

The Hills Development Control Plan (DCP) 2012

www.thehills.nsw.gov.au

Sydney's Garden Shire
THE HILLS



Part D Section 15
Crane Road Precinct

D15

INDEX

1. INTRODUCTION.....	1
1.1 LAND TO WHICH THIS DCP APPLIES.....	1
1.2 AIMS AND OBJECTIVES OF THIS SECTION OF THE DCP.....	2
1.3 RELATIONSHIP WITH OTHER PLANS AND POLICIES.....	3
2. URBAN CONTEXT	5
2.1 CASTLE HILL MAJOR CENTRE	5
2.2 CASTLE TOWERS SHOPPING CENTRE.....	5
2.3 TERMINUS STREET PRECINCT	5
2.4 OPPORTUNITIES AND CONSTRAINTS.....	6
2.5 LANDFORM	6
2.6 VIEWS.....	7
2.7 SURROUNDING DEVELOPMENT, INFRASTRUCTURE AND USES	9
2.8 TRAFFIC AND ACCESS.....	10
2.9 LANDSCAPE AND VEGETATION.....	11
2.10 DRAINAGE	11
3. URBAN DESIGN PRINCIPLES	11
3.1 DEVELOPMENT FRAMEWORK	11
3.2 DESIGN PRINCIPLES.....	13
4. DEVELOPMENT CONTROLS.....	14
4.1 DESIRED FUTURE CHARACTER	14
4.2 STREETScape	15
4.3 BUILDING AND CEILING HEIGHTS	15
4.4 FLOOR SPACE RATIO	16
4.5 LAND USES	16
4.6 BUILDING ALIGNMENTS.....	16
4.7 BUILDING SEPARATION.....	17
4.8. BUILDING ARTICULATION AND DESIGN.....	17
4.9 SAFETY AND SECURITY.....	18
4.10 PEDESTRIAN ACCESS AND LINKAGES.....	18
4.11 VEHICULAR ACCESS AND PARKING.....	19
4.12 SOLAR ACCESS AND OVERSHADOWING	19
4.13 PUBLIC DOMAIN	19
4.14 LANDSCAPING.....	20
4.15 LANDSCAPING ON STRUCTURES.....	20
4.16 ACTIVE STREET FRONTAGES	21
4.17AWNINGS.....	21
4.18 ENERGY EFFICIENCY	22
4.19 STORMWATER MANAGEMENT.....	22

1. INTRODUCTION

This Section of The Hills Development Control Plan has been prepared to provide direction and control to the development of the Crane Road Precinct, located in the Castle Hill Major Centre.

This section of the DCP must be read in conjunction with Part A – Introduction of the DCP.

1.1 LAND TO WHICH THIS DCP APPLIES

The Plan applies to the area outlined in red, being the area bounded by Old Northern Road, Terminus Street and Crane Road as shown in Figure 1 (DP785110, DP701677, DP151502, DP821398 and a portion of the Old Northern Road road reserve) and referred to in this Section of the DCP as the *Crane Road Precinct*.

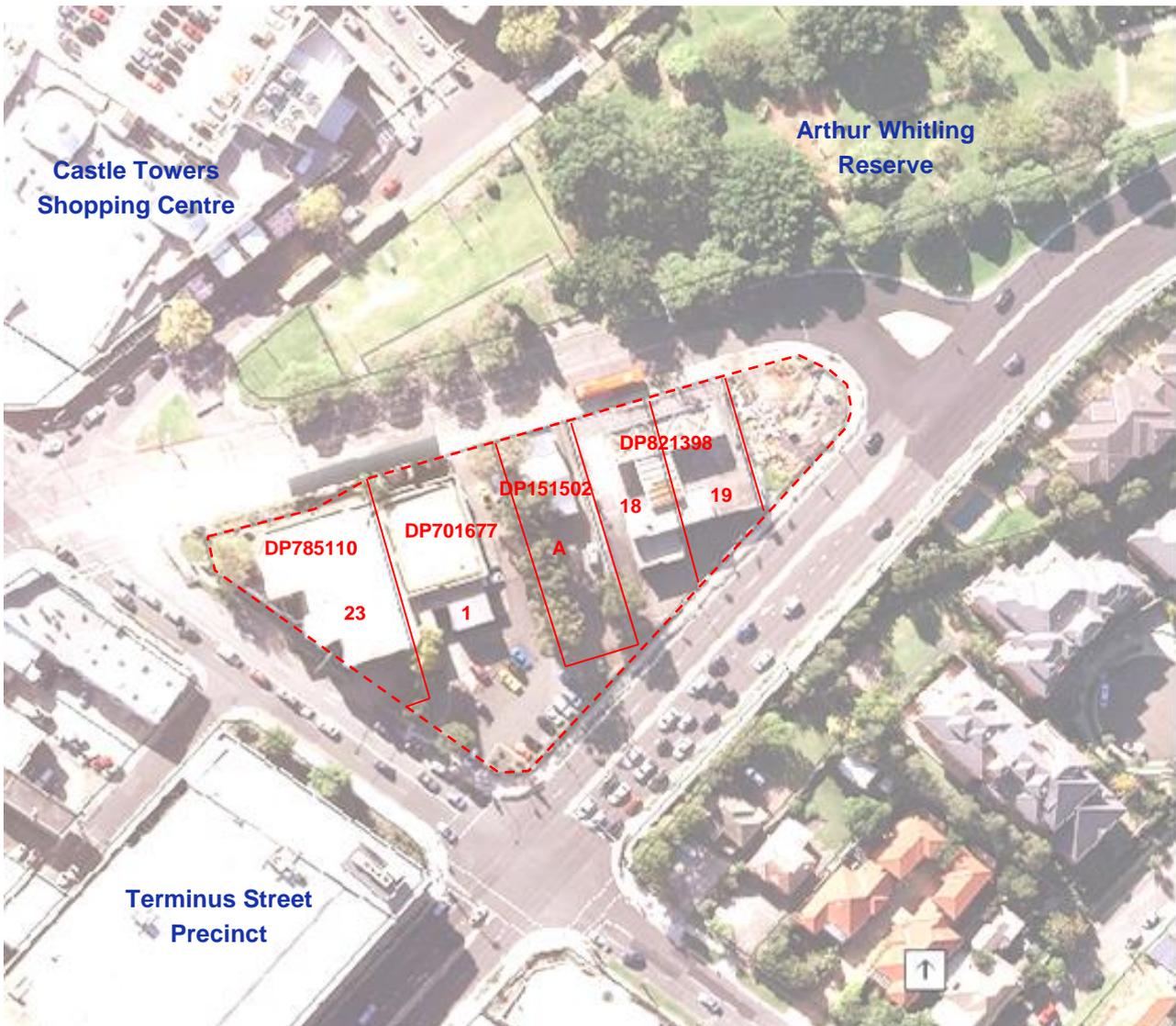


Figure 1 Crane Road Precinct

1.2 AIMS AND OBJECTIVES OF THIS SECTION OF THE DCP

The objectives of this Section of the DCP are:

