

Hills Showground Station Precinct

URBAN DESIGN REPORT



O C U L U S COX

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Executive Summary

Metro Context

Sydney Metro is Australia's biggest public transport project. As a new standalone railway, this 21st century network will revolutionise the way Sydney travels.

Sydney Metro has four core components:

1. Sydney Metro Northwest (SMNW), formerly the North West Rail Link.

Passenger services commenced in May 2019 between Tallawong/Rouse Hill and Chatswood, with a metro train every four minutes in the peak. The project was delivered on time and \$1 billion under budget.

2. Sydney Metro City & Southwest

The Sydney Metro City & Southwest project includes a new 30km metro line extending the metro rail from the end of Sydney Metro Northwest at Chatswood, under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the ultimate capacity to run a metro train every two minutes each way through the centre of Sydney.

Sydney Metro City & Southwest will deliver new metro stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo and new underground metro platforms at Central Station. In addition it will upgrade and convert all 11 stations between Sydenham and Bankstown to metro standards.

3. Sydney Metro West

Sydney Metro West is a new underground railway between the Central Business Districts (CBDs) of Parramatta and Sydney. This once-in-a-century infrastructure investment will transform Sydney for generations to come, doubling rail capacity between these two areas, linking new communities to rail services and unlocking housing supply and employment growth between the two CBDs.

Sydney Metro West will service key precincts with proposed stations at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, the Bays Precinct and the Sydney CBD.

4. Sydney Metro Greater West

Metro rail will also service Greater Western Sydney and the new Western Sydney International (Nancy Bird Walton) Airport. The new railway line will become the transport spine for the Western Parkland City's growth for generations to come, connecting communities and travellers with the rest of Sydney's public transport system with a fast, safe and easy metro service. The Australian and NSW governments are equal partners in the delivery of this new railway.

Sydney Metro Northwest is the project that is most relevant to the Hills Showground Station Precinct State Significant Development Application. Through construction and now operation of the line, it provides the significant public transport service to support the redevelopment of the Site to which this SSDA applies.



Project Vision

“The Hills Showground Station Precinct will be a thriving local mixed-use centre that provides a walkable, lively place enhanced by strong connections to world class transport and the cultural and recreational destination of Castle Hill Showground. The precinct will provide diverse housing for different generations and lifestyles, framed by green open spaces that encourage connectivity, and celebrates the Garden Shire outlook.”

The Hills Showground Station Precinct site sits within an established community that is undergoing significant transformation in response to the enhanced levels of accessibility and amenity that the Sydney Metro North West project delivers.

Sitting at the top of a ridgeline which extends from Castle Hill to the Site, the Site is a prominent marker in both landscape and future built form. As a government-led place making project in a prominent location, The Hills Showground Station Precinct has the opportunity to continue the commitment to quality amenity outcomes that have been delivered by the Sydney Metro Project and set the standard for the broader precinctual renewal in the future.

Leveraging the landscape characteristics of the Site and its surrounds, the State Significant Development Application (SSDA, referred to as the Project) Project seeks to deliver a complementary and connected public realm that is anchored by a new civic heart that stitches together the regional recreation networks, local movement patterns and the transport interchange together in a place that is active day and night, weekday and weekend, winter and summer.

In addition, a new park within will provide casual recreation opportunities and form part of a comprehensive network of green and blue spaces for The Hills in line with the vision of the broader Central River City.



Project Objectives

The following project objectives have been developed by the project stakeholders to inform the SSDA and Urban Design Framework for the Hills Showground Station Precinct.

PLACE

- Capture the unique opportunity of adjacency to the Castle Hill Showground event precinct
- Celebrate the water movement, aspect and topography of the Site
- Connect with and extend the green infrastructure
- Respect and evolve the local character of the area
- Centre the design aspiration around human experience and journey



DIVERSITY

- Consider the changing needs of the community, supporting regional and local growth
- Ensure a suitable mix of uses for future needs
- Provide a mix of housing typologies to suit different household budgets and stages of life
- Provide a range of spaces within the public realm network to suit a variety of activities
- Plan for appropriate diversity in built form, articulation and materials in keeping with the desired quality and character



VALUE CREATION

- Leverage and support the new Metro Station infrastructure
- Ensure quality design outcomes with public value alongside a commercially viable solution
- Promote design and operational efficiency
- Attract new investment and create jobs



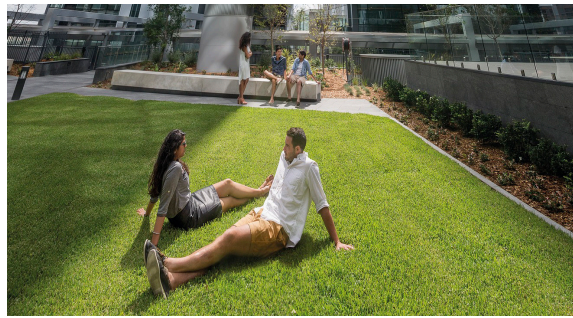
ACTIVATION

- Provide a platform for various events and active place making initiatives
- Provide strong vistas and views to support wayfinding and legibility
- Provide high quality, active and safe public realm and streets



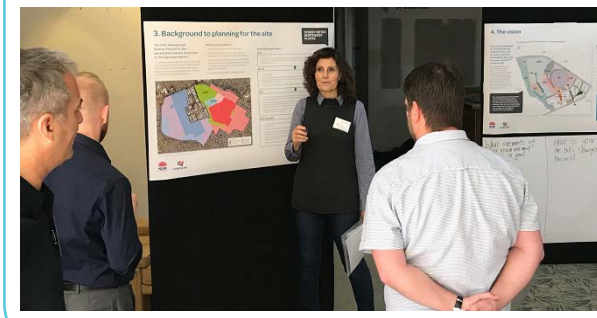
SUSTAINABILITY

- Promote greater use of public and active transport modes
- Create social infrastructure to support the new community needs
- Ensure maximum and equitable amenity and living comfort with solar access to both public and private space
- Set aspirational benchmarks for future developers of the Site



PROCESS

- Collaborate and engage effectively with our partners, stakeholders and communities
- Prepare robust design guidelines to shape desired future outcomes of the precinct and provide more certainty for stakeholders and the community
- Engage a highly capable and diverse team and facilitate setting up for success



Concept Master Plan

The Concept Master Plan (CMP) is drawn from the assessment of the local characteristics and opportunities of the Hills Showground Station Precinct site. The CMP responds to the vision and design principles in the Urban Design Framework, Guidelines and Building Envelopes.

The Concept Master Plan provides two new public open spaces, retail and commercial opportunities, community spaces and a variety of housing typologies that suit a diverse population through all stages of life.

In summary, the CMP seeks to achieve outstanding place making, open space and public domain, pedestrian amenity and resident amenity outcomes for the Hills Showground Station Precinct.

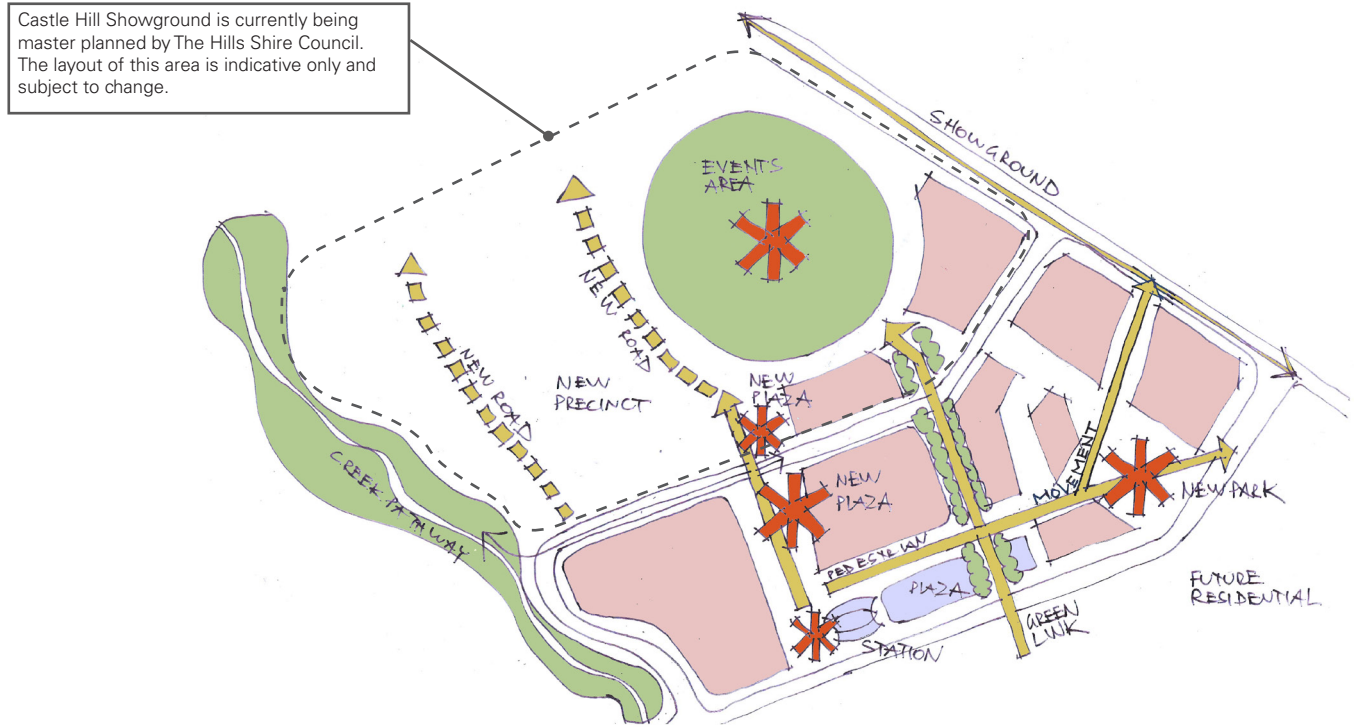


Figure 1: Conceptual Framework Plan

Existing and Future Development Station Entry and Plaza Primary Pedestrian Links Activity Nodes



Place making

The CMP has identified a geographical, economical and social heart for the Site. The primary civic space is located on Doran Drive Plaza. The element stitches together the Hills Showground Metro Station and multi-modal transport interchange, primary retail spaces and the Castle Hill Showground.



Open Space and Public Domain

The CMP allows for no less than 10% of the Site to be dedicated as public open space. The configuration and location of the open spaces is such that they permit a complementary variety of functions, uses and users within them.



Pedestrian amenity

Street wall heights and primary setbacks of the Guidelines and resultant CMP ensure the scale of buildings is an appropriate experience for pedestrians at the street level. Upper level setbacks to towers provide a sense of space and openness to the sky.

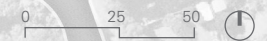


Resident amenity

The CMP has carefully considered how to balance amenity, solar access and built form definition of the public domain with high levels of resident amenity.



Figure 2: Concept Master Plan





01

INTRODUCTION

The introduction chapter includes an explanation of the intention of this report, the evolution of the project and the historical context of the site and its surrounds.

Introduction

Intention of this Urban Design Report

The primary purpose of this report is to synthesise the body of urban design and spatial analysis carried out to date and develop guiding principles for the transformation of the precinct.

A number of significant infrastructure elements and strategic proposals have been adopted by the NSW Government and The Hills Shire Council which have informed the future vision for the Site.

These include:

- the delivery and operation of a multi-modal transport network anchored by the Sydney Metro North West Hills Showground Station
- the rezoning of the Hills Showground Station Precinct and its surrounds commensurate with the level of accessibility and amenity that the Site and the transport network affords
- the comprehensive master planning of the Castle Hill Showground as a regional social, cultural and recreational resource for the Hills and North West Sydney.

These initiatives have placed an increased strategic importance on the Site and its potential for urban transformation.

The Urban Design Report and supporting Framework provides the evidence base and the Urban Design Guidelines the parameters to guide the transformation of the Site in line with its vision.

This will deliver a level of certainty and commitment to quality outcomes that the community and Council desires, in particular to the public spaces and building design outcomes, yet retain the flexibility in the building envelopes and uses to respond to changing market conditions over time and to enable innovation in design.

In addition, the Urban Design Framework and Guidelines and subsequent Concept Master Plan have been informed by advice in many technical study areas, including;

- statutory planning
- geotechnical
- ecological
- heritage
- soil and contamination
- arborist
- ecologically sustainable development
- civic and infrastructure
- traffic
- wind
- vehicular pollution.

Project Evolution

2014

- The Department of Planning and Environment consulted the community, businesses and The Hills Shire Council to change planning controls to rezone land around Showground Station, which includes the Hills Showground Station Precinct.

2017 - 2018

- Showground Station Precinct land rezoned
- Landcom requested that the Department of Planning and Environment issue an environmental assessment required for preparation of a concept master plan as part of a State Significant Development Application
- An Expression of Interest was called for a development partner to deliver the Doran Drive Precinct.

2019

- Landcom prepared a concept master plan for the Hills Showground Station Precinct through wide stakeholder and community consultation
- Landcom has lodged a State Significant Development Application in late 2019 where detailed plans and supporting technical studies are on public exhibition by the Department of Planning, Industry and Environment. The Department reviews feedback and makes a determination.

WE ARE HERE

2020 - Onward

- Landcom will issue an Expression of Interest to potential development partners for Precinct East and West
- Landcom will appoint development partner/s to lodge detailed Development Application/s with the consent authority for the detailed design of individual buildings, compliant with the State Significant Development Application
- The consent authority places the Development Application on public exhibition, reviews feedback and makes a determination
- Subject to approval of the Development Application, construction will commence.

Design Excellence Process

A project of this scale and with such complexity rightly requires a great degree of design excellence and stakeholder engagement. The Hills Shire Council, Department of Planning, Industry and Environment and the Government Architects Office have a significant interest in this project as does, most importantly, the existing and future community of Showground, Hills Shire and the north west of Sydney.

During the consultation with stakeholders, the design excellence process and public benefit outcomes have played, and will continue to play, an important role in achieving an informed and considered discussion.

The concept master plan has been through a series of participatory processes with a number of stakeholders where the design has been tested, challenged and refined to the SSDA building envelopes and public domain strategy contained within this report.

The engagement process to date has involved;

- Landcom Design Advisory Panel (two meetings)
- State Design Review Panel (two meetings - including a member of the panel representing The Hills Shire Council)
- The Hills Shire Council Officers (two meetings with council officers regarding the planning of the SSDA)
- The Hills Shire Council (one meeting with council officers regarding the coordination of the SSDA and the Castle Hill Showground Master Plan team)
- The Hills Shire Council Councillors and Planning Team
- Cox Challenge Team (a design workshop attended by all non-project Directors including experts in Metro stations and transit-oriented developments at Cox and attended by the client representatives)
- Community Information and Feedback Session.

The Stakeholder Engagement Outcomes Report, submitted as part of the SSDA, documents the feedback received through the stakeholder engagement process and how the SSDA addresses the feedback.



Figure 3: Engagement in the Design Excellence Process

The Site

The term 'the Site' reflects the Hills Showground Precinct boundary identified in the State Environmental Planning Policy (State and Regional Development) 2011 (SDRP SEPP) and includes a total area of 83,900m².

The eastern part of the Site currently contains the former The Hills Shire Council administration building and associated parking and landscaping. It was being used as a SMNW construction site office and is proposed to be demolished by way of a separate Development Application (DA) currently under consideration by The Hills Shire Council.

The western part of the Site contains the recently opened Hills Showground Metro Station, plaza and commuter car park. The remainder was cleared to create the two development lots.

Former development on the western part of the Site consisted of The Hills Entertainment Centre which included an auditorium and the Council's works depot that were demolished to make way for the metro.

The Site is bordered by the following:

- North and northwest – De Clambe Drive with a drainage basin and the Castle Hill Showground
- West – De Clambe Drive and Cattai Creek riparian zone with commercial/ industrial warehouses further west
- South to southeast – Carrington Road, across which there is low density residential developments a child care and medical suites
- East – Showground Road across which there is low density residential development.



Figure 4: The Site

— Site



Historical Context of the Site and its Surrounds

The following is an appropriation of the heritage study that has been undertaken as part of the SSDA. This includes a review of the Heritage Impact Assessment (GML, 2019) and the historical site characteristics that may inform the design of the built form and landscape within the Hills Showground Station Precinct development lots.

Aboriginal History

There is evidence to support that Aboriginals have lived in and around the Site for at least 5,000 years.

The natural landscape of the Site would have been part of the broader Cumberland Plains woodland, comprised primarily of ironbark gums, some that are still located on the Site today within Precinct East and within the surrounding Cattai Creek corridor and the Castle Hill Showground.

Given the topography of the Site at an elevated position that looks over the north and west, the Site likely comprised part of the hinterland where “Aboriginal groups known as the ‘woods tribes’ lived, whose names were recorded as the Bediagal, Tugagal and Booroobirronggal” (GML, October, 2019).

The woods tribes lived off the local landscapes, potentially utilising the headwaters of the Cattai Creek catchment

for fresh water and supported by a diet that comprised of small animals, insects, edible roots and fish that could be found, potentially, in the lower reaches of Cattai Creek.

With the arrival of the British, the land that had been so attractive to the woods tribes, also became attractive to the colonists looking to locate a large Government farm in the area.

The Bediagal people were impacted by disease and displaced from their traditional lands by the farming practices of the colonists. A resistance against the displacement began in the area surrounding the Site led by Pemulwuy, a Bediagal man.

This resistance included raids by the local Aboriginal people on the Government Farm within the area as early as 1793.

European History

The Site and its surrounds were used as a vantage point for the European settlers from as early as April 1788. The elevated ridgeline from Castle Hill through to the Site is one of the highest points between the large colonial presence at Parramatta and the Blue Mountains and provided unobstructed views over the Cumberland Plain to the west and the Hawkesbury River flats to the north and north-west.

In 1802 the colony was expanded to Castle Hill with the establishment of a 35,000 acre farm to be cleared and farmed by 300

convicts. The farm land around the Site produced wheat, barley, oats and maize for the wider colony.

In 1804 there was a rebellion at the farm where 250 convicts left the farm for Rouse Hill where Government forces confronted and quashed the rebellion.

By 1810 the farm at Castle Hill was closed and parts of it converted to a mental asylum which would become the Castle Hill Showground.

The remainder of the farm was given away in land grants from 1818 to 1819. Michael Hancey was the recipient of the grant that included the present day Site.

Hancey continued the agricultural use of the Site as the surrounding Castle Hill became a food bowl for the colony. It is likely that the rural cottage on 128-132 Showground Road was built during this agricultural period.

The agricultural use of the Site continued to the 1960s when a horse trainer, who was using the Castle Hill Showground as a training venue, consolidated the Site for the purpose of building stables adjacent to the Castle Hill Showground.

In 1971 the trainer sold the majority of his land to Council which then used part of the Site to establish The Hills Shire Council chambers and offices.

Historical Design Opportunities

The potential retention and reforestation of the Site and its surrounds with native landscapes of the Cumberland Plain including ironbark gums should be considered through the preparation of the urban design and landscape proposals for the Site.

Similarly, the orchards and farming use of the Site from the early 1800s through to 1960s may present opportunities for interpretation of these uses in the landscape, public domain and/or materials and finishes of buildings.

A height plane transition may be considered appropriate to the interface with 128-132 Showground Road, despite the Heritage Impact Assessment suggesting that there is no impact upon the fabric, setting or significance of the heritage item.



Figure 5: Pemulwuy (Source: National Museum of Australia)

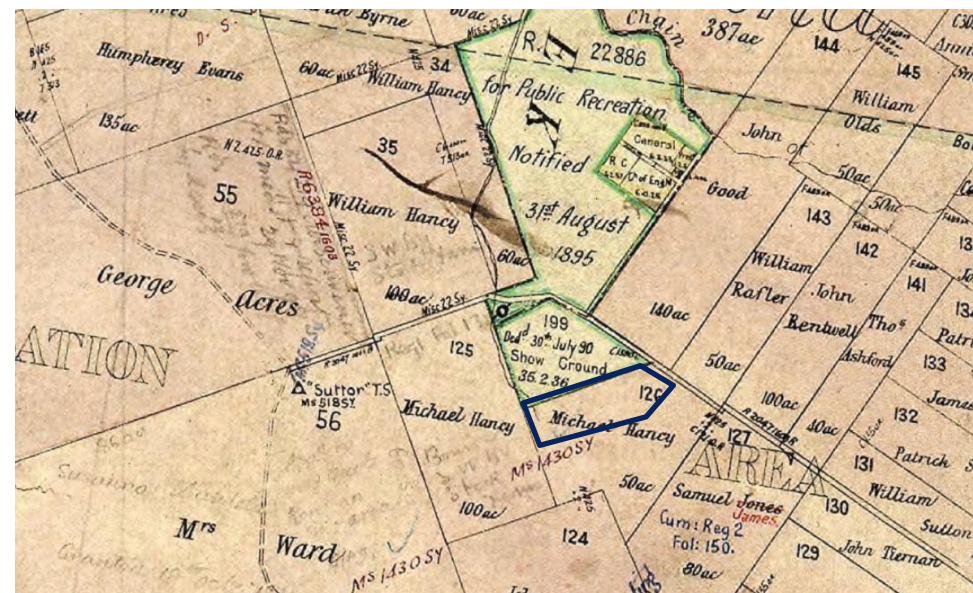


Figure 6: 1896 Parish Map with the approximate site location shown in blue as granted to Michael Hancy (Source: Department of Lands with GML overlay, 2019)

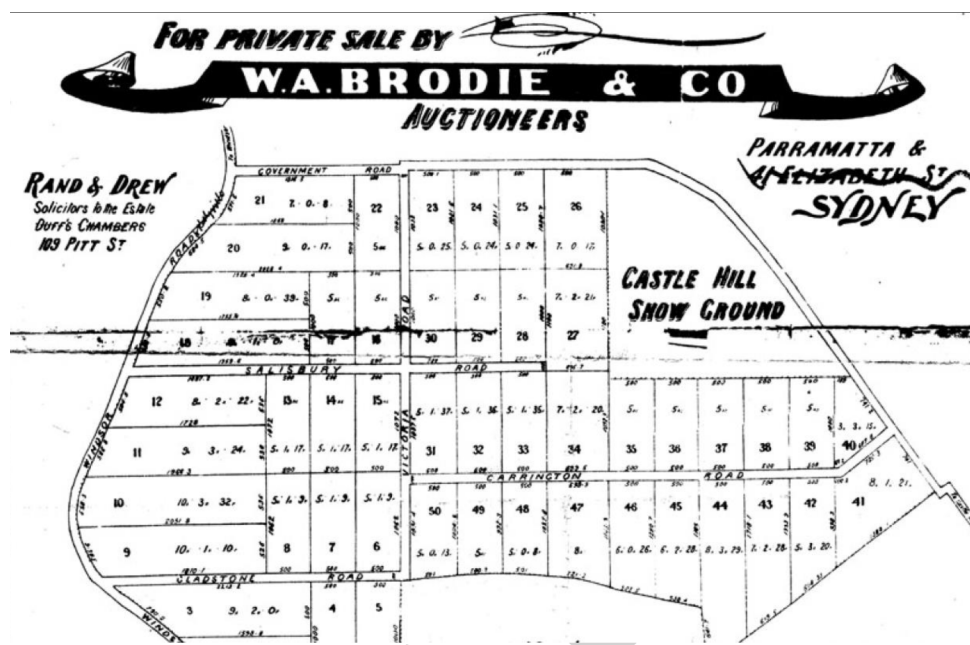


Figure 7: 1898 Suttor's Estate Subdivision. The Site covers Lots 35 to 40 on the plan (Source: The Hills Shire Council Local Studies)

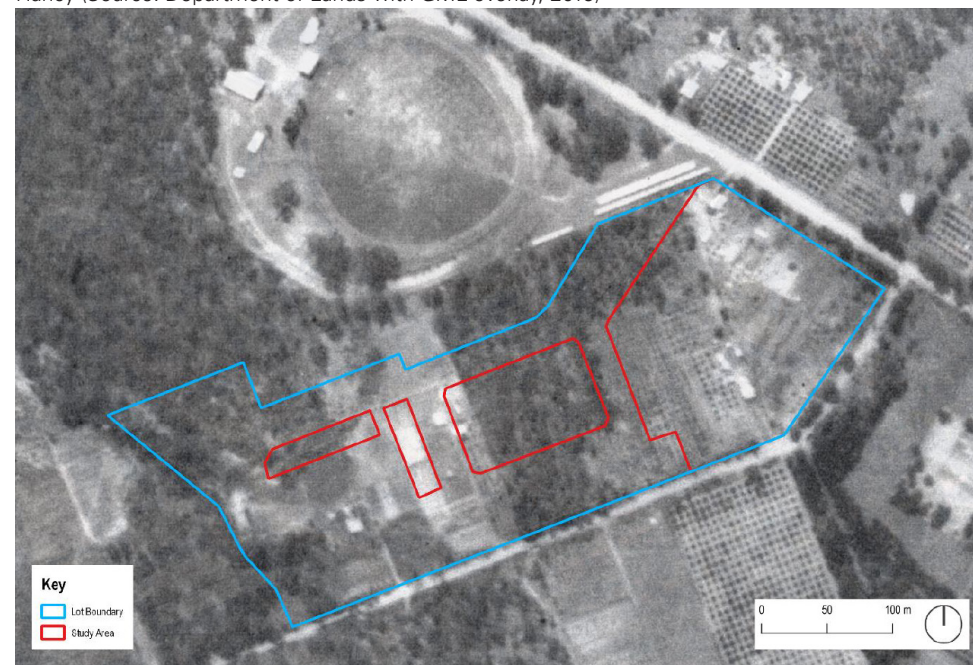
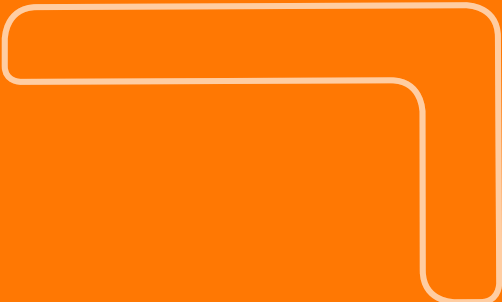


Figure 8: 1930 aerial showing the percentage of land cleared for subdivision for orcharding (Source: Department of Lands with GML overlay, 2019)



02

PLANNING CONTEXT

The following chapter builds on the historical context to provide the spatial context of the site and its relationship to Sydney Metro, North West Metro Corridor Strategy and Station Precinct Plan and the State Significant Development Application

Planning Context

Sydney Metro Context

The Site is located on the completed Sydney Metro Northwest, part of a longer term metro project that connecting Tallawong to Chatswood via Epping. By 2024, the line extend to Sydney's CBD and Bankstown via Sydenham.

The Site sits within the broader Central City District of Metropolitan Sydney with the Central River City, comprised of Parramatta and Westmead, at its heart.

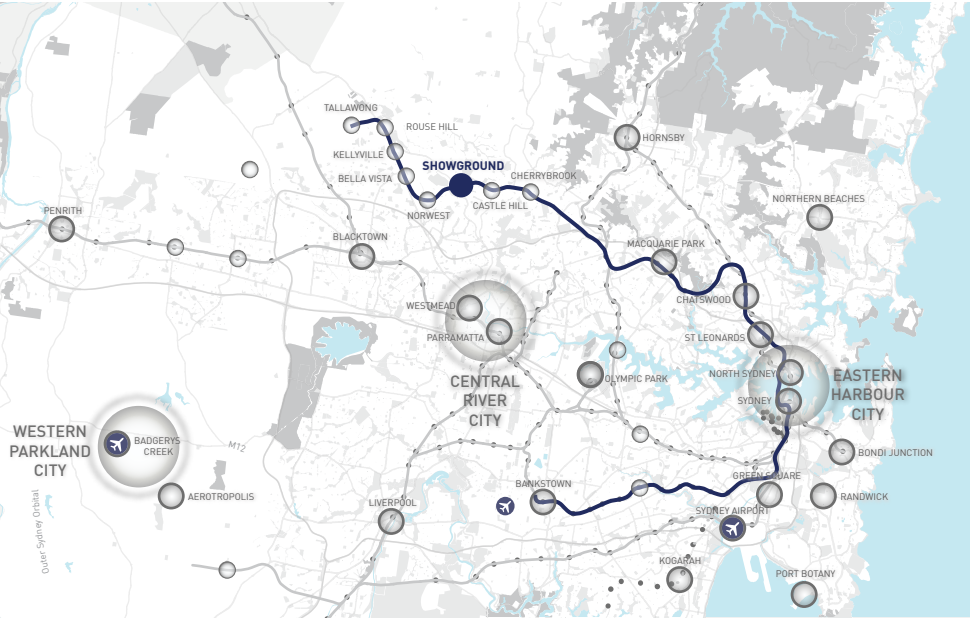


Figure 9: Sydney Cities, Centres and Existing and Future Rail Context

- Site
- Existing and Under Construction Metro
- Existing Rail Network
- Three Metropolis Cities
- Centres
- Stations

North West Rail Link Corridor Strategy

The new rail link (Sydney Metro Northwest) will make the corridor an even more attractive area to live and work with demand in housing and jobs expected to grow.

To meet overarching State Government strategic objectives, the Department of Planning, Infrastructure & Environment

(DPIE) developed a Corridor Strategy to maintain and improve the lifestyle available in the local area while allowing for well-planned and sustainable future growth.

The Site is located at the heart of the Showground Station Precinct, nominated as a future mixed use local centre by the Strategy.

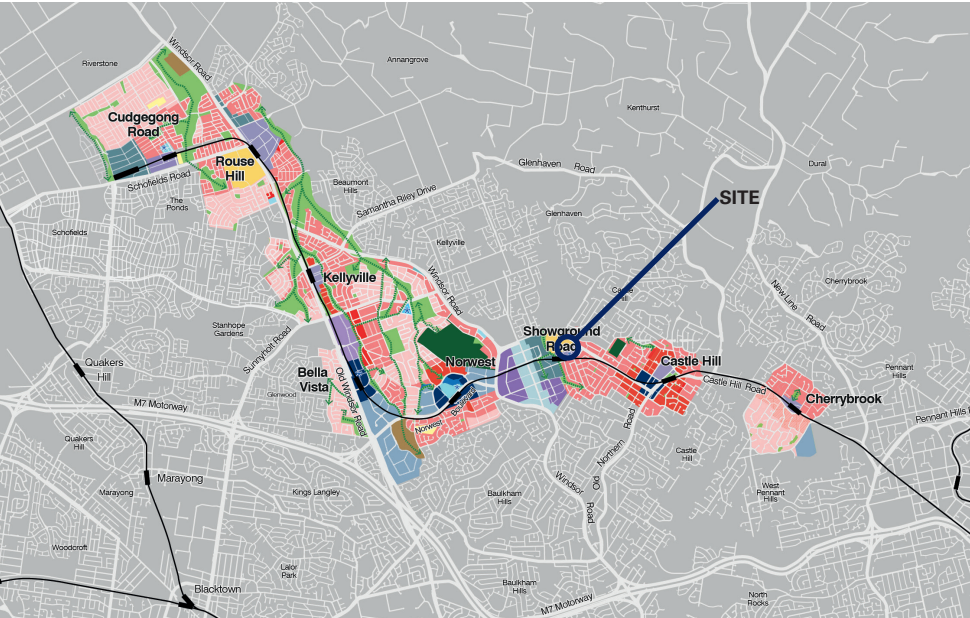


Figure 10: Corridor Structure Plan (Source: North West Rail Link Corridor Strategy September 2013)

- Site
- Primary Road
- Secondary Road
- Commercial Core
- Business Park
- Bulky Goods
- Station Platform
- Potential Medium Density Residential (subject to further studies)
- Low Density Residential
- Low/Medium Density Residential
- High Density Residential
- Employment
- Local Centre
- Public Infrastructure
- Special Use
- Mixed Use
- Light Industrial
- Open Space
- Heritage
- Future Local Centre
- New Link
- Green Link
- Private Recreation

Showground Station Precinct Structure Plan

As part of the Corridor Strategy, DPIE developed precinct structure plans for each of the eight new metro stations. The plans outlined the challenges and opportunities present, culminating in a collective vision and structure plan for the Station Precinct to guide the future character of the study area.

The rezoned Station Precinct Plan for Showground is forecast to deliver approximately 5,000 new homes and 2,300 jobs over the next 20 years, transforming the area around the Hills Showground Station into a vibrant local centre.

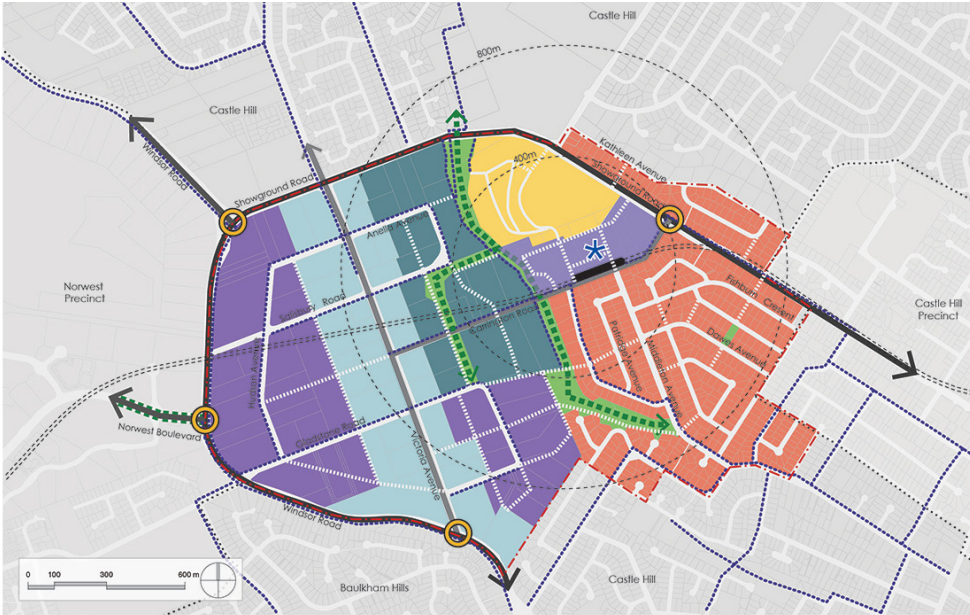


Figure 11: Structure Plan for the Showground Precinct (Source: North West Rail Link Corridor Strategy September 2013)

- | | | |
|-------------------------|--|-----------------------|
| — Study Area Boundary | ■ Mixed Use | ■ Green Link |
| — Primary Road | ■ Medium-High Density Residential 3-12 Storeys | ■ Open Space |
| — Secondary Road | ■ Bulky Goods | ★ Future Local Centre |
| — Station | ■ Light Industrial | ■ New Link |
| ■ Public Infrastructure | ■ Business Park | |

The State Significant Development Application

The State Significant Development Application application will seek approval for a Concept Proposal that details urban design elements including:

- Landscape concept framework for the public domain areas
- Provision of appropriate uses and amenity to service the needs of the community
- Concepts for Doran Drive Plaza and Precinct East Park to be detailed in future Development Applications
- Building envelopes and GFA for residential and non-residential development on the three development lots referred to as Precinct West, Doran Drive Precinct and Precinct East (noting further subdivision of Precinct East will occur once roads are designed)
- Urban Design Guidelines to ensure high quality design outcomes

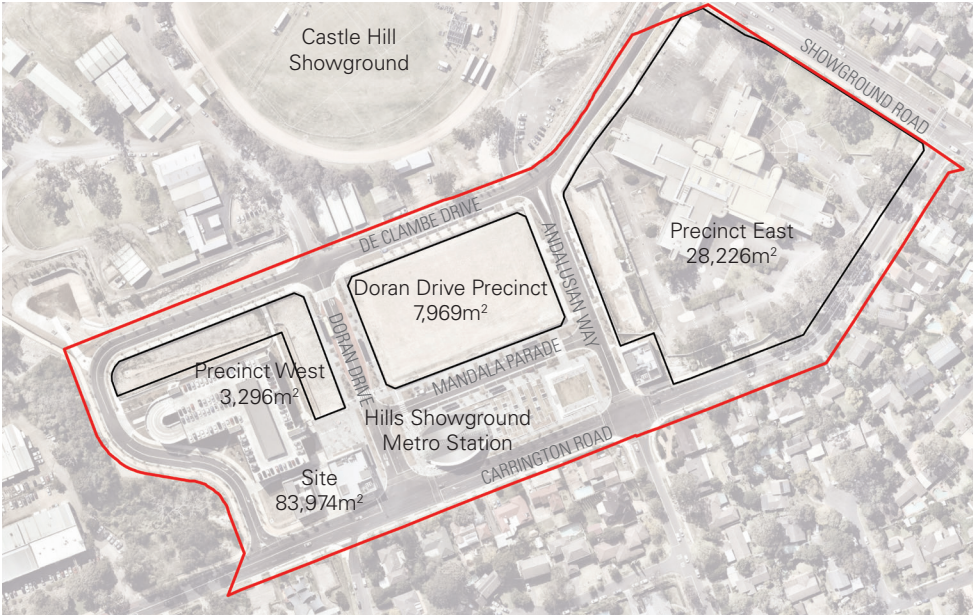


Figure 12: Hills Showground Station Precinct

- | | |
|--------|-------------------|
| — Site | — Development Lot |
|--------|-------------------|



03

LOCAL CHARACTER

Drawing from the project background, the following chapter is an appreciation of the local context of destinations and attractions, landscape, connectivity and community around and adjoining the Hills Showground Station Precinct.

Local Character

Local Destinations and Attractions

The Site is surrounded by existing suburban residential communities to the north east and south east which have been rezoned to allow for future development opportunities.

North of the site a broader recreational corridor includes the destinations and attractions of the Castle Hill Showground, Hills Basketball Stadium and the mixed active sports fields and passive recreation spaces within Fred Caterson Reserve.

To the west of the Site is the Castle Hill Trading Zone, an employment area comprised of light industrial and bulky goods retailing uses, providing essential services and employment to the surrounding communities.

The Museums Discovery Centre (MDC) is a collaboration between the Museum of Applied Arts and Sciences (MAAS), Australian Museum (AM) and Sydney Living Museums which adjoins another destination north west of the Site in the Tafe NSW Castle Hill campus.

Cockayne Reserve is a public open space to the south of the site that is characterised by a native bush landscape and creek corridor.



Figure 13: Local Context

— Site ■ Residential Area ■ Employment Area ○ 400m/800m radii

Local Landscapes

The headwaters of the Cattai Creek catchment, a riparian corridor that drains to the Hawkesbury River at Cattai in Sydney's north west, runs along the western boundary of the Site.

A ridgeline runs to the east of the Site broadly along Showground Road and the Site is located on one of the highest points in north west Sydney at approximately 100m above sea level.

Castle Hill Showground, located to the north of the Site, comprises a parade ring and a number of buildings related to a diverse range of community and recreational activities and forms a broader regional recreation precinct to the north including the Hills Basketball Stadium and Fred Caterson Reserve.

The Cattai Creek corridor is presently a mixture of native and exotic trees and plants and is intended in the future to be a mix of Eucalyptus, including micrcorys, maculata and glomulifera as identified in the Sydney Metro Northwest Urban Design and Corridor Landscape Plan.

The Castle Hill Showground contains a varied mix of native species with a significant proportion of Eucalyptus.

South of Carrington Road, trees are only located within the private realm and therefore vary significantly in species.

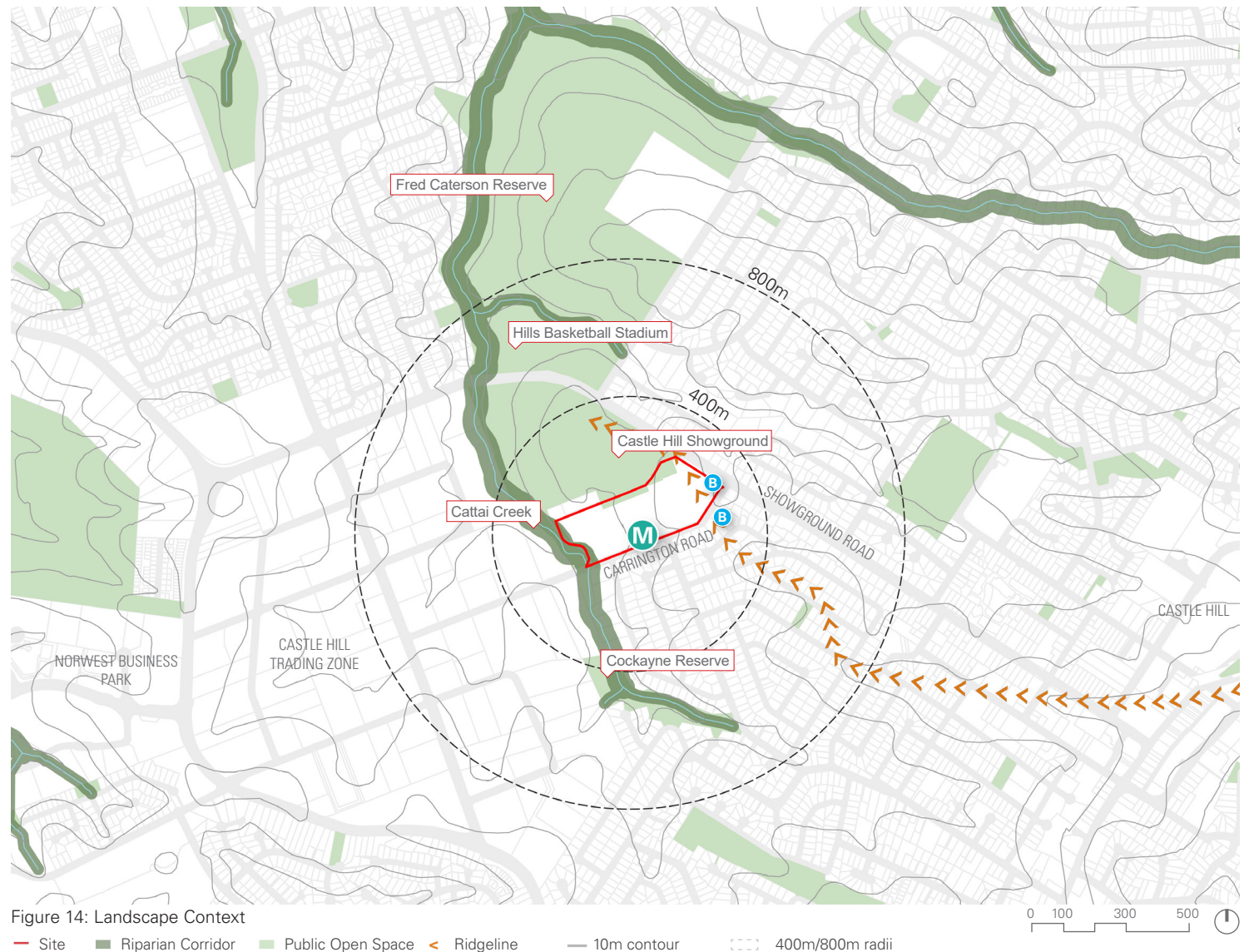


Figure 14: Landscape Context

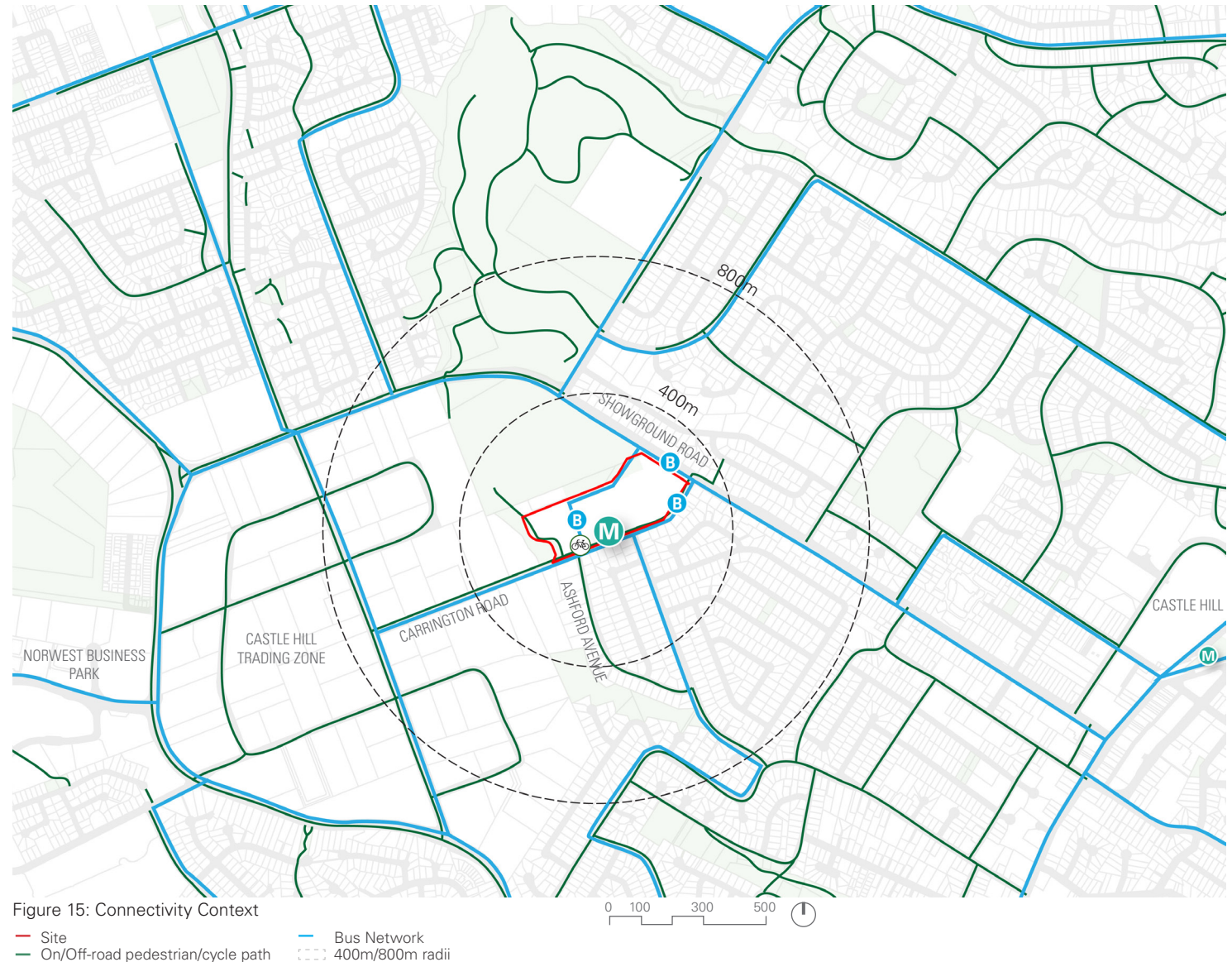
Local Connectivity

Sydney Metro Northwest provides frequent, driverless train services to Tallawong in the north west and Chatswood to the south east. The line provides for a number of interchanges with other modes of local, regional and metropolitan transport routes.

The Site is accessible from two regional transport routes – Showground Road to the north-east and Carrington Road to the south. Showground Road links the Site eastwards and westwards to Castle Hill and Norwest Business Park, respectively. Carrington Road provides access to the Castle Hill Trading Zone.

Local buses operate along both Showground Road and Carrington Road providing access to both the Site and the Hills Showground Metro Station. On-demand buses also provide access from local residential areas to the Hills Showground Metro Station.

An existing off-road, dedicated pedestrian and cycle path runs along the eastern bank of Cattai Creek to the west of the Site. An existing off-road shared path exists along Carrington Road. An existing on-road shared path extends south of the Site on Ashford Avenue.





