



HUTT CITY

MEDIUM DENSITY DESIGN GUIDE
FINAL ISSUE

HUTT CITY
TE AWA KAIRANGI

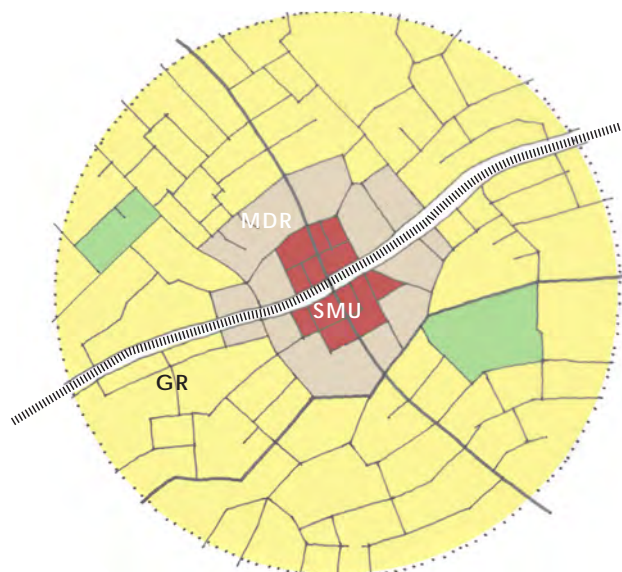
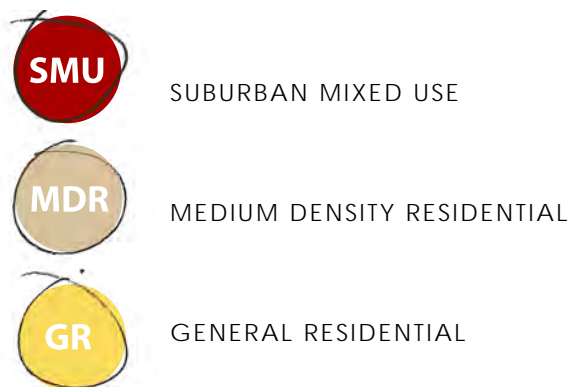
CONTENTS

	MEDIUM DENSITY DESIGN GUIDE	
	How to use this design guide	3
STEP 1	OVERALL DESIGN PRINCIPLES	4
STEP 2	KEY DESIGN PRINCIPLES FOR THE ACTIVITY AREA	6
	SUBURBAN MIXED USE	8
	MEDIUM DENSITY RESIDENTIAL	12
	GENERAL RESIDENTIAL	15
STEP 3	KEY DESIGN ELEMENTS	21
	<i>Elements affecting all development</i>	
	3.1 Building Height	22
	3.2 Recession Planes and Setbacks	23
	3.3 Indoor and Outdoor living spaces	24
	3.4 Open Space Design and Boundary Treatments	26
	3.5 Entrances, Carparking and Garages	27
	3.6 On site Stormwater Management	29
	3.7 End/Side Wall Treatment	30
	3.8 Building and Materials	32
	3.9 Bike Parking, Storage and Service Areas	33
	3.10 Privacy and Safety	34
	3.11 Landscaping	35
	<i>Elements affecting specific locations or types of development</i>	
	3.12 Historic Character in Petone-Moera	37
STEP 4	DESIGN STATEMENT	38

MEDIUM DENSITY DESIGN GUIDE

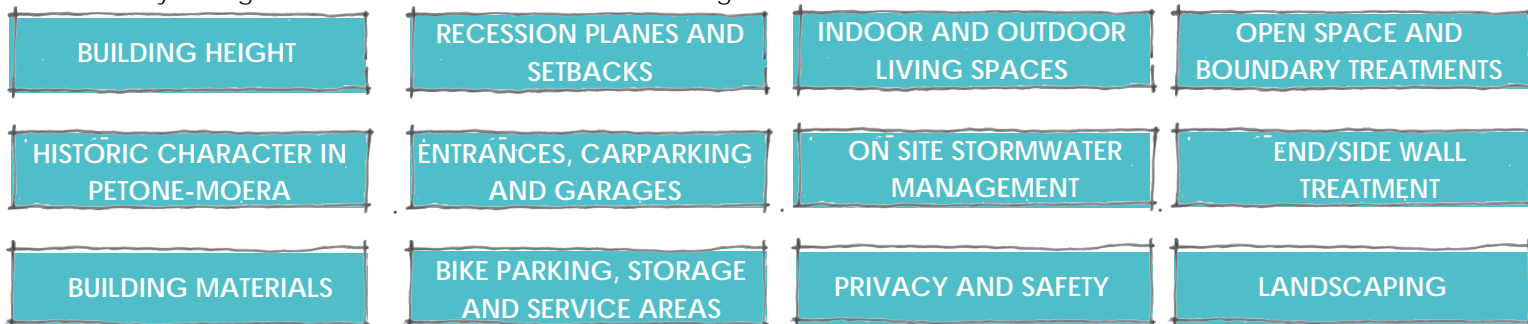
HOW TO USE THIS GUIDE

The Medium Density Design Guide (MDDG) promotes good design to achieve high quality built environments with high levels of amenity, while providing for growth in a developing city. The MDDG applies to the following zones:



The use of the MDDG is required for built development that triggers resource consent and refers to the MDDG as a matter of discretion. The MDDG will help development proposals deal with externalities (effects beyond the boundary).

Key design elements addressed in this Design Guide are:



Below is a 4 step process for using the MDDG:

- STEP 1** is to consider the overall design principles that apply to all 3 Activity Areas;
- STEP 2** is to consider the design principles for the Activity Area your proposal is in;
- STEP 3** is to apply the key design elements to your proposal;
- STEP 4** is to prepare a Design Statement to form part of the resource consent application when consent is required.

Steps 1 and 2 give an overall feel for the outcomes being sought. Step 3 provides specific ways of dealing with design issues. Step 4 sets out your design response.

STEP 1

CONSIDER THE OVERALL DESIGN PRINCIPLES THAT APPLY TO ALL 3 ACTIVITY AREAS

The MDDG focuses on built form and the relationship of buildings with the street as opposed to the type of activities that may occupy a building.

The following urban design principles, based on the seven 'c's' of the New Zealand Urban Design Protocol, have been used in the development of this guide and are intended to encourage active transport (walking and cycling), improve the relationship between buildings and the street, promote the principles of Crime Prevention Through Environmental Design (CPTED) principles and encourage designs which are adaptable to multiple uses and flexible to change in future.

CONSOLIDATE ACTIVITIES ADDRESSING THE STREET

Developments should seek to consolidate activities, creating a strong built edge to the streetscape while allowing flexibility for various activities in suburban commercial areas. Residential development should address the street.

RESPOND TO THE ENVIRONMENT

Designs should recognise the importance of maximising natural surveillance over public and communal spaces within a development. This is an important concept to meet CPTED principles. Each dwelling should include a private outdoor living area which has a high level of accessibility, is private, and receives adequate sunlight. The amenity (privacy, sunlight or outlook) of an adjoining residential property should be acknowledged where a development exceeds permitted development standards and controls.

CREATE A SENSE OF PLACE

Developments should create a strong sense of place through the design of safe, memorable environments and buildings in order to provide places to meet, play and relax. Incorporating landmarks and unique spaces into the design will increase the legibility (understanding) of the development for its users and the ownership within the community. Each unit /dwelling should be clearly definable with each development having a degree of uniqueness with modulation, variety and cohesion incorporated into designs.

INTEGRATE WITH THE STREET AND NEIGHBOURHOOD

Developments should contribute to the character of a streetscape and provide good walkability to the neighbourhood. Encourage developments which relate to the street. Designs should seek to maximise connections using walkways, shared spaces and barrier free access.

PROVIDE DIVERSITY AND INTEREST

Developments should seek to encourage diversity in building stock, unit type (number of bedrooms) and character, providing for a wide range of the community (budget and family type) which will encourage growth and greater community interaction.

The Urban Design Protocol identifies seven essential design qualities (the seven 'c's') that together create quality urban design:

- Context: seeing buildings, places and spaces as part of whole towns and cities;
- Character: reflecting and enhancing the distinctive character, heritage and identity of our urban environment;
- Choice: ensuring diversity and choice for people;
- Connections: enhancing how different networks link together for people;
- Creativity: encouraging innovative and imaginative solutions;
- Custodianship: ensuring design is environmentally sustainable, safe and healthy;
- Collaboration: communicating and sharing knowledge across sectors, professions and with communities.



The potential intensification of a suburban centre

STEP 2

CONSIDER THE DESIGN PRINCIPLES FOR THE ACTIVITY AREA OF YOUR PROPOSAL



Introduction to the 3 Activity Areas

SUBURBAN MIXED USE ACTIVITY AREA (SMU)

The Suburban Mixed Use Activity Area applies to selected suburban centres generally located in areas of good public transport. It primarily provides for the local convenience needs of surrounding residential areas including local retail, commercial services and offices as well as residential use above ground floor. The Suburban Mixed Use Activity Area provides the opportunity for mixed use projects where regeneration of existing buildings and construction of new buildings is promoted to provide business and residential opportunities. Buildings up to 12 metres high are provided for as permitted activities.

