

**COVER PAGE**



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# 1 | PURPOSE

The purpose of this guide is to provide urban design guidance to inform the design of new medium and high density residential development (generally referred to as intensive residential development for the purposes of this guide) that responds to the Upper Hutt context. Such development includes townhouses as well as terraced, multi-unit housing and apartments.

## Who is it for?

The guide applies to anyone involved in the design and construction of intensive residential development in the city, including architects, designers, developers and property owners. It will also be used by Upper Hutt City Council staff to assess new intensive residential development proposals to ensure that they are responsive to the local context and result in buildings and associated spaces that are liveable and attractive.

## Why?

With a heightened emphasis on higher density living to meet the city's future growth needs, ensuring that good quality design outcomes are also delivered becomes increasingly important. As Upper Hutt continues to change and adapt to cater for these needs it is critical that the potential visual, privacy and/or amenity impacts of larger scale development is properly managed, particularly on sites or in neighbourhoods that are spatially constrained.

## Where does it apply?

To provide greater lifestyle choice the Upper Hutt District Plan includes provisions that enable more intensive development in the city's residential areas. The design guidance that follows applies to residential development within the General Residential Zone and High Density Residential Zone as identified in the plan.

UHCC  
DISTRICT  
PLAN

BEST  
PRACTICE

DESIGN  
GUIDELINES

# 2 | DESIGN GUIDE STRUCTURE

The guide does not prescribe development requirements but instead supports and complements the design outcomes sought for residential development in the Upper Hutt District Plan (e.g. form and appearance, amenity). It outlines the key features that characterises intensive residential development and offers practical advice to guide such development using best practice principles and relevant examples.

Supporting photographic examples and indicative diagrammatic interpretations are provided showing how these considerations can be met.

The guidelines apply to any area that is defined as suitable for medium density and high density residential development in the Upper Hutt District Plan. As the guidelines are based on a relatively universal set of urban design principles, most are applicable to residential development at a variety of scales.

Key design considerations are divided into fourteen contributory elements split across three themes as follows:

- » **Site Layout** covers the design elements that are related to effects of development at a site scale.
- » **Built Form & Character** covers elements related to the appropriateness of the building design.
- » **Sustainability and amenity** cover the elements that contribute to living comfort and environment

**6 DESIGN ELEMENTS**

**6.1 SITE LAYOUT**

**Setback & frontage**

The configuration of a development on a site and its relation to adjoining public space is an important consideration to ensure good amenity and reduce overshadowing and privacy effects on adjoining sites. Having a defined front and back, as well as a clear delineation between public, semi-public and private spaces contributes to the legibility of the site and street.

The setback and frontage of a building also contribute to a socially active and safe environment, while the front yard provides additional amenity for residents and a setting for the dwelling.

- Where possible, buildings should be orientated with the front of the dwelling(s) facing the street or public space.
- Where possible, dwellings should be configured so that there are habitable spaces located at the front of the building, with an outlook from ground and upper storey windows or balconies enabling natural surveillance.
- Public, semi-public and private spaces should be clearly defined and front yards kept to a minimum. Yards not only provide amenity or outdoor living space for residents but act as a buffer between public and private space - they also provide a means of passive surveillance of public and communal open spaces. Private spaces generally contained by taller solid fencing or vegetation should be located to the rear or the side, depending on site shape and orientation.
- Where a building of three or more storeys is built to the street edge, consider setting back the upper storeys to maintain a human scale at ground level and increase privacy for upper storey units.
- Special consideration should be given in any mixed use development to the appearance of the ground floor and relationship with the street and pedestrian network. The facade should be visually interesting, preferably with a transparent appearance and contribute to an active street edge.

**MIXED USE**

PHOTO 1 - AMBERLEY GARDENS (SILVERSTREAM, UPPER HUTT)

- Reference to associated design principles*
- Context and purpose of the design element*
- Explanatory diagrams*
- Captions highlighting guidelines in practice*
- Guidelines*
- Typology indicator*
  - M Up to three storeys
  - H Four or more storeys
- Example photos*
- Mixed use considerations*

# 3 TYPOLOGIES



Single dwelling

Single dwellings on either a conventional or infill site - this is the predominant residential development type in the city. They can also be a contributor to medium density development, providing diversity and increased housing choice.



Dual occupancy

Two dwellings that are fully or partly attached. They can be duplex dwellings that share a common wall or include a unit that occupies an upper storey. Units in dual occupancy generally have their own separate entry.



Multi dwelling housing / townhouses

Three or more dwellings on a single site, each with separate access at ground level and private open space. They can either be fully attached (terraced) or a collection of semi-detached buildings. Dwelling frontages generally align with an adjacent public road or internal street.



Multi unit dwelling

A single building, with one or more entries, that contains three or more units up to a maximum of four storeys. These units can have (a combination of) private and/or shared open space.

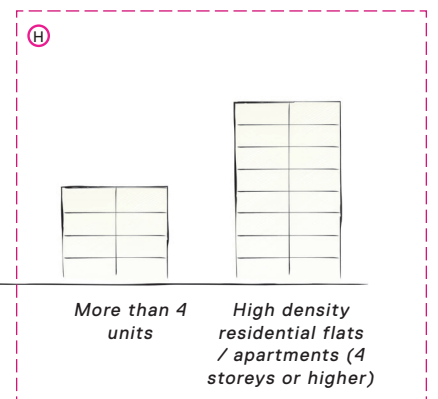
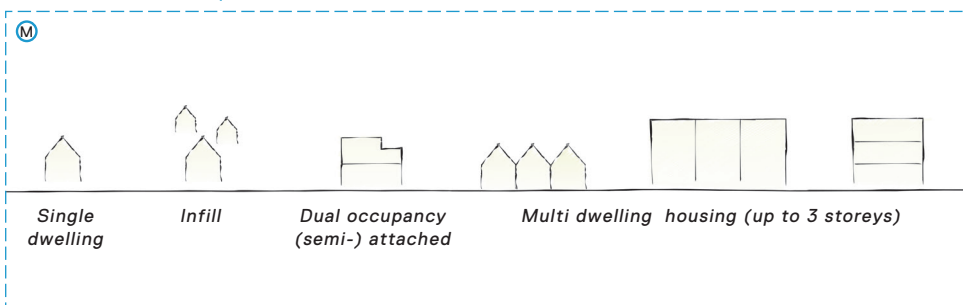


High density / apartments

A multi-storey apartment building or group of buildings between 5 to 10 storeys that contains multiple units, often with shared open space and the potential for mixed use on ground floor.

