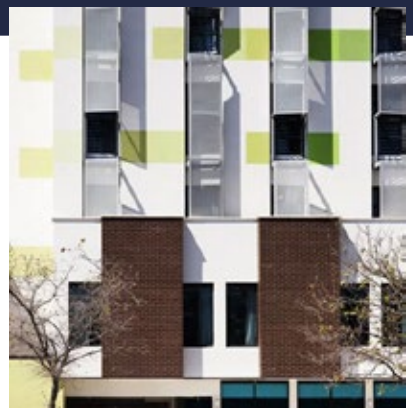
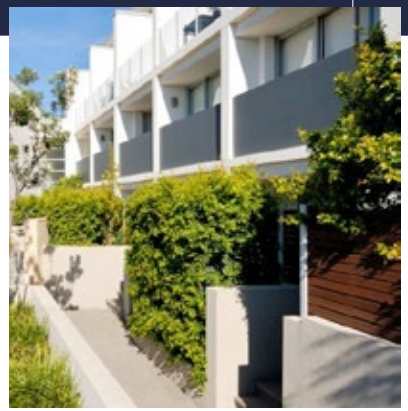
ellenbrook

Ellenbrook Town Centre

General Design Guidelines



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bringing communities to life

Contents

All graphics, diagrams and photographs contained in this document are for illustration purposes only.

1

Introduction

This section contains general context information about the Ellenbrook Town Centre and the development approval process.

1.1 Overview & Vision

1.1.1 Overview

The Ellenbrook Town Centre is located within the City of Swan approximately 20km from the Perth CBD.

It is categorised as a secondary regional centre under the WAPC SPP 4.2 Activities' Centre Hierarchy and has been designed to function as a multi-purpose centre with a range of diverse uses.

The Town Centre forms part of the greater Ellenbrook development, comprising eight villages with a projected population of 30,000. The centre will serve the Swan Urban Growth corridor which, including the surrounding districts of Aveley and The Vines, Henley Brook, Brabham, Albion and West Swan, forms the larger catchment area comprising around 50,000 – 70,000 people.

There are currently over 30,000 people residing in the catchment area with the potential to accommodate an additional 33,000 new residents. The centre will provide approximately 6000 – 8000 jobs, include around 3500 residents and generate around 60,000 daily trips.

The approved development plan is inclusive of the following land use estimates:

• *Shop / retail*	*50,000sqm*
• *Commercial / Office*	*40,000sqm*
• *Bulky goods*	*55,000sqm*
• *Service Industry*	*34,000sqm*
• *Other (cultural, health, government etc.)*	*27,000sqm*
• *Dwellings*	*1,650 est.*

The Town Centre has now commenced its second half of development with completion of the project anticipated by 2021.

1.1.2 Vision

The objective of the Ellenbrook Town Centre is to successfully combine a diversity of land uses and housing types to create an exciting, vibrant community to live, work and play.

The Ellenbrook Town Centre will be profoundly different to other centres through the formation of a vernacular which is wholly Ellenbrook. This will be achieved through the incorporation of identified character elements within public artwork, landscaping and built form.

As Ellenbrook has the honour of being one of the few towns named after a particular woman, Lady Ellen Stirling, it is fitting that a design approach which encompasses the aspects of her life and times is injected to create a tangible character. Imported and colonial textiles, botanical interests and incorporation of small details such as Georgian brickwork which link to the past will provide inspiration for public and private projects.

The modern, daily life of the community will also be supported through the provision of regional-scale shopping and commercial facilities as well as a range of civic spaces; the "Town Square" focused around the business of Main Street, the "Transit Square" focused around the movement of people, the "Cultural Square" focused around leisure and learning and the "Central Park" focused around enjoyment and relaxation.

The road network will be highly accessible through the use of a traditional grid design. Attractive and stimulating urban streetscapes will also make it desirable to walk, cycle and use public transport.

Hence the vision for Ellenbrook is drawn from a respect for the past and looking forward to an exciting future:

"A town of substance in the Swan Valley encapsulating the spirit of Ellen Stirling – vibrant, welcoming, engaging, spirited and playful."

Lady Ellen Stirling.

Captain James Stirling.

Architecture and buildings.

1.2 Site

1.2.1 Ellenbrook – The Place

A town of substance in the Swan Valley encapsulating the spirit of Ellen Stirling - vibrant, welcoming, engaging, spirited and playful.

Ellenbrook is named after Lady Ellen Stirling (nee Mangles), the wife of Perth's first Lieutenant-Governor, Sir James Stirling. Captain James Stirling, a commander in the British navy, met Ellen in 1820 when he was 29 and she was just 13, while visiting her family in Woodbridge, near Guildford in Surrey. Ellen's father was John Mangles Esquire, director of the East India Company, and owner of a shipping line as well as a trading house in Madras. Captain Stirling was so taken with this spirited, lively and unconventional girl that they married on her 16th birthday with the blessing of her parents.

In 1826, as commander of the Success, Captain Stirling was ordered to sail to Sydney, where Governor Darling supported his suggestion to explore the west coast of Australia. In March 1827 Captain Stirling reached the mouth of the Swan River, which he spent 17 days exploring before returning to Sydney and recommending the founding of a new British settlement on the Swan River.

In 1828 the British Government reluctantly decided to form a settlement at Swan River and to appoint Captain Stirling as its Lieutenant-Governor. In May 1829 Captain Fremantle took formal possession of the west coast of Australia, and on 1 June 1829 Captain Stirling, Ellen and their family arrived. Initially settling on Garden Island, Captain Stirling soon decided after early exploration to create two settlements, one at the mouth of the Swan River which he called Fremantle and the other up the river which he named Perth.

In his report of 1827 Captain Stirling had suggested naming the colony Hesperia, "denoting a land looking towards the setting sun, and in whose night sky Hesperus, the evening star often hung low and brilliant". However, it simply became the Swan River Colony until this was superseded by Western Australia.

In his first exploration of the Swan River in 1827, Stirling travelled up the river as far as he could go before they struck rapids, at a point where a small creek joined the river; he named this creek Ellen Brook, after his wife. Stirling found the land in this area to be beautiful and fertile, and subsequent journeys of discovery were made up the Swan River which included the horticulturist James Drummond and Surveyor-General John Septimus Roe. Governor Stirling eventually took up land at Guildford and called this place Woodbridge, after Ellen's home in Surrey. They established a farm here and built a pretty cottage where they occasionally spent time.

Sir James Stirling (knighted in the early 1830s) and Lady Ellen had 11 children, five sons and six daughters. Their main residence became Government House in Perth, a handsome brick and stucco Georgian building designed and built by architect and builder Henry Reveley in 1834, which included a drawing room in which balls were hosted. The balls were an annual affair at which many of the men were in regimental uniforms and the ladies wore white muslin dresses with white lace at their shoulders and bright Indian shawls. Lawyer and diarist George Fletcher Moore was agreeably surprised, commenting "I had no idea there would be so much society here, so much gaiety, so much dressiness".

In 1831 Ellen's cousin, Captain James Mangles, came to visit for a couple of months. A keen botanist, he came to observe the native flora, and established contacts through Ellen to arrange for the collection of native seeds to be sent to England over the subsequent years for use in scientific study and horticulture. Mangles also made contact with James Drummond, a horticulturist who held the position of Superintendent of Gardens in the first year of the colony, and then became Government Naturalist until 1832. Ellen was keen to promote Mangles' botanical interest in the colony.

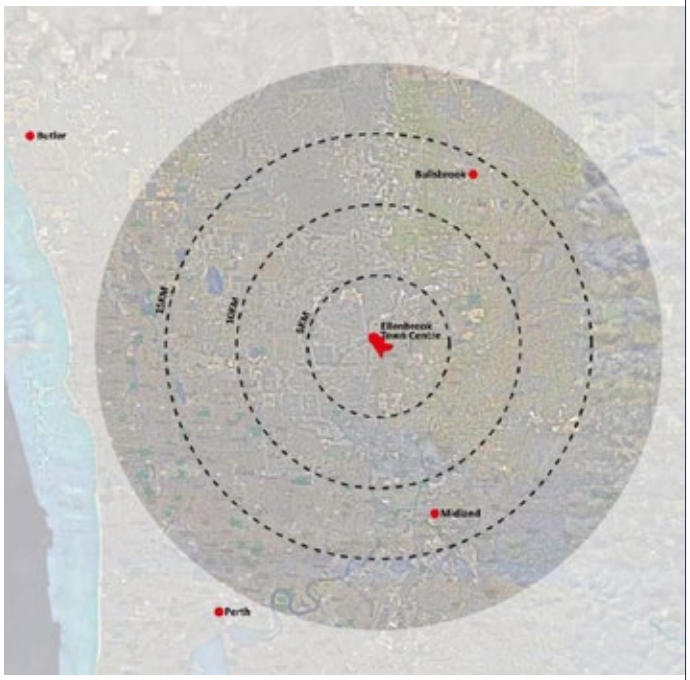
In January 1839, 11 years after they arrived to establish the new colony, Sir James and Lady Stirling left Perth and returned to England, where James resumed his naval career. With her vibrant, welcoming and gracious spirit and keen mind, Ellen had been a prominent figure in early Perth society, responsible for establishing important social and cultural events, promoting interest in the botanical richness of this new colony, and championing the welfare and education of children in this fledgling society.

Ellenbrook is to be a town of substance, with appropriate civic scale, offering diverse uses and amenities, and with layers of meaning embedded into the Town Centre. It is to be a town of enjoyment, offering diverse events and activities for all ages, with an underlying sense of fun, playfulness and adventure. It is to be a town of surprise and contrast, with big and small gestures, formality and softness, strength and sensitivity, incorporating elements of whimsy, delight and the unexpected. It is to be Ellen's place - modern and progressive, warm and inviting, personal, beautiful and vibrant, but above all feminine, capturing the spirit of Ellen which was strong and bold, but with softness and intimacy. It is also to be a place with a strong botanical focus, exhibiting Ellen's interest in the botanical richness of the colony and also reflecting the heritage of her English origins.

Frederick Garling, View From Mount Eliza, 1827.

Textile influences.

Historical references to settlement and botanical interest.



1.2.2 Context & Location

METROPOLITAN

The Ellenbrook Town Centre is located within the City of Swan, approximately 20km north-east of the Perth Central Business District and 10km north-west of the Midland Town Centre. Whiteman Park offers a major regional playground to the south and the Swan Valley provides a rural interlude to the east.

The immediate service catchment of the Town Centre comprises the remainder of the Ellenbrook New Town, Vale (located to the east) and The Vines (located to the north east). This comprises a population catchment of approximately 50,000 people. The Town Centre will also service the Swan Urban Growth Corridor located to the south of Ellenbrook, which includes the suburbs of Brabham, Henley Brook, Albion, West Swan and Caversham. This corridor has the potential to accommodate 33,000 new residents.

ELLENBROOK NEW TOWN

The Town Centre forms part of the Ellenbrook New Town: an integrated community structured around seven villages that commenced development 20 years ago. Traditional town planning principles have guided the development of the villages, resulting in intimately scaled neighbourhoods overlain by a movement network of interconnected streets. Most residents are within a five minute walk (400m) of centrally located community facilities and services.

When completed in 2030, Ellenbrook is projected to have a community of 30,000 people accommodated within more than 10,000 homes. Each village has access to local, neighbourhood and district level facilities and has been designed in anticipation of the Town Centre, thereby incorporating a comprehensive network of pedestrian/cyclist and vehicular access linkages that will ultimately connect with the Centre.

The following villages are developed or under construction:

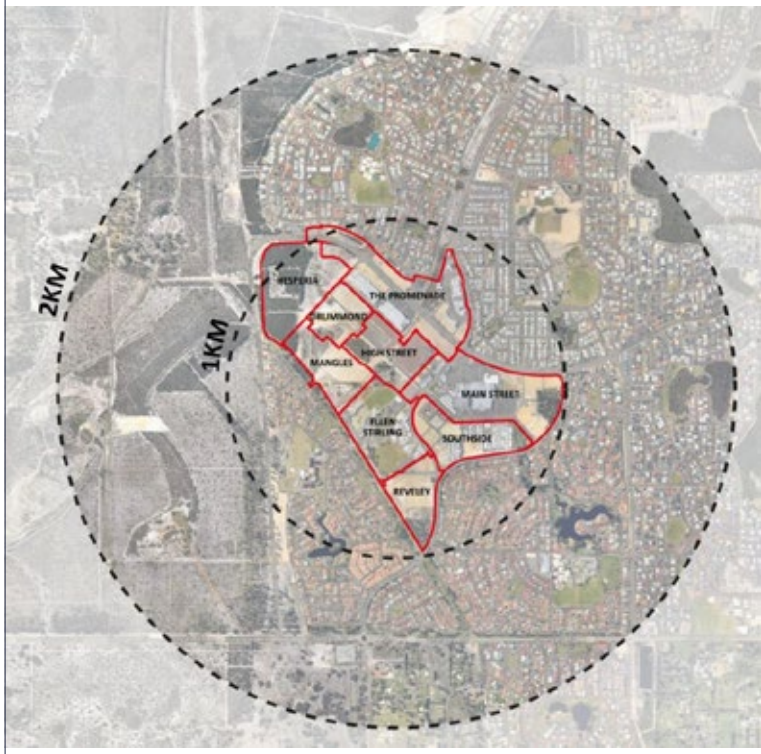
- *Village 1: Woodlake Village;*
- *Village 2: The Bridges;*
- *Village 3: Coolamon;*
- *Village 4: Morgan Fields;*
- *Village 5: Charlotte's Vineyard;*
- *Village 6: Malvern Springs;*
- *Village 7: Lexia; and*
- *Village 8: Annie's Landing*

1.2.3 Purpose & Extent of Guidelines

The General Design Guidelines will facilitate a quality built realm, with an appropriate land use configuration and response to the high quality public domain.

The General Design Guidelines are based on the following key aspirations:

- *Maintain vision of the Town Centre development over time;*
- *Ensure built form and public realm complement each other;*
- *Consistency and quality of architecture is achieved;*
- *Inject a character which is unique to Ellenbrook and bind separate developments together to create a sense of place;*
- *Ensure urban typologies are suited to each location; and*
- *Provide a level of confidence to buyers and sellers that the centre will present well and investment is protected.*



2

Approval Process

2.1 Document Structure

ABOUT THE GENERAL DESIGN GUIDELINES

These General Design Guidelines have been prepared to facilitate the implementation of the vision for the Ellenbrook Town Centre. The Guidelines promote and encourage high quality innovative design solutions within the Town Centre. The document has been divided into three main sections:

Introduction

A general introduction containing context information about the Town Centre, definition of the site area and the approvals process.

General Provisions

Contains the provisions and general design requirements applicable to all development within the Town Centre.

Glossary

Definitions & Photographic Credits

Appendix

Design Quality Principles
Ellenbrook Town Centre – Style Manual

2.2 Relationship To Existing Guidelines & Planning Framework

The Ellenbrook Town Centre General Design Guidelines outline principles that provide a framework to achieve:

- *Site responsive design;*
- *Variety and flexibility of dwelling, mixed use, commercial and retail building typologies; and*
- *Increased environmental performance of buildings.*

These require a site-specific and performance-based flexibility which the R-Codes and Liveable Neighbourhoods are not designed to control.

Relationship to the Ellenbrook Town Centre Development Plan

These Guidelines have been adopted by LWP to evaluate and access development. In determining an application for Approval to Commence Development and/or a Building Permit, the City of Swan may utilise these Guidelines in conjunction with Local Planning Scheme No. 17, Ellenbrook Town Centre Development Plan, any relevant City Policy together with endorsements from LWP (or nominees).

Ellenbrook Town Centre Design Guidelines – 2003

These codes operate in conjunction with this guidelines document for which the scope was limited to the Main Street within the Stage One boundary.

Detailed Area Plans (DAPs)

DAPs will be prepared by Ellenbrook Management for each site within the Ellenbrook Town Centre in order to guide and control design matters including, but not limited to, building setbacks, height, parking, service areas and access. The DAPs will reflect the purpose and intent of these Guidelines. DAPs require approval by the City of Swan and are used by them to assess development applications.

2.3 Approval Process

These Guidelines will form one part of the process by which proposals will be evaluated and assessed. The process includes a pre-development application, and assessment by LWP (or nominees). All development applications will also be presented to LWP (or nominees) for review at each stage of the design process, commencing at concept design stage. Reviews will take the form of an informal workshop with a report prepared to detail comments to ensure that principles and measures set out in the General Design Guidelines are achieved.

This document provides a broad-ranging set of guidelines for the various precincts in the Ellenbrook Town Centre. These guidelines seek to deliver guiding principles, key urban elements, landscape principles and precinct character. However, where required, site specific guidelines will be created to further define character, setbacks, building envelopes, view lines, height requirements or any other design requirements particular to that development site. In some circumstances, these guidelines may be prepared in consultation with the developer for individual development sites.

Concept Design

Pre-application discussions with LWP (or nominees) are required for all types of developments in the Ellenbrook Town Centre, where Concept Design drawings are tabled, discussed and agreed prior to design development. Referral to these guidelines is recommended and discussions with LWP are encouraged at an early stage of design to discuss opportunities and constraints for your development. Early consultation with LWP will greatly increase favourable built form outcomes, and reduce design and drawing revision time and costs.

Design Review

The Design Review process is undertaken by representatives from LWP (or nominees) who may include various industry professionals, who are available to provide advice, analysis and identify project opportunities and constraints on a case-by-case basis.

LWP (or nominees) will provide feedback and guidance with regards to the urban design, functional planning, architectural character, and sustainability aspects for development approvals (refer appendix 5.1 Design Quality Principles). Where LWP endorses the building design, the development application (or building permit application) can be presented to the City of Swan for a Development Application and/or Building Permit.

It is impossible to provide guidelines for every development possibility and so these Guidelines provide for some flexibility in assessing detailed design issues, with the primary objective being to achieve a high standard of design quality in every development.

LWP reserves the right to recommend or reject proposals which, in its opinion, may or may not comply with the spirit of these Guidelines. Any approval should not be seen as a precedent for an approval on any other site. Any variance granted is not a precedent for an approval.

Approval Process

A review and assessment process for DA and/or Applications for Building Permits will require review and endorsement by LWP prior to lodgement with the City of Swan. This is required to ensure developments achieve the required high quality architectural and built form outcomes required under these General Design Guidelines.

The following steps outline the design formulation, submission and approval process required for development within that part of the Ellenbrook Town Centre controlled by this document. Some large developments will go through a more detailed approval process as described within the relevant site specific DAPs. All development assessments will follow the process outlined below:

Step 1: Meeting with LWP

1.1 Applicant and designer meet LWP (or nominees) for a briefing on the development intent and requirements and considerations specific to the site's draft DAP. Draft DAPs may be issued with EOIs for development sites.

Step 2: Concept Design Submission and Endorsement

2.1 The applicant presents design concepts for review and initial comments by LWP.

2.2 Applicant presents revised design concepts for review by LWP.

2.3 When the final design is presented, LWP will provide a written response to the applicant either endorsing the development plans for lodgement with the City of Swan or seeking additional information or modifications for further consideration by LWP (in total, three to four meetings may be necessary).

2.4 When the proposed scheme is sufficiently developed and has the support of LWP, LWP will commission DAPs be finalised and submitted to the City of Swan for endorsement (if named). This process will ensure that a consistent and appropriate level of guidance is maintained over the ultimate development outcome and will result in Development Applications that align with the relevant DAP's.

2.5 When steps 2.1 to 2.4 are complete, Application for Approval to Commence Development and/or the Building Permit application can be made to the City (accompanied by LWP endorsement and an aligned DAP).

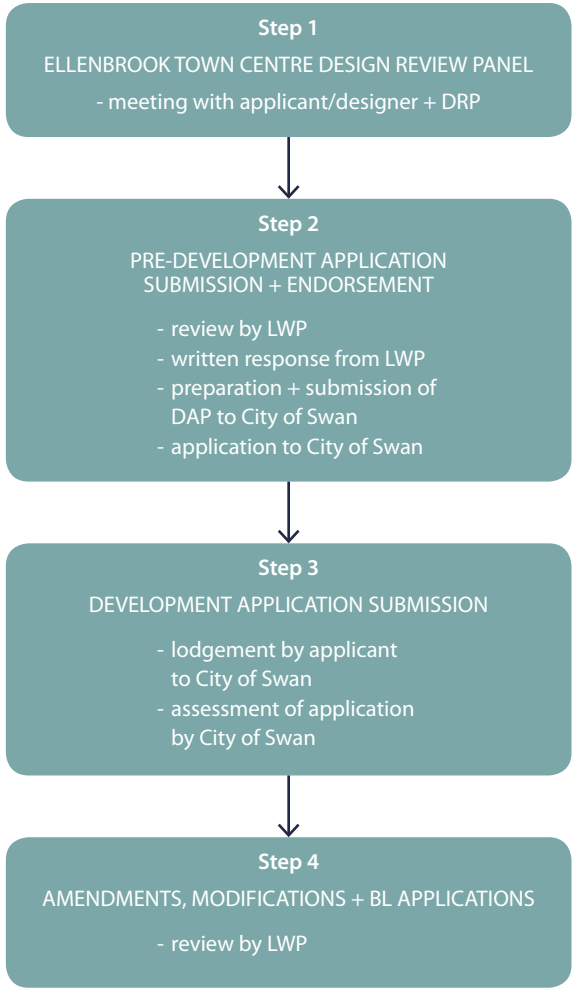
Step 3: Development Application Submission

3.1 Once endorsement by LWP has been received, the applicant lodges the DA with the City of Swan.

3.2 The development application is assessed by the City of Swan in the usual manner.

Step 4: Amendments, Modifications and BL Applications

4.1 LWP will review Building Licence (BL) against DA to ensure conformance with original design intent. Proponents will return to step 1 where required.