Effects from this zone to properties in adjoining residential zones are managed by recession planes and setback requirements. Within Suburban Mixed Use zone permitted activity standards to provide certainty as well as flexibility in building bulk and location. Emphasis is placed on achieving a strong built edge to the street and providing active street frontages while encouraging design flexibility for ground floors to provide for changes in use at a later date. Refer to pages 8-10 of this design guide and Chapter 5E of the District Plan.



Mixed use intensification can be up to 12m in height and house a mix of uses.



Mixed use development allows for retail, commercial and residential uses in a building.



A local florist with residential above.



MEDIUM DENSITY RESIDENTIAL ACTIVITY AREA (MDR)

The Medium Density Residential Activity Area provides for a variety of residential developments enabling a greater intensity of development than General Residential. The appearance of the neighbourhood will change over time with increased opportunities for terrace housing and low rise apartments. The MDDG outlines medium density residential development options that are encouraged within this zone and identifies how these can promote high quality buildings. This includes how additional density can be provided without creating large, monolithic developments that lack character and warmth. Options are presented on how diversity of form and unit size, sense of place can be achieved while providing for increased residential density and growth. Refer to pages 11-13 and Chapter 4F of the District Plan.



Colour change is an important element to provide identity and character, avoiding monotony.



Small variations and detailing can provide interest and a unique identity to each unit without adding significant cost.



This residential development has a strong relationship to the street, being built close to the front with carparking placed behind.



GENERAL RESIDENTIAL ACTIVITY AREAS (GR)

The General Residential Activity Area is the city's main residential zone. It is characterised by mostly one to two storey detached houses set back from property boundaries. The General Residential Activity Area enables some intensification while overall maintaining the low to medium density character. Within the General Residential Activity Area, opportunities are available for medium densities through Comprehensive Residential Development on larger sites, Multi-Unit Developments and Minor Dwellings such as tiny houses or granny flats on smaller sites. Options for outdoor living space, design of entrances and the treatment of end walls (for a block of terraces) are provided. Development options for multi-unit developments are presented showing ways to improve amenity and legibility for residents and visitors. Refer to pages 14-19 and Chapter 4A of the District Plan.



Large windows overlooking the street provide natural surveillance while a mix of solid and open fencing provide both semi-private and private spaces.



Both units relate well to the street with garaging at the rear of the site. The buildings varying slightly to provide interest.



This residential development has a strong relationship to the street as well as north facing outdoor living space.

STEP 2

CONSIDER THE DESIGN PRINCIPLES FOR THE ACTIVITY AREA OF YOUR PROPOSAL

SMU

SUBURBAN MIXED USE ACTIVITY AREA

Built forms with a strong built edge to the streetscape contribute to an active and vibrant community

Buildings up to 12m high (3 storeys) are expected in this zone, to cater for a variety of activities. Specific development standards are dealt with in Step 3 Key Design Elements but the following design principles should be addressed in a Suburban Mixed Use development:

ACTIVE FRONTAGES

The creation of 'active' frontages adds vitality and interest to a streetscape, especially when businesses such as cafes and restaurants 'spill out' into the street.

Active frontages are an important aspect of lot design and building layout, both for residential and commercial situations.

Placing buildings with display windows close to or on the road boundary creates a positive interaction between the pedestrian environment and private property (integrating with the street and neighbourhood). However, when car parking is placed on-site directly in front of buildings this 'positive interaction' and well-defined street edge are diminished.



The building is a mix of retail, offices and apartments. The restaurant 'spills' out into the street.



A small commercial office occupies the ground floor with direct access from both frontages.

GROUND FLOOR USES

Businesses are continuing to change to meet market demands. Some traditional house forms such as terraces, and older style industrial warehouses constructed from permanent materials, lend themselves to conversion for alternative business or living purposes.

Some newer developments are less flexible in their design and less able to accommodate other uses.

New buildings should be built to the front boundary and a ground floor ceiling height of 3.5m is encouraged. This allows adaption as the market and people's jobs, workplaces and housing expectations change.

CORNER SITES

Corner sites have the greatest potential for commercial exposure and can play an important role in the character of a city, by creating landmarks and improving legibility (creating character and sense of place).

PLACEMENT OF CARPARKING

The location and extent of surface car parking can have a major impact on the character and feel of the streetscape within commercial or small business zones.

Large expanses of car parking are often placed in front of buildings reflecting the desire to have visible car parking for customers and create the most cost effective carpark design. However, good practice is for all on-site car parking to be sited at the rear of the building, thereby allowing for active street frontages to be developed.



A hotel, restaurant and apartments occupy this building with a number of entrances fronting the street.



The sketch shows a development with two active frontages, spilling out into the public realm.



The sketch shows a development with one active frontage, but misses an opportunity to activate the corner site.



The sketch shows a development turning its back on the street with access provided at the rear off the carpark.

OTHER COMMERCIAL ACTIVITIES

Commercial activities with functional and/or operational layout and design requirements

Some commercial activities, such as service stations and commercial garages, may have a functional need to locate in mixed-use activity areas, despite having functional and operational requirements that require a different built form to that generally anticipated in these areas. While these activities can be difficult to integrate into the type of built environment generally anticipated by the design guide, developments should aim to contribute positively to streetscape and character.

DESIGN OPPORTUNITIES:

LAYOUT AND DESIGN

- 1 Buildings should have clearly defined frontages.
- 2 An accessible pedestrian entrance should be clearly defined and conveniently located, ideally facing the street frontage.
- 3 Landscaping can be used to enhance the visual appearance of the site from the street, although it should not inhibit visibility into the site or pedestrian accessibility
- 4 Parking should be consolidated and positioned to allow buildings to have a strong physical relationship with the street.
- 6 Mechanical plant and equipment should be positioned away from street frontages and screened from public viewpoints.

PROVIDE ACTIVE FRONTAGE

- 7 Encourage buildings to positively relate to street frontages to improve accessibility and provide passive surveillance over the street.

SKETCH SUBURBAN MIXED USE

CONSOLIDATE ACTIVITIES

- 1 12m high buildings are permitted. Additional height is a restricted discretionary activity.
- 2 Fewer vehicle crossings improve the walking experience for pedestrians as well as allowing more space for on-street parking and street trees.

PROVIDE DIVERSITY AND INTEREST

- 3 An active frontage allows the cafe to 'spill' out on to the footpath, creating an ideal informal meeting place for residents and visitors.
- 4 A minimum of 50% of the ground floor street frontage are display windows or clear glazing providing good visibility to the outside, limiting blank walls and creating a strong relationship between the street and the interior.

ALLOW ADAPTABILITY / FLEXIBILITY

- 5 Ground floors are encouraged to have a minimum height of 3.5m. A high ceiling height allows for future changes of use as well the potential for a mezzanine level.

RESPOND TO THE ENVIRONMENT

- 6 Residential activities above ground floor need outdoor living space in the form of a balcony or roof terrace with a minimum of 5m² and a minimum dimension of 2m.

Residential activities are permitted on the ground floor only where they have no frontage to public open space including streets (except for access).

INTEGRATE WITH THE STREET AND NEIGHBOURHOOD

- 7 Car parking should be located within, under, at the rear or at the side of buildings, with the frontage free of parking areas and access ways to create a strong built edge to the street with direct pedestrian access from the footpath.
- 8 A continuous verandah is required along street frontages where there is a pedestrian footpath. This should be designed to integrate with the building design while not inhibiting vehicle movements.

CREATE CHARACTER AND SENSE OF PLACE

- 9 Provide modulation (variation) in built form and material use.
- 10 Encourage corner sites with two frontages and a mix of unit sizes which allow for small 'hole in the wall' operations through to larger developments – diversity is key.
- 11 Encourage landscape planting to soften blank walls and provide additional amenity.



A potential SMU development incorporating the design principles appropriate to the zone and the key design elements of Step 3.

STEP 2

CONSIDER THE DESIGN PRINCIPLES FOR THE ACTIVITY AREA YOUR PROPOSAL IS IN

MDR

MEDIUM DENSITY RESIDENTIAL ACTIVITY AREA

A variety of dwelling types and sizes cater for a wide range of community needs

Buildings up to 10 + 1m high (3 storeys + roof) are expected in this zone to house mainly residential activities. Specific development standards are dealt with in Step 3 Key Design Elements. The following design principles should be addressed in a Medium Density Residential development:

BUILDING TYPOLOGY AND DENSITY

The siting and layout of buildings should recognise the existing built character and patterns of a neighbourhood to a certain degree but not at the expense of achieving good quality, compact urban environments. There will be a change in development types compared to other residential activity areas, with greater height and site coverage being provided for. Developments should cater for a diversity of dwelling types and increase housing choice. A wide range of unit sizes, from studios through to 4 or 5 bedroom units can help to create diverse and demographically balanced neighbourhoods, catering for a wide variety of housing needs and responding to different income levels.

VARIATION AND LEGIBILITY

With higher density developments there is a risk that buildings become bigger and lack detailing at the human scale, making it difficult for residents to relate to or imposing adversely on the receiving streetscape. This can be prevented by using a number of simple design measures. For example, dwellings should be clearly definable as individual units, designed and articulated to provide a sense of individuality.

STREET RELATIONSHIP

Developments should relate to the street. Often long narrow sites are developed as a series of dwellings accessed by a long driveway without any relationship to the street. There is little opportunity for residents to interact, and the parking areas can be unattractive. A preferred design option is to maximise (as far as practicable) the number of dwellings that front the street to create a strong built edge to the street and encourage a sense of community.