More than three storeys and/or three units - Design Guide applies and resource consent required

Permitted up to three dwellings of three storeys - Design Guide applies when resource consent is required



How we design our buildings and the relationship they have with the street and surrounding neighbourhood has a considerable bearing on the way we live, work and meet. The following design principles have been developed to encourage high quality design that contributes to the future character of Upper Hutt and provides an attractive and comfortable living environment for users, residents and visitors.

## F

### POSITIVELY RESPOND TO FUTURE CONTEXT

- » Contribute positively to the natural and built environment of the area in line with its anticipated and evolving future context
- » Recognise and positively respond to the existing and anticipated future character of the streetscape and neighbourhood

## B

### APPLY APPROPRIATE BUILT FORM & DESIGN

- » Achieve a scale, bulk and height appropriate to the existing and anticipated future character of the street and surrounding buildings
- » Provide a suitable balance between built form and design through maintaining a good composition of elements, internal layout, building materials and colours
- » Enable natural surveillance of the public domain while providing for visual privacy to residents

## A

### PROVIDE AMENITY

- » Contribute to creating positive living environments that enrich residents wellbeing
- » Ensure building orientation enables appropriate access to sunlight, outlook, attractive indoor and outdoor spaces
- » Establish a well-designed green space that positively contributes to the (social) living experience and surrounding landscape character
- » Provide good accessibility that caters for all age groups and degrees of mobility

## D

### FOSTER DIVERSITY & SOCIAL INTERACTION

- » Provide a range of housing choice to serve the needs of different cultural groups, ages and stages, lifestyles and household budgets
- » Respond to the social context by encouraging a range of dwelling sizes to suit the existing and future mix of residents
- » Provide opportunities for social interactions through communal open space and an attractive and social interface with the street

## S

### ENCOURAGE SUSTAINABILITY BY PASSIVE DESIGN

- » Improve the liveability for residents by providing natural ventilation and sufficient sunlight access
- » Reduce energy usage and cost by carefully considering building location, orientation and design to allow for passive solar gains and natural ventilation
- » Allow landscape elements to enhance the environmental performance of the site, contributing to an integrated and sustainable green network





DESIGN PRINCIPLES	POSITIVELY RESPOND TO FUTURE CONTEXT <b>F</b>	APPLY APPROPRIATE BUILT FORM & DESIGN <b>B</b>	PROVIDE AMENITY <b>A</b>	FOSTER DIVERSITY & SOCIAL INTERACTION <b>D</b>	ENCOURAGE SUSTAINABILITY BY PASSIVE DESIGN <b>S</b>
<b>SITE LAYOUT</b>					
Setback & frontage	■	■		■	■
Access & car parking		■		■	
Outdoor living & (communal) open space			■	■	
Stormwater management					■
Storage, waste & service areas			■		■
<b>BUILT FORM &amp; DESIGN</b>					
Building mass and height	■	■			■
Building entrances & balconies		■		■	
Garages	■	■			
Building design & materials		■	■	■	
Building diversity	■	■		■	
<b>AMENITY &amp; SUSTAINABILITY</b>					
Landscape treatment			■	■	■
Sunlight access		■	■		■
Energy efficiency			■		■
Privacy & safety		■	■		



# 5 DESIGN ELEMENTS

## 6.1 SITE LAYOUT

F B D S

### Setback & frontage

The configuration of a development on a site and its relation to adjoining public space is an important consideration to ensure good amenity and reduce overshadowing and privacy effects on adjoining sites. Having a defined front and back, as well as a clear delineation between public, semi-public and private spaces contributes to the legibility of the site and street.

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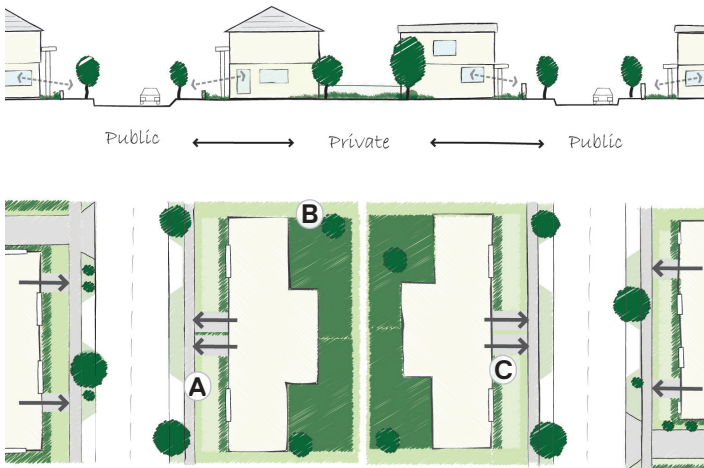


DIAGRAM 1 - FRONTAGE AND BUILDING ORIENTATION

- A** Dwellings should have a clear frontage that addresses the street/public space along with a clear area to the rear
- B** A clear delineation between private and public space
- C** Front yard acts as a buffer between private and public space
- D** Access directly from the street with a visible house number and letter box

1. Where possible, buildings should be orientated with the front of the dwelling(s) facing the street or public space. M H
2. Where possible, dwellings should be configured so that there are habitable spaces located at the front of the building, with ground and upper storey windows or balconies providing an outlook that enables passive surveillance. M H
3. Public, semi-public and private spaces should be clearly defined and front yards kept to a minimum. Yards not only provide amenity or outdoor living space for residents but act as a buffer between public and private space - they also provide a means of passive surveillance of public and communal open spaces. Private spaces generally contained by taller solid fencing or vegetation should be located to the rear or the side, depending on site shape and orientation. M
4. Where a building of three or more storeys is built to the street edge, consider setting back the upper storeys to maintain a human scale at ground level and increase privacy for upper storey units. M H

#### MIXED USE

5. Special consideration should be given in any mixed use development to the appearance of the ground floor and relationship with the street and pedestrian network. The façade should be visually interesting, preferably with a transparent appearance and contribute to creating an active street edge. M H



