WSU MILPERRA CAMPUS REDEVELOPMENT URBAN CONTEXT REPORT

PREPARED FOR

MIRVAC DEVELOPMENT NSW

29 SEPTEMBER 2022

EXECUTIVE SUMMARY

PROJECT BACKGROUND

In April 2019, Western Sydney University (WSU) announced **Western Growth** to revitalise the campuses between periurban and CBD locations to facilitate better connectivity and also contribute to urban development. As a part of this plan, the WSU Milperra Campus Redevelopment was planned.

Mirvac Development NSW and WSU entered a PDA in August 2019 to develop a concept scheme to re-zone WSU Milperra Campus from educational uses to low rise residential uses associated with a series of open spaces and communal and retail facilities.

A planning proposal (PP-2021-5837) for the rezoning was lodged in 2021 and Gateway Determination has been received on 1st June 2022.

This report demonstrates that good urban design outcomes are achieved on the site in accordance with best urban design practices.

THE MASTER PLAN

This masterplan will transform the WSU Milperra Campus into a inclusive neighbourhood that caters for housing demand across different demographics. It will built upon the site's existing assets and carefully respond to the neighbouring character.

This concept plan will transform the WSU Milperra Campus into a liveable low rise neighbourhood that is built upon the site's existing assets and carefully respond to the neighbouring character. It will:

- Provide a diversity of housing types that optimises solar access;
- Create community gathering spaces;
- Introduce a connected network of open space;
- Maximise frontages to open space;
- Offer a connected street network, and permeable subdivision including through site links and pedestrian connectivity to Milperra Reserve; and
- Sensitively respond to existing context.

The project delivers:

- Up to approximately 430 residential dwellings with a combination of semi-detached, attached and standalone houses.
- Approximately 8,000 sqm of B1 Neighbourhood Centre zoned land. Subject to a future demand analysis during the Development Application stage, proposed land uses may include: shared office space, cafe/restaurant premises, community rooms and a reconfigured child care centre.
- Approximately 3.5 ha of open space including:
 - A new local park;
 - Northern and southern open space areas; and
 - Retention of the Cumberland Woodland area.



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Date: 29 September 2022

We acknowledge Aboriginal and Torres Strait Islanders as the traditional custodians of all the lands throughout Australia. We recognise and respect the connection to their land, cultural heritage and community, and we pay respects to their Elders past, present and emerging.

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PROJECT OVERVIEW

Mirvac Development NSW engaged Urbis to prepare an urban context report in support of the rezoning of Western Sydney University (WSU) Milperra Campus.

The site is within City of Canterbury-Bankstown LGA and it is approximately 8km south-west of Bankstown CBD. It is situated in the middle of low-density buildings and industrial warehouses and surrounded by a network of open spaces along the Georges River.