COMMUNAL ACCESS, CARPARKING, LANEWAYS

Ideally car parking should be located either underground or at the rear of a site with shared access ways to reduce the number of potential conflict points with pedestrians walking along the street. Car parking at the front of the development often results in numerous vehicle crossings and reduces opportunities for street trees and on street parking and should therefore be avoided. Garaging, large areas of driveway and vehicles parked in clear view of the street can have a significant adverse visual impact. With increased density also comes the need for more efficient land use, including more creative responses

to on-site parking. Communal or shared facilities are one response but must be designed well. Safe and convenient access for pedestrians and, in larger developments, cyclists and service vehicles should also be provided.

INDOOR AND OUTDOOR LIVING SPACES

Sunlight is important for living spaces. Outdoor living space has to be provided for each unit, either on the ground floor or by way of a balcony or roof terrace. It should be directly accessible from the unit it belongs to and may not be occupied by accessory buildings, parking areas or accessways. Ideally living spaces should be either north, west or east facing to ensure some direct sunlight is received.



While the garage door is forward of the front door, this is offset by glazing on the door and the side window which provide a strong visual connection between the house and the street.



The most desirable outcome for outdoor living spaces is to provide direct access and large glazing to allow free movement between indoors and out.



The photo above shows how building placement has reduced potential effects on the adjoining residential dwelling by positioning garaging and access to the side, providing a buffer with the adjoining residential property. The building design also includes modulation, windows and material variation.



Outdoor living space has been provided as balconies facing the street, to capture views and sunlight, Eastbourne.



Communal parking at the rear allows buildings to front the street and minimises manoeuvring space for multi unit developments.

SKETCH MEDIUM DENSITY RESIDENTIAL ACTIVITY AREA

CONSOLIDATE ACTIVITIES

- 1 Compact forms with higher densities. Variation in the building type and style as well unit size and number of bedrooms.
- 2 Privacy between units should be maintained with landscaping and balconies set back to prevent views back into adjoining residence's living area.
- 3 Direct access is provided from the dwelling to the outdoor living space with a minimum size of 20m² and a minimum dimension of 3m at ground level or minimum size of 10m² and a minimum dimension of 2m if provided in form of a balcony or roof terrace.

INTEGRATE WITH THE STREET AND NEIGHBOURHOOD

- 4 Developments should be externally facing, maximising the number of units which address the street.
- 5 Communal parking areas, underground parking and laneways behind buildings are encouraged to create a strong built edge to the street. All vehicle parking spaces, car-ports and garages would ideally be accessed from the rear of the properties via the laneway. This provides a 'clean' pedestrian environment along the front.
- 6 Refuse bins and drying facilities should be located in the rear yard, out of public sight or screened (not shown this picture). For larger developments communal facilities can be considered.

ALLOW ADAPTABILITY / FLEXIBILITY

- 6 Consider the use of 'party' walls and attached buildings to eliminate unusable narrow side yard spaces.

PROVIDE DIVERSITY AND INTEREST

- 7 Colour variation of architectural elements such as front doors is a cost effective way of getting variation (The Design Guide does not specify colours, it encourages variety.)
- 8 Windows and variation in materials should be provided on the end wall of each block of units.

RESPOND TO THE ENVIRONMENT

- 9 Building recession planes are required within the Medium Density Residential zone as well as where development adjoins other Residential Activity Areas.
- 10 Tree planting and landscaping are encouraged.
- 11 Fencing should be a combination of planting, see-through sections and walls to provide natural surveillance over the street while still providing privacy for ground floor residents. Outdoor living areas should ideally be either north, east or west facing or a combination.

CREATE CHARACTER AND SENSE OF PLACE

- 12 Modulation of the front façade and roof profile is encouraged to avoid the creation of large blank walls.
- 13 Pedestrian entrances should face the street and individual units should be readily recognisable.
- 14 Providing colour or material variation in the dwellings improves legibility and interest.



A medium density residential development adjacent to a general residential property

STEP 2

CONSIDER THE DESIGN PRINCIPLES FOR THE ACTIVITY AREA YOUR PROPOSAL IS IN

GR

GENERAL RESIDENTIAL ACTIVITY AREA

This section includes the following development types:

- a. Comprehensive Residential Development
- b. Multi-unit Development
- c. Minor Additional Dwelling

a. Comprehensive Residential Development

Encourage good quality multi unit developments while protecting neighbouring amenity

Comprehensive Residential Development is a medium density type of development that allows for the more intensive development of sites over 1,400m², with flexible development internal to the overall site and protection of neighbours beyond the overall site.

Development standards of this typology are:

- 8m height limit
- 60% site coverage maximum;
- Existing recession planes are retained along external boundaries but not required on internal boundaries between proposed dwellings or the road boundary;
- Minimum 2m front yard setback;
- Outdoor living – directly accessible from the dwelling to which it relates of 20m² with a minimum dimension of 3m;
- 1 on-site car parking space (either garage, carport or parking space) for each dwelling with the option of communal carparking.

ORIENTATION AND RELATIONSHIP WITH THE STREET

For front units that are north facing, the outdoor living space should front the street. Parking is then provided at the rear or in a communal area.

Developments should be oriented towards and have good visibility to the street, incorporating features such as pedestrian entrances, windows and architectural features including balconies, gables and finer detailing on the front façade.

Open frontages from residential properties onto the street and reserves allow unobstructed sight lines and a greater sense of security for both homeowners and pedestrians. Surveillance or the placing of legitimate 'eyes on the street', increases the perceived risk to potential offenders and helps to create safer neighbourhoods.

Buildings should be orientated to the street and should have internal layouts and outdoor living spaces positioned to maximise the amount of sunlight they receive and provide good visual contact between residents and the streets.



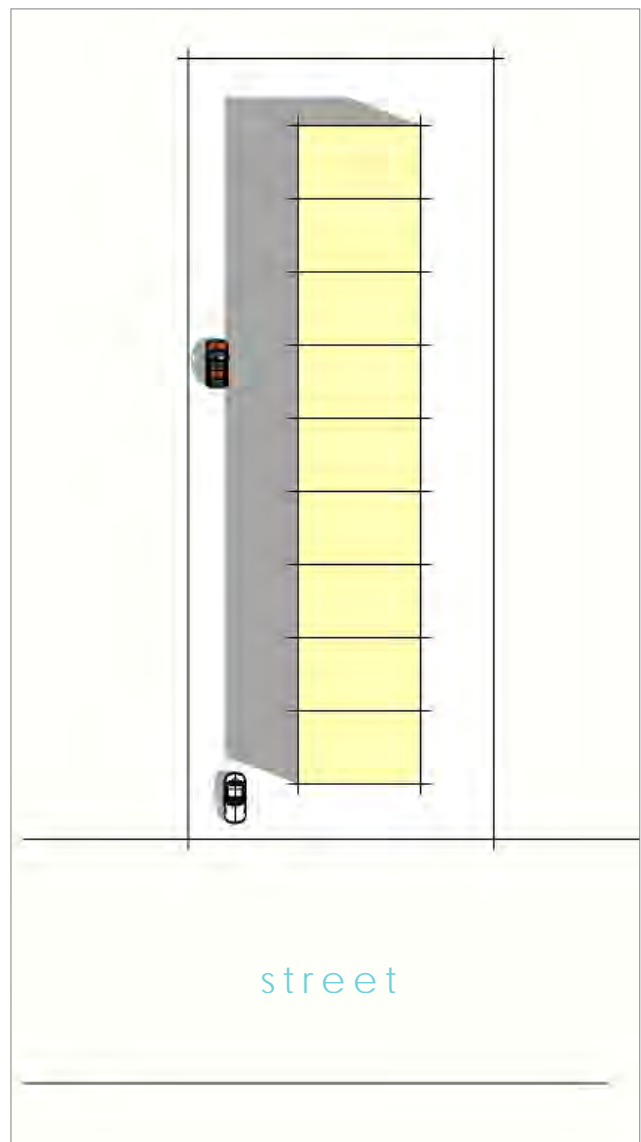
All units have a strong relationship to the street with an individual street address. Private outdoor living areas are provided on the north facing side.



This design has a high level of modulation to provide interest and reduce the perceived bulk.



A preferable design option is for buildings to face the street, with their own street address, to avoid long 'sausage' developments.



The sketch shows an 8 unit development on a 1600m² site which does not meet good design principles. It has a poor relationship with the street and the site is dominated by vehicle manoeuvring areas.

SKETCH COMPREHENSIVE RESIDENTIAL DEVELOPMENT

CONSOLIDATE ACTIVITIES

- 1 Communal shared space within a development supports the consolidation of activities / space.

PROVIDE DIVERSITY AND INTEREST

- 2 Diversity in dwelling types, number of bedrooms and layouts cater for different sectors of the community.

INTEGRATE WITH THE STREET AND NEIGHBOURHOOD

- 3 Fewer vehicle crossings reduces impacts on the streetscape.
- 4 Encourage open yards and avoid fencing where it is not required. This helps to maximise natural surveillance of the street from dwellings.

RESPOND TO THE ENVIRONMENT

- 5 Recession planes are required on boundaries with neighbouring sites but not to the road boundary.
- 6 Recession planes are not required on internal boundaries within the site.