3

Design Guidelines

3.1 Urban Planning

3.1.1 Precincts

INTRODUCTION

The Town Centre is divided into nine character areas designed to contribute to the legibility, diversity and identity of areas within the Centre. The character areas consist of neighbourhoods with similar development outcomes such as types of proposed uses and intensity. As all precincts have their own particular focus, the neighbourhood context should be considered by each building designer. Designers should respond creatively to the design brief for precincts provided by LWP.

Precincts within the Town Centre have been named after their geographic locality and functionality (e.g. Main Street) or a key element from the Ellen Stirling Story (e.g. Ellen's cousin James Mangles). Whilst forming an integral part of the overall Town Centre, precincts will also have their own distinct emphasis and expression. The nine precincts are Hesperia, Drummond, The Promenade, Mangles, High Street, Main Street, Southside, Ellen Stirling and Reveley. These Design Guidelines cover all these precincts unless specifically superseded by site specific guidelines and/or DAPs.


N
HESPERIA
THE PROMENADE
DRUMMOND
HIGH STREET
MANGLES
MAIN STREET
ELLEN
STIRLING
SOUTHSIDE
REVELEY

"A quality, compact community showcasing expressive architecture and enjoying direct linkages to the facilities and amenity of the Town Centre and excellence in urban living. Hesperia will be perfect for downsizers and small families."

Precinct Character: Hesperia

LOCATION FEATURES AND BENEFITS

Located at the western edge of the Town Centre, Hesperia provides for a range of housing including the highest proportion of single residential and live/work options.

CHARACTER STATEMENT

"Hesperia", James Stirling's preferred name for Perth, the "land looking west", derived from "Hesperus" or "Hesperos" (in Greek mythology, the evening star).

URBAN ELEMENTS

- *Mix of housing types including single residential, terraces, townhouses and apartments;*
- *Live/work opportunities and complementary commercial uses, such as childcare, etc.;*
- *Pedestrian focus;*
- *Canopy tree lined streets and quality open spaces;*
- *Connectivity with The Parkway and Transit Station Plaza via the central park.*

GUIDING PRINCIPLES

- *Unobtrusive parking accommodation on-street, off laneways, under croft and within central car courts;*
- *High standard of built form that activates frontage streets and laneways;*
- *Pedestrian priority environment;*
- *Quality public realm with streets terminating on centre POS;*
- *Robust urban structure and built form that allows adaption of uses and intensification over time;*
- *Elevated public realm incorporating apartment development.*

LANDSCAPE PRINCIPLES

- *The retention of existing pine trees will create a backdrop that defines and enhances the meaning of this precinct;*
- *Public space has been carefully located to maximise the precinct highpoint in the Southern Park and the low point in the central POS, providing a range of landscaping conditions.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- Proposed Buildings
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Primary vista / view
- Secondary view / vista
- High Point
- Transit Route
- Gas Line Setback
- Opportunities for complementary commercial and live/work
- Retained Pine Trees
- Important view connection

HESPERIA

N

"An assortment of complementary land uses, including office, retail, dining and recreation within a quality urban environment that incorporates the flexibility for adaption and intensification over time."

Precinct Character: Drummond

LOCATION FEATURES AND BENEFITS

The Drummond Precinct has at its centre the substantial linear park providing many civic and recreational uses, plus quality views from all main frontages.

CHARACTER STATEMENT

"The Drummond Precinct, which is designed around the Town Centre Linear Park, draws its inspiration from James Drummond - a horticulturist and Western Australia's first superintendent of gardens. The urban design and landscaping principles build upon this garden theme as well as archiving, preservation and memorial aspects."

URBAN ELEMENTS

- *Offices, retail and housing (apartments and townhouses);*
- *A central park which links the north and south areas of the Town Centre;*
- *Adaptable street blocks and built form;*
- *Laneways and alleys;*
- *Pedestrian focus;*
- *Public streets, urban plazas, forecourts and parks;*
- *Legible street network with an integrated use of public and private space.*

GUIDING PRINCIPLES

- *Flexible building design that caters for a mix of uses;*
- *Parking on-street within central courts concealed behind buildings;*
- *Streets oriented for a high level of connectivity;*
- *Quality pedestrian environment on all streets and intimate pedestrian laneways;*
- *Well defined view corridors to hilltop parks;*
- *Landmark buildings/structures terminating key vistas;*
- *Flexible urban form to cater for future rapid transit service when required.*

LANDSCAPING PRINCIPLES

- *Broad canopy street trees to encourage walkability and alfresco;*
- *Detailed landscaping interventions such as pots and planters, hedging, seating, alfresco, shade and public art.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- Proposed Buildings
- Robust Design
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Minimum 2 storey development
- Secondary view / vista
- 5.5m - 7.5m height ranges for single storey parapet
- Primary Vehicle Access
- Transit Route
- Minimum 2 storey continuous development

DRUMMOND

N

"A quality environment that nurtures a range of business enterprise endeavours, including those less suited to the Main Street or High Street character precincts due to their size and greater dependence on vehicle access and exposure."

Precinct Character: The Promenade

LOCATION FEATURES AND BENEFITS

This precinct is designed to benefit large format retail, commercial and service commercial development with easy car access provided from The Promenade.

CHARACTER STATEMENT

"The Promenade has been designed to provide car-oriented retail in a shaded, green landscape and will be a major employment centre for the broader Ellenbrook community."

URBAN ELEMENTS

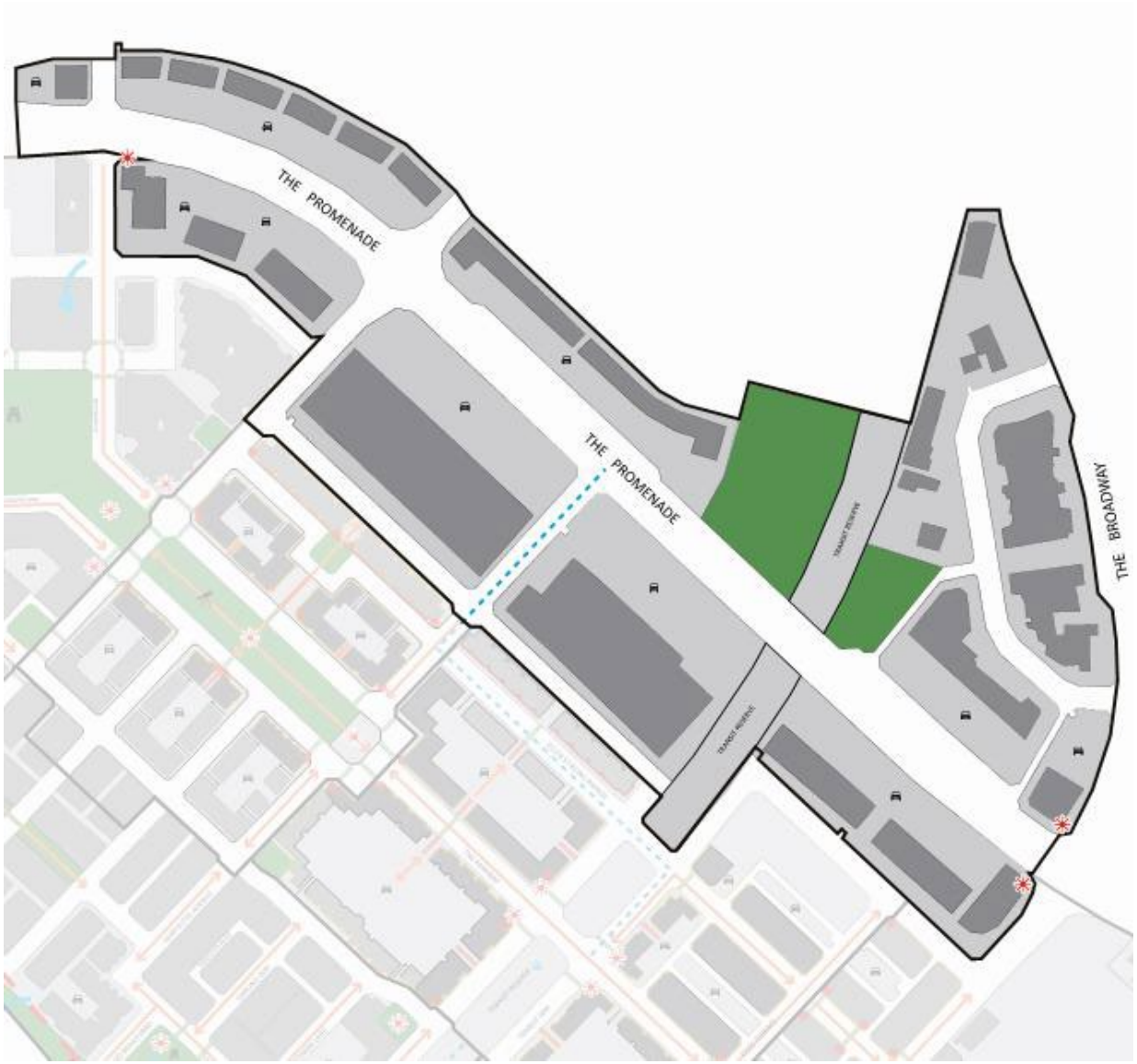
- *Showrooms, warehouses, service commercial, large format retail and offices;*
- *Human scale development;*
- *Controlled vehicle access;*
- *Controlled signage;*
- *Unobtrusive car parking areas softened with landscaping.*

GUIDING PRINCIPLES

- *Service commercial, light industrial and office developments that service the local needs and provide local employment opportunities;*
- *A high standard of built form and landscaping for the benefit of employees and visitors alike;*
- *Unified streetscape whereby landscape, buildings and land uses complement each other;*
- *Protection of the amenity of adjacent residential areas;*
- *Safe movement of pedestrian and vehicle traffic;*
- *Well-designed car parking areas that do not adversely impact on the amenity of adjacent streets.*

LANDSCAPING PRINCIPLES

- *The Promenade itself will be intensely landscaped to provide a memorable boulevard entry into Ellenbrook from the west;*
- *Landscaping on private lots will be mainly utilised to soften and shade car parking areas.*



LEGEND

- Proposed Buildings
- POS
- Landmark Building / Landscape Focal Node
- Parking
- Transit Route

THE PROMENADE

N

"Offering a rich tapestry of urban experiences and a high level of amenity for residential living, Mangles will accommodate a wide range of housing, seamlessly integrated with the occasional commercial use."

Precinct Character: Mangles

LOCATION FEATURES AND BENEFITS

The Mangles precinct abuts Forestview Parks, with most streets terminating on green space. Mangles provides excellent open space amenity for residents.

CHARACTER STATEMENT

"Mangles is named for the Naval Captain James Mangles, who was Ellen Stirling's cousin and responsible for an extensive collection of local flora (seeds, plants and specimens from the early colony) and for whose family the "Anigozanthos Manglesii" is named (Kangaroo Paw). "

URBAN ELEMENTS

- *Predominantly quality residential housing interspersed with the occasional commercial use;*
- *Terrace townhouses, apartments, studio apartments and single residential;*
- *Adaptable street blocks, laneways, robust built form;*
- *Pedestrian focus;*
- *Quality public realm incorporating canopy tree-lined streets.*

GUIDING PRINCIPLES

- *Innovative medium density housing based upon an 'urban' not 'sub-urban' form within a high amenity environment;*
- *Unobtrusive parking accommodation on-street, off lane ways, under croft and within central car courts;*
- *High standard of built form that contributes to attractive frontage streets and addresses laneways;*
- *Permeable street network integrated with the wider network;*
- *Most streets oriented to terminate on parks;*
- *Pedestrian priority environment;*
- *Quality public realm that offsets higher density living;*
- *The Mangles inspiration to be expressed in the private realm, such as the use of perforated privacy screens with botanical themes.*

LANDSCAPING PRINCIPLES

- *Landscaping will include species that reinforce the Mangles contribution.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- Proposed Buildings
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Primary vista / view
- Secondary view / vista
- Transit Route
- Gas Line Setback
- Important view connection

MANGLES

N

"An assortment of complementary land uses, including office, retail, dining, recreation, within a quality urban environment that incorporates the flexibility for adaptation and intensification over time. This precinct will be the most diverse and urban due to the proximity to Main Street and the Transit Reserve."

Precinct Character: High Street

LOCATION FEATURES AND BENEFITS

The High Street Precinct will be a distinctively urban precinct, with a high diversity of land uses. High Street links the existing Main Street of Ellenbrook with continued expansion of the Town Centre to the north.

CHARACTER STATEMENT

"The High Street precinct with its focus on activity, represents Ellen Stirling's sense of adventure and liveliness, and is also inspired by English market town high streets".

URBAN ELEMENTS

- *Offices, retail, apartments, town houses, pedestrian based and housing;*
- *Adaptable street blocks and built form;*
- *Laneways and alleys;*
- *Pedestrian focus including public streets, urban plazas, forecourts and parks;*
- *Legible street network with an integrated use of public and private space.*

GUIDING PRINCIPLES

- *Flexible building designs that cater for a mix of uses, parking on-street and within central courts concealed behind buildings;*
- *Streets oriented for a high level of connectivity and integration with Main Street and The Parkway;*
- *High standard of built form that activates frontage streets, Station Plaza and laneways;*
- *Quality pedestrian environment on all streets and intimate pedestrian laneways;*
- *Landmark buildings/structures terminating key vistas;*
- *Flexible urban form to cater for future rapid transit service when required.*

LANDSCAPE PRINCIPLES

- *Broad canopy street trees (including flowering varieties) to provide suitable pedestrian and alfresco environment;*
- *Hedging, pots / planters, temporary seating, shade and textured pavements to create an intimate and interesting urban environment.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- Proposed Buildings
- Robust Design
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Minimum 2 storey development
- 5.5m - 7.5m height ranges for single storey parapet
- Primary Vehicle Access
- Transit Route
- Minimum 2 storey continuous development

HIGH STREET

N

"The heart of the Town Centre that binds a range of compatible activities. It is a place to enjoy, shop, meet friends, work, wander, explore and relax."

Precinct Character: Main Street

LOCATION FEATURES AND BENEFITS

Main Street is the core retail and commercial hub with the highest concentration of activities.

CHARACTER STATEMENT

"The character of Main Street is a contemporary interpretation of a traditional urban centre where the buildings define the public realm."

URBAN ELEMENTS

- *Main Street;*
- *Retail Core;*
- *Town Park;*
- *Community, Civic and Cultural;*
- *Pedestrian Focus;*
- *Lanes and Alleys;*
- *Central Parking Courts;*
- *Entertainment.*

GUIDING PRINCIPLES

- *Public domain that provides a safe and attractive environment for pedestrians and community life;*
- *Maximum integration and synergy between Main Street and enclosed shopping complex;*
- *Community uses and Town Square organised to convey a strong civic character;*
- *Versatile buildings capable of adapting to a mix of uses and intensification over time;*
- *Public access to Main Street maintained at all times to foster day and night time activity;*
- *Streetscapes that impart a sense of place and arrival;*
- *Building designs that address and reach out to the street;*

LANDSCAPE PRINCIPLES

- *Shady deciduous trees to provide comfort to pedestrians;*
- *Monoculture planting to provide a cohesive streetscape.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- Proposed Buildings
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Minimum 2 storey development
- Primary vista / view
- Secondary view / vista
- 5.5m - 7.5m height ranges for single storey parapet
- Primary Vehicle Access

MAIN STREET

N

"A rich urban environment comprising varied forms of residential housing, including retirement, aged care and the occasional commercial use, all within an easy walk of the Ellen Stirling and Main Street character areas."

Precinct Character: Southside

LOCATION FEATURES AND BENEFITS

Adjacent to the core retail zone and Main Street, Southside offers an urban living experience based upon convenience and amenity.

CHARACTER STATEMENT

"With a blend of apartments, retirement housing, aged care and commercial, this precinct offers the highest density options within the heart of the Ellenbrook Town Centre."

URBAN ELEMENTS

- *Predominantly quality residential housing interspersed with the occasional commercial use;*
- *Apartments, independent living units and integrated aged care and townhouses;*
- *An environment conducive to walking and cycling;*
- *Canopy tree-lined streets and quality urban parks.*

GUIDING PRINCIPLES

- *Innovative medium density housing based upon an 'urban' not 'sub-urban' form, including multi-storey apartment buildings, within a high amenity environment;*
- *Unobtrusive parking accommodated on-street, undercroft, off laneways and within central car courts;*
- *High standard of built form that contributes to attractive frontage streets and addresses laneways;*
- *A series of short, interconnected streets designed to limit four-way intersections, slow vehicle speeds and maximise connectivity and permeability;*
- *Pedestrian priority environment;*
- *Quality public realm that offsets higher density living.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- Proposed Buildings
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Secondary view / vista
- Important view connection
- Robust Design

SOUTHSIDE

N

"The educational and community heart of Ellenbrook, accommodating a 'next generation' high school and contemporary multi-purpose community buildings, together creating identity and injecting activity into the Town Centre."

Precinct Character: Ellen Stirling

LOCATION FEATURES AND BENEFITS

The Ellen Stirling Precinct is centrally located within the Town Centre, providing a range of services and activities within walking and cycling distance for the local community.

CHARACTER STATEMENT

"This precinct is named after Ellen Stirling herself and fittingly is the focus for community based uses and associated services."

URBAN ELEMENTS

- *Multi-purpose community/recreation facility;*
- *Middle school and senior high school;*
- *Community recreation centre;*
- *High level pedestrian activity;*
- *Civic square and active recreation grounds;*
- *Shared community/school learning centre (library);*
- *Pool;*
- *Café/Kiosk.*

GUIDING PRINCIPLES

- *Landmark buildings focused towards Main Street to create a defining terminating vista;*
- *High standard of built form and eminent community/civic buildings;*
- *Pedestrian priority environment achieved through comprehensive pathway network, quality landscaping, street furniture, slow vehicle speeds and community/public art;*
- *Good connectivity with future transit station;*
- *Shared facilities for school and community use;*
- *Sustainable building designs and landscaping;*
- *Active and passive recreational opportunities.*

LEGEND

- Key Pedestrian Crossing
- Key Pedestrian Links
- Proposed Buildings
- POS
- Landmark Building / Landscape Focal Node
- Sleeved Parking
- Primary vista / view
- Secondary view / vista
- Gas Line Setback
- Important view connection

ELLEN STIRLING

N

"A rich urban environment comprising varied forms of residential housing and the occasional commercial use, all within easy walking distance of the community and main street character areas."

Precinct Character: Reveley

LOCATION FEATURES AND BENEFITS

Nestled between the Town Centre Forestview Park and High School, this precinct is an easy walking distance to the major amenities of the Main Street core and cultural precinct.

CHARACTER STATEMENT

"Reveley will be characterised by homes which incorporate traditional built form and materials such as bricks and gables in a modern and sophisticated way. Reveley has been named in honour of Henry Wiley Reveley who was Western Australia's first civil engineer, engaged by Captain James Stirling to service the original Swan River Settlement."

URBAN ELEMENTS

- *Predominantly quality residential housing interspersed with the occasional commercial use;*
- *Single residential, terrace, townhouse and apartments;*
- *An environment conducive to walking and cycling;*
- *Canopy tree lined streets and quality urban parks;*
- *Incorporation of traditional forms of housing in a sophisticated and contemporary manner;*
- *Utilisation of brick as a feature material to façades or landscape.*

GUIDING PRINCIPLES

- *Innovative medium density housing based upon an 'urban' not 'sub-urban' form, within a high amenity environment;*
- *Unobtrusive parking accommodated on-street, undercroft, off laneways and within central car courts;*
- *High standard of built form that contributes to attractive frontage streets and addresses laneways;*
- *A series of short, interconnected streets designed to limit four-way intersections, slow vehicle speeds and maximise connectivity and permeability;*
- *Pedestrian priority environment;*
- *Quality public realm that offsets medium density living.*

LANDSCAPE PRINCIPLES

- *Detailed landscaping in parks and streetscapes with extensive use of Georgian brickwork.*

LEGEND

- Key Pedestrian Crossing
- Pedestrian Only
- Key Pedestrian Links
- POS
- Landmark Building / Landscape Focal Node
- Secondary view / vista
- Gas Line Setback
- Important view connection
- Robust Design
- Sleeved Parking
- Minimum 2 storey development
- 5.5m - 7.5m height ranges for single storey parapet

REVELEY

N

Landmark building complementing open space reinforcing the activity node.