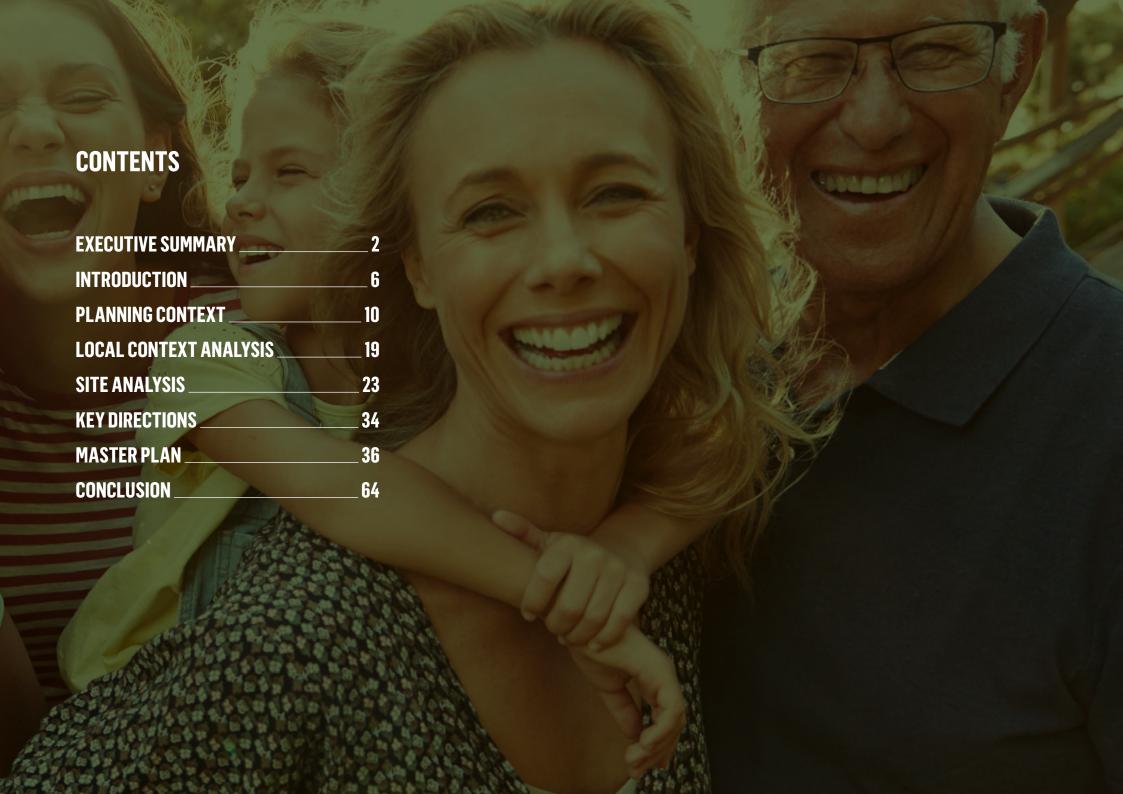
The site is currently used as part of WSU Campus offering education facilities and student accommodation. As a part of WSU's Western Growth plan, the educational uses will start to concentrate more in centres such as Bankstown CBD for better connectivity.

PURPOSE OF THE REPORT

This report has been prepared to examine the background urban context and strategic positioning investigations that informed the development of the transformation of the campus.

This report will include:

- An overview of strategic planning policy and statutory planning controls.
- Analysis of the urban context considering both existing and future local character.
- An understanding of the site specific opportunities and constraints for redevelopment.
- Review of the proposed masterplan and assess the potential urban design impact on the locality.



INTRODUCTION

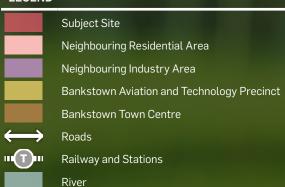
SITE LOCATION

The site is located in Sydney's South District, in the suburb of Milperra. It sits in a neighbourhood that is primarily industrial and low-density residential, and abuts M5 Motorway to the south.

The site's distance to adjacent key destinations are as below:

- 8 km (15min drive) to Bankstown CBD,
- 4 km (8min drive) to Panania Station,
- 10 km (18min drive) to Liverpool CBD, and
- 15 km (30min drive) to Parramatta CBD.

LEGEND



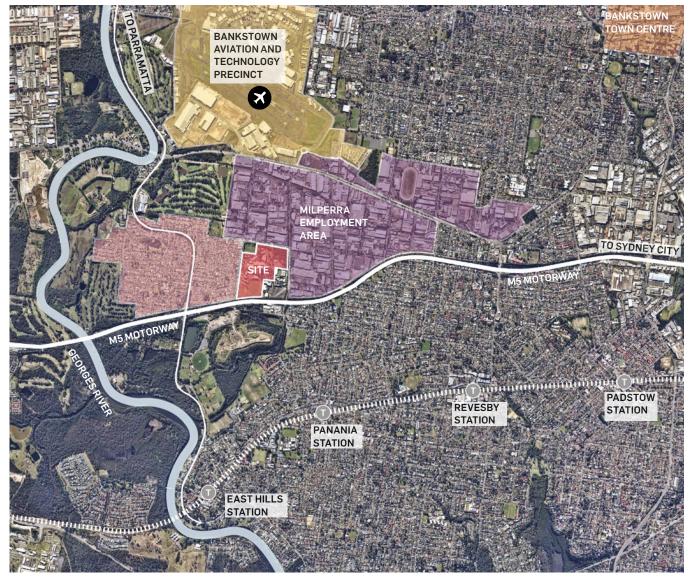


Figure 2 Location Plan

SITE DESCRIPTION

The site occupies a 19.5ha land abutting the M5 Motorway. It is legally described as: Part Lot 103 DP874035, and Lot 1 DP101147. The site is bound by:

- M5 Motorway to the entire length of southern boundary,
- Ashford Avenue to the west,
- Bullecourt Avenue to the north, and
- Horsley Road to the east.

The site is currently used as the WSU Milperra Campus, which is comprised of a mix of:

- Buildings concentrated at the centre of the site and mostly used for: education, student accommodation, and administration purposes.
- 4 open-air carparks,
- An oval near the southern site boundary,
- Cumberland Woodland in the north-eastern site corner.

Immediate Context

The immediate built form context is featured with lowerrise residential and industrial buildings. To the west of the site are primarily detached residential houses up to 2 storeys and buildings to the north and east are mainly larger footprint industrial warehouses.

There is a sports field adjacent to the north-western site corner (Milperra Reserve), and Mount St. Joseph Secondary School is located immediately to the east with a current enrolment of 860 students. 3.6ha of campus land to the southeast corner of the site has recently been subdivided and transferred to Mount St Joseph to be used as potential school expansion.

M5 is a major motorway bounding the southern site boundary, and to further south are mainly vegetated open space and low-density houses.



Figure 3 Existing Site Conditions

SITE PHOTOS















PLANNING CONTEXT

Planning in NSW is underpinned by a series of cascading strategic planning documents which align land use, transport and infrastructure between three tiers of government and across State agencies for the first time in a generation.

This is supported by site specific planning controls which are prepared in alignment with strategic planning objectives and guide development and design outcomes at a detailed level.

Together these documents set out the existing and future context along with development and design considerations to inform future development outcomes on a site.

This section of the report provides a summary of the key planning directions for (the site) as set out in the relevant planning documents.

WESTERN GROWTH STRATEGY

Western Growth Strategy is a large-scale transformative program by Western Sydney University (WSU) to reshape its campus network and combine the maintenance and development of traditional campuses into vertical ones in several CBDs including Parramatta, Liverpool and Bankstown. This will enable a flexible and high amenity learning environments in convenient locations where university could potentially be integrated with businesses, government and other health and education precincts. Also, this will be further enhanced by the rapid-growing population in Western Sydney.

As a result, the Milperra campuses is not required for educational uses will be re-purposed in the context of its locality and strategic land uses.

The redevelopment of the Milperra Campus will unlock 19.5 Ha of land for future urban uses. This chapter will investigate the strategic context to ascertain a supportable future outcomes on the site.

WESTERN
GROWTH

STRATEGIC PLANNING ALIGNMENT

A review of strategic planning requirements for the site identified the following plans, strategies and requirements as relevant:

- A Metropolis of Three Cities the NSW Regional Plan (March 2018)
- South District Plan (March 2018)
- Connective City 2036 The Canterbury Bankstown LSPS (December 2019)
- Canterbury Bankstown Housing Strategy (June 2020)
- Canterbury Bankstown Affordable Housing Strategy (June 2020).
- Canterbury-Bankstown Employment Lands Strategy
- Western Growth Strategy



REGIONAL PLANS

GREATER SYDNEY REGION PLAN - A METROPOLIS OF THREE CITIES

In March 2018, the Greater Sydney Commission (GSC) released the *Greater Sydney Region Plan* (the Region Plan) articulating a 40-year vision to transform Greater Sydney into 'A *Metropolis of Three Cities'* - the Western Parkland City, The Central River City and the Eastern Harbour City.