- 7 Tree planting and landscaping are encouraged.

ALLOW ADAPTABILITY AND FLEXIBILITY

- 8 The front setback on the south side can be reduced to 2m to maximise the amount of space available for north facing outdoor living space.
- 9 Refuse bins and drying facilities are located in the rear yard, out of public sight or are screened (not shown). For larger developments communal facilities are encouraged.
- 10 Outdoor living areas are located with a north, west or east facing aspect and are required to be a minimum of 20m² in area with a minimum dimension of 3m.

CREATE CHARACTER AND SENSE OF PLACE

- 11 The number of dwellings facing the street is maximised to create a strong built edge and improve legibility.
- 12 Where appropriate recognise the historic character of adjoining properties. In Petone-Moera recognise the historic character of adjoining properties.



A comprehensive residential development on a 1,600m² site (minimum area of 1,400m² for a CRD) with 8 potential units and houses up to 8m in height

b. Multi-unit Development

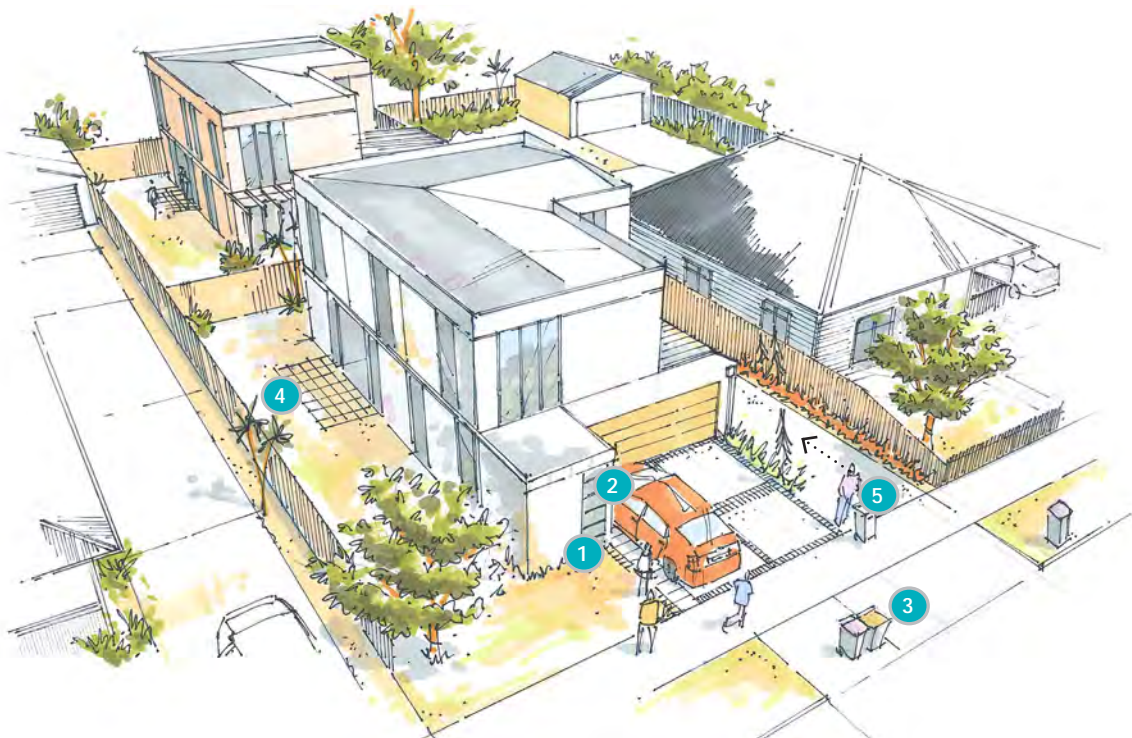
Provide for traditional infill and multi-unit development

2 & 3 UNIT DEVELOPMENT OPTIONS

Three different development options below show alternatives that maximise sunlight into outdoor living areas (ideally north, west or east facing) and maximise the number of units fronting a street to improve legibility. All options show 40% site coverage.

DESIGN OPPORTUNITIES:

- 1 Maximise the number of units which front the street and avoid long, 'sausage' like developments which are characterised by surface car-parking, driveways and limited legibility.
- 2 Front doors should be located in front of the garage door so pedestrians and visitors can easily find it.
- 3 Investigate sharing access ways and minimise vehicle crossings. By doing so, a greater amount of on-street parking is possible along with street tree planting and reduced pedestrian-vehicle conflict points.
- 4 Outdoor living area which is directly accessible from the dwelling it relates to.
- 5 Service bins should be screened from sight, either by location or planting/fencing.



- a** Option A above shows a typical townhouse development with a front and rear unit. Some sharing of the vehicle crossing is possible although this does not always happen. The driveway is located on the southern side to allow each dwelling to have a private outdoor living area of 50m² which is north facing and directly accessible from internal living areas.



b Option B above shows a duplex house option where two dwellings share a common wall. This allows for construction efficiencies as well as maximizing the amount of outdoor living space which is available to each dwelling. A negative aspect of this option though is the creation of two separate vehicle crossings.



c Option C above shows a 1200m² lot being developed into 3 dwellings. The 3 housing units face the street. Each unit has a north facing outdoor living area. Note that a 3 dwelling development would be restricted discretionary.

c. Minor Additional Dwelling

Enable a minor additional dwelling on a smaller site

The provision for minor additional dwellings such as granny flats or tiny houses allows for increased density without noticeable changes to the character of a suburb. This sketch illustrates one way the development form could be configured.



DESIGN OPPORTUNITIES:

- 1 The gross floor area of the minor dwelling house does not exceed 50m².
- 2 Outdoor living space of at least 20m² is provided for the sole use of the minor dwelling directly accessible from the dwelling to which it relates.
- 3 The minor additional dwelling may be screened from view of the primary dwelling house if required.
- 4 At least one parking space is available on the site for the sole use of the residents of the minor dwelling.
- 5 The parking areas for both the primary and minor dwelling houses should be accessed from the same vehicle access.

STEP 3

KEY DESIGN ELEMENTS - APPLY THE KEY DESIGN ELEMENTS TO YOUR DEVELOPMENT PROPOSAL

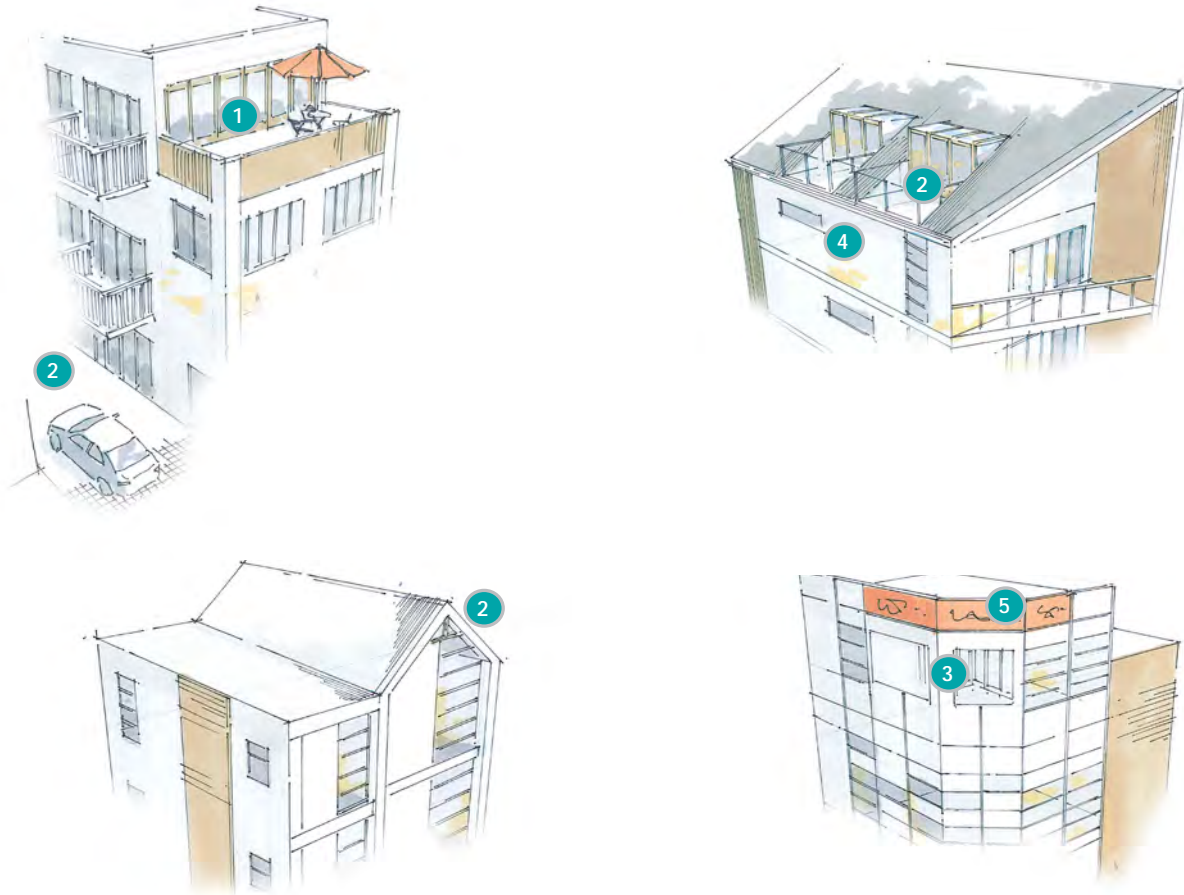
The MDDG focuses on buildings and the relationship of buildings with neighbouring properties, the street and the wider block or suburb. The MDDG assists in managing adverse effects beyond the boundary.