A unique and memorable landmark building with relevance to the public realm.

3.2 Urban Design

3.2.1 Landmark Buildings

Design Intent

Some sites have been nominated for landmark buildings as icons or gateways. Landmark buildings are generally located to terminate a vista, frame a view, reinforce the public domain and/or define a hierarchy of places. Landmark buildings shall be well designed, and in their context should be memorable, inspirational and appealing. Ideally they should serve a useful purpose and create a sense of place by contributing positively to the public realm. The merits of built form that warrants being considered a 'landmark' need not be size related nor an overt and extravagant design language, however there should be a uniqueness and authenticity that makes the building stand out to the point where it is different and benefits its location.

Design excellence is required – quality, articulation of the façade, proportion, scale and massing, material selection and detailing will be of heightened importance for landmark buildings.

Landmark buildings may be granted variations to the setbacks, subject to design merit.

Objectives

- *Nominated landmark buildings exhibit design excellence;*
- *The design of nominated landmark buildings defines and reinforces the public realm and hierarchy of spaces within the Town Centre;*
- *To provide a hierarchy of landmarks and activity nodes which orientate and give guidance to pedestrians and road users.*

Principles

- *Landmark buildings shall be constructed with materials and detailing of high quality and with scale and proportion appropriate to the location;*
- *Landmark buildings shall be designed to be unique and memorable, representing a point of difference to other buildings in the Town Centre;*
- *Delineate and terminate vistas with landmark buildings, sculptural elements or well designed open space;*
- *Reinforce activity nodes and building landmarks to enable visual recognition from a distance by utilising materials, lighting and landscaping in association with the design of the built form.*

3.2.2 Ground Floor Uses

Design Intent

Create a vibrant, fine grained, continuously active ground floor public domain to improve pedestrian amenity and encourage pedestrian movement in the Town Centre.

Objectives

- *To encourage active ground floor uses to create active, safe streetscapes.*

Principles

- *Commercial and retail uses are actively encouraged and preferred;*
- *Vendors are encouraged to make use of the pavement for the tasteful display of goods or the placing of tables and chairs;*
- *Provide separate entry to residential use above ground floor uses from the street or via laneways;*
- *Where residential occupies a ground floor, ensure living/active uses are located adjacent to the street;*
- *Where a terrace or garden court fronts the street edge, use appropriate fencing/walling materials to allow some visual connection to the street while respecting privacy;*
- *Activate windows with tasteful displays or views into the tenancy;*
- *Tenancies cornering pedestrian laneways are encouraged to actively wrap and embrace the laneway by use of window display, secondary entries and/or street wares;*
- *Future zones can be created to control the street stalls within pavement area as need arises.*

Measures

- *In buildings fronting onto The Parkway at grade retail is encouraged;*
- *Within Mangles, Hesperia, Southside, Drummond and Reveley residential uses and/or home occupancy type businesses are encouraged;*
- *On all Town Centre perimeter road frontages a mix of uses and choices of use are permitted;*
- *Frontages to High Street between Main Street and the Transit Corridor, restaurant/cafe and specialty retail uses are encouraged;*
- *Dedicated entries to commercial, residential, and other non-retail uses at upper floors are to be incorporated into the design of the ground floor;*
- *Community uses such as libraries and community centres are to have entry areas provided at the ground floor. These will serve as a prominent front door and lobby to facilities located at the first and second floors.*

Commercial and retail uses at ground floor encourage active and safe streetscapes.

Examples of fine grain street-based retail and commercial.

3.2.3 Active Street Frontages

Design Intent

Design and articulation at street level helps to provide for a vibrant and stimulating pedestrian experience. At street level, the building frontage of commercial and retail tenancies should be designed to address the street via entries, windows and displays. The structural grid of the building should be designed to allow for a range of retail and commercial floor plate sizes. Fine-grained, street-based retail and commercial tenancies are preferred within the Town Centre addressing the streets, in particular Main and High Streets.

Where a residential use fronts the street, living spaces should provide an address via generous windows, openings, balconies and courtyards to encourage active use within this zone and passive surveillance over the street.

Objectives

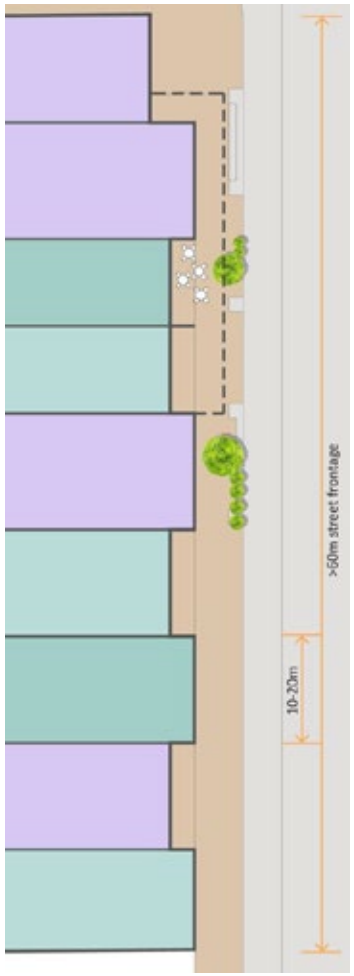
- *To create a vibrant and stimulating pedestrian experience;*
- *To create opportunity for passive surveillance of the public realm contributing to the sense of safety;*
- *To ensure retail and commercial tenancies contain active window frontages that are transparent (partially revealing the tenancy behind) and address the street;*
- *To encourage alfresco dining spaces that are well designed and contribute positively to the public realm.*

Principles

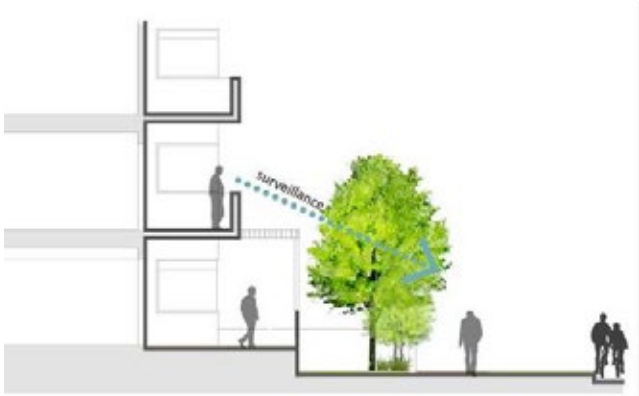
- *For non-residential uses, provide building frontage to the majority of the lot boundary facing the street. Some setbacks within shop frontages are permitted at ground level for window and entries to allow for articulation of the façade, provided that the majority of the building façade is maintained at the boundary;*
- *Clear glazing only is permitted to retail and commercial tenancies at ground level. Exceptions may be considered to screen service areas, structural elements and the like;*
- *Residential units facing the street shall contain a living space to this address.*

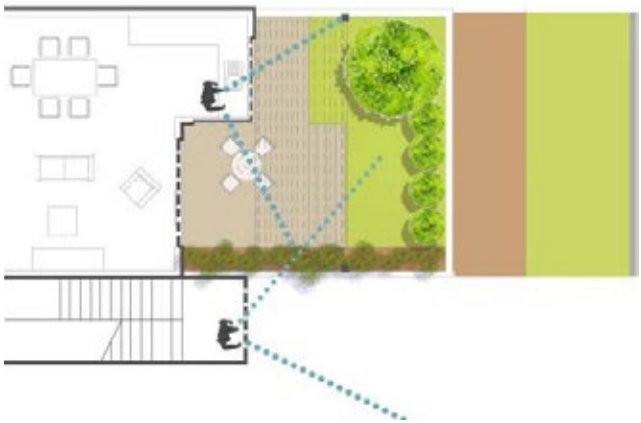
Measures

- *Glazing to retail and commercial tenancies to the street frontage at ground level shall have a head height of 3m to 3.6m high and finish to the underside of the awning. Generally sills are permitted to a maximum height of 500mm however variations may be granted subject to design merit;*
- *75% of the shop frontage presenting to the street shall be transparent and clear glazing;*
- *Retail shopfronts shall typically be in the 6m-10m range for the majority, and are not to exceed these widths except where noted below:*
    - *On any street block over 60m in length, a limit of one shopfront may be 10m-20m wide;*
    - *Shopfronts may exceed the above dimensional requirements if they are expressed as a series of shopfronts with multiple entry points and window displays that allow visual transparency to the shop beyond;*
    - *Large format shops shall comply with the above dimensions (this applies to each façade). Multiple entry points are permitted where each entry is sleeved by small format shopfronts.*



Plan diagram indicating horizontal integration and grain.





Windows, balconies and front doors address the street, provide surveillance and make both the street and the apartment building more secure during the day and at night.

3.2.4 Site Safety

Design Intent

The built environment has an impact on perceptions of safety and security, as well as on the actual opportunities for crime. A development which provides safe ground level entry and exit during all times of the day and night will minimise opportunities for crime. Design for safety works by enabling casual surveillance, reinforcing territory, controlling access and managing space.

Objectives

- *To ensure developments are safe and secure for residents and visitors;*
- *To contribute to the safety of the public domain.*

Principles

- *Reinforce the development boundary to strengthen the distinction between public and private space. This can be actual or symbolic and may include:*
    - *Employing a level change at the site and/or building threshold (subject to accessibility requirements);*
    - *Signage;*
    - *Entry awnings;*
    - *Fences, walls and gates;*
    - *Change of material in paving between the street and the development.*
- *Optimise the visibility, functionality and safety of building entrances by:*
    - *Orienting entrances towards the public street;*
    - *Providing clear lines of sight between entrances, foyers and the street;*
    - *Providing direct entry to ground level apartments from the street rather than through a common foyer;*
    - *Direct and well-lit access between car parks and dwellings, between car parks and lift lobbies and to all unit entrances.*

- *Improve the opportunities for casual surveillance by:*
    - *Orienting living areas with views over public or communal open spaces, where possible;*
    - *Using bay windows and balconies, which protrude beyond the main façade and enable a wider angle of vision to the street;*
    - *Using corner windows, which provide oblique views of the street;*
    - *Providing casual views of common internal areas, such as lobbies and foyers, hallways, recreation areas and car parks.*
- *Minimise opportunities for concealment by:*
    - *Avoiding blind or dark alcoves near lifts and stairwells, at the entrance and within indoor carparks, along corridors and walkways;*
    - *Providing well-lit routes throughout the development;*
    - *Providing appropriate levels of lighting for all common areas;*
    - *Providing graded lighting to car parks and light entrances higher than the minimum acceptable standard.*
- *Control access to the development by:*
    - *Making apartments inaccessible from the balconies, roofs and windows of neighbouring buildings;*
    - *Separating the residential component of a development's car parking from any other building use and controlling car park access from public and common areas;*
    - *Providing direct access from car parks to apartment lobbies for residents;*
    - *Providing separate access for residents in mixed-use buildings;*
    - *Providing an audio or video intercom system at the entry or in the lobby for visitors to communicate with residents;*
    - *Providing key card access for residents.*

Measures

- *Carry out a formal crime risk assessment for developments if shown as a requirement in the DAP;*
- *Designers to consider CEPTED principals (crime prevention through environmental design) when designing.*

Bay windows enable vision of the street.

Living areas have views over public or communal spaces.

Well lit routes are provided throughout the development.

Planting and landscape elements result in quality public open space and amenity for occupants.

3.2.5 Landscaping

Design Intent

Landscape design includes the planning, design, construction and maintenance of all external utility, open space and garden areas and includes both hard and soft landscaping. It is fundamental to the design of all developments but of particular importance to commercial and residential development. Together, landscape and buildings should operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for occupants and the adjoining public domain. As such, it should not be generated by left-over spaces resulting from building siting and location.

Landscape design builds on the existing site's natural and cultural features to contribute to a development's positive relationship to its context and site. (Refer to Section 1.2 Site.)

Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity. It should also take into account practical establishment and long-term management.

Objectives

- *To add value to residents' and users' quality of life in the form of visual and functional amenity;*
- *To add value to residents' quality of life within the development in the forms of privacy, outlook and views;*
- *To improve stormwater quality and reduce quantity;*
- *To improve the microclimate and solar performance within the development;*
- *To improve air quality.*

Principles

- *Improve the amenity of open space with landscape design which will:*
    - *Provide appropriate sun and shade control from trees or landscape structures;*
    - *Provide legible and accessible routes through the space and between buildings and maintain important view corridors;*
    - *Screen cars, communal drying areas, swimming pools and the courtyards of ground floor units;*
    - *Allow for locating art works where they can be viewed by users of open space and/or from within residential units;*
    - *Provide incidental or permanent street furniture where appropriate to encourage use and social interaction.*

- *Contribute to streetscape character and the amenity of the public domain by:*
    - *Relating landscape design to the desired proportions;*
    - *Using planting and landscape elements appropriate to the scale of the development;*
    - *Mediating between and visually softening the bulk of large development;*
    - *Reinforcing the surrounding character with hard and soft landscape materials and tones which are complementary/sympathetic to surrounding development;*
    - *Marry in materials on front setbacks to create seamless 'joins' between public and private areas (where fencing does not delineate).*
- *Improve the energy and solar efficiency of dwellings and the microclimate of private open spaces. Planting design solutions include:*
    - *Trees for shading low-angle sun on the eastern and western sides of buildings;*
    - *Trees that do not cast a shadow over solar collectors at any time of the year;*
    - *Deciduous trees for shading of windows and open space areas in summer and allowing in sunlight in winter;*
    - *Locating evergreen trees well away from the building to permit the winter sun access;*
    - *Varying heights of different species of trees and shrubs to shade walls and windows;*
    - *Locating pergolas on balconies and courtyards to create shaded areas in summer and private areas for outdoor living;*
    - *Locating plants appropriately in relation to their size at maturity.*
- *Contribute to water and stormwater efficiency by integrating landscape design with water and stormwater management, for example, by:*
    - *Using plants with low water demand to reduce mains consumption;*
    - *Using plants with low fertiliser requirements;*
    - *Utilising permeable surfaces;*
    - *Using water features.*
- *Provide a sufficient depth of soil above paving slabs to enable growth of mature trees.*
- *Minimise maintenance by using robust landscape elements.*

Measures

- *Use plant species from the Ellenbrook Town Centre POS and Streetscape Planting Strategy.*
- *Use materials and tones which are complementary/ sympathetic to surrounding development.*

Landscape structures provide shade and resting points.

Public art work integrated into the design of public open spaces.

Varying heights and species of trees and shrubs create shade and provide a screen between public and private spaces.

3.2.6 Space In & Around Buildings

Design Intent

The location and configuration of spaces in and around buildings should respond to occupants' needs, external influences and characteristics of the site to create functional, flexible, efficient and comfortable buildings.

Objectives

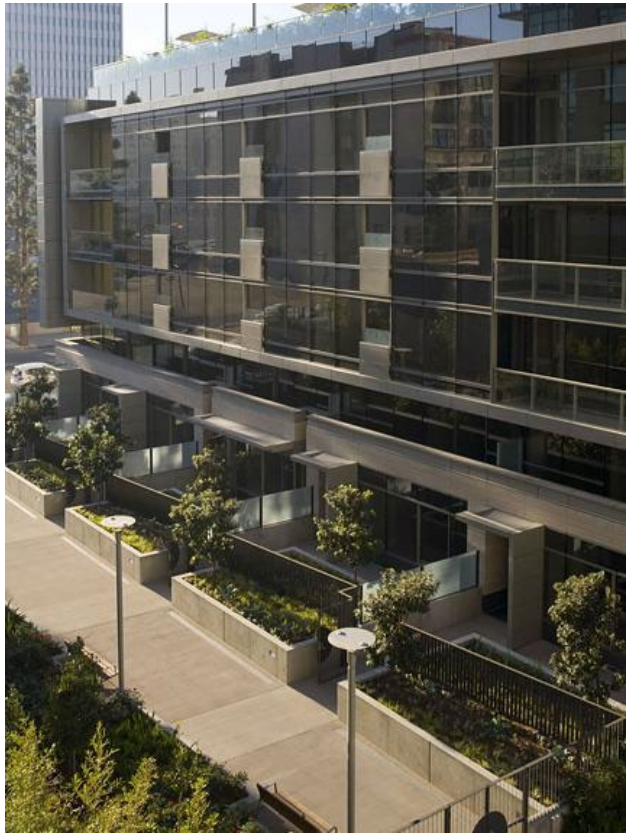
- *To create functional, flexible, efficient and comfortable buildings.*

Principles

- *Consider views to and from buildings;*
- *Optimise solar orientation. Maximise the northern orientation of primary living spaces and private open spaces;*
- *Capitalise on cooling breezes, screen prevailing winds and consider other climatic factors;*
- *Locate bedrooms away from external noise sources.*

Measures

- *Application of the principles above should be described on site plans.*



Active street frontages provide a visual connection between residents and people in the street.

Passive surveillance of public spaces.

Footpath widths support pedestrian traffic.

Wider footpaths allow for active interaction.

Street furniture and landscaping do not obstruct visibility for drivers etc.

3.3 Access

3.3.1 Pedestrians & Bicycles

Design Intent

Developments within the Town Centre should provide pedestrian and cycle friendly internal streets, laneways and spaces that are attractive, safe, permeable and legible.

Objectives

- *To provide pedestrian and cycle friendly internal streets, laneways and spaces that are attractive, safe, permeable and legible.*

Principles

- *Accommodate slow-moving traffic and car parking on laneways rather than creating pedestrian-only malls;*
- *Extend key elements of structured surrounding streets (for example, street pattern, orientation and alignment) into the developments where appropriate. Provide direct links to surrounding areas, particularly for pedestrians and cyclists;*
- *The design of laneways and footpaths must consider the activities that occur on them such as outdoor dining, public transport facilities, waiting areas etc. Design footpath widths to support activities and accommodate expected pedestrian traffic;*
- *Minimise changes in footpath levels and avoid physical barriers to accommodate those in wheelchairs or with prams;*
- *Encourage wider footpaths to improve pedestrian conditions and allow for activity and social interaction;*
- *Provide laneway and footpath planting for shade, buffering, enclosure and increased pedestrian amenity. In doing so, locate tree planting/landscaping and street furniture where they will not obstruct visibility for drivers or present a hazard;*
- *Provide verandahs/shade for weather protection for pedestrians.*

Measures

- *Refer the Ellenbrook Parking Strategy for bicycle parking requirements.*

3.3.2 Universal Access

Design Intent

Universal accessibility is about ensuring access and inclusion for all community members, including those who have a disability, to all public services, facilities and information, thus providing the opportunity and choice to participate in all aspects of community life. The built environment plays a crucial role in providing for universal accessibility and designing for inclusion should always be considered.

Objectives

- *To promote developments that are well connected to the street and contribute to the accessibility of the public domain;*
- *To ensure that occupants, including users of strollers and wheelchairs and people with bicycles, are able to reach all retail, commercial and food/beverage tenancies, and can enter their apartment and use communal areas via minimum grade ramps, paths, access ways or lifts.*

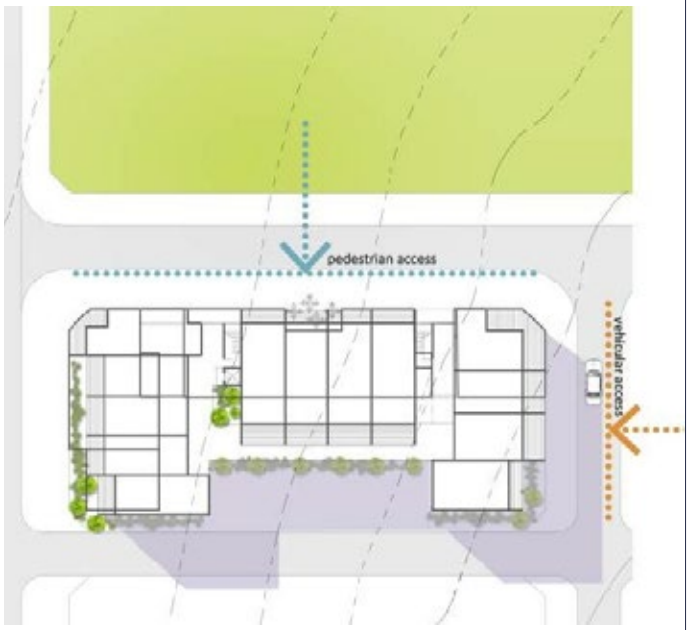
Principles

- *Utilise the site and its planning to optimise accessibility to the developments;*
- *Encourage the development of accessibility strategies as part of the development applications;*
- *Ensure movement networks are legible and both physically and visually permeable to promote wayfinding and independence;*
- *Ensure all pathways are universally accessible;*
- *Provide consistent and relatively flat gradients;*
- *When employing a level change at the site and/or building threshold ensure compliance with accessibility requirements;*
- *Use appropriate material selections;*
- *Locate a mix of one- and three-bedroom apartments on the ground level where accessibility is more easily achieved for disabled, elderly people or families with children;*
- *Balance privacy requirements and pedestrian accessibility.*

Measures

- *Comply with the current Disability (Access to Premises – Buildings) Standards and relevant edition of the Building Code of Australia.*

Examples of integrated universal accessibility.