PHOTO 1 - AMBERLEY GARDENS (SILVERSTREAM, UPPER HUTT)

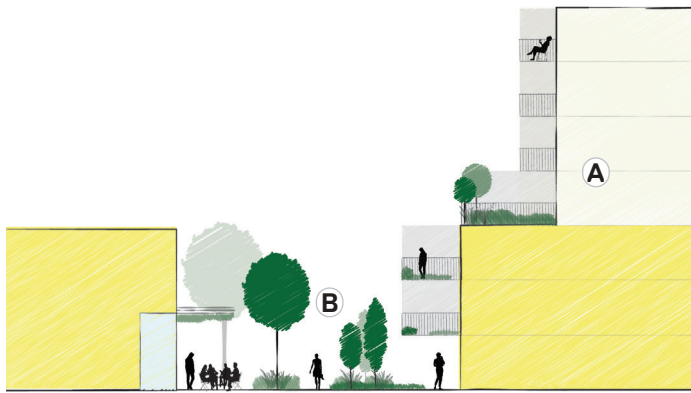


DIAGRAM 2 - GROUND FLOORS DESIGNED TO SUPPORT A HUMAN SCALE AT STREET LEVEL

- A** Upper storeys are set back to reduce the perceived density on street level
- B** Landscaping in between buildings increases an intimacy and creates a softer people oriented space



PHOTO 2 - ON STREET PARKING ALONG INTERNAL STREET (MILLBROOK, OTAGO)



PHOTO 3 - LANDSCAPING AND RAIN GARDENS IN CENTRALISED PARKING (PICTON)

### Access & car parking

The location, type and design of pedestrian and vehicle access points can have a significant bearing on the streetscape, site layout and building façade design. Considering alternative modes of transport and maximising opportunities for cyclists (e.g. bicycle parking) can also help ease pressure on car parking.

Circulation networks should be legible and provide a safe environment for pedestrians and cyclists.

- 6. If on street parking is provided it should not conflict with active mode infrastructure (e.g. walking, cycling). On street parking reduces the number of footpath crossings, increases pedestrian safety, and enables available parking space to be flexibly used by a variety of users.

M H

- 7. Provision of off street parking between buildings and the street is discouraged as it reduces the dominance and presence of individual dwellings and the overall visual coherence of the streetscape.

M H

- 8. On site parking for medium density, high density or mixed use developments is encouraged to be below grade. Any parking provided above grade should be screened from the street view by evergreen planting.

M H

- 9. Outdoor centralised parking should be landscaped to provide amenity, and be designed to offer safe and comfortable pedestrian routes.

M H

- 10. Hard surface parking or large impermeable surface areas should be minimised to reduce visual dominance.

M H

- 11. The use of landscaping is encouraged to prevent car parking dominating views from the street.

M H

- 12. Pedestrian access should be differentiated from vehicle access through variation in surface treatment or texture. Preferably, pedestrian and vehicle access should also be separated by a buffer such as vegetation or a raised surface.

M

- 13. Multi-unit developments on large or deep sites should preferably be accessed from new streets and lanes, rather than long driveways. The frontage of dwellings along internal streets should be treated in a similar fashion to frontage onto a public street.

M H



DIAGRAM 3 - PROVIDE ON STREET CAR PARKING WHERE POSSIBLE



DIAGRAM 4 - ON SITE CAR PARKING INTEGRATED INTO DESIGN

- A** On street car parking enables parking spaces to be re-used by different users
- B** Clear separation in surface treatment between driveways and pedestrian access
- C** Landscaping can be used to soften the outlook onto hard surfaces

14. Large building blocks should create pedestrian connections between streets where possible. A fine grained block pattern encourages more intensive pedestrian use and enables the development of comfortable and sheltered public open spaces or walking routes.

M H

15. Internal streets or rear lanes providing access to parking should be designed to be safe for active modes of transport (e.g. pedestrians, cyclists) and contribute to the amenity and attractiveness of the site. This can be achieved by incorporating landscape elements, bollards and variation in paving treatment into the design.

M H

#### MIXED USE

16. Pedestrian circulation should be given particular design consideration in any mixed use development, including provision of inviting and suitably sized gathering spaces.

M H

A D

#### Outdoor living & (communal) open space

Outdoor open space is an important consideration when designing intensive residential developments and should be considered early on in the design process to ensure it is an integral part of the development.

Higher densities often result in a reduction in the amount of outdoor space available to residents, influencing the sense of privacy and level of individual amenity experienced. Outdoor space allows residents to be able to enjoy a range of activities, express personal and creative identity around their property and, in the case of communal open space, provide for casual social interactions.

17. Where possible, provide good direct access from primary habitable living spaces (such as lounge or dining areas) to private or communal outdoor spaces (or outlook in the case of upper floor apartments). This adds to internal amenity and sense of space and encourages the use of available outdoor areas.

M H

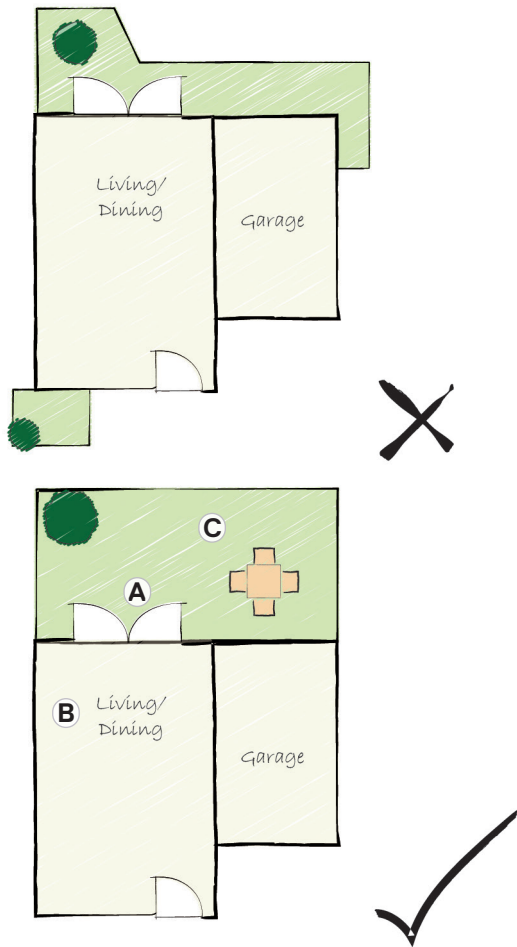


DIAGRAM 5 - ENSURE THAT OUTDOOR OPEN SPACES ARE USABLE AND OF AN APPROPRIATE SIZE

- A** Good access from indoor to outdoor, with integration of ramps into the design where necessary
- B** Where possible link indoor indoor habitable spaces with outdoor space
- C** Practical dimensions that allow for recreation or seating