The following key design elements are identified and discussed below.

3.1 BUILDING HEIGHT	3.2 RECESSION PLANES AND SETBACKS
3.3 INDOOR AND OUTDOOR LIVING SPACES	3.4 OPEN SPACE AND BOUNDARY TREATMENTS
3.5 ENTRANCES, CARPARKING AND GARAGES	3.6 ON-SITE STORMWATER MANAGEMENT
3.7 END/SIDE WALL TREATMENT	3.8 BUILDING MATERIALS
3.9 BIKE PARKING, STORAGE AND SERVICE AREAS	3.10 PRIVACY AND SAFETY
3.11 LANDSCAPING	3.12 HISTORIC CHARACTER IN PETONE-MOERA

3.1 BUILDING HEIGHT

Reduce shading and privacy impacts on adjoining sites



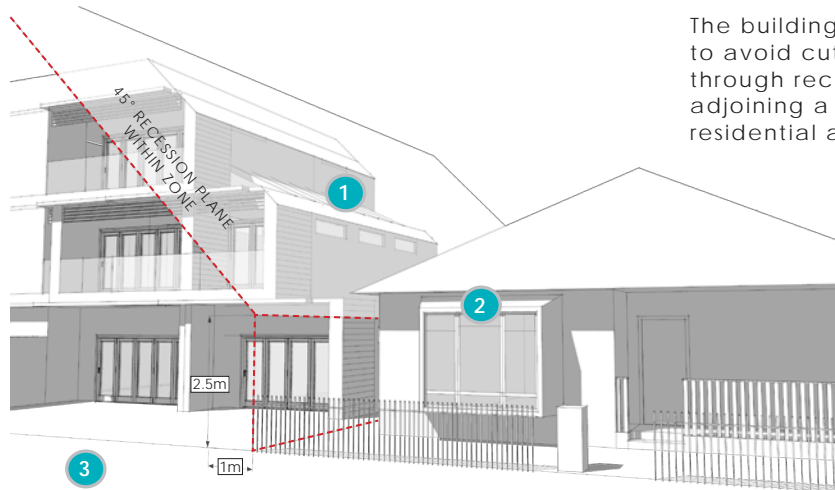
DESIGN OPPORTUNITIES:

- 1 Shading may be reduced by setbacks or modulation of the top storey.
 - 2 Adding roof details like gables, dormer windows, balconies or parapets create visual interest and can make roof space useable without a great increase in height or effects on privacy or shading.
 - 3 Mitigate effects on amenity of the adjoining residential areas, the streetscape and adjoining public space by modulating the building frontage.
 - 4 Reduce privacy effects on adjoining properties by using high windows or placing any accessways between the building and neighbours to increase the physical distance between buildings.
 - 5 If on a corner site, additional height may be looked upon favourably if it emphasizes the corner and creates a landmark / focal point.
- Accessways can provide a buffer to adjoining properties.

3.2 RECESSION PLANES AND SETBACKS (DISTANCE FROM BOUNDARY)

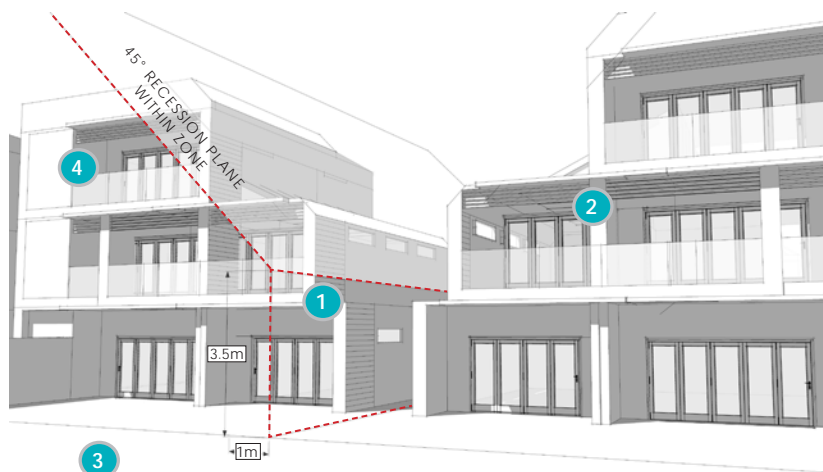
Manage building location and building height in relation to boundaries

INTERFACE WITH GENERAL RESIDENTIAL ZONE



The building is modified to avoid cutting through recession plane adjoining a general residential activity zone

INTERFACE WITHIN MEDIUM DENSITY RESIDENTIAL ZONE



The building is modified to avoid cutting through recession plane adjoining another medium density residential property

DESIGN OPPORTUNITIES:

- 1 Look at ways to minimise shading effects on neighbouring properties by modulating the built form or setting back buildings from the boundary.
- 2 Minimise effects on amenity of the adjoining residential areas, the streetscape and adjoining public space by varying the built form and avoiding long, linear walls.
- 3 No recession plane to road boundaries provides the opportunity to build higher up to the street edge.
- 4 Design and locate verandahs, balconies and windows to avoid overlooking adjacent outdoor living areas of existing residential developments.

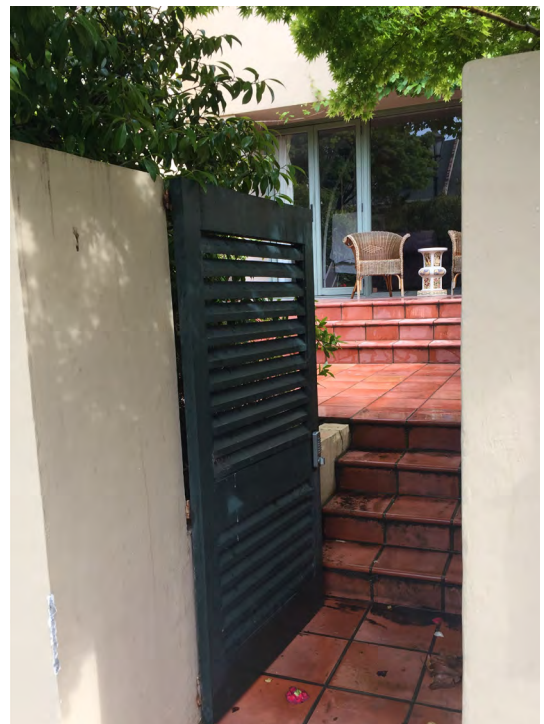
3.3 INDOOR AND OUTDOOR LIVING SPACES

Provide outdoor living spaces that are directly accessible from an indoor living area to which they relate and ideally face north, west or east to receive direct sunlight

In many instances the outdoor living space will be a dwelling's primary space for outdoor entertainment, relaxing and recreation. Its quality and accessibility can have a significant impact on amenity. Outdoor living space should be directly accessible from the dwelling to which it relates, ideally from living areas.

Indoor and outdoor living space should have a reasonable level of privacy from adjoining units, good access to sunlight, shelter from prevailing winds, and a sense of openness. In some developments, a unit's outdoor living space may be located in the front yard.

Linking outdoor areas with the main living areas of a dwelling, e.g. lounge or dining room, it encourages their use, provides a pleasant outlook and allows greater flexibility for small spaces by allowing them to function as extensions to the indoor areas of the house.



The most desirable option is to provide direct access and large glazing to allow free movement between indoors and out.



25m² outdoor living spaces adjacent to a reserve / open space

DESIGN OPPORTUNITIES:

- 1 Direct access is provided from living areas to the north facing outdoor living space.
- 2 If not located on the ground floor, the outdoor living space is provided as a balcony or roof terrace.
- 3 Privacy between units should be maintained with screening. Balconies should be set back to prevent views into adjoining dwellings.
- 4 A mix of hard and soft landscape materials provides variety.
- 5 Tree and landscape planting should be incorporated into the landscape design and set back to prevent views back into adjoining dwellings.
- 6 Open style fencing is provided where a yard opens out onto a reserve or a communal open space.

3.4 OPEN SPACE DESIGN AND BOUNDARY TREATMENTS

Connect well to open space to provide high levels of amenity

Well-designed open space, whether public, private or communal, can add a high level of amenity and significant value to a development. Open space should not be thought of as 'left over' space but as an opportunity to enhance the character of a development. The most effective spaces integrate well with adjoining dwellings, are highly accessible and enjoy a high level of natural surveillance from private living areas. Successful designs can be a real focal point to build a community and a sense of place. Boundary fences can have a significant adverse effect on the amenity of a development and how people interact with a space or building. Front fences and walls should be designed of materials compatible with the overall development to appear integrated and should enable occupants to see out to the street. Ideally fences should not be constructed along the front boundary unless the yard is a dwelling's principle outdoor living area (north, west or east facing only). The use of trees and hedges should be considered to enhance privacy, provide screening and delineate property boundaries. Low fencing, raised planters or planting provides demarcation of private and public space while retaining natural surveillance of the street. An alternative is a combination of see-through and solid sections of fencing, which can be planted with low level shrubs and trees to provide a degree of privacy screening whilst still maintaining an essentially open feel that allows for views between the dwelling and the street. Trees along the street boundary should be pruned to allow sightlines through.