3.3.3 Vehicular Access & Laneways

Design Intent

Vehicle access is the ability for cars and maintenance and service vehicles to access the development. The location, type and design of vehicle access points to a development will have significant impacts on the streetscape, the site layout and the building façade design. It is important that vehicle access is integrated with site planning from the earliest stages to balance any potential conflicts with streetscape requirements and traffic patterns and to minimise potential conflicts with pedestrians.

Laneways in the Town Centre function primarily to provide vehicular access to public and private parking areas, service and loading areas. There will be a mix of commercial, visitor and residential vehicles that use the laneways. Pedestrian use of laneways is also anticipated.

To provide a safe environment, development abutting laneways should provide an opportunity for passive surveillance of the laneways through design. Development abutting laneways should be designed with windows and openings from habitable spaces overlooking the laneway.

Objectives

- *To integrate adequate car parking and servicing access without compromising street character, landscape or pedestrian amenity and safety;*
- *To encourage the active use of street frontages;*
- *To provide for an interesting and engaging environment allowing for passive surveillance from surrounding development;*
- *To ensure laneways function foremost as a vehicle and service access zone.*

Principles

- *Ensure that pedestrian safety is maintained by minimising potential pedestrian/vehicle conflicts. Design approaches include:*
    - *Limiting the width and number of vehicle access points;*
    - *Ensuring clear site lines at pedestrian and vehicle crossings;*
    - *Utilising traffic calming devices;*
    - *Separating and clearly distinguishing between pedestrian and vehicular accessways.*
- *Ensure adequate separation distances between vehicular entries and street intersections.*

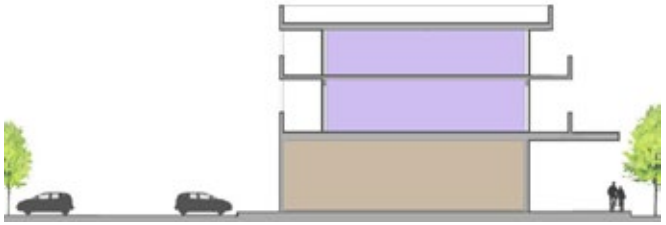
- *Optimise the opportunities for active street frontages and streetscape design by:*
    - *Making vehicle access points as narrow as possible;*
    - *Limiting the number of vehicle accessways to a minimum;*
    - *Locating car park entry and access from secondary streets and lanes.*
- *Improve the appearance of car parking and service vehicle entries, for example, by:*
    - *Screening garbage collection, loading and servicing areas visually away from the street;*
    - *Setback or recess carpark entries from the main façade line;*
    - *Avoid 'voids' in the façade by providing security doors to carpark entries;*
    - *Where doors are not provided, ensure that the visible interior of the carpark is incorporated into the façade design and material selection and that building services-pipes and ducts are concealed;*
    - *Return the façade material into the carpark entry recess for the extent visible from the street as a minimum;*
    - *Developments adjacent to and over laneways are encouraged to have windows to commercial floorspace and habitable spaces to encourage passive surveillance and engagement with the laneway.*

Measures

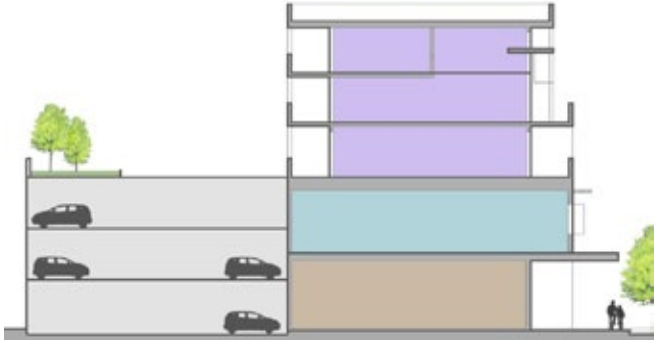
- *Generally limit the width of driveways and laneways to a maximum of 6m;*
- *Locate vehicle entries away from main pedestrian entries and on secondary frontages or laneways where provided;*
- *Vehicular access onto major routes (e.g. the Parkway) will generally be deemed unacceptable.*

The location of carpark entries on the secondary façade (or laneway) minimises its impact on the primary streetscape.

The elevation treats the carpark entry as part of the whole. It narrows the width of the entry and defines an opening in proportion to the other façade elements.



At grade car parking is located to the rear of the site behind commercial and retail uses.



Above ground car parking is located to the rear of the site behind commercial and retail uses.

3.3.4 Parking

Design Intent

Accommodating parking on site (underground or on-grade) has a significant impact on the site layout, landscape design, deep soil zones and stormwater management. The amount of parking provided is related to the size of the development, however, parking provision should also be considered in relation to the local context.

The location of public transport facilities, services and recreational facilities within walking or cycling distance may reduce the need for parking spaces.

Objectives

- *To minimise car dependency for commuting and recreational transport use and to promote alternative means of transport such as public transport, bicycling, and walking;*
- *To provide adequate car parking for the building's users and visitors, depending on building type and proximity to public transport;*
- *To integrate the location and design of car parking with the design of the site and the building.*

Principles

- *Determine the appropriate car parking space requirements in relation to:*
    - *The development's proximity to public transport, shopping and recreational facilities;*
    - *The density of the development and the local area;*
    - *The site's ability to accommodate car parking. This may be affected by other requirements, such as deep soil zones, water table, topography and size and shape of the lot.*
- *Limit the number of visitor parking spaces, particularly in small developments where the impact on landscape and open space is significant.*
- *Give preference to underground parking, whenever possible. Design considerations include:*
    - *Retaining and optimising the consolidated areas of deep soil zones;*
    - *Facilitating natural ventilation to basement and sub-basement car parking areas, where possible;*
    - *Integrating ventilation grills or screening devices of carpark openings into the façade design and landscape design;*
    - *Providing safe and secure access for building users, including direct access to residential apartments, where possible;*

- *Providing a logical and efficient structural grid. There may be a larger floor area for basement car parking than for upper floors above ground. Upper floors, particularly in slender residential buildings, do not have to replicate basement car parking widths.*

- *Where above ground enclosed parking cannot be avoided, ensure the design of the development mitigates any negative impact on streetscape and street amenity by:*
  - *Avoiding exposed parking on the street frontage;*
  - *Hiding car parking behind the building façade. Where wall openings (windows, fenestrations) occur, ensure they are integrated into the overall façade scale, proportions and detail;*
  - *Sleeve the car parks with other uses, for example, retail along street edges with parking behind.*

- *Minimise the impact of on-grade car parking by:*
  - *Locating parking on the side or rear of the lot away from the primary street frontage;*
  - *Screening cars from view of streets and buildings;*
  - *Allowing for safe and direct access to building entry points;*
  - *Incorporating parking into the landscape design of the site. Considerations include:*
    - *Vegetation between parking bays and to ameliorate views;*
    - *Canopy/shade planting;*
    - *Selection of paving material;*
    - *Screening from communal and private open space areas;*
    - *Trees at one per three bays;*
    - *Bicycle parking which is easily accessible.*

Measures

- *Refer to the Ellenbrook Town Centre Parking Strategy for parking ratio requirements.*

Where on-grade carparking is necessary, its impact can be reduced by quality paving and landscaping between smaller groups of car spaces.

3.4 Land Use & Building Configuration

3.4.1 Retail / Commercial

Design Intent

To encourage a diverse mix of retail and commercial uses within the centre and promote passing foot trade.

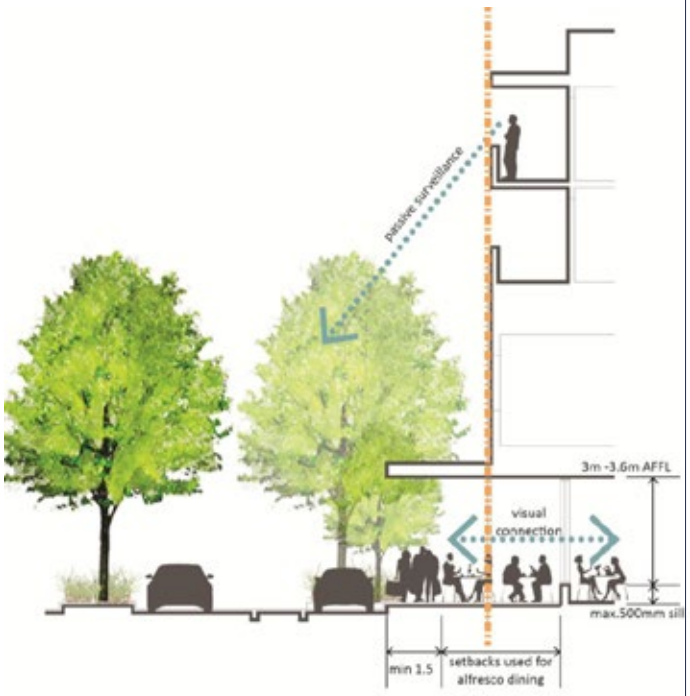
Objectives

- *Mix uses vertically (such as shop-top housing or offices over shops) and horizontally (where uses are beside each other);*
- *Encourage a rich diversity of shops and services that extend the hours of activity within the centre and widen the use mix to more than retail alone;*
- *Create commercial precincts which are attractive and comfortable for pedestrians.*

Principles

- *Bear in mind accessibility requirements of mobility-impaired people;*
- *Uses to consider include educational, community functions, recreational, sporting, entertainment, commercial office, health and wellbeing, and medical uses;*
- *Use streets to join activity rather than as boundaries between different uses and densities;*
- *Use canopies and awnings to provide weather protection and enable browsing;*
- *Provide a range of shop sizes and frontages to facilitate a wide range of tenancies;*
- *Integrate details into shopfronts which create a level of interest at street level to create a pedestrian friendly atmosphere;*
- *Create uniqueness to tenancies (or groups of tenancies) to allow opportunities for personalisation to occur (e.g. canopies, heights of sills, etc.).*

Examples of well detailed shop fronts and streetscapes.



3.4.2 High Density Residential

Design Intent

Maximise residential density within the Town Centre to extend the hours of activity, support retail diversity, provide passive surveillance and to capitalise on the Town Centre public transport nodes.

Objectives

- *To create a vibrant and stimulating Town Centre;*
- *To create opportunity for passive surveillance of the public realm contributing to the sense of safety.*

Principles

- *Maximise the number of residential units in the Town Centre above ground floor;*
- *Ensure initial, built-in carrying capacity of development in the Town Centre permits future first and second floor residential development;*
- *Consider amalgamation of small lots into larger sites to facilitate better and more efficient design results;*
- *Encourage higher density residential design that increases natural surveillance of public spaces and streets;*
- *Provide optimal private open space, with good solar access, to each residential unit. (See Ellenbrook Town Centre Good Design Guide: Sustainability for minimum solar access requirements);*
- *Integrate high-density housing into the local streetscape and avoid gated communities;*
- *Locate and orient residential development to maximise northern orientation of residential buildings while responding to urban form and streetscape character. Prevent glare and excessive solar gain in summer months;*
- *Incorporate adequate noise attenuation measures into all residential buildings in the Town Centre;*
- *Avoid shared entrances between commercial and residential uses. Provide dedicated entrances to residential development in mixed-use buildings;*
- *Encourage multiple individual entrances to higher density housing along street frontages;*
- *Screen rooftop lift overruns, plant rooms and services from view, both from the public domain and from nearby residential units;*
- *Locate and orient residential development to avoid adverse amenity impacts from existing buildings and activities, such as noise from existing loading bays, plant rooms, entertainment venues, exhaust stacks and service plant.*

Examples of varied medium to high density residential integrated into the Town Centre streetscape.

Private entry terrace is raised above ground to provide privacy and to facilitate car park ventilation. Planting along the terrace edge contributes to a quality streetscape.

3.4.3 Ground Floor Apartments

Design Intent

Ground floor apartments are special because they offer the potential for direct access from the street and on-grade private landscape areas. They also provide opportunities for the apartment building and its landscape to respond to the streetscape and the public domain at the pedestrian scale. Ground floor apartments also support housing choice by providing accessibility to the elderly and/or disabled and support families with small children. Ground floor apartments extend the lifestyle choices available in apartment buildings by facilitating activities such as gardening, play and pet ownership.

Objectives

- *To contribute to the desired streetscape of an area and to create active safe streets;*
- *To increase the housing and lifestyle choices available in apartment buildings.*

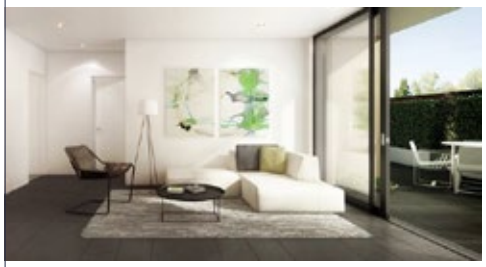
Principles

- *Design front gardens or terraces which contribute to the spatial and visual structure of the street while maintaining adequate privacy for apartment occupants. This can be achieved at the street edge, for example, by promoting individual entries for ground floor apartments. This creates more pedestrian activity along the street and articulates the street edge by:*
    - *o Balancing privacy requirements and pedestrian accessibility;*
    - *o Providing appropriate fencing, lighting and/ or landscaping to meet privacy and safety requirements of occupants while contributing to a pleasant streetscape;*
    - *o Utilising a change in level from the street to the private garden or terrace to minimise site lines from the street into the apartment for some apartments;*
    - *o Increasing street surveillance with doors and windows facing onto the street.*

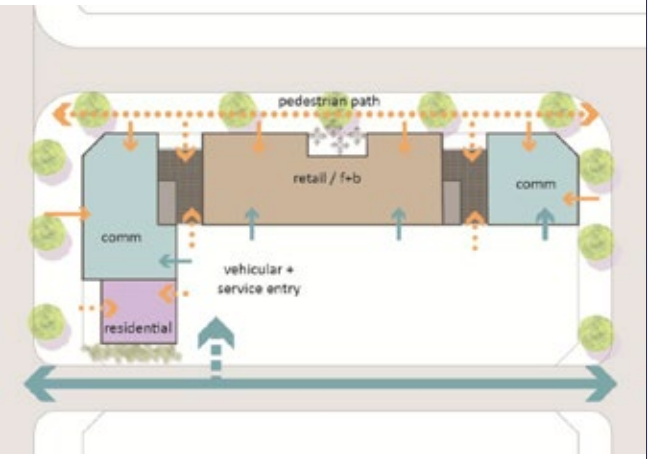
- *Ensure adequate privacy and safety of ground floor units located in urban areas with no street setbacks by:*
    - *Stepping up the ground floor from the level of the footpath a maximum of 1.2m (see 3.6.3 Fences & Walls for detail considerations);*
    - *Designing balustrades and establishing window sill heights to minimise site lines into apartments, particularly in areas with no street setback;*
    - *Determining appropriateness of individual entries (see 3.5.3 Entries and 3.2.4 Site Safety);*
    - *Ensuring safety bars or screens are integrated into the overall elevation design and detailing;*
    - *Avoiding the use of roller shutters.*
- *Promote housing choice by:*
    - *Providing private gardens, which are directly accessible from the main living spaces of the apartment and support a variety of activities;*
    - *Maximising the number of accessible apartments on the ground floor;*
    - *Supporting a change or partial change in use, such as a home office accessible from the street or a corner shop (see 3.4.4 Mixed Use, 3.4.5 Robust Design & 3.5.9 Ceiling Heights).*
- *Increasing opportunities for solar access in ground floor units, particularly in denser areas by:*
    - *Providing higher ceilings and taller windows (see 3.5.9 Ceiling Heights);*
    - *Choosing trees and shrubs which provide solar access in winter and shade in summer (see 3.2.5 Landscaping).*

Measures

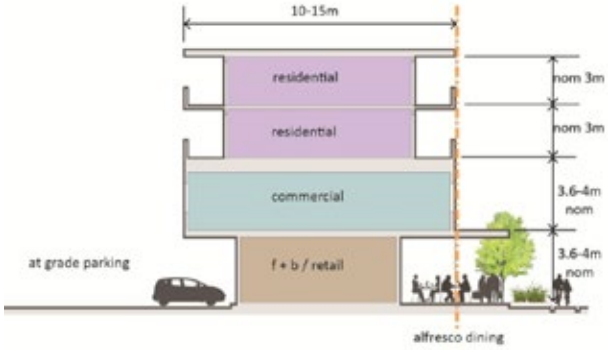
- *Optimise the number of ground floor apartments with separate street entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site;*
- *Provide ground floor apartments with access to private open space, preferably as a terrace or garden;*
- *Screen bedroom windows;*
- *Provide a barrier to designate private and public space.*



Planting along fences visually screens private terraces from the carpark.



Horizontal integration of finer grain mixed uses.



Vertical integration of different uses.

3.4.4 Mixed Use

Design Intent

Mixed use development promotes a finer grain mix of uses and challenges previous planning practices, which segregated land into individual uses. These developments integrate uses either horizontally with different uses adjacent to each other or, more commonly in apartment buildings, vertically with different uses stacked within the same building.

Mixed use development is encouraged throughout the Town Centre.

Objectives

- *To support the integration of appropriate retail and commercial uses with residential uses;*
- *To ensure that the design of mixed use developments maintains residential amenities and preserves compatibility between uses;*
- *To create more active, lively streets and Town Centre, which encourages pedestrian movement, services the needs of the residents and will increase the area's employment base;*
- *To provide nearby amenity for users and residents.*

Principles

- *Choose a mix of uses that complement and reinforce the character, economics and function of the area;*
- *Choose a compatible mix of uses, for example, food retail, small-scale commercial and residential is a better mix than nightclub and residential;*
- *Consider building depth and form in relation to each use's requirements for servicing and amenity. The compatibility of various uses can be addressed by utilising:*
    - *o Flexible building layouts, which promote variable tenancies or uses (see 3.4.5 Robust Design);*
    - *o Optimal floor to ceiling heights for adaptive reuse, for example, 3.0 to 3.3 metres for commercial office or 3.3 to 3.6 metres for active public uses, such as retail and restaurants (assuming a nom. 0.4m service/structure zone) (see 3.5.9 Ceiling Heights);*
    - *o Optimal building depths, such as 10-18m for residential and smaller commercial. Use extra care where larger footprint commercial spaces - cinemas, supermarkets, and department stores-are integrated with residential uses.*
- *Design legible circulation systems, which ensure the safety of users by:*
    - *o Isolating commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook or private open space;*

- *Locating clearly demarcated residential entries directly from the public street;*
- *Clearly distinguishing commercial and residential entries;*
- *Providing security entries to all entrances into private areas, including car parks and internal courtyards;*
- *Providing safe pedestrian routes through the site, where required.*

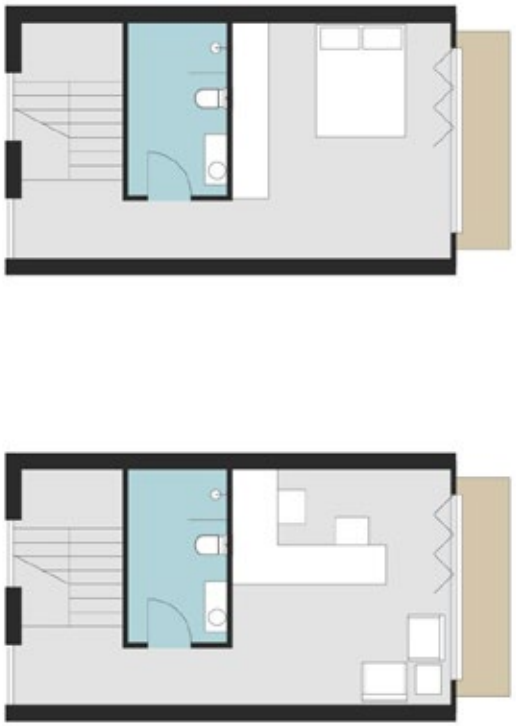
- *Ensure the building positively contributes to the public domain and streetscape by:*
  - *Fronting onto major streets with active uses;*
  - *Avoiding the use of blank walls at the ground level.*
- *Address acoustic requirements for each use by:*
  - *Separate residential uses, where possible, from ground floor leisure or retail uses by utilising an intermediate quiet-use barrier, such as offices;*
  - *Design for acoustic privacy from the beginning of the project to ensure that future services, such as air conditioning, do not cause acoustic problems later.*
- *Recognising the ownership/lease patterns and separation requirements of the Building Code of Australia (BCA).*

Measures

- *Mixed use buildings should contain compatible commercial and other non-residential uses in conjunction with residential dwellings in a multiple dwelling configuration. Physically, it includes both vertical and horizontal mixes of use. No single use should dominate other uses, and residential land use should generally not exceed 60% of the land use.*

Clearly defined ground floor entry to multistorey mixed use development.