- (i) *To provide a clear vision and desired future character for the revitalisation of the Crane Road Precinct;*
- (ii) *To encourage innovative and high quality architectural outcomes that add to the character of the Precinct with particular emphasis on landmark features, landscape areas, public, semi-public and private spaces and pedestrian amenity;*
- (iii) *To provide detailed design guidance for the creation of an iconic, high quality public domain, particularly regarding the interface of built structure with the proposed bus interchange on Old Northern Road (Figure 2);*
- (iv) *To encourage all developments to address the public street frontage and provide an attractive, safe pedestrian environment;*
- (v) *To ensure that development accommodates and supports the designated functions of the Precinct;*
- (vi) *To encourage a broad mixture of uses, including commercial and retail, hospitality and residential uses;*
- (vii) *To encourage transport-oriented development in close proximity to the future transport interchange;*
- (viii) *To encourage an active interface with Alfred Whitting Park and encourage enjoyment of the park;*
- (ix) *To encourage the establishment of a destination development that will integrate with established and future pedestrian circulation patterns;*
- (x) *To ensure development will not detrimentally affect the environment of any adjoining land and that satisfactory measures are incorporated to ameliorate any impacts arising from the proposed development; and*
- (xi) *To ensure that development incorporates the principles of Ecologically Sustainable Development (ESD).*



Figure 2 Perspective view of potential built form – Crane Road Precinct

1.3 RELATIONSHIP WITH OTHER PLANS AND POLICIES

In addition to the policies, guidelines and documents specified in Part A – Introduction to the Hills Shire DCP, this Section is to be read in conjunction with other relevant Sections of the DCP, including:

- Part B Section 5 – Residential Flat Buildings
- Part B Section 6 - Business
- Part C Section 1 - Parking
- Part C Section 2 - Signage
- Part C Section 3 - Landscaping
- Part C Section 4 - Heritage

Where any provision of this Section of the DCP is inconsistent with any provision of any other Section of the DCP, the provisions of this Section of the DCP shall prevail to the extent of that inconsistency.

This Section should also be considered in relation to DCPs and plans applying to adjoining land including upgrades of Old Northern Road the Castle Hill Major Centre (see Figure 3) and the Terminus Street Precinct (see Figure 4).

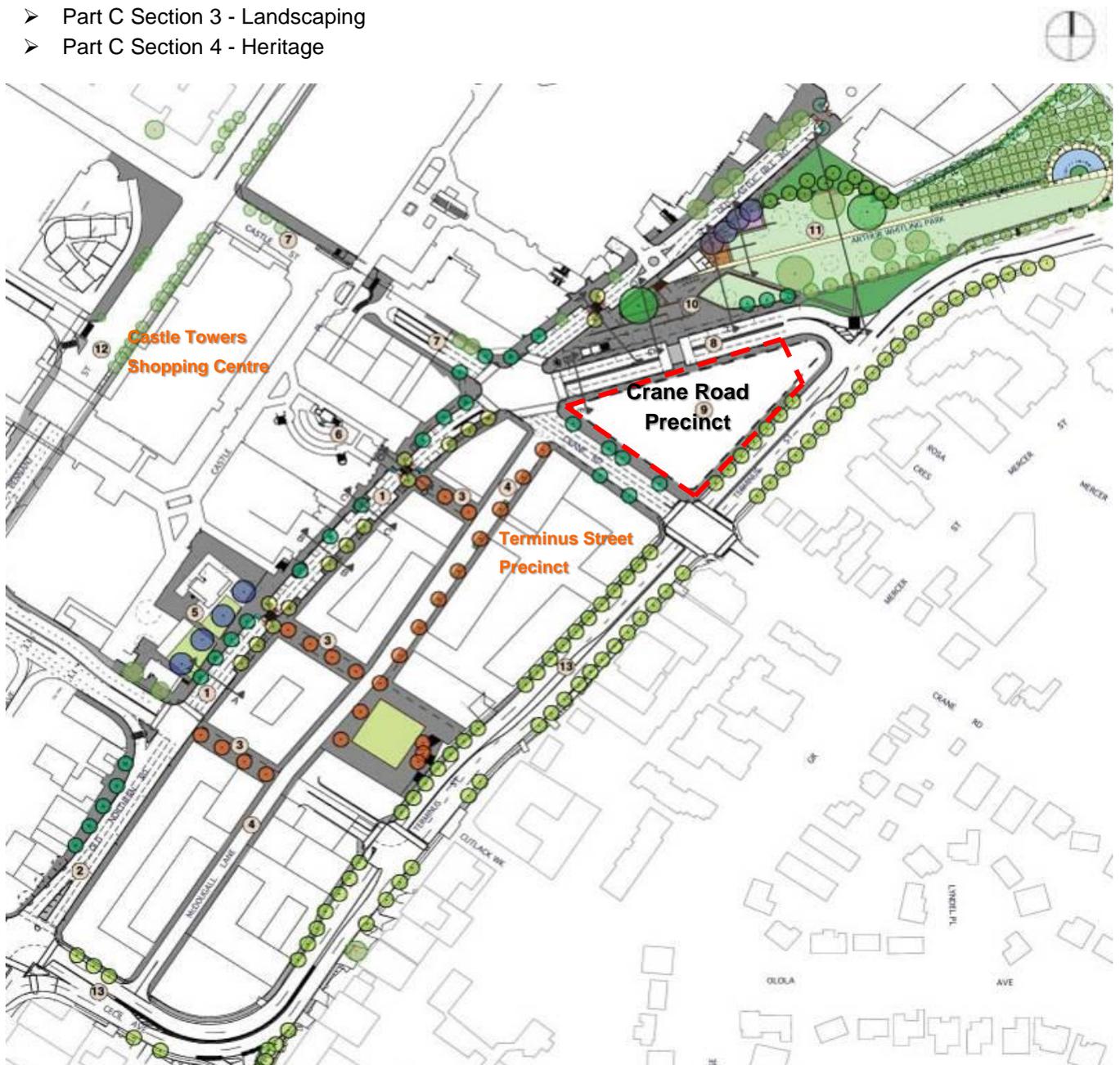


Figure 3 Castle Hill Major Centre Precinct Master Plan



Figure 4 Terminus Street Precinct – potential built form outcomes (source: Part D Section 11 Terminus Street Precinct)

2. URBAN CONTEXT

2.1 CASTLE HILL MAJOR CENTRE

The Crane Road Precinct is situated at the northern gateway of the Castle Hill Major Centre ('The Centre'). The Department of Planning has identified Castle Hill as a Major Centre in the North West Sub Regional Strategy (December 2007).

Castle Hill is the major civic and retail facility within The Hills Shire Local Government Area and accordingly warrants high quality urban development, an efficient local road network and the provision of quality civic infrastructure.

The North West Rail Link (NWRL) will strengthen Castle Hill's role as a major centre by supporting growth in and around the centre.

Castle Hill consists of retail, commercial, residential and community uses. Over the past two decades the Centre has experienced rapid growth in the quantity of retail floor space, predominately as a result of the expansion of the existing Castle Towers Shopping Centre.