PHOTO 4 - COMMUNAL OUTDOOR SPACE (KUPE STREET HOUSES, AUCKLAND)

18. Consider using decks or balconies as outdoor living space where access to ground floor private open space is not possible. Taller developments are encouraged to consider use of the roof as communal outdoor open space, enabling increased access to available sunlight and views. M H
19. Outdoor spaces should offer privacy to users, and be orientated to maximise sunlight access that enables a comfortable outdoor environment that can be enjoyed throughout the year. M H
20. Allow outdoor space to be optimally used by carefully considering the dimensions and location of the space. Wide or square spaces (i.e. ones that allow for the placement of outdoor furniture) are more efficient than long and narrow spaces. M H
21. Include screening devices and strategic landscaping to increase privacy, limit outlook into adjacent private properties or prevent the space from being directly overlooked by neighbouring properties. M H
22. The size of any communal space should correspond to the number of residents it is intended to serve, be equally accessible to use by all units. It should also encourage opportunities for social interactions between users by incorporating seating, barbecue, sporting or play equipment into the design. M H



PHOTO 5 - COURTYARD AS OUTDOOR OPEN SPACE FOR APARTMENT UNITS (BEAUMONT QUARTER, AUCKLAND)

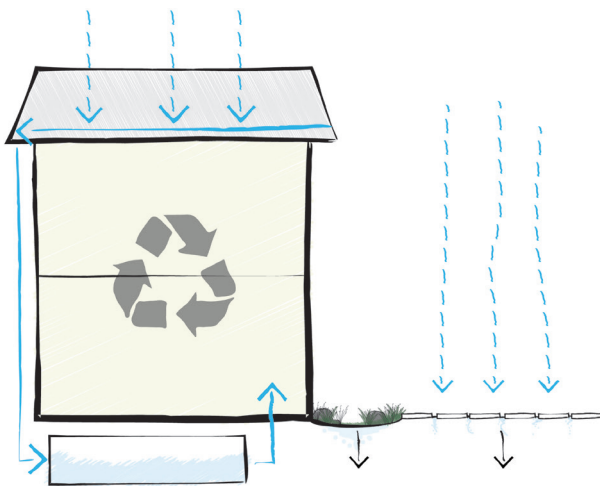


DIAGRAM 6 - INCORPORATING STORMWATER MANAGEMENT



PHOTO 6 - RAIN GARDEN (ROLLESTON)



PHOTO 7 - PERMEABLE PAVING (WELLINGTON)

### Stormwater management

Stormwater is rain that runs off hard surfaces such as parking lots, driveways or rooftops and flows into stormwater drains or natural streams. Incorporating low impact stormwater measures into the design reduces the potential for this runoff to be contaminated and reduces the pressure on Council owned stormwater infrastructure during peak stormwater discharges.

Best practice water management considers water sensitive urban design measures at all stages of the building process. Early consideration during the design phase can help to enhance their cost effectiveness.

In large scale subdivisions (e.g. greenfield) stormwater management is best dealt with at a catchment level.

23. Minimise the use of impermeable surfaces to manage and dispose of on-site stormwater. The use of permeable paving in locations such as parking spaces/areas is encouraged. M H
24. Where possible, consider the use of swales, green roofs or rain gardens to collect, treat or reduce stormwater. M H

A

S

### Storage, waste & service areas

Integrating storage, waste and service areas into the overall site design can have a beneficial effect on the amenity and quality of a development. Considering how waste is managed, stored and collected, as well as the location of storage and service areas, helps to minimise visible clutter that could create lower standards of amenity and poorer impressions of an area.

25. Outdoor storage space should be provided that is proportionate to the size of the dwelling. Providing opportunities for outdoor storage of recreational and maintenance equipment and/or other large household items can increase the efficient utilisation of indoor storage space. M