Horizontal and vertical integration of mixed use development.



Design for flexibility and adaptability- ground floor apartments can be used for non-residential purposes.

3.4.5 Robust Design

Design Intent

Robust and flexible building design allows for a change in use of a building over time, ensuring the building is sustainable via its longevity and adaptability. It ensures that buildings can accommodate a wider range of inhabitants and their changing lifestyle needs, such as:

- *Household structure changes - single, couple, family, extended family;*
- *Live/work housing arrangements;*
- *Changing mobility and access needs, including the elderly or young children in prams;*
- *Future changes in use - residential to commercial office.*

In designing a robust residential building, consideration is to be given to future access to tenancies. Consideration should also be given to how internal layouts may be adapted for commercial/retail tenancies – for example, raised floors, aligning core services between floors, minimising internal structural walls, columns and services to allow for internal layout renovation.

The external appearance of the building should be designed as a commercial/retail tenancy rather than being domestic in appearance. High ceilings for commercial tenancies may allow for raised lightweight floors and raised courtyards for residential dwellings. Any ramping should fit within the front setback area.

Objectives

- *To encourage building design which meets the broadest range of the occupants' needs possible;*
- *To promote 'long life loose fit' buildings, which can accommodate whole or partial changes of use;*
- *To enable the ground floor to be used for non-residential use at some stage in the future;*
- *To encourage adaptive re-use of buildings to save the embodied energy expended in demolition;*
- *To encourage longevity in the design of buildings.*

Principles

- *Provide robust building configurations, which utilise multiple entries and circulation cores, especially in larger buildings over 15m long;*
    - *Thin building cross sections, which are suitable for residential or commercial uses;*
    - *A mix of apartment types (refer Ellenbrook Town Centre Good Design Guide: Apartments);*
    - *Higher ceilings in particular on the ground floor and first floor (see 3.5.9 Ceiling Heights);*
    - *Separate entries for the ground floor level and the upper levels;*

- *Provide apartment layouts, which accommodate the changing use of rooms. Design solutions include:*
    - *Windows in all habitable rooms and to the maximum number of non-habitable rooms;*
    - *Adequate room sizes or open-plan apartments;*
    - *Dual master-bedroom apartments, which support two independent adults living together.*
- *Utilise structural systems, which support a degree of future change in building use or configuration:*
    - *A structural grid, which accommodates car parking dimensions, retail, commercial and residential uses vertically throughout the building;*
    - *The alignment of structural walls, columns and services cores between floor levels;*
    - *The minimisation of internal structural walls;*
    - *Higher floor to floor dimensions on the ground floor and possibly the first floor;*
    - *Knock-out panels between apartments to allow adjacent apartments to be amalgamated.*
- *Promote accessibility and adaptability by ensuring:*
    - *The number of accessible apartments is optimised;*
    - *Adequate pedestrian mobility and access is provided (see 3.3.1 Pedestrians & Bicycles).*

Measures

- *Where residential use is to occur at the ground floor, development applications shall demonstrate how the design will enable conversion from residential to commercial or retail use in the future. This includes the street elevations, which shall be designed in the first place as commercial/retail type frontages rather than domestic in scale and design aesthetic;*
- *The minimum ground to first floor height to be between 3.4m and 4m (assuming a nom. 0.4m – 0.6m service/structure zone). Also refer 3.5.9 Ceiling Heights;*
- *Design separate entries for the ground floor level and upper level areas;*
- *Consider and allow for adequate pedestrian mobility for future development as commercial/retail uses. This includes designing for universal access to commercial/retail tenancies from the street;*
- *Allow for at least 25% of the boundary and building frontage to be converted to future food and beverage, retail or commercial use. Careful consideration will be required for future servicing of this use, such as power, grease traps, ventilation, etc. The 25% of frontage for future food and beverage uses is to be shown at the Design Review and Development Application stages.*

Ground floor residential design which can be converted to non residential use in the future.

3.4.6 Large Uses

Design Intent

Large uses, such as supermarkets and leisure facilities, will contribute to the vitality and viability of the Town Centre. Blank walls and expanses of carparking usually associated with large uses can create voids in street activity which can adversely affect surrounding uses. Carefully integrate large uses into main streets of the Town Centre and ensure that they apply mixed use main street development principles.

Objectives

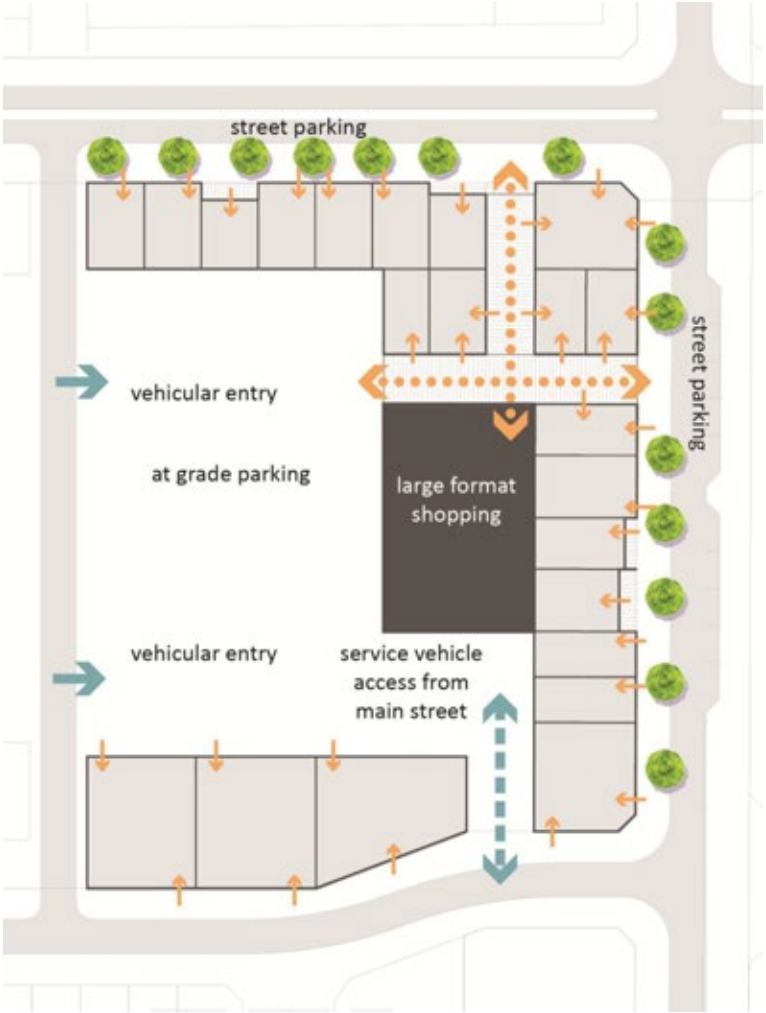
- *To carefully integrate large uses into main streets of the Town Centre and ensure that they apply mixed use main street development principles,*

Principles

- *Sleeve large uses with fine grained active frontages at ground floor, and commercial, community and residential uses over;*
- *Locate smaller tenancies within the store frontage to provide a continuous active street frontage and to integrate large uses into the prevailing rhythm and grain of the street;*
- *Articulate all large buildings, both in volume and surface treatment, to reflect the existing scale of the street;*
- *Provide a scale transition between large format buildings and their surrounding streets and residential areas;*
- *Avoid blank walls, car parks or service bays facing primary streets and public spaces;*
- *Limit the amount of ground level car parks to large stores to avoid separation from the surrounding Town Centre;*
- *Loading bays, waste storage and collection points, and services should be acoustically and visually screened, or located away from public spaces, streets and residential areas to preserve site and building amenity.*

Measures

- *Comply with the measures outlined in 3.2.3 Active Street Frontages.*



Large format retail/commercial/leisure and ground level parking shall be sleeved by fine grain development to the main streets.

3.5 Building Design

3.5.1 Architectural Character

Design Intent

Architectural quality and execution contribute to, and help to define, the character of the public domain. Buildings shall reflect design excellence – employing composition, proportion and balance in the design. Visual interest results from well considered use of a variety of materials and textures, and the articulation of the building form and mass. The use of textures, materials and colour should be used to articulate the façade, internal layout and reflect the structure rather than applied as decoration.

As part of the Town Centre, the design of the buildings shall reflect the unique location both in design response and through the appropriate choice of materials and finishes for longevity and maintenance. Additionally, the use of colour, texture and palette derived from the natural environment should inform the aesthetic response. The architectural character must respond to the precinct character (refer 3.1.2 Precinct Character). Use of traditional red brick is strongly encouraged throughout the Centre and may be specifically mandated on key buildings to ensure a desired overall character is embedded.

Objectives

- *To achieve design excellence that reflects and responds to the environment and the creation of a truly unique urban Town Centre;*
- *To facilitate a cohesive streetscape with materials and finishes of a high standard;*
- *To develop a consistent palette of materials and colours which allow for variety and innovative architectural response;*
- *To provide environmentally responsive design solutions.*

Principles

- *Design excellence and execution via well considered composition, proportion, material selection and detailing, legible building entries, balconies and other elements;*
- *Articulate wall planes with detail. reflecting streetscape datum lines;*
- *Respond to adjacent buildings, streetscape design and precinct identity when developing a design solution;*
- *Building design shall respond to orientation, climate and the location;*
- *Provide an architecture that is a direct response to the climate of Ellenbrook where the hot and dry climate is dealt with through a straightforward but innovative approach to design.*

Measures

- *Innovative and contemporary design is encouraged. Direct historical reproductions and pastiche designs are not permitted.*

Visual interest results from well considered use of a variety of materials and textures, and the articulation of the building form and mass.

Key datum lines expressed in change of materials and structure.

Internal layout is expressed and building entries articulated.

3.5.2 Façades

Design Intent

Façades are the external face of buildings in the public realm and within a site. Their architectural quality contributes to the character and design of the public domain. High architectural quality requires the appropriate composition of building elements, textures, materials and colours and reflects the use, internal design and structure of a development.

The composition and detailing of the building façade has an impact on its apparent scale as well as its appearance. The pattern or rhythm established by the proportions of the façade, the modulation of the external walls, the design of façade elements, their materials and their detailing are all important considerations.

Objectives

- *To promote high architectural quality in all Town Centre developments;*
- *To ensure that new developments have façades which define and enhance the public domain and desired street character;*
- *To ensure that building elements are integrated into the overall building form and façade design.*

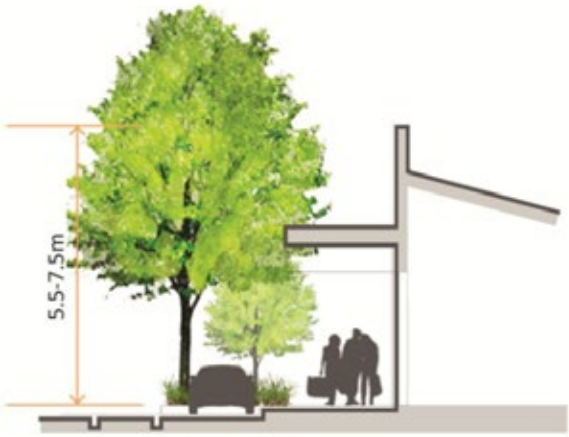
Principles

- *Consider the relationship between the whole building form and the façade and building elements. The number and distribution of elements across a façade determine simplicity or complexity. Columns, beams, floor slabs, balconies, window openings and fenestrations, doors, balustrades, roof forms and parapets are elements, which can be revealed or concealed and organised into simple or complex patterns;*
- *Compose façades with an appropriate scale, rhythm and proportion, which respond to the building's use and the desired contextual character. Design solutions may include but are not limited to:*
    - *Defining a base, middle and top related to the overall proportion of the building;*
    - *Expressing key datum lines in the context using cornices, a change in materials or building set back;*
    - *Expressing the internal layout of the building, for example, vertical bays or its structure, such as party wall-divisions;*
    - *Expressing the variation in floor to floor height, particularly at the lower levels;*
    - *Articulating building entries with awnings, porticos, recesses, blade walls and projecting bays;*
    - *Selecting balcony types which respond to the street context, building orientation and residential amenity. Cantilevered, partially recessed, wholly recessed, or Juliet balconies will all create different façade profiles;*

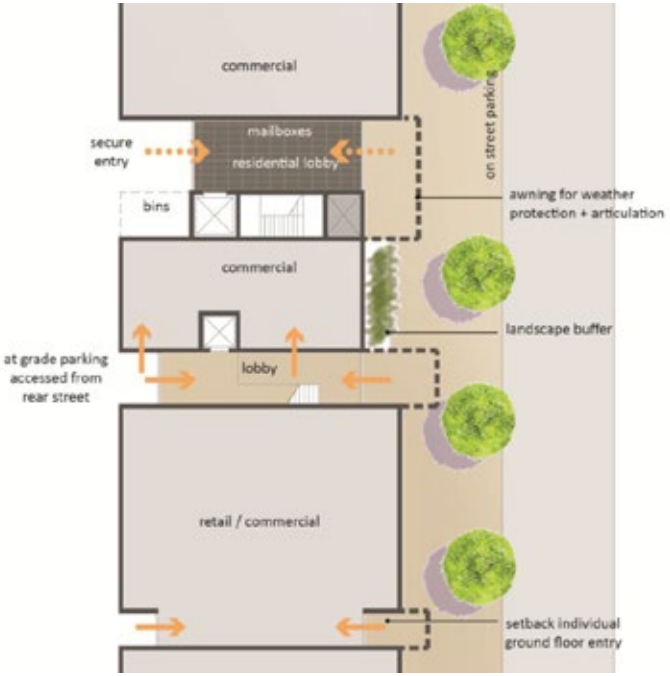
- *o Detailing balustrades to reflect the type and location of the balcony and its relationship to the façade detail and materials;*
- *o Using a variety of window types to create a rhythm or express the building uses, for example, a living room versus a bathroom;*
- *o Incorporating architectural features which give human scale to the design of the building at street level. These can include entrance porches, awnings, colonnades, pergolas and fences;*
- *o Using recessed balconies and deep windows to create articulation and define shadows thereby adding visual depth to the façade.*

- *Design façades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls, depending on the façade orientation;*
- *Express important corners by giving visual prominence to parts of the façade, for example, a change in building articulation, material or colour, roof expression or increased height;*
- *Coordinate and integrate building services, such as drainage pipes, with overall façade and balcony design;*
- *Coordinate security grills/screens, ventilation louvres and carpark entry doors with the overall façade design (see 3.3.4 Parking).*

Louvres and sun shading is integrated into the design of the façade.



Minimum parapet heights for single storey parapets.



Examples of articulating building entries through setbacks, awnings and landscaping, where building entrances define the threshold between public and private.

3.5.3 Entries

Design Intent

Building entries provide an interface within the public domain and generate 'people presence', thereby contributing to the activation of the street and the identity of the development. Building entrances define the threshold between the public street and private areas within the building. The entry point directs and orientates the visitor and can create a desirable identity for a development. Entries may lead into a common entry foyer, into communal open space or directly into the private space of an apartment from the street.

Objectives

- *To create entrances which provide a desirable identity for the development;*
- *To contribute positively to variation, orientation and articulation within the streetscape and built form;*
- *To provide orientation and legibility for the visitor;*
- *To provide clearly a defined address at street level for every dwelling or group of dwellings.*

Principles

- *Improve the presentation of the development to the street by:*
  - *Locating entries so that they relate to the existing street and subdivision pattern, street tree planting and pedestrian access network;*
  - *Designing the entry as a clearly identifiable element of the building in the façade design;*
  - *Utilising multiple entries-main entry plus private ground floor apartment entries-where it is desirable to activate the street edge or reinforce a rhythm of entries along a street.*
- *Provide as direct a physical and visual connection as possible between the street and the entry for a safe environment;*
- *The primary entry to a building's upper floors shall be accessed and addressed from the street;*
- *Ensure equal access for all (See 3.3.2 Universal Access);*
- *Design entries and associated circulation space of an adequate size to allow movement of large furniture between public and private spaces;*
- *Provide safe and secure access. Design solutions include:*
  - *Avoid ambiguous and publicly accessible small spaces in entry areas;*
  - *Provide a clear line of sight between one circulation space and the next;*
  - *Provide sheltered, well lit and highly visible spaces to enter the building, meet and collect mail.*

- *Generally provide separate entries from the street for:*
    - *Pedestrians and cars;*
    - *Different uses, for example, for residential and commercial users in a mixed-use development;*
    - *Ground floor apartments, where applicable (see 3.4.3 Ground Floor Apartments).*
- *Provide and design mailboxes to be convenient for residents and not to clutter the appearance of the development from the street. Design solutions include:*
    - *Locating them adjacent to the major entrance and integrated into a wall, where possible;*
    - *Setting them at 90 degrees to the street, rather than along the front boundary.*
- *Design for any service and emergency equipment that may need to be located within the lobby space;*
- *The building shall have a clearly identified street number.*

Measures

- *The building entry shall be clearly defined and identifiable, well lit and safe.*

The entry is clearly identifiable and well lit.

Differentiation between residential and commercial entry.

Colour is used to articulate the building entry.

Various design solutions to defining and activating street corners.

3.5.4 Corners

Design Intent

Corner buildings provide a transition between streets and define the public realm at intersections. The design of a building at the corners should be considered carefully to ensure there is continuity or harmony of materials and detailing to both elevations. The corner may be emphasised by height, form or feature elements such as wrapping balconies.

Objectives

- *To reinforce the street edge at corners;*
- *To ensure building design considers the site truncation by way of design and detail;*
- *To ensure appropriate design of corners to ameliorate wind conditions at ground level.*

Principles

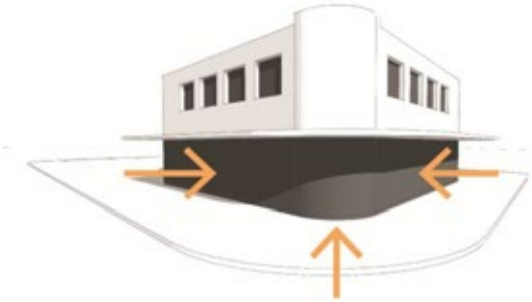
- *Every street elevation, excluding laneways, shall be considered as primary frontage and designed as such;*
- *Corners need to be expressed as strong visual elements using techniques such as façade articulation, increased height, distinctive roof forms, materials and colour, establishing a focal point and architectural feature;*
- *Blank walls to corner frontages will not be permitted;*
- *Re-entrant corners (such as those opposite the linear park at the end of High Street) are equally important to external corners.*

Measures

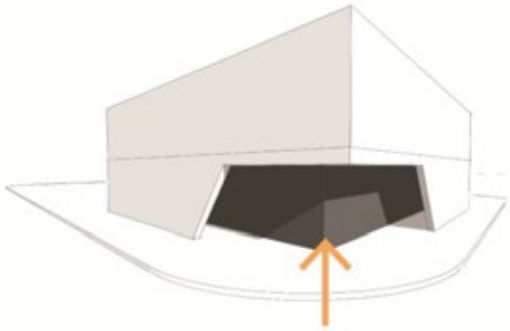
- *Every street elevation, excluding laneways, shall be considered as primary frontage and designed as such.*

verandah corner
-equally activated frontages

truncated corner
-main entry on corner
-specific corner element
-both streets addressed



tower corner
-equally activated frontages
-main entry addresses corner



contemporary verandah
-main entry on corner recessed
-main activation to corner

3.5.5 Openings

Design Intent

The number, placement, proportion and detail of windows and openings can assist in articulating the façade and are important elements within the design. In large scale developments, where repetition within the façade occurs, window design and placement should be well considered to avoid the appearance of blank façades. The use of shading devices such as eaves, awnings and external louvres can provide protection from the natural elements and provide definition to the building.

Objectives

- *To ensure well considered placement and design of windows and openings within the building façade;*
- *To ensure window detailing and opening placement is detailed to avoid the appearance of blank façades lacking in depth and design detail;*
- *To encourage passive surveillance over the public realm;*
- *To provide protection to west-facing openings from summer sun where possible.*

Principles

- *Service and wet area openings shall be integrated into the building façade design and shall not be visually obvious from the public realm;*
- *Glazing is to be transparent;*
- *Integrated sun protection in the form of louvres is permitted;*
- *Interesting, well considered punctuation of building elevations with openings that respect and contribute to building design is required.*

Measures

- *Roller shutters over windows are not permitted to address the primary street frontages at any level;*
- *The use of highly tinted or reflective glass is not permitted;*
- *Elevations which consist entirely of service and wet area openings are not permitted.*

3.5.6 Alfresco

Design Intent

Vendor activity may extend beyond the site boundary to encourage alfresco seating and the display of goods. This will contribute to a vibrant and active environment where people, seating, umbrellas and canopy colours populate the street. The vendor zone is to maintain a minimum thoroughfare of 1.5m to maintain pedestrian access along the footpath. Where vendor activity is proposed to extend beyond the site boundary, the applicant or alfresco vendor is to consult with LWP regarding the management of the public space.