Continued growth of the Centre is anticipated in the future, including an expected growth in traffic volumes and a growth in demand for retail, commercial and Major Centre support functions including hospitality, medical services and serviced apartments.

There is a need for the Centre to meet the needs for an aging population by incorporating medical services and health services facilities, as well as other professional spaces within the areas close to the bus interchange.

Major developments anticipated in the Centre include the Castle Towers Stage 3 expansion, the bus interchange, the planned Bus Transit Way link, the Castle Hill Main Street Project, the completion of the Castle Hill Ring Road, the redevelopment of the Terminus Street Precinct including new civic square and the planned widening of Showground Road.

The Crane Road Precinct is adjacent to the proposed Bus Interchange and Arthur Whitting Park. It is a strategic site that will benefit the future development of the larger Castle Hill Major Centre.

As a gateway property, an opportunity exists to treat the site as a landmark development with a

variety of mixed uses including food, beverage, retail entertainment, commercial, hospitality, medical services and residential uses.

As a relatively large site, the area may be developed in stages. Staging of any development should be undertaken in such a way that the pedestrian connection to the bus interchange is not unduly impacted.

2.2 CASTLE TOWERS SHOPPING CENTRE

The Crane Road Precinct's close proximity to Castle Towers Shopping Centre (Figure 5) and Castle Mall creates an opportunity for a mix of uses complementary to those nearby.



Figure 5 Piazza entrance to castle towers looking east along Old Northern Road

2.3 TERMINUS STREET PRECINCT

The redevelopment of the Terminus Street Precinct (Figure 6) is an opportunity for public domain improvements and complementary uses to be considered for the south eastern side of Old Northern Road.

The Crane Road Precinct is an integral neighbour to the Terminus Street Precinct and development

will be required to complement the civic uses being considered in this general area.



Figure 6 Terminus Street Precinct Master Plan

2.4 OPPORTUNITIES AND CONSTRAINTS

The outcomes of an opportunities and constraints analysis undertaken for the Crane Road Precinct are presented in this Section of the DCP. The objectives of this exercise are:

- To encourage a comprehensive approach to site planning, design and assessment of the development;
- To facilitate assessment of how future buildings relate to their immediate surroundings and one another;
- To facilitate development of a design that minimises the negative impacts on the amenity of adjoining development;
- To ensure that development is appropriate to the sites' capability and suitability for the development proposed; and
- To minimise impacts of the development on the environment with regard to the principles of Ecologically Sustainable Development (ESD).

The analysis also considers the Precinct's immediate surrounds. The following elements have been analysed:

- Landform
- Views
- Surrounding Development/ Infrastructure/Uses
- Traffic and Access
- Landscape and Vegetation
- Drainage

2.5 LANDFORM

The Crane Road Precinct is located east of the ridgeline that generally follows Old Northern Road. The land within the Precinct has a cross fall of approximately 9 metres from the highest point at Old Northern Road and Crane Road to the lowest point at the corner of Terminus Street and Crane Road. Figure 7 indicates the slope of the site along the Crane Road frontage. Figure 8 shows the topography of the site in its surrounding context.



Figure 7 Existing development along Crane Road showing sloping topography from Old Northern Road down toward Terminus Street

2.5.1 OPPORTUNITIES

The highest point of the Precinct provides a focal point for the Major Centre and the opportunity for a landmark development in close proximity to the site identified as the future bus interchange.

The Precinct falls away from the ridgeline toward Terminus Street. Heights can be concentrated at the higher portions of the site to improve legibility of the Centre and support the urban character

which is envisioned for Castle Hill as a major centre.

The unique triangular configuration of the site and the geometry of roads leading to the site create the opportunity to experience a dynamic built form from a variety of vantage points and dramatic angles.

The unique geometry, topography and convergence of pathways to the site should be utilised to its full potential in any architectural or other design consideration.

2.5.2 CONSTRAINTS

Vehicular access is constricted by the limited road frontage and the location of intersections. Vehicular access should be on Crane Road, with limited truck access to loading docks from Terminus Street.



Figure 8 Crane Road topography

2.6 VIEWS

Given the Precinct's location on the ridgeline above Old Northern Road, direct views towards the east, north-west and west are available, refer to Figure 9. The frontage to Arthur Whiting Park is also important to the amenity of the site.

2.6.1 OPPORTUNITIES

The Precinct occupies a visually dominant position within the Castle Hill Major Centre. The Precinct is suitable for a gateway/landmark building offering district views to the Blue Mountains to the west (Figure 9a) and Sydney city skyline views to the east.

Views and interaction with Castle Towers Shopping Centre and Arthur Whiting Park provides high amenity views from lower floors and encourages connectivity for pedestrians.

Castle Towers Shopping Centre is well orientated to the south westerly aspect from the Precinct (Figure 9b) and Arthur Whiting Park oriented to the north (Figure 9c).

2.6.2 CONSTRAINTS

The visual setting of the building on a major ridgeline and visible from other urban areas should be considered and its relative visual impact considered from a number of vantages including views from the north and east of the site.



Figure 9a Potential to capture Blue Mountains views on upper levels of development



Figure 9b Existing sightline from corner of Old Northern Road and Crane Road to the southwest towards Castle Towers

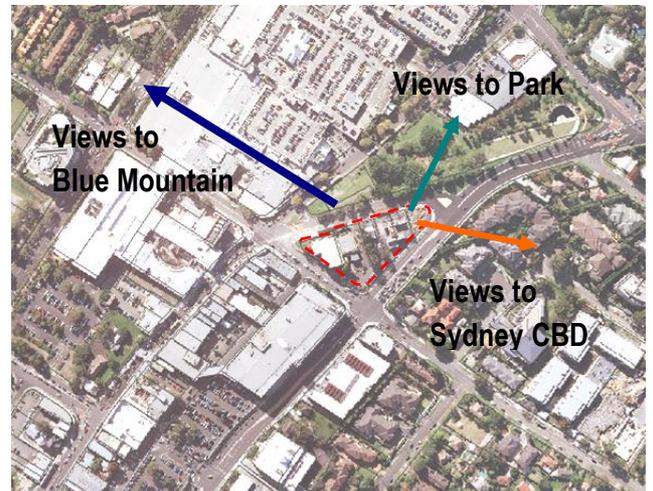


Figure 9 Views



Figure 9c View from Castle Towers entrance to northeast showing existing interface between Crane Road Precinct and Arthur Whiting Park

2.7 SURROUNDING DEVELOPMENT, INFRASTRUCTURE AND USES

2.7.1 SURROUNDING LAND USE ZONES

The surrounding development consists primarily of commercial and retail uses and medium density residential to the east side to Terminus Street.

The land zoning surrounding the Castle Hill Major Centre permits residential flat buildings, and multi dwelling housing.

These residential zonings allow for the development of higher density housing and increased population adjacent to public transport and major activity areas.

2.7.2 EXISTING LAND USE ZONES WITHIN CRANE ROAD PRECINCT

Refer to The Hills Local Environmental Plan 2012.