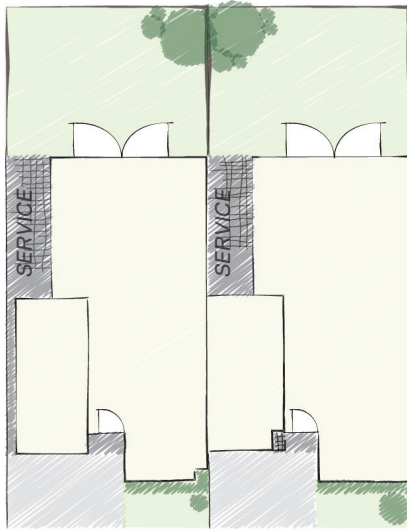


DIAGRAM 7 - SERVICE AREAS INCLUDED IN THE DESIGN

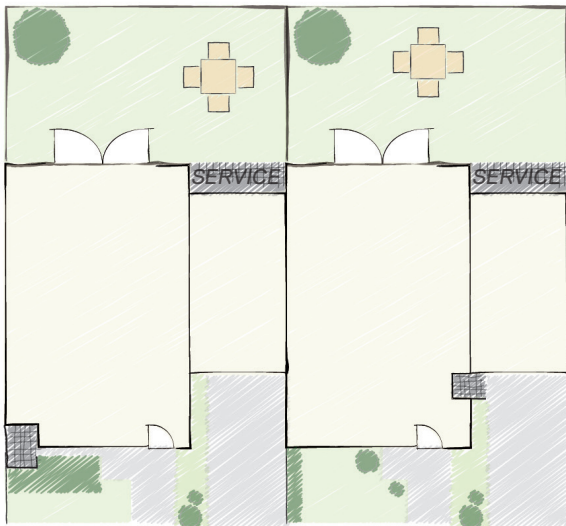


DIAGRAM 8 - SERVICE AREAS INCLUDED IN THE DESIGN



DIAGRAM 9 - SERVICE AND DELIVERY AREAS FOR MIXED USE PREFERABLY LOCATED AWAY FROM PEOPLE ORIENTED AREAS

26. Ensure that the location and size of storage, waste and service areas does not restrict onsite pedestrian movement or create potential health and/or safety risks. M H
27. Integrate waste and personal storage areas into the building design and ensure that they are of a sufficient size relative to the number of units. Waste areas should be able to accommodate all waste bins and have a clear connection to the collection area. M H
28. Position storage and service areas in locations that are obscured from public view. Storage in any areas set aside for car manoeuvring should also be discouraged. M H
29. Areas set aside for wheelie bins or rubbish storage and collection should be integrated into the development in a way that is visually discrete and be located away from commonly used areas to prevent the impact of odour or leakage. On sites where access to the side or rear of a dwelling is limited, locating the rubbish storage area to the front of the site can provide a useful alternative provided visibility from the street is mitigated by appropriate landscaping or screening. M H
30. Communal storage spaces should be accessible from common circulation spaces such as hallways or laundry rooms. M H

*MIXED USE*

31. Delivery and rubbish collection areas for commercial activities should preferably be located at the rear or side of the building, away from residential activities or pedestrian movements. M H

## 6.2 BUILT FORM & DESIGN

F B S



DIAGRAM 10 - BUILDING HEIGHT AND ROOFTYPES



PHOTO 9 - BREAK UP OF MASS THROUGH FAÇADE AND ROOF ARTICULATION (WALLACEVILLE, UPPER HUTT)

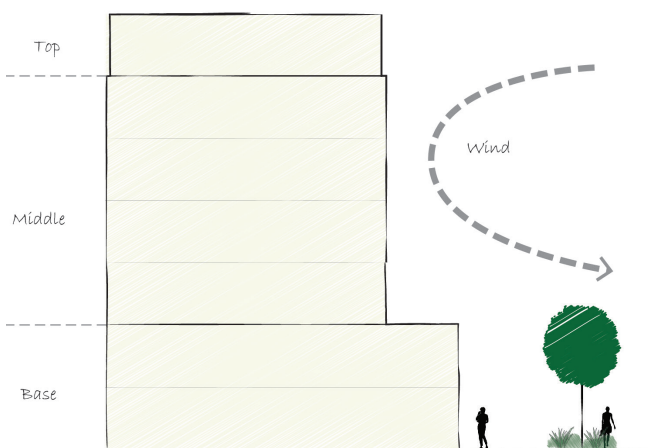


DIAGRAM 11 - BUILDING MASS FOR TALL BUILDINGS BROKEN DOWN INTO A 'BASE', 'MIDDLE', 'TOP'

### Building mass and height

Building height contributes to achieving more intensive residential development as it can enable more effective utilisation of a site while maintaining a low ecological footprint. A visually attractive design can help to mitigate any potential adverse effects arising as a result of building height and/or bulk.

32. Building mass/bulk and height should be designed to create visual interest and minimise physical dominance or potential shading or privacy effects on neighbouring properties.

M H

33. Minimise the potential impact of building bulk by reducing the floor area of upper levels or stepping them back from the street. Building mass can also be visually reduced by introducing variation in façade treatment (for example, balconies, shading devices or porches) or the effective use of landscaping.

M H

34. Reduce the effect of building mass by breaking the form of the building up into a 'base', a 'middle' and a 'top'. Setting back the upper storeys from the base helps to create a pedestrian scale at street level and also reduces wind turbulence at ground level.

H

35. A varied roof form that is integrated with the design of the upper storey can further reduce the bulk and visual impact of the building and can provide a visually diverse building silhouette.

M H

*(Also refer guideline 55)*

36. To reduce visual monotony long linear or blank walls without windows, doors or associated design features should be avoided. Long continuous roof ridgelines are also discouraged.

M H

37. Increasing building height on corner sites emphasises the corner and creates a focal point, providing visual interest that supports legibility and wayfinding without unduly affecting adjacent buildings.

M H

*(Also refer guideline 53)*





PHOTO 10 - PROVISION OF A CLEAR ENTRANCE AND BALCONY FRONTING THE STREET (NORTHWOOD, CHRISTCHURCH)



PHOTO 11 - DIFFERENCE IN ENTRANCE DESIGN BETWEEN RESIDENTIAL AND COMMERCIAL ACTIVITIES (PETONE, LOWER HUTT)

## Building entrances & balconies

The entrance to a building makes an important contribution to the way a building is experienced. Balconies and entrances provide visual interest by breaking up a façade; they also add a human scale to intensive residential developments and can positively contribute to the overall appearance of a building when designed well. Visible activity on the ground floor and street facing façade enhances public safety through passive surveillance and creates opportunities for social interaction.

Balconies also offer a good way of providing outdoor open space on a street facing façade and contribute to reducing the noticeable bulk effect of a building.

38. Where there are multiple dwellings on a site consider subtle variation to entrances (e.g. colour, design), or enable occupants to personalise in order to differentiate units and increase legibility.

M

39. Ensure entrances (as well as address and letterbox) are clearly defined and visible from the street to enable them to be easily located and accessed.

M H

40. Entrances that serve high density development should provide sufficient space for people to gather (e.g. small entry plaza) and include signage and landscape treatment that enhances the legibility of the entrance location. Indoor lobby spaces should have a clear visual and physical connection to the street.

H

41. Entrances should be designed to provide all weather shelter (e.g. canopies or overhangs) with suitable lighting incorporated into the design.

M H

42. Ensure privacy and weather protection are considered when providing any outdoor balcony space.

M H

43. Provide screening where unit balconies adjoin to increase privacy.

M H

44. Solid screening should be considered for any balconies large enough to be used for storage of bicycles and/or large items. M H

**MIXED USE**

45. Entries to any ground floor commercial activities should have a distinct appearance and designed in a way that differentiates them from entrances to residential units. M H

**F B**

**Garages**

Garages should be sensitively integrated into any development as they can have a significant impact on its overall layout and design as well as on the associated streetscape.

