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EXECUTIVE SUMMARY

Castle Hill is a Strategic centre in north west Sydney. It provides a rich mix of housing, public transport, shopping, employment and civic functions. The construction of the Sydney Metro Northwest creates an opportunity to provide increased density to take advantage of a new high frequency transport service. The vision for Castle Hill includes reconnecting people to each other and the environment around them, building on the centre’s strength as an attractive metropolitan location to live, work and play and making citizens proud of the important places which they identify with.

This Public Domain Plan is the ‘how to’ guide that illustrates the public domain needed to create a high quality urban area.

The key issues relating to the public domain within the Castle Hill North Precinct are:

• The need to improve accessibility and circulation within the centre for pedestrians;
• Increase quality of public space;
• Improve legibility and promote the identity of the Precinct; and
• Provision of cohesive and attractive streetscapes.

The draft Public Domain Plan has been prepared to enhance the image and amenity of the Precinct through the provision of street trees, footpath paving, street furniture and landscaping to give the precinct an urban identity as part of the centre, while complementing the character of the surrounding area. The draft Public Domain Plan provides an overall direction for creating public domain spaces that are attractive, safe and vibrant within the town centre. Specifically, the Plan seeks to provide:

• Analysis of the current and desired future character of the Precinct;
• A design framework providing design direction for future development, including recommended design approaches, treatments and details; and
• A proposed implementation plan.
**THIS PLAN AIMS TO:**

- Increase accessibility within the Precinct to promote the use of public transport, pedestrian and cyclists activity.
- Identify the desired future character of the Castle Hill North Precinct
- Guide future improvements to the Town Centre’s public domain.
- Improve amenity and accessibility for local residents, workers and visitors.
- Assist in the ongoing viability of the Centre by encouraging investment, redevelopment and revitalisation.
- Provide for a high amenity and sustainable living environment.
1. INTRODUCTION

This Public Domain Plan (The Plan) has been prepared to guide the future public domain design and planning. It establishes the key principles and elements that aim to achieve an improved public domain for the community, workers and visitors. This document will encourage enhancements in accessibility, identity, amenity, and visibility of the Precinct to ensure its ongoing growth and status as a Strategic Centre.

The Plan provides an overall direction for creating public spaces that are attractive, safe and vibrant within the centre. The Plan complements future development within the Precinct as envisaged by both Local Environmental Plan 2012 and the Development Control Plan 2012, and is part of a range of documents that will guide the transition of the area to a higher density urban environment with strong links to new transport infrastructure.

WHAT IS THE PUBLIC DOMAIN?

The public domain is space that is publicly accessible for the whole community such as footpaths, streets, roads, parks and building setbacks. Well designed and attractive public domain spaces can improve environmental amenity and accessibility, and encourage greater patronage of public areas. A high quality public domain can act as a core attractor for investment in economic activity and business development.

IMPLEMENTATION

The future public domain works will be partly funded through the Contributions Plan and will be delivered by Council via the Contributions Plan or provided developers as redevelopment occurs.

STRATEGIC CONTEXT

In 2011, the State Government committed to the construction of the North West Rail Link which is set to be Australia’s largest public transport infrastructure project with a completion date at the end of 2019.

As part of the on-going work in delivering the rail link the Department of Planning and Environment undertook a strategic review of development around each of the future rail stations and released the North West Rail Link Corridor Strategy in September 2013. The Corridor Strategy seeks to strengthen Castle Hill’s status as the Major Centre for the North West, by encouraging further development of the retail centre and commercial core that will contribute to more jobs and opportunities for residents to work close to home. There is also a focus on increasing residential densities within walking distance of the station. A key goal is to introduce a variety of housing types and appropriate housing for all members of the community.

CASTLE HILL NORTH PRECINCT

The Castle Hill North Precinct is located within the broader Castle Hill Railway Station Precinct. The Precinct is bound by Pennant Street and Castle Street to the south, Gilham Street to the north, Old Northern Road to the east and Carramarr Road to the west.

In determining the Precinct boundaries, an area extending north from Castle Street and Old Northern Road, within an approximate one kilometre radius of the future Castle Hill Station, was investigated. This area encompasses the northern boundary of the Castle Hill Station Structure Plan as identified in the North West Rail Link Corridor Strategy.

