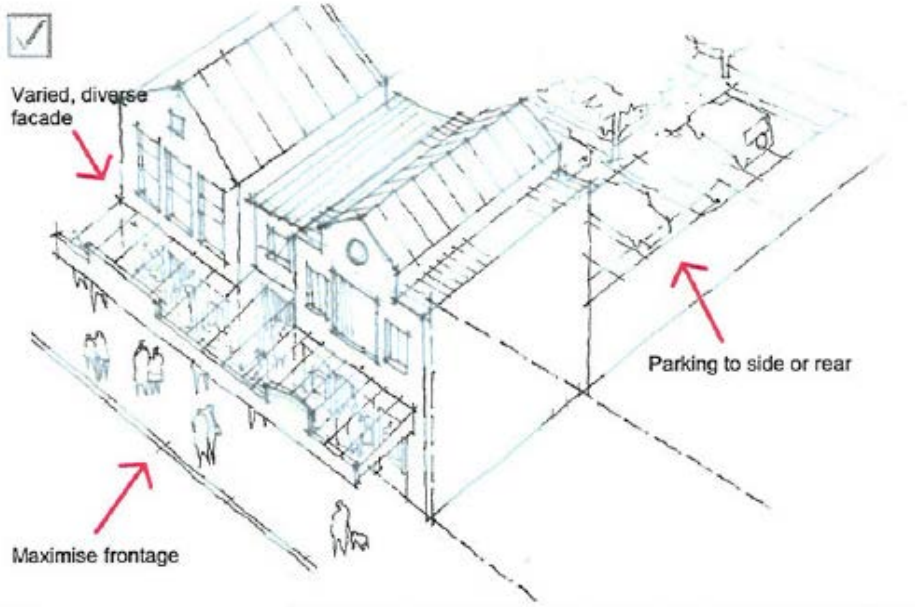
(d) Has the application of low impact design such as swales, permeable paving, rain gardens, planted roofs and re-use of collected water for washing machines and garden irrigation etc been considered for application in the subject area? ☐

(e) Are there significant environmental benefits to be achieved through the use of low impact designs? ☐

(f) Are the use of these low impact designs appropriate for character or landscape reasons? ☐

2.7 Local Shops

Flow on Effects 'Chance Encounters' and Economic Multipliers



Successful shopping areas feature a number of key design elements. Critically these relate to an energised public realm that, aside from facilitating 'core' economic transactions, facilitate as much as possible the opportunities for additional exchange in the form of economic multipliers and 'chance encounters'. As an example, a couple walking to a shop to pick up a loaf of bread and a newspaper in the morning may be enticed on their journey to have breakfast in a café, then buy a new pot plant, then run into an old acquaintance and organise a casual dinner to catch up.

The value of these flow-on transactions to enabling wellbeing can be greater than just being able to undertake the initial 'core' transaction in the first place. They cannot occur in vehicle dominated spatial patterns where only origin and destination points (typically in controlled private spaces) allow exchanges to occur.

Layout and Building Design

The local shops area in Huapai North is small only taking in 3 – 4 shops, however it is important to create tight, continuous building frontages with pedestrian shelter from the elements – such as canopies. Narrow, varied shop facades do encourage pedestrian trips as a combination of small individual movements rather than one daunting, long single building.

It is important to 'activate' space through the use of entrances, areas of glazing, and reception / checkout spaces facing the street where people in both public & private spaces can readily 'see & be seen' to create a sense of safety.

Balance car parking – on-street parking is often essential to allow 'passing trade' to conveniently stop; on-site parking needs to be managed to avoid separating buildings from the street, maintaining good pedestrian appeal. On site car parking should never determine design outcomes.

Lighting, surveillance and an appropriate mix of land use activities can also encourage safe movement and connections at night time.

The above picture is a good example of a town centre mixed use development including Residential units above complementary ground floor commercial uses.

Residential Component

The residential component of any development should never occupy ground floor of retail buildings and additionally should never be built to the common boundaries where future redevelopment of adjoining sites could compromise amenity. The use of a ground floor for residential uses does not contribute to vitality, and will also often create privacy and security issues for residents.