2.7.3 CAPACITY FOR CHANGE IN CASTLE HILL

A number of proposed changes within the Castle Hill Major Centre will provide the necessary infrastructure and additional development to contribute to its Major Centre status and will provide an important catalyst for the future development of the precincts within the Centre.

2.7.4 OPPORTUNITIES

The Crane Road Precinct is in two ownerships and may proceed to be developed more quickly compared to developments that require a higher degree of lot consolidation and/ or public/ private partnerships to commence.

This Precinct has the benefit of three road frontages, with Crane Road providing major vehicular access to the site.

In this respect the Crane Road Precinct could function as a major catalyst for future development of the Centre.

The development of key infrastructure in the Centre has a catalysing effect on the viability of development of the Crane Road Precinct including:

- Castle Hill railway station with access via Arthur Whitling Park
- The bus interchange along the Crane Road Precinct's longest and primary frontage;
- The construction of the Eastern Ring Road along Terminus Street;
- The Castle Hill Main Street Project on Old Northern Road; and
- The proposed Stage 3 expansion of the Castle Towers Shopping Centre.

Thus the context of the site presents the following opportunities:

- To design a high quality public domain that links to Arthur Whitling Park, Castle Hill Railway station and the bus interchange;
- To provide a mixed use site with retail, food, entertainment, commercial, hospitality, health services facility as well hotel and/or residential uses;
- To provide through-site linkages from the Crane Road Precinct to surrounding residential areas, railway station and the bus interchange; and
- To promote orderly development of a gateway site that provides a suitable landmark development for Castle Hill.

2.7.5 CONSTRAINTS

- The residential zoning of the existing northern portion of the site is seen as a constraint for development.
- The building envelope will be designed to demonstrate a reasonable attainment of solar access to the nearby and adjacent properties.
- As the site is located on a ridge it will be necessary to demonstrate that the site and the design of proposed buildings will not create wind tunnel effects on the surrounding streets, and that suitable pedestrian amenity can be achieved on windy days.
- The land use located adjacent to the bus interchange must be compatible with the interchange to facilitate movement to and from the interchange and also to the Arthur Whitling Park.

2.8 TRAFFIC AND ACCESS

Road Network

The Crane Road Precinct is bounded by Old Northern Road on its northern boundary, Crane Road on its southwestern boundary and Terminus Street on its southeastern boundary.

Old Northern Road is a classified State arterial road providing a high capacity link between Baulkham Hills in the south and the Hawkesbury River in the north.

The completion of the Castle Hill Ring Road redirected the majority of traffic from the northern frontage of the site but heavy volumes of traffic are present along Terminus Street on the southern boundary of the site.

A portion of the Old Northern Road frontage adjacent to the site will be occupied by the proposed bus interchange.

Refer to Figure 11 which presents the road hierarchy within the Castle Hill Major Centre.

Public Transport

A regional public transport hub including Castle Hill railway station and the bus interchange is proposed at the northern end of the centre at the northern edge of the Crane Road Precinct.

The Eastern Ring Road provides access on Old Northern Road between Crane Road and Terminus Street and will eventually be closed to all through traffic except buses when this section is further developed into the proposed new bus interchange.



Figure 11 Road hierarchy

Old Northern Road is designated in blue. Terminus Street and Pennant Street are designated in purple as the ring roads around the Centre.

Pedestrian facilities

Pedestrian movement and amenity are to be enhanced throughout the Precinct through the provision of additional pedestrian linkages that consider changes in topography and active street frontages.

Council has prepared the Castle Hill Main Street Project (June 2008). Council's vision for the Castle Hill Centre is as follows:

'The CBD as the heart of the community should be a vibrant and energetic place with pedestrian activity, restaurants, cafes, retail services and places for people to enjoy and meet taking full advantage of existing and proposed public transport opportunities and significant heritage items'.

The creation of through pedestrian linkages in the Crane Road Precinct is consistent and important to the achievement of Council's vision for the Centre (Figure 12).

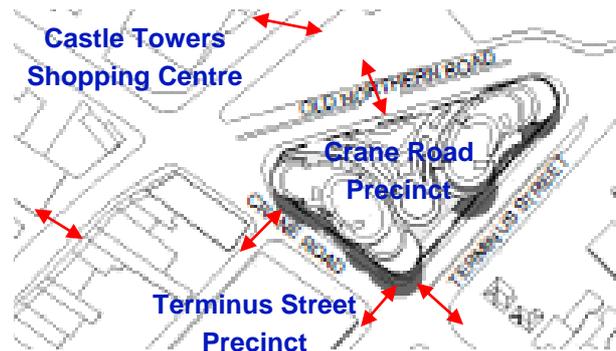


Figure 12 Key pedestrian linkages

2.8.1 OPPORTUNITIES

- Limited vehicle access will improve the pedestrian safety within the Precinct and create a more pedestrian friendly environment along Old Northern Road;
- Provide better traffic flow conditions for a the bus interchange;
- Limited vehicle access will provide better access facilities for other forms of transport (bicycles);
- Provide better pedestrian access and flow conditions to the future development of the Precinct;
- Improve pedestrian connectivity between Castle Towers, Terminus Street Precinct and Alfred Whiting Park;

- Residents and workers traveling to the Precinct will have greater access by public transport to a wide variety of facilities, reducing the need to use private vehicles; and
- The Castle Hill Main Street Project will create an opportunity for uses such as cafes.

2.8.2 CONSTRAINTS

- Vehicle access from Old Northern Road will not be provided as per the Eastern Ring Road plan; and
- The reclassification of Terminus Street and Old Northern Road will result to the loss of any potential on-street parking.

2.9 LANDSCAPE AND VEGETATION

The quality of the landscape in the Major Centre is currently limited. However, Arthur Whitling Park forms a green edge at the northern end of the Centre and Crane Road Precinct, and contains many mature trees.

Plans for improvement to the public domain of the Centre are contained in the Castle Hill Main Street Project (Environmental Partnership, 2007) and in plans for street tree planting as part of the Eastern Ring Road works, both of which will affect landscaping along the edges of the Crane Road Precinct.

The requirements for street tree planting along Old Northern Road will be primarily affected by the requirements for the bus interchange.

All planting plans must be coordinated with the landscape plans for the bus interchange.

2.9.1 OPPORTUNITIES

- Provide street tree planting in coordination with Council, and integrate both hard and soft planting with the Bus Interchange;
- Creation of attractive pedestrian arcades plazas atriums in the site which augment the public open spaces along Old Northern Road and Crane Road;
- Provide a focal public open space centrally located within the development and accessible from Old Northern Road, Crane Road and Terminus Street; and

- Prove a strong physical and visual connection to the adjoining bus interchange and Castle Hill Railway Station.

2.9.2 CONSTRAINTS

- Integration of landscape with existing utilities and services;
- Integration of tree plantings with awnings along street frontages; and
- Integration of landscaping with the functional needs of the proposed bus interchange.