Cattai Creek corridor looking north



Activity on Castle Hill Showground



On Demand shuttle bus



Existing trees within Castle Hill Showground



Landscape north of De Clambe Dr looking west



Entrance to parking structure on De Clambe Drive



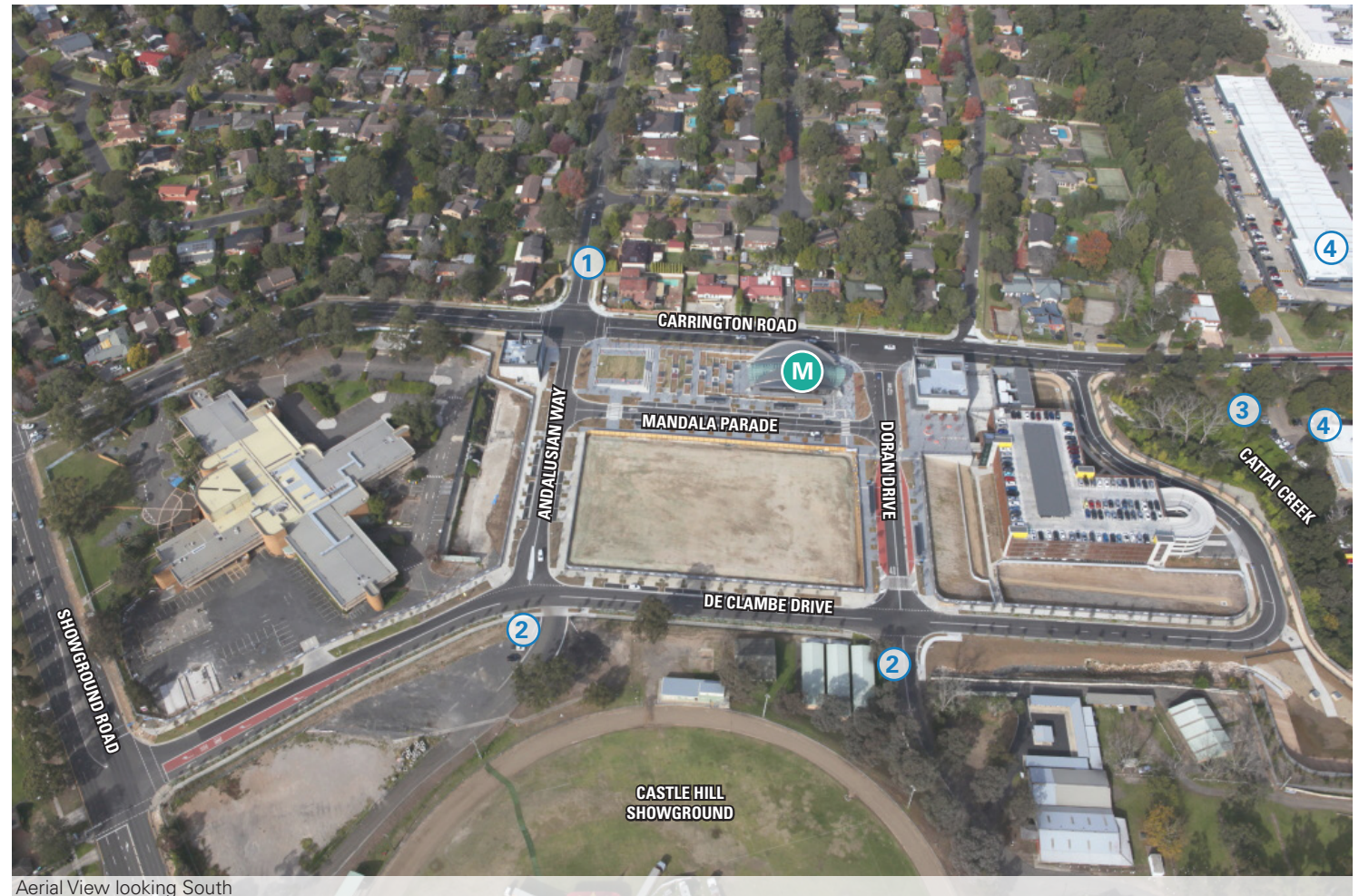
Cattai Creek active transport network

Existing Community Interface

The aerial photo adjacent captures the interface and connectivity with the existing community, Cattai Creek, Castle Hill Showground and the Hills Showground Metro station.

The photo identifies the:

1. Primary connection between the Site and the existing residential community south of Carrington Road. This signalised intersection is the direct connection between Andalusian Way and Middleton Ave which connects pedestrians to the station, via the station plaza, which is located between Carrington Road, Andalusian Way, Mandala Parade and Doran Drive.
2. The connections to the Castle Hill Showground occur at grade at the intersection of Andalusian Way and Doran Drive, where vehicular and pedestrian access is provided to the broader destinations and attractions within the Castle Hill Showground itself.
3. Cattai Creek extends along the western edge of the Site with pedestrian and cycling paths on the eastern bank. Access to the creek itself is limited.
4. The Castle Hill Trading Zone is located west of the Site and the interface with the Site is the Cattai Creek corridor. Access to the Castle Hill Trading Zone is via Carrington Road.

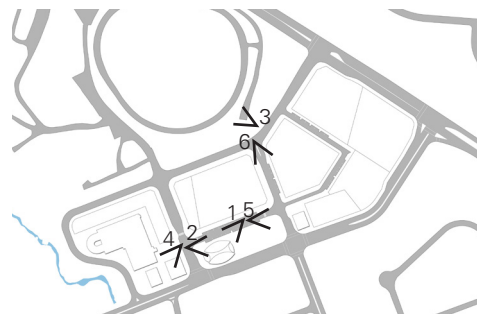


Aerial View looking South

Hills Showground Station Interface

The existing Sydney Metro Northwest station and supporting infrastructure are critical considerations in the preparation of the Urban Design Framework and Guidelines. Desire lines for movement to and from the station are critical to considering locations for retail, food and beverage and potential new open spaces.

The station forecourt on Doran Drive, the station plaza on Carrington Road and the commuter carpark plaza west of Doran Drive are existing public spaces. Station infrastructure is also located on Carrington Road west of Doran Drive and east of Andalusian Way.



1. Hills Showground station plaza



2. Corner of Doran Drive & Mandala Parade



3. Castle Hill Showground



4. Mandala Parade looking west towards retail



5. Mandala Parade looking east towards plaza



6. Andalusian Way looking south

Castle Hill Showground Interface

The interface with the Castle Hill Showground is an important consideration through both the preparation of the SSDA for the Hills Showground Station Precinct by the NSW Government and the Castle Hill Showground master plan, which is being prepared by The Hills Shire Council.

Physical movement connections between the regional recreation, events and leisure destination of the Castle Hill Showground and the Hills Showground Station Precinct are planned for;

- Doran Drive as an activated spine, framed by retail and food and beverage uses (to be proposed in the SSDA)
- Andalusian Way as a green street with ample street tree planting and a potential shared pedestrian and cycle path between the Castle Hill Showground and the planned shared path on Middleton Avenue south of Carrington Road (a potential Council led project)
- Cattai Creek shared path being extended north through the Cattai Creek corridor adjoining the Castle Hill Showground (a potential Council led project).

Complementary uses are being considered by Council for the Castle Hill Showground in food and beverage uses north of Doran Drive sports community uses north of the Doran Drive and Showground Road intersection and a mixture of events, food and beverages, culture, entertainment, regional parklands dog training and community uses within the Castle Hill Showground.

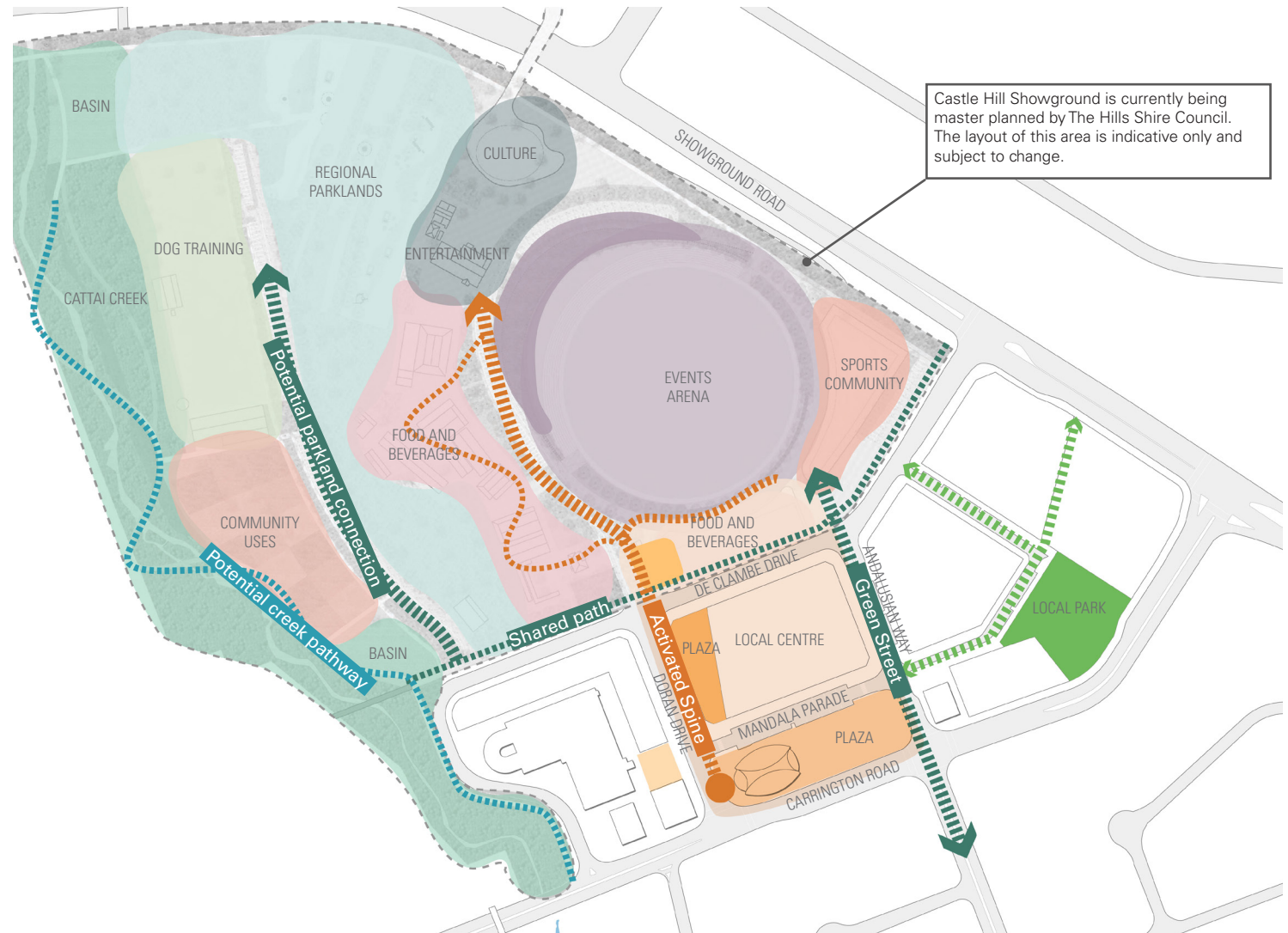


Figure 16: Connectivity Context

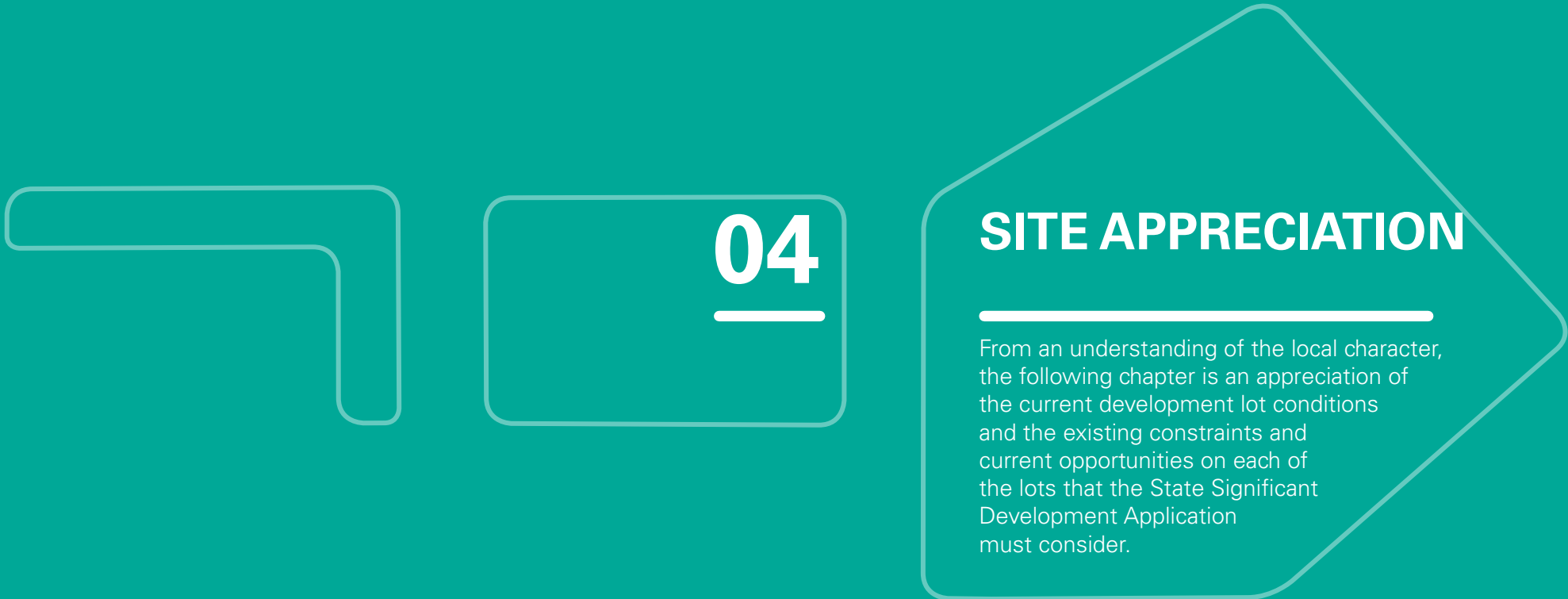
- Primary Green Street and Shared Path Connection
- Cattai Creek Shared Path

- Primary Activated Spine
- Castle Hill Showground is currently being master planned by The Hills Shire Council. The layout of this area is indicative only and subject to change.

- Local Street and Pedestrian Connection



Hills Showground Station Precinct (foreground) and Castle Hill Showground (background) Aerial looking north west



04

SITE APPRECIATION

From an understanding of the local character, the following chapter is an appreciation of the current development lot conditions and the existing constraints and current opportunities on each of the lots that the State Significant Development Application must consider.

Site Appreciation

Site Structure

The Site is comprised of three development lots and surrounding streets and existing station infrastructure. The three development lots are referred to as;

Hills Showground Precinct East

- Former two storey Council administration building and associated hardstand concrete/asphalt paved parking lots and landscaping. The building, associated structures and some vegetation is proposed to be removed as detailed in Section 1.4.4.

Doran Drive Precinct; and

- Freshly prepared vacant lot with no vegetation cover. Lot is secured by construction hoarding and security fencing, surrounded by newly constructed streets.

Hills Showground Precinct West

- Freshly prepared L shaped lot with no vegetation cover and with an existing stormwater drainage easement on the portion adjacent to De Clambe Drive
- The lot is characterised by sloping batters and levelled batter-toe areas retaining the two street reserves above the carpark ground floor levels. An exception is a set of access stairs and level footpath for the carpark in the northern portion of the Site.



Figure 17: Site Plan

— Site — Development Lot

Topography

The topography of the Site reflects its location at the north western end of a prominent ridgeline in Sydney's North West.

The topography of the Site has been significantly modified as part of the Sydney Metro Northwest project.

The Site falls approximately 20 metres from a high point (103m) on Precinct East at Carrington Road down to a low point (83m) on Precinct West at De Clambe Drive opposite the stormwater detention basin north west of Precinct West.

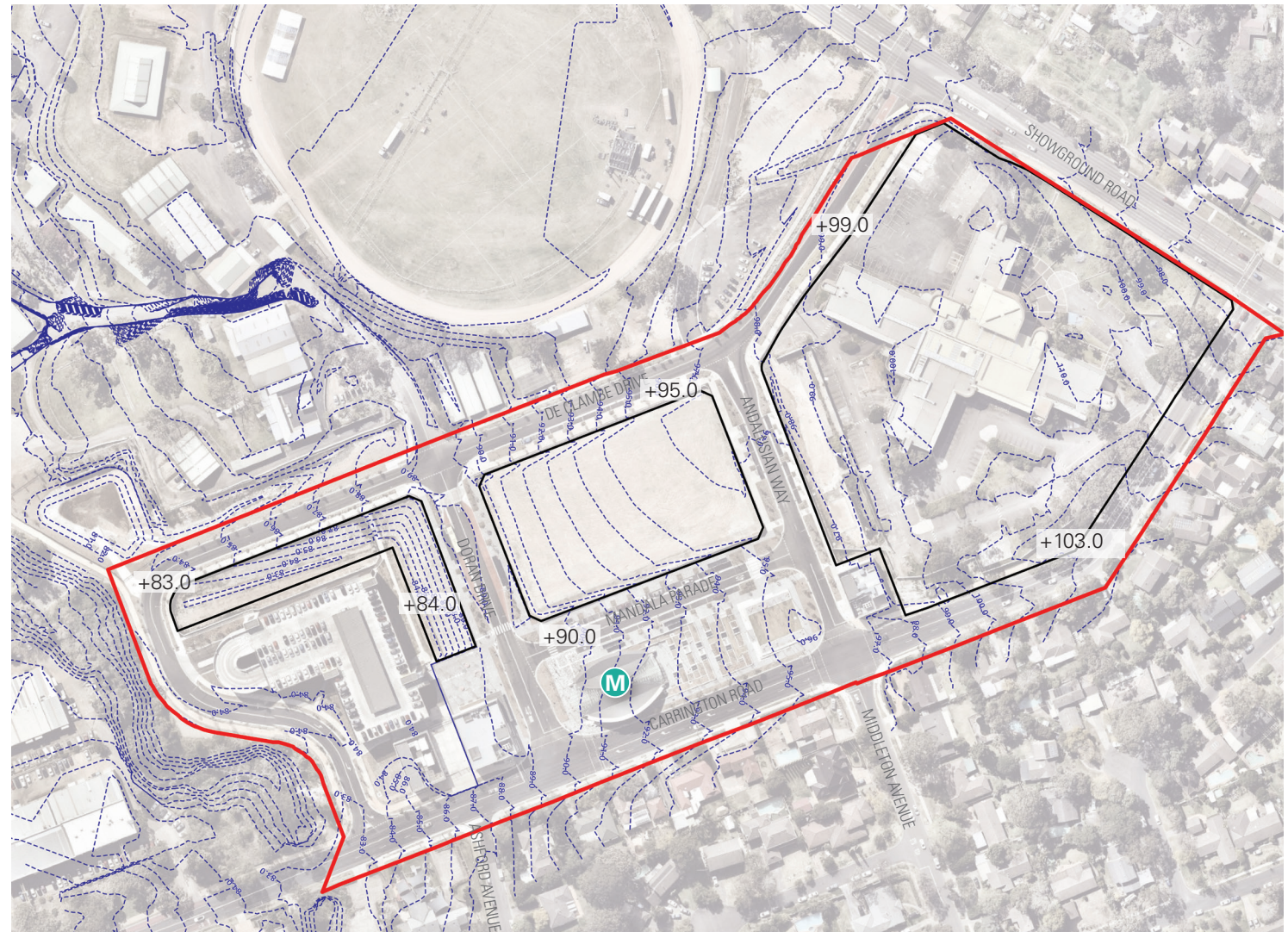


Figure 18: Topography

— Site — Development Lot - - - Contour (1m)



Existing Trees

Precinct East is the only development lot that contains existing trees within the development lot.

A total of 100 existing trees are found within the Precinct East development lot boundaries and five trees within the Council verge on Carrington Road. The demolition of the Council building will remove a number of these trees (subject to a separate DA).

The existing trees to be retained post-demolition within Precinct East are shown on the adjacent plan within the black boundary of the Precinct East development lot. The maturity, species and canopy cover of these retained trees have been considered throughout the preparation of the Urban Design Framework, Guidelines and Concept Master Plan.

The station plaza, station entry forecourt and car park plaza are planted with deciduous “public art trees” (*Sapium sebiferum*) that are intended to define the station entry, provide shade and amenity to the entry and maintain sight lines.

Street trees are two different species of *Eucalyptus microcorys* along Carrington Road and *Eucalyptus crebra* within De Clambe Drive, Doran Drive, Mandala Parade and Andalusian Way.

There is a mixture of trees within the Cattai Creek interface.

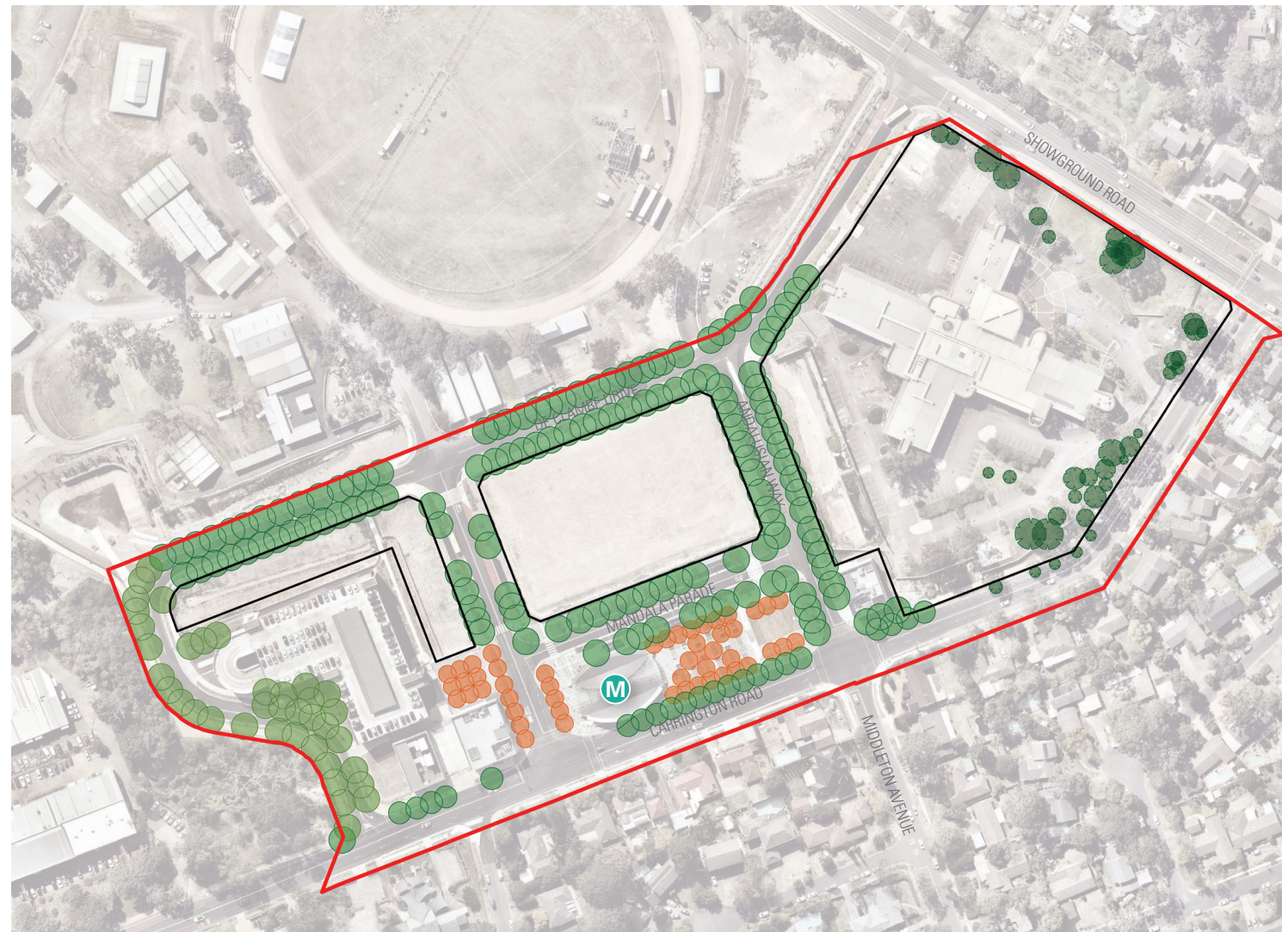


Figure 19: Existing Trees

— Site — Development Lot ● Street Trees ● 'Public Art' Trees ● Cattai Creek Mix ● Existing Trees - Post Demolition



Transport Movement

The existing street network within the Site provides a variety of movement functions and a road hierarchy to provide both public transport and vehicular access to the broader North West Sydney transport network.

Showground Road is a major arterial road that provides vehicular, public transport and active transport links between Old Northern Road at Castle Hill and Windsor Road at Norwest.

Carrington Road is an arterial road that provides vehicular, public transport and active transport links between Showground Road and Victoria Avenue within the Castle Hill Trading Zone.

Signalised intersections on Showground Road at De Clambe Drive and on Carrington Road at Doran Drive and Andalusian Way provide controlled vehicular and pedestrian access to the Site. A left in, left out access point on Carrington Road at De Clambe Drive provides access to the commuter car park from the west, or exiting to the east.

Doran Drive provides local bus to bus and bus to Metro interchange.



Figure 20: Transport Movement



Site Streets

The Site includes a number of streets that have been delivered as part of the Sydney Metro Northwest project.

These existing streets include;

- De Clambe Drive
- Doran Drive
- Mandala Parade
- Andalusian Way.

The streets are generally single-lane in each direction, with some additional storage lanes to allow for queueing at the signalised intersection of Doran Drive and Carrington Road and for a bus only lane at De Clambe Drive and Showground Road. Indented bus bays have also been delivered at the transport interchange on Doran Drive.

The nature of the streets is to generally cater for local traffic to, from and within the Site. On-street parking has been provided;

- on the southern side of De Clambe Drive along the northern Doran Drive Precinct interface
- on both sides of the street on Andalusian Way along the Doran Drive Precinct and Precinct East interface
- on both sides of the street on Mandala Parade along the southern edge of the Doran Drive precinct interface.

The Hills Showground Station Precinct SSDA does not propose any additional works to these existing streets.



Mandala Parade looking east - on street parking and kiss & ride zone



Mandala Parade looking east - shelter



Doran Drive looking north - bus stop



Doran Drive and De Clambe Drive looking south - bus zone



De Clambe Drive and Andalusian Way looking east



Andalusian Way looking north - on street parking

Existing Development Lots

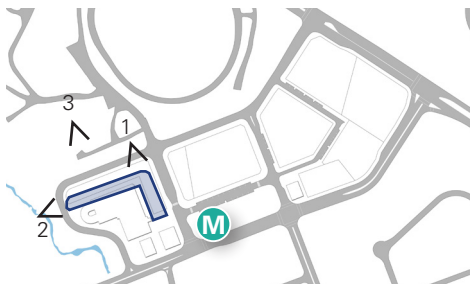
Precinct West

Precinct West is defined by Doran Drive to the east, and wrapped by De Clambe Drive to the north and west. The new commuter car park sits behind the development lot.

The existing commuter car park is a 5-level structured car park with access off De Clambe Drive as shown in Photo 2.

The development lot is also subject to a significant fall of approximately 6m from Doran Drive down to the ground floor of the commuter car park. In addition, there is an access easement through the development lot from De Clambe Drive to the station infrastructure west of the station entry.

The existing structure and function of the car park and access easement is a critical consideration in the future built form, uses and interface with the carpark within Precinct West and may require mitigation measures through design to provide appropriate visual privacy and amenity to future buildings.



1. De Clambe Drive - View from De Clambe, looking south, showing grade change from Doran Drive towards the perimeter of the site and the commuter carpark.



2. De Clambe Drive - Precinct West from the western boundary looking east



3. Precinct West - Looking south

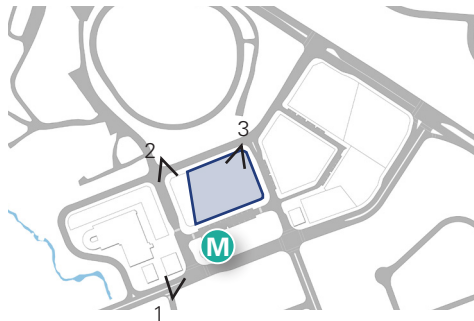
Doran Drive Precinct

The Doran Drive Precinct is centrally located within the precinct. It is a regular shaped block bounded by Doran Drive to the west, De Clambe Drive to the north, Andalusian Way to the east and Mandala Parade to the south.

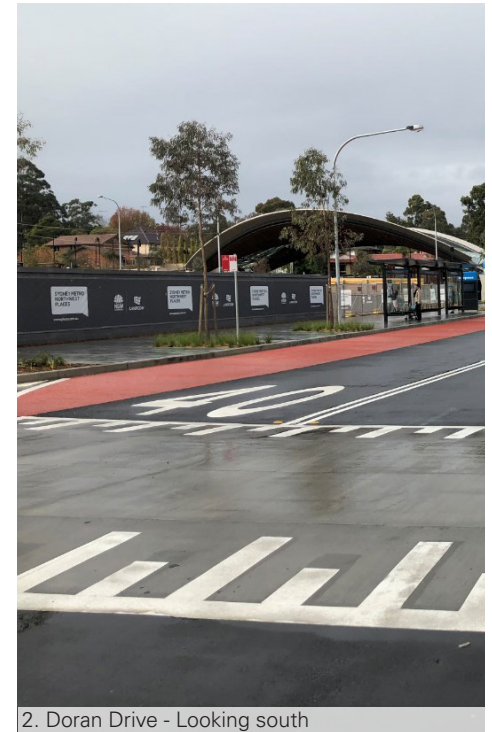
The development lot slopes gently from east to west from Andalusian Way down to Doran Drive.

The southern interface of the Doran Drive Precinct is to the Hills Showground Metro Station and the station plaza. Further activation and overshadowing of the station plaza will need to be considered through the preparation of the SSDA.

The northern interface for Doran Drive Precinct is the Castle Hill Showground, a regional recreation destination for Sydney's north west. As the precinct lies between the Metro and the Castle Hill Showground, it will be a crucial movement corridor for people accessing the Showground via the Metro and for people accessing the Hills Showground Metro Station from the north. Potential circulation spaces and appropriate footpath widths will need to be considered in the preparation of the SSDA.



1. Doran Drive Precinct - Looking north east



2. Doran Drive - Looking south



3. De Clambe Drive - Looking south-west

Precinct East

Precinct East is defined by Carrington Road to the south, Showground Road to the north, De Clambe Drive to the north and Andalusian Way to the west.

Precinct East includes a number of mature trees on the Carrington and Showground Road interfaces and is the highest point of the three development lots at approximately 103m above sea level in the foreground of Photo 3 adjacent.

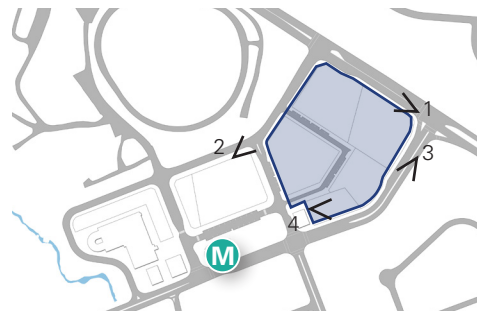
The potential retention of some of the existing trees on the development lot and the interface with Showground Road and Carrington Road as busy arterial roads will need to be considered through the preparation of the SSDA.



1. Precinct East - Looking west



2. De Clambe Drive - Looking south-east



3. Carrington Road - Looking south-west



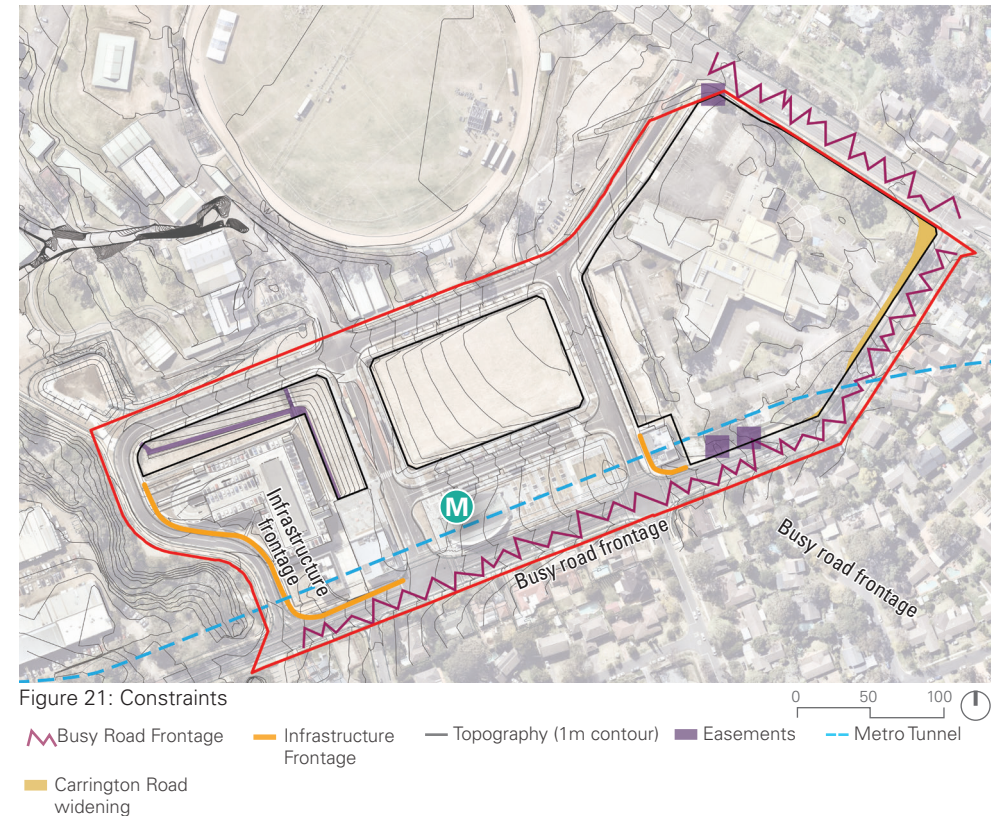
4. Carrington Road - Looking east

Existing Challenges

There are a number of elements within the development lots and surrounding areas that can be considered as challenges to the planning and location of built form, landscape and pedestrian and vehicular connections. These challenges include:

- Infrastructure and Services
 - the at-grade access easement within Precinct West from De Clambe Drive to the station infrastructure on Carrington Road needs to be preserved
 - the drainage infrastructure within Precinct West that runs from east to west to discharge at De Clambe Drive
 - the small service easements on Carrington Road and Showground Road within and adjoining Precinct East
 - the future road widening requirement for Carrington Road that impacts upon the development lot boundary for Precinct East.
- Amenity and Interface
 - the existing station infrastructure frontages presents some design challenges for future building orientation and internal floorplans for buildings that interface with the station infrastructure and commuter carpark
 - the interface with the arterial roads of Showground Road and Carrington Road which may require mitigation for noise and particulate pollution.

- Connectivity
 - the existing size of the Precinct East superlot is much larger than surrounding development lots and the existing and future residential communities to the south, south-east and north-east.
- Constructability
 - the landform requires topographical considerations for the orderly location of access to basements and the provision of a universally accessible public domain
 - construction constraints that may be associated with building structures over the tunnel or excavating for basements above the tunnel.



Current Opportunities

The Site appreciation has identified a number of elements to be considered as opportunities for the redevelopment of Precinct East, Doran Drive Precinct and Precinct West. These opportunities include:

- Landscape
 - the existing station plaza and car park plaza as public open spaces within the precinct that can be reinforced through the development of the Site
 - the potential retention of some of the existing trees within Precinct East to provide a mature and complementary landscape with its surrounds
 - the planning of new public spaces within the development lots as complementary to the hardscape movement function of the car park plaza and the programme of the station plaza as a garden, amphitheatre, stage and station entry as one moves from east to west
 - the topography of the Site presents opportunities for significant views to/from the Site and to potentially terrace the built form in response to the landform and local character
 - existing street trees and surrounding landscapes within Cattai Creek and the Castle Hill Showground provides opportunities to consider planting species that will deliver a cohesive and connected landscape across both the public and private domain.
- Movement and Access
 - active transport connections adjacent to the development lots on Carrington Road and De Clambe Drive provide opportunities to deliver additional active transport links within the development lots that extend the active transport network to, from and within the Hills Showground Station Precinct.
 - regional active transport connections to Cattai Creek corridor and the Castle Hill Showground
 - potential active transport connections along pedestrian desire lines between the Castle Hill Showground, the Site and the southern residential community via precinct East, Andalusian Way and Middleton Ave
 - potential new streets and pedestrian connections through Precinct East.
- Activation
 - leveraging the Hills Showground Metro Station forecourt as the main arrival and departure point within the precinct provides opportunities for retail and potential community uses to address this transport node
 - providing land uses that activate the interfaces with existing public open spaces of the station plaza and forecourt and the carpark plaza.

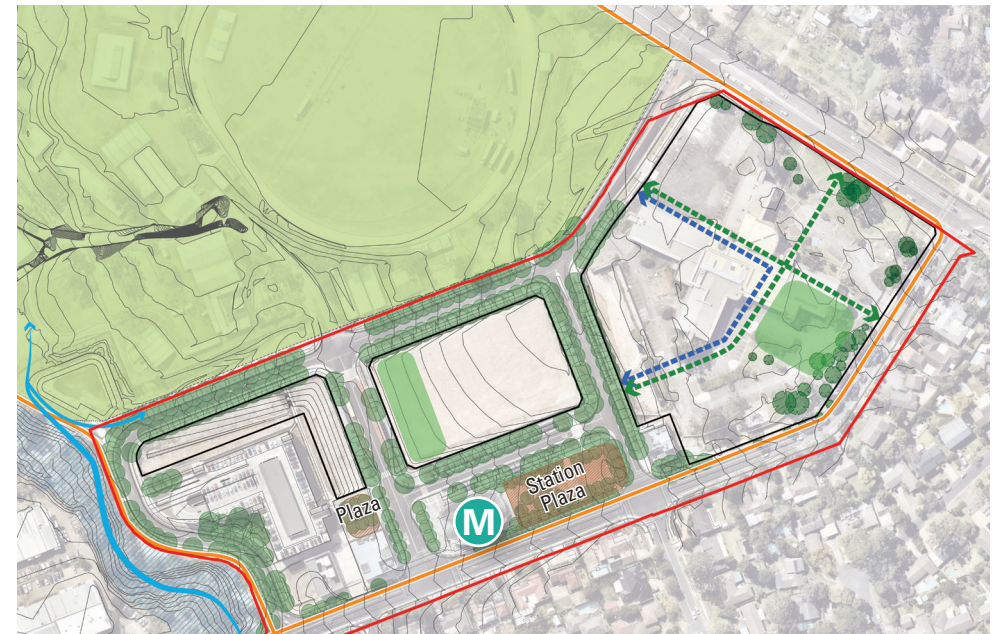


Figure 22: Opportunities





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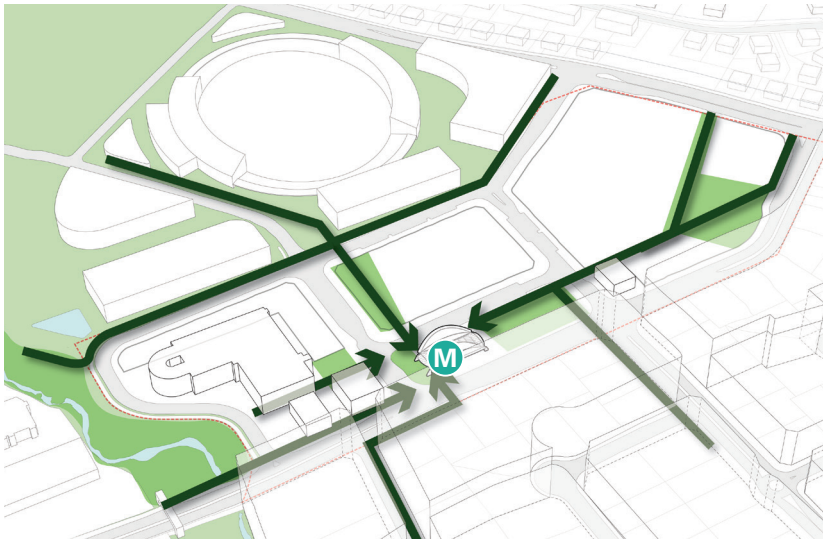
URBAN DESIGN PRINCIPLES

The urban design principles have been developed as site-specific principles that reflect the understanding of the local character and opportunities of the Site as a whole and each of the development lots within it.

Urban Design Principles

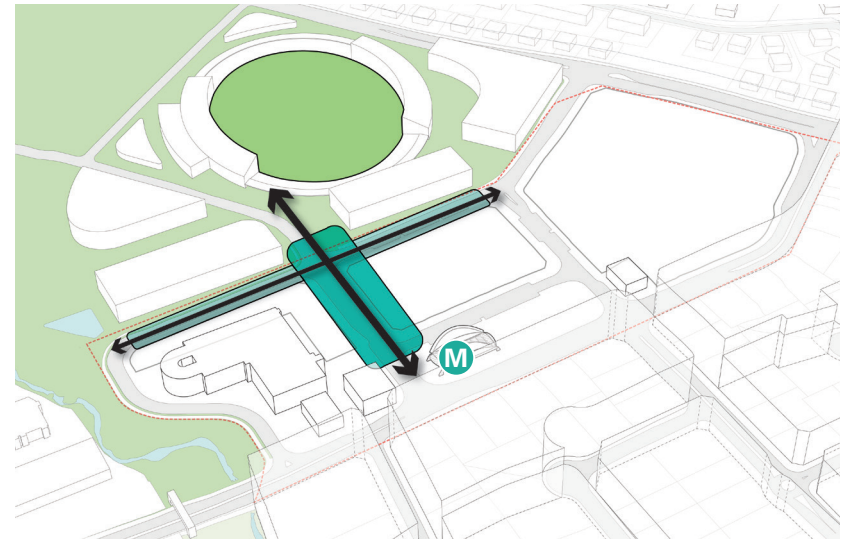
1. Arrival to the precinct via a variety of public spaces

Ensuring that arrival to the precinct is via a publicly accessible open space. This includes the Cattai Creek corridor, the Castle Hill Showground, Doran Drive Plaza, the carpark plaza, Hills Showground Metro Station forecourt, Station Plaza and the new open space and through site links within Precinct East.



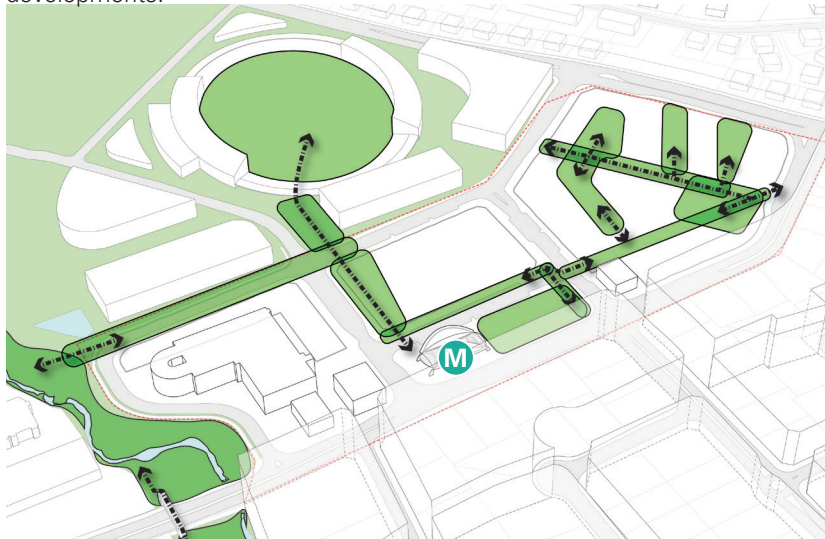
2. Create a strong heart connecting the public assets

Creating a new civic heart at the geographic and active centre of the broader precinct stitching together the Cattai Creek Corridor, the Castle Hill Showground, the station forecourt, station plaza and carpark plaza with the multi-modal transport interchange and active retail node on the Doran Drive Precinct.



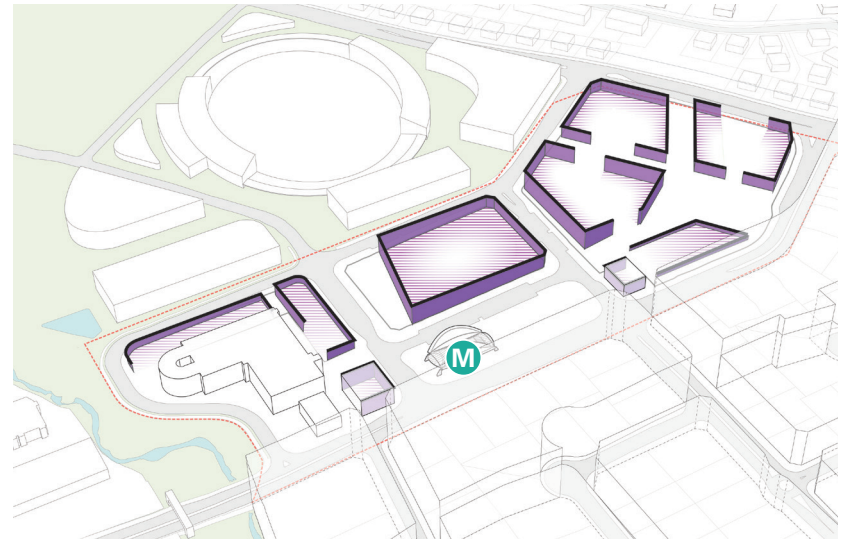
3. Establish a network of connected landscapes for cohesion between public and private domain

Delivering a cohesive and connected landscape for the broader Hills Showground Station Precinct that weaves together existing and future public spaces and the private domain within the mixed use and residential developments.



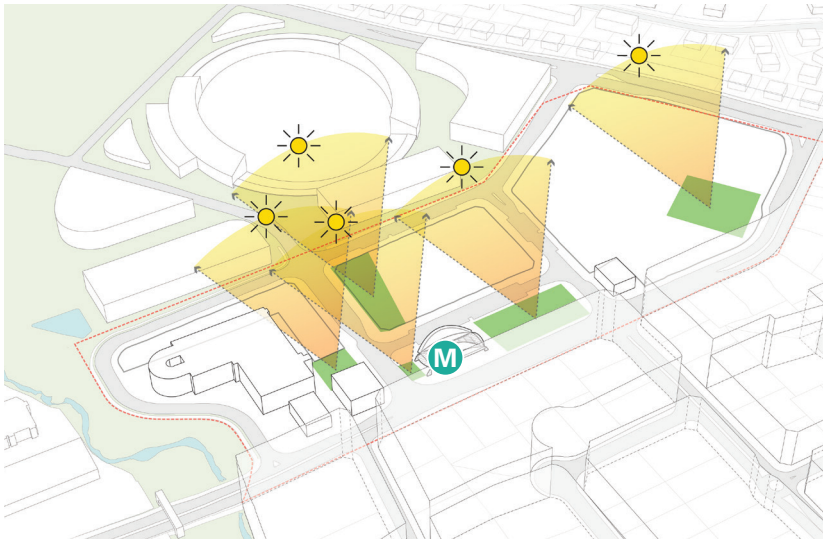
4. Framing the public domain with a built form edge

Ensuring the public domain is defined by a pedestrian scale built form with active edges and/or frontages.