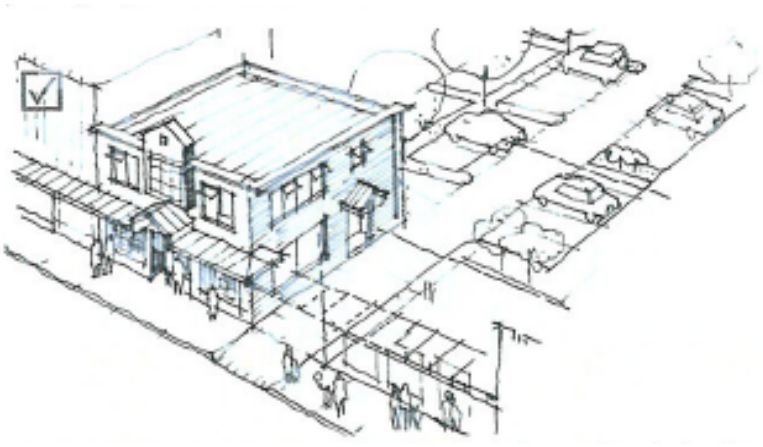
Ideally ground floors will have a stud height of between 3.5m – 4.0m to suit commercial uses.

Car Parking and Strong Street Frontage

The provision of large at-grade car parking areas between the public realm and land uses will adversely affect local character and amenity. They can often be proposed along a frontage, reflecting a perception that a vehicle-orientated customer catchment will not be engaged without a number of obvious, clearly located dedicated spaces for them. This connection between drivers on the street and parking spaces is often justified due to our overall low density settlement pattern.

But providing parking is only one dimension of a good development: Wellbeing is not improved if development serves passing traffic but fails to contribute to 'place' or appeal to other modes (most obviously pedestrians). At grade parking is chosen because it is usually overwhelmingly cheaper per space than structured or underground parking.

Visually obvious and conveniently accessible parking spaces can be accommodated readily at the side or rear of sites. Often one aisle of parking along the frontage for very short-stay, courier drop off, and operation mobility cardholder spaces will still allow an effective street connection to occur. Safety in parking areas is an overriding concern. Tools such as clear signage and sightlines, logically located activity anchors or generators, and the careful location of long and short term parking are valuable.



MAXIMISE MAINSTREET CONTINUITY – Providing parking behind uses accessed by narrow lands (4m maximum width)
can minimise disruption of street-based business uses. This helps maintain pedestrian amenity.

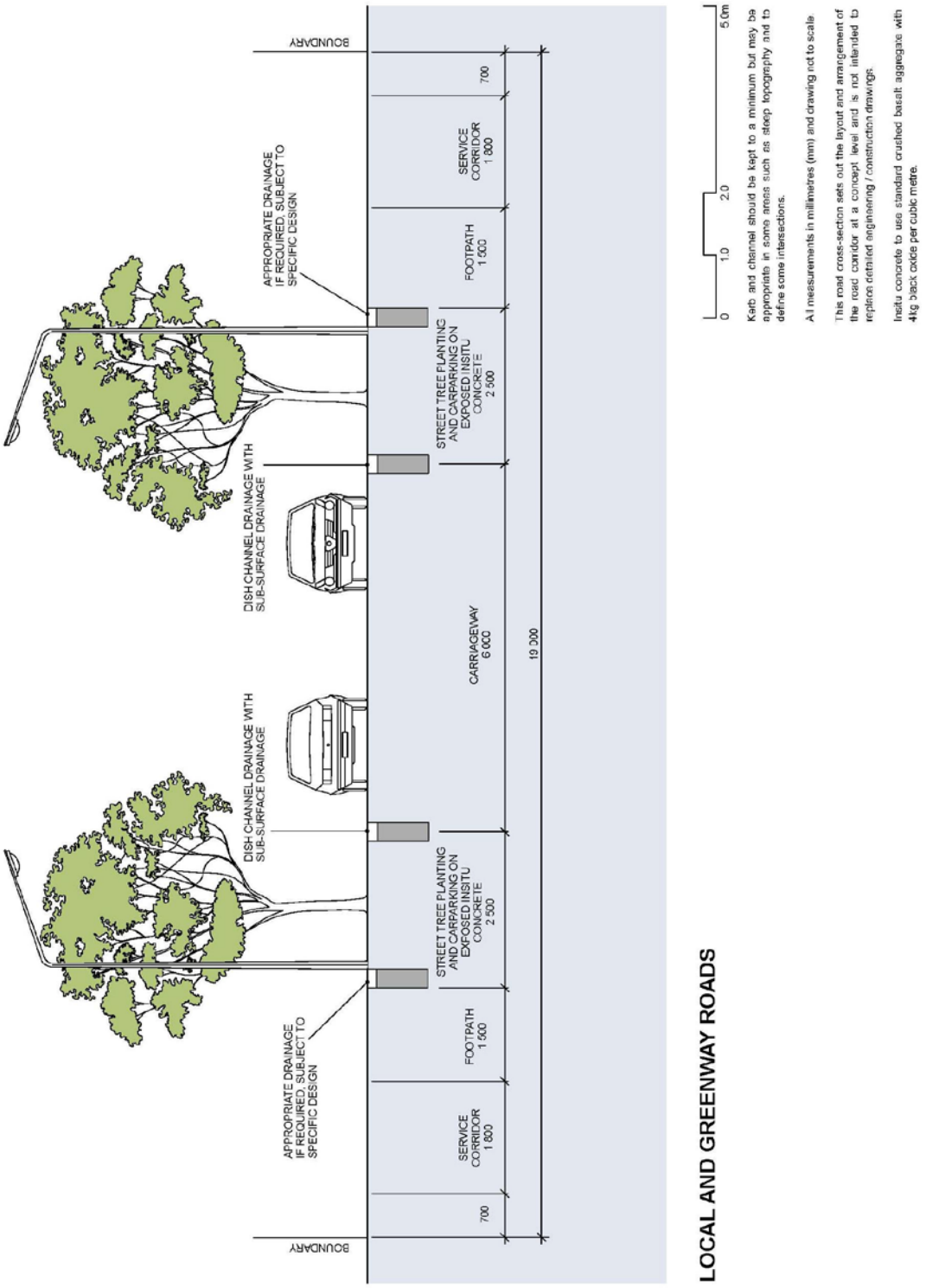
Checklist:

✓ / X

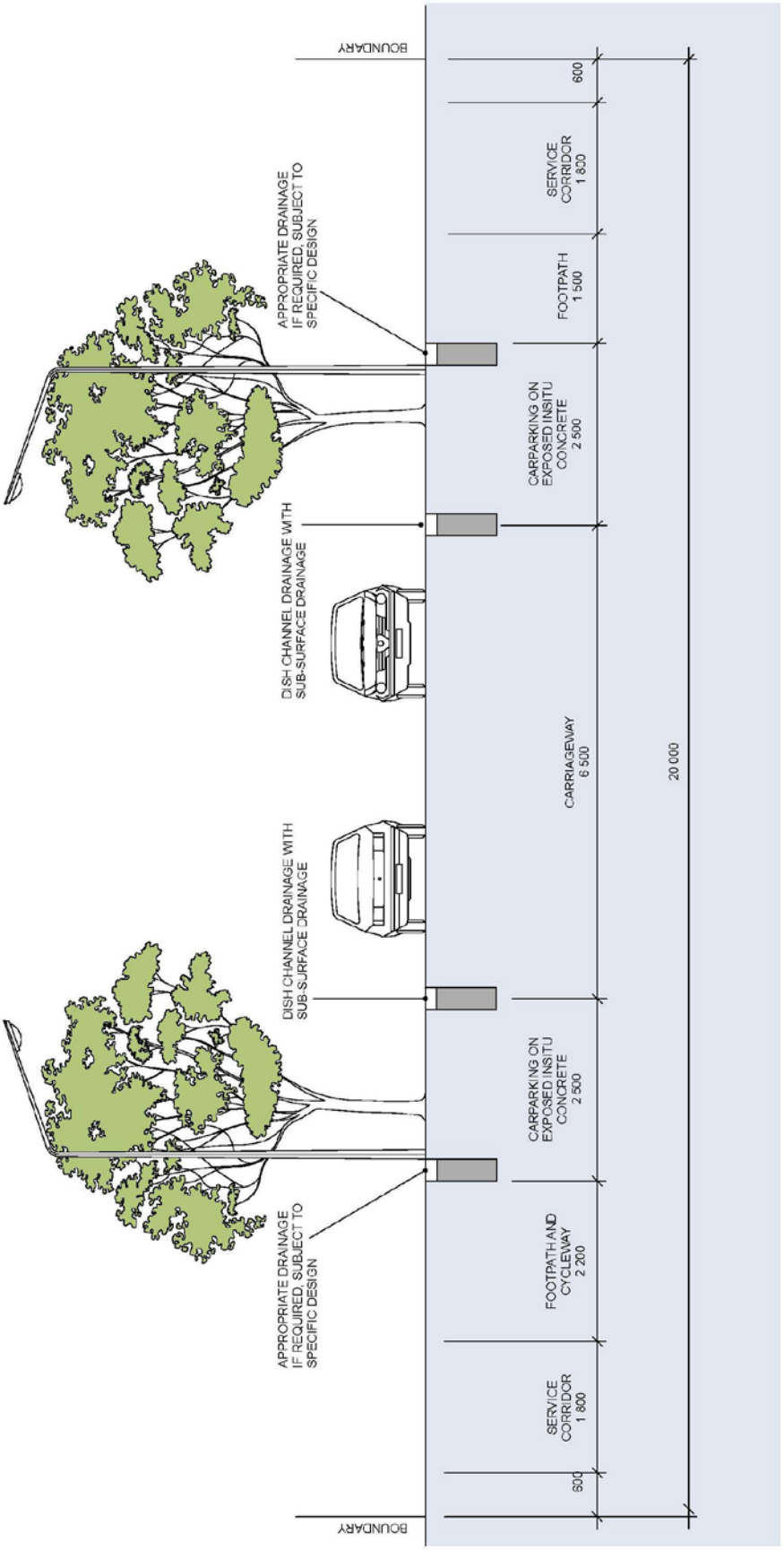
(a) Does the building form include tight continuous building frontages with pedestrian shelter, incorporating narrow varied shop facades? ☐