2.10 DRAINAGE

The Crane Road Precinct is located within the Parramatta River catchment. The Precinct consists of predominantly hard surface area and generally drains towards the south-southeast.

2.10.1 OPPORTUNITIES

- Provision of roof gardens to contribute to the provision of quality open space and landscaping on structures; and
- Use of Water Sensitive Urban Design measures to promote water capture, re-use initiatives and water quality management measures.

2.10.2 CONSTRAINTS

Development of the site should not increase the volume and rate of offsite storm water drainage downstream.

3. URBAN DESIGN PRINCIPLES

3.1 DEVELOPMENT FRAMEWORK

The opportunities and constraints to development noted in Section 2 set out the development framework for the Crane Road Precinct.

Development that occurs within the Precinct must represent a high quality urban design solution and must demonstrate that adequate regard has been given to the following aspects of the design:

- Visual impact
- Urban structure
- Land use
- Access

- Landscape
- Security and Safety

The urban design principles that apply to how future development integrates with the whole centre are as follows.

3.1.1 VISUAL IMPACT

Future development must:

- Provide a strong visual character for the site as a gateway to the northern section of Castle Hill is consistent with the importance of Castle Hill as a major centre in the Sydney metropolitan area;
- Complement the scale of development anticipated in the redevelopment of the Terminus Street Precinct, and in particular relate to the heights and positions on the corner of Old Northern Road, Crane Road and the intended realignment of McDougall Lane;
- Provide high quality facades at the street level as well as the upper portions and principal facades which convey the civic quality intended for the Centre;
- Provide a dynamic skyline that will complement the ridge top setting of Castle Hill;
- Provide a suitable backdrop to the Arthur Whitling Park when viewed from the park and the areas near the park; and
- Consider opportunities for illumination to express the landmark quality of the site.

3.1.2 URBAN STRUCTURE

Future development must:

- Provide an appropriate transition in scale from the existing buildings surrounding the site; the key relationships in scale are to the northeast of the site towards Mercer Street and Rosa Crescent, towards the southeastern side of Terminus Street and the southwestern side of Crane Road;
- Assist in facilitating convenient pedestrian connections between the Castle Towers Shopping Centre, Arthur Whitling Park, across Old Northern Road towards the Terminus Street Precinct and the residential areas to the east of the site; and
- Provide commercial, retail and recreational places, including a high quality central plaza that have an important sense of place and

encourage the civic and mixed use development of Castle Hill.

3.1.3 LAND USE

Future development must:

- Ensure a mix of uses that will provide social activity throughout the day and into the evening in a manner that is compatible with the role of Castle Hill as a major centre in the Sydney metropolitan area;
- Provide a transport oriented mixed use precinct to cater to residents, commuters and visitors;
- Provide development which is in keeping with and compatible to the surrounding residential and mixed use development to the east of the site; and
- Consider the needs for an aging population by incorporating medical services and consulting rooms as well as other professional spaces.

3.1.4 ACCESS

Future development must:

- Provide an opportunity for convenient and direct movements to and from the proposed Bus Interchange on the east and west sides of Old Northern Road;
- Respond to the realignment of McDougall Lane in the Terminus Street Precinct to allow safe and convenient access for pedestrians across Crane Road;
- Provide through-site links which allow safe and convenient movement for pedestrians from the lower portions of the site at the corner of Crane Road and Terminus Street to Old Northern Road;
- Minimise the impact of bus, private vehicular and service access on pedestrian amenity and the overall quality of the environment;
- Provide opportunities for casual surveillance, enhancing safety of pedestrians moving within the precinct; and
- Allow for the staged development of the overall precinct, by allowing Rights of Way benefiting future development for vehicular access from the Crane Road entry.

3.1.5 LANDSCAPE

Future development must:

- Provide a network of public spaces that deliver a high level of amenity and connectivity for pedestrians that may be used during the day and into the evening;
- Establish a vibrant centre for passive recreation and as a meeting place, involving a central public plaza incorporating high quality landscape treatments including water, soft landscape and paving that are complemented by the architecture of wide balconies, arcades, and plazas which are designed in order to encourage people to sit and relax;
- Provide upgrades to the footpaths and public domain areas linking with Alfred Whitting Park and the Bus Interchange;
- Integrate with the public domain standards planned for the public areas of Old Northern Road and Terminus Street;
- Provide high quality vibrant 'urban landscape' elements that are simple and robust in design to cater for large volumes of people and that are safe during both day and night; and
- Provide a high quality public domain based on sound Ecologically Sustainable Development and energy efficiency principles.

3.2 DESIGN PRINCIPLES

The design principles that underpin future development within the Precinct are to:

- (i) *Enhance the quality of the public domain in the area, particularly at the interface of the precinct, the bus interchange and incorporating the upgrade of Terminus Street, Old Northern Road and McDougall Lane;*
- (ii) *Create a landmark structure at the northern gateway of Castle Hill that is characterised by design excellence and expression of unique architectural form;*
- (iii) *Provides suitable articulation of facades to assist in providing a suitable scale to the building, and to reduce perceived building bulk;*
- (iv) *Strengthen indoor and outdoor pedestrian circulation through the centre by creating direct access and pedestrian friendly areas that both compliment and draw people through Castle Towers Shopping Centre towards the Crane Road and Terminus Street Precincts;*

- (v) *Provide retail and in particular dining and entertainment areas directed towards the park that allow the park to be enjoyed and contribute to passive surveillance of the park;*
- (vi) *Create a consistent alignment of buildings through the Centre and use podiums to maintain a consistent street edge through the centre;*
- (vii) *Provide weather protection to the public; and*
- (viii) *Minimize overshadowing of private open spaces associated with residential development.*



Figure 13 Potential built form (eastern elevation)



Figure 14 Potential built form (northern elevation)



Figure 15 Character – central plaza

3.2.1 DESIGN EXCELLENCE

- i. Refer to Clause 7.7 *Design excellence* of The Hills Local Environmental Plan 2012.

4. DEVELOPMENT CONTROLS

The objectives and development controls for development of the Crane Road Precinct are set out in this section of the DCP.

4.1 DESIRED FUTURE CHARACTER

4.1.1 EXISTING CHARACTER

The Crane Road Precinct contains a diverse range of uses with a poorly coordinated visual appearance.

The existing uses in this Precinct include a 3 storey commercial building, a tyre outlet, a tattoo parlor and a petrol service station.

The existing low scale buildings and uses in this precinct are not consistent with the desired future character of the gateway to the Centre. (Figures 16-17)



Figure 16 Existing Old Northern Road frontage viewed from the northeast.



Figure 17 Existing Crane Road frontage viewed from the south east.

4.1.2 FUTURE CHARACTER

Old Northern Road

The desired future character for Old Northern Road is to promote the civic, commercial, retail and residential frontages as high quality civic frontages.

The road frontages should be designed as an important entrance to Castle Hill Major Centre.

The uses should be compatible with Castle Hill railway station and the Bus Interchange as well as the adjacent Park, and have awnings that provide suitably scaled weather protection.