Objectives

- *To create a vibrant and stimulating pedestrian experience;*
- *To create opportunity for passive surveillance of the public realm contributing to the sense of safety;*
- *To encourage alfresco dining spaces that are well designed and contribute positively to the public realm.*

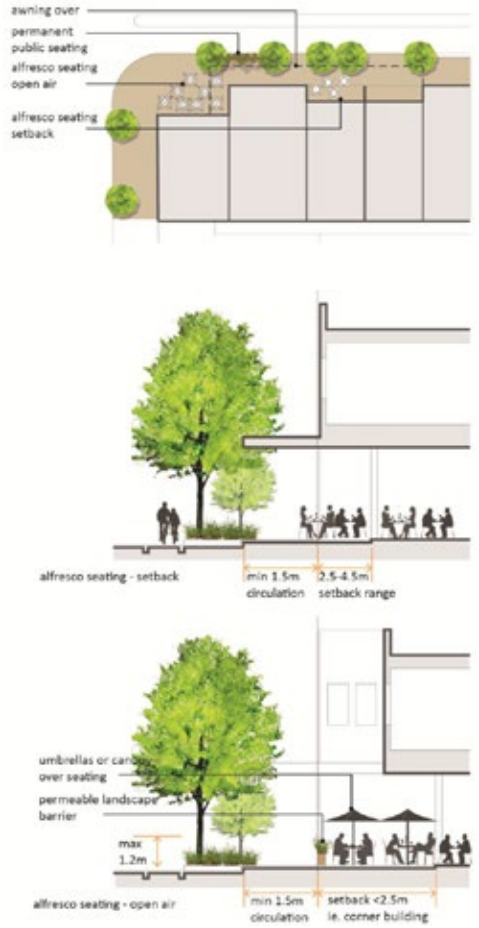
Principles

- *Provide sheltered areas conducive to alfresco entertaining;*
- *Vendor activity may extend beyond the site boundary to encourage alfresco seating and the display of goods.*

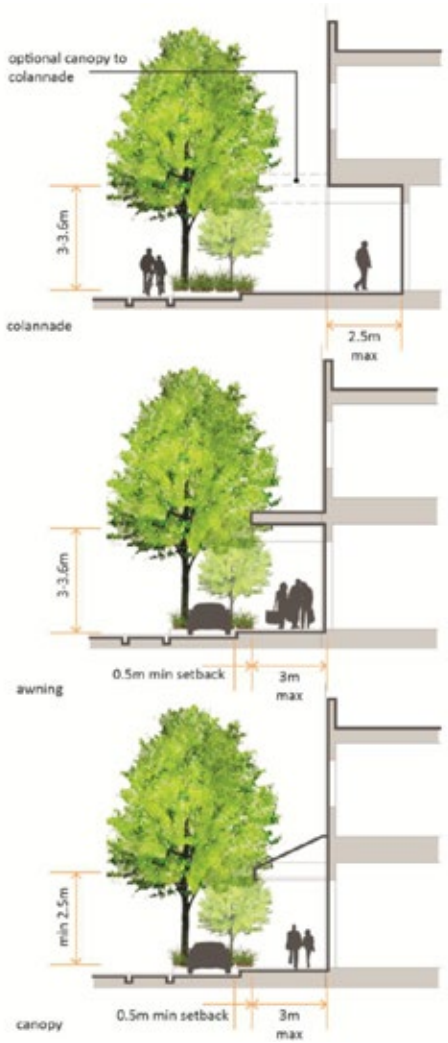
Measures

- *Alfresco seating can be screened by visually permeable barriers no higher than 1.2m where required.*

Sheltered area conducive to alfresco dining.



Alfresco areas – setback vs open air.



3.5.7 Weather Protection (Colonnades, Awnings, Canopies & Screens)

Design Intent

Colonnades, awnings and canopies provide protection from sun, rain and wind, encourage pedestrian activity and create opportunities for extending retail activities to footpaths. They also create an intimacy of space. The design of the colonnade, awning and canopy can provide identity and detail to a building. Colonnades, awnings and canopies can be used to emphasise corners and define entry foyers to upper levels via accentuated height or a variation in design. High level awnings such as shading over windows are encouraged to add interest and expression to the building's architecture and improve its energy efficiency. Nominated streets within the Town Centre are required to provide pedestrian cover – refer plan on page 73.

Objectives

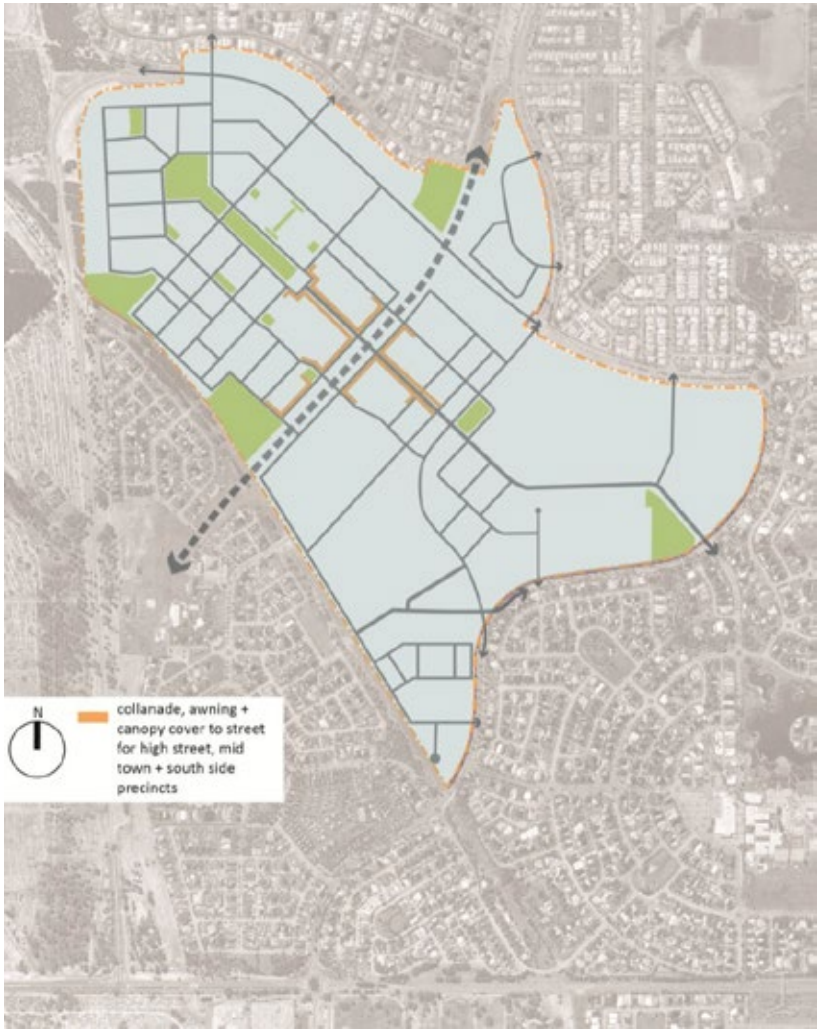
- *To provide shelter along the street edge on nominated streets;*
- *To encourage pedestrian activity as part of an activated built form environment;*
- *To define entry points to upper level development.*

Principles

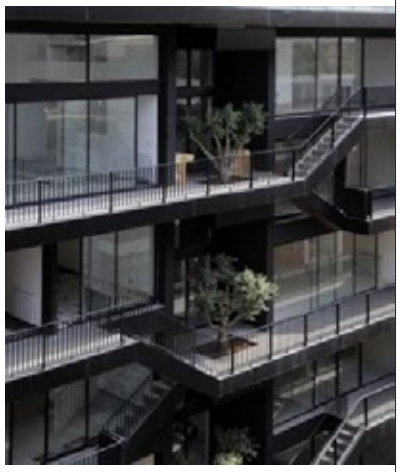
- *Pedestrian cover shall be provided to the High Street Precinct as indicated on the plan on page 73. Cover is not required to be continuous;*
- *Provide shelter over building entries to define the entry;*
- *Interesting design, integral to the design and finish of the building/development, is required;*
- *Provide cover along retail/commercial strip thereby reinforcing the rhythm and continuity of the built form and allowing for shoppers to linger and window shop;*
- *Provide pedestrian protection from the sun and rain;*
- *Allow for adequate sun penetration and exclusion at appropriate times;*
- *Provide lighting under the awning/colonnade to enhance pedestrian safety;*
- *Colonnades should adopt a vertical emphasis to the façade in a light and elegant manner;*
- *Columns can be used to provide delineation between public and private space. See colonnade diagram adjacent for extent of zone provided for columns;*
- *Balconies over colonnades and awnings are encouraged;*
- *Monotonous canopy design is not permitted to the building frontage.*

Measures

- *Where required, the canopy or awning shall be a minimum of 2.5m and a maximum of 3m wide measured from the setback line, or 0.5m from the kerb edge. It shall be a consistent design within development over a single site and co-ordinate with light pole and street tree locations;*
- *The canopy shall have a minimum clearance height of 2.5m from the footpath;*
- *The awning shall be within a minimum of 3m and a maximum of 3.6m in height, measured from the pavement.*


N
collanade, awning + canopy cover to street for high street, mid town + south side precincts

Provide glazed openings to the north that amount to 40-60% of the north facing elevation. Allow appropriate setbacks to allow low angle winter solar access.



Consider double-glazing to reduce heat loss in winter where glazed openings larger than 60% of the total northern elevation are required.

3.5.8 Glazing

Design Intent

Glazing provides views out, light in, and solar gain. Glazing should be appropriately located to maximise these benefits.

Objectives

- *Maximise the benefits of views out of residential buildings and views both in and out of commercial buildings;*
- *Maximise the benefits of light into all buildings types;*
- *Maximise the benefits of managed solar gain.*

Principles

Commercial:

- *Use large areas of glazing at ground floor level;*
- *Restrict the extent of blank walls and reflective glazing that hides the presence of activity within tenancies.*

Residential:

- *In residential developments, optimise glazing to northern elevations for increased solar access, and limit glazing to east, west and southern elevations;*
- *Use high performance glazing where needed, to reduce heat loss in winter and heat gain in summer;*
- *Consider double-glazing to reduce heat loss in winter. Double glazing can also help resolve conflicts between noise, outlook and views;*
- *Comply with solar access requirements for north facing glazing. See ETC Good Design Guide: Sustainability;*
- *Provide shade to all glazed openings throughout the day in summer to limit solar gain. See ETC Good Design Guide: Sustainability;*
- *Use heavy lined drapes (rather than vertical or venetian blinds) to minimise heat loss in winter.*

Measures

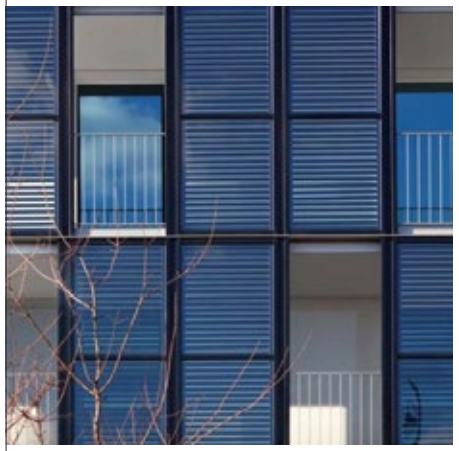
The following glazing areas are to be seen as suggestions which will assist with achieving compliance with BCA Section J2 requirements. Designers are free to vary from these recommendations subject to their conformance with the requirements of the BCA.

Commercial

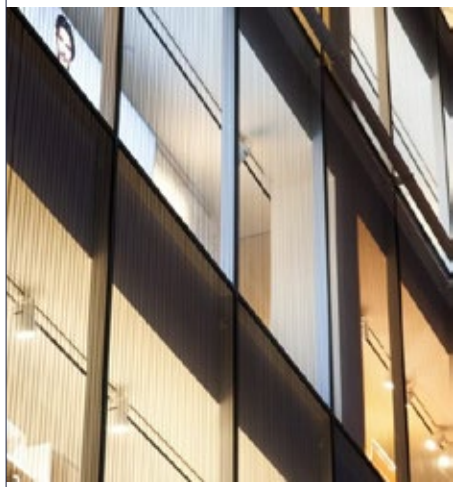
- *75% of the ground floor shop frontage presenting to the street to be clear glazing/transparent - subject to Section J requirements;*
- *Glazing is to be transparent. The use of highly tinted or reflective glass is not permitted;*
- *Clear glazing only is permitted to retail and commercial tenancies at ground level. Exceptions may be considered to screen service areas, structural elements and the like.*

Residential

- *North Elevation:*
    - *Provide glazed openings that amount to 40-60% of the total northern elevation;*
    - *Allow appropriate setbacks to allow low angle winter solar access;*
    - *Relate the size of glazed openings to room sizes;*
    - *Provide larger north facing glazed openings to larger rooms such as primary living spaces, as they are in use for more of the day. Primary private open space is to be directly accessible from primary living spaces. Consider using glazed doors to provide this connection;*
    - *Consider double-glazing to reduce heat loss in winter where glazed openings larger than 60% of the total northern elevation are required.*
- *East and West Elevations:*
    - *Limit glazing to between 5-20% of the total east and west elevations.*
- *South Elevation:*
    - *Limit glazing to 40% of the total southern elevation.*



Integrated shade devices provided to all north facing glazing.



Transparent glazing to commercial and retail tenancies.

Appropriate ceiling heights for residential and mixed use buildings allowing for 3.3 - 3.6m ceiling for ground floor retail.

3.5.9 Ceiling Heights

Design Intent

Ceiling heights are measured from finished floor to finished ceiling level. Well designed and appropriately defined ceilings ensure quality amenity and create spatial interest and internal hierarchy.

Objectives

- *To increase the sense of space and provide well-proportioned rooms;*
- *To promote the penetration of daylight;*
- *To contribute to flexibility of use;*
- *To achieve quality interior spaces while considering the external building form requirements.*

Principles

- *Design better quality spaces by using ceiling to:*
    - *Define a spatial hierarchy internally using double height spaces, raked ceilings, changes in ceiling heights and/or the location of bulkheads;*
    - *Enable better proportioned rooms, for example, smaller spaces can feel larger and more spacious when ceilings are higher;*
    - *Maximise heights in habitable spaces by stacking wet and services areas from floor to floor where possible. This ensures that services and their bulkheads are located above similar areas rather than habitable spaces;*
- *Facilitate better access to natural light by using ceiling heights which:*
    - *Promote the use of taller windows, highlight windows and fan lights. This is particularly important for buildings with limited light access, such as on the ground floor and buildings with deep floor plans;*
    - *Enable the effectiveness of light shelves in enhancing daylight distribution into deep interiors.*
- *Design ceiling heights which promote building flexibility over time for a range of other uses, including retail or commercial, where appropriate;*
- *Cross check ceiling heights with building height controls to ensure compatibility of dimensions, especially where multiple uses are proposed;*
- *Count double height spaces with mezzanines as two storeys;*
- *Coordinate internal ceiling heights and slab levels with external height requirements and key datum lines. External building elements requiring coordination may include:*
    - *Datum lines and parapet lines set by the context;*
    - *Exterior awning levels or colonnade heights (see 3.5.2 Façades).*

Measures

The recommended dimensions below are measured from finished floor level to finished ceiling level. These are minimums only and do not preclude higher ceilings (and assuming a nom. 0.4m - 0.6m service/structure zone):

- *In mixed-use buildings: a ceiling height of 3.3m to 3.6m minimum allows for a mix of ground floor retail and commercial and 3.0m for first floor residential, retail or commercial to promote future flexibility of use;*
- *In apartment buildings in mixed use areas: 3m minimum for ground floor to promote future flexibility of use;*
- *In apartment buildings or residential floors in mixed use buildings: 2.7m minimum for all habitable rooms on all floors, 2.4m is the preferred minimum for all non-habitable rooms;*
- *Attic spaces, 1.5m minimum wall height at edge of room with a 30 degree minimum ceiling slope.*

Developments which seek to vary the recommended ceiling heights must demonstrate that internal spaces will receive satisfactory daylight.

Higher ceilings and high level windows promote daylight access into deeper plans and improve the spatial quality of apartments.

Vary ceiling heights to create a hierarchy of spaces.

3.5.10 Light-wells

Design Intent

Courtyards and light-wells can be used to assist solar access, ventilation and daylight into buildings provided they are of adequate size and are open to the sky.

Objectives

- *To assist solar access, ventilation and daylighting.*

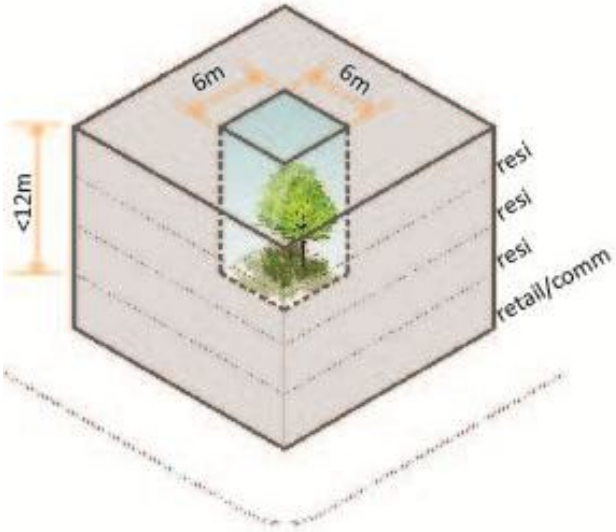
Principles

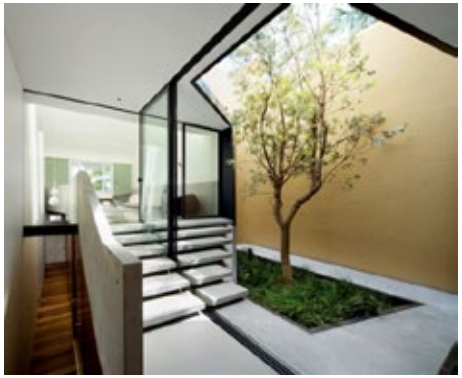
Minimum courtyard dimensions should be determined by solar access requirements, or 6m x 6m, whichever is the greater. (See Ellenbrook Town Centre Good Design Guide: Sustainability for requirement);

- *Where light-wells are used, ensure they are of adequate size to provide satisfactory acoustic privacy, visual privacy and daylight access;*
- *Light-wells are visible from within the building, and can also be visible from adjacent properties, so use appropriate materials and detailing;*
- *If services must be placed in courtyards or light-wells, provide a discreet location and avoid those that could be a source of reverberated noise;*
- *Do not rely on light-wells as a primary source of daylight or ventilation to habitable rooms.*

Measures

- *Light-wells need to be sufficiently generous to ensure that they provide adequate light and ventilation at their lowest level. Consider engaging expert advice to ensure light-wells provide adequate access to natural light and ventilation for habitable rooms facing the light-well.*





Appropriately sized lightwells can be used to assist solar access, daylighting and ventilation.

Various roof designs that contribute to the streetscape and overall design of the building.

3.5.11 Roof

Design Intent

The roof is an important architectural element for the overall composition and expression of buildings. The shape and form of a roof and its associated elements responds to the environment and the context. Quality roof design responds to various viewpoints within the local context, such as the roofscape observed from adjacent taller buildings and the silhouette viewed from the street below. In some areas the roof forms part of a distant view and sits within a larger skyline.