(b) Has a high level of glazing been utilised for shop fronts on the ground floor and have any carparking areas been located at the rear of the building, other than on street parking? ☐

(c) Have residential uses been restricted to above ground floor? ☐



LOCAL AND GREENWAY ROADS



COLLECTOR AND NEIGHBOURHOOD ROADS

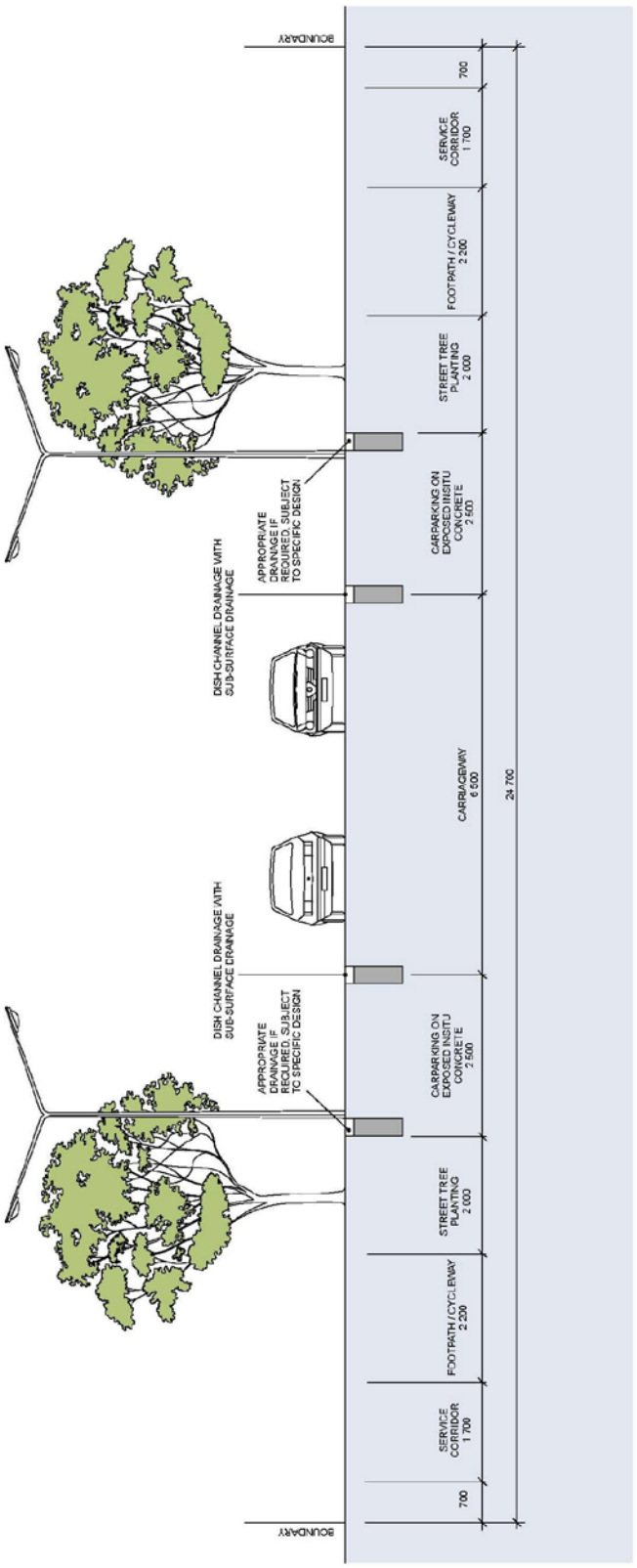
0 1.0 2.0 5.0m

Kerb and channel should be kept to a minimum but may be appropriate in some areas such as steep topography and to define some intersections.