Accessible communal open space can provide high quality amenity

DESIGN OPPORTUNITIES:

- 1 Open style fencing should surround a public/communal open space to provide security to residents while maintaining natural surveillance over the space.
- 2 Solid fencing can be appropriate where privacy is required for outdoor living areas and to screen views into dwellings.
- 3 Centrally located communal outdoor space with a high level of natural surveillance from adjoining properties provides excellent amenity.
- 4 Lockable gates improve connectivity, encouraging properties to access the reserve/open space directly.
- 5 A mix of hard and soft landscape materials provides amenity while minimising large areas of hardstand.

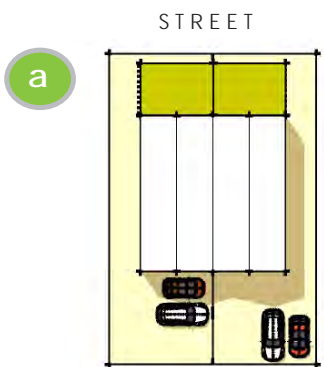
3.5 ENTRANCES, CARPARKING AND GARAGES

Strong relationships with the street. Reduce the visual dominance of vehicle parking and garaging

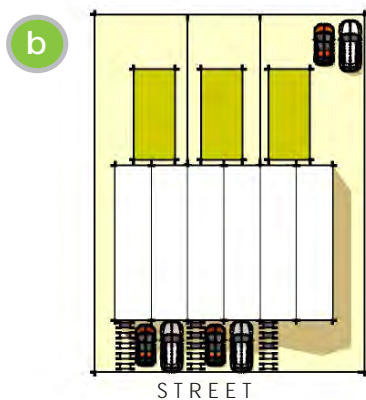
Often front yards are seen as the domain of the car with all other aspects, including pedestrian movement, considered secondary. As residential densities increase, private car ownership typically starts to decrease, particularly where frequent and reliable public transport facilities are available.

The design of front yard spaces should focus on pedestrian movement and the way a building relates to a streetscape. Streetscapes dominated by large garage doors are to be avoided where possible.

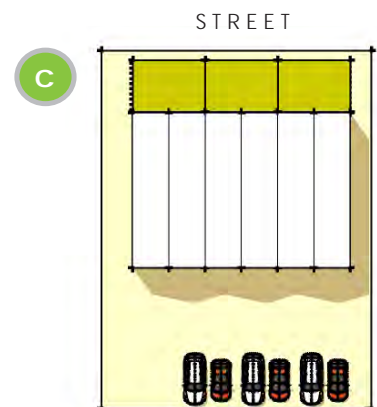
Three different design solutions shown below suggest some options for managing car parking for multi-unit developments. Clearly visible entrances contribute to the overall appearance. The provision of car parking and vehicle access often plays a role in design development at the expense of other amenities. A preferred design solution is for vehicle movements and parking to play a secondary role to pedestrian movements and streetscape amenity, creating active frontages and/or north facing outdoor living spaces. Ideally car parking should be located at the rear of a site and accessed via a shared laneway to reduce the number of potential conflict points with pedestrians walking along the street. Underground parking can be considered.



North facing outdoor living spaces with parking in the rear, accessed by side driveways.



North facing outdoor living spaces in the rear yard with parking in the front.



Communal parking in the rear yard.



Minor changes to detailing can lessen the visual impact of garages

DESIGN OPPORTUNITIES:

- 1 Front entrance doors located in front of the garage door are easier for pedestrians and visitors to find.
- 2 Decorative paving and saw cuts to break up large expanses of concrete or asphalt and guide pedestrian movements.
- 3 Tree and landscape planting should be provided.
- 4 The use of natural material such as timber and finer grain detailing assist with providing visual interest and reduce monotony.
- Service bins should be screened from sight, either by location or a 1.2m high fence. (Not shown)
- Multiple, wide vehicle crossings in close proximity to each other should be avoided as they reduce the potential for on-street parking or street trees. (Not shown)

3.6 ON SITE STORMWATER MANAGEMENT

Deal with stormwater on site as much as practicable

Low impact stormwater solutions can be incorporated on-site to minimize stormwater runoff and peak flows of regularly occurring rainfall events, reducing the impact of new development on existing storm water infrastructure. These solutions can also remove contaminants and improve stormwater quality before it reaches streams and coastlines. Use of rainwater storage tanks also increases resilience preparedness. On-site systems are cost effective if incorporated during the design phase (as opposed to being retrofitted) but require maintenance to ensure their ongoing effectiveness.



Low Impact Stormwater Solutions

DESIGN OPPORTUNITIES:

- 1 Living roofs to capture rainfall - 80/150kg/m² substrate based green roof.
- 2 Capture of rainfall from hard surfaces into rainwater storage tanks on the roof or on the ground.
- 3 Rain gardens.
- 4 Hanging gardens on the front edge of balconies - runoff from hard surfaces directed into the beds before continuing down to the discharge point.
- 5 Swale (planter) running along the property boundary.
- 6 Permeable pavers for the driveway and carpark area (400m²) (the paver has a flowrate of no less than 30l/s/m²).

3.7 END/SIDE WALL TREATMENT

Avoid large blank walls which give the appearance of an unfinished development

The design and treatment of 'end walls' should avoid large blank walls which give the appearance a development is unfinished or does not take account of its setting. This is particularly relevant for comprehensive residential development where more building 'replication' is expected.

Many past and recent developments have a 'typical' building design which is replicated to achieve build efficiencies. This results in the end units being no different from the middle unit but can result in a reduction of natural surveillance over public spaces or a side yard which is largely inaccessible.

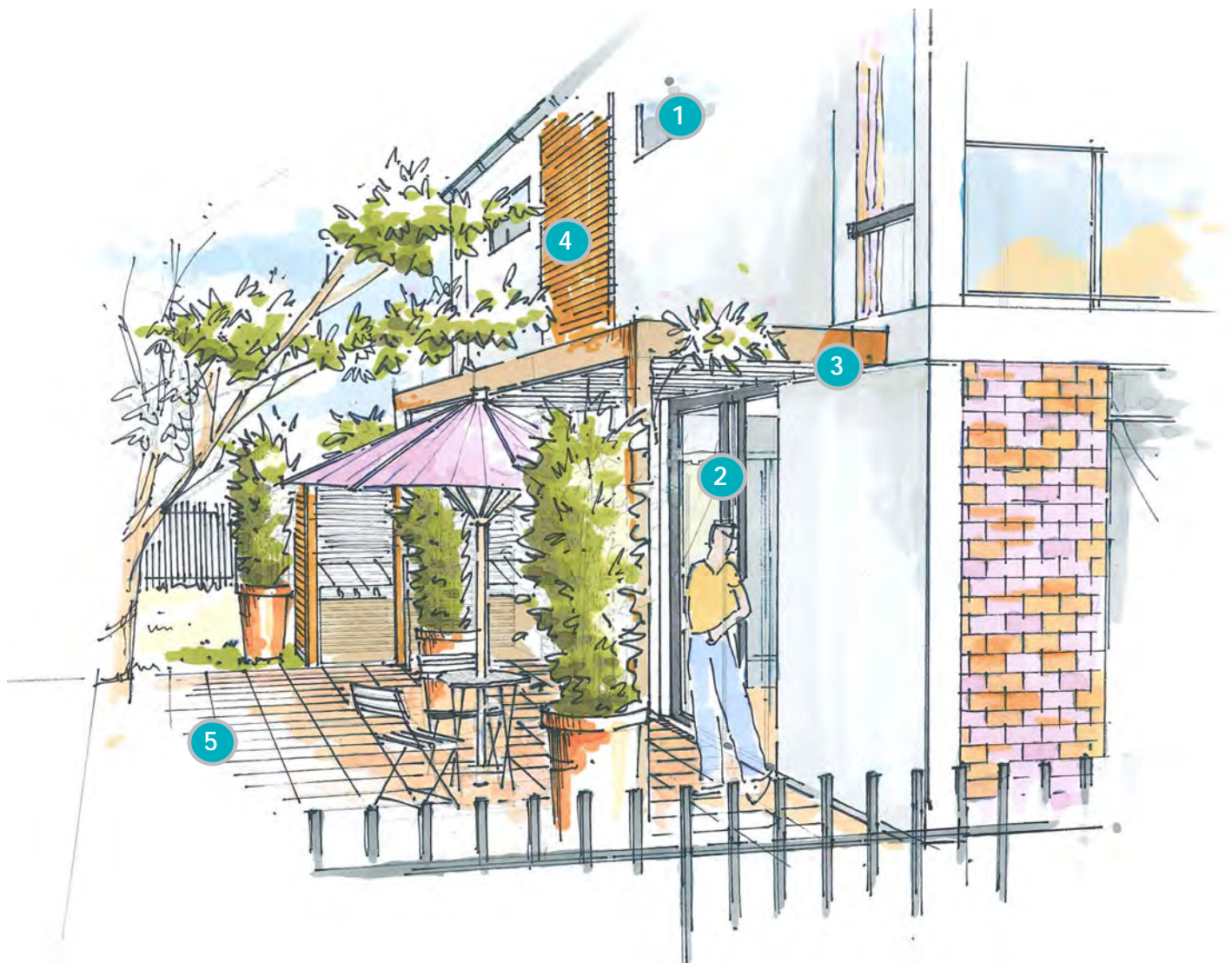
Windows, doors and material changes in the end elevation combine to avoid the adverse effects outlined above while providing a point of difference between units which may appeal to different residents. End units with additional windows or doors benefit from additional natural light. The units are typically on slightly larger lots where the additional space can be used as a sitting or play space.