There should be an emphasis on pedestrian amenity and safety with suitable illumination while maintaining active street frontages.

Crane Road

The desired future character for Crane Road is to include:

- Retail and commercial ground level uses to provide activity and visual interest to the pedestrian; and
- Visual interest and a range of materials, colours and finishes in the upper level facades.

Terminus Street

The desired future character for Terminus Street is to include:

- A boulevard character with street trees on both sides and a wide footpath;

- A pedestrian friendly environment with easy access to Old Northern Road, bus interchange and park;
- Ground level commercial uses to provide activity and visual interest to the pedestrian; and
- Visual interest and a range of materials, colours and finishes in the upper level facades.

4.2 STREETScape

OBJECTIVES

Buildings in the Crane Road Precinct are to:

- (i) Reinforce the desired future character of the area they are located in being the Castle Hill Major Centre;
- (ii) Have a distinctive landmark character denoted by quality architecture and publicly accessible interior space;
- (iii) Provide a rich addition to the skyline of Castle Hill when viewed from the surrounding areas;
- (iv) Provide richness of detail and architectural interest, particularly at visually prominent elements of the building, such as corners, entries, lower parts of the building and at the rooftop; and
- (v) Utilise building materials that are lightweight, transparent and energy efficient.

DEVELOPMENT CONTROLS

- (a) Embellishment of the public domain fronting the site is to be carried out as part of the development in accordance with the existing landscape plans for the bus interchange, Alfred Whitting Park, Terminus Street Precinct, Castle Hill Main Street Project Terminus Street upgrades and the Castle Hill Public Domain Plan. As well as all sections of this Plan addressing aspects of the streetscape, including:
 - Building and Ceiling Heights;
 - Land Uses;
 - Building Articulation;
 - Pedestrian Access and Linkages;
 - Public Domain;

- Landscaping;
- Active Street Frontages; and
- Awnings.

- (b) Allowance is to be made for the adjustment of the Old Northern Road property boundary as per Section 4.6 Building Alignments of this Plan, to accommodate road widening and access to services associated with the construction of the bus interchange.

SUBMISSION REQUIREMENTS

All development applications are to show elevations from all street frontages and schedule of colours and finishes.

4.3 BUILDING AND CEILING HEIGHTS

OBJECTIVES

- (i) To create a strong gateway element at the northeastern entrance to Castle Hill Major Centre and a major centre within the Sydney region;
- (ii) To emphasise the corner of Old Northern Road and Crane Road as a major street intersection in the Castle Hill Centre, as having close proximity to the proposed bus interchange and as an entry point to the Centre;
- (iii) To create a point of architectural interest within the Centre which is a creative expression of individual form but which complements the overall character and objectives of Castle Hill;
- (iv) To visually reinforce the primary frontage of the Precinct along Old Northern Road;
- (v) To minimise overshadowing of surrounding development whilst recognising that buildings in the Precinct will partially overshadow portions of Crane Road and Terminus Street at noon in midwinter;
- (vi) To create good amenity in buildings in terms of natural light penetration towards the centre of the building and natural ventilation with sufficiently high ceilings; and
- (vii) To create a minimum ceiling height which allows for a flexible use where internal spaces can be easily transitioned to new and appropriate uses in the future.

DEVELOPMENT CONTROLS

- (a) Provide minimum 4.5 m ceiling heights at ground (Level 1) and first floor (Level 2) in all buildings to allow flexibility in internal uses.

4.3.3 SUBMISSION REQUIREMENTS

All development applications are to indicate floor to ceiling heights dimensions for each floor including ground levels and roof levels.

4.4 FLOOR SPACE RATIO

OBJECTIVES

- (i) *To provide for a level of floor space that is appropriate development to the built form and guidelines in this Plan;*
- (ii) *To ensure that proposals for new buildings are assessed with due regard to urban design and built form controls;*
- (iii) *To develop a viable development for the site that meets economic outcomes and achieves the social imperatives for the community, architectural excellence, and environmental outcomes;*
- (iv) *To achieve a landmark building form; and*
- (v) *To achieve a suitable building height compatible with the future role of Castle Hill and a major centre in the Sydney metropolitan area.*

DEVELOPMENT CONTROLS

- (a) Refer to Clause 4.4 *Floor space ratio* of The Hills Local Environmental Plan 2012.

SUBMISSION REQUIREMENTS

Applications shall be supplemented by suitable economic assessments, visual assessments, solar assessments, and traffic impact assessments that demonstrate the suitability of the FSR nominated.

4.5 LAND USES

OBJECTIVES

- (i) *To promote pedestrian movement and a high level of pedestrian amenity throughout the*

Crane Road Precinct, with active street and bus interchange frontages at ground level;

- (ii) *To create active, pedestrian friendly uses within public and semi-private access ways through the precinct;*
- (iii) *To allow for mixed uses, including medical support, hospitality and commercial uses in buildings in the Precinct;*
- (iv) *Provide residential uses in the Centre close to the existing retail facilities and commercial spaces; and*
- (v) *Facilitate staged development to allow the development to be staged in the precinct.*

DEVELOPMENT CONTROLS

- (a) Provide active street/public open space frontages (such as retail, cafes or restaurants) at ground floor level.
- (b) Provide minimum 4.5m ceiling heights at ground (Level 1) and first floor (Level 2) in all buildings to allow flexibility of internal uses.

4.6 BUILDING ALIGNMENTS

OBJECTIVES

- (i) *To improve the quality of the public domain and retailing opportunities for commercial tenants;*
- (ii) *To allow ample space along bus interchange street frontage;*
- (iii) *To affect proper readjustment of property boundaries in accordance with road widening and bus interchange construction; and*
- (iv) *To achieve a dramatic and iconic form where the architectural profile of the building controls permit a certain level of design freedom; but compliance with the Building Code of Australia and consideration of the environmental effects of building profile will need to be duly considered by the proponent and Council.*

DEVELOPMENT CONTROLS

- (a) Buildings to have street frontages built predominantly to the street alignment.
- (b) Council must be satisfied with boundary adjustments to the Old Northern Road

frontage to facilitate access to services and accommodate the bus interchange.

- (c) Council must be satisfied with the upper levels setbacks of the building, following review of the solar effects, building separation distances and visual merits of the application.
- (d) Setbacks for upper levels should alleviate downdrafts from high building facades. Wind tunnel testing must demonstrate that wind effects at pedestrian level are suitable for pedestrian comfort.

SUBMISSION REQUIREMENTS

- All development applications are to indicate property boundary adjustments in accordance with the Terminus Street upgrade and bus interchange report.

4.7 BUILDING SEPARATION

OBJECTIVES

- (i) *To ensure privacy between buildings, including windows in commercial office buildings and particularly for living spaces and private open spaces in residential buildings;*
- (ii) *To provide appropriate separation and landscaping between buildings; and*
- (iii) *To promote articulation of the facades to achieve suitable scale of the buildings.*

DEVELOPMENT CONTROL

- (a) The minimum separation between windows or balconies in commercial buildings and other windows or balconies in commercial buildings is to be 12 m. Variances from these distances may be acceptable where it can be demonstrated that visual privacy and acoustic privacy has been addressed by other means including screening, awnings, or other physical devices.