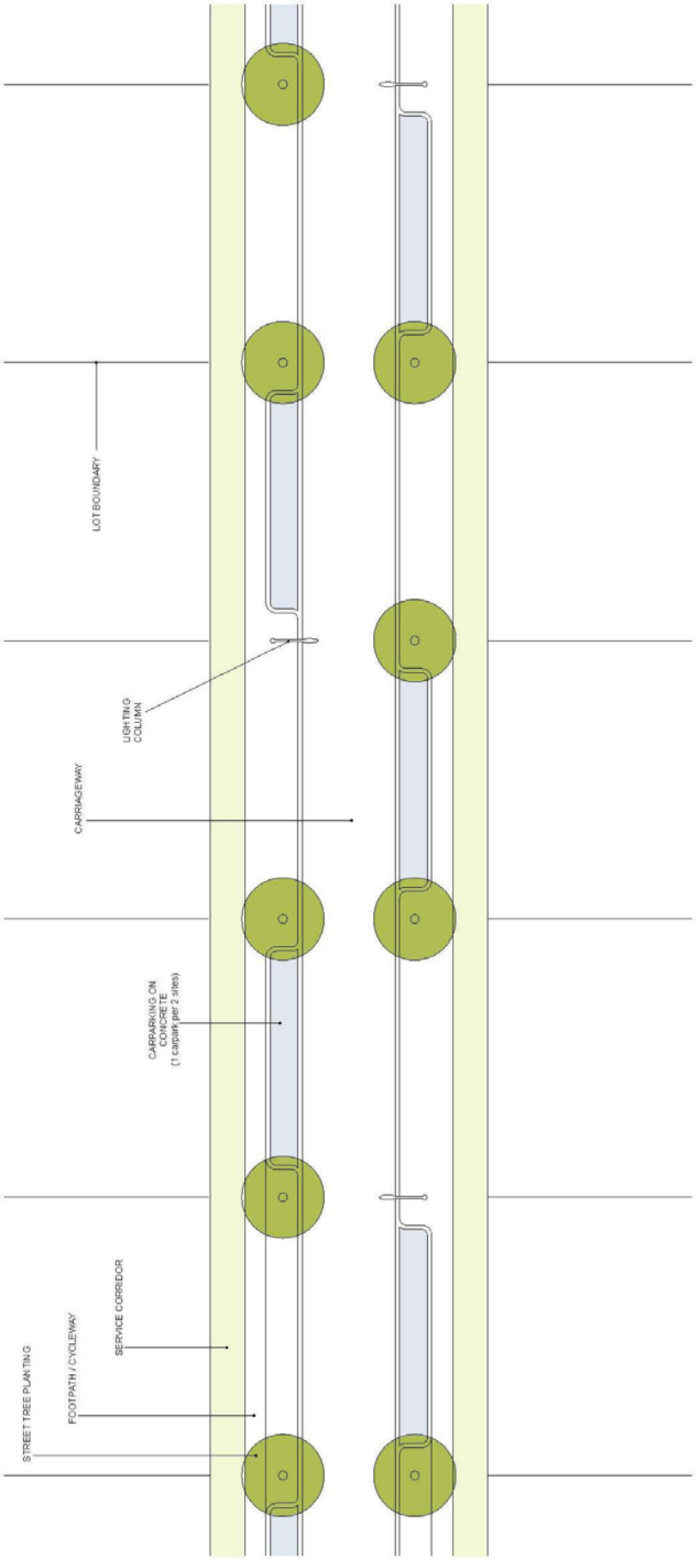
All measurements in millimetres (mm) and drawing not to scale.

This road cross-section sets out the layout and arrangement of the road corridor at a concept level and is not intended to replace detailed engineering / construction drawings.

Insitu concrete to use standard crushed basalt aggregate with 4kg black oxide per cubic metre.



LINKAGE ROAD



PLAN VIEW OF COLLECTOR AND NEIGHBOURHOOD ROADS

Drawing not to scale

0 5 10 20m

Kerb and channel should be kept to a minimum but may be appropriate in some areas such as steep topography and to define some intersections.

All measurements in millimetres (mm) and drawing not to scale.

This road plan sets out the layout and arrangement of the road corridor at a concept level and is not intended to replace detailed engineering / construction drawings.

Insitu concrete to use standard crushed basalt aggregate with 4kg black oxide per cubic metre.

On-street car parking may be provided at a level greater than 1 carpark per 2 sites.

The location of on-street car parking shall be designed to enable sufficient space for vehicle access to a site. The location of driveways shall not encroach on on-street carparking.