46. Any garaging forming part of an overall development should be designed to be consistent with the style of the dwelling(s). M

47. Garages and carports should be set back from the front façade of any dwelling to minimise visual dominance and increase visibility of main pedestrian entries. Designing garaging that is narrow and visually recessive can also help to reduce the extent to which it dominates the associated dwelling. M

48. Where possible, garages, carports and associated driveways should: M
- a. reflect the rhythm and consistency of the street frontage
  - b. be located to minimise interruption of pedestrian movements along footpaths

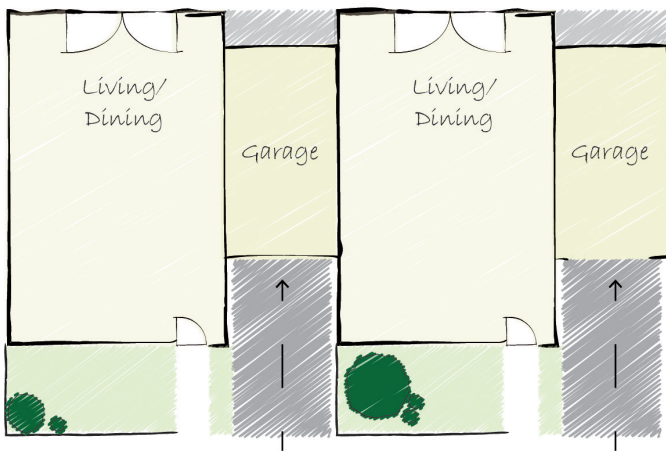


DIAGRAM 12 - GARAGE SET BACK FROM THE BUILDING FRONT



PHOTO 12 - CONSISTENT PATTERN OF GARAGES WITHOUT DISRUPTING PEDESTRIAN MOVEMENT ALONG THE FOOTPATH (HOBSONVILLE, AUCKLAND)



PHOTO 14 - VARIATION IN COLOUR, ROOF TYPES AND MATERIALS (HOBSONVILLE, AUCKLAND)

### Building design & materials

Building design and use of materials make an important contribution to the effective integration of intensive residential development into an existing street environment.

The main factors that influence the appearance of a building are scale, modulation and the articulation of its form and façade. The choice of materials used can also affect the appearance of a development, how well it performs and endures over time and its ongoing sustainability and resilience.



PHOTO 13 - CHOICE OF MATERIALS AS AN INTEGRAL PART OF THE DESIGN (WHITEMANS VALLEY, UPPER HUTT)

49. The design, type and location of the building on a site, as well as the choice of materials used, should recognise and reflect the level of intensification planned for the surrounding area. In relation to the surrounding environment, consideration should be given to:

- a. setback from the street;
- b. scale and bulk;
- c. roofline;
- d. complementary materials and colours;
- e. planting; and
- f. presence of heritage.

50. Building features and elements should be integrated and considered as part of a single, coherent design. This includes elements such as roofline, articulation of the façade (including balconies and frequency of windows and doors), maintenance systems and service spaces.

51. Consider lighting and signage elements as an integral part of the design early in the design process.

52. Consider views of the rear and side façades of the building, particularly where there is a transition to a lower density environment.

53. Consider increasing the visual prominence of buildings on corner sites through the use of different materials, colours or roofline.

*(Also refer guideline 37)*



PHOTO 15 - PONSONBY, AUCKLAND  
DIFFERENCE IN TREATMENT OF GROUND LEVEL AND UPPER STOREYS IN RESPONSE TO PEDESTRIAN SCALE



PHOTO 16 - PETONE, LOWER HUTT



PHOTO 17 - ROOF FORM INTEGRATED WITHIN THE DESIGN OF THE TOP STOREY

54. Use robust materials that are easy to maintain and retain their long term appearance. This is particularly important in areas that are prone to increased wear such as communal spaces.

M H

55. Rooflines can have a significant impact on the composition of a building and can provide variety and a sense of identity when applied to a row of dwellings. The roof form (pitched, flat or a combination) should complement the existing or emerging character of the surrounding area.

M H

M H

*(Also refer guideline 35)*

**MIXED USE**

56. Where a mix of uses are proposed, the ground level treatment and appearance of the building should respond to the physical context at street level and positively contribute to the pedestrian experience.

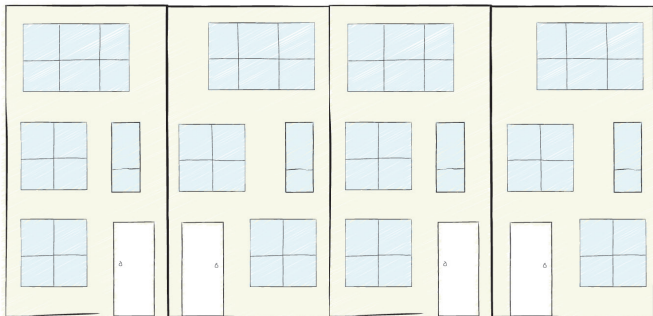


DIAGRAM 13 - LEGIBLE ENTRANCE AND BALCONIES CONTRIBUTE TO ATTRACTIVE BUILDING DESIGN

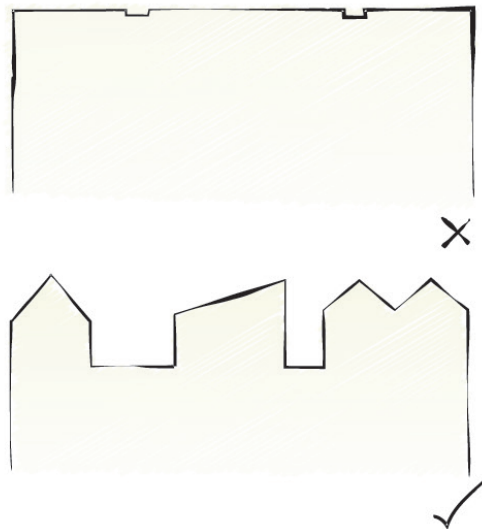


DIAGRAM 14 - REDUCE BULK BY ADDING VARIETY TO THE ROOFLINE



DIAGRAM 15 - VARIATION IN BUILDING SIZE AND TYPE

### Building diversity

Providing diversity of dwelling type and size offers increased accommodation choice catering to a variety of needs ranging from income level and household size through to demographic and cultural requirements. Units that appeal to a broad range of ages and stages are also more likely to withstand significant changes in the market.

Additionally, diversity provides improved opportunities for existing residents to move within their local community as and when their housing needs and requirements change.