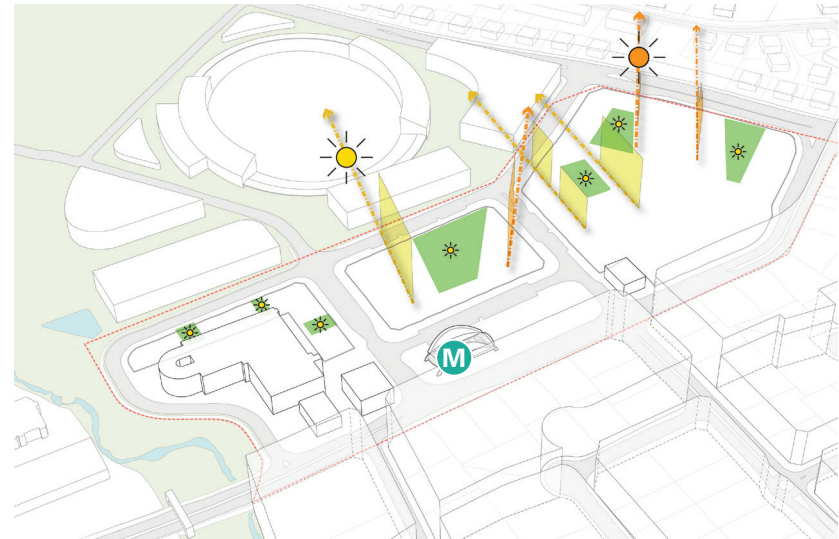
5. Maximise solar amenity to public space

Ensuring that buildings are oriented and designed to maximise solar access to existing and future public open spaces.



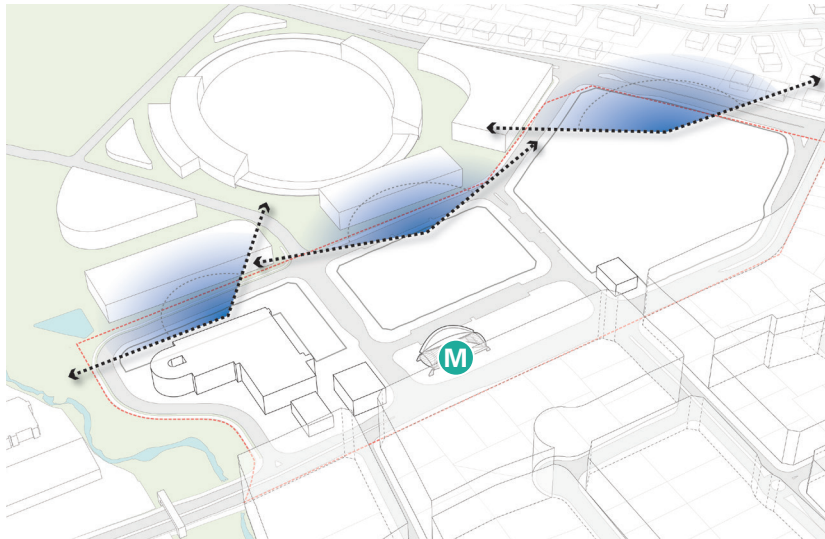
6. Maximise amenity for residents

Ensuring that residential towers are oriented and designed to maximise sunlight to the living areas of future homes and to the communal open spaces within each precinct to achieve the solar access requirements of the Apartment Design Guide (ADG).



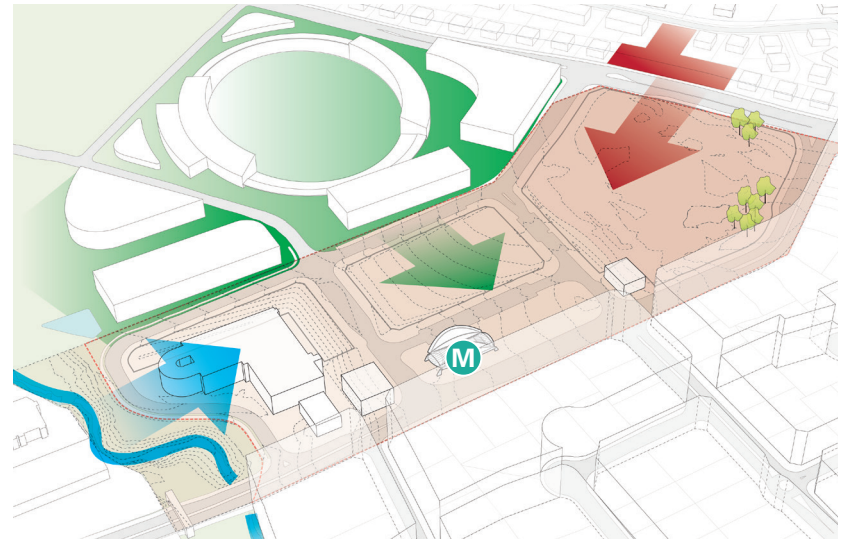
7. Optimise views, visual interest and legibility

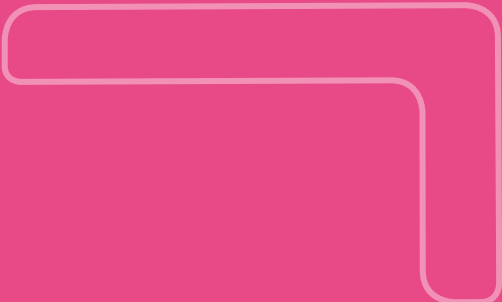
Delivering a built form composition that celebrates key vistas to the Site from district vantage points and thresholds, and orientates communal open spaces and towers towards sweeping regional views over the Castle Hill Showground and broader The Hills Garden Shire.



8. Celebrating the Site's unique values

Considering the transition between new and existing built form in the creation of new public spaces, the design celebrates the built and natural heritage of the site and its surroundings. This includes the foundational elements of Cattai Creek, Castle Hill Showground, the heritage cottage on Showground Road, and existing vegetation within Precinct East.





06

URBAN DESIGN FRAMEWORK

The urban design framework is intended to capture the contextual and site appreciation and document how the urban design principles can be realised through the public domain and built form of the State Significant Development Application

Urban Design Framework

Overview

The SSDA proposes development on the government owned lots within the Hills Showground Station Precinct. However, the Urban Design Framework (the Framework) considers elements that may impact, or be impacted by, the future development of these sites and how that development can deliver a connected, cohesive broader Hills Showground Precinct.

The Framework within this chapter provides the urban design considerations to guide the development of the lots adjoining the Hills Showground Metro Station. The Framework has been prepared to ensure design quality throughout the transformation of the Site, across all uses and densities.

The purpose of the Framework is to:

- Translate the design principles in to Guidelines that will ensure future development achieves high design quality and design excellence
- Ensure development responds to the distinct history, character and identity of the Site and its surrounds
- Ensure high levels of public and private amenity are achieved across the Site
- Ensure development responds to the existing and future development on surrounding sites
- Encourage public transport use, walking and cycling to, from and within the sites
- Integrate best practice sustainable urban transformation

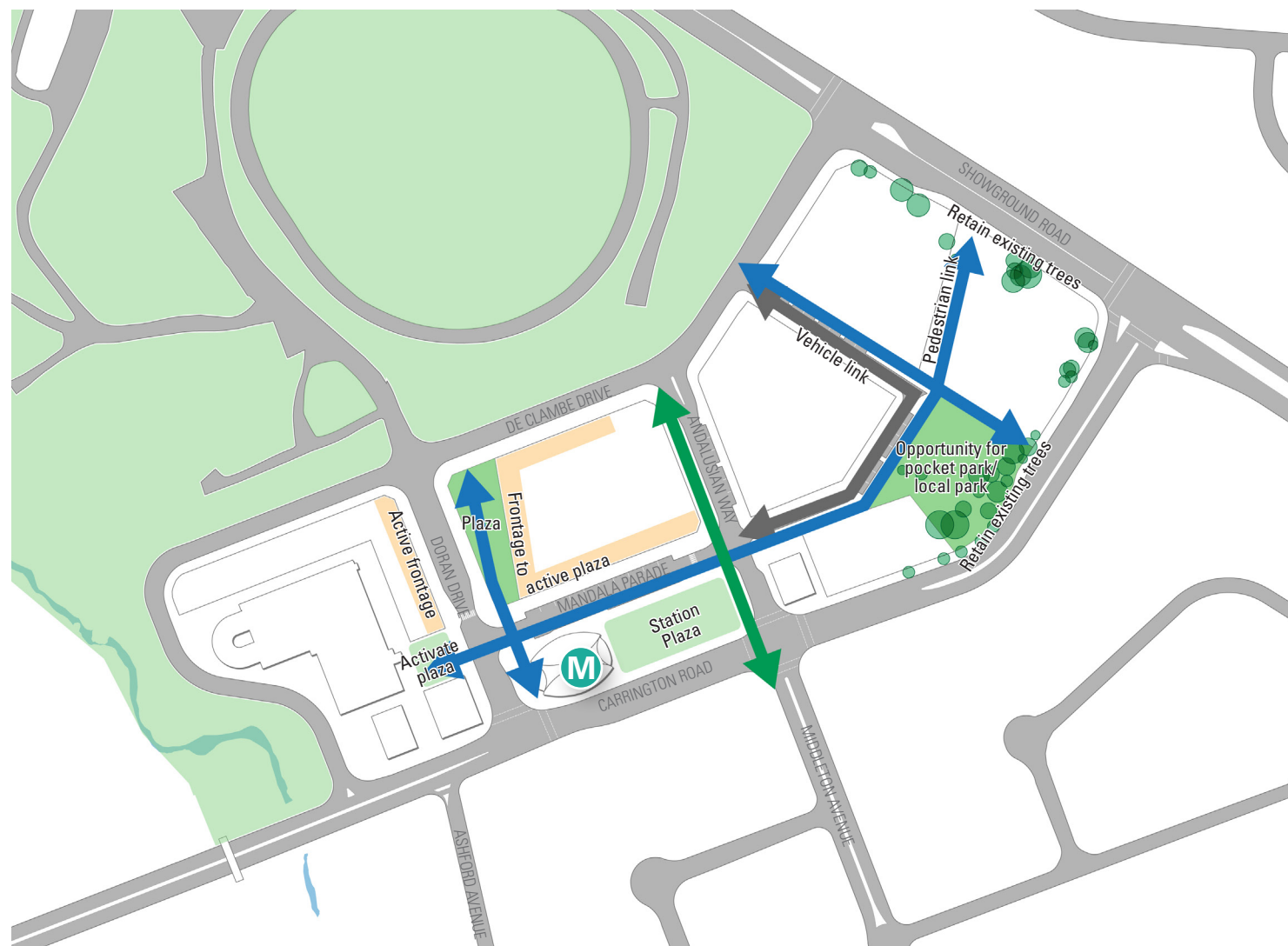


Figure 23: Overview



Overarching Strategies

Proposed Uses

The proposed uses reflect the vision to deliver a mixed-use, transit oriented, local centre with a diversity of uses, users and activities.

The Hills Showground Metro station itself and the pedestrian desire lines to and from the Hills Showground Metro station act as contributors to the activation of the streets, ground floor non-residential uses at key interfaces to the station and major desire lines for movement.

Mixed use zones are located around the areas of greatest amenity and accessibility, within the sites located between the station and the Castle Hill Showground. Mixed use active edge is focused on key frontages to ensure a concentrated hub of activity and improve both short term viability and long run sustainability.

A residential only use in Precinct East serves as a transition between the future mixed use local centre and the existing and future residential communities to the north-east and south-east of the Site.

The homes within the three development lots and the surrounding existing and future residential and employment communities will provide the critical mass of residents to activate the station and surrounding mixed use active frontage areas.



Future Precinct Character

The future precincts of the Site are intended to exhibit similar characteristics, streetscapes, uses, densities, built form and activities.

Precinct West and Doran Drive Precinct will form a high-density mixed use node anchored on Doran Drive between Carrington Road and the Showground.

This mixed-use, high density area is, and will continue to be, characterised by transport, retail, civic, community and cultural uses and a built form and landscape character that is reflective of those uses.

Precinct East is a primarily residential precinct, serving as a transition between the mixed use node on Doran Drive Precinct and Precinct West and the existing and future medium to high density residential density communities to the south, east and north of the Site.



Figure 25: Precinct Built Form Character

■ High Density Mixed Use
 ■ Medium Density Residential
 ■ High Density Residential
 ■ Regional Recreation Precinct
 Station and Supporting Transport Infrastructure

Connectivity

Road Hierarchy

The roads within the broader precinct already exist, a function of providing public transport and vehicular access to and from the Hills Showground Metro Station and commuter car park on De Clambe Drive, the transport interchange on Doran Drive, and future development on the Hills Showground Station Precinct.

To deliver a fine-grain, permeable site in the future a new local road should be planned within Precinct East that provides local access to the residential buildings and the local park within the Precinct.

The Hills Shire Council LEP proposes a new street between De Clambe Drive

and Carrington Road through Precinct East, at approximately the location of the new local street. However, the proposed new street delivers the desired finer grain street network, without connecting to Carrington Road to preserve the local function of the street and avoid through-site traffic accessing the Showground Road intersection.

It is intended that this new street is two-way to provide access to the residential basements and then one way from the park to Andalusian Way. This is to provide a calmer interface with the local park and reduce the amount of traffic using Andalusian Way to access Precinct East, given it's role to provide broader connectivity to Middleton Avenue via signalised intersection on Carrington Road.

On-street Parking Configuration

In addition to the existing on-street parking within the broader Site the Framework suggests that new on-street parking is to be considered for the new street within Precinct East to provide access to;

- the new local park by car
- the residential buildings for visitors (in addition to the visitor parking provided by each development).



Figure 26: Road Hierarchy

- Existing Arterial Road
- Existing Collector Road
- Existing Local Road
- Proposed Local Road

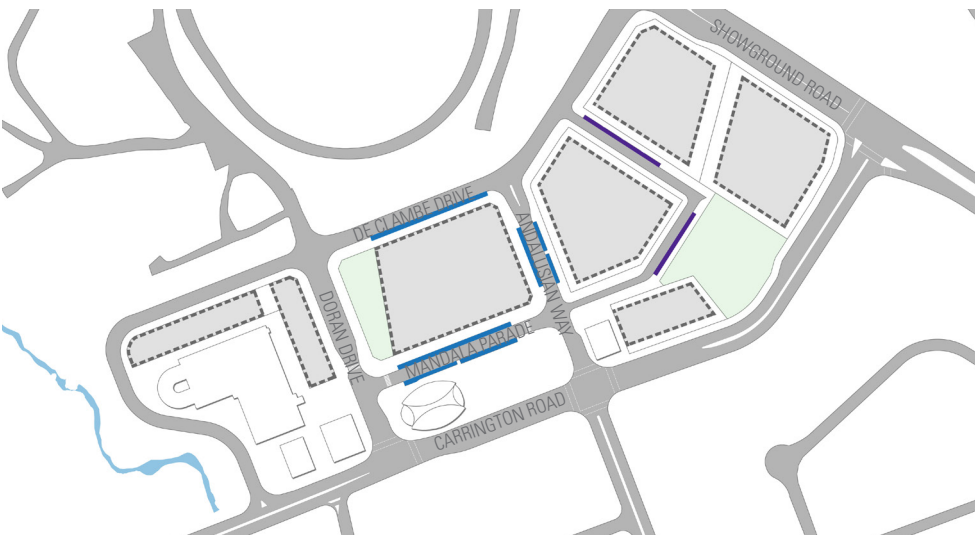


Figure 27: Parking Configuration

- Basement Parking
- Existing On-Street Parking
- Proposed On-Street Parking

Parking and Access

Parking and service vehicle access to the sites and future buildings are to be located away from the major pedestrian movement corridors, activity nodes and active frontages within the precincts.

The Framework recommends that;

- vehicle access to Precinct West from De Clambe Drive is limited to two points and that access from Doran Drive is prohibited

- vehicle access to Doran Drive Precinct is limited to the eastern end of the De Clambe Drive interface and on Andalusian Way and that access via Doran Drive and Mandala Parade is prohibited
- vehicle access to Precinct East is via the proposed new local road, access from De Clambe Drive and Andalusian Way is prohibited.

Active Transport Movement

Pedestrian and cycle movement within the development lots will be comprised of a comprehensive pedestrian and bicycle network which includes a mixture of dedicated off-road routes, pedestrian and bicycle priority shareways and supported by end of trip facilities and parking.

The primary pedestrian movement is completed across the precinct through the provision of a new local road with footpaths in Precinct East and a mid-block connection through to Showground Road.

The primary bicycle network draws from the existing and future bicycle paths on Carrington Road and Cattai Creek linking to the bicycle parking at the station on Doran Drive. A potential off-road dedicated path may be located in the Showground on the northern side of De Clambe Drive.

A potential shareway may be located on the local road between the Precinct East park and Andalusian Way.

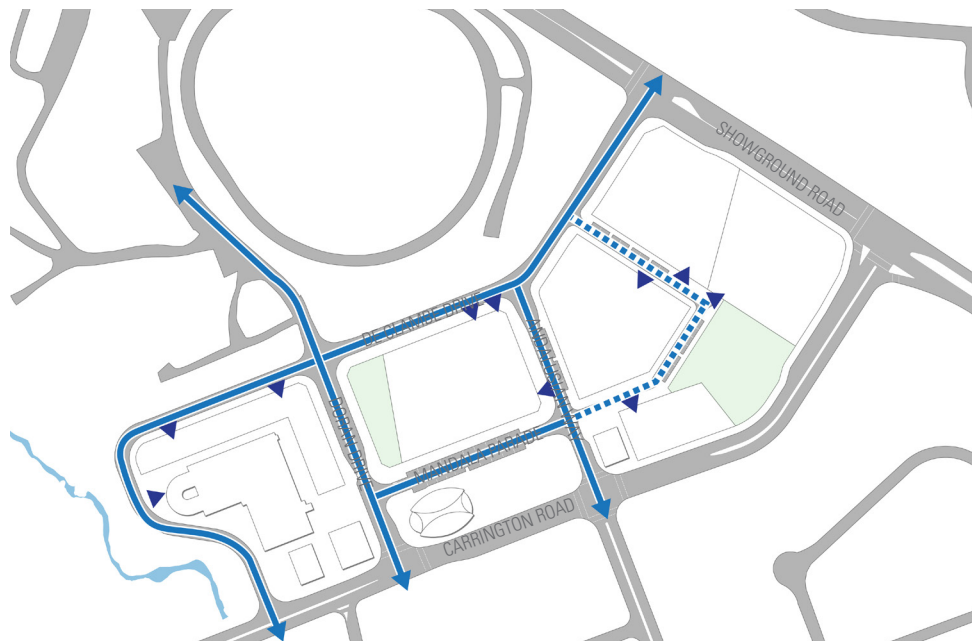


Figure 28: Vehicle Movement and Access

— Vehicle Movement - - - Proposed Vehicle Movement ► Parking Entries

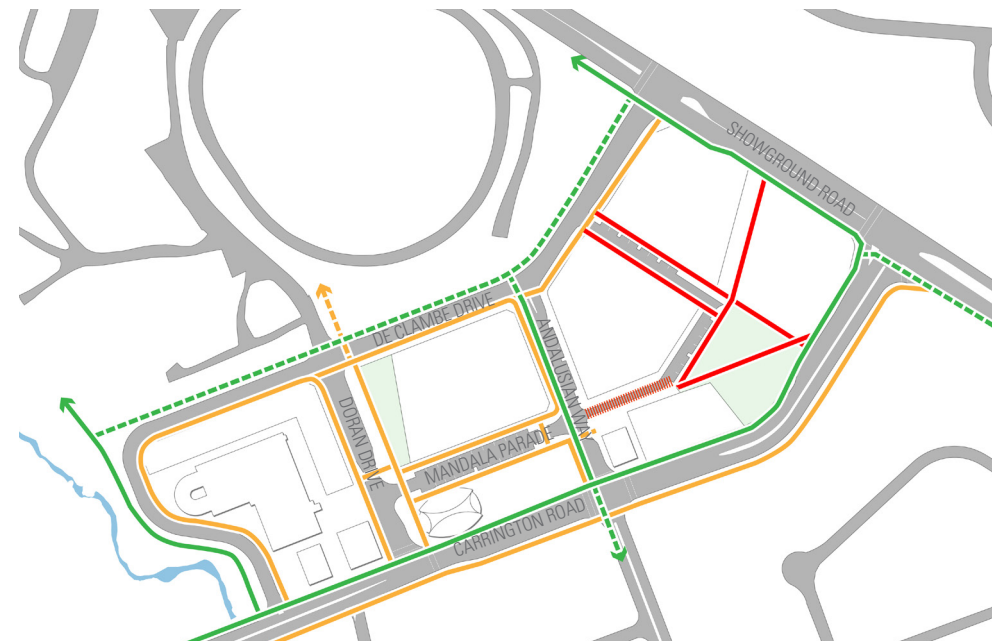


Figure 29: Active Transport Movement and Access

— Existing Off-Road Shared Path - - - Potential Off-Road Shared Path — Existing Pedestrian Connection
 - - - Potential Pedestrian Connection - - - Proposed Pedestrian Connection ▨ Proposed Shareway
 Ⓑ Existing Bicycle Parking

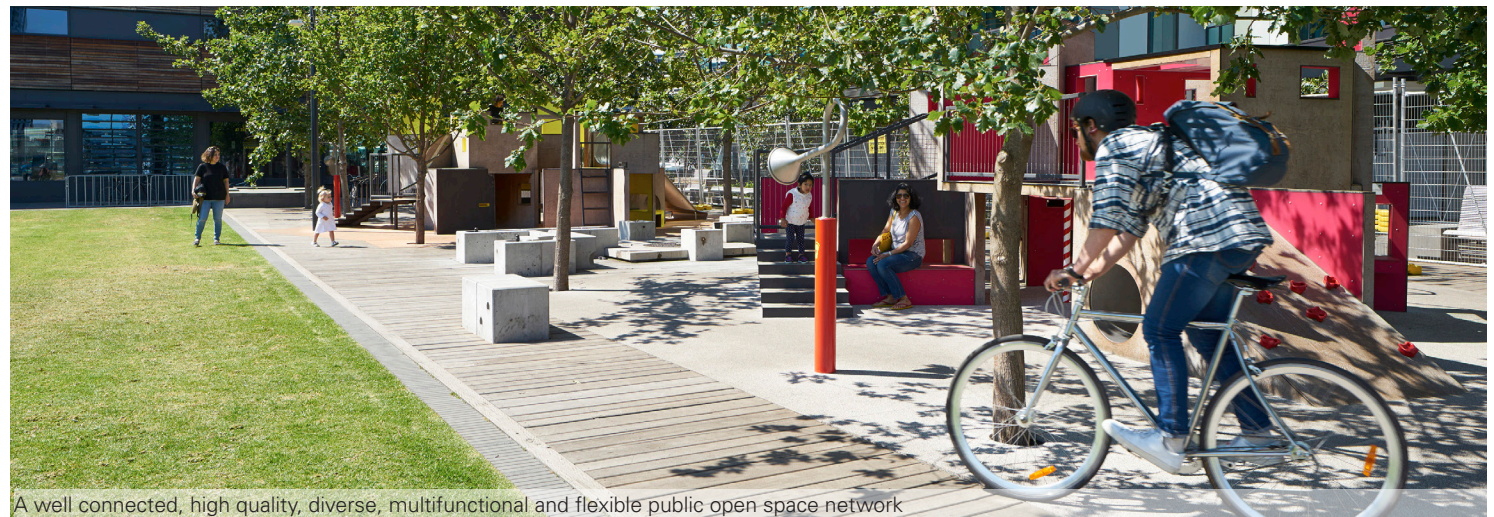
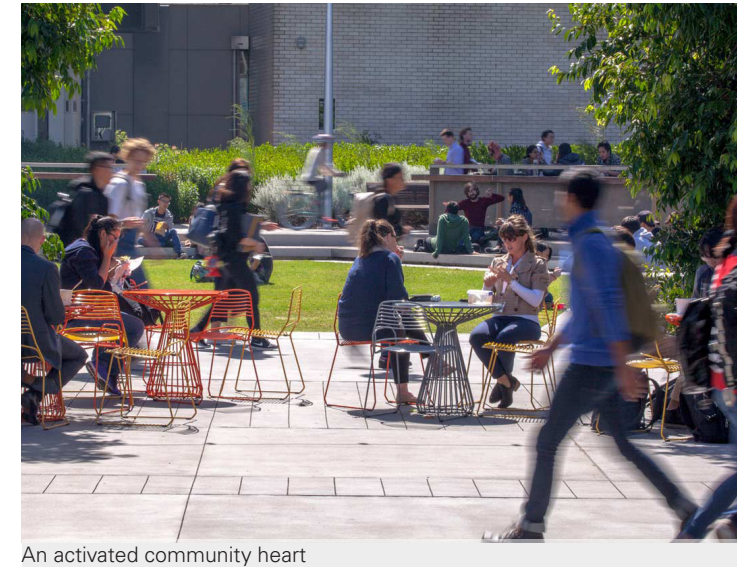
Public Domain Principles

The Hills Showground Station Precinct will deliver a vibrant and active public domain that reinforces the precinct as a place to work and live, while reflecting and integrating with the local context.

The public domain strategy is focused on achieving the following key outcomes for the precinct:

- A well connected, accessible, high quality, diverse, multifunctional and flexible open space network;
- An active community heart focused around a new plaza on Doran Drive;
- A green node within Precinct East including a new local park;
- Clear, legible and safe pedestrian and cycle connections, including links to the regional cycle network;
- An environmentally and socially sensitive and responsive design; and
- An emphasis on local character and a continuity of landscape.

These outcomes will be achieved through strategies for open space, planting, water, materials and elements, public art and interpretation, and the public domain character, as outlined within this section of this report.



Public Open Space Strategy

The Hills Showground Station Precinct will provide two new significant public open spaces - Doran Drive Plaza and Precinct East Park.

These new spaces will form part of the wider open space network including future regional recreational opportunities established through the Castle Hill Showground master plan and the open space connection provided by the Cattai Creek Corridor.

The Doran Drive Plaza will provide a minimum 1,400m² open space connection between the Hills Showground Metro Station and Castle Hill Showground, linking these two destinations through a generous pedestrian boulevard. The plaza will act as an activated heart to the wider precinct with places to sit and gather adjacent to the retail offering of the Doran Drive Precinct.

The minimum 3,500m² Precinct East Park will have more of a local character to the highly active plaza spaces and cater to local residents and families in a relaxed and green setting. While the Castle Hill Showground will still provide recreational opportunities to the new population, this local park complements the overall network by creating a green node directly accessible to the residents of Precinct East.

In addition to the plaza and park, 10m wide publicly accessible space will be provided as part of the SSDA.

Private communal and rooftop gardens across the Site will also support the public open space network and provide additional amenity to the residents and workers within each of the buildings.



Figure 30: Open Space and Public Domain Strategy

- Public open space
- Precinct East Green Node
- Primary pedestrian movement
- Private communal open space to be provided within development blocks
- Active Heart
- Public pedestrian link
- Public open space (context)

Water Strategy

The water strategy for the precinct promotes the sustainable use and treatment of water within the public domain, while visually emphasising the flow of water through the Site and the relationship to Cattai Creek.

Water treatment is to be integrated across Precinct East through attractive raingardens and swales that will locally treat stormwater before it makes its way to Cattai Creek.

In the Doran Drive Plaza, a water feature will provide an interpretive connection to water on site, between the more natural

raingardens of the Precinct East Park and the existing swale and basin to the north of De Clambe Drive. This feature is to have a low water usage and provide a visual focal point to the Doran Drive Plaza as well as provide a cooling effect and play opportunity. Note that the inclusion of a water feature in the plaza will need to be coordinated with The Hills Shire Council as part of a future Development Application.

These interventions in the public domain are to form part of the wider water management strategy for the Site that includes water capture and reuse within development sites, drought tolerant plant species and water efficient buildings and fixtures.

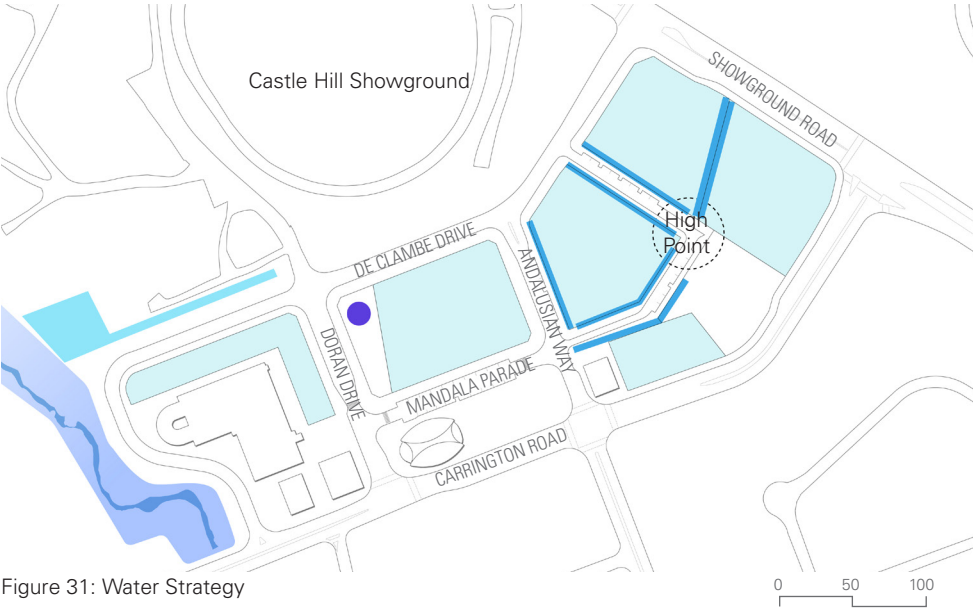
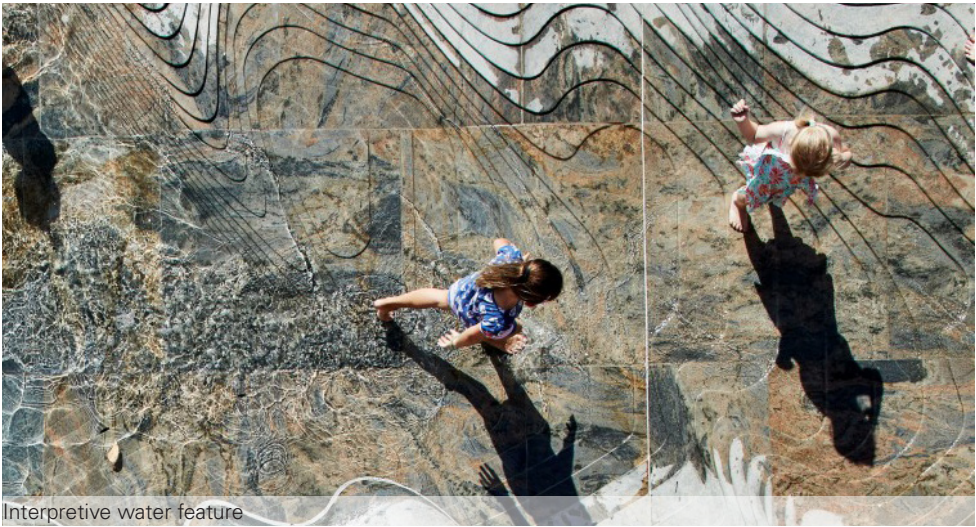


Figure 31: Water Strategy

- Potential interpretive water feature
- Water Sensitive Urban Design (indicative)
- Cattai Creek Open Space corridor
- Existing swale and basin



Planting Strategy

The local character will be clearly expressed through the planting strategy for the precinct.

As the main focus of the precinct, Doran Drive Plaza will have a combination of native and exotic species suited to it's urban character, with opportunity for a grove of deciduous trees reflecting the area's history with orchards.

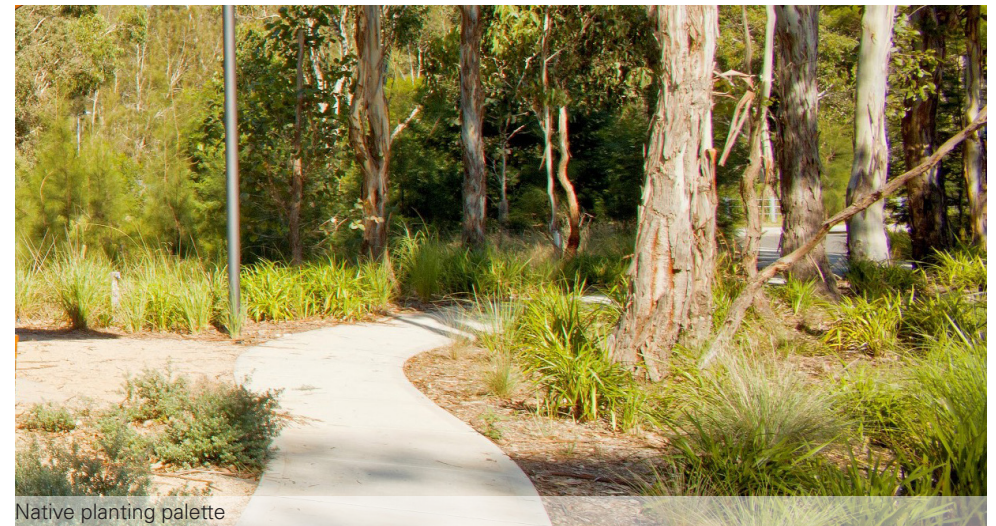
The Precinct East Park, is to have a predominantly native palette including large native trees for scale and shade.

Native species are to be used for the Water Sensitive Urban Design (WSUD) rain garden areas and the majority of other low level and shrub planting as they are suited to the local microclimate, create habitat for birds and micro fauna and enhance the ecology of the area.

The existing streets of the precinct, including Doran Drive, De Clambe Drive, Mandala Parade and Andalusian Way have been planted with large eucalyptus species that will provide character, scale and screening to the new built form. Corymbia maculata street tree planting for the new local street will complement this existing palette.



Figure 32: Planting Strategy



Public Art and Interpretation Strategy

A Heritage Interpretation Strategy has been prepared for the Site that considers the European and Aboriginal heritage and suggests a number of Interpretive Themes and Stories, including:

- Theme 1 - Aboriginal Cultural Heritage
- Theme 2 - Resistance and Rebellion
- Theme 3 - Agriculture and Orchardng
- Theme 4 - Pride in the Hills.

These themes are to be expressed across the public domain through a number of devises as suggested in the Strategy:

- Device 1 - Surface inlays
- Device 2 - Lighting
- Device 3 - Public Art / Murals
- Device 4 - Branding and Naming.

Refer to the Heritage Interpretation Strategy for more information.



Figure 33: Stone Jewels by Fiona Currey-Billyard. Stone tools reimaged. (Source: Fiona Currey-Billyard)



Figure 35: Sculptures by Barangaroo. (Source: Sculptures by the Sea)



Figure 34: Ngaarr by Lucy Simpson. A story of presence and strength, derived from the patterning of the inner bark of a gulabaa (eucalypt tree). These designs by Yuwaalaraay artist Lucy Simpson highlight the conversation about care of Country. (Source: City of Sydney)



Figure 36: Interpretive hoarding murals at 161 Sussex Street integrating historic typographic, text and historical maps. (Source: Deuce Design)

Built Form

Building Envelopes and Considerations

The following pages contain the design considerations that draw from the Uses, Character, Movement and Public Domain Framework in this chapter and captures the specific considerations to reinforce the vision and principles within the Framework.

The following considerations assist in determining the Building Envelopes contained within this Chapter.

Solar Access and Overshadowing of Public Spaces

The Framework seeks to achieve a minimum amount of solar access for the existing and future public open spaces within the development lots and the broader Hills Showground Precinct to ensure that the areas of highest pedestrian activity are amenable and attractive year round. The minimum proportions of the open space to achieve 2 hours of sunlight between 9am and 3pm during the winter solstice are identified below.

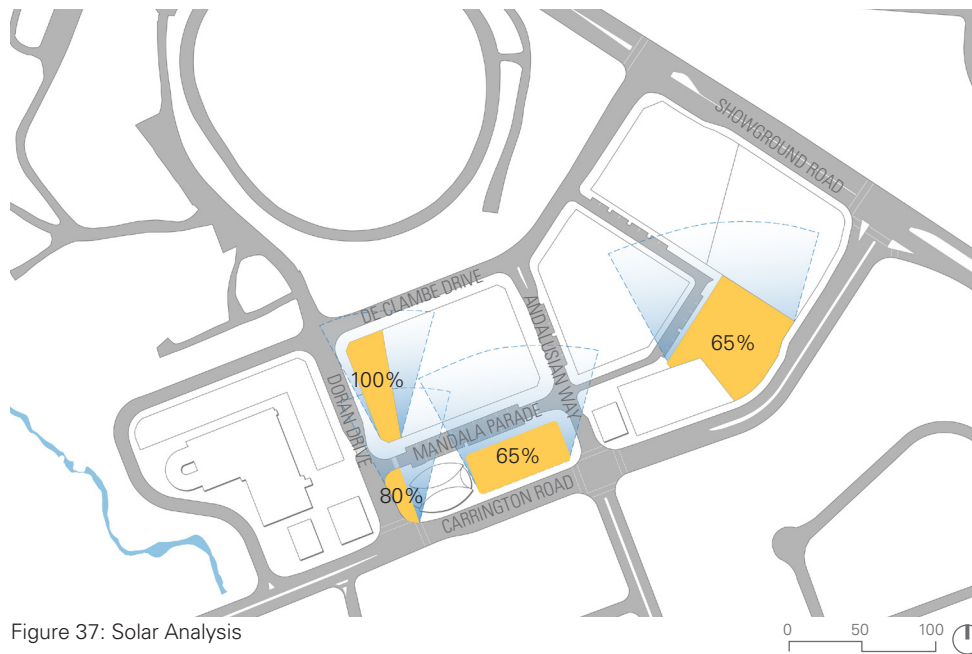


Figure 37: Solar Analysis

■ Primary Open Space ■ Solar Access Considerations

Activity Nodes and Active Frontages

The way in which a building addresses a street creates an important transition between public and private space. The careful design of this zone contributes to the liveliness, interest, comfort and safety of the street for those who use it.

Active Frontage

Frontages have been identified to reinforce complementary uses or desired street character that should accommodate local retail, community, cultural uses and to reinforce their role as a focus for pedestrians.

Activity Node

An Activity Node is focused on the Doran Drive plaza with retail/commercial frontages on both sides of Doran Drive and extending along the pedestrian desire lines on Mandala Parade and De Clambe Drive.

Flexible Ground Floor Uses

Flexible ground floor space and floor to ceiling heights in buildings within the Precinct West interface to De Clambe Drive can accommodate a range of uses to respond to changes in demand for non-residential uses in the future.

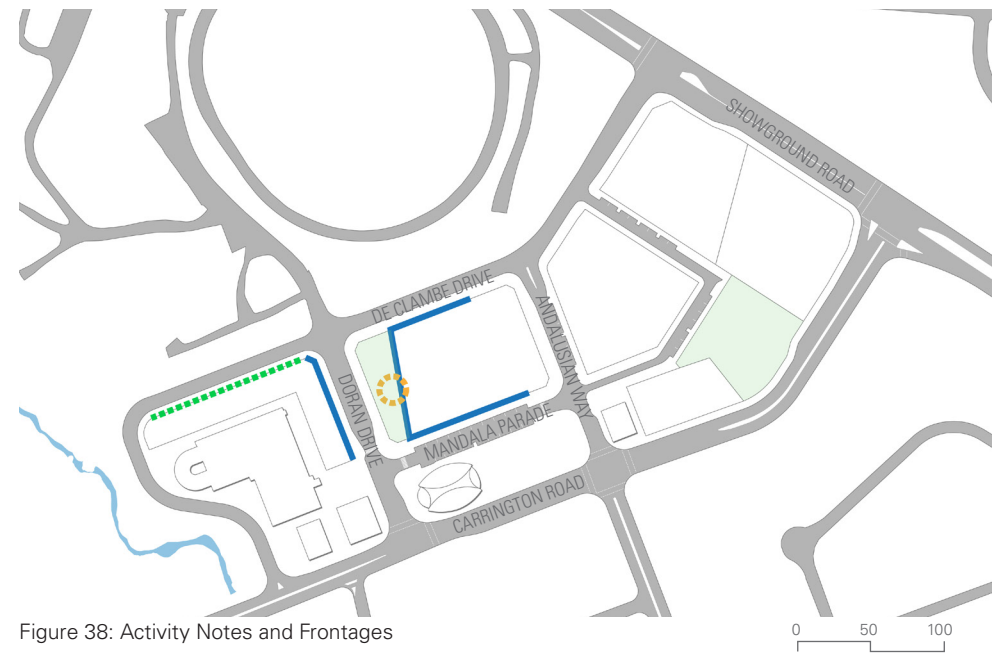


Figure 38: Activity Notes and Frontages

■ Active/Non-residential Frontage ■ Flexible Ground Floor Uses ■ Active Node

Street Wall Heights

The height of the street walls make a significant contribution to the experience of place and can add uniformity of character along particular streetscapes, or provide variations in areas where so desired.

A 4-storey street wall (varying between 13.6m and 16m depending upon uses) is intended for the majority of the Site to define the streets and public open spaces with an appropriately scaled built form.

The southern and eastern edges of the Doran Drive precinct may be lower (to a minimum of 2-storeys) depending upon the total floor space required in the podium and the topographical change across the Site.

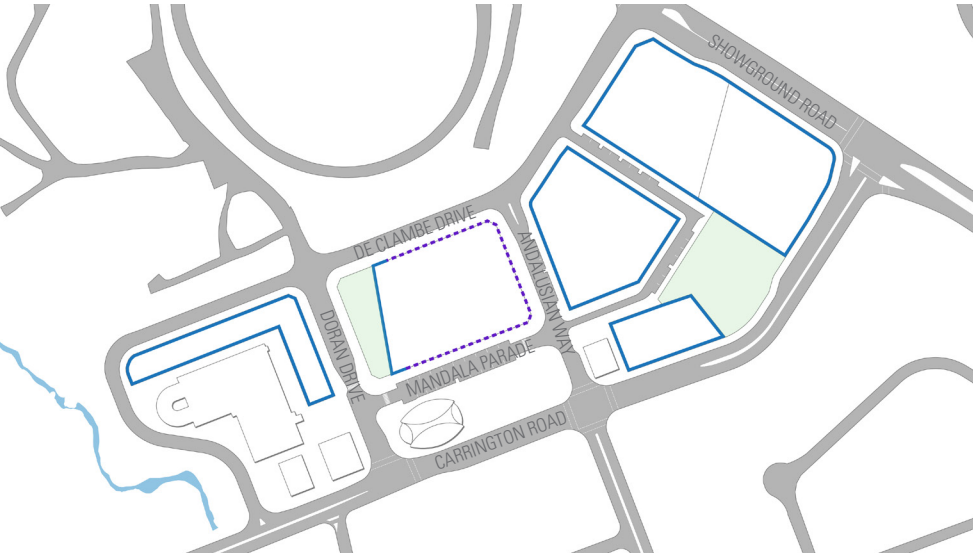


Figure 39: Street Wall Height

— Maximum 4 Storey Podium - - - Minimum 2-4 Storey Podium



Setbacks

Buildings with no setback at the ground level can provide an intimate urban experience where activity can be easily viewed and 'spill out' into the street.

Primary setbacks at ground level can contribute to the experience of the street, provide space for landscaping and courtyards that weave the public and private domain together and influence the way that pedestrians interpret built form.

Secondary upper level setbacks also impact the pedestrian experience through visual enclosure and the scale of the street and provide protection from weather or access to sunlight.

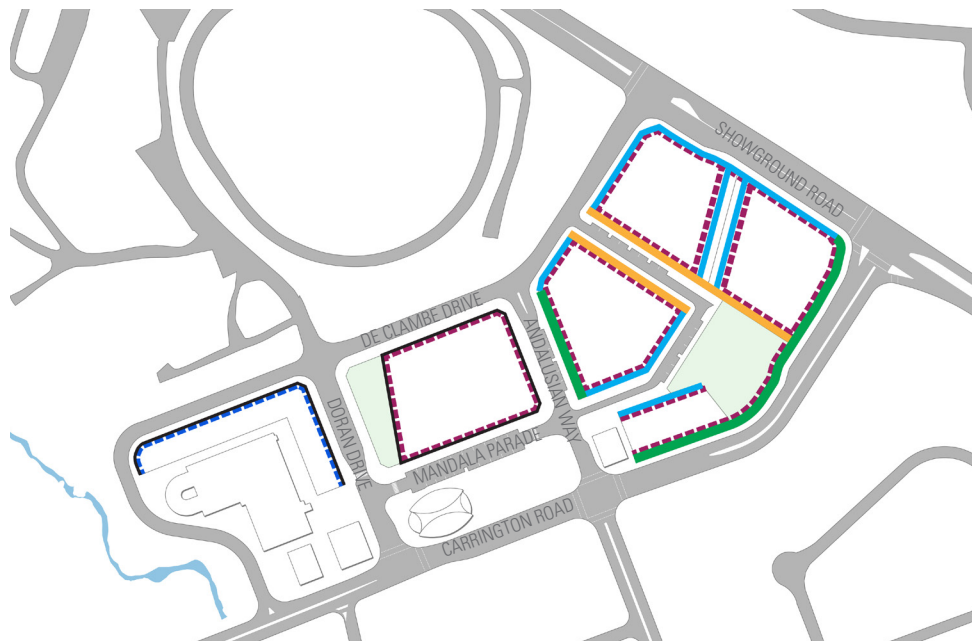


Figure 40: Setbacks

— 0m primary setback — 3m primary setback — 4.5m primary setback — 5m primary setback
— 2m secondary setback — 3m secondary setback

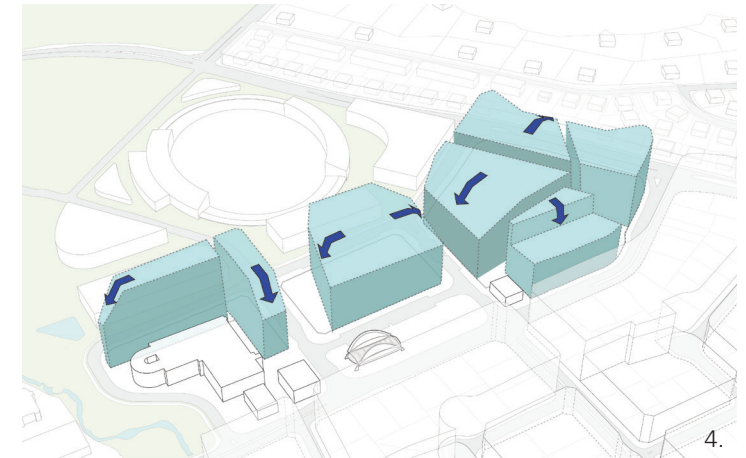
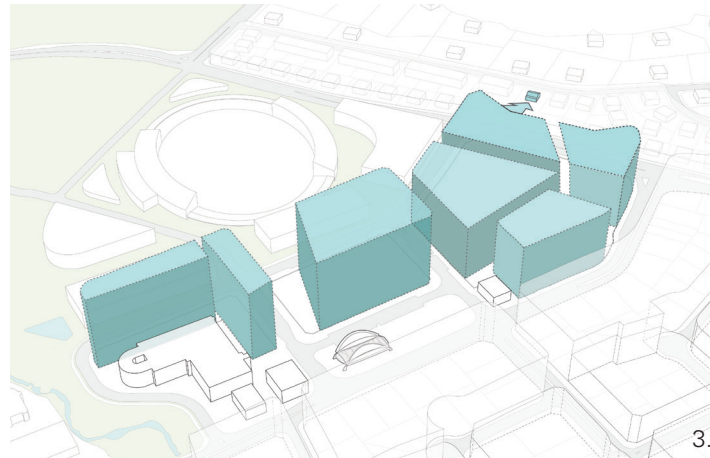
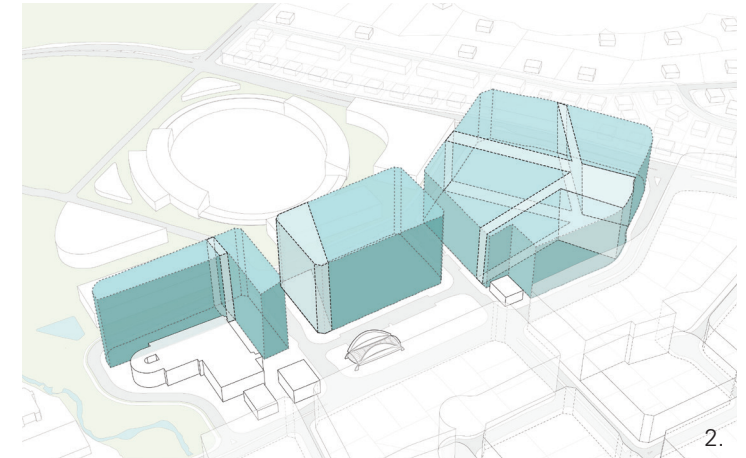
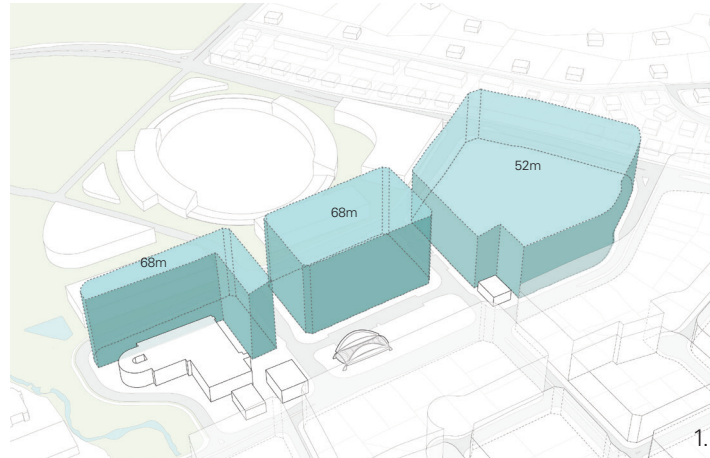
Built Form Composition Strategy

The Built Form Composition Strategy defines a height strategy that has been formulated on a series of known constraints, transition considerations and urban design principles.