The Precinct boundaries have been refined to an area closer to the retail and commercial core having regard to actual walking distance and the constraints imposed by topography and the existing road network. Consideration has also been afforded to the age and condition of existing housing stock and titling arrangements which are likely to constrain the uptake of development opportunities.
Laroof Crescent Reserve  Eric Felton Reserve
Maurice Hughes Reserve  Garthowen House
Paving Treatment, Old Castle Hill Road  Rear of Maurice Hughes Reserve
2. VISION AND OBJECTIVES

VISION FOR THIS PLAN

Castle Hill North will be a vibrant, safe and attractive place to live, work, visit and shop that reinforces the role of Castle Hill as a major civic and retail destination within the Hills Shire Local Government Area. The Precinct will be characterised by a high quality urban environment, with active street life, that promotes a positive sense of community with social inclusiveness.

OBJECTIVES FOR THIS PLAN

This Plan will assist in achieving this vision, aiming to achieve these objectives for the Precinct to achieve these via implementation of the public domain improvements outlined by this plan:

- Facilitate the creation of high quality public spaces that encourage social interaction and create a sense of place for residents and visitors to Castle Hill North;
- Promote the visual and physical integration of the public and private domain;
- Provide appropriate, equitable, safe and convenient access and egress points for pedestrians;
- Provide for improved pedestrian circulation patterns throughout the Precinct;
- Ensure improved pedestrian connectivity between all major developments;
- Soften the existing roadway environment with landscape treatments;
- Retain / enhance or reinstate the existing green canopy.

“Provision for a range of housing types within a 5 minute walk to the town centre. To ensure a well-connected Precinct that capitalises on the established and proposed infrastructure for Castle Hill”

Vision Statement
3. ANALYSIS

PLANNING AND INFRASTRUCTURE FRAMEWORK

The Hills Local Environmental Plan 2012 and Development Control Plan 2012 provides a planning and infrastructure framework for future development within Castle Hill North. The Local Environmental Plan identifies floor space ratios and development provisions and specifies what activities can be carried out on land. The Development Control Plan provides greater detail for matters such as building setbacks, car parking, site and density requirements.

The preparation of a public domain plan to guide the development of, and improvements to, the public domain and streetscape of centres is identified in Council’s Centres Direction which forms part of a strategy that guides land-use planning and management of centres in the Shire. Together with the Development Control Plan and Contributions Plan, the Public Domain Plan will assist in achieving the key objectives of the Centres Direction, namely:

- C1 Create vibrant centres that meet the needs of the community
- C2 Make centres more attractive places to visit
- C3 Make centres accessible to the community
- C4 Improve the functioning and viability of existing centres
EXISTING BUILT ENVIRONMENT

STREETSCAPES AND PEDESTRIAN CONNECTIVITY

The Precinct consists typically of low residential suburban streetscapes with predominately single lot dwellings that have generous setbacks to the kerb. The pavement treatment and width of the existing footpaths varies from street to street providing an inconsistent pedestrian environment with little street activation.

Pedestrian circulation is largely characterised by movement from Castle Towers Shopping Centre and to Castle Hill Community Centre and Library. However, the pedestrian layout of the Precinct is not well defined or continuous.
LANDSCAPING AND STREET TREES

The area is largely cleared with some vegetation surrounding developments. There are small areas of biodiversity importance within the Precinct which contain pockets of significant vegetation and stands of well established canopy trees. The largest concentration is around the intersection of Carramarr Road and Gilham Street within the existing open space areas.

The proposed street trees will provide additional landscaping to create recognisable entrances and an attractive identity. The Plan also highlights areas for street trees landscaping in the residential areas which will improve the overall visual appeal of the streets and soften the hard paved areas.
4. PUBLIC DOMAIN STRATEGY

PEDESTRIAN CONNECTIVITY

PRINCIPLES
• Provide accessible pedestrian linkages to the station, local shops and cafes from the residential areas.
• Enhance and improve the walking environment for all users.
• Encourage pedestrian movement between various parts of the Precinct and to the centre.
• Reduce the dominance of cars within the Precinct.
• Remove trip hazards from uneven pathways.
• Minimise ongoing maintenance.
• Ensure that site redevelopment makes pedestrian connectivity and walkability between different parts of the Precinct a high priority.
• Provide lighting to all pedestrian walkways.