The development of apartments or multi-unit housing can be an effective way of achieving higher density while retaining sufficient space for outdoor use, particularly on sites with size constraints.



PHOTO 18 - PROVISION OF A RANGE OF BUILDING SIZES AND TYPES CATERING TO A VARIETY OF DIFFERENT LIFESTYLES (DELAMAIN, CHRISTCHURCH)

57. Dwelling and unit sizes should be carefully considered and suit the context. Where possible, a range of dwelling or unit sizes should be considered (providing a variety in number of rooms or housing typologies) to cater for a variety of financial, demographic or accommodation needs.

M

58. Consider developing buildings that are adaptable and that can be flexibly used or reconfigured over time without the need for major change.

M H

## 6.3 AMENITY & SUSTAINABILITY

A D S



DIAGRAM 16 - LANDSCAPING USED TO SOFTEN HARD EDGES AND IMPROVE OUTLOOK

### Landscape treatment

Landscape design can greatly improve the amenity, experience and integration of intensive residential development into a street or neighbourhood. The implementation of carefully considered landscape design can help to enhance different design elements, such as the screening or softening of hardstanding areas (driveways, parking, services areas), mitigate the effects of building bulk and offer amenity and environmental benefits.

Coordinating landscaping early in the building and site design process can increase opportunities to more effectively integrate landscape treatment into outdoor open space, traffic circulation routes, service locations and the interface between the public and private domain.



PHOTO 19 - APPROPRIATE LANDSCAPING CAN HELP TO MITIGATE NEGATIVE EFFECTS OF FENCING OR BLANK WALLS (REGENT PARK, WELLINGTON)

59. Where possible, existing mature and healthy vegetation should be retained and integrated into the site development.

M H

60. Use planting to improve the outlook from dwellings and the street and to soften hard surface areas such as car parks, service areas or along internal site boundaries and driveways/shared accessways.

M H

61. Use hedges or climbing plants where space is constrained and larger vegetation where sufficient space and access to rainwater is available.

M H

62. Choose plants that are appropriate to the climatic conditions and character of the area; planting species that require low maintenance and attract local bird life is also encouraged.

M H

63. Deciduous trees provide shade in summer and light in winter, but careful consideration should be given to species selection in heavily shaded areas to ensure survivability.

M H

64. Use of hard landscape elements such as low walls, kerbs or raised beds is encouraged as these can provide protection to plants and, where integrated into the site design, can add to the visual amenity of outdoor spaces.

M H

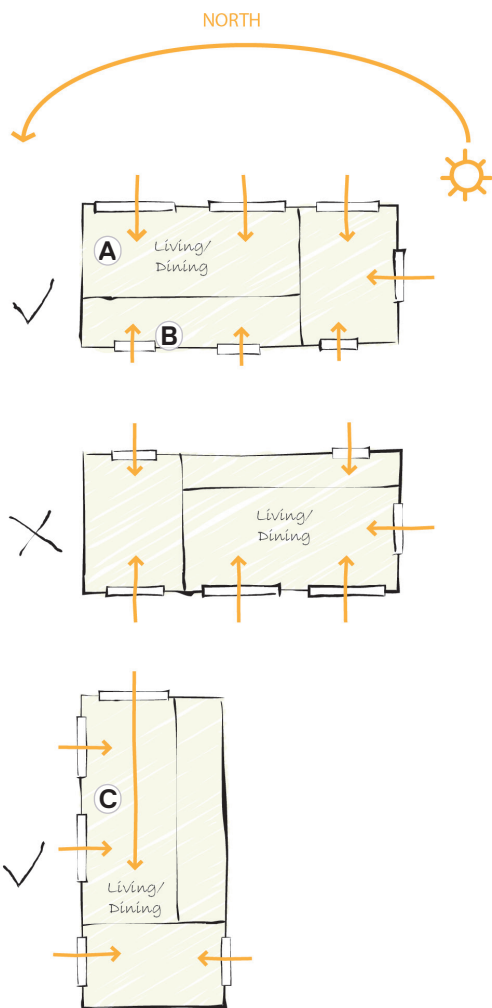


DIAGRAM 17 - ORIENTATION TO MAXIMISE SUNLIGHT ACCESS

- A** Ideal orientation along a east-west axis with living areas facing north
- B** Small and/or high level windows in service or storage spaces, ideally facing south
- C** Narrow buildings benefit from tall windows in north facing façades for optimal sunlight penetration

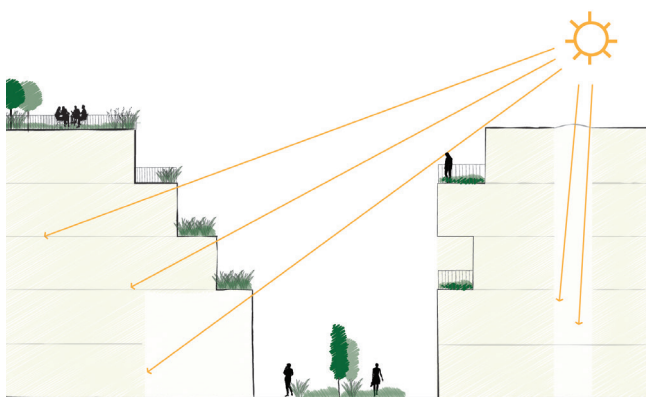


DIAGRAM 18 - HIGH LEVEL WINDOWS, SKYLIGHTS AND/OR ATRIUMS CAN IMPROVE SUNLIGHT PENETRATIONS

B A S

### Sunlight access

Adequate access to natural light is an important consideration in designing the layout of a site, particularly any opportunities to capitalise on a northern aspect.

It is also a key consideration in siting and designing the internal layout of associated dwellings as it not only provides a warm and pleasant internal living environment but helps to increase energy efficiency.

65. Design dwellings with habitable spaces facing north, west or east to maximise sunlight access.

M H

66. Buildings that are relatively deep and narrow, or that have limited north facing frontage, benefit from larger floor-to-ceiling heights; where this occurs consider the use of taller windows to ensure deeper sunlight penetration.

M H

67. On narrow sites place balconies and windows in habitable spaces to the front or the rear of the building to allow for daylight access, outlook and privacy.