Objectives

- *To provide quality roof designs, which contribute to the streetscape and overall design and performance of the building;*
- *To integrate the design of the roof into the overall façade, building composition and desired contextual response;*
- *To increase the longevity of the building through weather protection.*

Principles

- *Relate roof design to the desired built form. Some design solutions may include:*
    - *Articulating the roof, or reducing its massing on large buildings, to minimise the apparent bulk or to relate to a context of smaller building forms;*
    - *Using a similar roof pitch or material to adjacent buildings. Avoid directly copying the elements and detail of single houses in larger buildings; this often results in inappropriate proportion, scale and detail for urban buildings;*
    - *Minimising the expression of roof forms gives prominence to a strong horizontal datum in the adjacent context, such as an existing parapet line;*
    - *Using special roof features which relate to the desired character of the area, to express important corners.*
- *Design the roof to relate to the size and scale of the building, the building elevations and three dimensional building forms. This includes the design of any parapet or terminating elements and the selection of roof materials;*
- *Design roofs to respond to the orientation of the site, for example, by using eaves and skillion roofs to respond to solar access;*
- *Protect solar access to neighbouring properties;*
- *Maximise rainwater collection. Identify rainwater capture calculations on roof plans;*

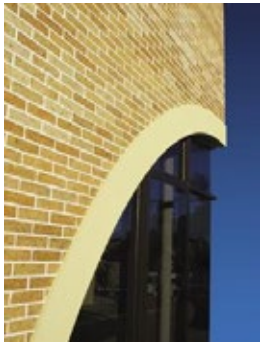
- *Minimise the visual impact of service elements by integrating them into the design of the roof. These elements include lift over-runs, service plants, chimneys, vent stacks, telecommunication infrastructures, gutters, downpipes and signage. Sustainable solutions may be permitted within the roof area as more visible elements, subject to design merit;*
- *Design roofs that minimise negative impacts on surrounding private and public spaces. Use non-reflective roofing materials in locations where the steepness of roof pitch may cause glare;*
- *Support the use of roof decks for quality open space by:*
    - *Providing space and appropriate building systems to support the desired landscape design (see Ellenbrook Town Centre Good Design Guide: Apartments);*
    - *Incorporating shade structures and wind screens to encourage open space use;*
    - *Ensuring open space is accessible.*
- *Facilitate the use or future use of the roof for sustainable functions, for example:*
    - *Allow rainwater tanks for water conservation;*
    - *Orient and angle roof surfaces suitable for photovoltaic applications;*
    - *Allow for future innovative design solutions, such as water features or green roofs;*
- *Where habitable space is provided within the roof, optimise residential amenity in the form of attics or penthouse apartments (see 3.5.9 Ceiling Heights).*

Measures

- *Roofs may overhang the boundary at the street edge. (See 3.5.7 Weather Protection and 3.6.1 Signage & Corporate Branding);*
- *Do not directly copy roof form and elements of single family housing. This results in inappropriate proportion, scale and detail for the Town Centre built environment.*

Habitable roof spaces integrated into the setback of the building.

Habitable roof spaces concealed behind articulated parapet design.



3.5.12 Materials & Colour

Design Intent

Material and colour selection shall respond to the inland location and the character of the Town Centre. This includes the use of natural materials and light and neutral colours with accents, highlights and feature colours derived from the local natural palette. When selecting building materials, claddings and finishes, material longevity and maintenance should be considered within the local context. Material and colour variation can reduce the perceived length and scale of large building elevations where the palette responds to the façade articulation. Where applied finishes and materials are used, carefully consider joint placement and edge details to ensure the overall appearance and finish is realistic and well executed during construction.

In recognition of our early Ellen Brook settlers and Henry Reveley, designers for each building within the Town Centre are encouraged to utilize Georgian style brickwork (i.e. sleeker 50mm high profile) within the façade. This can be in a minor way (e.g. columns or a stack bonded panel) or in a major way (e.g. a colonnade façade). The 'humble' brick is very versatile and can be used in both commercial (e.g. the Midland and Guildford warehouses) and residential buildings.

Objectives

- *Building designs and materials should contribute positively to the public realm;*
- *To facilitate a cohesive streetscape with materials and finishes of a high standard;*
- *To develop a built form character specific to the Ellenbrook Town Centre via a consistent palette of materials and colours which allow for variety and innovative architectural response;*
- *To ensure long life and ease of maintenance for the development;*
- *To use material and colour application to articulate the building façade and overall design;*
- *To provide environmentally responsive design solutions.*

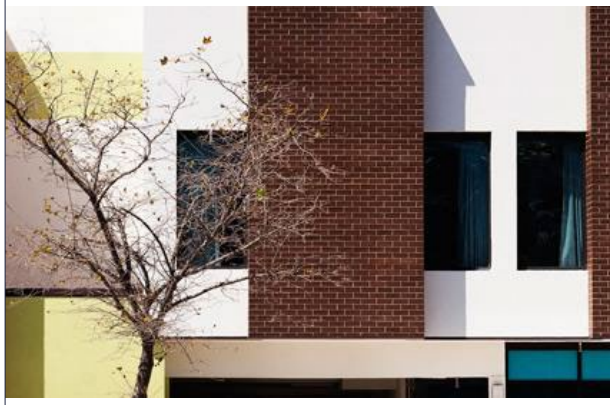
Principles

- *Select durable, quality external finishes;*
- *Research selections of materials with regard to embodied energy, recycled content and manufacturer's recycling strategy;*
- *Consider how materials may blend or contrast with the proposed/existing streetscape;*
- *Carefully consider the junction between materials to ensure well detailed finishes;*
- *Consider how materials can contribute to a contemporary vibrant development;*

- *Research innovative building materials;*
- *A theme of natural materials and light and neutral colours with accents, highlights and feature colours derived from the relevant precinct palette is required;*
- *A refined Australian vernacular is appropriate where simple, well detailed forms and materials are articulated to enhance light quality of environment through filtration and shadowing effects;*
- *The use of brickwork (particularly Georgian style brickwork) is encouraged;*
- *Avoid large masses of continuous finish.*

Measures

- *Each building shall comprise more than one façade material (excluding glazing), with material variation corresponding to surface changes, internal layout, relative street address and feature elements;*
- *Select materials and finishes that are robust, easy to maintain and that have an urban character rather than being domestic or suburban in nature;*
- *Material selection should reflect the site and precinct character being promoted;*
- *The inclusion of materials with pattern and detail to limit monotony.*



Use of brick is encouraged – avoiding large masses of one finish.

3.5.13 Environmental: Solar Access & Ventilation

Natural ventilation is the circulation of sufficient volumes of fresh air through a building to create a comfortable indoor environment. Optimising building design for natural ventilation exercises sustainable practice by responding to the local climate, by reducing or eliminating the need for mechanical ventilation and cooling systems and increasing amenity.

To achieve natural ventilation the design concept must consider and address the building's orientation, the internal spatial configuration and the external building envelope.

All developments should optimise northern solar access to allow for the increased environmental performance of buildings. Externally, site configuration should locate private open spaces where they will receive winter solar access. Internally, dwelling designs should screen summer sun and optimise winter solar gain in primary living spaces.

Apply solar setbacks, or setbacks that will allow for adequate solar access, to the majority of north facing elevations. Locate primary private open space adjacent to primary living spaces to provide connected indoor and outdoor living, and to assist compliance with solar access requirements. Good solar access to sites and buildings will also allow for sunshine on solar panels and photovoltaic cells.

Refer Ellenbrook Town Centre - Good Design Guide – Sustainability for more information.

3.5.14 Environmental: Visual & Acoustic Privacy

Visual privacy measures protect residents' ability to carry out private functions within all rooms and private open spaces without compromising views, outlook, ventilation and solar access or the functioning of internal and external spaces. The consideration of visual privacy requires an understanding of the adjacent context, site configuration, topography, the scale of the development and the layout of the apartments.

Acoustic privacy is a measure of sound insulation between apartments and between external and internal spaces. Designing for acoustic privacy relates to the location and separation of buildings within a development and the arrangement and internal spaces within apartments.

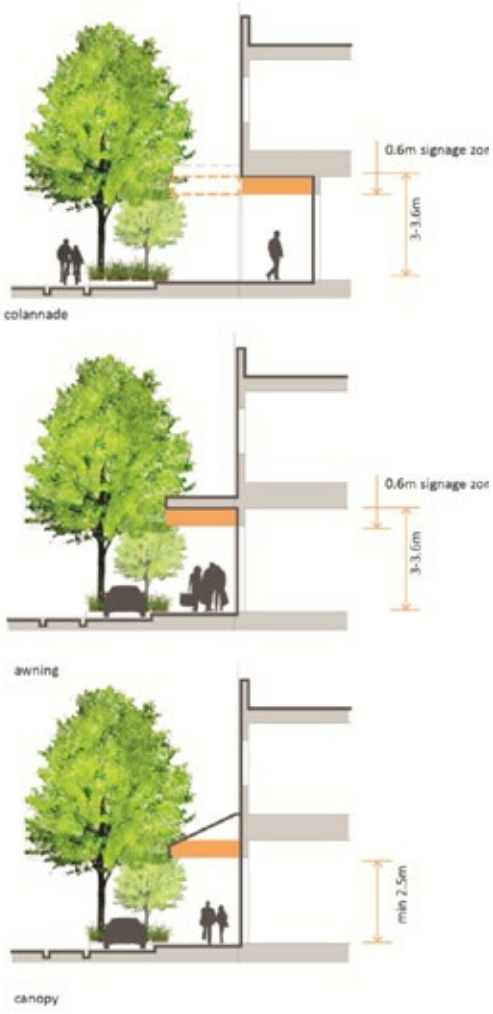
Refer Ellenbrook Town Centre - Good Design Guide – Apartments for more information.

3.5.15 Apartment: Summary

The Ellenbrook Town Centre will accommodate a broad mix of housing, shops and services to create a vibrant, well-connected community. The clustering of higher density housing in and around the Town Centre will encourage use of public transport, walking and cycling and improve the viability of the Centre, which in turn will provide a wider range of services, facilities, employment opportunities, and housing types.

While higher density residential development has the potential to support economic and social activity of the Town Centre, skilful design is needed to minimise unwanted off-site impacts related to neighbourhood character, amenity, overshadowing and access.

Refer Ellenbrook Town Centre - Good Design Guide – Apartments for more information. These guidelines set out objectives and suggestions for designing and assessing higher density residential development.



Signage typologies and dimensions.

3.6 Ancillary Building Works

3.6.1 Signage & Corporate Branding

Design Intent

Signage is important for way-finding and for business identification; its design should be considered early in the design process to ensure it is compatible with the building design and streetscape character. Signage design should consider scale and proportion of the development and information hierarchy within the street context without obscuring or dominating important views.

All national corporate brands, fast food outlets and branded franchises located within the Ellenbrook Town Centre shall be designed and integrated with the built form and respect the context of the Town Centre. Signage shall be limited to the defined signage zone.

Objectives

- *To ensure signage is in keeping with desired streetscape character and with the development in scale, detail, lighting strategy and overall design of the building;*
- *To ensure tenancy fit out at the street-edge is consistent with the overall building design and streetscape and to ensure national corporate brands, fast food outlets and branded franchises appear consistent with other general retail/ commercial use/tenancies;*
- *There is no proliferation of signage to the detriment of existing signage;*
- *A reasonable and equitable level of identification to businesses and community facilities within the Town Centre is provided.*

Principles

- *Integrate signage and graphics with the building design and lighting strategies of the area;*
- *Signage to be sensitive to the streetscape and landscape, for example, scale of built form, tree canopies, street furniture and details;*
- *Integrate signage with the design of the development by responding to scale, proportions and architectural detailing;*
- *Provide clear and legible way-finding for residents and visitors. Signs in retail and commercial street environments should be oriented to pedestrians.*

Measures

- *Signage is to be located within the designated signage zone in a style that is sympathetic and complementary to the overall building design;*
- *Signage parallel to the building face must be an integral part of the façade with a maximum projection of 200mm from build to or setback lines;*
- *A Signage Strategy is to be submitted for review by LWP (or nominees) for endorsement prior to City of Swan approvals even when the signage is otherwise considered exempted under the local planning scheme – particular emphasis will be placed on proposals where:*
    - *o Signage is illuminated or contains moving parts;*
    - *o Signage is advertising services or products other than those available on the lot;*
    - *o Pylon signage has a width exceeding 300mm;*
    - *o Wall signage exceeds 10% in area in total on any one wall (excluding projecting signs);*
    - *o Signage below 2.4m above pavement level is proposed – particularly window signs that detract from visual connection (from inside to outside) and thereby reduce streetscape activation.*
- *Tenancy façade design shall be consistent with the building where it is located, utilising colours and materials which respond to the built form and its context. This includes any furniture, awnings, umbrellas, lighting and the like which may be located within the road reserve;*
- *Alternative signage, such as building naming, may be considered subject to design merit and endorsement by LWP and must be within the non-residential part of the building;*
- *Vertical signage perpendicular to the built form, projecting into the footpath is to have a total area of no more than 50sqcm. Signage above awnings is generally limited to a 200mm projection from the building line. A maximum of one per building is allowed with a one metre projection that cannot be in the non-residential part of the building;*
- *Below awning signs may be attached to the building face or hang from the awning but may not extend beyond the outer edge of the awning;*
- *Where signage is proposed to the outer face of the awning it must be:*
    - *o Intended to be visible from across the street, yet fine scaled;*
    - *o Visually subtle with a maximum vertical dimension of sign to be 600mm;*
    - *o Integrated with the design of the awning.*
- *Signage is to extend no less than 2.4m and no higher than 3.6m above pavement level and should not cover more than 60% of this defined signage zone;*
- *Once building design is finalised, the signage zone can be reviewed on a case by case basis. Endorsement from LWP will be required prior to seeking approvals from the City of Swan even if the signage is otherwise considered exempted under the local planning scheme;*
- *A pylon exclusion zone applies everywhere except The Promenade where the maximum is 12m high.*

Examples of integrated awning signage.

3.6.2 Lighting

Design Intent

Lighting of a building façade can enhance legibility and safety within the public realm. It can also create a mood and a sense of place. Lighting should be incorporated into the building design and consideration given to the building appearance at night.

Objectives

- *To provide a safe and welcoming environment at night within the Town Centre;*
- *Consider lighting design as part of the overall building design and how the building is perceived at night;*
- *To create night time interest within the Town Centre.*

Principles

- *Use external lighting to enhance and highlight built form and streetscape design and to provide passive security, safety and convenient night time use;*
- *Well considered lighting of public spaces and thoroughfares provides a safe and inviting environment, in turn creating activity and recognition;*
- *Improve entrance visibility with good lighting.*

Measures

- *Incorporate lighting under awning and colonnade structures;*
- *Design lighting to enhance and highlight residential entries for safe and convenient night time use.*

Various examples of lighting building façades and adjacent spaces to improve the amenity to the public.

Variation of solid and transparent materials changes the relationship between privacy and outlook, light and air.

3.6.3 Fences & Walls

Design Intent

Fences and walls include all built vertical landscape elements designed to define boundaries between one space and the next or to rationalise a change in level. The design of fences and walls has an impact on the real and perceived safety and security of occupants as well as on the amenity of the public domain and the identity of the development.

Objectives

- *To define the edges between public and private land;*
- *To define the boundaries between areas within the development having different functions or owners;*
- *To provide privacy and security;*
- *To contribute positively to the public domain.*

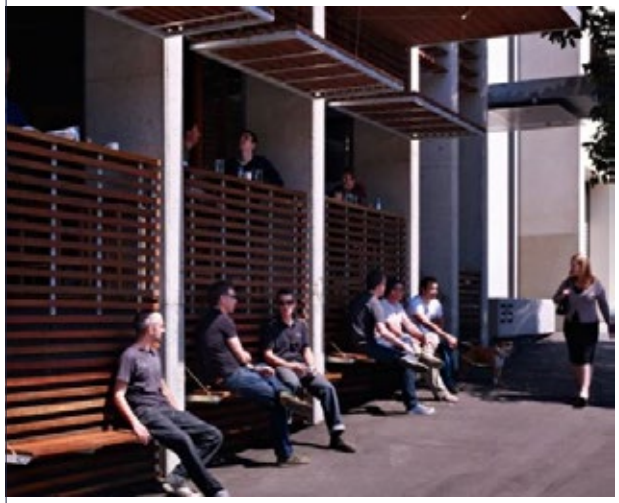
Principles

- *Respond to the identified architectural character for the street and/or the area. Design considerations may include:*
    - *Materials selection, including percentage of solid to transparent materials;*
    - *Height;*
    - *Vertical or horizontal rhythms along the street, such as vertical entry elements, boundary markers or fence post frequency;*
    - *Location and frequency of entry openings or gates;*
    - *Location from site boundary, such as alignment with boundary or 600mm from boundary to provide planting along footpath.*
- *Clearly delineate the private and public domain without compromising safety and security by:*
    - *Designing fences and walls which provide privacy and security while not eliminating views, outlook, light and air;*
    - *Limiting the length and height of retaining walls along street frontages.*

- *Contribute to the amenity, beauty and usability of private and communal open spaces by incorporating some of the following in the design of fences and walls:*
    - *Benches and seats;*
    - *Planter boxes;*
    - *Pergolas and trellises;*
    - *Barbeques;*
    - *Water features.*
- *Retain and enhance the amenity of the public domain by:*
    - *Avoiding the use of continuous lengths of blank walls at street level;*
    - *Using planting to soften the edges of any raised terraces to the street, such as over sub-basement car parking, and reduce their apparent scale;*
    - *Select durable materials, which are easily cleaned and graffiti resistant.*

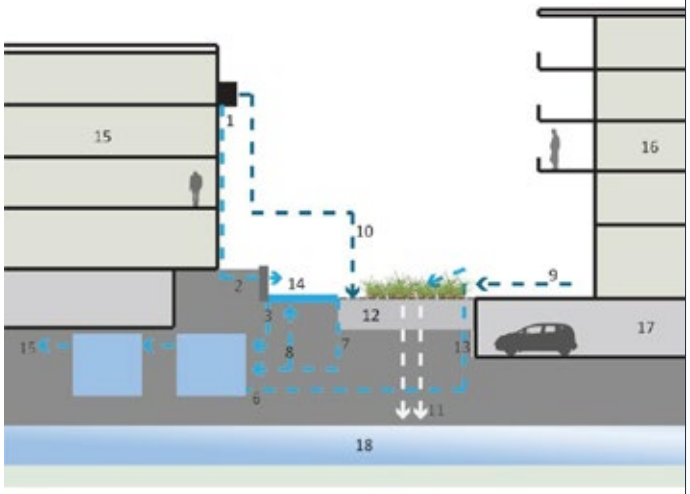
Measures

- *Solid fencing to street boundaries shall be no higher than 1.2m. If higher, fences to be visually permeable 1.2m above the natural ground level of the footpath;*
- *Fencing to laneways shall be no greater than 1.8m high and shall be 50% visually permeable;*
- *High front walls are generally not acceptable;*
- *On certain streets fencing to the front boundary is not permitted as these streets shall be defined by the built form;*
- *Fencing is mandatory to the street frontage for single residential development;*
- *Where utilised, fencing shall be consistent with the materials and design of the main building.*



Fences can contribute to the useability of private and communal open spaces.

Integrated stormwater recycling system



3.6.4 Stormwater Management

Design Intent

Stormwater is the runoff from buildings and the paved areas surrounding them. The design and implementation of appropriate management practices during construction, and during the life of the building, can reduce the potentially significant impact of development upon natural waterways. Water sensitive urban design seeks to minimise impacts on the total water cycle by reducing the stormwater discharge rate and protecting stormwater quality. There is a connection between effective stormwater management and the stability of the water table.

Objectives

- *To minimise the impacts of building development and associated infrastructure on the health and amenity of natural waterways and groundwater;*
- *To preserve existing topographic and natural features, including the water table;*
- *To minimise the discharge of sediment and other pollutants to the urban stormwater drainage system during construction activity.*

Principles

- *Reduce the volume impact of stormwater on infrastructure by retaining it on site. Design solutions may include:*
    - *Minimising impervious areas by using pervious or open pavement materials;*
    - *Retaining runoff from roofs and balconies in water features as part of landscape design or for reuse for activities such as toilet flushing, car washing and garden watering;*
    - *Landscape design incorporating appropriate vegetation;*
    - *Minimising formal drainage systems (pipes) with vegetated flow paths (grass swales), infiltration or bio filtration trenches and subsoil collection systems in saline areas;*
    - *Water pollution control ponds or constructed wetlands on larger developments.*
- *Optimise deep soil zones. All development must address the potential for deep soil zones. (see Ellenbrook Town Centre Good Design Guide: Apartments).*

- *On dense Town Centre sites where there is no potential for deep soil zones to contribute to stormwater management, seek alternative solutions. Structural stormwater treatment measures may be used including:*
    - *Litter or gross pollutant traps to capture leaves, sediment and litter;*
    - *On-site detention storage.*
- *Protect stormwater quality by providing for:*
    - *Sediment filters, traps or basins for hard surfaces;*
    - *Treatment of stormwater collected in sediment traps on soils containing dispersive clays.*
- *Reduce the need for expensive sediment trapping techniques by controlling erosion. Design solutions include:*
    - *Landscape design incorporating appropriate vegetation;*
    - *Stable (non-eroding) flow paths conveying water at non-erosive velocities;*
    - *Consider using grey water for site irrigation (see Ellenbrook Town Centre Good Design Guide: Sustainability).*

Rain garden.

Permeable paving allows drainage to groundwater.

Screening devices can be used to conceal services on balconies as well as provide privacy and shade.

Vehicle entries integrated into development to conceal services and discreetly locate loading.

3.6.5 Building Services

Design Intent

Site services and related enclosures (for waste disposal and recycling, mail and deliveries, water and energy metering and emergency services) are necessary elements in any development. It is important that these service elements be considered during the design phase and sensitively housed and catered for within the design. Pipes, wired services, clothes drying areas, hot water storage tanks and air conditioning units are to be concealed within the development.