STRATEGIES
• Provide wide concrete footpaths along both sides of Pennant Street, Castle Street and Old Castle Hill Road to maximise opportunity for active frontages.
• Creation of through-site active ‘pedestrian only’ links and improved pedestrian connections from key sites.
• Use landscape edge treatments to soften the edges of busy roads.
Photomontage of an Urban Active Edge Streetscape
PEDESTRIAN PAVING

Proposed Footpath Treatments

Footpath Treatments
- Paving Treatment 1
- Paving Treatment 2
PAVING TREATMENT ONE

Paving treatment 1 to be used in high use pedestrian areas. Similar to Urbanstone Commercial Series

Example of ‘Golden Gunmetal’ Concrete Pavers

PAVER TYPE A - Golden Gunmetal
- Machine milled and sealed
- 400 x 400 x 60mm
- Kerb to property boundary

PAVER TYPE B - Bluestone (banding)
- Machine milled and sealed
- 300 x 500 x 600mm
PAVING TREATMENT 1 - PRAM RAMP CROSSING

PAVING TREATMENT 1 - LANDSCAPE PAVEMENT
PAVING TREATMENT TWO

Paving treatment 2 has been identified as concrete with blue stone pavers specified in medium use areas. Similar to Australian Blue Stone.

Example of “Blue Stone” Paving

PAVER TYPE B - Bluestone (banding)
- Machine milled and sealed
- 300 x 500 x 600mm
- Width will vary
PAVING TREATMENT 2 - PRAM RAMP CROSSING

PAVING TREATMENT 2 - LANDSCAPE PAVEMENT
Paving Details

PAVING TREATMENT 2 - INTERSECTION
CYCLEWAY AND PUBLIC TRANSPORT

PRINCIPLES

• Encourage alternate transport options through safe and accessible infrastructure.
• Link all existing cycleways within the Precinct to the regional cycleway network.
• Provide on-road and off-road cycleway facilities.
• Provide cycle storage at major transport and shopping hubs.

STRATEGIES

• Implement off-road and where practicable on-road grade separated cycleways as per the figure below.
**PRINCIPLES**
- To minimise potential conflicts of use between pedestrians and cyclists on activated streets.
- To encourage the use of bicycles as a means of transportation by providing a pleasant and safe rider experience.
- To be provided where noted and on all cross site links where practicable subject to council review.

**STRATEGIES**
- Further develop cycle routes and cross precinct linkages as the area undergoes transition.
- On Castle Street provide the grade separated cycleway as illustrated below as per the street section and plan.

**DETAIL**
- Provide 100-150mm kerb separating cycleway of 2.55m in width and parking lane and a second kerb of 100mm separating the cyclist and pedestrian footpath / landscape treated edge.
CASTLE STREET SECTION AND PLAN

GRADE SEPARATED CYCLEWAY SYDNEY, SOURCE: COS
PUBLIC TRANSPORT

PRINCIPLES
• To encourage the use of public transport for travel to and from the Precinct.
• To provide modern, comfortable, safe and accessible bus facilities for commuters.
• To provide alternative transport options in the town centre.

STRATEGIES
• Provide bus facilities which are covered, waterproof, well lit, and safe.
• Provide adequate facilities at bus stops throughout the town centre.

BUS SHELTER PRINCIPLES
• Provide shelters and rain protection.
• Incorporate seating.
• Predominantly steel frames with silver finish.
• Incorporate translucent panel elements.
• Opportunity for incorporation of colour into powder coat steel elements, translucent elements
  and permanent and temporary signage.

New Bus Stop Design
OPEN SPACE

GENERAL PRINCIPLES
• Provide a safe and high amenity environment.
• Respond to the anticipated higher densities through urbanisation of the open space.
• Encourage the community to use open space by improving the aesthetic quality.
• Locate incidental play elements at appropriate places along streets, within road reserves and setbacks.

STRATEGIES
• Upgrade existing open space facilities to cater for a diversity of users and provide valued places for active play and passive recreation.
• Protect sunlight access to existing public open spaces.
• Encourage cross site green corridor links to connect open space and linear park corridors.
• Provide a high quality greened pedestrian domain with dedicated street tree planting, landscape treatments and landscaped setback requirements.
1. ERIC FELTON RESERVE

Eric Felton Reserve is located between Castle Towers, significant high density housing and is adjacent to Castle Street. It currently has pathways some seating and no lighting and is subject to anti social behaviour.

STRATEGIES:
- It is proposed to utilise Safer By Design principals by removing panelling along Castle Street and installing open fencing.
- Redesigning the pathway network with lighting, exercise equipment, seating and public art would also provide an area where surrounding residents could recreate.
2. MAURICE HUGHES RESERVE

Maurice Hughes Reserve currently has a pathway running from Gilham Avenue to Carramarr Road with a small playground and no lighting.

STRATEGIES:

- It is proposed to urbanise the reserve with public art, cycle way, lighting, a larger playground, public seating, physical activity opportunities such as exercise equipment, solar BBQ's, and outdoor table tennis.

SOURCE: THSC
SOURCE: CITY OF RYDE
SOURCE: KU-RING-GAI COUNCIL
3. **LAROOL CRESCENT RESERVE**

Larool Crescent Reserve is located between Larool Crescent and Castle Street. There is a small aged playground with a pathway and no lighting.