M H

68. Consider the use of skylights, atriums or light wells to provide sunlight access to internal spaces with no external walls.

M H

69. In order to maintain sunlight access, high level windows or louvres should be considered where privacy is an issue or to restrict views of service or storage areas; however, their use should be minimised in façades that face the street or public areas.

M H

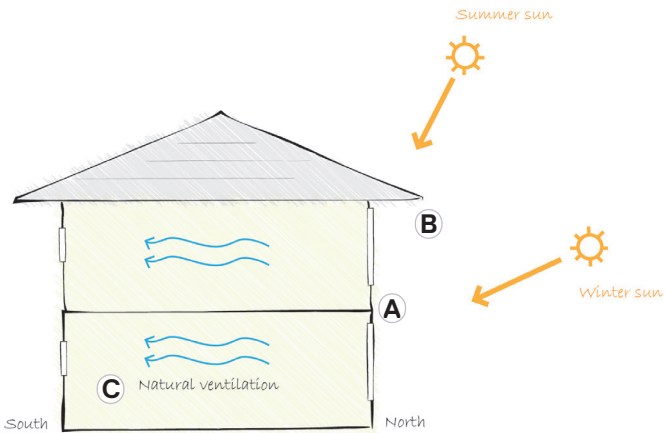


DIAGRAM 19 - SUNLIGHT ACCESS, EAVES AND INTERNAL VENTILATION

- A** Large windows on the sunny side, smaller windows on the side that gets the least sun hours
- B** Eaves blocking sunlight in the summer while allowing sunlight access in winter months
- C** Windows in opposite sides of the building allow for natural ventilation



PHOTO 20 - OVERHANGING BALCONIES PROVIDE SHADE IN SUMMER (CLEARWATER GOLD RESORT, CHRISTCHURCH)

### Energy efficiency

An energy efficient home promotes sustainable living, limits the impact on the environment by relying on sustainable energy sources and can produce long term cost savings to residents.

Integrating efficient passive design into a building contributes to a more comfortable indoor environment by increasing the thermal stability, reducing indoor condensation and promoting natural ventilation; it also helps reduce energy usage.

Energy efficiency should be considered during all phases of development, from planning and design (e.g. internal layout and building systems) through to construction (e.g. minimising waste) and long term maintenance (e.g. using durable materials).

- 70. Where possible, site long buildings on an east-west axis, with living areas orientated to the north to optimise solar access. M
- 71. Consider locating opening windows on opposite sides of a dwelling to enable natural cross ventilation; the total window surface on south facing façades should also be limited to prevent heat loss in winter. M
- 72. Use of eaves is encouraged as they can help limit the duration of sunlight penetration in summer, preventing indoor spaces (particularly those with a northern aspect) from becoming too warm. M
- 73. When designing large scale developments, consider installing a communal (solar) hot water heating facility as it has the potential to offer greater efficiencies compared to heating sources in individual units. M H





PHOTO 21 - AMBERLEY GARDENS, SILVERSTREAM

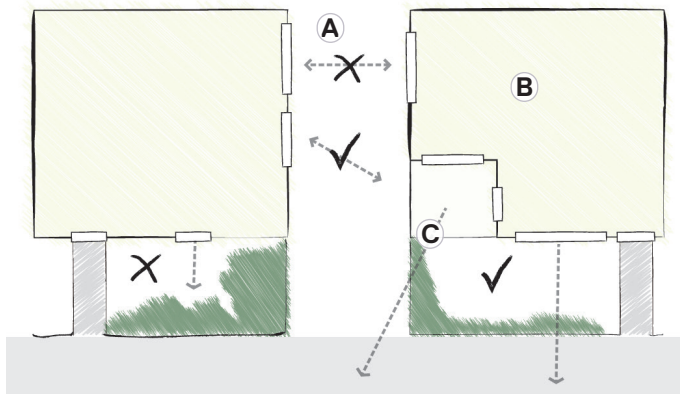


DIAGRAM 20 - BALANCE PRIVACY AND NATURAL SURVEILLANCE

- A** Prevent placing windows immediately opposite windows in a neighbouring property
- B** Living areas with large windows in the front of the building to provide for natural surveillance
- C** Soft landscaping or porous fencing to create natural surveillance while retaining privacy

B A

### Privacy and safety

The orientation of dwellings and their interface with public and communal open spaces are important safety and privacy considerations. In designing for safety and privacy, adequate account needs to be taken of the relationship of new and adjoining buildings to ensure a successful balance is achieved between protecting private amenity and providing opportunities for passive surveillance.

74. Where possible, locate habitable spaces (e.g. kitchen, dining or lounge) in multi-unit developments to face the street or an adjoining open space as this will enable passive surveillance of these areas while maintaining privacy in main living spaces.

M

75. Solid, blank walls facing any public open space or pedestrian pathways should be avoided.

M H

76. Where possible, orientate windows to public spaces to provide for passive surveillance; privacy between dwellings can be maintained by screening upper level windows or balconies to limit opportunities for residents to directly overlook adjacent properties.

M H

77. Consider staggering façades relative to each other to limit direct views into adjoining habitable rooms.

M H

78. Consider a larger setback between taller buildings to improve privacy for residents (and also to contribute to daylight access and outlook).

M H

79. Locate habitable spaces that are more sensitive to privacy issues (e.g. bedrooms) to the front or the rear of buildings on narrow sites.

M H

80. Use soft landscape elements and visually permeable materials to achieve an appropriate balance between maintaining privacy and enabling passive surveillance.

M H



PHOTO 22 - STAGGERED BALCONIES MAXIMISE PRIVACY WHILE RETAINING OUTLOOK AND SUNLIGHT ACCESS (WELLINGTON)

81. Clearly delineate boundaries between private, communal and public spaces as this increases user perceptions of safety and helps to identify intruders.

M H

82. Use lighting, planting and fencing to enhance the safety of residents and visitors and incorporate these elements into the design process; also consider low level planting or trees with higher canopies to minimise the risk of light sources becoming obscured by landscape elements, particularly around sensitive areas.

M H

83. Elevating dwelling floors, patios and decks slightly above the street level for buildings that have no or minimal setback can provide privacy to residents while maintaining outlook onto the street.

M H

84. Strategically locate communal open space to encourage passive surveillance within the development and of adjoining sites.

M H