4.8. BUILDING ARTICULATION AND DESIGN

OBJECTIVES

- (i) *To create richness of detail and architectural interest, especially at visually prominent parts*

of buildings such as at street level areas lower façade areas and parapets;

- (ii) *To maintain a pedestrian scale in the articulation and detailing of the lower levels of the building;*
- (iii) *To emphasise building entries, corners and other prominent locations in the Castle Hill Centre;*
- (iv) *To make Alfred Whitling Park a major focus for public life in Castle Hill;*
- (v) *Coordinate with the siting of the bus interchange to encourage an effective transit orientated development; and*
- (vi) *To develop buildings that address Old Northern Road that will demonstrate design excellence.*

DEVELOPMENT CONTROLS

- (a) Define the building envelope as to the overall proportion of the building, using lighter materials and colours.
- (b) The facades addressing the bus interchange are to contain:
 - Active frontages at ground level for the full length of the façade facing the park;
 - Generous and continuous pedestrian shelter in the form of colonnades or awnings at ground level or ground level and first floor level;
 - High quality facades;
 - A balance between window openings and solid wall of approximately 40% window to 60% wall;
 - A balance between horizontal and vertical proportions in the composition of the facades; and
 - A roof design that creates a distinctive top to the building.
- (c) The facades addressing the park are not to contain:
 - Car park entries, fire stair exits or blank facades at ground level;
 - Concrete block, white or light coloured brickwork or painted brick or block work; and
 - Primarily blank walls or primarily glazed walls for the entire façade.

- (d) Articulate building entries, corners and other prominent locations with awnings, porticos and recesses.
- (e) Locate building entries to relate to the street and to be a clearly identifiable element of the building in the street.
- (f) Locate primary building entry at the bus interchange and cross walk along Old Northern Road with a prominent and clearly identifiable architectural element.
- (g) Select balcony types that respond to the street context, building orientation and residential amenity.
- (h) Design balconies so that they are recessed behind the building façade.
- (i) Provide balconies along park interface frontage for café seating overlooking park and above bus interchange.
- (j) Integrate service elements such as lift over runs, service plants, vent stacks, telecommunications infrastructures, gutters and down pipes into the overall design of the roof.

SUBMISSION REQUIREMENTS

- All development applications are to show elevations from all street frontages and a schedule of colours and finishes.

4.9 SAFETY AND SECURITY

OBJECTIVES

- (i) *To ensure that the centre is safe and secure for residents and visitors by incorporating crime prevention through environmental design.*

DEVELOPMENT CONTROLS

- (a) All development shall be designed to ensure the safety and security of residents and visitors within individual developments and in the public domain during the day and at night.
- (b) Certain developments due to their size, function or location may be referred to NSW Police for comment. These types of developments include, but are not limited to:
 - Transportation facilities;

- Large residential flat buildings and multi dwelling housing developments (50 or more dwellings);
- Large mixed use developments (50 or more dwellings);
- Major shopping centre developments;
- New educational establishments and hospitals;
- Large recreation facilities;
- Registered clubs and hotel/motel accommodation; and
- Service stations, convenience stores and other high-risk businesses.

SUBMISSION REQUIREMENTS

- All development applications shall refer to Council's Designing Safer Communities: Safer by Design Guidelines (2002) and demonstrate how the proposed development incorporates measures to increase safety and reduce opportunities for crime through building design, landscaping, lighting, surveillance etc.

4.10 PEDESTRIAN ACCESS AND LINKAGES

OBJECTIVES

- (i) *To promote pedestrian movement in the public realm of the Castle Hill Centre;*
- (ii) *To increase the number of pedestrians within the Crane Road Precinct, Alfred Whitting Park, Castle Hill railway station and bus interchange;*
- (iii) *To increase the permeability of the existing urban blocks, making pedestrian access to and from the railway station and bus interchange and Terminus Street as well as access to the new Town Square more direct and providing choice in the route taken;*
- (iv) *Build on circulation patterns established inside Castle Towers Shopping Centre and the Terminus Street Precinct to strengthen patterns of pedestrian circulation through the Centre;*
- (v) *To increase the linear length of street frontage, particularly of ground floor retail, to increase the amount of active street frontage in the Centre; and*

- (vi) *To provide pedestrian connectivity with surrounding residential areas.*

DEVELOPMENT CONTROLS

- (a) Locate the primary 'entrance' of the development at the centre of bus interchange at pedestrian crossing and offer uses that cater to commuters.
- (b) Provide a direct visual connection and pedestrian link from the intersection of Old Northern Road and Crane Road and the new Town Square.
- (c) Developments should demonstrate where possible that pedestrian connectivity to surrounding residential areas is provided.
- (d) The minimum width of the through pedestrian link is to be 6 metres

SUBMISSION REQUIREMENTS

- Plans are to show the incorporation of pedestrian links into overall site design/layout.

4.11 VEHICULAR ACCESS AND PARKING

OBJECTIVES

- (i) *To provide safe vehicular access;*
- (ii) *To minimise the impact of vehicular access and parking on the design of buildings and in particular on ground level active frontages and footpaths;*
- (iii) *Provide parking for land uses to ensure the viable development of the project and future operation; and*
- (iv) *Consider parking arrangements to suit parking operators.*

DEVELOPMENT CONTROLS

- (a) Parking provisions on site should be provided in accordance with Part C Section 1 – Parking of this Development Control Plan.
- (b) The design for the car parking space, access driveway and manoeuvring areas will be in accordance with the current Australian

Standards and Road and Maritime Services (RMS) Guidelines.

- (c) There is to be no vehicular ingress or egress from Old Northern Road.
- (d) Show Rights of Way to allow for vehicular access through the site to accommodate staged development.

SUBMISSION REQUIREMENTS

- All development applications with on-site parking are to include a Traffic and Parking Report.
- Elevations to show car park structures from all street frontages and the area of active street frontage.

4.12 SOLAR ACCESS AND OVERSHADOWING

OBJECTIVES

- (i) *To allow sunlight access to key areas of the public and private domain; and*
- (ii) *To incorporate energy efficiency principles to ensure sustainability in design.*

DEVELOPMENT CONTROL

- (a) Ensure that properties on the eastern side of Terminus Street, between 9 am and 3 pm, on June 22nd have more than 3 hours of solar access to habitable rooms.

SUBMISSION REQUIREMENTS

- Shadow diagrams indicating the effect of shadows at 9 am 12 noon and 3 pm on June 22 as a minimum.

4.13 PUBLIC DOMAIN

OBJECTIVES

- (i) *To provide a high quality public domain that continues the standards established for the Centre in the Castle Hill Main Street Project and any other public domain plans for the Centre; and*

- (ii) *To provide a high quality principal public open space with appropriate public domain treatments.*

DEVELOPMENT CONTROL

- (a) Development of the public domain fronting the site is to be carried out as part of the development in accordance with the existing or proposed plans for the Old Northern Road bus interchange, Castle Hill Railway Station, Alfred Whitting Park, Terminus Street Precinct, Castle Hill Main Street Project, Terminus Street upgrades and the Castle Hill Public Domain Plan. The landscape of the site should integrate with those landscape plans, but seek to create a space with an individual character and a distinctive image in the Major Centre.