The adjoining diagrams capture the considerations of the composition strategy for the Site;

1. The permissible building heights
2. The fine grain approach to deliver new streets, mid-block connections and new public open spaces
3. The interface to the existing local heritage item located at 128-132 Showground Road
4. The desired built form transition to adjoining public spaces (station and car park plaza, Cattai Creek Corridor) and future residential development (12 storeys south of Carrington Road, 3 storeys east of Showground Road)

The resulting composition strategy is one which will deliver a modulated and diverse built form within the development lots that sympathetically responds to adjoining areas and existing developments, and reinforces the vision of high levels of amenity and solar access within the primary open spaces. The principles within this strategy have driven the resulting site specific building envelopes.

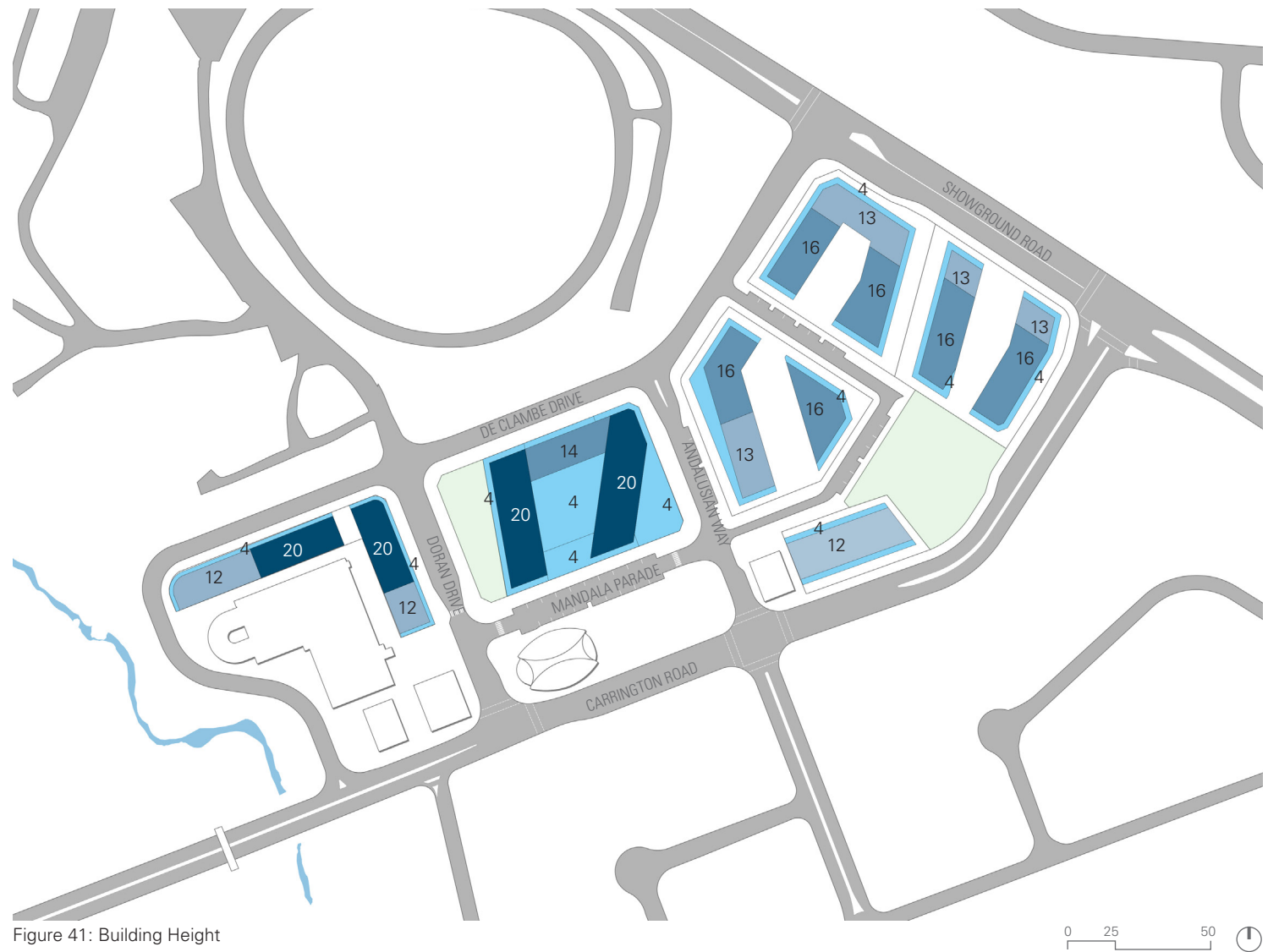


Building Height

The translation of the permissible building heights and the Built Form Composition Strategy to desired building heights is reflected in the diagram adjacent.

A maximum height of 68m (20 storeys) is desired on the Precinct West and Doran Drive Precinct.

Precinct East is comprised of a maximum 52m (16 storeys) on the Andalusian Way, De Clambe Drive and Showground Road interfaces, whilst a maximum of 39m (12 storeys) is desired on the Carrington Road interface as this responds to the future scale of the development on the southern side of Carrington Road.



Building Envelopes

The translation of the Urban Design Framework to building envelopes is contained within the following pages.

The building envelopes represent a desired outcome for the precinct as a whole and individual sites that deliver a level of certainty to Council and the community and retain a level of flexibility for innovation and diverse design outcomes in the future.

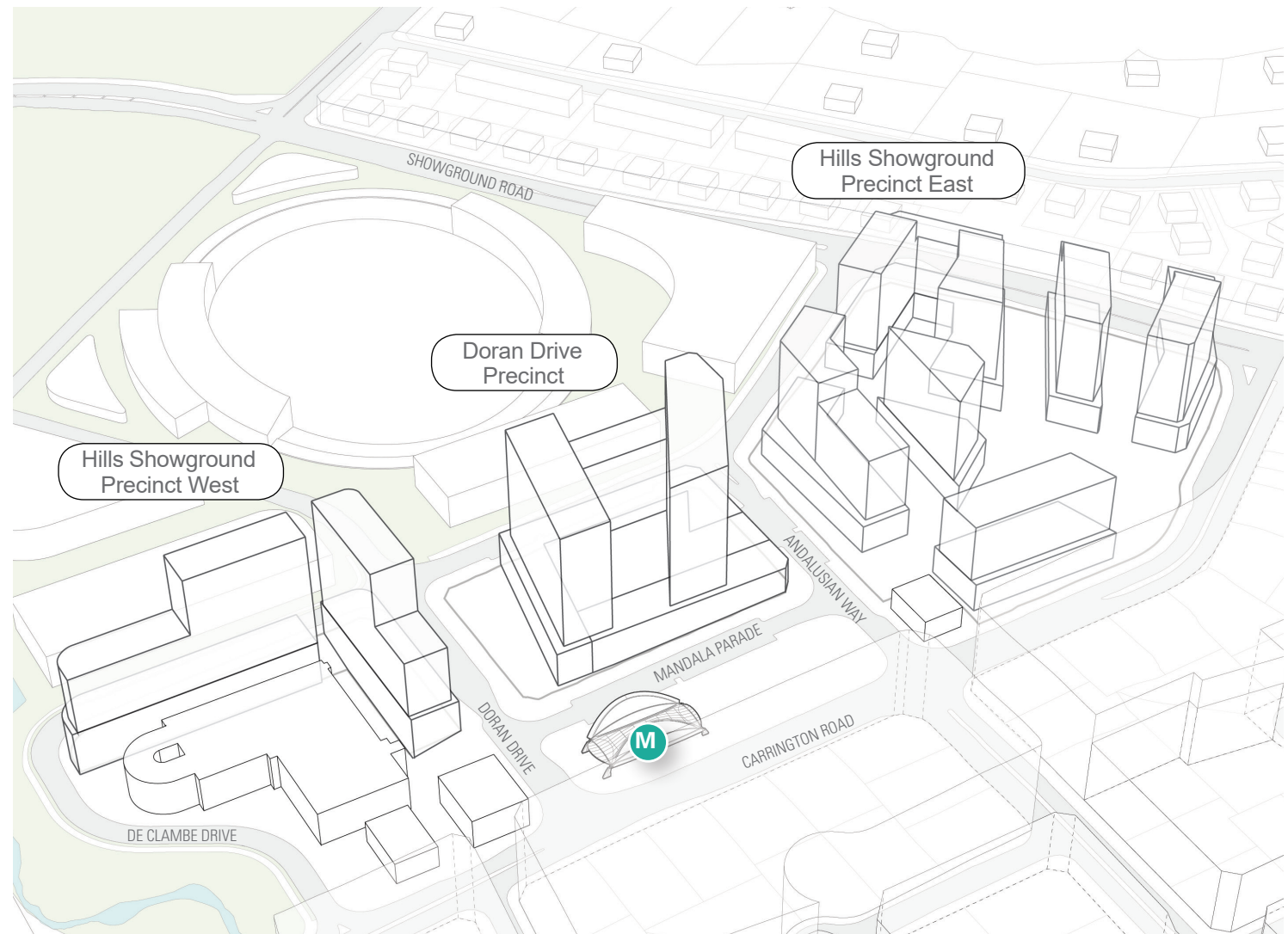


Figure 42: Hills Showground Station Precinct Building Envelopes



07

PRECINCT CHARACTER AREAS

The Precinct Character Areas define areas within the Site that share, or will share, similar characteristics in terms of built form, landscape, materials and elements.

Precinct East

Precinct East Built Form Character

Precinct East will be characterised by a variety of residential dwelling choices supported by a new, permeable and complementary public realm.

The precinct has a direct interface to Showground Road and Carrington Road and sufficient ground floor setbacks and interfaces will need to be considered to ensure traffic noise and atmospheric pollution is mitigated.

Ground floor interfaces to the public domain, streets and the Precinct East Park, will be activated by garden apartments that are accessed via courtyards from the public domain. Privacy of ground floor residences and passive surveillance of the public domain will be provided through a 1-1.2m level change between the public domain and the indoor and outdoor living areas of the garden apartments.

A consistent 4-storey street wall will provide a pedestrian-scale experience to the public domain, with residential towers set back above the street walls.

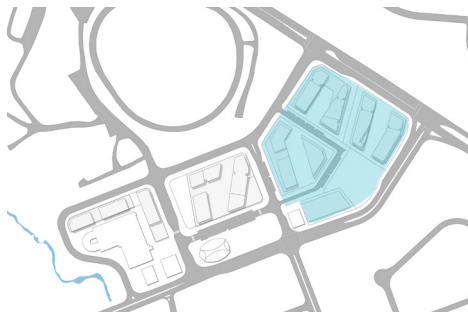
Communal open space within the development lots will be located and planted so that it is experienced as a continuation of the public domain.



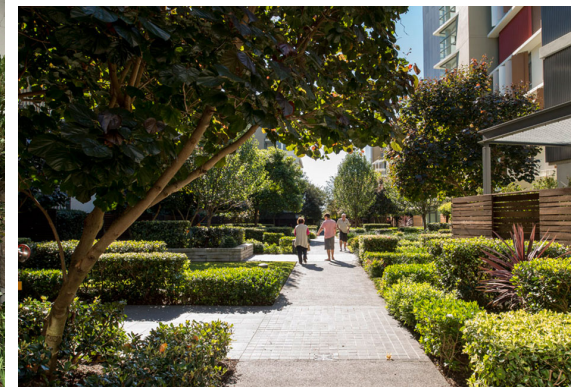
Cohesion between the public and private domain



Interface between public and private domain



Garden Apartments



Through site links

Precinct East Landscape Character - The Green Node

The Precinct East Green Node will provide a family friendly, green and informal public domain within Precinct East, including a new park, new local street and a publicly accessible pedestrian link to Showground Road.

The Precinct East Park will provide a 3,500m² local open space for the new residential catchment. The park will be highly visible with frontages to Carrington Road and the Precinct East internal street.

Existing trees and new trees and planting will provide a natural setting for the park with a local and native character.

The local park has space for picnic and play spaces as well as a large open lawn area for recreation. A network of paths will enable safe and direct pedestrian movement throughout the park.

The new local street will extend the native planting palette with large gum trees characteristic of the area. The street itself will promote a slow speed environment through paved thresholds that will also highlight the local street as different to the busier surrounding street network. The bend in the road further reduces traffic speeds and reduces the likely use of the street as a through connection for vehicles.

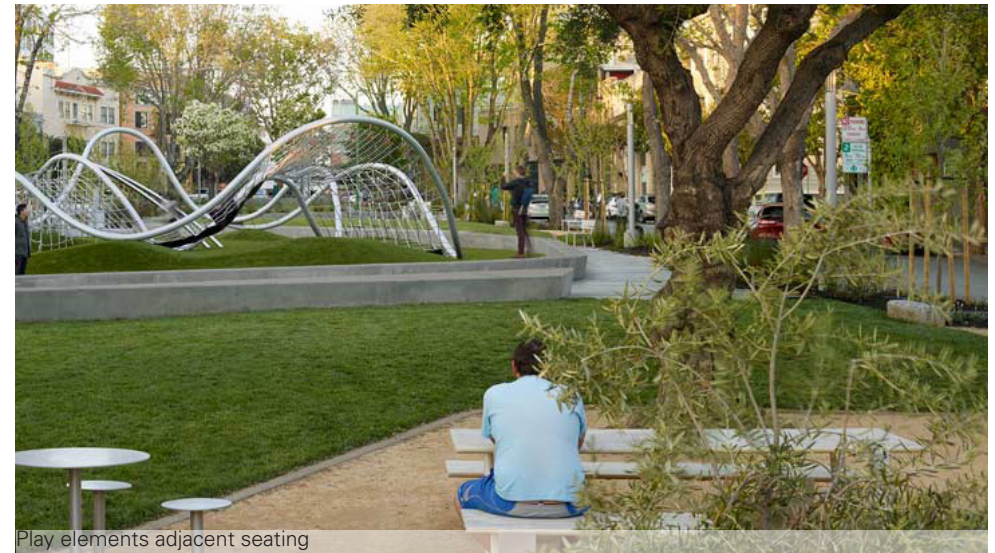
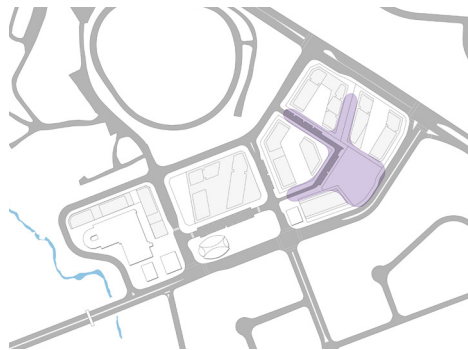
Supporting the street and path network will be a public pedestrian connection between the local road and Showground Road that will continue the planting character of the Green Node and provide a comfortable and safe connection for pedestrians moving through the precinct.



Picnic shelters and tables



Open lawn and concrete footpaths



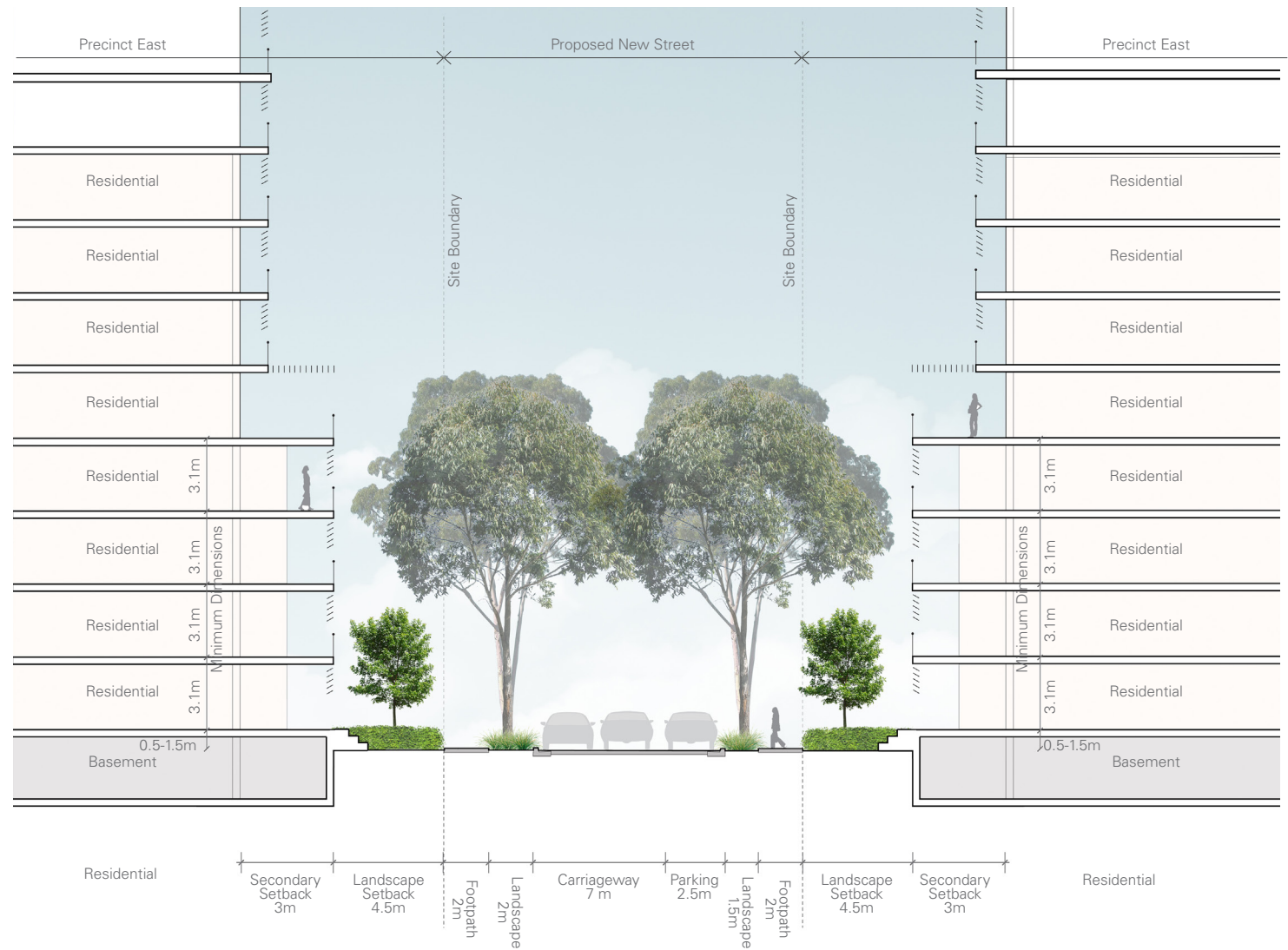
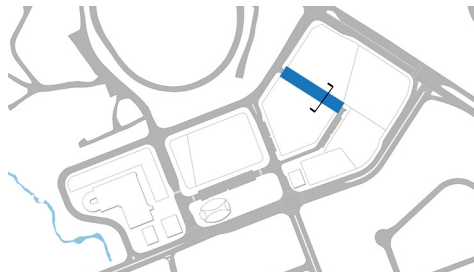
Play elements adjacent seating

Precinct East New Street

The proposed new street within Precinct East is intended to be a local road to provide vehicular access to and from the residential buildings, the local park within Precinct East and will provide a connection between De Clambe and join Mandala Parade at Andalusian Way.

Desired Character

- Two lanes of general traffic from De Clambe Drive to the park. One way (west only) from the park to Andalusian Way
- On-street parking on the northern side from De Clambe Drive and the southern side adjoining the park
- Minimum 2m wide footpath on both sides of the street
- 4.5m primary setback to both sides of the street
- 3m secondary setback above 4-storeys

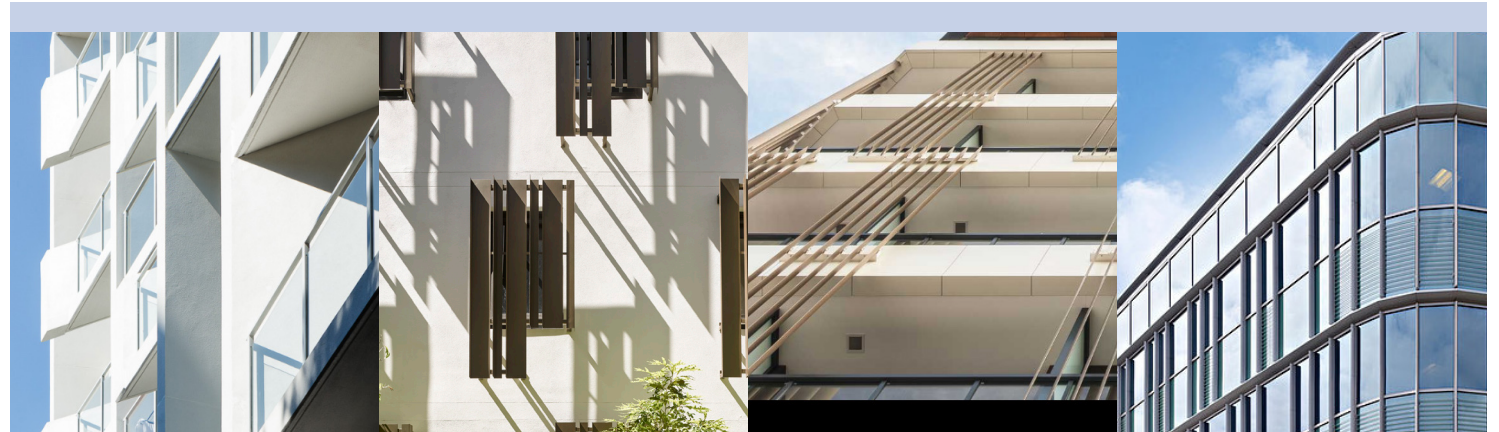


Precinct East Material Character and Hierarchy

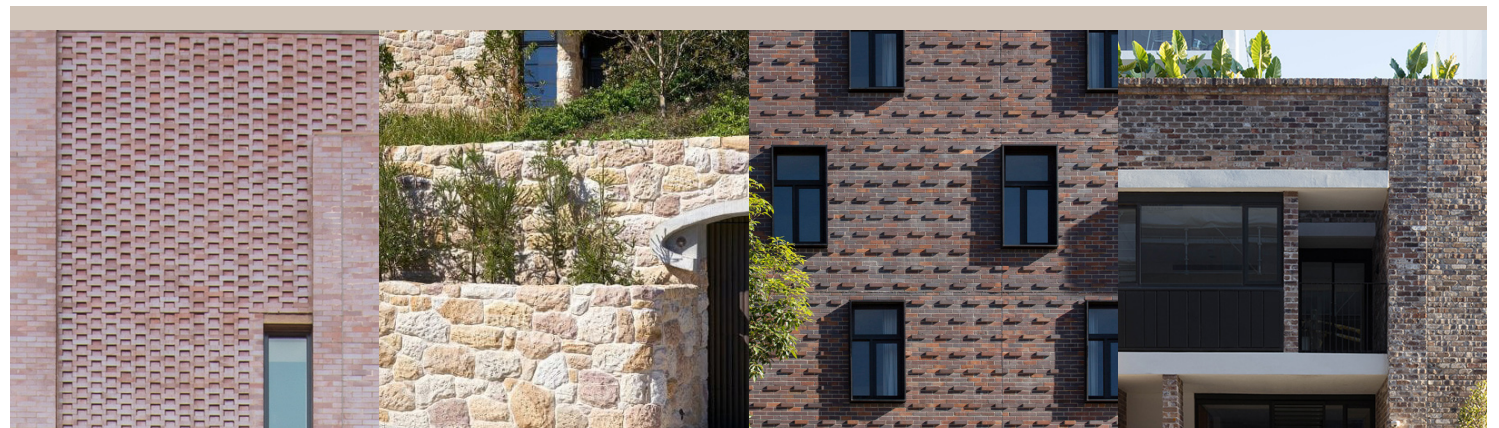
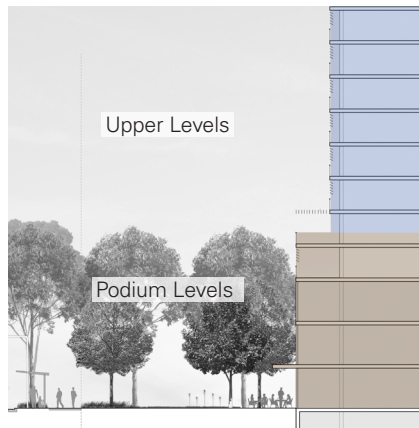
The built form on Precinct East is defined by a 4 storey podium with apartment towers above.

The podium materials are to be tactile and durable. Warm tones and hues are to be used throughout the podium levels.

The upper levels materials are to be much more restrained in their architectural expression. The colours used here should be lighter than the podium to ensure they recede to the background.



Upper Level Materials & Finishes



Ground Podium Level Materials & Finishes

Doran Drive Precinct

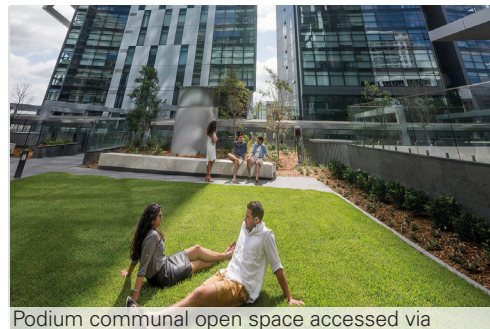
Doran Drive Precinct Built Form Character

Doran Drive Precinct will be characterised by a mix of uses with a podium that defines the public domain on four sides with tower forms above. The precinct has a direct interface to the active heart of the broader Showground Station Precinct, Doran Drive Plaza and the transport interchange, the Hills Showground Metro Station Plaza and the future residential uses within Precinct East. Ground floor uses will comprise of retail on the primary active interfaces of Doran Drive, De Clambe Drive and Mandala Parade with potential commercial and community uses above.

The retail area will include fine grain tenancies that will meet the retail service needs of the residents, workers and visitors that pass through the transport interchange or the Doran Drive Plaza. The fine grain tenancies sleeve a larger floorplate tenancy, suitable for accommodating a supermarket, set back within the podium.

Communal open space will be provided on top of the podium to be shared between the residents, workers and the community uses provided within Doran Drive Precinct with walkways and grassed areas opened on to by the various uses within the built form adjoining the communal open space.

The Precinct falls from east to west, affording the opportunity to step the podium down towards Cattai Creek in response to the landform and the ground floor interface on De Clambe Drive will need to consider how the transition between the levels and potentially providing universal access to non-residential ground floor uses and the Doran Drive Plaza is maintained.



Podium communal open space accessed via adjoining residences and tenancies



Fine grain, dual frontage retail sleeving larger retail tenancies behind



A variety of uses and users within and adjoining the future plaza

Doran Drive Precinct Landscape Character - The Active Heart

The Active Heart will include the Doran Drive streetscape and Doran Drive Plaza as a highly activated, urban focal point for the precinct. This public domain precinct will connect Castle Hill Showground with the Hills Showground Station and provide a continuity of high quality public space, activation and amenity.

Doran Drive Plaza will form the key piece of open space within the Active Heart. The Plaza is to be a high quality, flexible urban open space that functions both as a permeable connection between the station, bus stops, retail area and the Castle Hill Showground, as well as providing an activated and comfortable space for people to use and inhabit day to day.

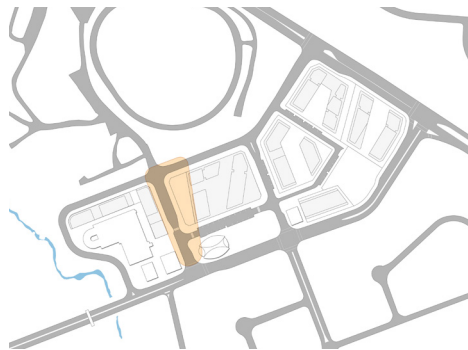
The Doran Drive Plaza will contain generous pedestrian footpaths, multiple gathering and seating spaces catering to small and larger groups, an activated retail edge with outdoor dining and opportunities for public art and interpretation.



Generous footpaths



Lawn and seating areas



Paved plaza with seating and water feature

Doran Drive Precinct Material Character and Hierarchy

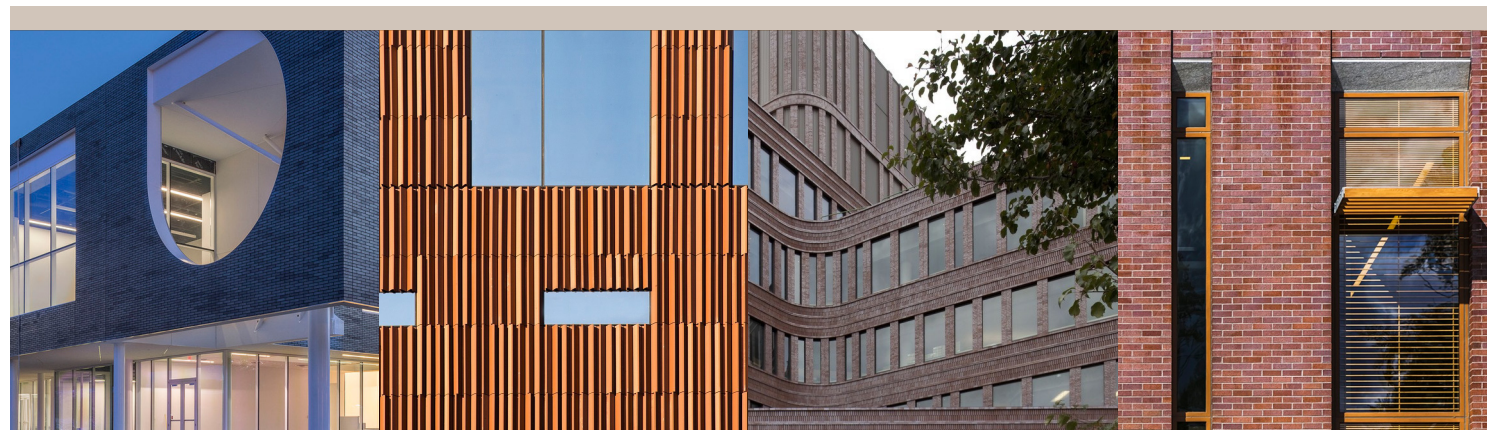
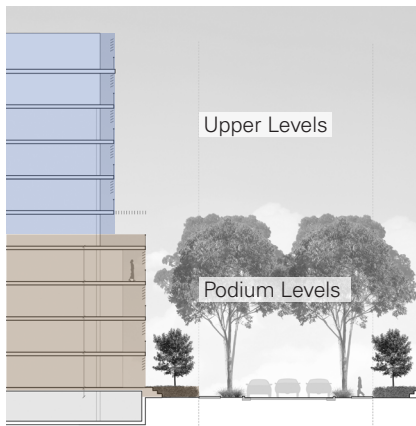
The built form on Precinct East is defined by an active ground plane and a 4 storey streetwall. The upper residential tower levels sit above the streetwall.

The podium and ground plane materials are to be tactile durable and engaging. Warm tones and hues are to be used throughout the ground plane and podium levels.

The upper levels materials are to be much more restrained in their architectural expression. The colours used here should be lighter than the podium to ensure they recede to the background.



Upper Level Materials & Finishes



Podium Level Materials & Finishes

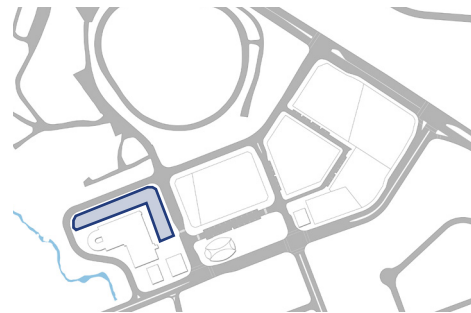
Precinct West

Precinct West Built Form Character

Precinct West will be characterised by a mix of uses within tall, slender towers. The precinct has a direct interface to the active heart of Doran Drive Plaza and the transport interchange. Ground floor non-residential uses such as retail and commercial will provide an active frontage to this heart.

The interface to De Clambe Drive and the Castle Hill Showground to the north will afford a flexible floor plate that may accommodate non-residential uses on the ground floor, if the market demand and footfall is there to support it. Alternative uses such as Small Office Home Office may be appropriate on the ground floor as part of an integrated office and dwelling above.

The buildings interface within the commuter car park on the western and southern boundary, which will require a carefully considered design to ensure amenity and privacy of the apartments that interface directly with the commuter car park decks. This can be achieved through orientating balconies away from the carpark, using light wells to provide light in the lower floor apartments and using opaque or clerestory windows to ensure visual privacy.



The Site falls from east to west, affording the opportunity to step the podium down towards Cattai Creek in response to the landform and the ground floor interface on De Clambe Drive will need to consider how the transition between the levels and potentially providing universal access to non-residential ground floor uses is maintained.



Slender towers that mitigate undesirable interfaces



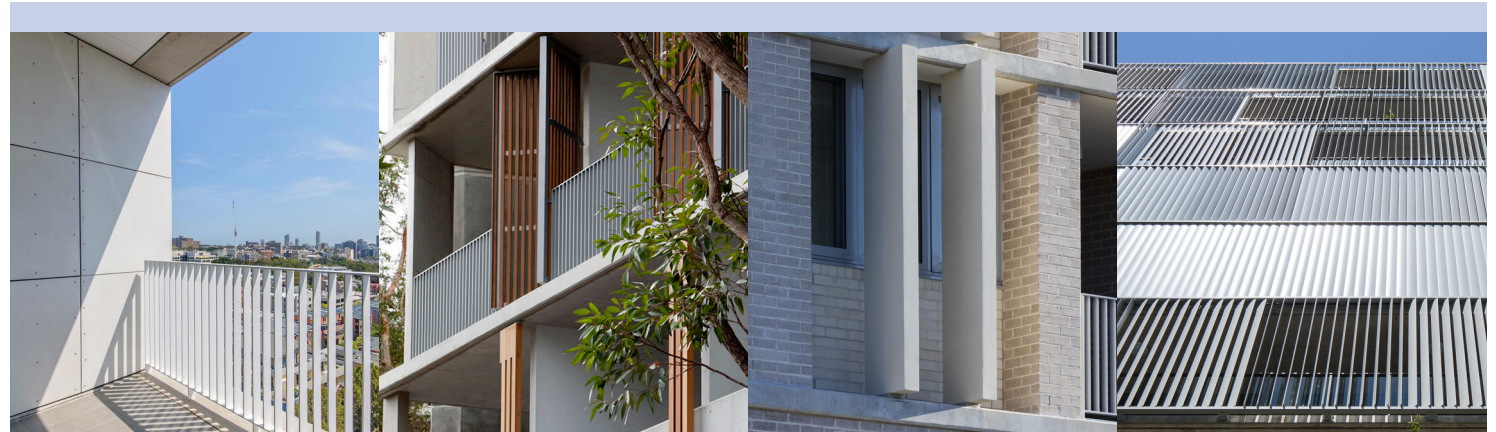
Soho with residential above

Precinct West Material Character and Hierarchy

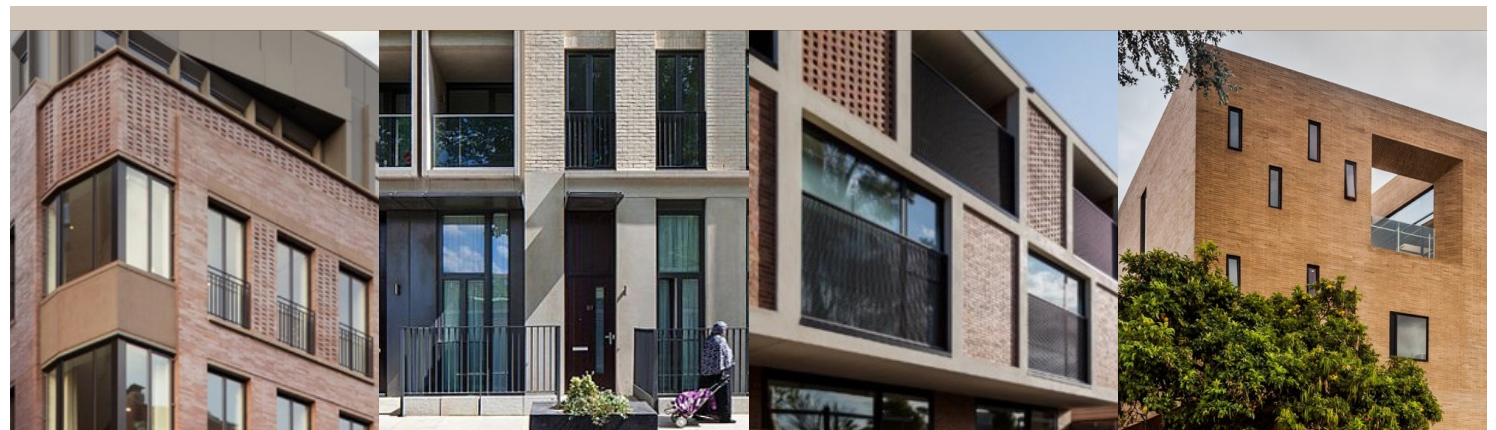
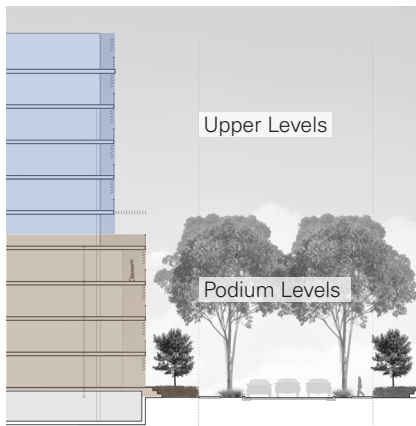
The built form on Precinct West is defined by an active ground plane and a 4 storey streetwall. The upper residential tower levels sit above the streetwall.

The podium and ground plane materials are to be tactile durable. Warm tones and hues are to be used throughout the ground plane and podium levels.

The upper levels materials are to be much more restrained in their architectural expression. The colours used here should be lighter than the podium to ensure they recede to the background.



Upper Level Materials & Finishes



Podium Level Materials & Finishes

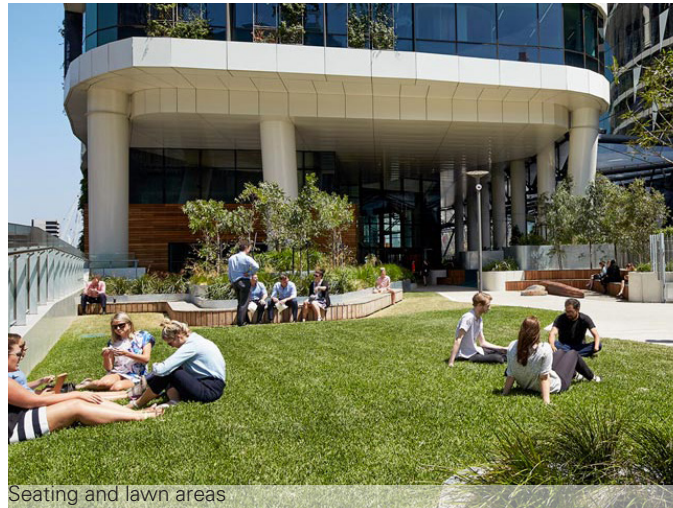
All Precincts Communal Open Space Character

Private communal open space is to add additional amenity and recreational opportunities for the residents of the precinct.

Communal open space will provide a range of uses including seating, picnic facilities, play spaces, productive gardens and lawn areas amongst generous planting.

Communal open space in Precinct East is to be at grade where possible and read as a continuation of the Green Node public domain character in planting and materiality.

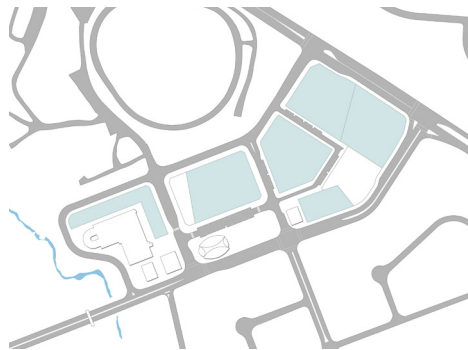
Rooftop gardens across all precincts is to preference native planting for local character however this may be supplemented with exotics for colour and variation, and edible species as part of vegetable or herb gardens.



Seating and lawn areas



Seating and picnic facilities



Strong planting character



Vegetable gardens



08

CONCEPT MASTER PLAN

The concept master plan has been developed in line with the project vision, urban design principles, the urban design framework and controls of the urban design guidelines.

Concept Master Plan

Overview

The Concept Master Plan (CMP) is drawn from the assessment of the local characteristics and opportunities of the Hills Showground Station Precinct site. The CMP responds to the vision and design principles in the Urban Design Framework, Guidelines and Building Envelopes.

In summary, the CMP seeks to achieve outstanding place making, open space and public domain, pedestrian amenity and resident amenity outcomes for the Hills Showground Station Precinct. The CMP seeks to achieve the following outcomes;

Place making

- The CMP has identified a geographical, economical and social heart for the Site
- The primary civic space is located on Doran Drive Plaza as the element that stitches together the Hills Showground Metro Station and the multi-modal transport interchange, primary retail spaces and the Castle Hill Showground. It is intended to be vibrant and active space all-day and the active heart of Showground
- The plaza is geographically centred within the broader station catchment to enable the greatest passive activation of the space via people walking to and from the station, the regional recreation and cultural attractions within Castle Hill Showground, the retail within Doran Drive Precinct and the employment lands within the Castle Hill Trading Zone
- The CMP also ensures that arrival to/ from the Precinct is within a publicly accessible, open space.

Open Space and Public Domain

- The CMP allows for no less than 10% of the Site to be dedicated as usable public open space. The configuration and location of the open spaces is such that they permit a complementary network of functions, programmes uses and users within them and the surrounding public open spaces
- The CMP ensures that no resident is more than a 100m walk from open space within the development lots and adjoining open spaces
- The majority of existing trees (post-demolition of the old Council building) and street trees, that define the character of the The Hills Shire Council - Sydney's Garden Shire - have been retained in publicly accessible open spaces or parks, tree reserves and communal open spaces, widened street setbacks or internal courtyards to ensure that the landscape legacy of the broader Hills Showground Station Precinct continues and that from the first day of opening, the residents and visitors have a lush and verdant landscape to recreate within.

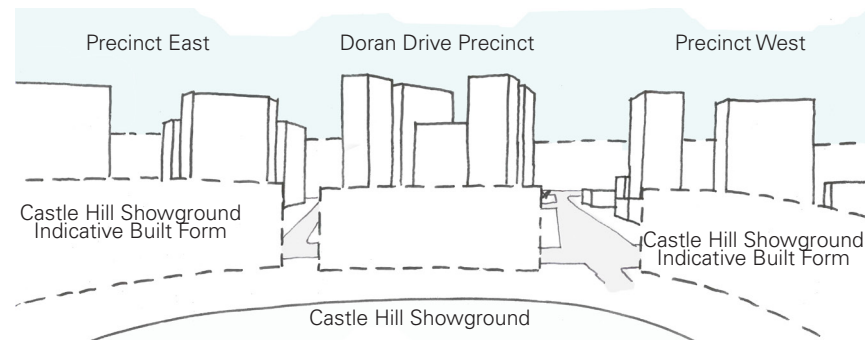


Figure 43: View from the Castle Hill Showground to the Hills Showground Station Precinct demonstrating the modulate skyline as a result of the Guidelines and CMP

Pedestrian amenity

- The vast majority of trips to, through and within the Site will be taken on foot and the experience of the pedestrian is a critical consideration in the development of the CMP
- Within the network of streets, a finer grain of mid-block connections has been proposed to ensure permeability and activity within all blocks of the Hills Showground Station Precinct
- Street wall heights and primary setbacks defined in the Guidelines are adhered to by the CMP to ensure the scale of buildings is an appropriate experience for pedestrians at the street level
- Upper level, secondary setbacks to towers provide a sense of space and openness to the sky and the podiums shield pedestrians from down-drafts
- Footpaths throughout the Site are a minimum of 2m to ensure capacity to cater for a high number of walking trips and all major circulation spaces will be provided with shelter from the weather.

Resident amenity

- The CMP has carefully considered how to balance amenity, solar access and built form definition of the public domain with high levels of resident amenity. This has been achieved through;
 - alignment with the Urban Design Guidelines in defining the public realm with appropriate built form to a maximum 4-storey street wall
 - activating public open spaces with non-residential uses fronting Doran Drive Plaza and access to private residences via courtyards that open on to the Precinct East Park and public domain
 - orientating residential towers above the podium so that solar access, natural ventilation and building separation exceed ADG requirements
 - orientating and articulating buildings so that views from the Site are shared across the Garden Shire.



Figure 44: View from the new street across the Precinct East Park to Showground Road



Figure 45: Hills Showground Station Precinct Concept Master Plan

Ground Floor and First Floor Uses

The CMP achieves the desired mixture of uses within the ground floor of each of the development lots to deliver a complementary and vibrant precinct day and night, weekday and weekend, winter and summer.

Precinct West provides an active ground floor use to address the transport interchange and Doran Drive Plaza. Access to lobbies for the towers above is also located off Doran Drive to provide further pedestrian activation of the space. A variety of residential typologies are located on the ground floor and first floor (shown) of the western building that includes Small Office/Home Office properties that address De Clambe Drive.

Doran Drive Precinct includes a variety Fine grain retail sleeves a larger retail tenancy/supermarket. Additional retail/commercial provides an active interface to De Clambe Drive and Mandala Parade and reflects the intentions of the Castle Hill Showground master plan to provide for an eat-street with food and beverage offerings on the northern and southern side of De Clambe Drive. Pedestrian entries to foyers for commercial and community uses in the podium and residential dwellings in the towers above are from De Clambe Drive and Mandala Parade. Car park access is off De Clambe Drive and Andalusian Way.