Large blank walls should be avoided at the end of a row to avoid an incomplete look. Blank walls do not provide passive surveillance or an active amenity to the streetscape.



Windows provide natural surveillance over the adjoining public open space, playground and carpark.



End walls can provide additional value and amenity

DESIGN OPPORTUNITIES:

- 1 Windows in the end wall provide natural surveillance over the adjoining space.
- 2 Doors leading out into the side yard allow the space to be a usable outdoor living area .
- 3 A pergola provides visual interest and modulation as well as shade and shelter.
- 4 A material change assists with reducing the visual mass of an end wall.
- 5 The outside space provides additional amenity to residents and adds value to the house.

3.8 BUILDING MATERIALS

High quality materials and variation create visual interest and amenity

Building materials can strongly affect perceptions of quality as well as actual long-term maintenance requirements. Materials that require less maintenance with a longer design life are more suitable for higher density developments, particularly when multiple parties are involved. The durability of materials can be improved by ensuring adequate protection from the corrosive effects of the elements, e.g. by using eaves and flashing.



✓ Standard bricks provide a finer grain texture which is complemented with timber and steel cladding.



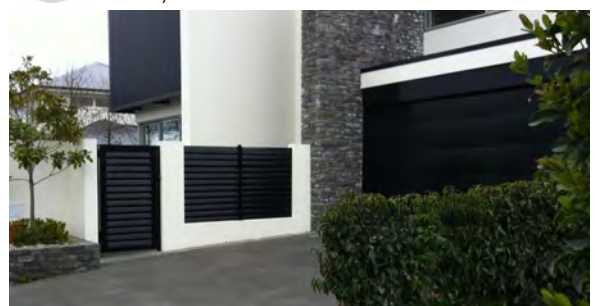
✓ Weatherboards, either timber or fibre cement board, provide a typical NZ cladding which is often in keeping with existing buildings.



✓ Fibre cement board and similar products provide a low maintenance solution with subtle changes providing variation.



✓ Timber cladding and material changes between units provides character. Each unit is clearly definable.



✓ The garage on the right has been clad in a black panel providing a strong contrast with the main house.

3.9 BIKE PARKING, STORAGE AND SERVICE AREAS

Bike parking, storage and service areas should be readily accessible, functional and screened

In the Suburban Mixed Use Activity Area all outdoor storage and service areas must be screened so that they are not visible from neighbouring residential sites or streets and public space. Rubbish storage areas in particular should be conveniently located and well contained to avoid odours affecting nearby residents. As residential developments become denser with a greater number of people living in a smaller area, the provision of space for bike parking, storage and servicing functions becomes more important. These spaces free up internal space by providing storage and space for recreational or maintenance equipment, larger household items or clothes lines. With larger developments, individual large 'wheelie' bins may not be practicable for each unit. Therefore options for communal storage and collection systems are encouraged. The placement of bins should aim to minimise adverse visual effects. Ideally bins should not be located in the front yard, but where this cannot be avoided they should be screened and should not affect access to the front door. They should be located away from main living areas, the street and neighbouring properties.



Lockable, readily accessible storage units, can easily be incorporated into a multi-unit development if considered at the design stage. In these examples the units are 2.4 x 1.0m allowing for AC units and bike parking as well as other equipment.



Bins, gas bottles and other equipment have been hidden behind timber screens but are integrated into the landscape design. Storage / service areas should be provided where they are either not visible from the street or screened. Development of communal storage areas for bins or use of alternative shared systems are encouraged for larger developments.

3.10 PRIVACY AND SAFETY

Encourage privacy and safety

Issues relating to a loss of privacy (whether actual or perceived) are often associated with the development of higher density projects. Many effects are the result of poorly designed developments where the indoor living areas of one unit look directly into the indoor or outdoor living area or an adjoining unit or where there is insufficient space between buildings. All of these effects can be mitigated either through building design, site layout, landscape elements or a combination of the three. Windows and doors should be oriented to the street and to shared spaces to provide an outlook while maintaining privacy for the dwelling.



Privacy and safety can be achieved with a mix of see-through and solid fencing

DESIGN OPPORTUNITIES:

- 1 Setting back balconies from the main wall as opposed to extending the balcony out forward of any party wall.
 - 2 Solid or semi-solid fencing between units to a height of 1.8m. Slat fencing can be used but slats must be close enough to ensure direct views through are minimised.
 - 3 Raising the ground floor level of the development above the street level to allow people to clearly see out but not in (not shown).
- Placing higher kitchen windows on the frontage so that occupants are often looking out over the street (not shown).
 - Design and locate verandahs, balconies and windows to avoid overlooking adjacent outdoor living areas of existing residential developments.

3.11 LANDSCAPING

Landscape materials (surfacing, letterboxes, seats, fencing) and planting, developed as part of low impact design solutions outlined earlier, should be low maintenance but of a quality and style which enhance the amenity of a development. They should be designed to integrate with the building development and site layout so that the site is used efficiently. Retaining existing vegetation, especially large trees, can give a development a sense of establishment and character.

The appearance of extensive paved or hardstand areas can be improved by adding detailing, material changes or different finish treatments such as honing or decorative saw cuts. Detailing can also be used to delineate car parking areas to avoid painted white lines.

Planting can be used to delineate property boundaries, giving a softer, more aesthetically pleasing appearance than a solid timber fence. Open fencing should be used where fencing is required but privacy is not an issue.

Suitably sized trees should be incorporated, including large trees where possible. Trees provide significant amenity and privacy.

Provision of a landscape plan is recommended. A landscape plan should outline hard surfaces (both permeable and impermeable), finishes, storage areas, lighting and planting including the location of any large trees. The following list contains suggests species that work well in urban Hutt City. Another useful resource is the Wellington Regional Native Plant Guide, available at GW.GOV.T.NZ

Note: Ground conditions, aspect and exposure to wind will need to be considered when selecting plant material. This list only provides a basic guide for getting started. As a general rule, a good grade for purchasing plants is PB3 or PB5. For trees, PB40 to PB95 is generally suggested.

E = Exotic **N** = Native

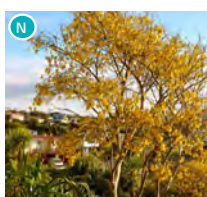
TREES (MEDIUM)



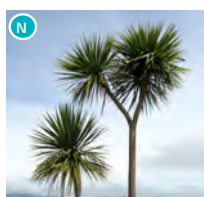
Gordonia
(*Gordonia yunnanensis*)



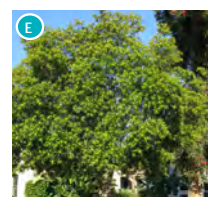
Lemonwood (tarata)
(*Pittosporum eugenioides*)



Kowhai
(*Sophora microphylla*)



Cabbage tree
(*Cordyline australis*)
(not in lawns)

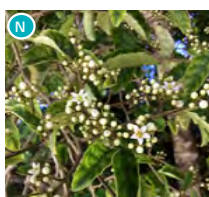


Water gum
(*Tristaniaopsis laurina*)

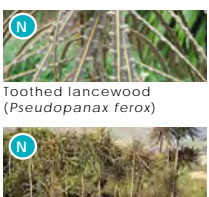


Five Finger (Puahou)
(*Pseudopanax arboreus*)

TREES (SMALL)



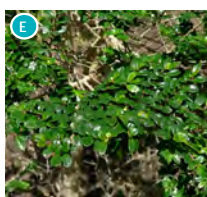
Marble leaf (Putaputaweta)
(*Carpodetus serratus*)



Toothed lancewood
(*Pseudopanax ferox*)



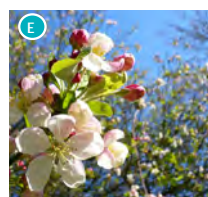
Lancewood (horoeta)
(*Pseudopanax crassifolius*)



Boxleaf azara / Vanilla tree
(*Azara microphylla*)



Camellia
(*Camellia sasanqua*)



Flowering crab apple
(*Malus tschonoskii*)



New South Wales
Christmas Bush
(*Ceratopetalum
gummiferum*)

SHRUBS (MEDIUM - SMALL)



Monro's daisy
(*Brachyglottis monroi*)



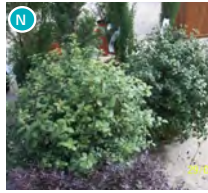
Rose
(*Rosa* - flower carpet form)



Rose 'Frau Dagmar Hastrup'
(*Rosa rugosa*)



Crimson rata (shrubby form)
(*Metrosideros carminea*)



Pittosporum 'Golf Ball'
(*Pittosporum tenuifolium*)



Mexican orange blossom
(*Choisya ternata*)



Silverbush
(*Convolvulus cneorum*)



Oakleaf hydrangea
(*Hydrangea quercifolia*)



Mingimingi
(*Coprosma virescens*)



Hebe
(*Hebe* spp.)