SUBMISSION REQUIREMENTS

- Provide details of proposed public domain treatments including but not limited to a high quality public domain plan that incorporates and responds to proposed or existing plans for the Old Northern Road bus interchange, Castle Hill Railway Station as well as elements of Castle Hill Main Street Project and Castle Hill Public Domain Plan including landscaping, paving, street furniture, and lighting.

4.14 LANDSCAPING

OBJECTIVES

- (i) *To provide high quality landscaping that continues the standards established for the Centre;*
- (ii) *To provide private open space that complements internal living spaces, and creates opportunities for outdoor leisure and community recreation; and*
- (iii) *To integrate existing landscape plans for areas of the Crane Road Precinct already drafted in association with the Bus Interchange, Terminus Street Precinct DCP and Castle Hill Main Street Project and Terminus Street upgrades.*

DEVELOPMENT CONTROLS

- (a) Provide large evergreen trees for the western side of streets and deciduous trees for the eastern side.
- (b) All commercial, retail and mixed use developments to incorporate deep soil zones which shall comprise a minimum of 5% of the total development site area.
- (c) Deep soil zones are to allow for future planting of mature trees.
- (d) Landscaping for Crane Road Precinct shall be consistent with the Castle Hill Main Street Project and the Castle Hill Public Domain Plan.

SUBMISSION REQUIREMENTS

- Provide a landscape plan, prepared by a qualified landscape architect, for each public and private open space within the development.

4.15 LANDSCAPING ON STRUCTURES

OBJECTIVES

- (i) *To contribute to the quality and amenity of communal open space on roof tops, podiums and internal courtyards;*
- (ii) *To encourage the establishment and healthy growth of trees in urban areas; and*
- (iii) *Utilise climate appropriate and low maintenance and low water demand planting when possible particularly when planting green roof areas in order to mitigate heat island effect and micro-climate conditions.*

DEVELOPMENT CONTROLS

- (a) Design for optimum conditions for plant growth by:
- Providing soil depth, soil volume and soil area appropriate to the size of the plants to be established;
 - Providing appropriate soil conditions and irrigation methods; and
 - Providing appropriate drainage.
- (b) Designing planters to support the appropriate soil depth and plant selection by:

- Ensuring planter proportions accommodate the largest volume of soil possible. Minimum soil depths will vary depending on the size of the plant however, soil depths greater than 1.5 metres are unlikely to have any benefits for tree growth; and
 - Provide square or rectangular planting areas rather than long narrow linear areas.
- (c) Increase minimum soil depths in accordance with:
- The mix of plants in a planter for example where trees are planted in association with shrubs, groundcovers and grass;
 - The level of landscape management, particularly the frequency of irrigation;
 - Anchorage requirements of large and medium trees; and
 - Soil type and quality.

SUBMISSION REQUIREMENTS

- Submit a Drainage Plan for roof top planting or other structures.

4.16 ACTIVE STREET FRONTAGES

OBJECTIVES

- (i) *To provide active frontages to streets, squares and lanes, enhancing the quality of the pedestrian environment in the public domain;*
- (ii) *To provide visually open street frontages, creating transparency and visual interest in building facades; and*
- (iii) *To create spaces that is safe for pedestrians throughout the day and evening.*

DEVELOPMENT CONTROLS

Buildings with designated active frontages are to:

- (a) Contain shops, restaurants, cafes and other uses that allow interaction with the public and a physical connection between the public domain and the interior of the building at ground level;

- (b) Restrict vehicular entries for car parking and service vehicles, fire escapes and other services from locating on designated “active frontages”
- (c) Provide active frontages flush with the footpath, for a minimum length of the entry doors to the ground floor level.
- (d) Locate security grilles inside the shop front; and
- (e) Provide transparent grilles.
- (f) Provide a plaza area with retail spaces and other activities that activate the space.

Buildings with designated visually open street frontages are to:

- (a) Allow appropriately located vehicular entries for car parking and service vehicles, fire escapes and other services where necessary;
- (b) Limit vehicular access to one access point per building by combining service vehicle access with parking access;
- (c) Footpath crossings for vehicular access are to be a single crossing with a maximum width of 3 metres. In exceptional circumstances a double crossing with a maximum width of 5.4 metres may be permitted for safety reasons;
- (d) Provide visually interesting street frontages, with clear glazed windows, window displays, display cases, artworks and articulated facades with extensive architectural detail; and
- (e) Avoid solid wall panels greater than 100m² without windows.

SUBMISSION REQUIREMENTS

- Elevations.
- Schedule of proposed/potential ground floor uses.
- Site plan, showing all setbacks, car park access points.

4.17 AWNINGS

OBJECTIVES

- (i) *To provide pedestrian weather protection and shading for shop fronts; and*
- (ii) *To create cohesive streetscapes with relatively continuous awning form.*

DEVELOPMENT CONTROLS

- (a) Provide high level and extended awnings to the full extent of the street frontages on Old Northern Road to ensure suitable weather protection to pedestrians, to allow high quality retailing facades and to maintain views to the park over the bus interchange from the first floor.
- (b) Integrate new awnings with existing awnings to achieve continuity of weather protection and built form.
- (c) Create awnings that are horizontal in form, all metal or with flat glazed sections to allow light to penetrate to the footpath.
- (d) Avoid steeply sloped, barrel vaulted or arched awnings.

4.18 ENERGY EFFICIENCY

OBJECTIVE

- (i) *The design of the building shall target a high level of proven energy consumption and conservation principles.*

DEVELOPMENT CONTROLS

- (a) The design shall target a 4.5 star rating and submit a verification statement from qualified experts.

4.19 STORMWATER MANAGEMENT

OBJECTIVES

- (i) *Ensure waterways and downstream drainage systems are protected during construction and post construction phases of development;*
- (ii) *Ensure new developments do not place an increased flood risk to private and public property, and where possible, reduce the impacts of nuisance flooding to a level acceptable to the community; and*
- (iii) *Reduce potable water demand through water sensitive urban design initiatives.*

DEVELOPMENT CONTROLS

Water Sensitive Urban Design

The best practice principles of WSUD are to be applied during the construction and post construction phases of development.

Schemes that promote water capture, reuse initiatives and water quality management measures, as described in documents including, but not limited to:

- On-site Stormwater Detention Handbook, Version 4 2005, UPRCT;
- Australian Runoff Quality, Engineers Australia, 2006; and
- Water Sensitive Urban Design – Technical Guidelines for Western Sydney, May 2004, Prepared for UPRCT by URS.

are required for all new commercial and residential developments, or where the increase in impervious area over a site is greater than 150m². Common open space and publicly accessible courtyard areas may be utilised for WSUD initiatives.