Precinct West is comprised of a garden apartments that are accessed via courtyards from the public domain. Residential tower foyers are located adjoining the new street and Precinct East Park.



Figure 46: Hills Showground Station Precinct Concept Master Plan Indicative Ground/First Floor Plan

■ Fine grain retail
 ■ Retail/Commercial
 ■ Building entries/carparks/circulation
 ■ Supermarket
 ■ ■ ■ Varying Apartment Typologies

Hierarchy and Function of Open Space

The open space strategy aims to create a well connected, high quality, diverse, multifunctional and flexible network of public open space. The open space responds strongly to the built form typology, land uses, local context and connections.

The aim is to promote a high level of activation of the public domain and built form edges. Different activities have been located so as to separate incompatible uses and collocate complementary uses to maximise the potential for synergies.

The open space network has been considered as a holistic network across both the Hills Showground Station Precinct and the Castle Hill Showground. A diverse range of recreational activities, both active and passive, are provided for across the precinct.

The private communal open space will complement the public open space in terms of the activities and facilities provided.

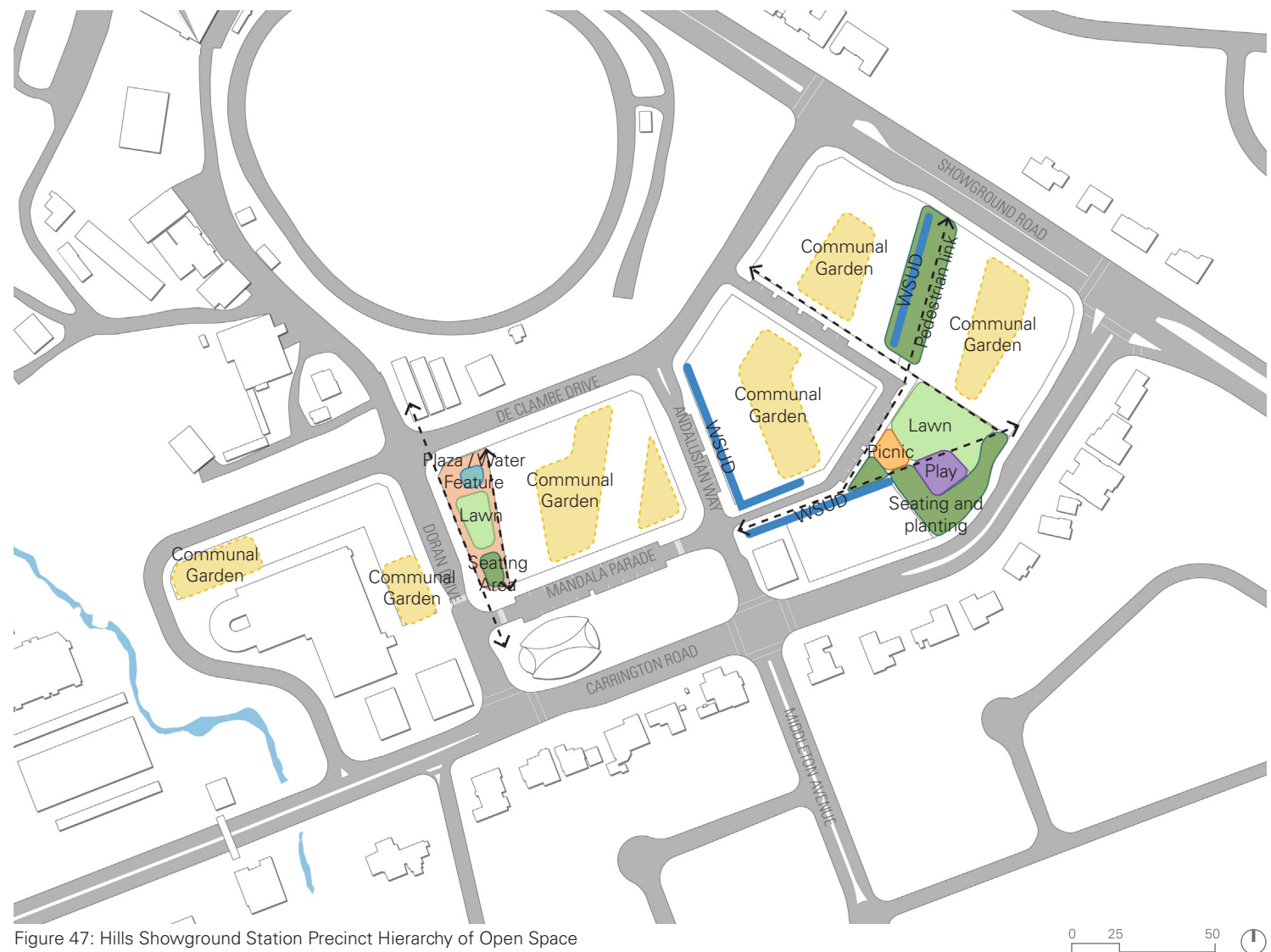


Figure 47: Hills Showground Station Precinct Hierarchy of Open Space

--- Key pedestrian links through open space

Doran Drive Plaza

Doran Drive Plaza forms a key piece of open space between Showground Station and Castle Hill Showground. The 1,405m² plaza space (meets the required 1,400m² minimum) is bounded by Doran Drive to the west, De Clambe Drive to the north, Mandala Parade to the south and built form to the east.

The Plaza is intended to be a high quality, flexible urban open space that functions both as a permeable connection between the station, buses, retail and the Castle Hill Showground, as well as providing an activated and comfortable space for people to use and inhabit day to day.

The plaza includes:

- Central open lawn area to cater for informal recreation and small events;
- Active retail edge to the east with opportunities for outdoor dining;
- Shade trees and low level planting;
- Water feature / play element;
- Public seating;
- Lighting;
- Paved circulation spaces including a wide footpath adjacent Doran Drive and a pedestrian connection along the eastern edge. Grade changes to be made up at the edges of the Site to provide minimal grading across the majority of the plaza; and
- Opportunities for public art and interpretation.



Figure 48: Doran Drive Plaza Concept Plan



Doran Drive Plaza looking south towards the Hills Showground Station

Precinct East Park

The Precinct East Park provides a 3,500m² local open space (meets the required 3,500m² minimum) for the new residential catchment. The park will be highly visible with frontages to Carrington Road and the new Precinct East internal street.

Existing trees and new trees and planting will provide a green and family friendly setting.

The park will include:

- Shaded seating and picnic tables;
- Open lawn;
- Children's play space;
- Shade trees and low level planting;
- Lighting;
- Pedestrian pathways;
- Bike parking; and
- Opportunities for public art and interpretation.



Figure 49: Precinct East Park concept plan



Precinct East Park looking north towards the Castle Hill Showground

Heights

Within the Building Envelopes

The proposed heights within the CMP sit comfortably within the building envelopes of the Urban Design Guidelines. The CMP has sought to provide a greater variety of building heights even within the building envelopes that have been prepared to achieve a diversity in building heights.

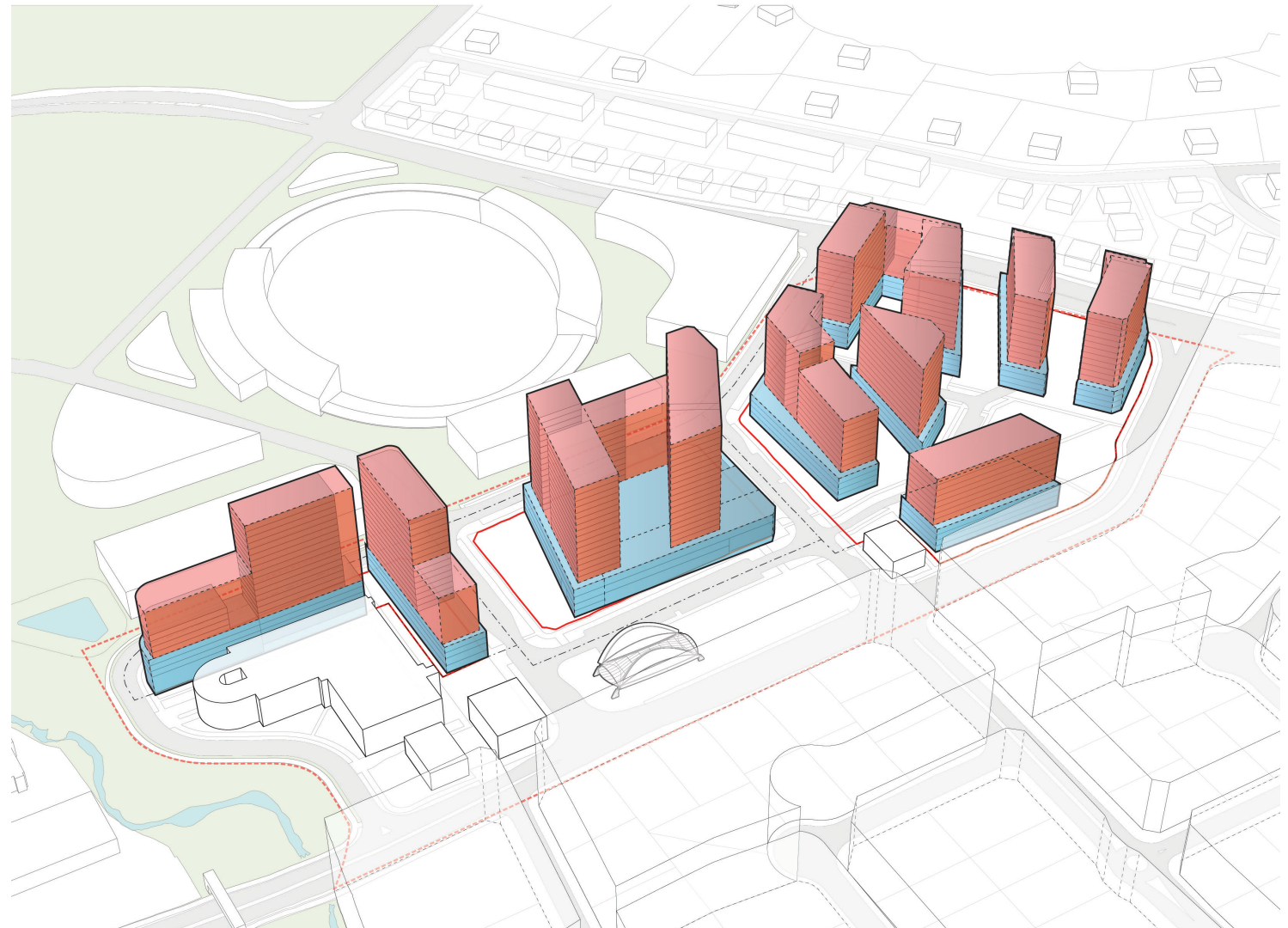


Figure 50: Heights within the building envelopes

■ Podium Envelope

■ Tower Envelope

Building Heights

The proposed building heights within the CMP have been developed in line with the vision, guidelines and controls of the Urban Design Guidelines.

The height strategy identified appropriate locations for towers adjacent the areas of highest amenity and activity, and areas where transition to sensitive uses may be required.

The resulting layout is one with a cohesion and continuity of street wall heights, and a variety of taller residential elements above the podium.

The buildings range in scale from 2-4 storey street wall to Mandala Parade and Andalusian Way within the Doran Drive Precinct for the retailing centre adjacent the town centre to a maximum height of 20-storey towers that straddle both Doran Drive Precinct and Precinct West and in considering the topography of the Site will be seen to cascade down the Site from east to west.

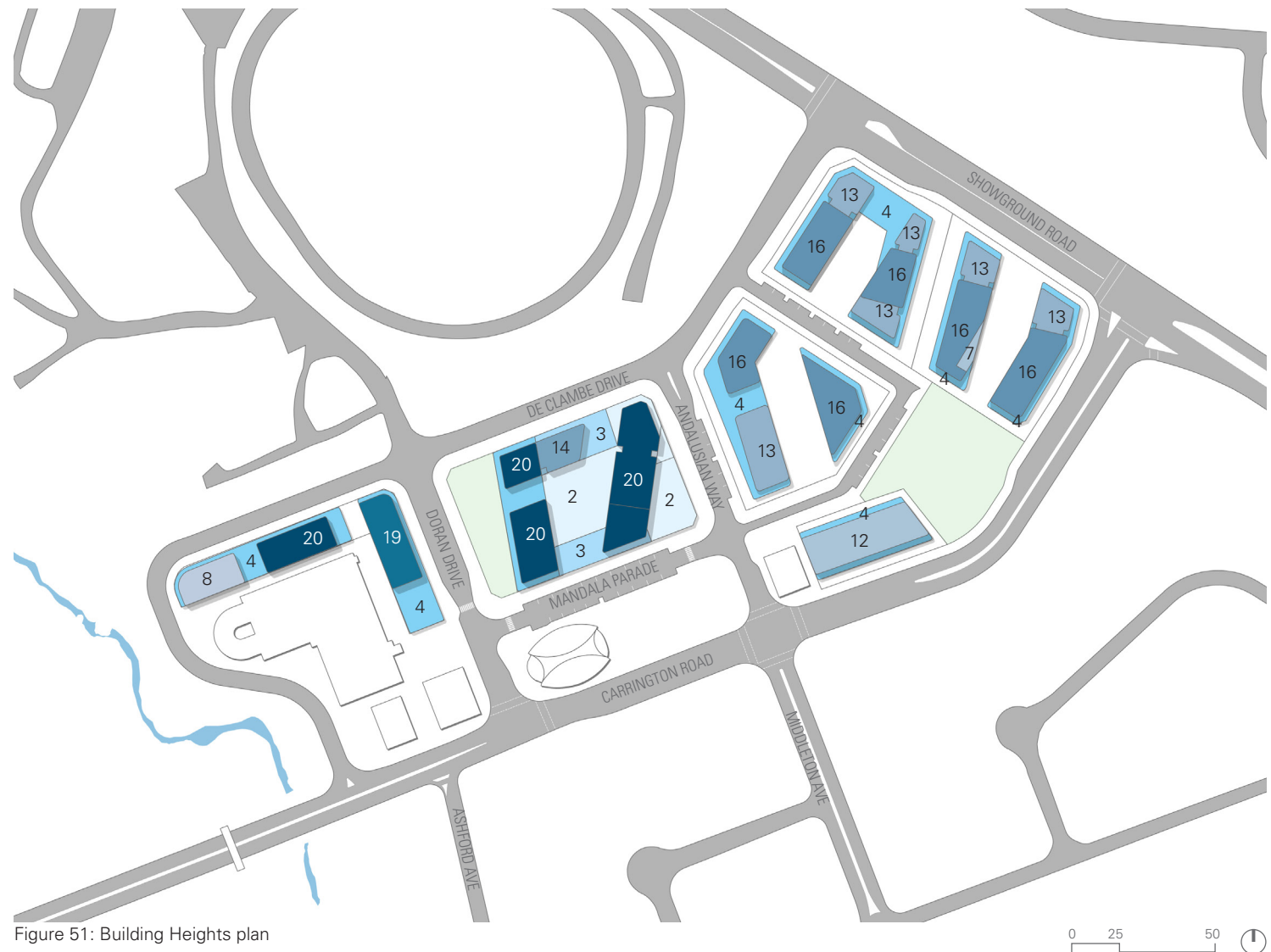


Figure 51: Building Heights plan

Solar Access

The CMP building heights have also considered the minimum solar access provisions to key public open spaces to determine the optimal location for lower scale buildings and a transition in built form.

This has been achieved through both the orientation of buildings and the tempering of heights to the north of public open space, particularly within Precinct East.

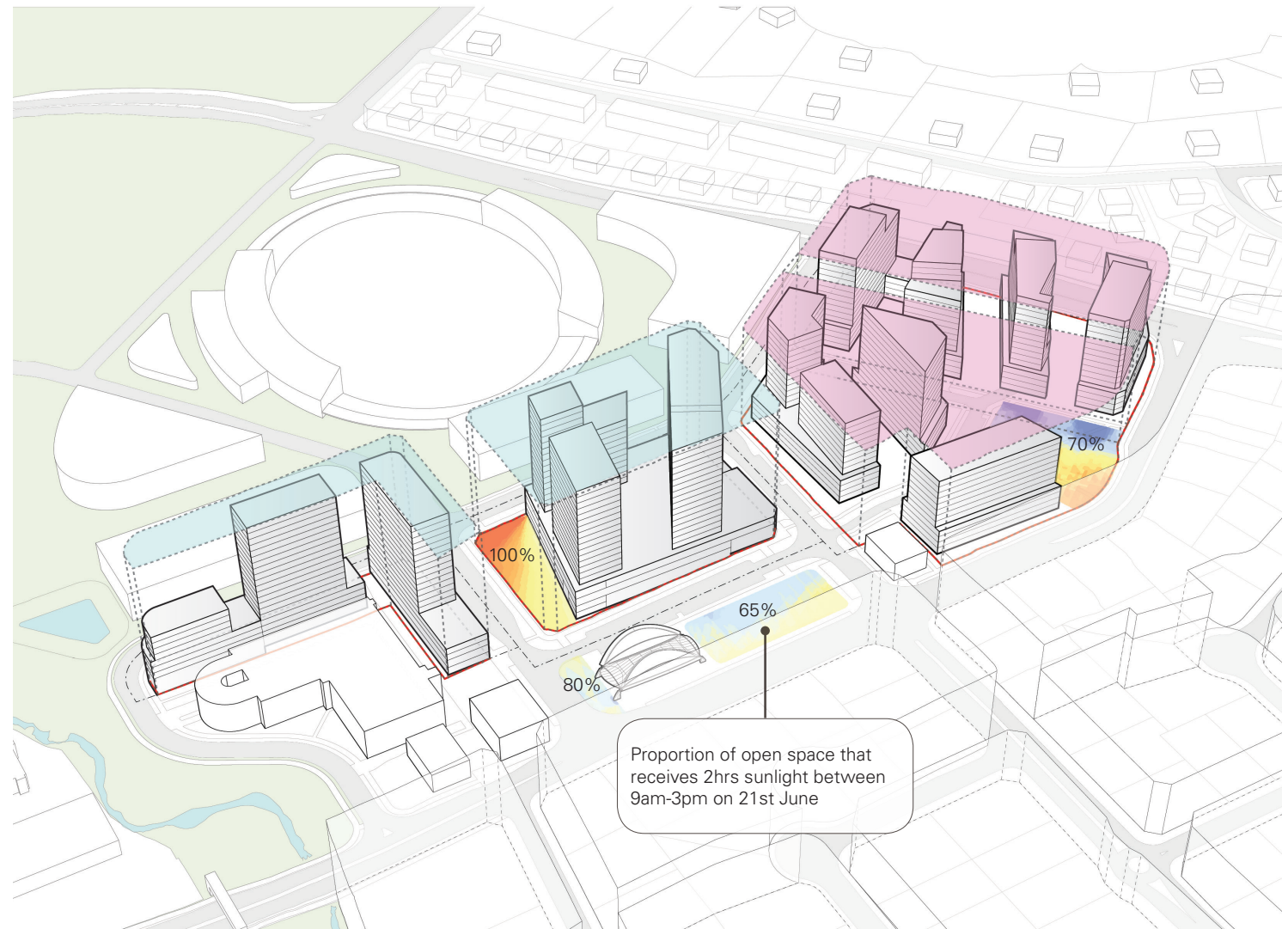


Figure 52: Solar access

Building Separation

The CMP achieves building separation that in all instances achieves or exceeds ADG requirements. Other measures such as terraced building forms and the location and orientation of habitable rooms above the podium have been explored to achieve compliance.

This includes a minimum of 14m between the podium levels on Precinct East. The tower forms of Precinct East achieve a minimum 18m separation.

Doran Drive Precinct surpasses the separation requirements of ADG through the orientation of towers and the location of taller elements above 12 storeys.

Precinct West achieves the separation requirements of ADG through the location of the two 20-storey towers and separation between the towers and adjoining lower scale buildings.



Figure 53: Building separation

- Minimum 40m
- Minimum 30m
- Minimum 26m
- Minimum 24m
- Minimum 18m
- Minimum 10m

Building Entrances

The CMP has identified building entries that seek to;

- Separate residential entries from retail, commercial and community
- Prioritise pedestrian entries over vehicular access
- Activate the public domain through locating lower level garden apartment and SoHo entries directly off public open space or streets



Figure 54: Building entrances

- Lobby Entry
- Garden apartment Entry
- Ground Floor Retail / Commercial / SoHo Entries

Safety in Design/CPTED Assessment Summary

Considered urban design must address community safety as part of a holistic approach. Community crime prevention incorporates social, environmental and community development strategies.

Crime Prevention Through Environmental Design (CPTED) seeks to influence the design of buildings and places by:

- Reducing opportunities for crime or antisocial behaviour by increasing the possibility of detection, challenge and capture, therefore risk of perpetrators;
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended;
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits or targets'; and
- Defining acceptable public community behaviour.

CPTED is based on four design concepts. They are:

- Surveillance;
- Access control;
- Territorial reinforcement; and
- Space management/maintenance.

The aim of applying the CPTED principles and framework is to design and build safer, more productive and user-friendly environments. These principles have been embedded in the Hills Showground Station Precinct Public Domain Plan.

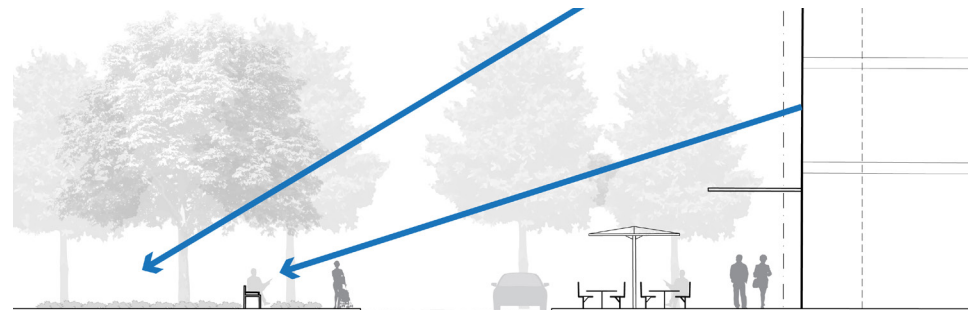


Active street frontages, streetscapes and open space with activities to encourage surveillance.

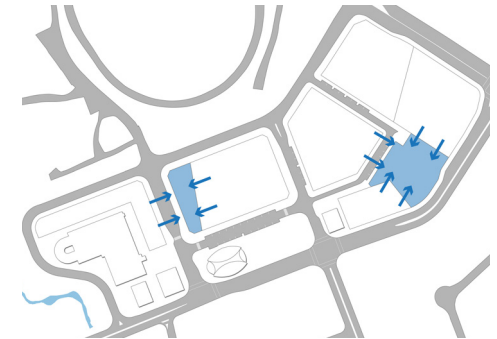


Active Frontages provide street level activation for ongoing passive surveillance

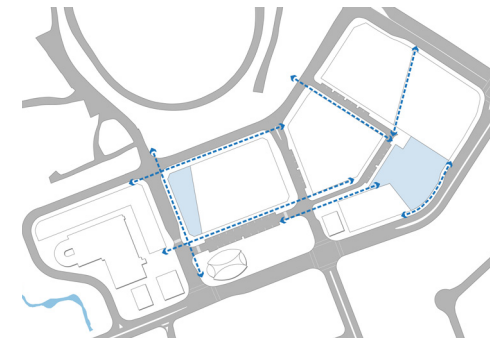
Low lying planting to public space for visual amenity and continuous sight lines



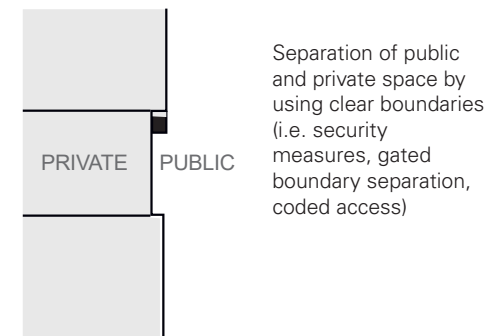
Public open space is overlooked from above, providing ongoing passive surveillance



Reducing opportunity for crime or antisocial behaviour through siting and location of active/gathering spaces in prominent areas



Visual links maintain clear sight lines across the urban landscapes and sense of connection and safety



Separation of public and private space by using clear boundaries (i.e. security measures, gated boundary separation, coded access)

Area & Parking Schedule

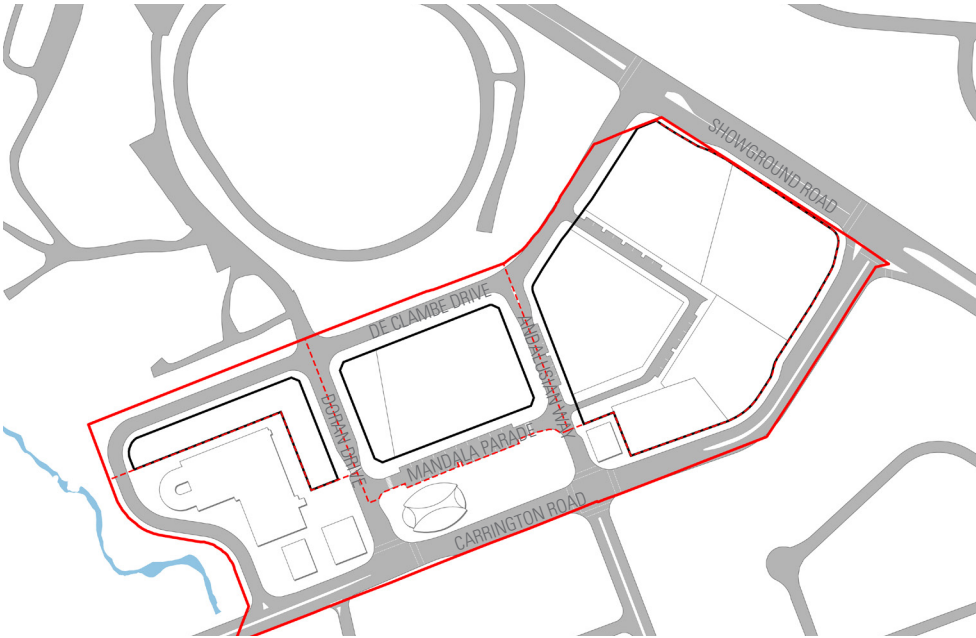


Figure 55: Plan with boundaries

— Site
 — Development Lot
 - - - FSR Boundary

HILLS SHOWGROUND STATION PRECINCT	
GBA (m²)	221,252m²
GFA (m²)	175,796m²
FSR *calculated on FSR Boundary	3.2:1
Dwellings per Hectare HSC	291
*calculated on 6.2Ha as per HSC Corridor Strategy Boundary	
Minimum Parking	1,804
Maximum Parking	2,273
RESIDENTIAL	
GBA (m²)	206,141m²
GFA (m²)	162,196m²
Apartments	1,802
Minimum Resident and Visitor Parking	1,703
Maximum Resident and Visitor Parking	2,076
NON-RESIDENTIAL	
GBA (m²)	15,111m²
GFA (m²)	13,600m²
Minimum Parking	101
Maximum Parking	197

Site Section

The sections in the following pages show the modulation and articulation of the skyline of Showground as it reinforces the station and heart of the precinct on Doran Drive Plaza, defines streets with appropriate street wall heights, provides upper level setbacks to towers, steps down across the Site in response to topography, and transitions to heritage items and the creek corridor.

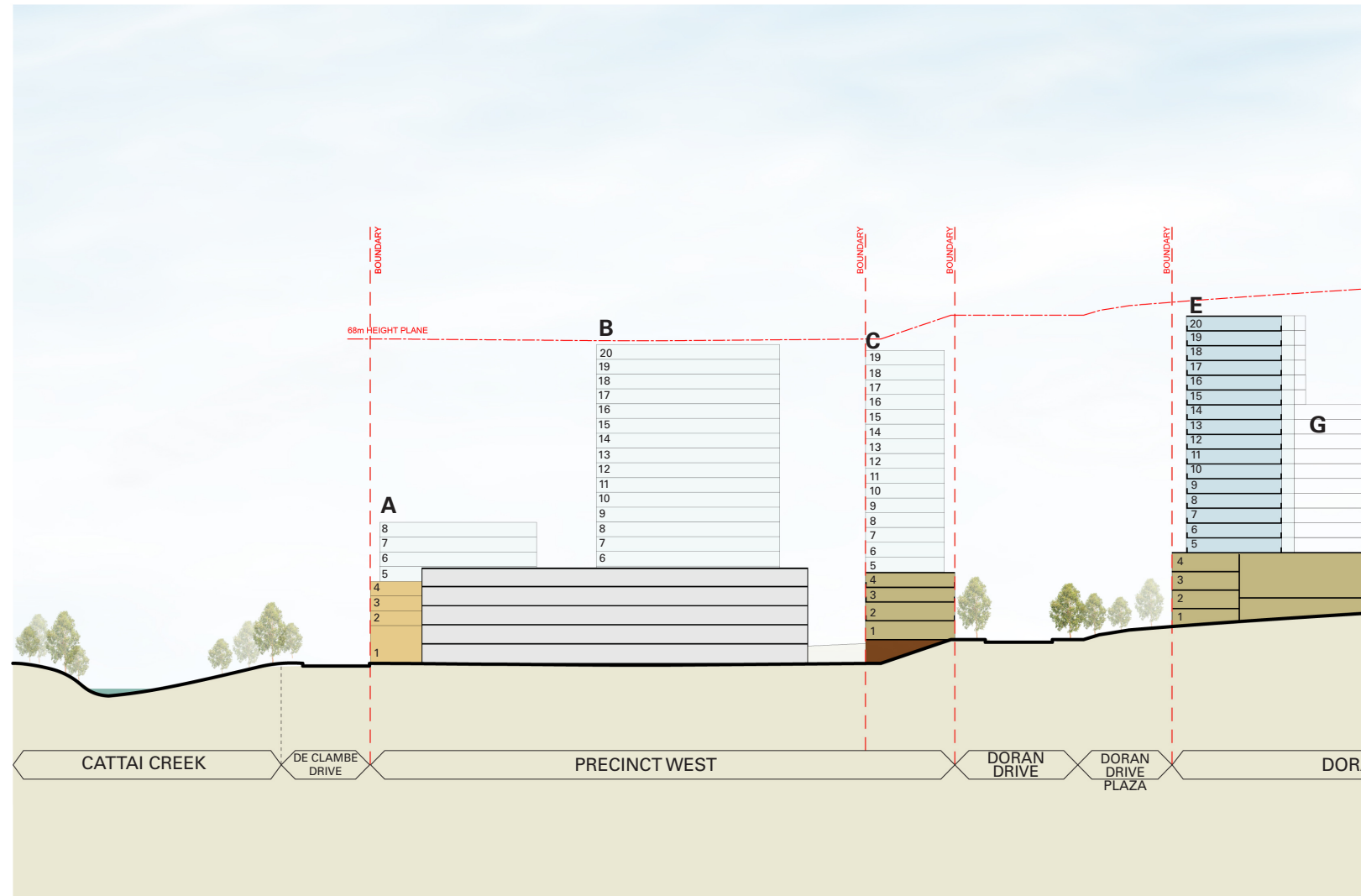
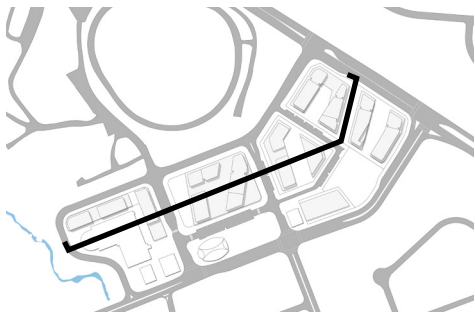
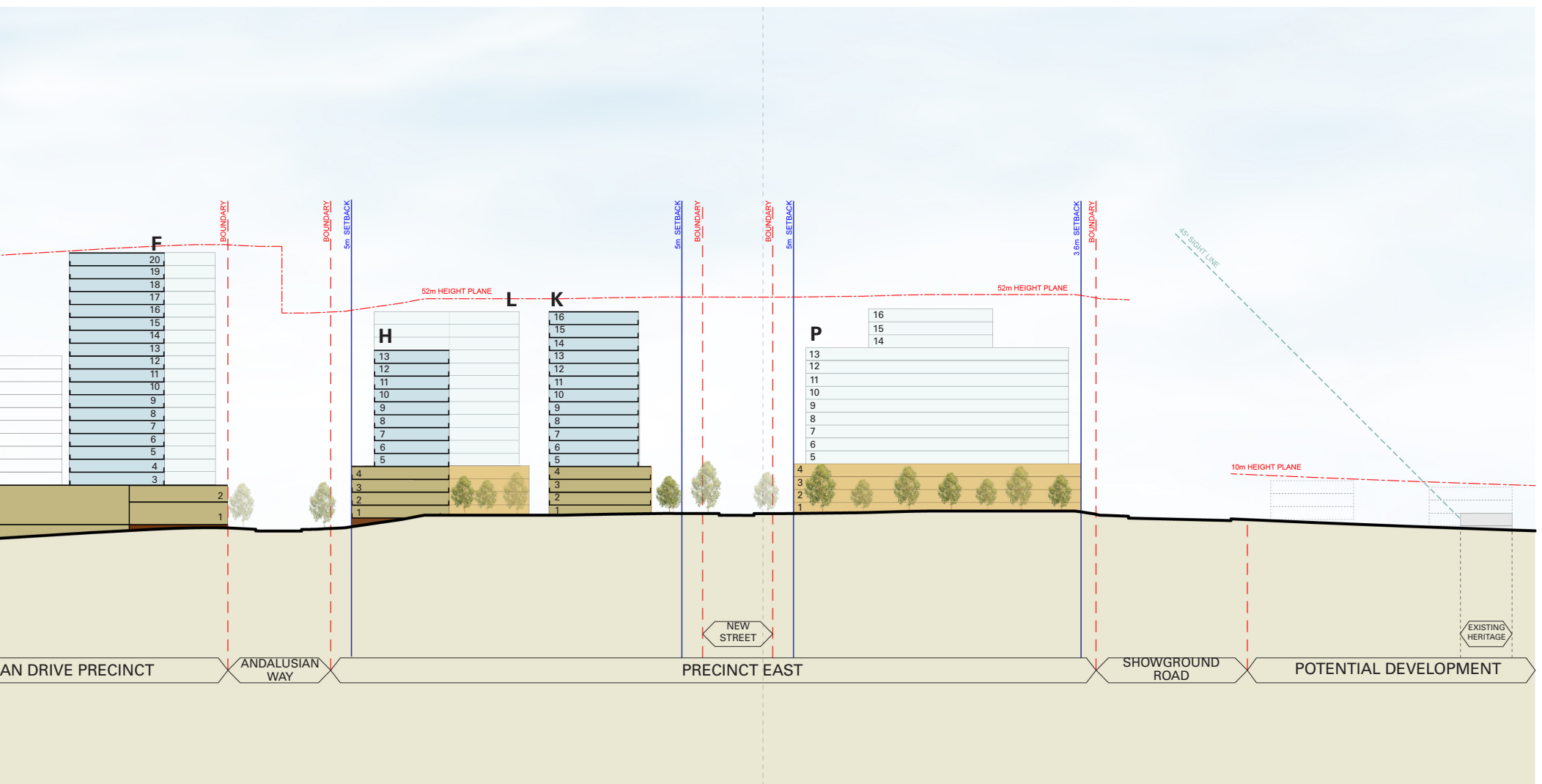


Figure 56: Site Section 01



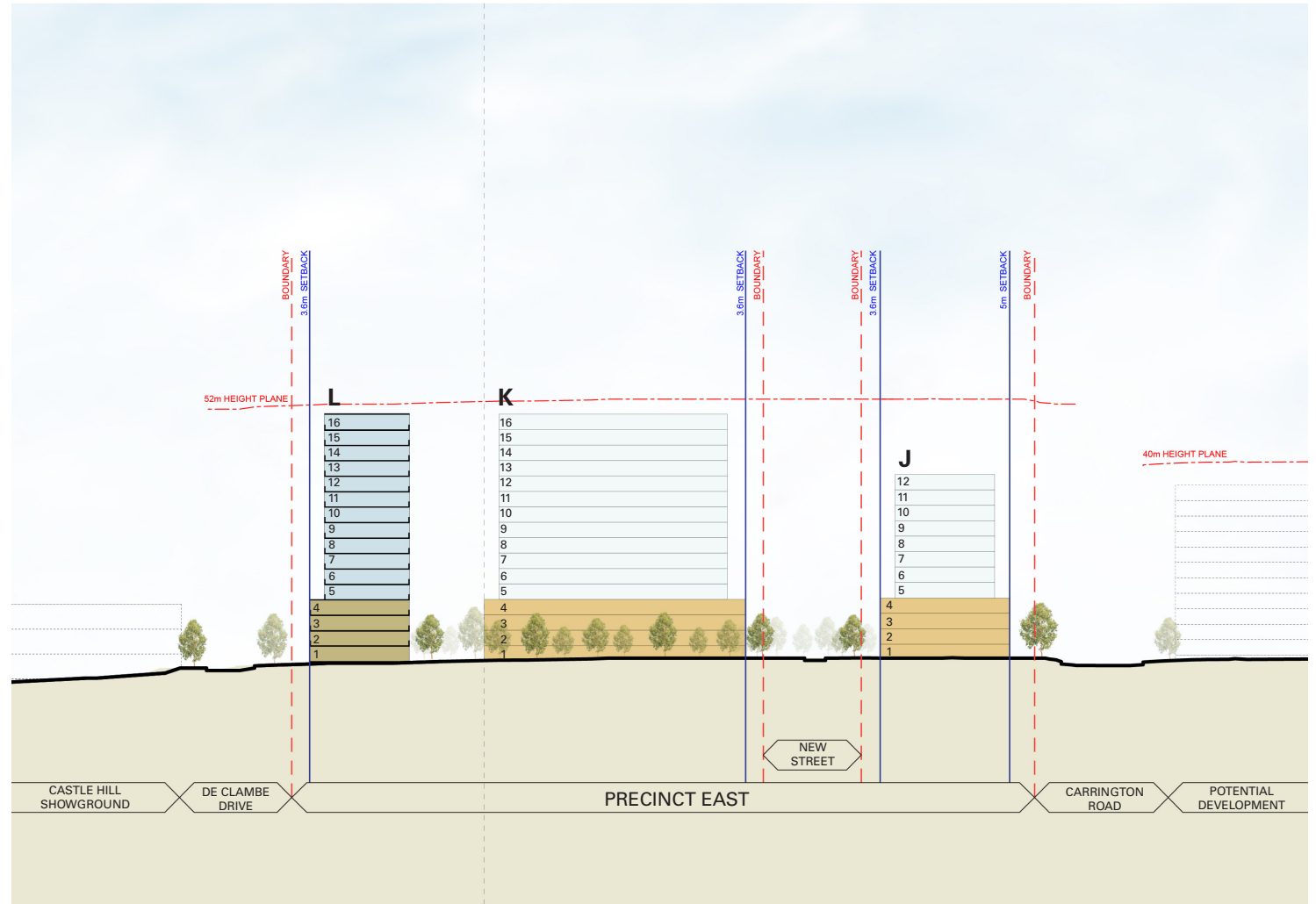
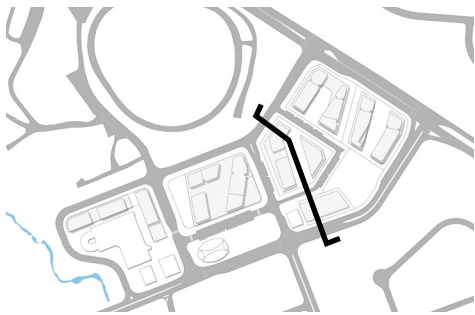


Figure 57: Site Section 02



09

PROOF OF CONCEPT

The following chapter includes typical floor plans, sections, yield tables and ADG assessment to demonstrate that the Concept Master Plan can achieve the vision and design principles of the Urban Design Framework and the objectives and requirements of the Urban Design Guidelines

Proof of Concept

The following pages contain precinct-specific details developed through the CMP and in line with the Urban Design Guidelines. These include;

- Typical floor plans for lower and upper levels
- Mix of apartments by typology and uses
- ADG assessment for solar access and cross ventilation
- Typical basement layout
- Building entrances
- Total yields by building by use, by typology and parking requirements
- Precinct section

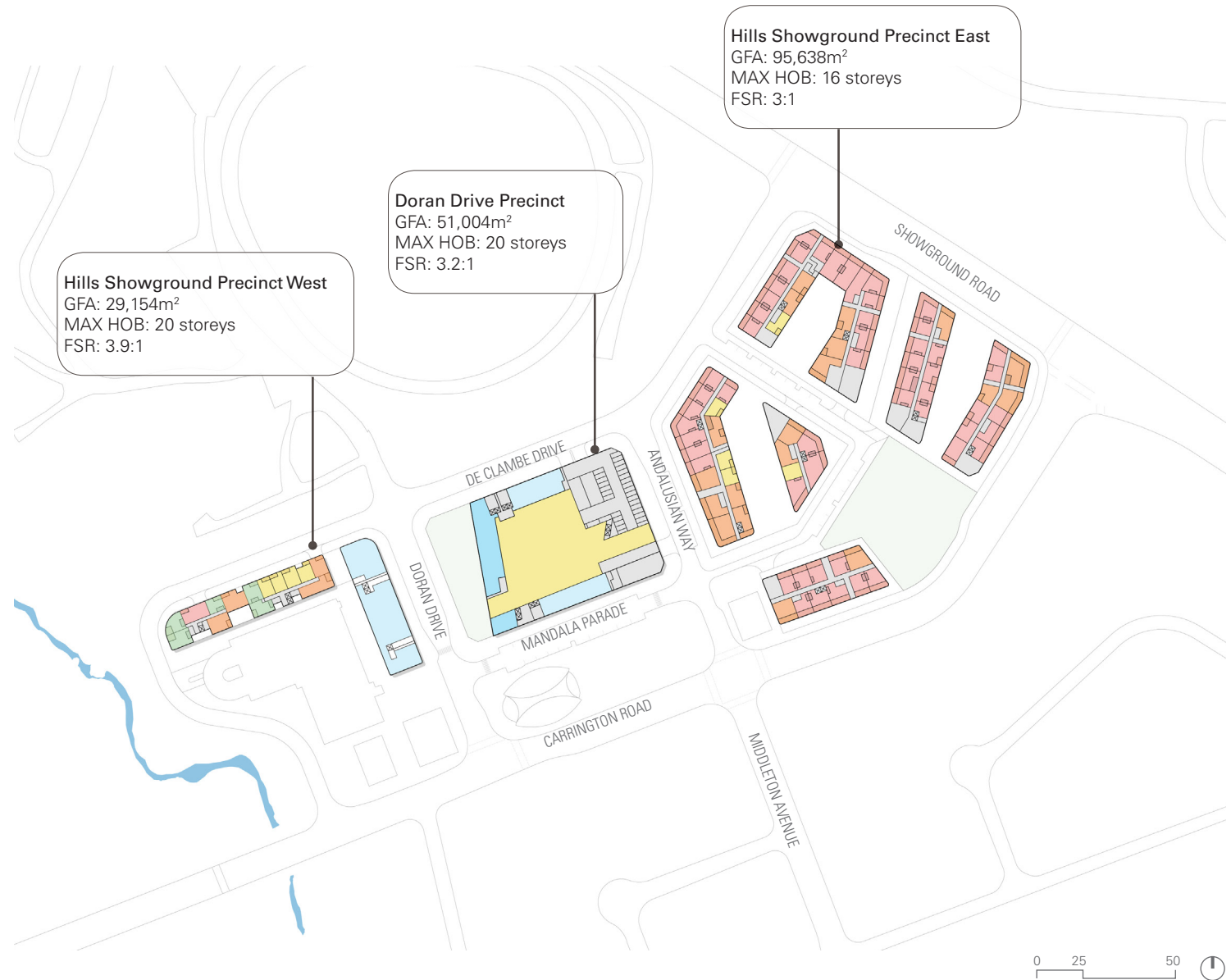


Figure 58: Hills Showground Station Precinct Concept Master Plan Indicative Ground/First Floor Plan

■ Fine grain retail
 ■ Retail/Commercial
 ■ ■ ■ Varying Apartment Typologies
■ Building entries/carparks/circulation
■ Supermarket