Objectives

- *To consider building services during the design phase so that they are housed within the building design and screened from view;*
- *Services should be discreetly located, screened and integrated into overall building design to minimise visibility and noise to neighbouring properties, open space and the public realm.*

Principles & Measures

- *Loading docks and service areas within development sites shall be screened visually and acoustically from residential units;*
- *Odour producing servicing elements (for example, waste compactus and storage) shall be suitably located or designed and treated in a manner that does not impose unacceptably on residential amenity in a mixed use building. Bins should not be visible from the street and provide a clear method for refuse disposal;*
- *TV antennae, satellite dishes and radio masts shall be located discretely and set back from the building edge to reduce visibility from ground level or screened;*
- *Roof and wall mounted air conditioning units are not permitted unless fully concealed from view. Where air conditioning units are located within balconies, they shall be screened from view in a manner that has regard for the overall design of the building. Noise impact to adjacent dwellings shall also be considered and managed;*
- *Provide facilities for mail deliveries and parcel drop off;*
- *Ensure that all utility meters are easily accessible;*
- *Provide space for cleaning and servicing equipment;*
- *A waste management and disposal plan should be prepared for all developments.*

3.6.6 Staging Works

Design Intent

Built form within a large site may occur over a period of time. It is important to consider how blank walls in staged developments are presented and viewed from the public realm and neighbouring development. Careful consideration of setbacks, articulation and appearance of façades in the early stages is required. The use of landscaping and public art can assist with the presentation of incomplete development.

Objectives

- *To ensure that incomplete and staged development presents well to the public realm;*
- *To ensure the amenity of adjoining properties is protected from unsightly and incomplete built form.*

Principles

- *Blank walls to be further developed as part of a later stage of development shall be considered as a designed elevation. Measures to ensure an acceptable 'interim' appearance shall be utilised;*
- *Any staged development shall provide an overall masterplan to demonstrate an appreciation of, and commitment to, completing the built form. Subsequent development shall demonstrate compliance with, or justify appropriate changes to, the overall masterplan;*
- *Any nil setback to a side boundary, where adjoining development has not begun, shall be finished to match the main building or to provide visual interest (via public art for example). Material changes, landscape and detail elements may be required where the overall height of the wall is considered excessive and detrimental to the overall development and/or the adjacent public realm.*

Measures

- *Further subdivision of any site will require approval from LWP and shall be consistent with the principles of the General Design Guidelines;*
- *Any interim proposals will require LWP approval.*

Blank walls within a staged development can be developed with public art to enhance the built form environment.

4

Definitions and photographic credits

4.1 Definitions

Accessible Housing

Housing that is designed and built to accommodate the needs of occupants with mobility impairment (Australian Standard 1428: Design for Access & Mobility Series).

Acoustic privacy

A measure of sound insulation between apartments, between apartments and communal areas, and between external and internal spaces.

Active Habitable Space

Any internal, communal habitable room including living spaces, dining and kitchen areas, theatre rooms and hobby spaces. Any balcony, verandah, terrace or other outdoor living area greater than 3sqm in area.

Active Frontages

Refers to street frontages where there is an active visual engagement between those in the street and those on the ground floor of buildings. This quality is assisted where the front façade of buildings, including the main entrance, faces and opens towards the street.

Adaptable Housing

Housing that is designed and built to accommodate future changes to suit occupants with mobility impairment or life cycle needs (Australian Standard 4299: Adaptable Housing).

Adaptive Reuse

The conversion of an existing building from one use(s) to another or from one configuration to another.

Adjoining Property

Any lot which shares a boundary or portion of a boundary with a lot on which there is a proposed development including where separation occurs from that lot by a right-of-way, vehicle access way, pedestrian access way, access leg of a battleaxe lot or the equivalent not more than 6m in width.

Affordable Housing

Housing for low to moderate income households. Affordable housing is usually required to be financially viable based on a ratio of housing costs to income.

Amenity

The 'liveability' or quality of a place which makes it pleasant and agreeable to be in for individuals and the community. Amenity is important in both the public and private domain and includes the enjoyment of sunlight, views, privacy and quiet.

Articulation

The area of three dimensional modelling at the periphery of the building, including modulation of the façade alignment, balconies, fenestration, materials, finishes and sun shading devices etc.

Balcony

A balustrade platform on the outside of a dwelling with access from an upper internal room.

BCA

Relevant edition of the Building Code of Australia.

Building

Any structure, fixed or moveable, temporary or permanent placed or erected on land.

Build to Line

A front setback expressed as a required distance from the street edge of the building envelope. In urban areas the build to line often corresponds to a zero front setback, to establish a consistent streetscape.

Building Line

The line formed by the main external face of the building, excluding any balcony or bay window projections.

Building Zone

The area within which a building can be built, usually represented in plan and section. Corresponds to a building envelope.

Core

Vertical circulation (e.g. lift, stairs).

Cornice

Decorative horizontal moulding at the top of a building which 'crowns' or finishes the external façade.

Cross Over Apartments

Apartments with two opposite aspects and with a change in level between one side of the building and the other.

Cross Through Apartments

Apartments on one level with two opposite aspects.

Communal Open Space

Open space set aside for the recreational use of the occupants of dwellings within a development, excluding driveways or car parking areas.

Courtyard

On-grade private open space with deep soil.

Datum or Datum Line

A significant point or line in space established by the existing or desired context. For example, the top of significant trees or the awning of an adjacent building.

Deck

An external platform, usually elevated, located alongside and accessible from an interior space.

4 Definitions & Credits

Detailed Area Plan

The design guidelines prepared for particular lots as appropriate.

Development Site

A parent lot in which development is proposed.

Double Loaded Corridor

Corridor with apartments off both sides, generally associated with single aspect apartments.

Dual Aspect Apartment

Apartments which have at least two major external walls facing in different directions, including corner, cross over and cross through apartments.

Dwelling

A building or portion of a building being used, adapted, or designed or intended to be used for the purpose of human habitation on a permanent basis by a single person, a single family, or no more than six persons who do not comprise a single family.

Dwelling Size

The area of a dwelling is measured from the inner surfaces of its walls.

Façade

The external face of a building.

Glass line

Inside face of windows on the external walls of a building.

Ground

The existing ground level at the time of the development application.

Grouped Dwelling

A dwelling that is one of a group of two or more dwellings on the same lot such that no dwelling is placed wholly or partly vertically above another, except where special conditions of landscape or topography dictate otherwise, and includes a dwelling on a survey strata with common property.

Habitable Space

Any room or area used for normal domestic activities, including living, dining, family, lounge, bedrooms, study, kitchen, sun room and play room. Generally excludes wet areas, storage, passageways, outdoor living areas including verandas and porches, stairwells and landings and other infrequently occupied spaces.

Height

The vertical distance at any point post subdivision ground level to the uppermost part of the building excluding minor projections above that point (roof ridge, parapet or wall).

Indigenous Plants or Animals

A plant or animal species occurring at a place within its historically known natural range and forming part of the natural biological diversity of a place.

Internal Courtyard

Communal space at ground level or above a structure (e.g. podium), formed by the building and enclosed on three or more sides and open to the sky.

Juliet Balcony

Small projecting balcony, generally ornamental or only large enough for one person standing.

Landscape

Land developed with garden beds, shrubs and trees, or by the planting of lawns and includes such features as rockeries, ornamental ponds, swimming pools, barbecue areas and playgrounds.

Light-well

A shaft for air or light, enclosed on all sides or which has the potential to be enclosed by future adjoining development, and either open to the sky or glazed.

Level

The structural floor levels of the building.

Maisonette Apartment

A two-storey apartment, where the storeys are vertically stacked.

Major opening

A window, door or other opening in the exterior wall of a habitable room that provides external means of light or view from the room or space that is greater than 1sqm. Obscure material and glazed portions not able to be opened or have a sill height not less than 1.6m above the floor level are excluded.

Mezzanine

The second storey of an apartment, fully or partially open to a void (double height) space shared by both storeys. Also refer BCA definition.

Mixed Use Development

Buildings that contain compatible commercial and other non-residential uses in conjunction with residential dwellings in a multiple dwelling configuration. Physically, it includes both vertical and horizontal mixes of use. No single use should dominate other uses, and residential land use should generally not exceed 60% of the land use.

Multiple Dwelling

A dwelling in a group of more than one dwelling on a lot where any part of a dwelling is vertically above part of any other, excluding group dwellings and includes any dwellings above the ground floor in a mixed use development.

Net Lettable Area

The net lettable area of a building is the sum of its whole floor lettable areas. This includes the measurement from internal finished surfaces of permanent internal walls and the internal finished surfaces of dominant portions of the permanent outer building walls. Window mullions, frames, structural columns, engaged perimeter columns or piers, fire hose reels attached to walls and additional facilities constructed for or by individual tenants are included as lettable area. Net lettable area excludes stairs, access ways, toilets, recessed doorways, cupboards, fire hose reel cupboards, lift shafts, escalators, smoke lobbies, plant/motor rooms, tea rooms and other services areas, public spaces such as thoroughfares, foyers, atria and access ways in lift and building service areas.

Net Internal Living Area

The net floorspace of the dwelling measured from the inside face of permanent external walls defining the extent of the dwelling – measured over internal walls and partitions within the dwelling, excluding any areas housing common service areas and/or ducts.

Non-Habitable Room

Spaces of a specialised nature not occupied frequently or for extended periods, including bathrooms, toilets, pantries, walk-in wardrobes, corridors, lobbies, photographic darkrooms and clothes drying rooms.

On-grade

On ground level (not on a building structure).

Open plan

Apartment layouts where spaces are not divided into discrete rooms, but are open and connected to allow flexibility of use (typically living, dining, kitchen and study areas).

Operable Screening Device

Sliding, folding or retractable elements on a building designed to provide shade, privacy, and protection from natural elements.

Operable Walls

Internal walls which can be moved, for example by sliding, folding, or pivoting, to allow for different room configurations.

Outdoor Living Area

An external area attached to the dwelling.

Overlooking

The ability to view a sensitive area of an adjoining residential property from a window of a habitable room, stairwell or passage window, balcony or other elevated outdoor living or pedestrian area.

Parapet

A horizontal low wall or barrier at the edge of a balcony or roof. Often taken to refer to the decorative element which establishes the street wall height of heritage buildings.

Passive Surveillance

Surveillance "eyes on the street" provided by ordinary local people as they go about their daily activities.

Performance Criteria

Criteria to be used in the preparation, submission and assessment of development proposals for the purpose of determining their acceptability.

Perimeter Block Development

Where buildings are generally aligned to the street, enclosing or partially enclosing an area in the middle of the block.

Plan Depth or Width

Measured from inside face of wall to inside face of wall or from inside face of glass to inside face of glass.

Plot Ratio

The ratios of the gross total of all floors of building on a site to the area of land in the site boundaries.

Potable Water

Water which conforms to Australian Standards for drinking quality.

Primary Street

The sole or principal public road that provides access to the major entry (front door) to the development. In a large development there may be a number of primary street frontages.

Private Courtyard

Private open space which may be on a structure (e.g. podium, parking deck) or at ground level.

Private Open Space

Open space set aside on a lot for the exclusive use of the occupants of the dwelling to which it abuts and excludes car parking spaces and access ways.

Projection

In relation to a wall, constitutes rainwater pipe, vent pipe, eaves overhang, sun screening, architectural feature elements that are non-habitable.

Residential Dwelling

A building or portion of a building for the purpose of human habitation, either temporary or permanent.

Robust

Loose fit buildings which can accommodate a range of existing and future uses.

Screen

Form of physical barrier which is solid, permanent and sufficient to interrupt the line of sight between a potential point of overlooking and a sensitive area. The term includes existing landscaping demonstrating the required characteristics.

Setback

The horizontal distance between a wall at any point and an adjacent lot boundary, measured at right angles to the boundary.

Silhouette

A building outline viewed against the sky.

Single Bedroom Dwelling

A dwelling that contains a living room and no more than one other habitable room that can be used as a bedroom.

Solar Access

The availability of or access to unobstructed, direct sunlight.

Solar Gain

Refers to the increase in temperature in a space, object or structure that results from solar radiation.

Stack Ventilation / Solar Chimney

Air convection resulting from hot air being pushed up and out by colder denser air which is drawn in at a lower level.

Storey

That part of a building between floor levels. A level in a development. If there is no floor above, it is the part between the floor and the ceiling. This includes attic spaces with habitable rooms. It does not include space used for car parking, laundries or storeroom if the ceiling above the space is not more than 1200mm (measured from the lowest point on the site) above ground level.

Tandem Parking

Two parking spaces arranged one behind the other where parking in one bay precludes vehicular entry or exit to or from the other bay.

Terrace (outdoor area)

An unroofed and usually paved area connected to an apartment and accessible from at least one room. May be on-grade or on a structure (podium).

Underground

Below ground level or less than 1.2m above ground level.

Visually Permeable

In reference to a wall, gate, door or fence that the vertical surface has continuous vertical or horizontal gaps of at least 50mm width or a surface offering equal or lesser obstruction to view.

Walk-up

An apartment building limited in height due to the number of stair flights a person will reasonably climb without a lift. Buildings are generally 2-3 storeys, with a 4th storey permitted only as an upper level to a 3rd storey apartment unit subject to conformance with the requirements of the BCA.

4.2 Photographic Credits

3.2.1 Landmark Buildings

1 Flinders Street QLD Revitalisation by Gamble McKinnon Green

2 Barcelona Markets by MIAS Architects

3.2.2 Ground Floor uses

1 The Bellini by Urban Inc

2 Maymont Maylands - Match

3.2.3 Active Street Frontages

1 Point Cook Town Centre by Buchan Group

2 Point Cook Town Centre by Buchan Group

3 Orion Springfield Town Centre by Mirvac

3.2.4 Site Safety

1 Sommerville College by Niall McLaughlin Architects

2-3 Hue Apartments by JCB Architects

4 BLlux Lighting

3.2.6 Space in & around Buildings

1 The Nicholson by Design Inc

2 South StreetScape by AhBe Landscape Architects

3.3.1 Pedestrians & Bicycles

1 J and R Richardson Apartments - Andrea Cochran Landscape

2 West Ryde Marketplace Bike Stand

3 Rouse Hill Bike Stand

3.3.2 Universal

1 disability-ramps-kent

2 UWA Business School by Woods Bagot

3 Flickr Image

3.3.3 Vehicles and Laneways

1 Showers Street by Urban Inc

2 Harper Lane by NeoMetro

3.3.4 Parking

1 Farnborough Business Park by SEGRO

2 Clayton Community by Jackson Architects

3.4.1 Retail / Commercial

1 Subiaco retail streetscape

2 Subiaco retail streetscape

3 Leigh Street Adelaide

4 Maymont Maylands - Match

3.4.2 High Density Residential

1 Maymont Maylands - Match

2 Luna Apartments by Ellenburg Fraser

3 East Village - Bercy Chen Studio

3.4.3 Ground Floor Apartments

1 Fitzgibbon Core Apartments Arkhefield

2 Tivoli by Urban Inc

3 Fitzgibbon Core Apartments Arkhefield

3.4.4 Mixed Use

1 The Cullen Hotel by JCB
2 Richmond Showroom by JCB

3.4.5 Robust Design

1 Varsity Lakes Qld - Delfin
2 Caroline Springs Melbourne - Delfin

3.5.2 Façades

1 Lime Street by Kelly Rattigan
2 Peacedale by C H Architects
3 Tivoli by Urban Inc
4 Louisa Road by SJB
5 Stepup15 by Pugh and Scapra Architects

3.5.3 Entries

1 St Leonards Apartments by Saunders Global
2 Lousia Road by SJB
3 Project Yeronga Village by Arkhefield

3.5.4 Corners

1 Rowhouses palette by QbDesign
2 Botanica Park Entry Building by JCB
3 E11th St Multi Use by Bercy Chen Studio
4 Galleria Centre City Department Store by UN Studio
5 Kilden Performing Arts Centre by ALA Architects
6 Tafe Northbridge by Lyons Architecture

3.5.5 Openings

1-2 Hartopp Lane by Arkhefield

3.5.7 Weather Protection

1 Adelaide313 by Arkhefield
2 1800 Tysons Blvd by Kohn Pederson Fox
3 Claremont Quarter

3.5.8 Glazing

1 Plot #183 by Bernard Khoury Architects
2 aplacetolive by SJB
3 Social Housing by Philippon Kalt Eco Architecture
4 h&m Seoul Hongdae Store by D Lim Architects

3.5.9 Ceiling Heights

1 Nacl House by David Jameson Architect
2 Vida by Cottee Parker

3.5.10 Light Wells

1 J and R Richardson Apartments
by Andrea Cochran Landscape
2 Skylight House by Chenchow Little

3.5.11 Roof

1 192 Shoreham Street by Project Orange
2 Mountain Dwellings by BIG
4 Thin Flats by Onion Flats

4 Definitions & Credits

3.6.1 Signage and Corporate Branding

1 Napoleon Street Cottesloe

2 Claremont Quarter

3.6.2 Lighting

2-3 Angel Place Sydney by Aspect Studios

3.6.3 Fences and Walls

1 Velizy Cemetery by Philippe Harden Olivier Roz Arch

2 Market Street by CHT Architects

3 NZ Bench

3.6.4 Stormwater Management

2 Jackhammer Apartments by Onionflats

3 VCA Water Garden

3.6.5 Building Services

1 Milanofiori Housing Complex by OBR

2 HueApartment by JCB

3.6.6 Staging Works

1 MOCAs Art in the Streets

2-3 Colossal Media

abduzeedo.com
adr.com.au
aspect.net.au
archdaily.com
archichannel.com
architectinterior.net
architectureanddesign.com.au
architectureau.com
architectureview.com
arkhefield.com.au
bcarc.com
Brookfield.com.au
buchan.com
bustler.net
cafnec.org.au
cht.com.au
colossalmedia.com
coolhunter.com
decojournal.com
designboom.com
designmilk.com
dezeen.com
fairfaxcounty.gov
falco.co.uk
flickr .com
Formworks.com.au
hassellstudio.com
ideaawards.com.au
igreenspot.com
jacksonarchitecture.com.au
jcba.com.au
lyonsarchitecture.com.au
mirvac.onlinepropertyportfolio.com.au
museumstories.com
paulwellington.com
saundersglobal.com.au
sjb.com.au
specnet.com
streetfurniture.com.au
subtitlas.tumblr.com
taylorrobinson.com.au
theatlantic.com
theurbandeveloper.com
ultimateshutter.com.au

5

Appendices

This section contains:

Appendix 5.1: Design Quality Principles

Introduction to the principles

Good design is a creative process which, when applied, will assist in the development of a great Town Centre for Ellenbrook. Good design is inextricably linked to its site and locality to provide sustainable living environments both public and private. Good design serves the public interest and includes appropriate innovation to respond to technical, social, aesthetic, economic and environmental challenges. It is important to note that the following 10 design quality principles do not generate design solutions, but provide a guide to achieving good design and the means of evaluating the merit of proposed solutions

10 Design Quality Principles:

Context

Good design responds and contributes to its context. Context is described as natural and built features of an area.

Scale

Good design provides the appropriate scale in terms of bulk and height that suits the scale of the street and surrounding buildings.

Built Form

Good design achieves appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type and the manipulation of building elements.

Density

Good design has the appropriate density yields (floor space, number of units or residents) for a site and its context.

Resource, energy and water efficiency

Good design makes efficient use of natural resources, energy and water throughout its full cycle, including construction.

Landscape

Good design recognises that landscape and buildings operate together as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.

Amenity

Good design provides amenity through the physical, spatial and environmental quality of a development.

Safety and security

Good design optimises safety and security, both internal to the development and for the public domain.

Social dimensions

Good design responds to social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities.

Aesthetics

Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development.

Appendix 5.2: Concept Design Checklist

(Design Response Report)

The design response reports will vary in content, complexity and detail depending on the complexity of the site and surrounding context. They would include but not be limited to the following:

SITE

- *Existing site plan - 1:500*
- *Analysis - 1:500*
- *Sketch concept plan - 1:500*

BUILDING

- *Building organisation sketch - 1:200 or 1:500*
- *Sketch sections & elevations - 1:500 or 1:200*
- *Image board*
- *Additional information is required where it is proposed to meet objectives though alternative solution to those suggested in measures*
- *Brief statement - Explanation of the proposal in terms of the 10 design quality principles set out in Appendix 5.1*

Appendix 5.3: Development Application Checklist

PRECINCT

- *Local context sketch plan - 1:5000 Site*
- *Streetscape elevations*

SITE

- *Existing site plan - 1:500*
- *Existing site sections 1:500 or 1:200*
- *Analysis - 1:500*
- *Site plan - 1:500*
- *Shadow diagrams*
- *Landscape plan 1:200 or 1:500*

BUILDING

- *Elevations - 1:100 or 1:200*
- *Sections - 1:100 or 1:200*
- *Materials and finishes board and/or schedule*
- *Photomontages and/or models*
- *Additional information is required where it is proposed to meet objectives though alternative solutions to those suggested in measures*
- *Brief statement - Explanation of the proposal in terms of the 10 design quality principles set out in Appendix 1*

ellenbrook

Contact Us

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