Marlborough rock daisy
(*Pachystegia insignis*)



Woolly grevillea
(*Grevillea lanigera*)



Viburnum
(*Viburnum x burkwoodii*)

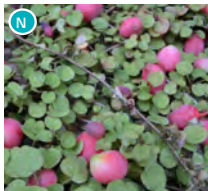
GROUNDCOVERS



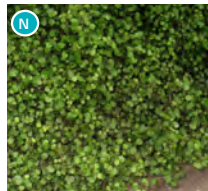
Rengarenga lily
(*Arthropodium cirratum*)



NZ iris
(*Liberia peregrinans*)



Creeping fuchsia
(*Fuchsia procumbens*)



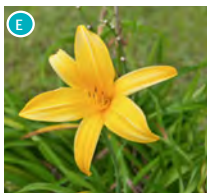
Pohuehue
(*Muehlenbeckia axillaris*)



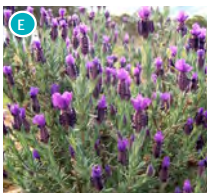
NZ daphne
(*Pimelea prostrata*)



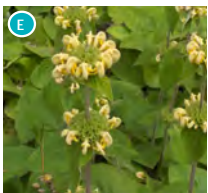
Heartleaf burgenia
(*Bergenia cordifolia*)



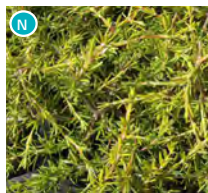
Day lily
(*Hemerocallis* spp.)



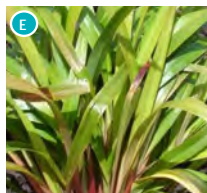
French lavender
(*Lavandula stoechas*)



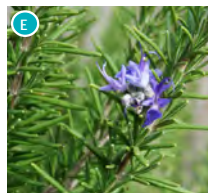
Jerusalem sage
(*Phlomis russelliana*)



Prostrate coprosma
(*Coprosma acerosa*
'Hawera')



Flax lily
(*Dianella* 'Tas Red')

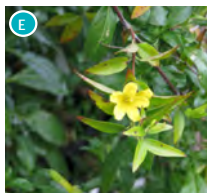


Rosemary
(*Rosmarinus officinalis*)

CLIMBERS



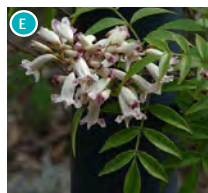
Clematis
(*Clematis armandii*)



Yellow jasmine
(*Gelsemium sempervirens*)



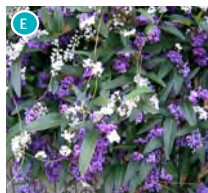
Climbing rata
(*Metrosideros carminea*)



Wonga wonga vine
(*Pandorea pandorana*)



Star Jasmine
(*Trachelospermum*
jasminoides)

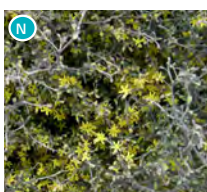


Happy wanderer
(*Hardenbergia violacea*)

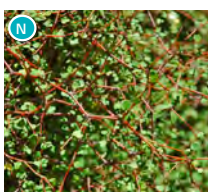
HEDGES



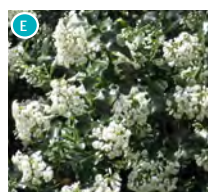
Coprosma Middlemore
(*Coprosma* 'Middlemore')



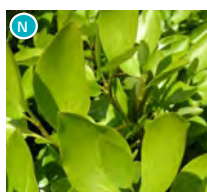
Korokia
(*Corokia* cultivars)



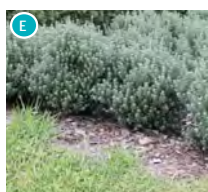
Shrubby tororaro,
Mingimingi
(*Muehlenbeckia astonii*)



Escallonia
(*Escallonia* cultivars)



Broadleaf, Kapuka
(*Griselinia littoralis*)

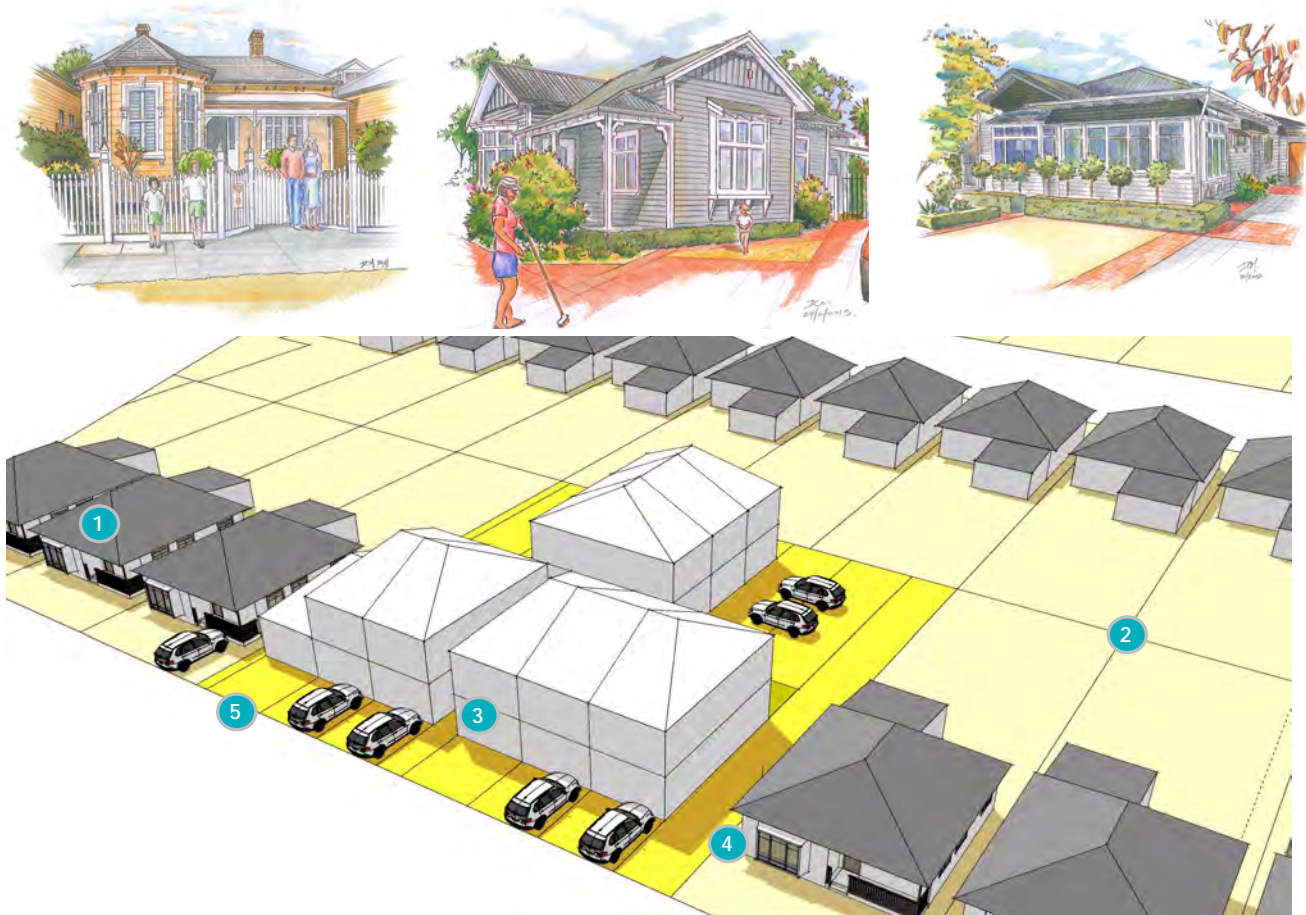


Grey box
(*Westringia* 'Grey Box')

3.12 HISTORIC CHARACTER IN PETONE-MOERA

Recognise the historic character of adjoining properties and the neighbourhood within Petone-Moera

Petone-Moera has a historic character resulting from the underlying cadastral pattern, block size, cohesive age and condition of many buildings, and building placement. When designing a new development of a higher density it is important to recognise the underlying characteristics of the neighbourhood and how these can be incorporated into a new design. The sketch below shows how a Comprehensive Residential Development could approach a site layout, respecting the existing historic character but providing additional housing options:



Providing intensification while respecting the underlying cadastral pattern

DESIGN OPPORTUNITIES:

- 1 Take design cues and incorporate architectural references from existing proportions, forms, roof pitches and angles, patterns, materials and embellishments on historic buildings adjacent to the development site.
- 2 Recognise the underlying shape and form of the existing cadastral pattern;
- 3 Attempt to maximise the number of dwellings addressing the street while minimising the visual impact of vehicle parking and manoeuvring on the streetscape character - the design should reflect the existing character;
- 4 Acknowledge building setbacks from both front and side boundaries, noting in older areas these can be relatively small;
- 5 While fencing is not controlled in the district plan, recognise its influence on the character of the streetscape

STEP 4

DESIGN STATEMENT



SMU



MDR



GR

The Design Statement forms part of your resource consent application. Your Design Statement should discuss the relevant provisions of the District Plan, the relevant design principles and key design elements of the MDDG and show how your development proposal is addressing effects beyond the boundary and leading to high quality built environments.