Precinct West

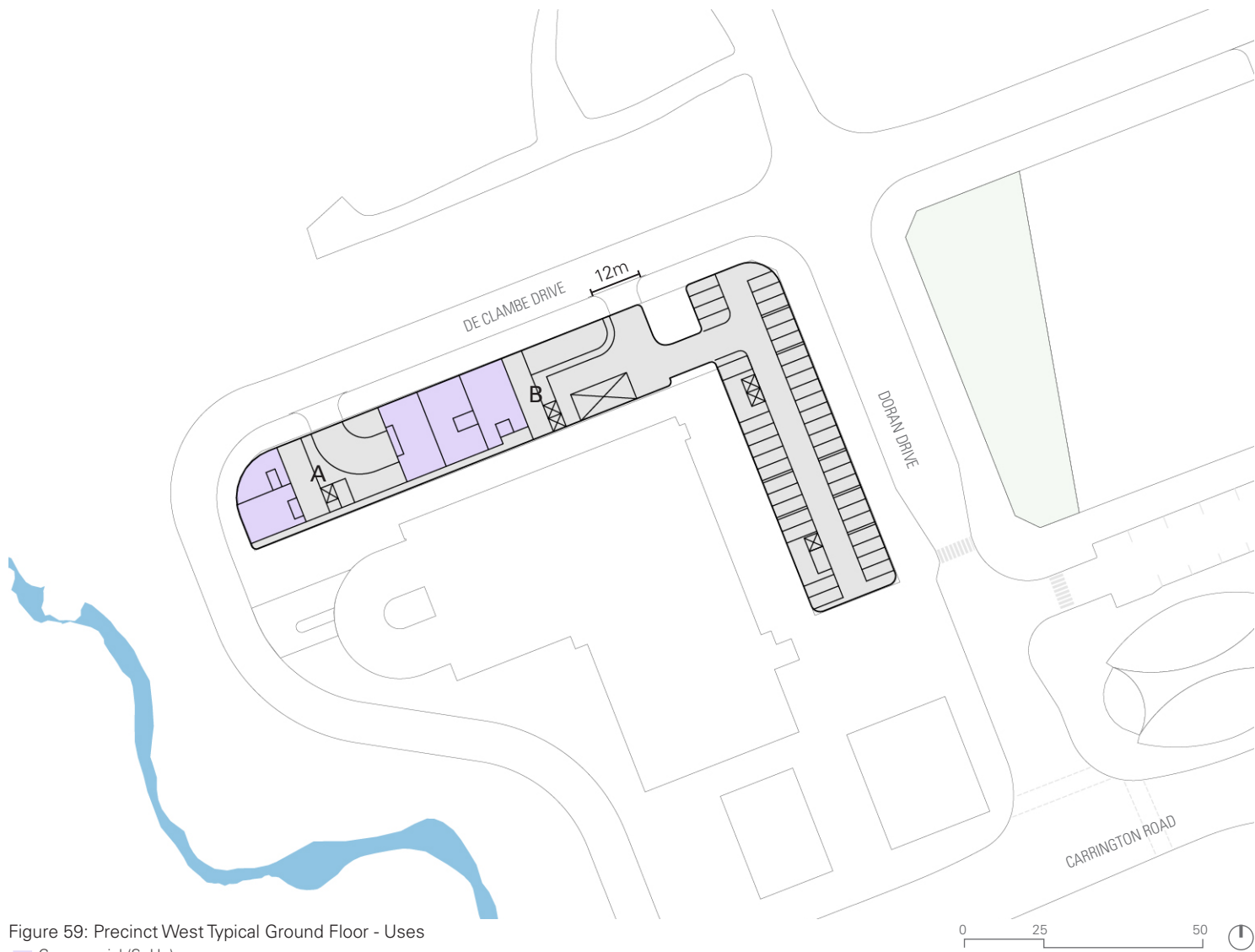
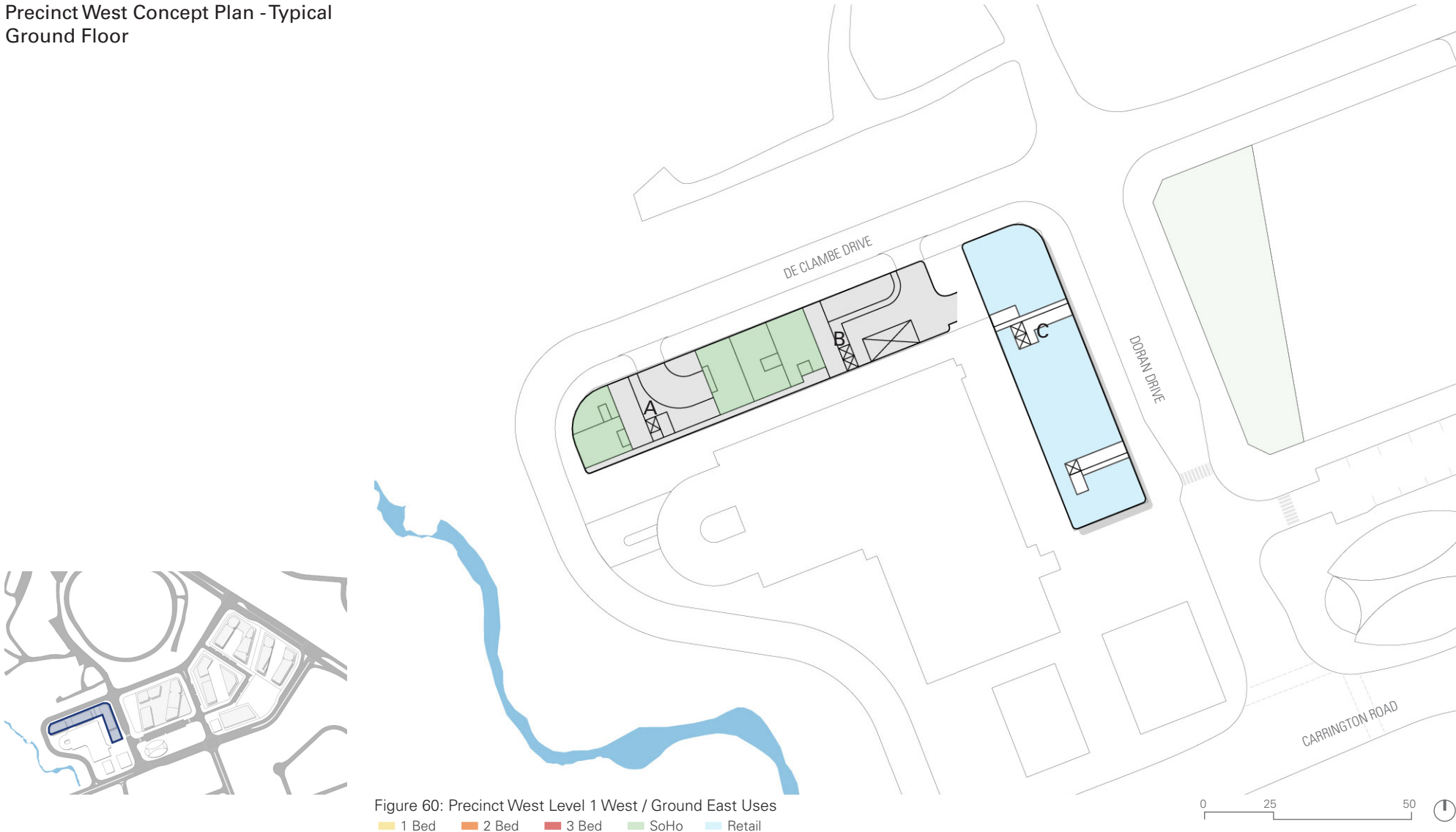


Figure 59: Precinct West Typical Ground Floor - Uses

Commercial (SoHo)

Precinct West Concept Plan - Typical
Ground Floor



Precinct West Concept Plan - Typical Level 01

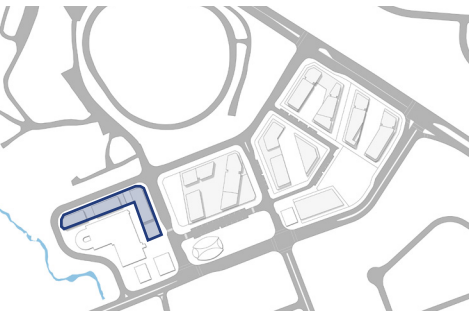


Figure 61: Precinct West Level 2 West / Level 1 East

1 Bed 2 Bed 3 Bed SoHo Retail



Figure 62: Precinct West Typical Level 01 - Solar Analysis
 ● > 2 Hours Sunlight

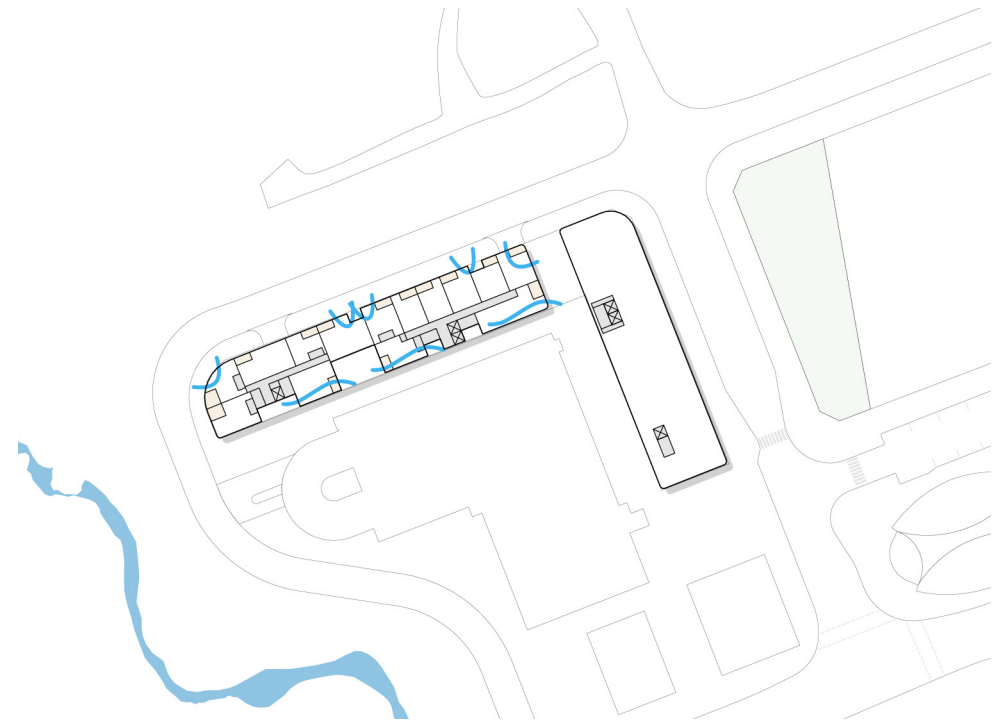


Figure 63: Precinct West Typical Level 01 - Ventilation Analysis
 ∨ Cross Ventilation





Figure 65: Precinct West Typical Level 02 - Solar Analysis
 ● > 2 Hours Sunlight

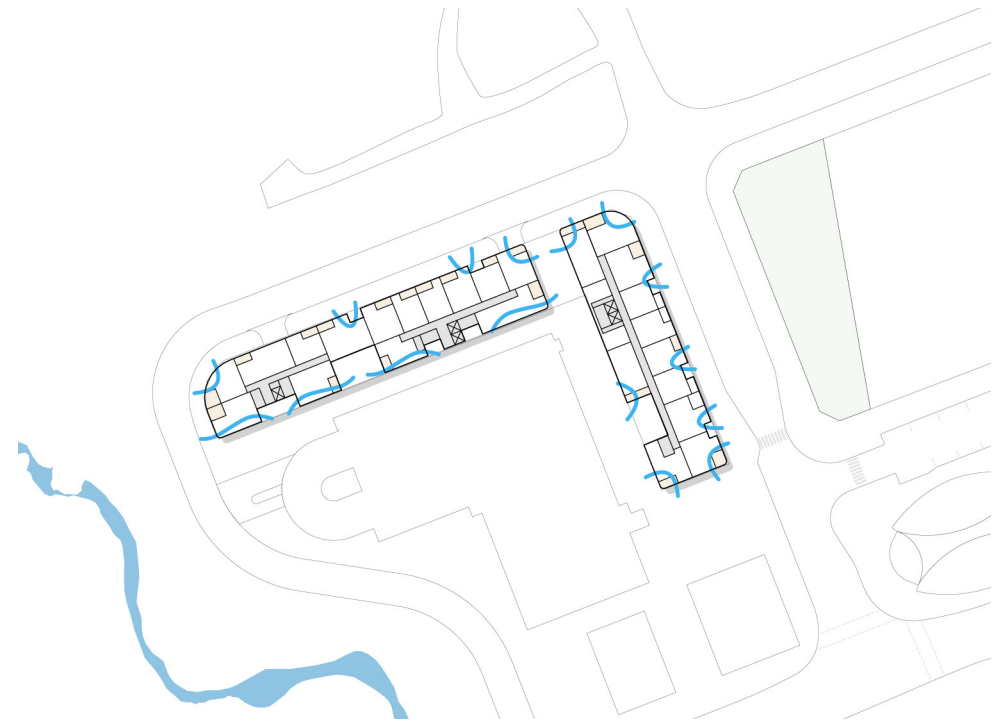


Figure 66: Precinct West Typical Level 02 - Ventilation Analysis
 ∨ Cross Ventilation





Figure 68: Precinct West Typical Tower - Solar Analysis
 ● > 2 Hours Sunlight



Figure 69: Precinct West Typical Tower - Ventilation Analysis
 ↺ Cross Ventilation



Figure 70: Precinct West Typical Tower Upper - Uses and Apartment Mix

1 Bed 2 Bed 3 Bed

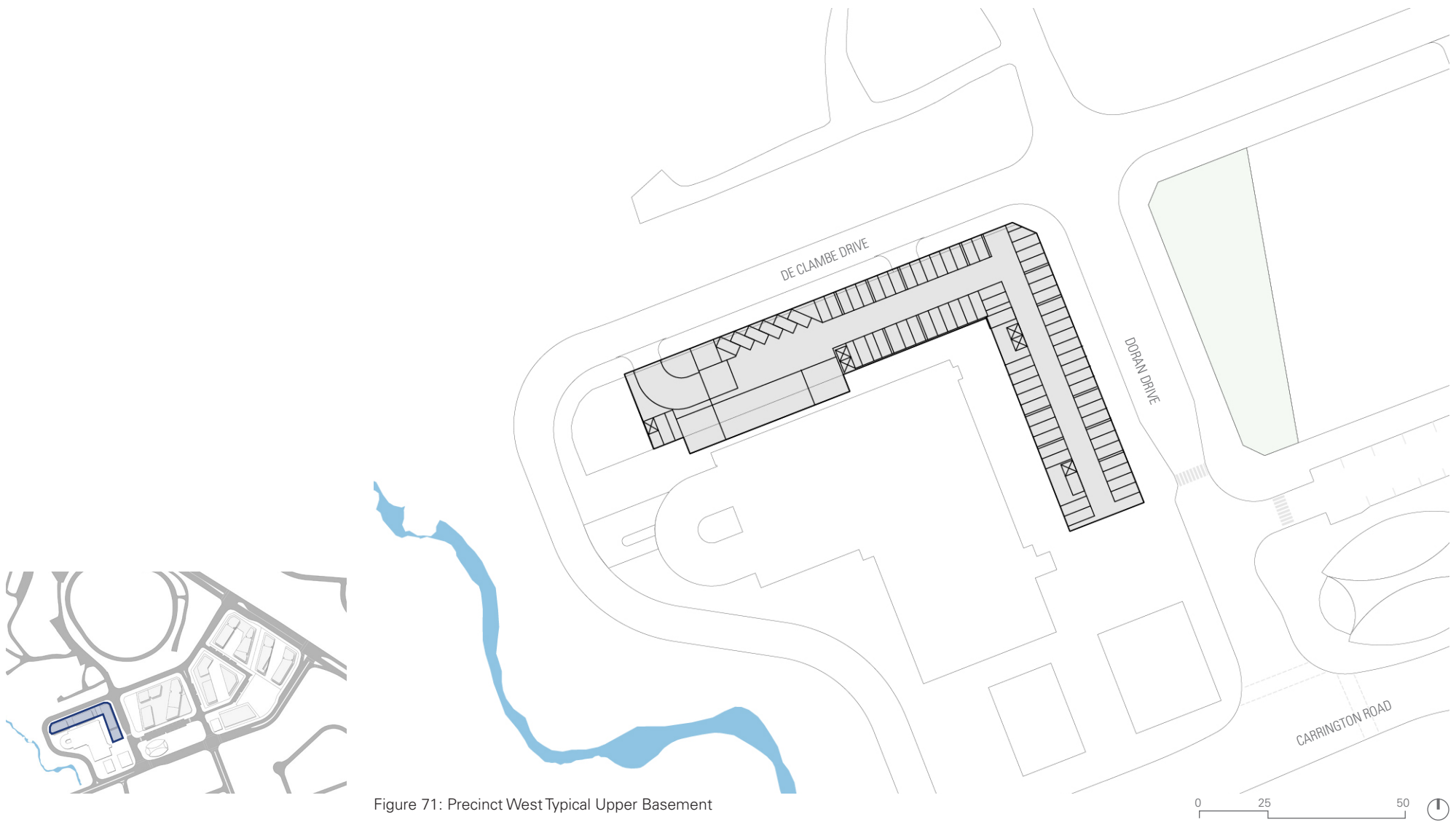


Figure 71: Precinct West Typical Upper Basement

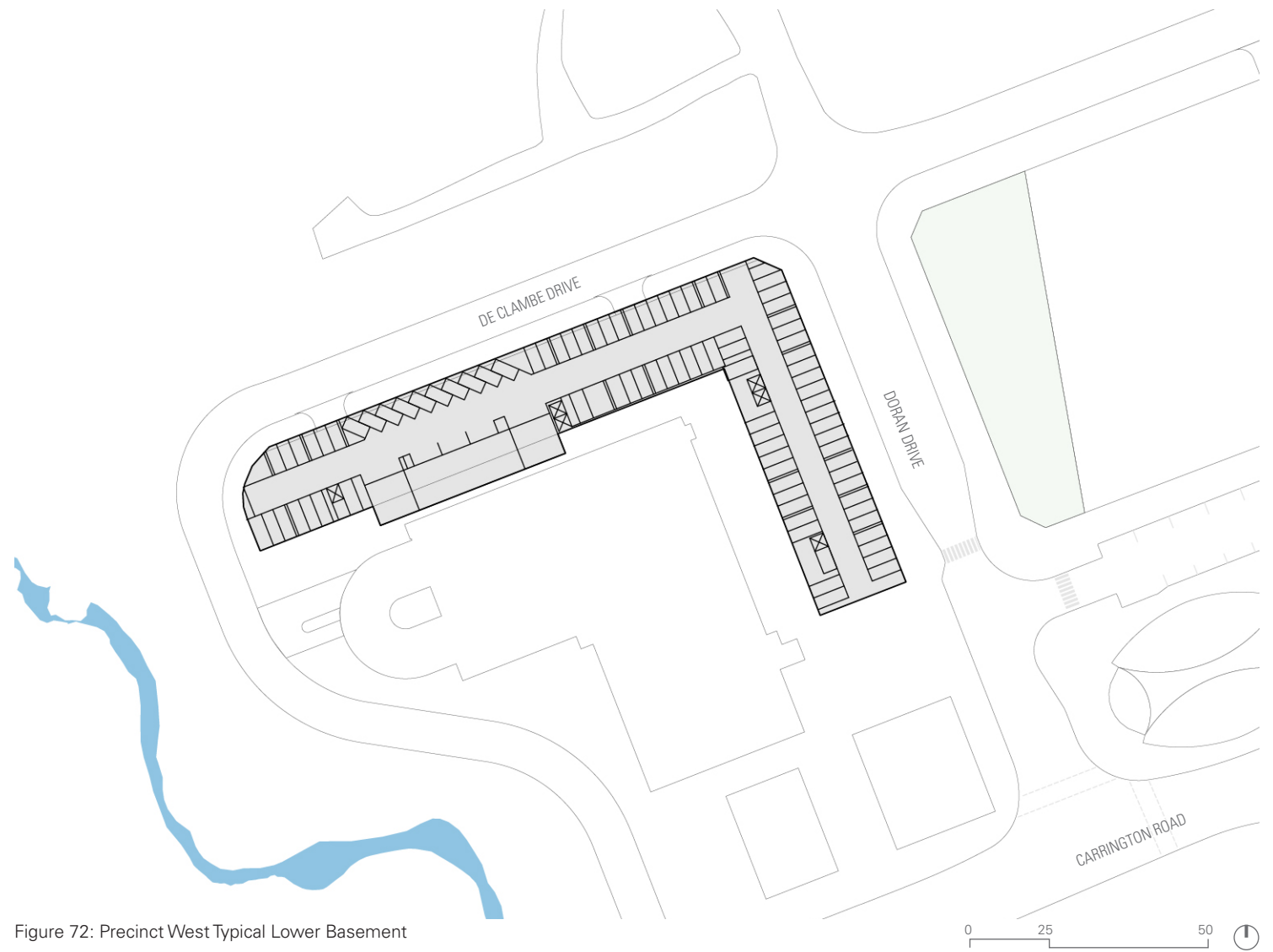


Figure 72: Precinct West Typical Lower Basement



Figure 73: Precinct West Typical Ground Floor - Entries

▶ Non-Residential Entry
 ▶ Residential Entry
 ▶ SoHo Entry
 ▶ Parking Entry



Figure 74: Precinct West Typical Upper Ground Floor - Entries



ADG Calculations

Building A

Solar: 90%
Cross Ventilation 75%

Building B

Solar: 96%
Cross Ventilation 60%

Building C

Solar: 86%
Cross Ventilation 64%

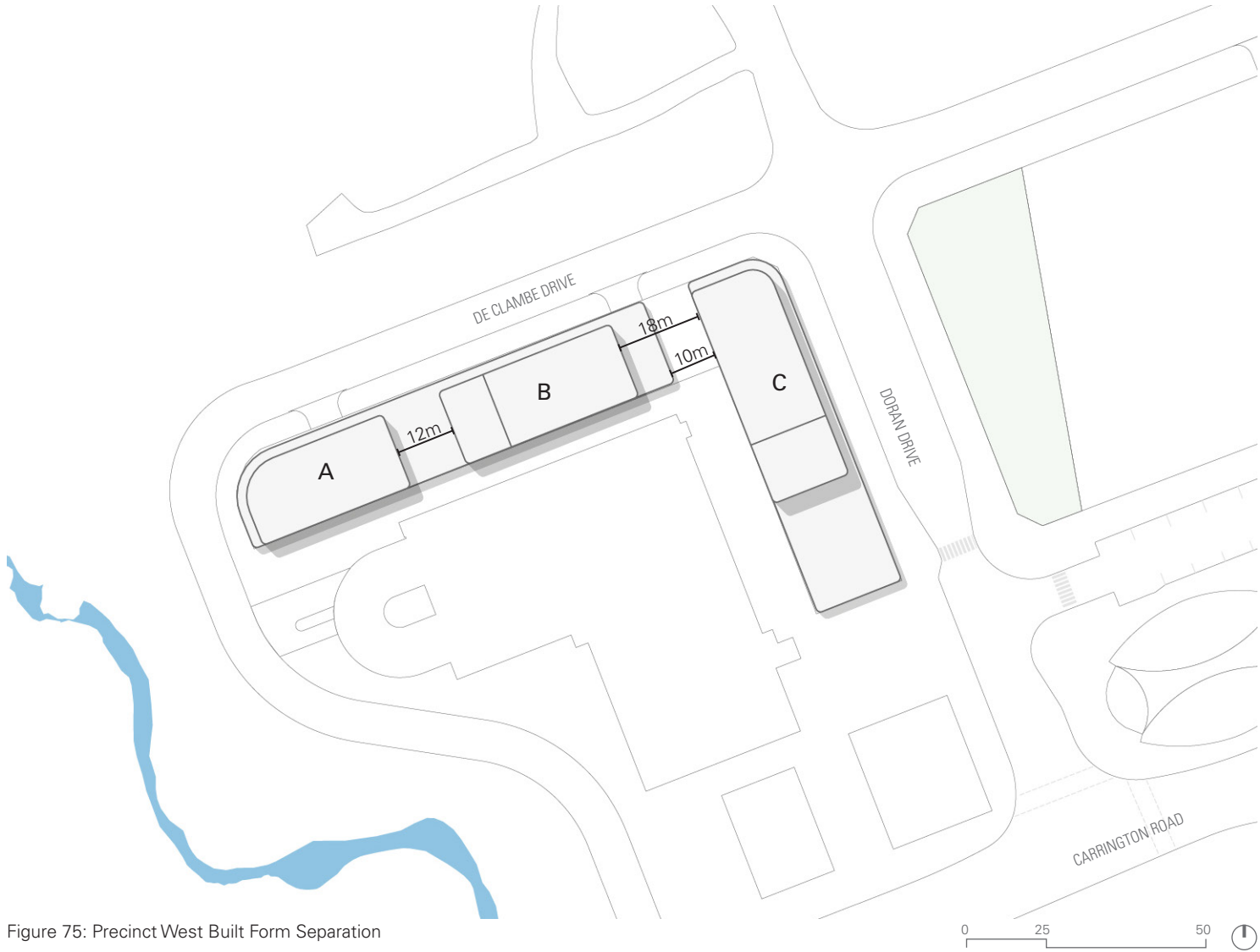
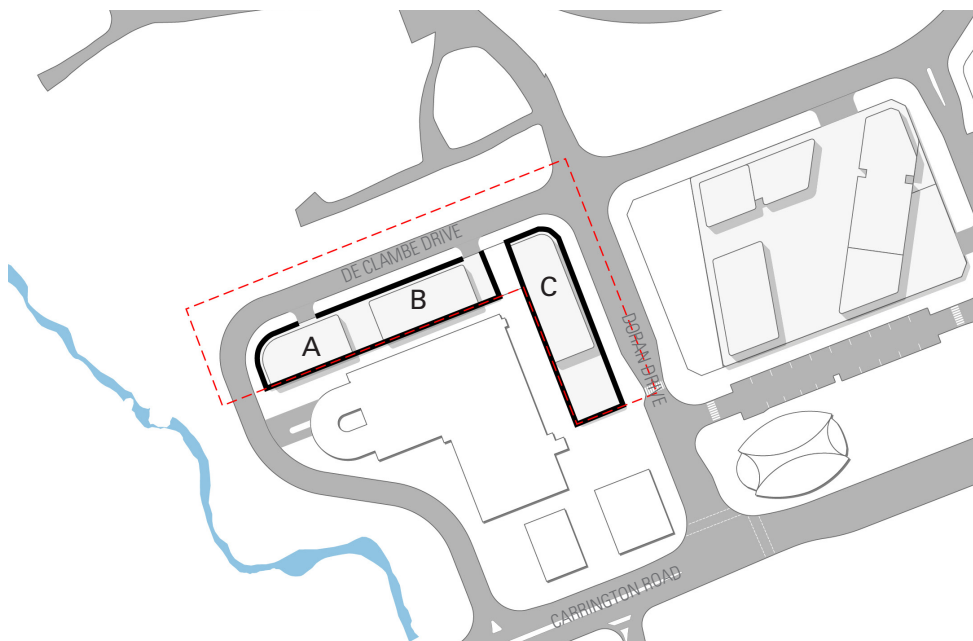


Figure 75: Precinct West Built Form Separation

Description	Level	Uses	GBA (m²)	GFA (m²)	Apartments (@90m²/apt)	Minimum Car Park Requirements	Maximum Car Park Requirements	Approximate minimum number of car park levels (38m²/space)	Approximate maximum number of car park levels (38m²/space)	Total GFA (m²) Resi+ Non-Resi	FSR
Higher Non-Residential Scheme	Podium and Tower Levels	Residential	33,009	26,394	293	277	339	3.6	4.6	29,154	3.9:1
	Podium	Non-Residential	3,067	2,760		20	35				
		Total	36,076	29,154	293	297	374				



Residential	1B	2B	3B	Visitor	Total
GFA (m²)	9,238	14,517	2,639	-	26,394m²
Apartment Yield	103	161	29	-	293
Minimum Car Space allocation	62	145	41	29	277
Maximum Car Space allocation	103	161	44	31	339
Non-Residential	Retail		Commercial		Total
GFA (m²)	1,093		1,667		2,760m²
Minimum Car Spaces Required					20
Maximum Car Spaces Required					35

Figure 76: Precinct West FSR boundary and proposed built form

-- FSR Boundary

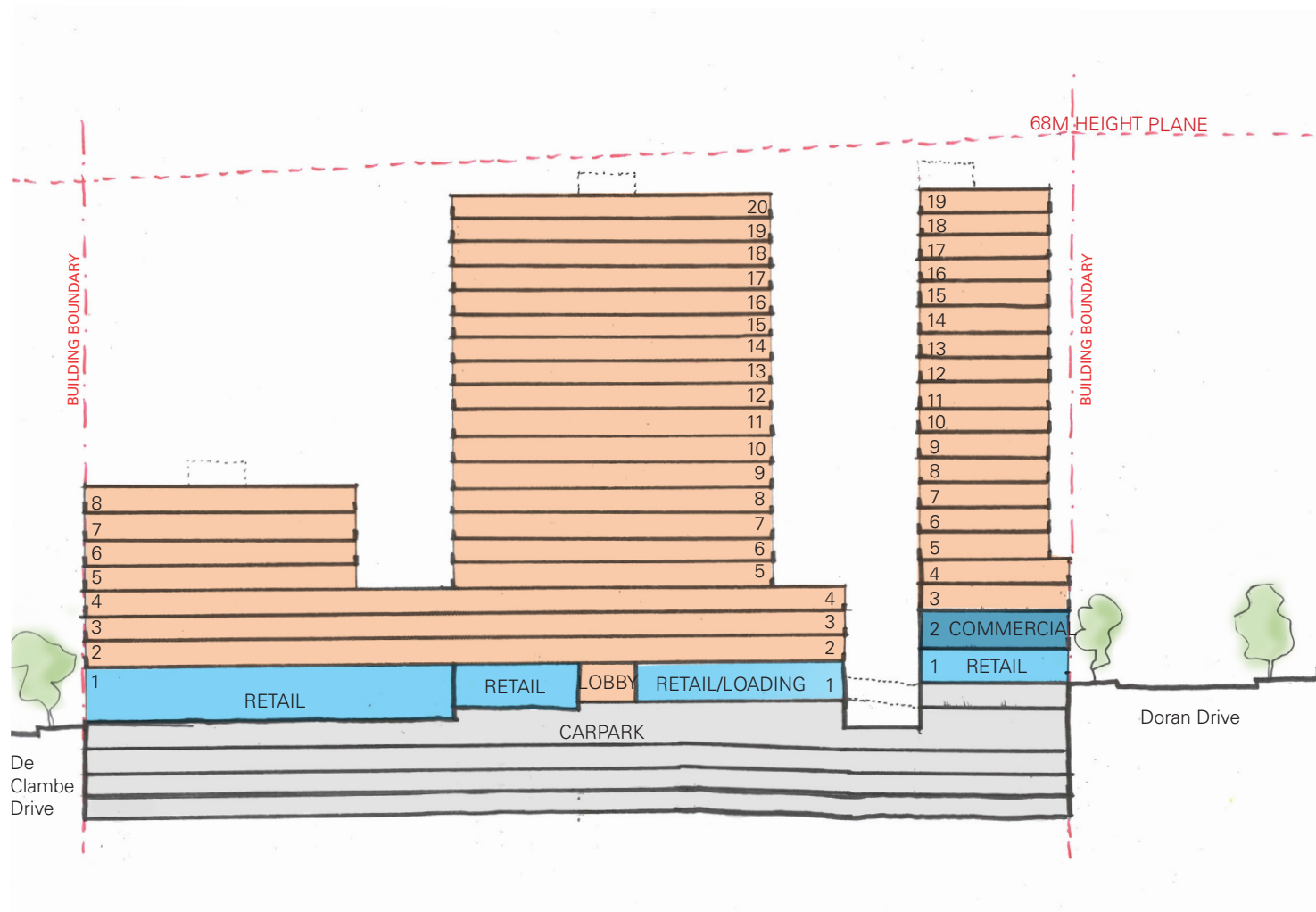


Figure 77: Precinct West Section

Doran Drive Precinct

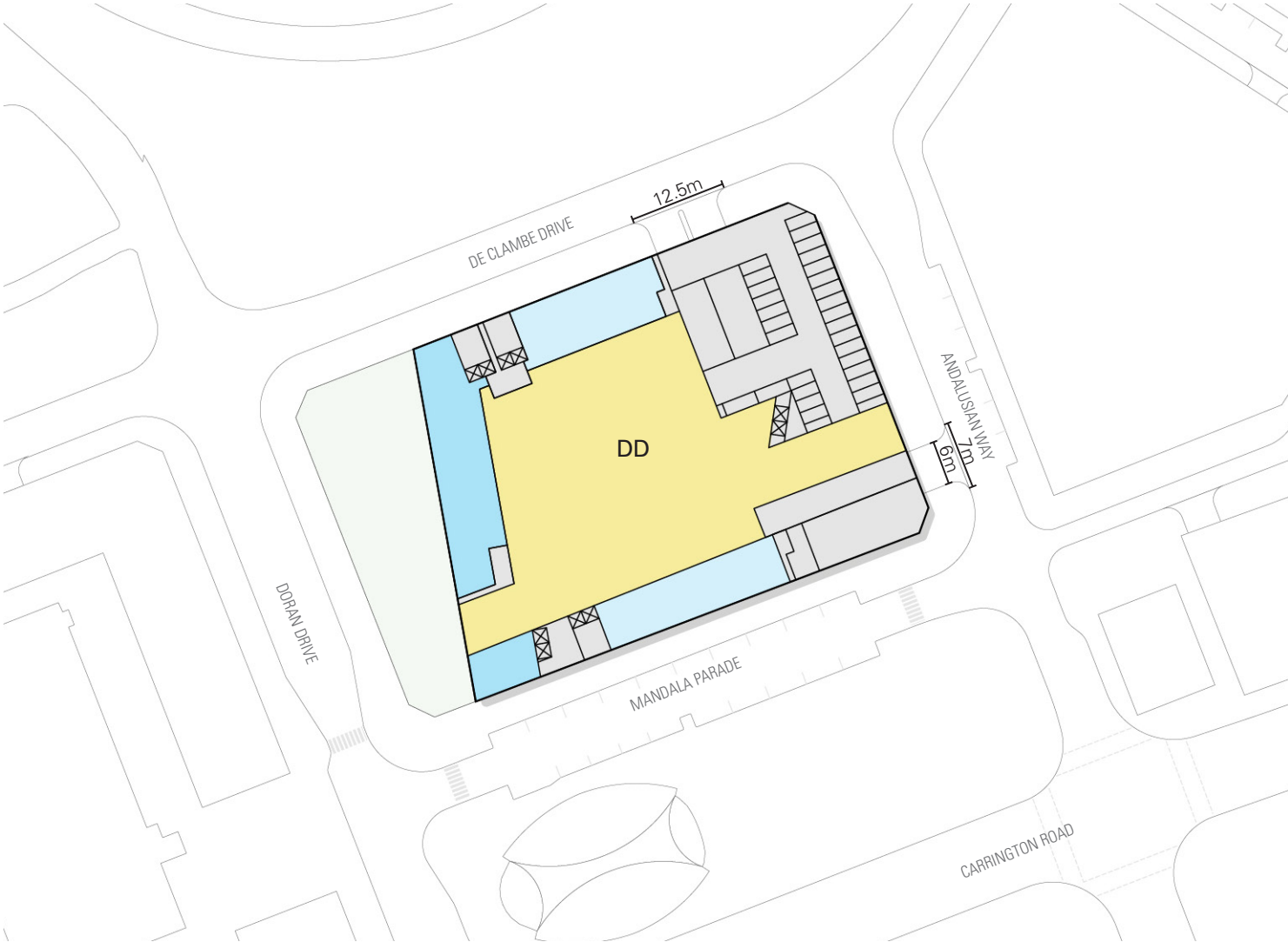
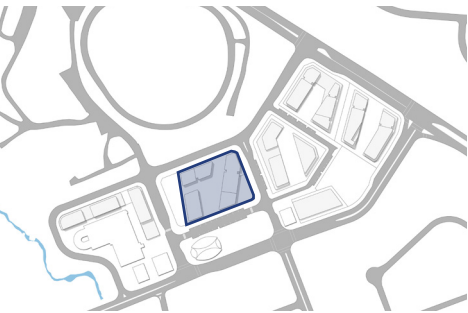
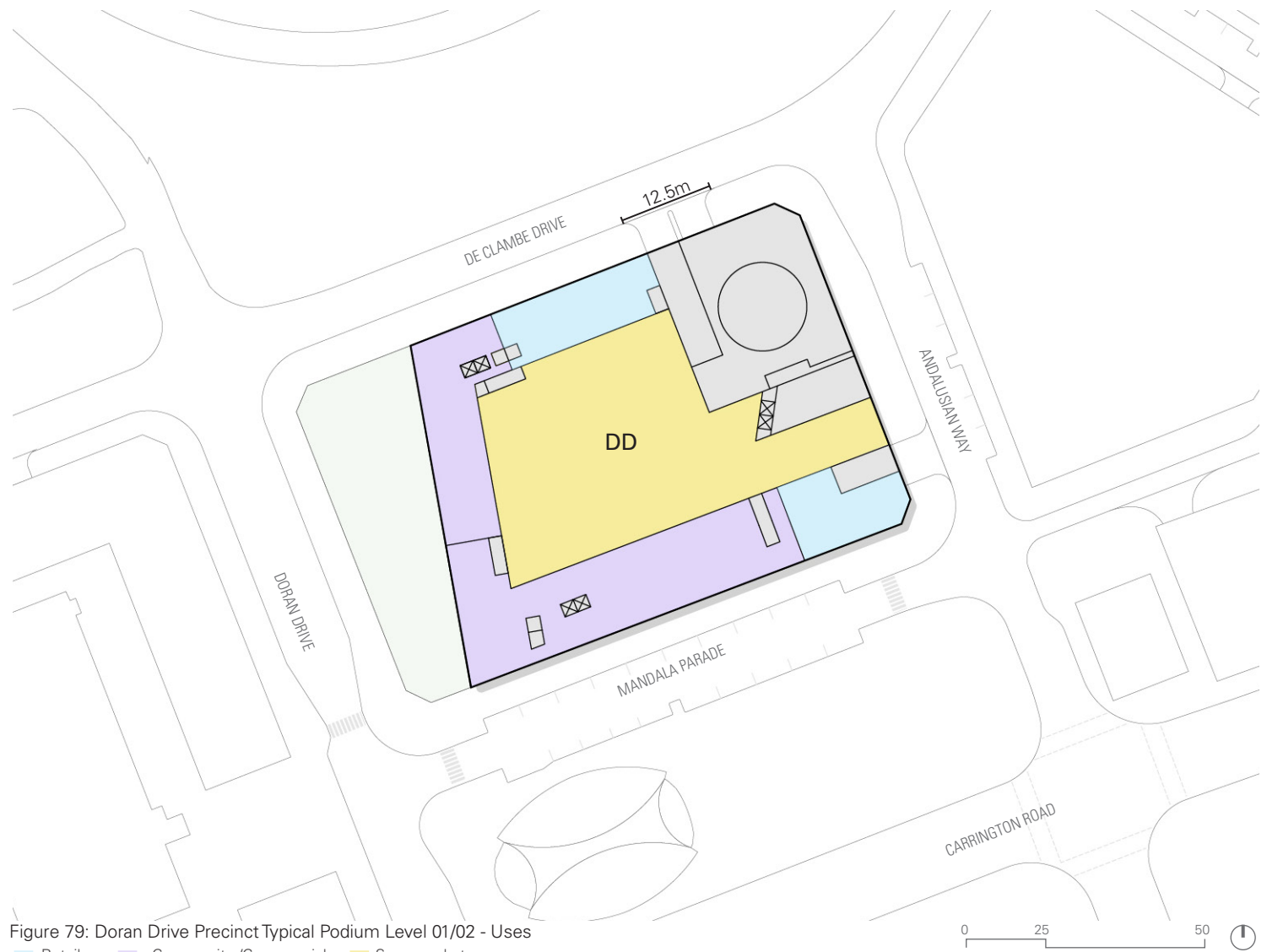


Figure 78: Doran Drive Precinct Typical Podium Ground/01 - Uses

Light Blue Retail (1 Storey) Medium Blue Retail (2 Storey) Yellow Supermarket



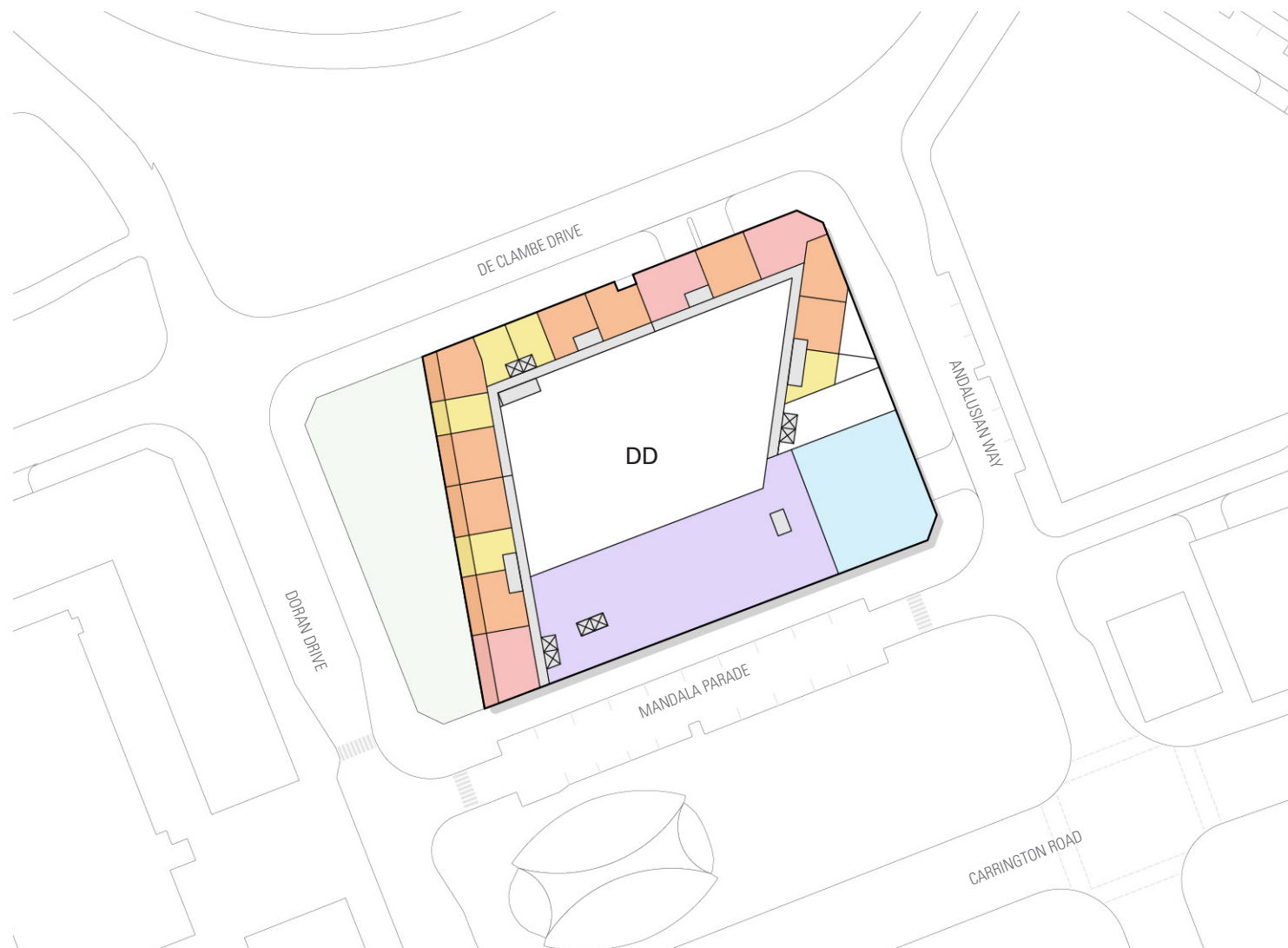


Figure 80: Doran Drive Precinct Typical Podium Level 03/04 - Uses & Apartment Mix

■ Retail
 ■ Commercial
 ■ 1 Bed
 ■ 2 Bed
 ■ 3 Bed



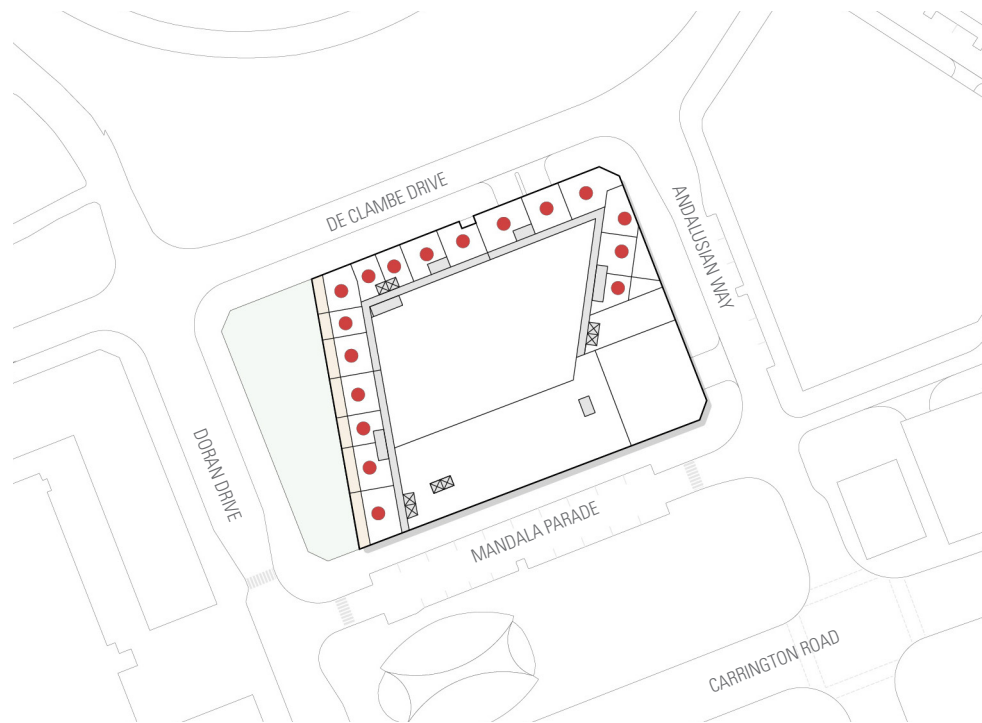


Figure 81: Doran Drive Precinct Typical Podium 04 Level - Solar Analysis
 ● > 2 Hours Sunlight

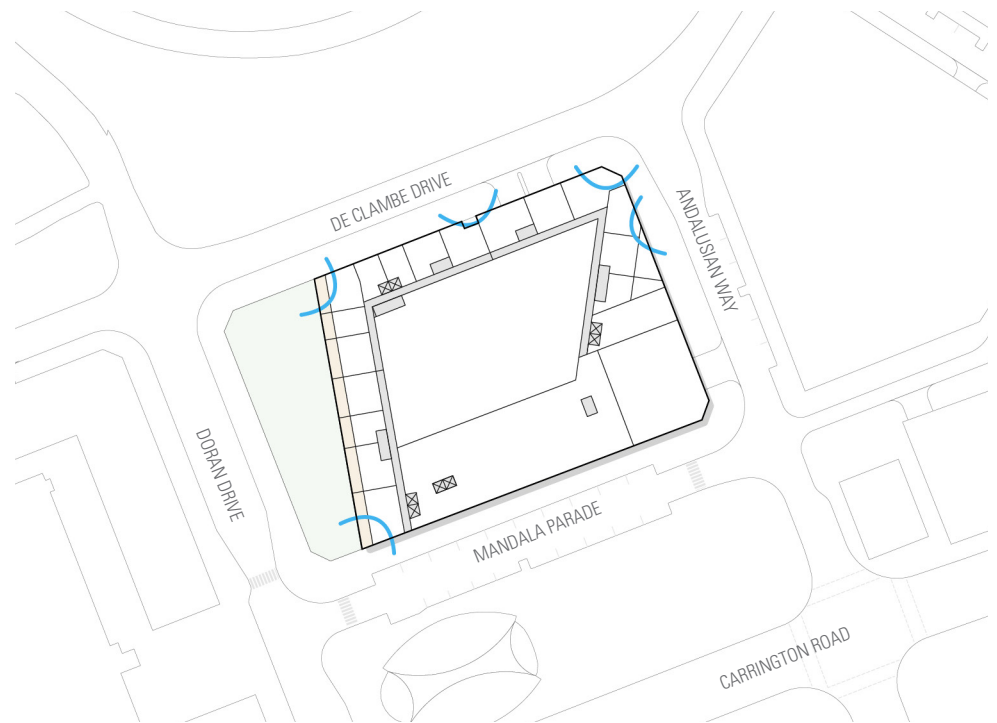


Figure 82: Doran Drive Precinct Typical Podium 04 Level - Ventilation Analysis
 ∪ Cross Ventilation