**STRATEGIES:**
- It is proposed to install a larger playground, provide lighting, seating, and some exercise equipment.

*SOURCE: CITY OF RYDE*

*SOURCE: THSC*

*SOURCE: CITY OF RYDE*
LANDSCAPING

PRINCIPLES
- Highlight the entrances to the Precinct along Old Castle Hill Road, Pennant Street and Castle Street with entry features that link to Castle Hill North and the future train station.
- Provide civic spaces for the community to meet.
- Landscaping to reflect the intended landscape and provide a clear theme throughout the Precinct.

STRATEGIES
- Improve the aesthetic appearance of the Precinct by providing avenue planting.
- Contribute and maintain the existing garden character of Castle Hill.
- Provide street trees that minimise impact on paving, services and other infrastructure.
- Trees along Pennant Street and McMullen Avenue are to be retained where practicable. Where trees are required to be removed, they are to be replaced with a like species.
PLANTING TREATMENT ONE

GENERAL PRINCIPLES
• Improve the aesthetic appearance of the town centre by providing attractive avenue planting.
• Provide trees that do not conflict with heavy vehicle movements and the bushland environment.
• Provide street trees that minimise impact on paving, services and other infrastructure.
• Select landscaping species that have a high visual appeal but low maintenance requirements.
• Provide a diversity of tree species to mitigate risk from pests.

STRATEGIES
• Provide the following species at the following locations:

  WATERHOUSIA FLORIBUNDA 'Sweep-ER' – 10M(H) X 6M(W)
  TRISTIANIOPSIS LAURINA 'Luscious' - 10M(H) X 5M(W)
  EUCALYPTUS MICROCORYS TALLOWOOD - 10M(H) X 5M(W)
PLANTING TREATMENT TWO

FRAXINUS OXYCARPA ‘RAYWOOD’ -
9M(H) X 6M(W)

PYRUS CALLERYANA ‘CAPITAL’ -
11M (H) X 6M(W)

PYRUS CALLERYANA ‘CHANTICLER’ -
11M (H) X 6M(W)
PLANTING TREATMENT THREE

GORDONIA AXILLARIS -
5M(H) X 4M(W)

LAGERSTROEMIA INDICA 'SPECIOSA' -
CREPE MYRTLE
5M(H) X 4M(W)

LAGERSTROEMIA INDICA 'NATCHEZ' -
CREPE MYRTLE
8M(H) X 4M(W)

CALLISTEMON VIMINALIS –
RED FLOWERING BOTTLEBRUSH
4M (H) X 3M (W)
**OUTDOOR SEATING**

**PRINCIPLES**
- Provide convenient high quality seating in appropriate locations.
- Encourage community interaction through the location of outdoor seating along P1 pavement treatment areas.
- Provide furniture that is durable in all conditions.
- Provide an abundance of seating to cater to disabled and elderly residents, as well as visitors to the area.
- Minimise ongoing maintenance.
- Provide benches for resting, gathering, observing and eating.
- Seats to be located in safe and accessible areas.

**STRATEGIES**
- Provide standard public seating along P1 Pavement Treatment.
- Provide seats which are appropriate to the character of the Castle Hill North Precinct.

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**Example of public seating**

Material and finish:
- Stainless Steel 'Tee' Legs and 'Angle' Arm Rests.
- Wood-grain Aluminium Slats in ‘Casuarina’

Size:
- L 1750x D 615 X 795mm

Fixings: Sub-surface fixed with base plate to slab
BINS

PRINCIPLES
• Provide high quality bins in appropriate locations within the Precinct.
• Provide bins that are durable in all conditions.

STRATEGIES
• Provide bins which are easily accessible.
• Provide bins which are easily visible in high use areas.

Note: The final design of the bins will include side and rear plates around the opening. This will reduce the potential for birds to remove rubbish from the bin.

Material and finish:
Stainless Steel Lid and Infill Panels
Clear anodised aluminium body
Size:
Single 240L Enclosure W 710 x D 930 x H 1360mm
Fixings: Sub-surface fixed with base plate to slab
STREET AND PEDESTRIAN LIGHTING

PRINCIPLES
• Provide sufficient illumination within the town centre to encourage pedestrians to use the centre during the evening.
• Enhance passive surveillance by providing light to pedestrian walkways.
• Encourage pedestrians to use pedestrian-only walkways and lane ways.
• Low maintenance and low energy consumption requirements.
• Improve the safety of pedestrians, residents and public transport users.
• To minimise the effect of excess light pollution on the night sky.
• Protect the natural wildlife by minimising the impact of lighting on nocturnal animals.