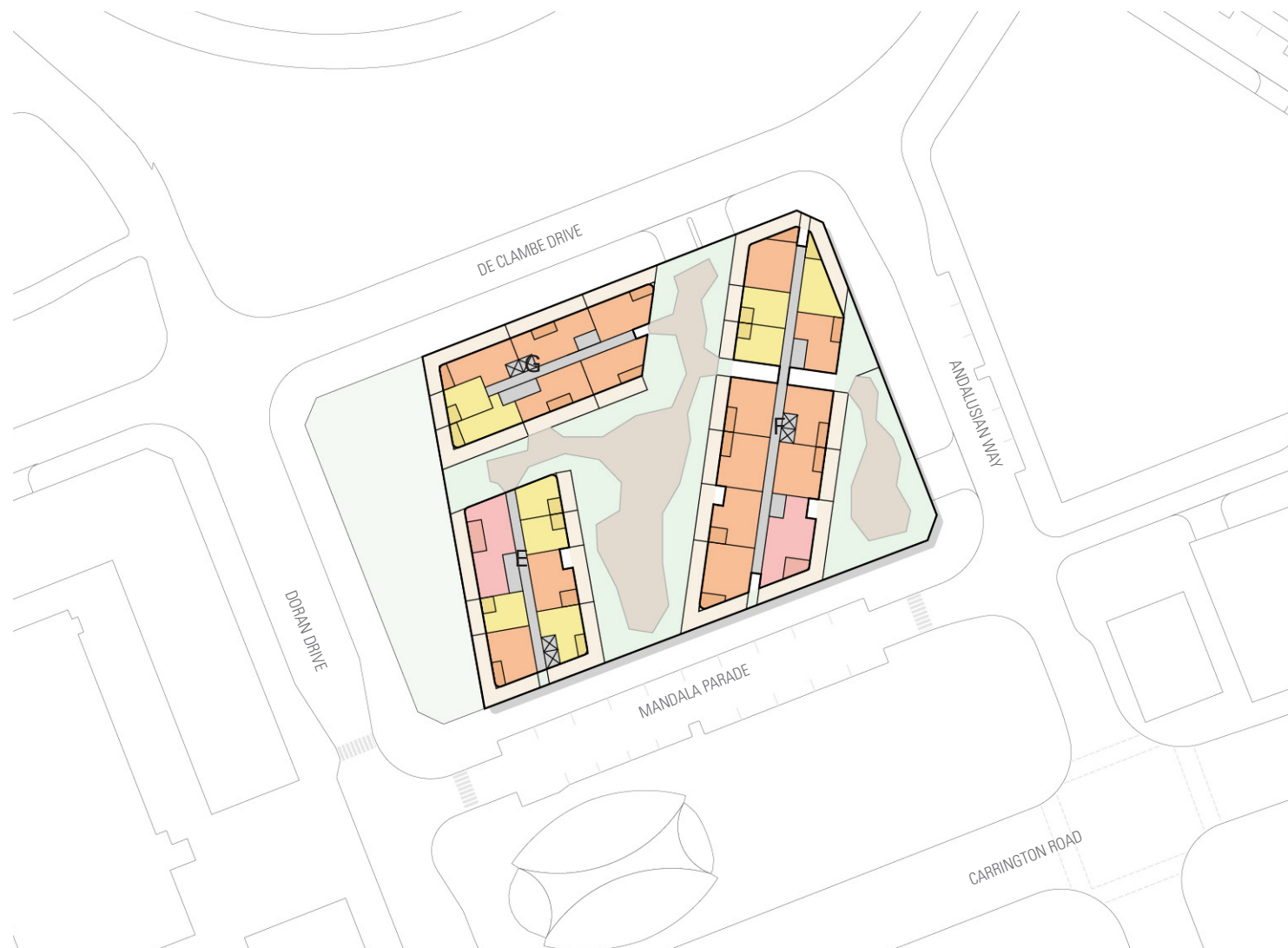


Figure 83: Doran Drive Precinct Typical Tower 05 Level - Apartment Mix

1 Bed 2 Bed 3 Bed





Figure 84: Doran Drive Precinct Typical Tower 05 Level - Solar Analysis
 ● > 2 Hours Sunlight

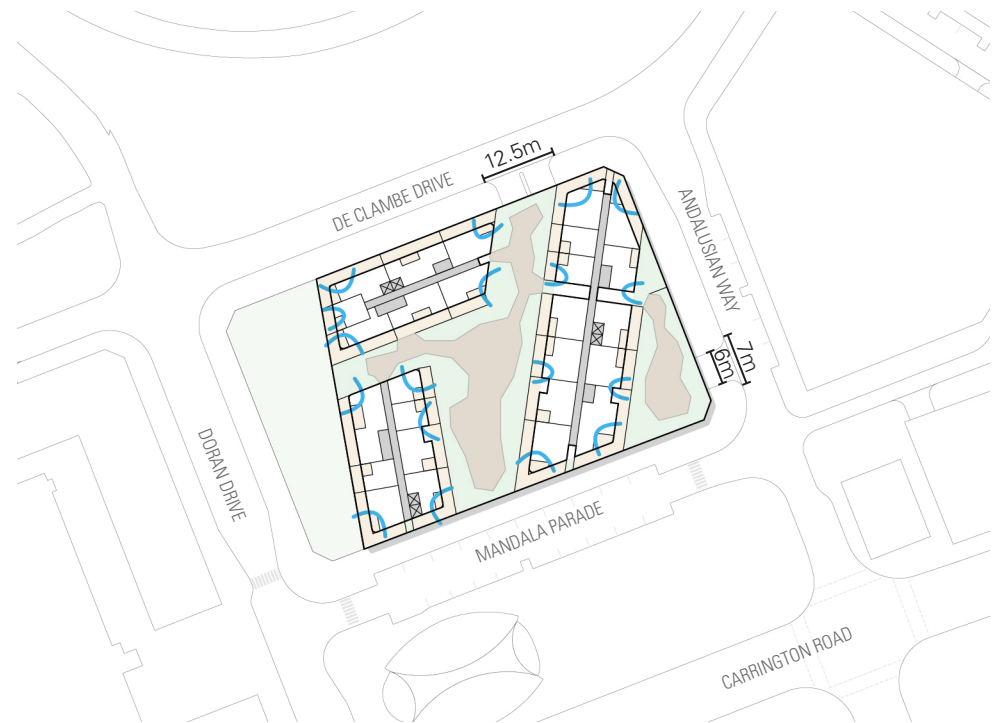


Figure 85: Doran Drive Precinct Typical Tower 05 Level - Ventilation Analysis
 U Cross Ventilation



Figure 86: Doran Drive Precinct Typical Tower Level - Apartment Mix

■ 1 Bed
 ■ 2 Bed
 ■ 3 Bed





Figure 87: Doran Drive Precinct Typical Tower 06 Level - Solar Analysis
 ● > 2 Hours Sunlight

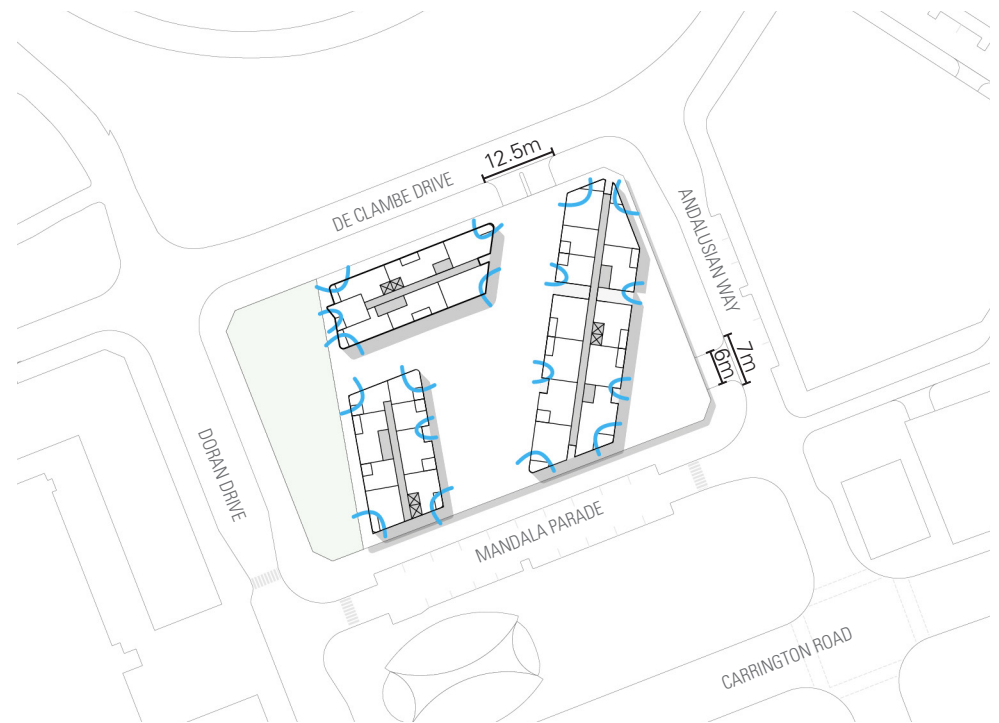


Figure 88: Doran Drive Precinct Typical Tower 06 Level - Ventilation Analysis
 ↺ Cross Ventilation



Figure 89: Doran Drive Precinct Typical Tower - Apartment Mix

■ 1 Bed
 ■ 2 Bed
 ■ 3 Bed

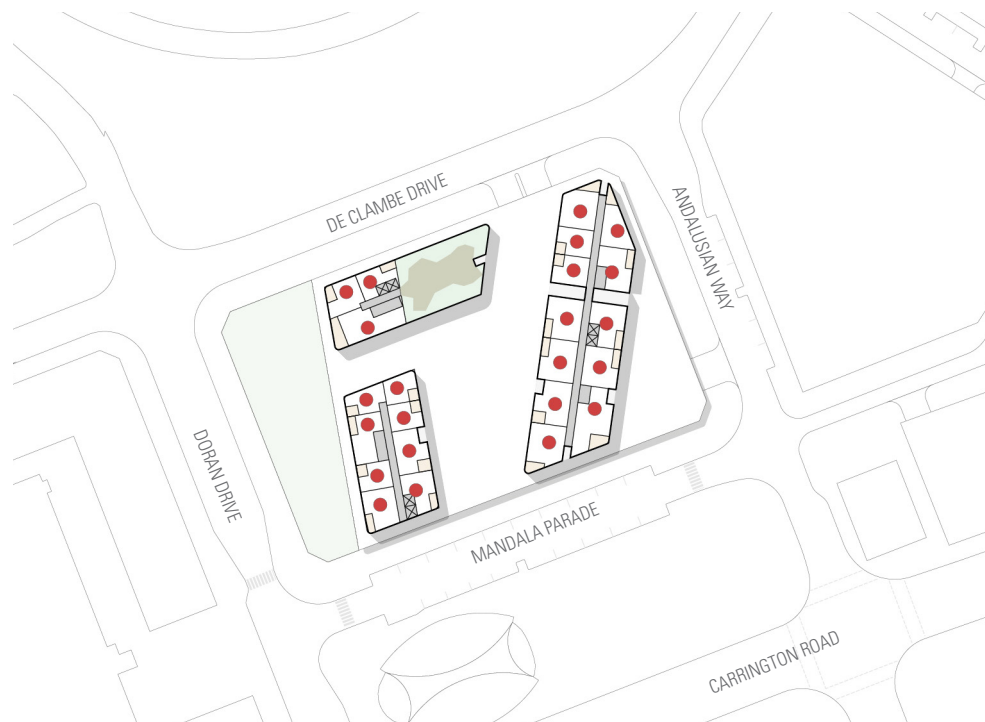


Figure 90: Doran Drive Precinct Typical Tower - Solar Analysis

● > 2 Hours Sunlight

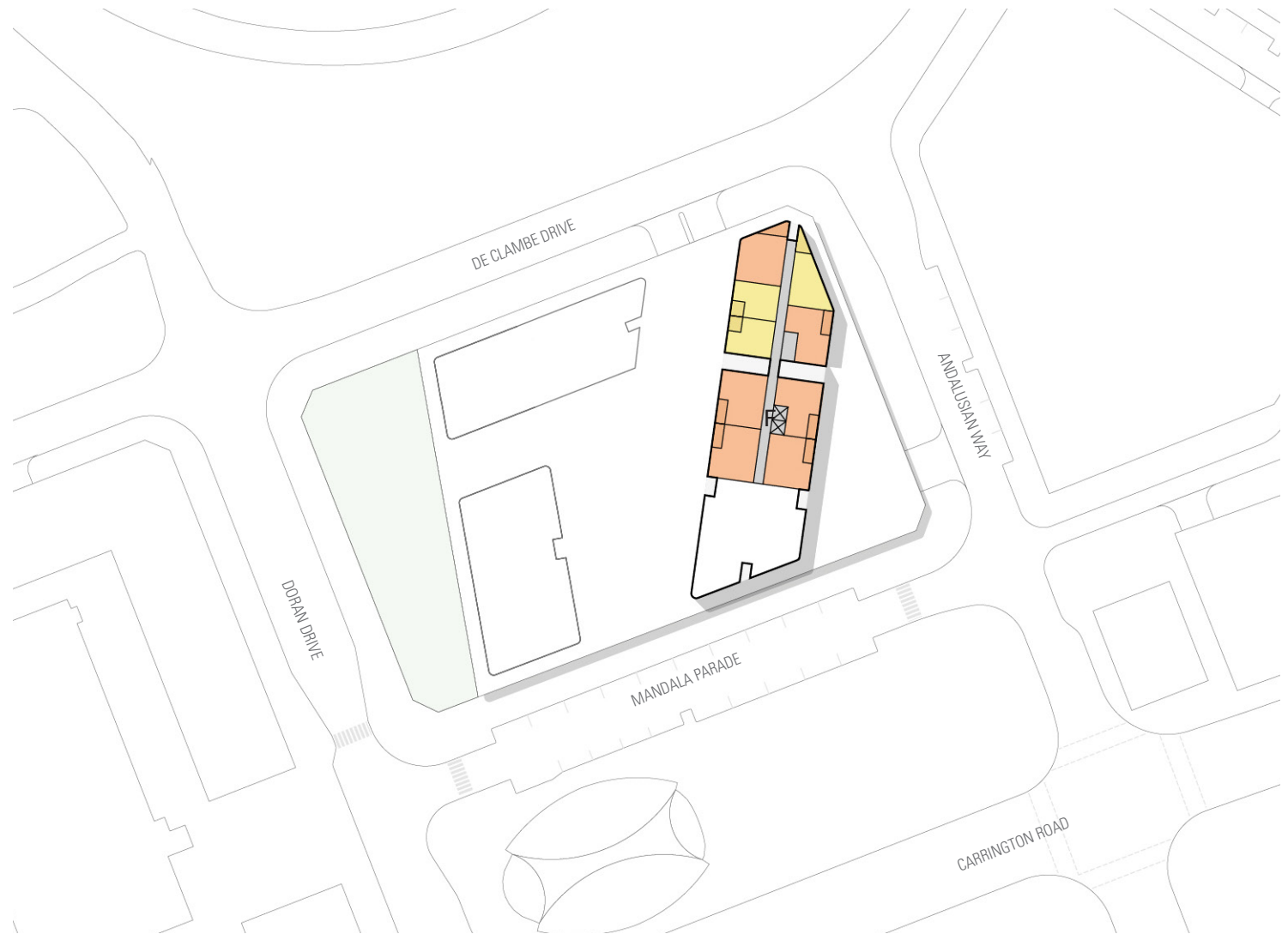
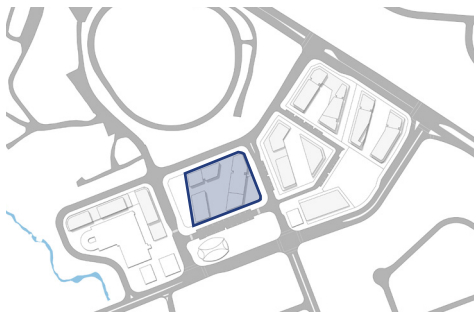


Figure 91: Doran Drive Precinct Typical Tower - Apartment Mix

■ 1 Bed
 ■ 2 Bed
 ■ 3 Bed



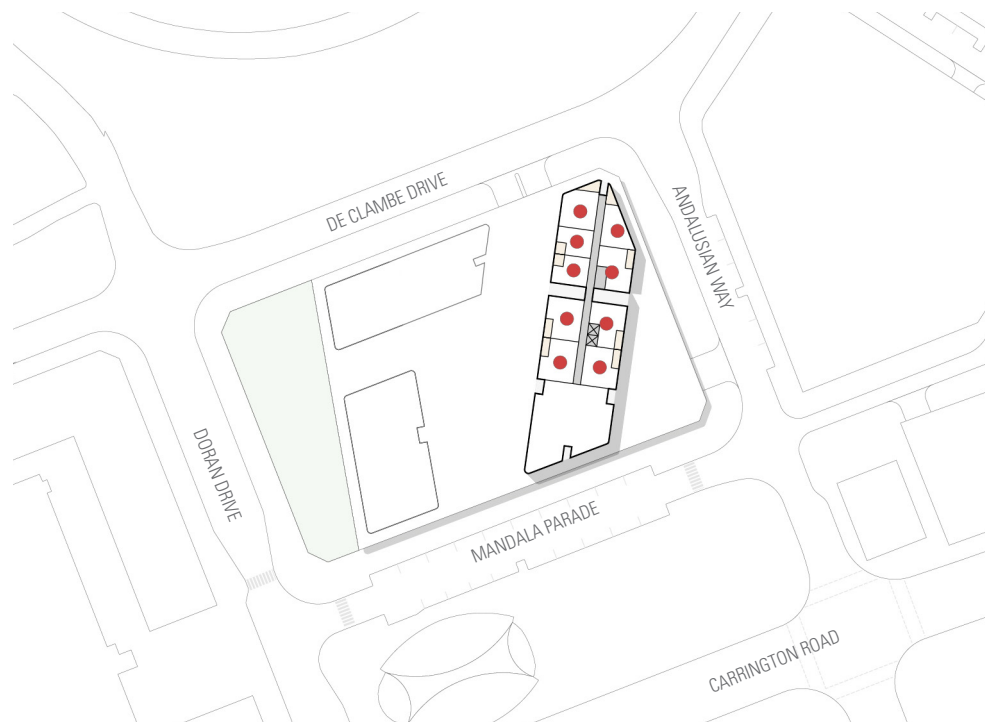


Figure 92: Doran Drive Precinct Typical Tower - Solar Analysis

● > 2 Hours Sunlight

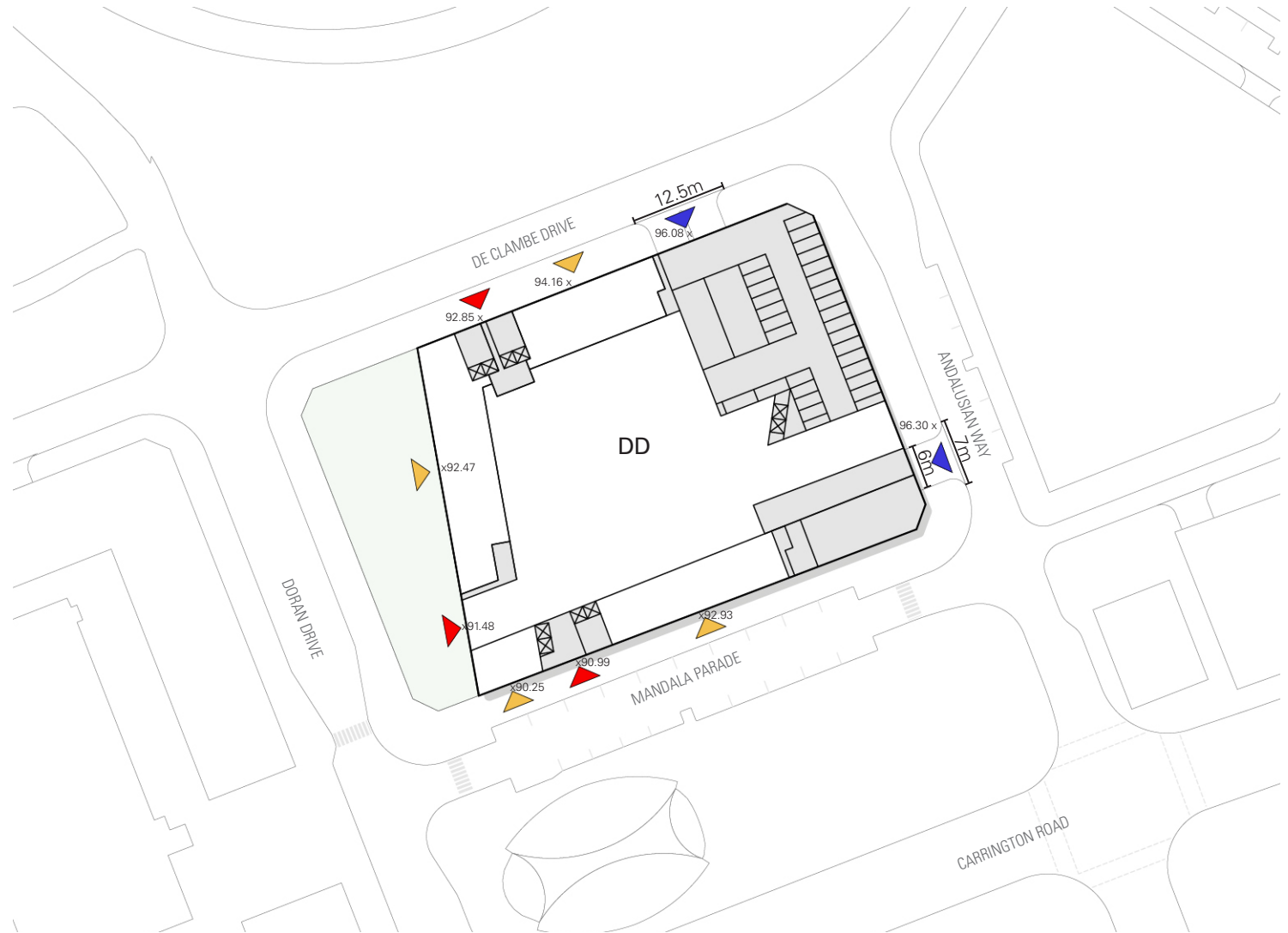
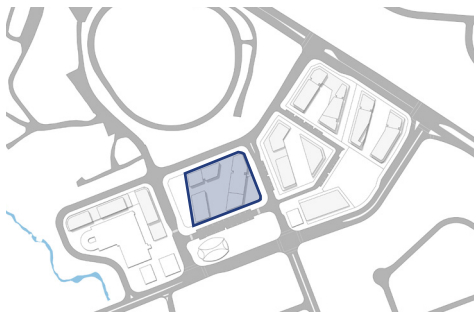


Figure 93: Doran Drive Precinct Typical Podium Ground/01 - Entries

▶ Non-Residential Entry
 ▶ Residential Entry
 ▶ Parking Entry

ADG Calculations

Building E

Solar: 80%
Cross Ventilation 64%

Building F

Solar: 100%
Cross Ventilation 64%

Building G

Solar: 82%
Cross Ventilation 63%

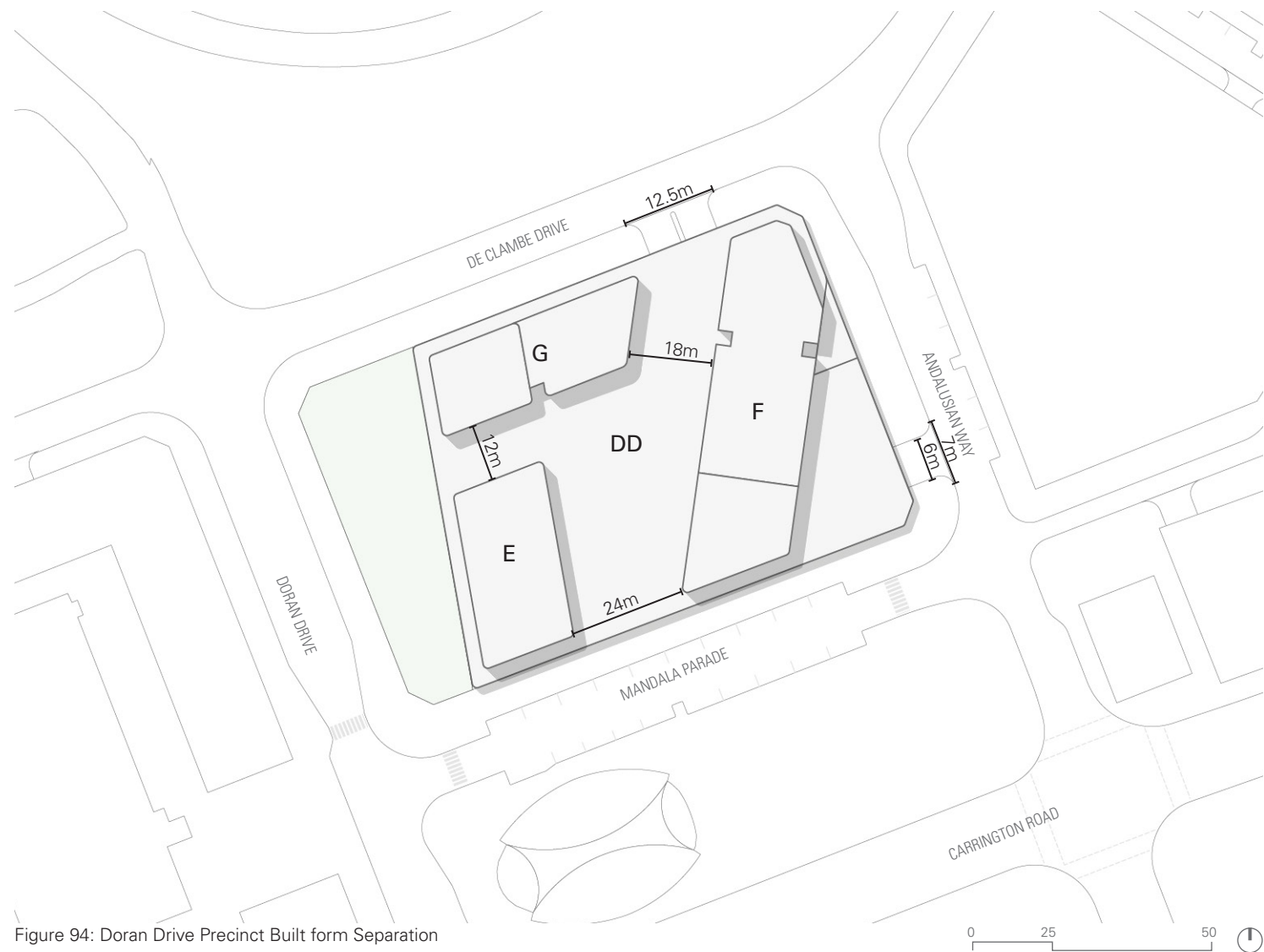


Figure 94: Doran Drive Precinct Built form Separation

Description	Level	Uses	GBA (m ²)	GFA (m ²)	Apartments (@90m ² /apt)	Minimum Car Park Requirements	Maximum Car Park Requirements	Approximate minimum number of car park levels (38m ² /space)	Approximate maximum number of car park levels (38m ² /space)	Total GFA (m ²) Resi+ Non-Resi	FSR
Higher Non-Residential Scheme	Podium and Tower Levels	Residential	50,206	40,164	446	422	515				
	Podium	Non-Residential	12,044	10,840		81	162	2.9	3.9	51,004	3.2:1
		Total	62,250	51,004	446	503	677				

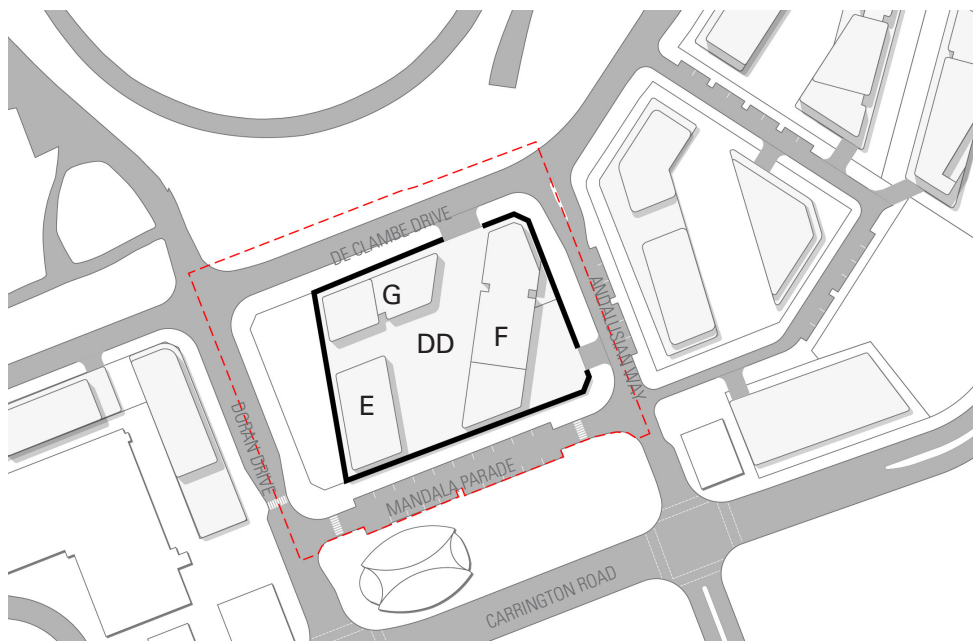


Figure 95: Doran Drive Precinct FSR boundary and proposed built form

-- FSR Boundary

Residential	1B	2B	3B	Visitor	Total
GFA (m ²)	14,058	22,090	4,016	-	40,164m ²
Apartment Yield	156	245	45	-	446
Minimum Car Space allocation	94	221	62	45	422
Maximum Car Space allocation	156	245	67	47	515
Non-Residential					Total
Total Retail GFA					8,000m ²
Minimum Car Spaces Required					62
Maximum Car Spaces Required					133
Total Community/Commercial GFA					2,840m ²
Minimum Car Spaces Required					20
Maximum Car Spaces Required					28

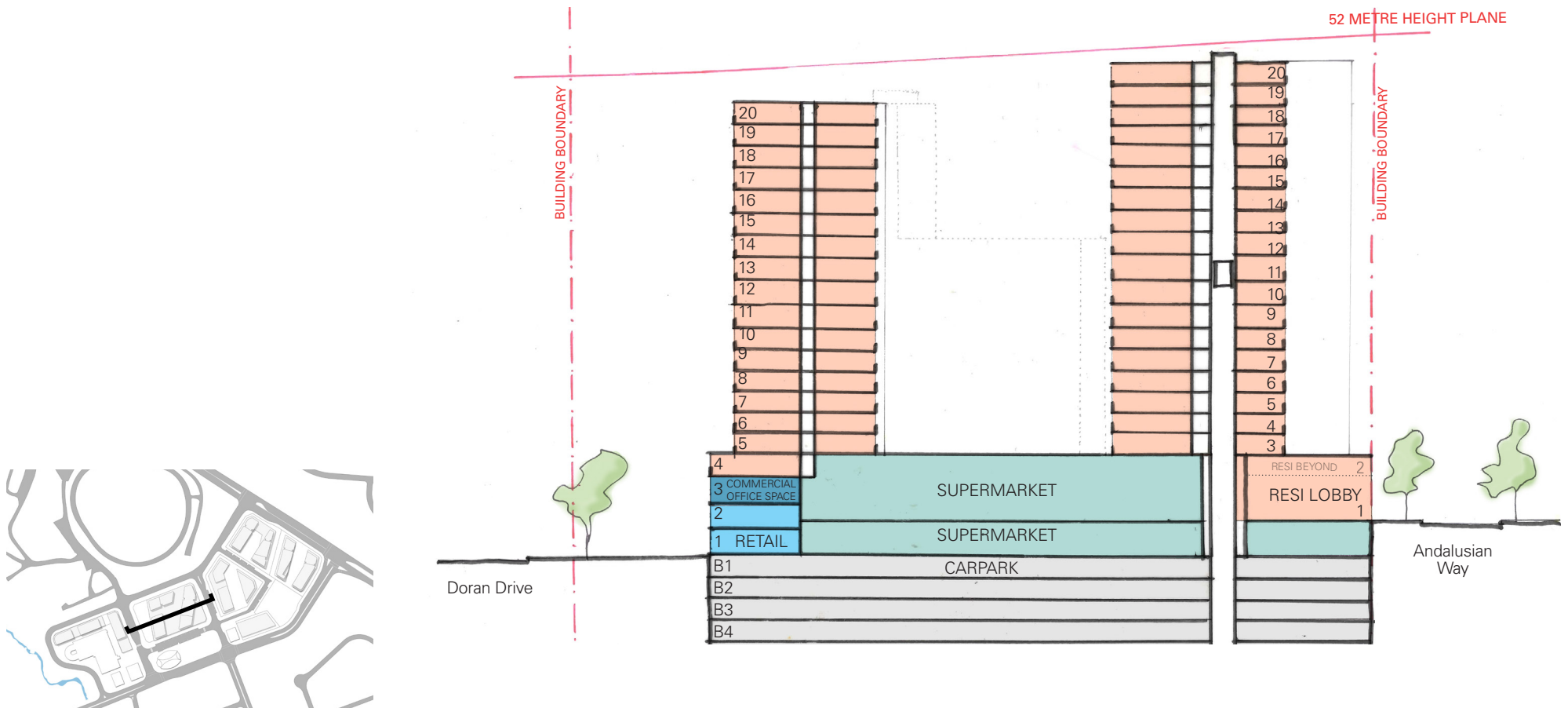


Figure 96: Doran Drive Precinct Section

Precinct East

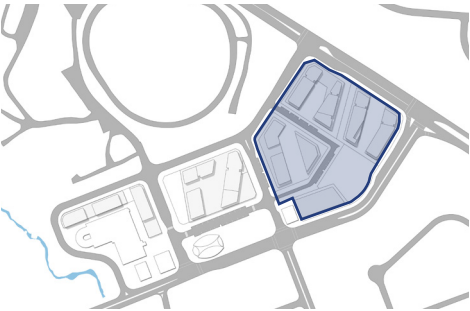


Figure 97: Precinct East Typical Podium Level - Apartment Mix

1 Bed 2 Bed 3 Bed



Figure 98: Precinct East Typical Podium Level - Solar Analysis

● > 2 Hours Sunlight



Figure 99: Precinct East Typical Podium Level - Ventilation Analysis

✓ Cross Ventilation

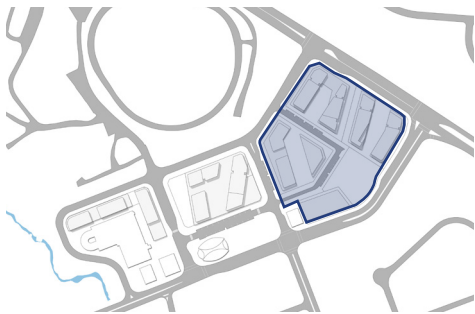


Figure 100: Precinct East Typical Level 02/03 - Apartment Mix

1 Bed 2 Bed 3 Bed



Figure 101: Precinct East Typical Podium Level 02/03 - Solar Analysis
 ● > 2 Hours Sunlight



Figure 102: Precinct East Typical Podium Level 02/03 - Ventilation Analysis
 ↺ Cross Ventilation

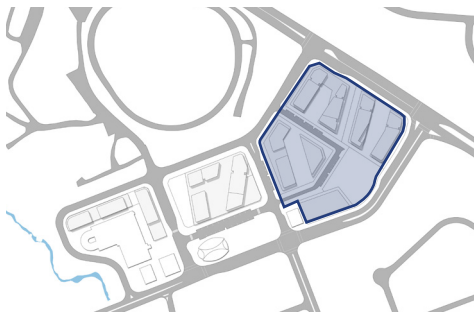


Figure 103: Precinct East Typical Level 04/05/06 - Apartment Mix

1 Bed 2 Bed 3 Bed





Figure 104: Precinct East Typical Level 04/05/06 - Solar Analysis

● > 2 Hours Sunlight



Figure 105: Precinct East Typical Level 04/05/06 - Ventilation Analysis

↺ Cross Ventilation

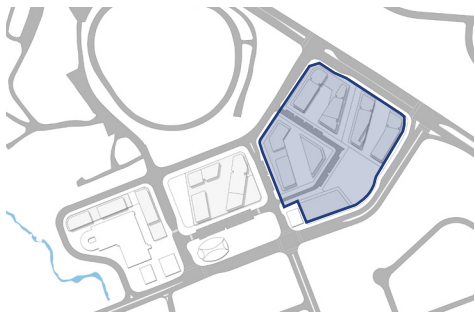


Figure 106: Precinct East Typical Tower Level - Apartment Mix

1 Bed 2 Bed 3 Bed



Figure 107: Precinct East Typical Tower Level - Solar Analysis

● > 2 Hours Sunlight



Figure 108: Precinct East Typical Tower Podium Level - Ventilation Analysis

↺ Cross Ventilation

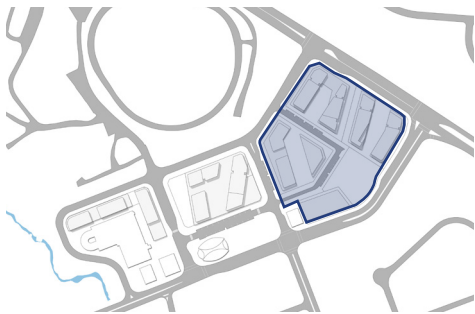


Figure 109: Precinct East Typical Upper Tower Level - Apartment Mix

■ 1 Bed
 ■ 2 Bed
 ■ 3 Bed





Figure 110: Precinct East Typical Upper Tower Level - Solar Analysis

● > 2 Hours Sunlight

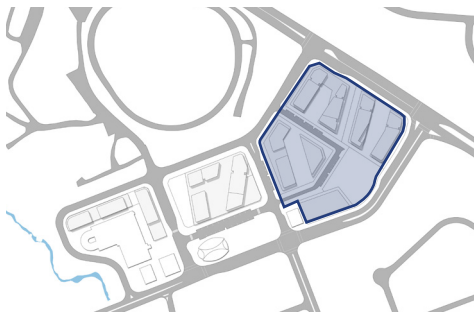


Figure 111: Precinct East Typical Podium Level - Entries

▲ Garden Apartment Entry
 ▲ Residential Entry
 ▲ Parking Entry



ADG Calculations

Building L

- Solar: 80%
- Cross Ventilation: 62%

Building H

- Solar: 75%
- Cross Ventilation: 67%

Building K

- Solar: 99%
- Cross Ventilation: 70%

Building J

- Solar: 73%
- Cross Ventilation: 62%

Building M

- Solar: 70%
- Cross Ventilation: 62%

Building N

- Solar: 100
- Cross Ventilation: 100%

Building P

- Solar: 80%
- Cross Ventilation: 61 %

Building Q

- Solar: 99%
- Cross Ventilation: 65%

Building R

- Solar: 74%
- Cross Ventilation: 64%

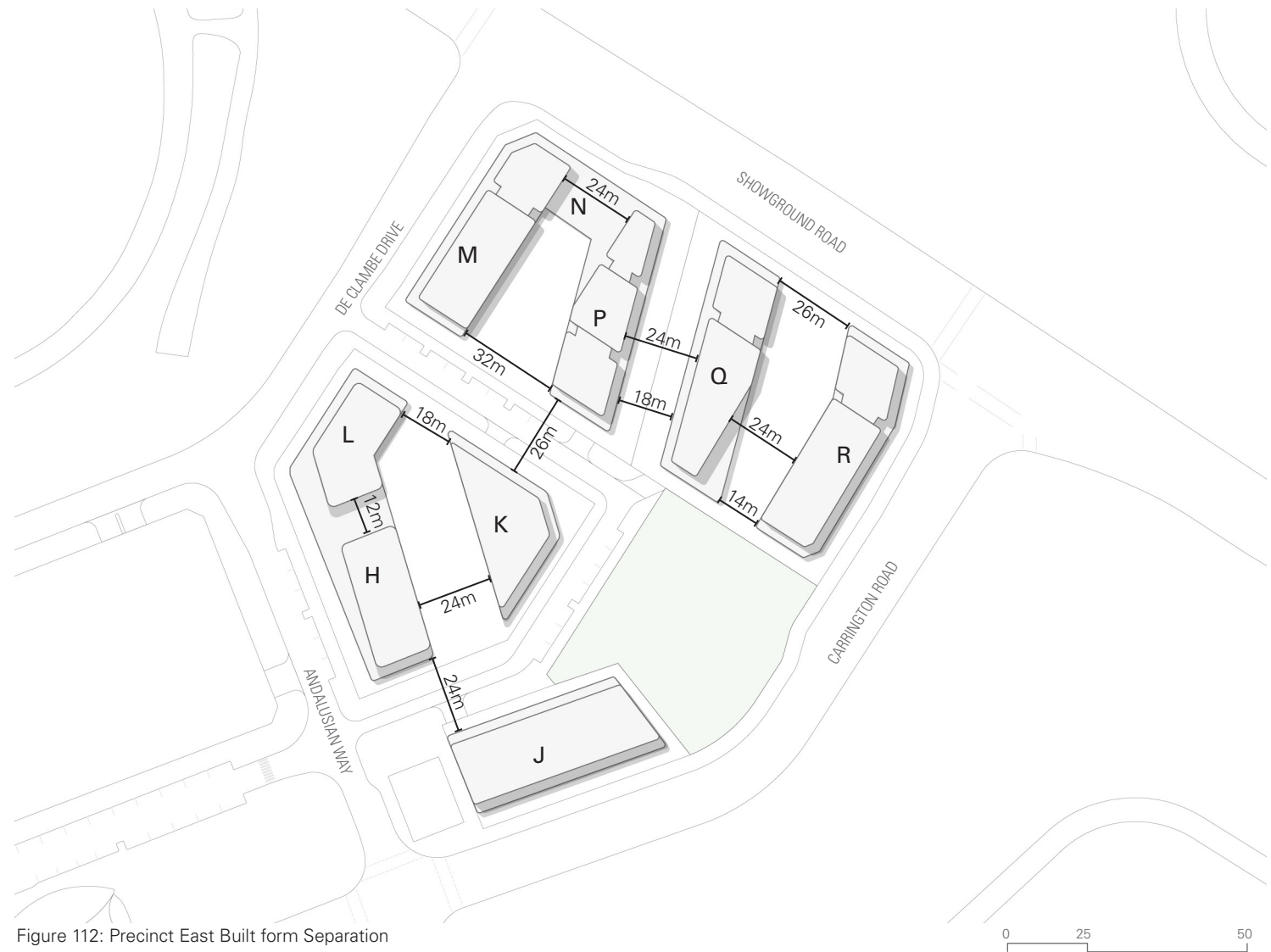


Figure 112: Precinct East Built form Separation

Description	Level	Uses	GBA (m²)	GFA (m²)	Apartments (@90m²/apt)	Minimum Car Park Requirements	Maximum Car Park Requirements	Approximate minimum number of car park levels (38m²/space)	Approximate maximum number of car park levels (38m²/space)	Total GFA (m²) Resi+ Non-Resi	FSR
Residential	Podium and Tower Levels	Residential	122,926	95,638	1,063	1,004	1,222	varies	varies	95,638	3.0:1

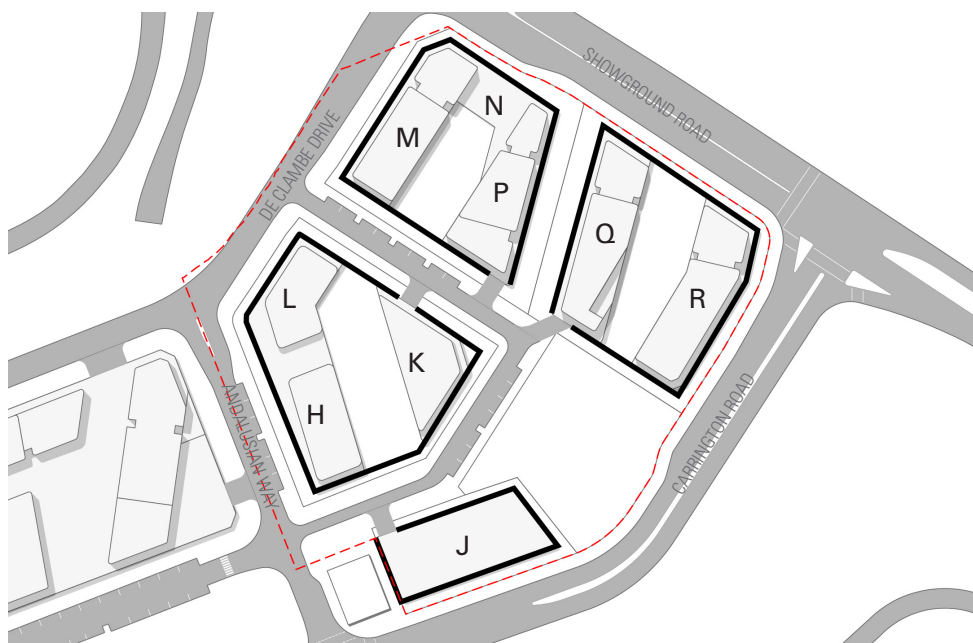


Figure 113: Precinct East FSR boundary and proposed built form
 --- FSR Boundary

Building J	1B	2B	3B	Visitor	Total
GFA (m²)	4,242	6,665	1,212	-	12,119m²
Apartment Yield	47	74	13	-	135
Minimum Car Space allocation	28	67	19	13	127 (3 levels)
Maximum Car Space allocation	47	74	20	13	155 (4 levels)

Building H-K-L	1B	2B	3B	Visitor	Total
GFA (m²)	9,575	15,047	2,736	-	27,358m²
Apartment Yield	106	167	30	-	304
Minimum Car Space allocation	64	150	43	30	287 (2.5 levels)
Maximum Car Space allocation	106	167	46	30	350 (3 levels)

Building M-N-P	1B	2B	3B	Visitor	Total
GFA (m²)	9,517	14,955	2,719	-	27,190m²
Apartment Yield	106	166	30	-	302
Minimum Car Space allocation	63	150	42	30	286 (2.5levels)
Maximum Car Space allocation	106	166	45	30	347 (3 levels)

Building Q-R	1B	2B	3B	Visitor	Total
GFA (m²)	10,139	15,933	2,897	-	28,970m²
Apartment Yield	113	177	32	-	322
Minimum Car Space allocation	68	159	45	32	304 (2.5 levels)
Maximum Car Space allocation	113	177	48	32	370 (3 levels)

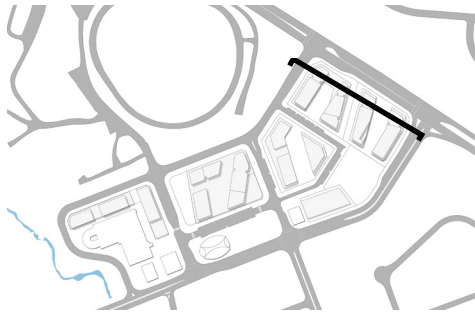
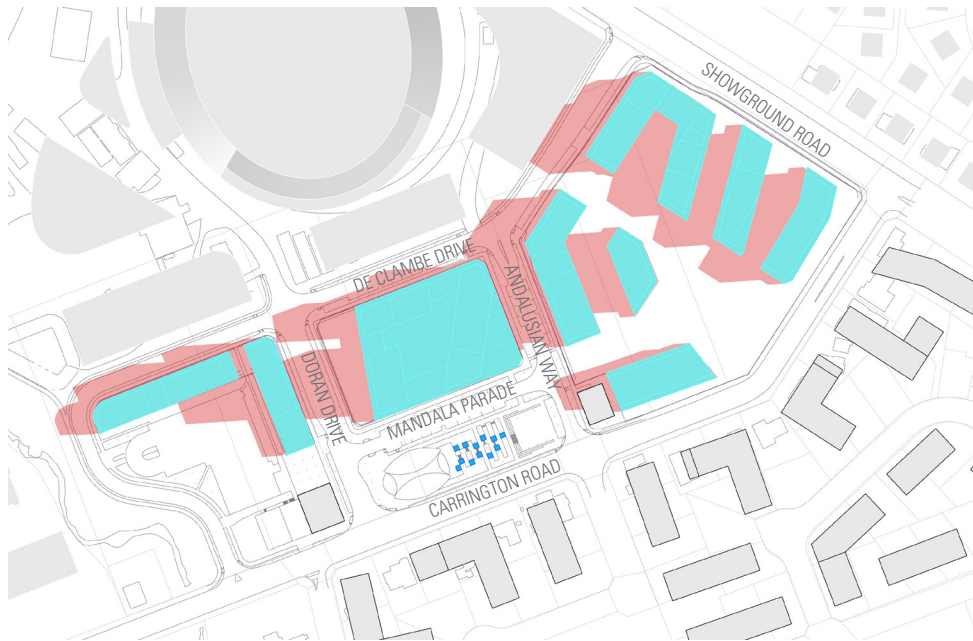


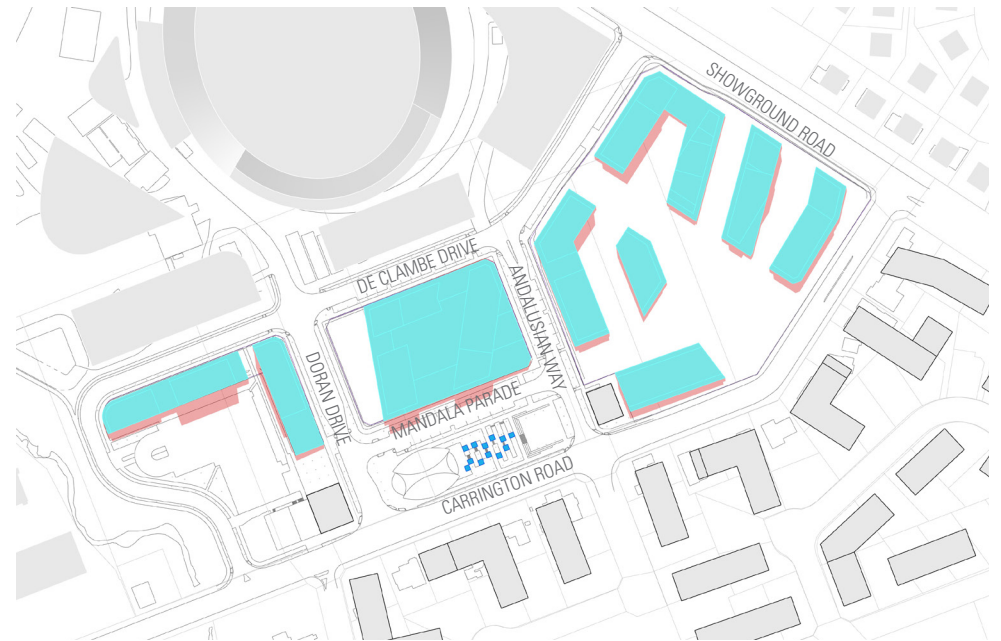
Figure 114: Precinct East Section

Shadow Studies

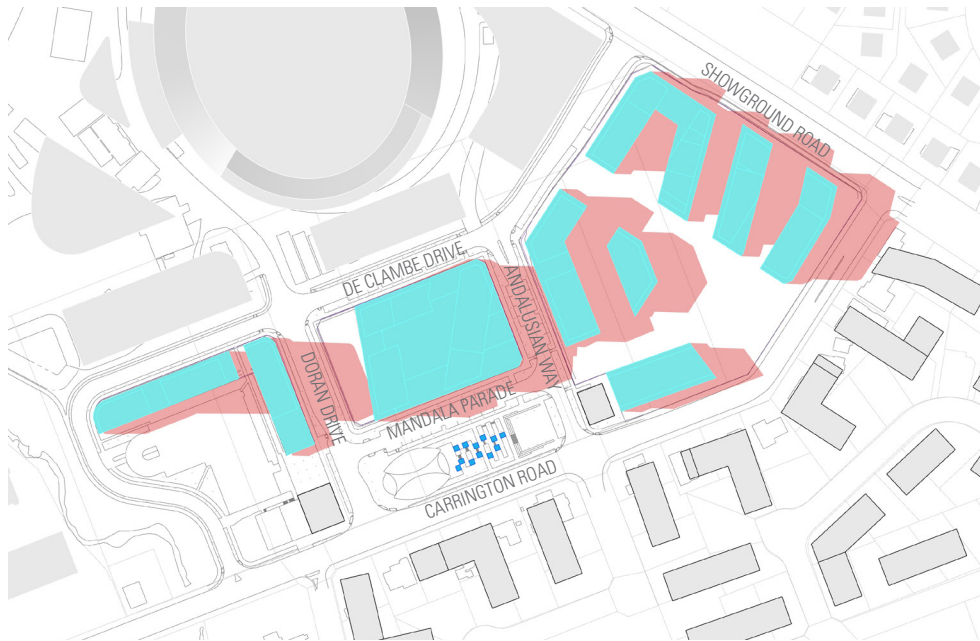
The shadow studies include an assessment of the Concept Master Plan built form and an analysis of potential impacts upon the future residential development to the south of Carrington Road as per the current LEP controls.