STRATEGIES
• Provide street lighting along all roadways within the precinct.
• Provide pedestrian pavement lighting for pedestrians along walkways.
• Location of lighting fixtures to not adversely impact upon adjoining properties.

DETAIL
• Consider the selection of products which do not have an upward light output ratio in excess of 5%
• Select external luminaires with consideration of the night sky minimising light spill and excessive glare.

PARK LIGHTING SOURCE: CITY OF SYDNEY
LIGHTING BOLLARDS SOURCE: THSC
PUBLIC LIGHTING SOURCE: THSC
LIGHTING CATEGORIES:
• V3 – Lighting used on arterial roads that predominantly carry through traffic from one region to another, forming principal avenues of communication for traffic movements.

OPERATING CHARACTERISTICS:
• Through and local traffic.
• V5 – Lighting used on sub-arterial or principal roads which connect arterial or main roads to areas of development within a region, or which carry traffic directly from one part of a region to another part.

OPERATING CHARACTERISTICS:
• Moderate traffic volumes.
• P4 and P3 treatments are to be used for lighting of local roads, or streets used primarily for access to abutting properties, including residential properties.
PUBLIC ART

Public art and outdoor cultural elements are very limited within the Precinct. The majority of activity within the centre occurs during weekday and weekend business hours.

PRINCIPLES
• Create an avenue for local artists and designers to have input into the built environment;
• Make use of local knowledge, experience and understanding of the region;
• Assist in the creation of ongoing professional experience and financial opportunities to strengthen the skills base and viability of the local arts industry;
• Set public art and design precedents in the public domain; and
• Assist in expanding the audience for local contemporary art and design.

STRATEGIES
Ensure public art:
• Is well integrated in public and private developments;
• Provides positively to the experience of place; and,
• Is community endorsed.

• Provide links with other metropolitan temporal art events such as Vivid and the Biennale.
• Activate new urban spaces with temporary art installations.
Proposed Public Art locations

SOURCE: OUTDOOR MUSICAL INSTRUMENTS

SOURCE: THSC
**PEDESTRIAN BRIDGES**

**PRINCIPLES**
- To provide safe and convenient passage for pedestrians when existing topography makes road crossing difficult.
- Respect that pedestrian bridges are located in highly visual locations and impact on the visual identity of the precinct.

Bridge design is to:
- be structurally efficient and expressive;
- be visually pleasing and of a high quality finish;
- be innovative, using modern materials and finishes and to use a minimal recessive color palette;
- provide high quality detailing of the bridge structure to break up bulk and scale of structure;
- provide night lighting within the structure of the bridge (such as within hand rails or set within the pavement).

**STRATEGIES**
- Provide pedestrian bridges where noted on the ‘Indicative Street Network and Hierarchy Map’, in the Castle Hill North Precinct DCP.
- Provide high quality public domain and landscape treatments to the area surrounding the stairs and lift access.
- Where a pedestrian bridge is intended to also cater for cyclists, ensure the width of the passageway is in compliance with RMS guidelines for shared paths (Note this is a minimum width requirement).

**DETAIL**
- Stairs and wall structure to be clad in a high quality architectural finish such as sandstone.
- Colours to be recessive in nature to minimise visual obstruction of structure.
- All concrete is to be painted in a recessive colour palette subject to council approval.
- Provide a roof covering.
5. IMPLEMENTATION OF WORKS

INTRODUCTION

The guiding vision, aims and objectives contained within this Plan form the basis from which detailed design works, public consultation and funding sources may be established for the long-term implementation of the public domain improvements.

The staging and implementation of the proposed works will be influenced by:

- Availability and allocation of funding for maintenance and new works;
- Construction of Castle Hill Train Station;
- Community expectations and engagement;
- Formation of partnerships with representatives from the corporate sector and/or state and federal government;
- Political and socioeconomic forces at the state and local level;
- Council priorities, for example the need to address risks and liabilities such as uneven pavement surfaces, and;
- Major construction works, such as redevelopment within the ‘Gateway Sites’.

STAGING

In support of the planning for the Castle Hill North Precinct, a Section 7.11 Contributions Plan was prepared to levy development for the provision of local infrastructure. This plan includes some public domain improvements throughout the Precinct. Other improvements (footpath/cycleway paving and street trees) are to be provided by developers at no cost to Council.

Public domain improvements can also be implemented by Council through it's works program or by developers through a work in kind agreement. It is anticipated that the public domain improvements will occur as development occurs throughout the Precinct.