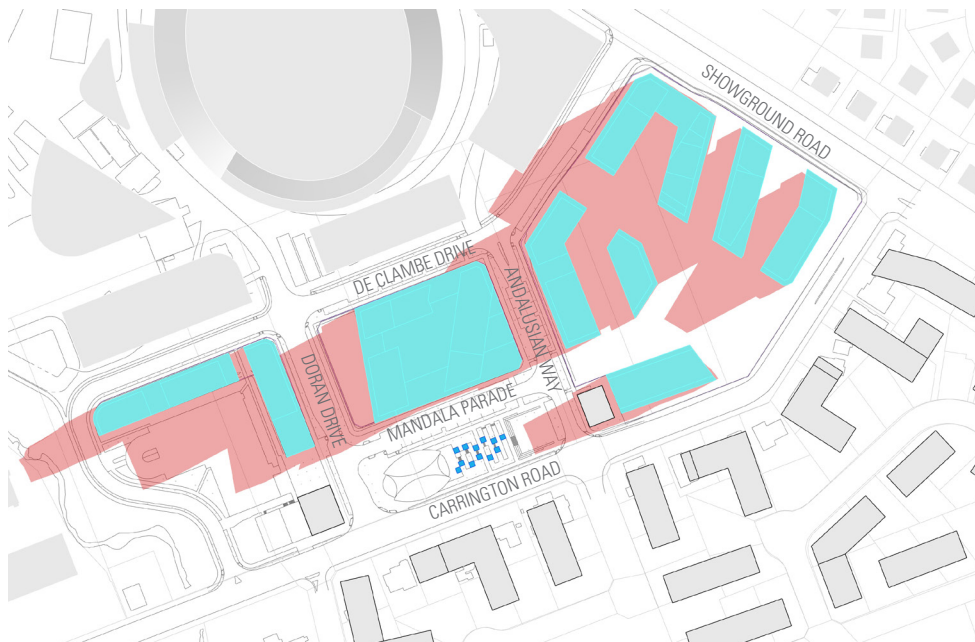
December 22nd - 9am



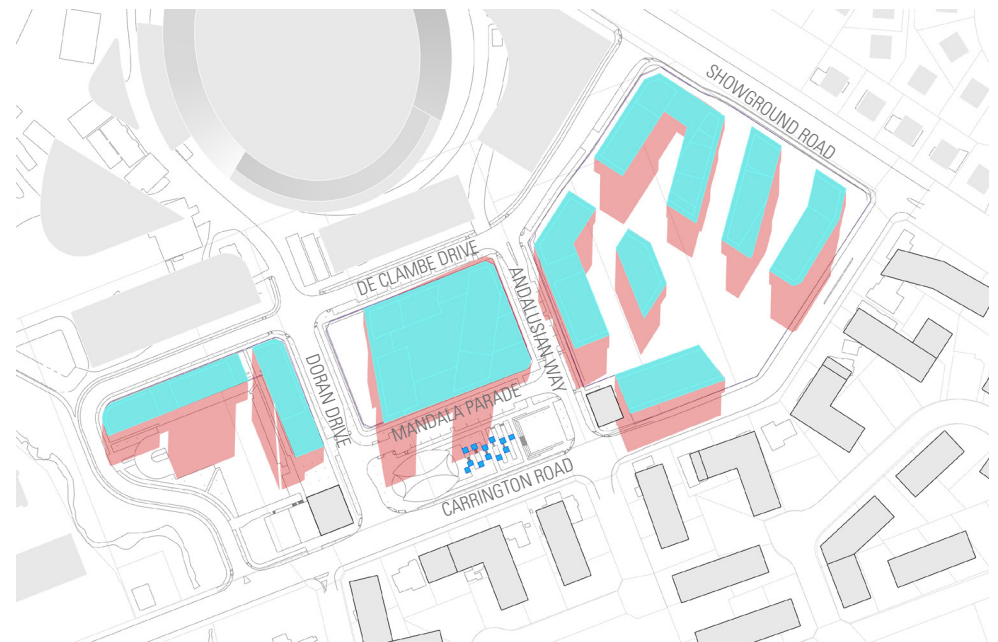
December 22nd - 12pm



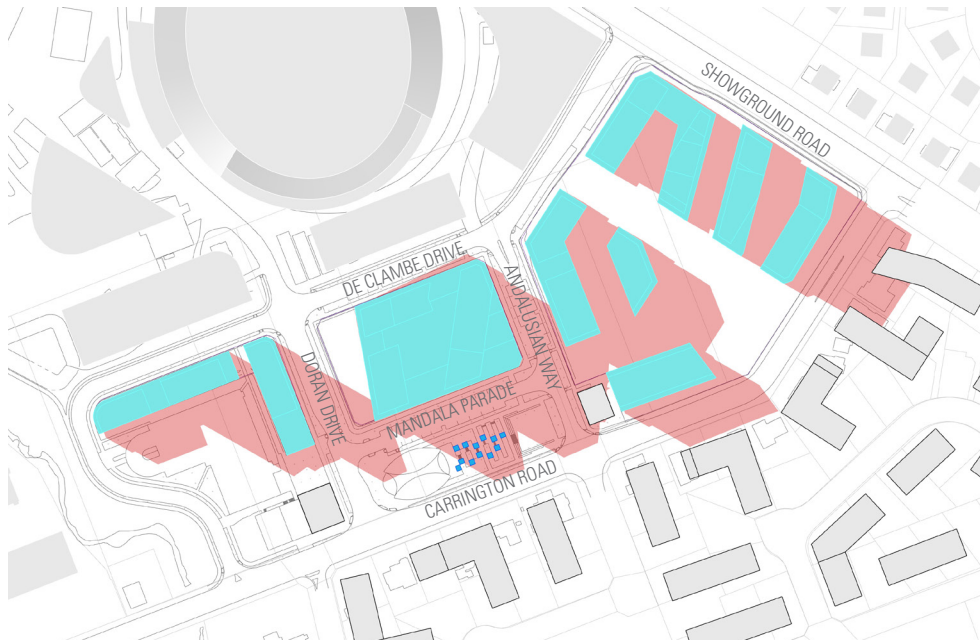
December 22nd - 3pm



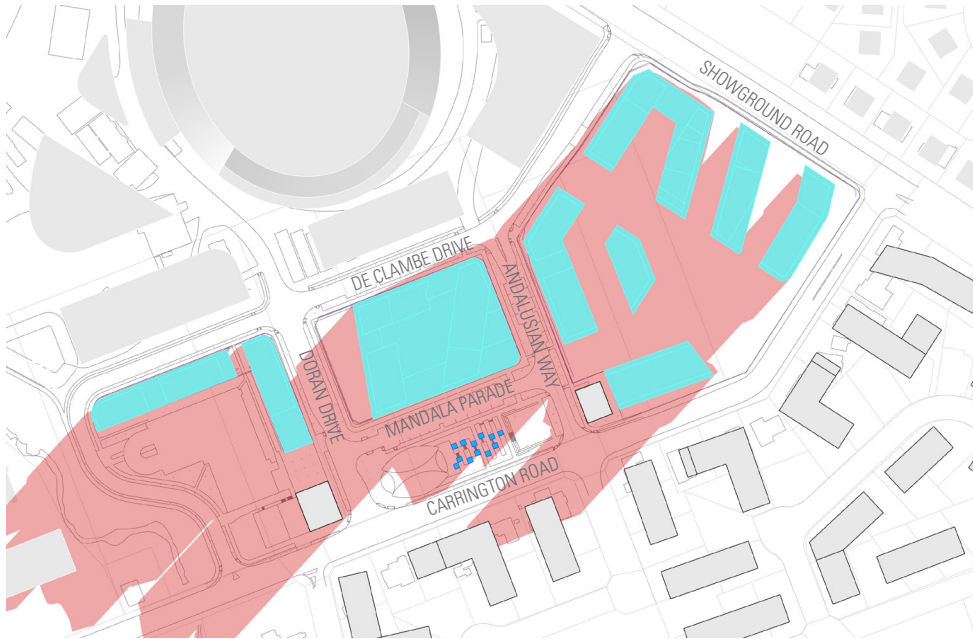
March 20th - 9am



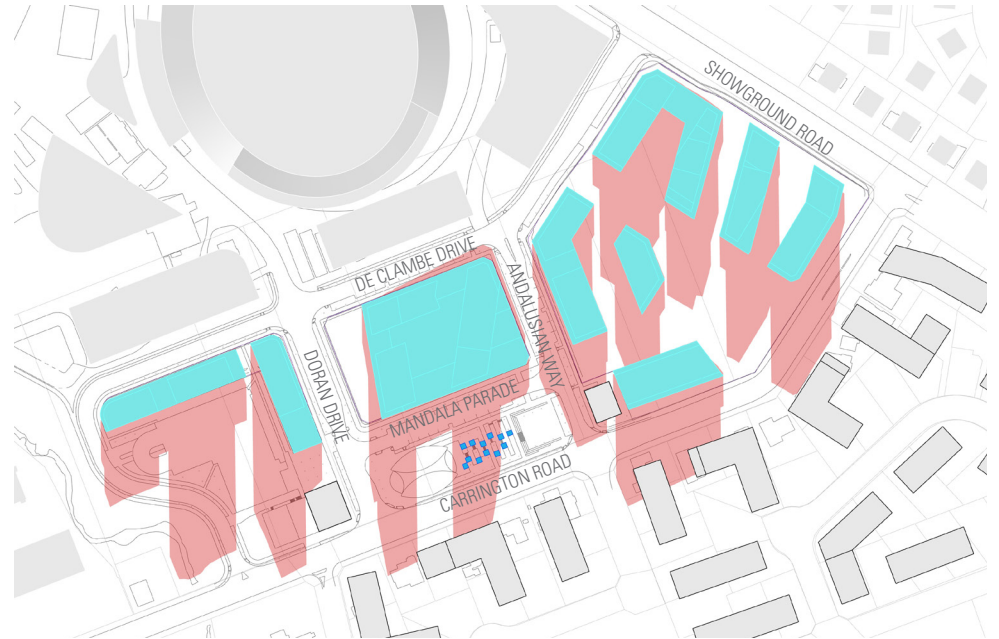
March 20th - 12pm



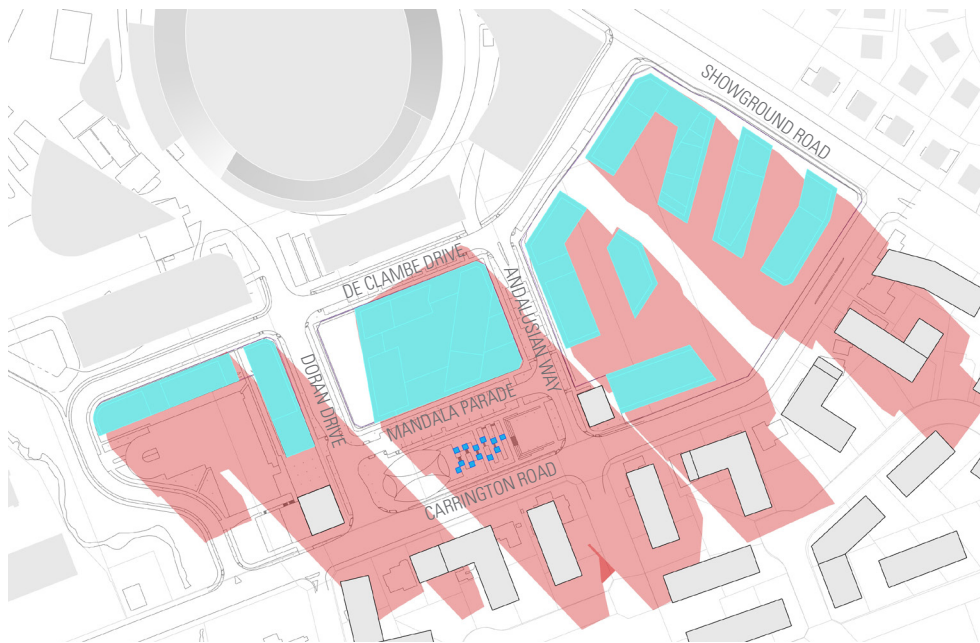
March 20th - 3pm



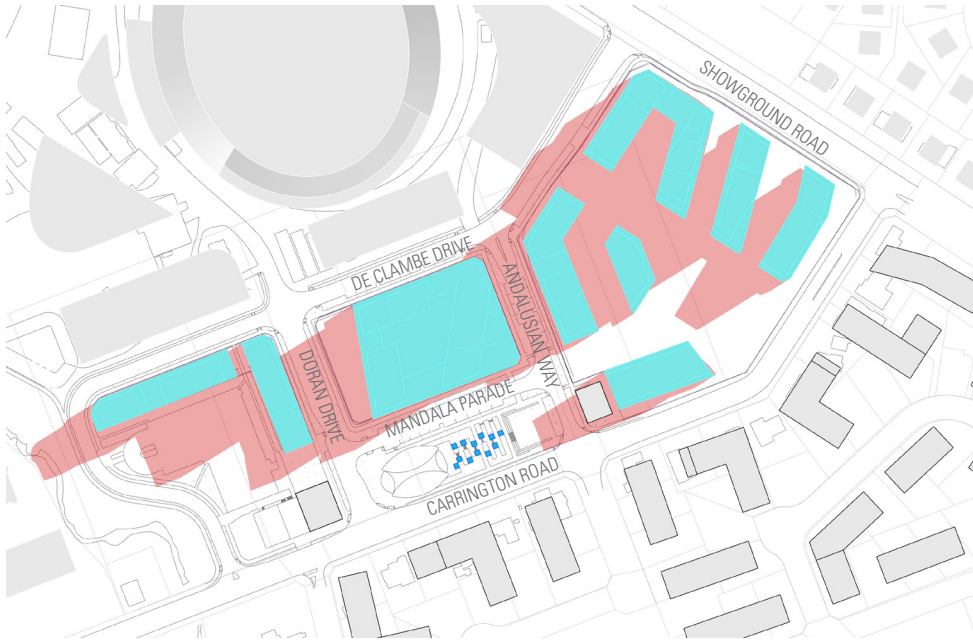
June 21st - 9am



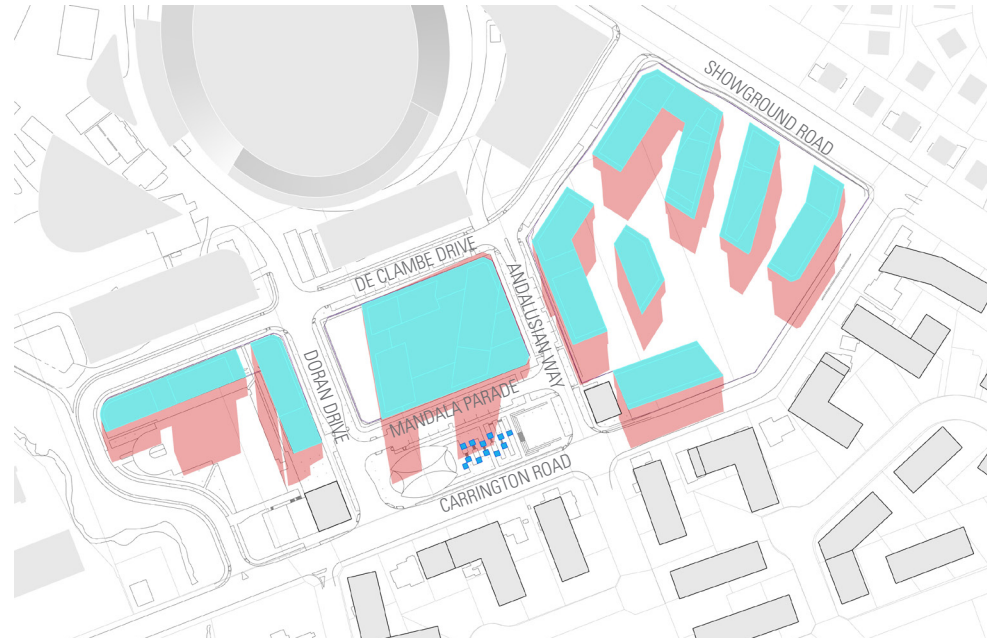
June 21st - 12pm



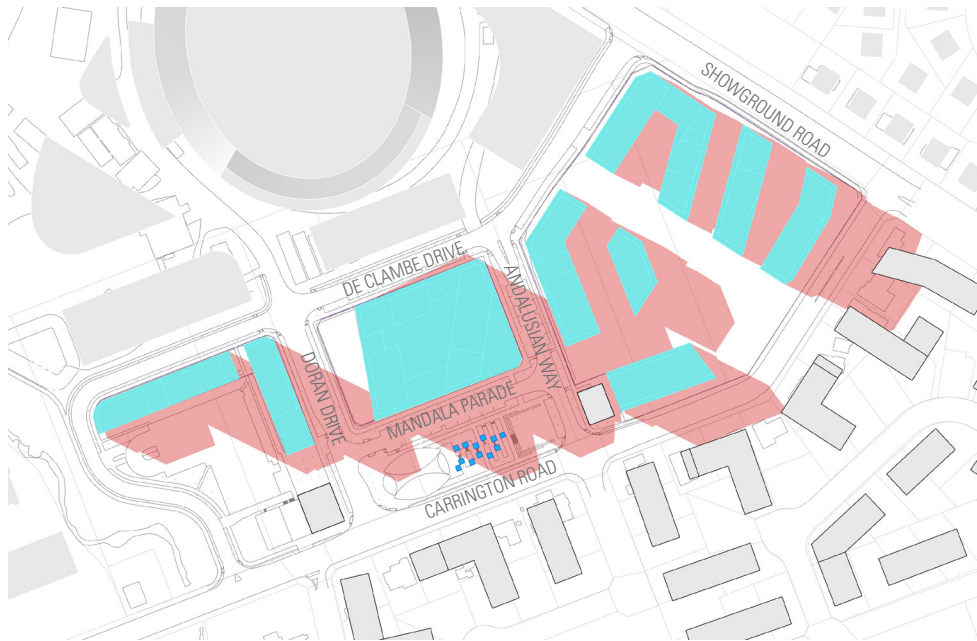
June 21st - 3pm



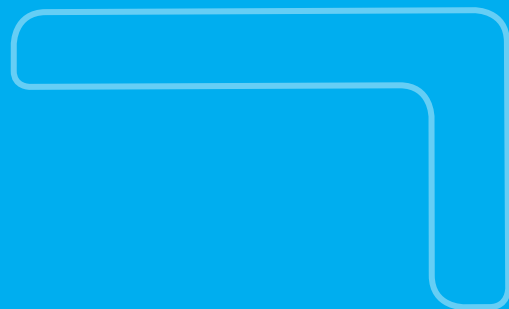
September 23rd - 9am



September 23rd - 12pm



September 23rd - 3pm



A

APPENDICES

The Appendices includes the SSDA design excellence process and supplementary background studies, analysis, proposals that are not within the remit of the SSDA, urban design guidelines, SSDA drawing set and CPTED assessment.

Appendices

Proof of Concept Assumptions

Built Form

- Building separation as per ADG requirements
- 3-5m ground floor primary setback for residential uses (varies by site)
- 2-3m secondary setback above 2-4-storeys (varies by site)
- Concept master plan building outlines represent GBA
- GFA for residential is 78-80% of GBA
- GFA for non-residential is 90% of GBA
- Average of 90m² GFA per Apartment
- Maximum 12 apartments per floor
- Example apartment mix for the purpose of the proof of concept
 - 1 Bed – 35%
 - 2 bed – 55%
 - 3 bed – 10%

Note: The apartment mix may vary for the future detailed development applications to be in accordance with market conditions. Studios may be desirable for affordability, or additional 3 bed apartments should there be demand.

Public Domain & Streetscapes

- Minimum 17m road reserve for new internal streets
- Doran Drive Plaza to be a minimum 1,400m²
- New Public Open Space within Precinct East of a minimum 3,500m²
- Detention basin retained in current configuration

Access and Car Parking

- No signalised access to/from Carrington or Showground Road for Eastern Precinct
- Left-out only on to Showground Road
- Minimum of 0.6 and maximum of 1 parking spaces are provided for each dwelling containing 1 bedroom
- Minimum of 0.9 and maximum of 1 parking spaces are provided for each dwelling containing 2 bedrooms
- Minimum of 1.4 and maximum of 1.5 parking spaces is provided for each dwelling containing 3 or more bedrooms
- 0.1 space per dwelling for visitor parking
- The current servicing accesses for Precinct West and Doran Drive are Precinct located on De Clambe Drive in the northern boundary of the site, which

are kept away from the major activity of bus and metro users on Doran Drive and Mandala Parade

- Car park accesses can be adjusted to accommodate access and loading for HRV during detailed design stage
- 4.5m clearance is required for MRVs and HRVs.
- Residential components to be serviced wholly onsite by Council and its Contractor. Non-residential to be serviced wholly onsite by private waste collection providers.

Mixed Use Amenity

- Range of non-residential uses to provide a minimum of 6,700m² GFA and a maximum of 13,600m² GFA

Permissible Planning Controls

Zoning

The current Land Use Zones reflect the future desired character of the Site and the broader precinct.

A B2 Local Centre zone covers the two sites adjoining the Hills Showground Metro Station and framing the existing commuter car park. The intention of this zone is to deliver a range of retail, business, entertainment and community uses that

serve the needs of people who live in, work in and visit the local area.

An R1 General Residential zone covers the eastern site and seeks to provide for a variety of housing types and densities and to enable other land uses that provide facilities or services to meet the day to day needs of residents.

Surrounding zones reflect the desired medium (R3) and high density (R4) residential to the north east and south east of the Site and preserving the regional recreational function (RE1) of the Showground to the north.



Figure 115: Zoning Plan

- RE1 - Public Recreation
- B2 - Local Centre
- R1 - General Residential
- SP2 - Special Use
- R4 - High Density Residential
- R3 - Medium Density Residential

Floor Space Ratios

The Floor Space Ratios (FSRs) applicable to the sites reflect the desired future density of the precinct in consideration of the level of accessibility and amenity afforded by the multi-modal transport network and the employment, community and recreational opportunities within close proximity of the Site.

The Site is subject to FSR controls that permit a 3:1, 4:1 and 5:1 FSR across the sites from east to west respectively.

The residential precinct south of Carrington Road and the Castle Hill Trading Zone to the west of Cattai Creek are controlled by a 2:1 and 1:1 Floor Space Ratio respectively.

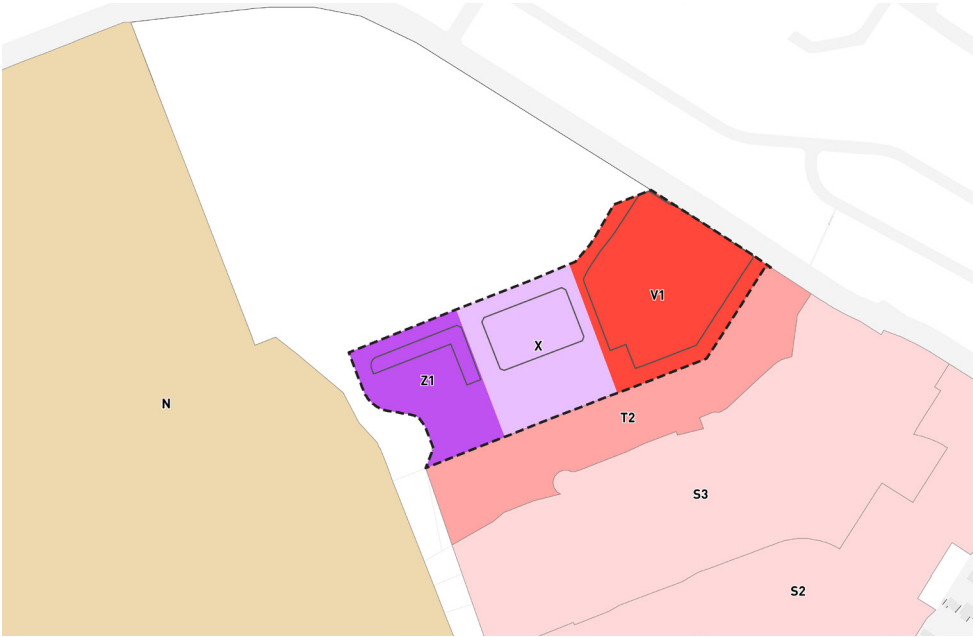


Figure 116: FSR Plan

- N - 1:1
- S2 - 1.5:1
- S3 - 1.9:1
- T2 - 2.1:1
- V1 - 3:1
- X - 4:1
- Z1 - 5:1

Building Height

The Height of Building (HOB) controls applicable to the Site range from 52m on the eastern part of the Site to 68m for the central and western site.

The surrounding context includes height controls that are commensurate with the desired future built form outcomes reflected in the Land Use Zoning and FSR controls applicable to them. A 40m height limit applies to the lots immediately south of Carrington Road, transitioning to a 27m height limit further south.

North east of Showground Road a 10m height limit is applicable and within the Castle Hill Trading Zone west of Cattai Creek a 20m height limit is applicable.

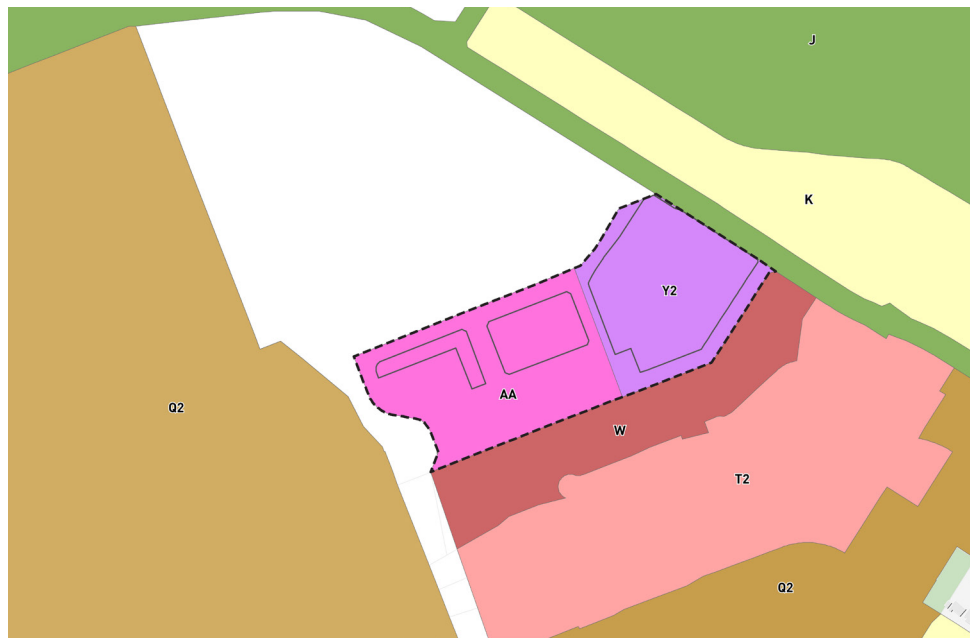


Figure 117: Building Height Plan

J - 9m
K - 10m
Q2 - 20m
T2 - 25m
W - 40m
Y2 - 52m
AA - 68m

Combined Planning Controls

The combination of the current controls result in the building envelopes adjacent.

Precinct West;

Land Use Zone - B2 Local Centre

Height of Building: 68m

Floor Space Ratio: 5:1

Doran Drive Precinct

Land Use Zone - B2 Local Centre

Height of Building: 68m

Floor Space Ratio: 4:1

Precinct East

Land Use Zone - R1 General Residential

Height of Building: 52m

Floor Space Ratio: 3:1

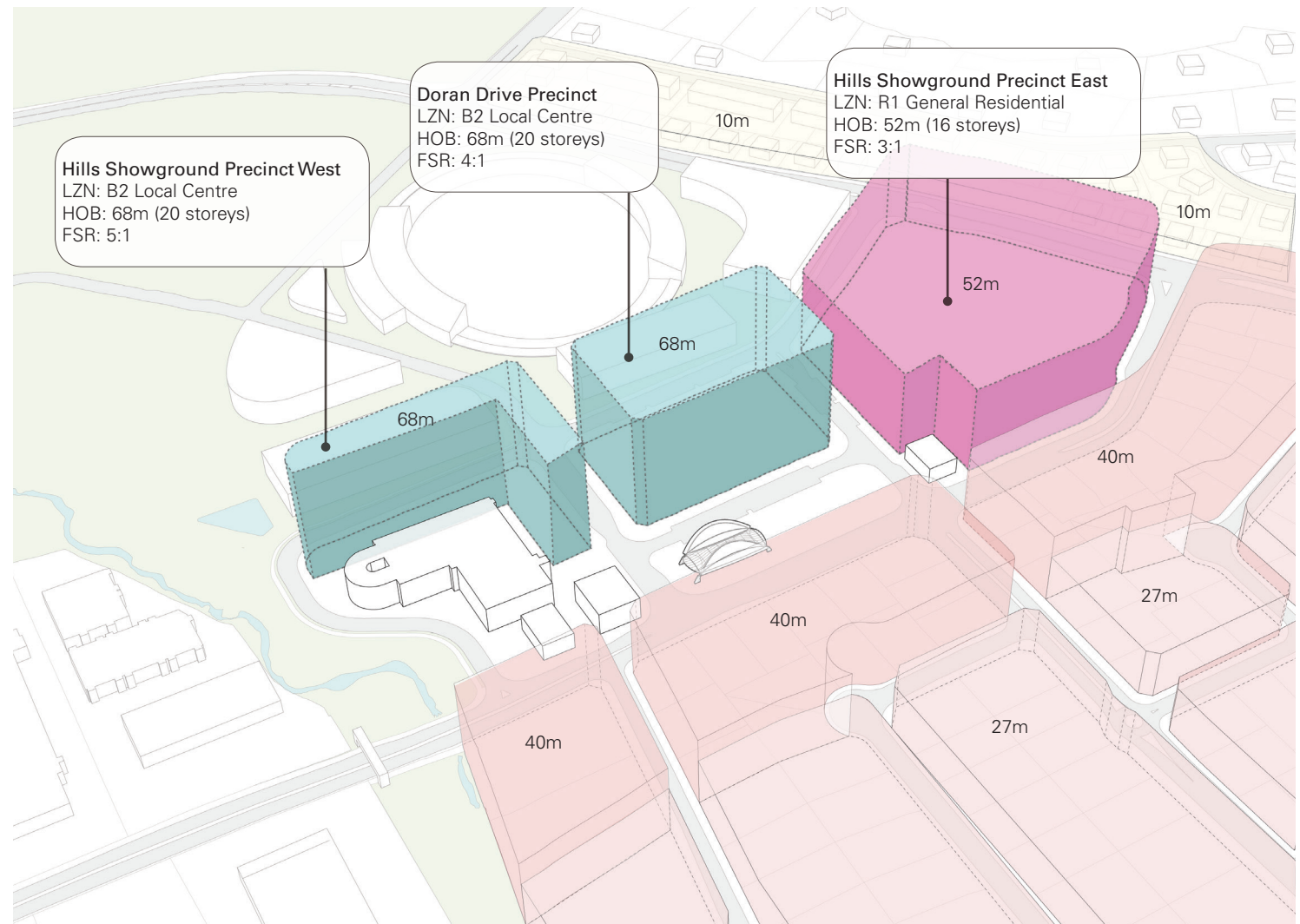


Figure 118: Combined planning controls

Recommendations For Existing Roads

Through stakeholder engagement during preparation of the SSDA a number of opportunities were discussed that sit outside of the scope of the SSDA, but could potentially contribute to a more connected, cohesive and complementary Hills Showground Precinct in the future.

As a response to future activity and growth in pedestrian and cycling movements within the precinct, some existing on-street parking may be removed to deliver a more pedestrian-friendly environment and/or greater canopy cover through the provision of more street trees in the public domain.

This includes:

- potentially removing 4 on-street parking spaces on the western edge of Andalusian Way on the Doran Drive Precinct to facilitate more street trees as a major connector to the existing and future residential community south of Carrington Road; and
- potentially removing 10 on-street parking spaces on De Clambe Drive on the northern edge of the Doran Drive Precinct to provide the potential for active uses such as outdoor dining to utilise a widened, north-facing public domain.

- New pedestrian crossings at Doran Drive and De Clambe Drive, Andalusian Way and De Clambe Drive and Mandala Parade and Andalusian Way
- A Potential shareway may be located between Andalusian Way and Doran Drive when future activation of the northern side of Doran Drive is considered.



On street parking on De Clambe Drive looking east towards Precinct East



On street parking on Andalusian Way looking south to Andalusian Way

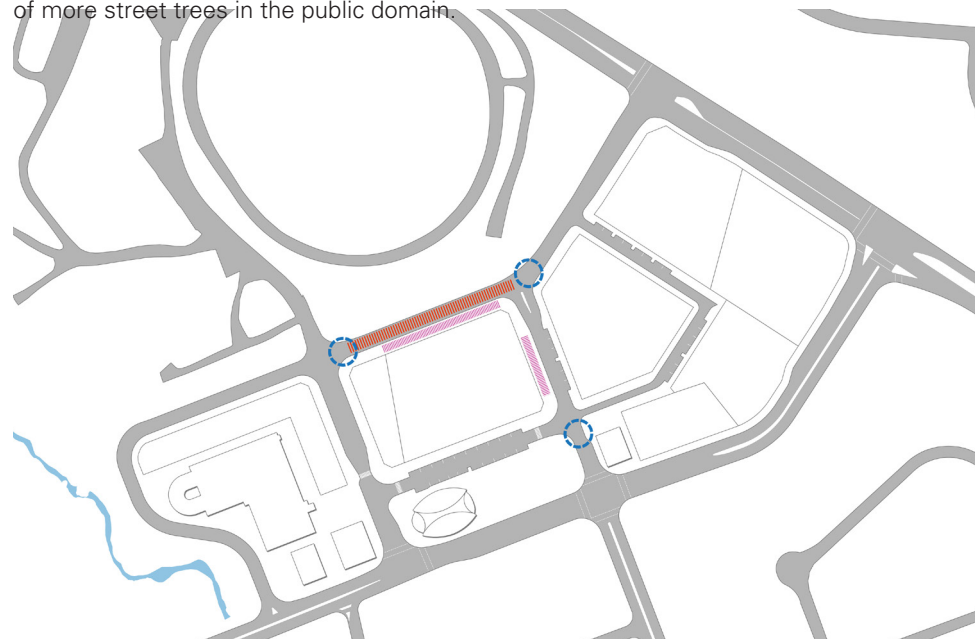


Figure 119: Recommendation for existing roads

▨ Removal of Existing Car Parking
 ○ Potential Pedestrian Crossing
 ▨ Potential Shareway

Andalusian Way

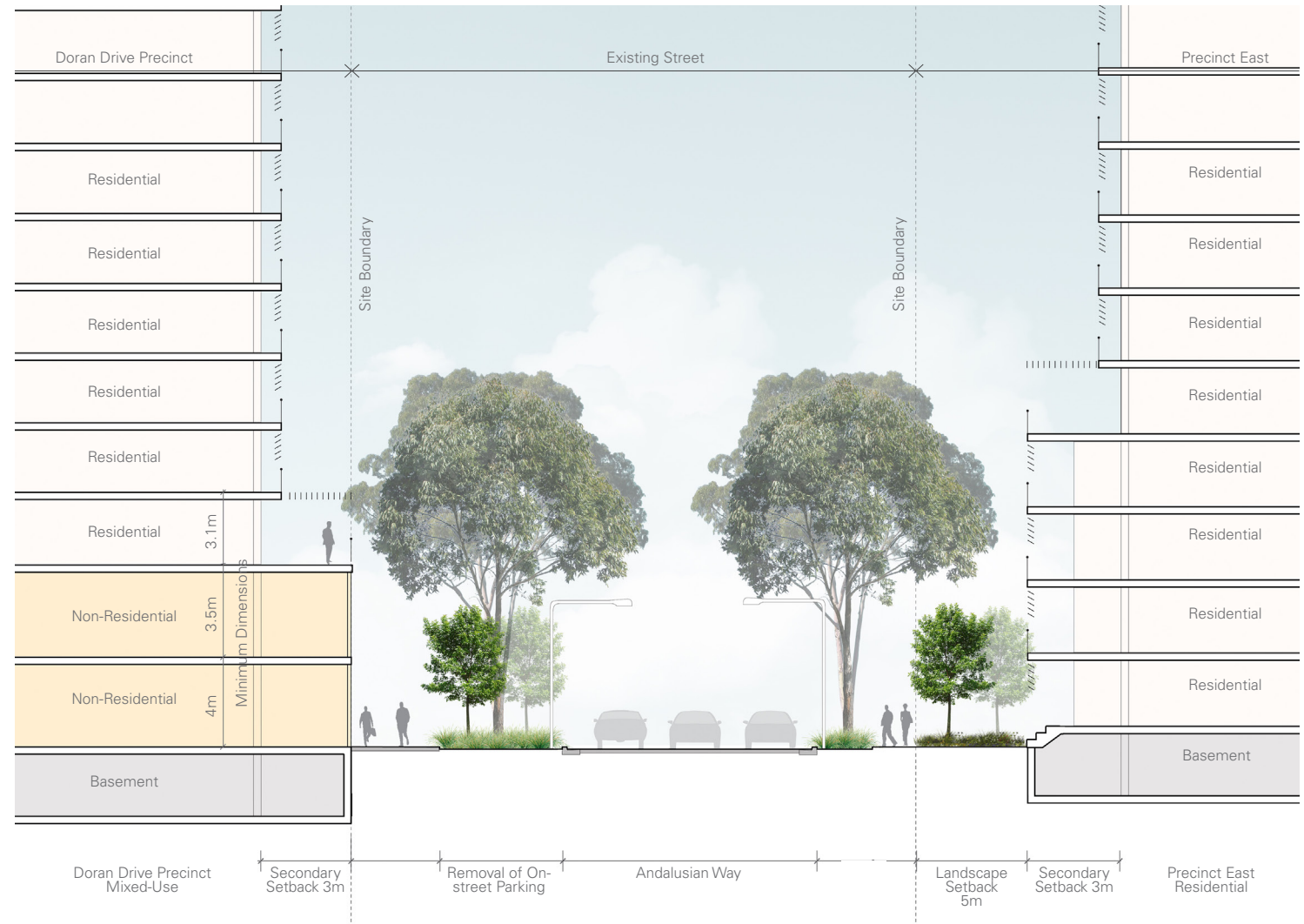
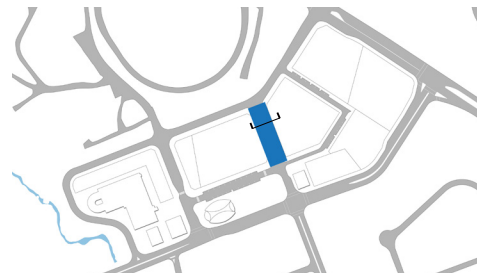
Andalusian Way is intended to be a primary north-south connector for pedestrians and vehicular access to and from the retail within Doran Drive Precinct.

Existing Conditions

- Two lanes of general traffic
- On-street parking on the eastern side
- Minimum 4m wide footpath on the western side between Mandala Parade and De Clambe Drive

Recommendations for Changes to Existing Development Controls

- Removal of on-street parking on the western side and additional street trees



De Clambe Drive and Doran Drive Precinct

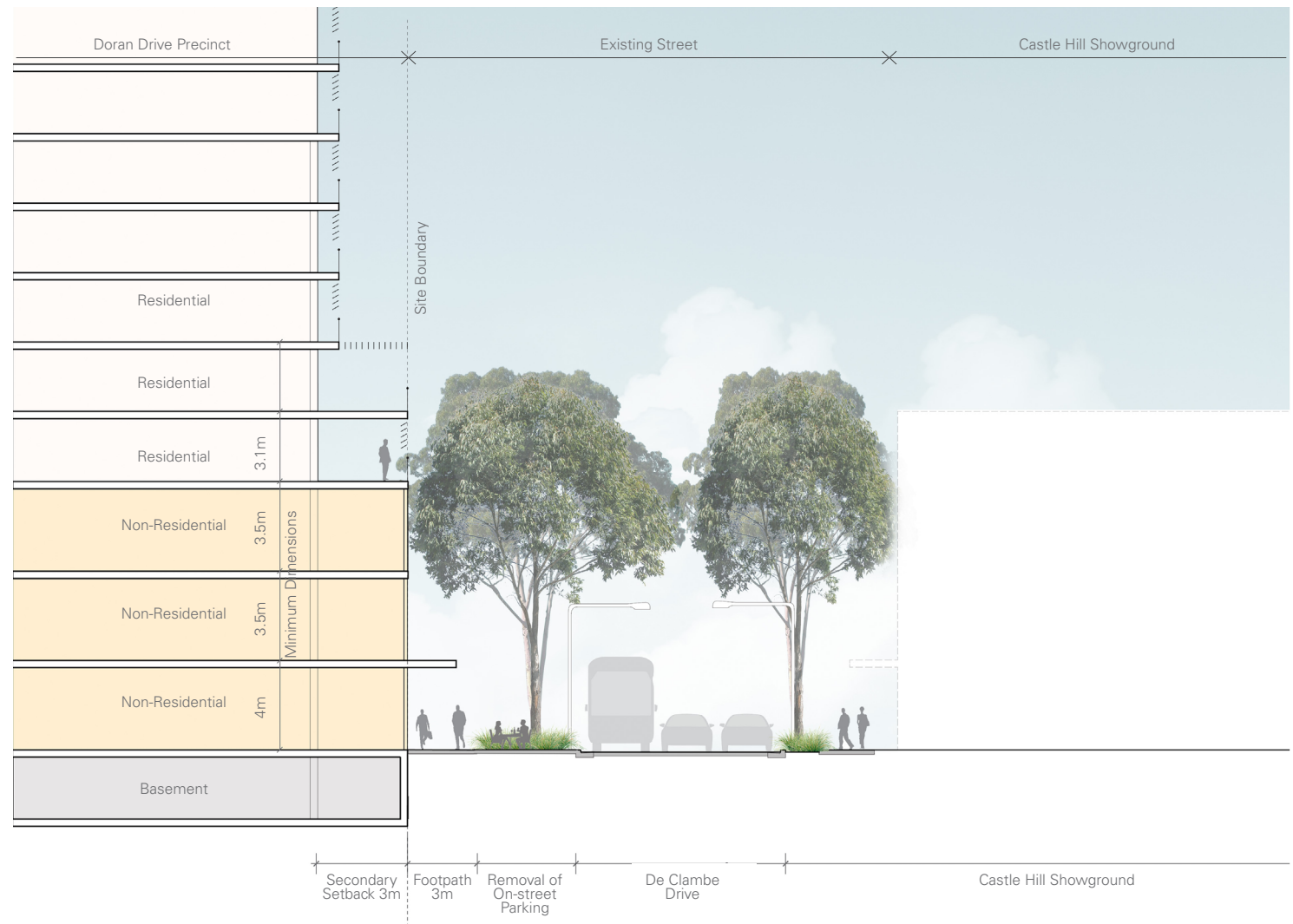
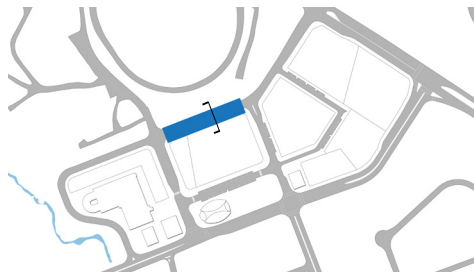
Doran Drive is intended to be a primary north-south connector for pedestrians, cyclists, public transport and vehicular access to/from the retail within Doran Drive Precinct and the commuter car park.

Existing Conditions

- two lanes of general traffic
- on-street parking on both sides

Recommendations for Changes to Existing Development Controls

- removal of on-street parking on the southern side and widening of the footpath/provision of outdoor dining areas and landscape blisters
- potential conversion to a shareway should high levels of pedestrian and cyclists movement and the activation of the northern side of the street require it



Doran Drive is intended to be a primary north-south connector for pedestrians, cyclists, public transport and vehicular access to/from the retail within Doran Drive Precinct and the commuter car park.

- two lanes of general traffic
- two indented bus bays for transport interchange functions
- on-street parking on the eastern side

- removal of on-street parking on the western side and additional street trees
- minimum 3.5m wide footpath on the western side between De Clambe Drive and Carrington Road to enable pedestrian and bicycle movement to the bike parking at the station