The Region Plan establishes a 20-year plan to rebalance growth and deliver its benefits more equally and equitably to residents across Greater Sydney. It is built upon a vision where most residents live within 30-minutes of their jobs, education and health facilities, services and great places. The plan has following key directions:

- A city supported by infrastructure: Infrastructure supporting new developments.
- A collaborative city: Working together to grow a Greater Sydney.
- A city for people: Celebrating diversity and putting people at the heart of planning.
- Housing the city: Giving people housing choices.
- A city of great places: Designing places for people.
- A well connected city: Developing a more accessible and walkable city.
- Jobs and skills for the city: Creating the conditions for a stronger economy.
- A city in its landscape: Valuing green spaces and landscapes.
- An efficient city: Using resources wisely.
- A resilient city: Adapting to a changing world.

SOUTH DISTRICT PLAN

Five District Plans were prepared to provide a framework for Councils to plan and deliver growth and change over the next 20 years in alignment with place based outcomes.

The subject site is located within the South City District, and it has been identified as 'Urban Land' surrounded by 'Industrial Land'. Also, the District Plan identifies the nearby emerging Bankstown 'Health and Education Precinct', and the importance to develop housing for moderate-income households, students and health visitors to support the growth of the precinct.



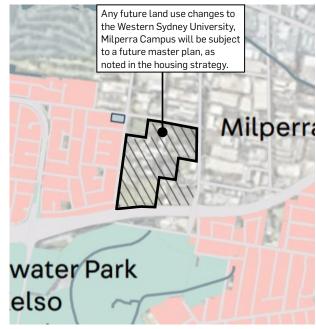
- The site is well located adjacent to bus services, employment precincts and emerging centres, which offers jobs, amenities, and services. This is consistent with the '30-minute' initiative.
- The proximity to emerging centres and services will provide opportunity to deliver housing and housing diversity to support growth.

CONNECTIVE CITY 2036 (CANTERBURY - BANKSTOWN LSPS)

The Local Strategic Planning Statement – Connective City 2036 – is a 20-year plan to guide Canterbury-Bankstown's growth to support additional 500,000 residents and 165,000 workers and visitors by 2036. Also, it is noted that around 20% of the new housing will be provided outside the strategic centres. The LSPS sets out 10 key evolutions as below:

- Evolution 1 Coordination, community, collaboration and context:
- Evolution 2 Movement for Commerce and Place.
- Evolution 3 Places for Commerce and Jobs.
- Evolution 4 Blue Web.
- Evolution 5 Green Web.
- Evolution 6 Urban and Suburban Places, Housing the City.
- Evolution 7 Cultural Places and Spaces.
- Evolution 8 Design Quality.
- Evolution 9 Sustainability and Resilience.
- Evolution 10 Governance and Funding.

The LSPS has also identified the Bankstown Aviation and Technology Precinct, which aims to create an industrial precinct that builds on aviation, advanced manufacturing and transport logistics specialisations. The site is located within walking distance to this precinct and is identified as having 'the opportunity for sustainable community uses, public open space and new educational uses. New open spaces and community facilities would be an attractive feature for those working in the surrounding Milperra employment lands.'



Source: Housing in the City Plan 2036, Connective City 2036



Source: Green Web Plan 2036, Connective City 2036

HOUSING STRATEGIES

There are two main strategies prepared to guide future housing land planning within Canterbury-Bankstown LGA. They are: Canterbury-Bankstown Housing Strategy 2020 and Canterbury-Bankstown Affordable Housing Strategy 2020.

CANTERBURY-BANKSTOWN HOUSING STRATEGY 2020

Council's Housing Strategy was finalised in 2020 and it was prepared to provide a framework that guides the housing growth within the Canterbury-Bankstown LGA. There are eight strategic directions underpinning residential land planning, which propose 50,000 new dwellings by 2036 and recommend new housing to be well-connected and cater for people with different demands. Ten guiding principles are also suggested to ensure new homes are of good quality and meet people's needs:

- Land use zoning needs to allow for the delivery of new dwellings in the City to meet housing demand.
- New housing is best located within walking distance of centres, open space and places of high amenity.
- New housing will need to provide a variety of dwelling types, sizes and price points to meet the needs of a diverse and aging population.
- The location and design of new housing must be compatible with the existing or desired future character of centres and neighbourhoods, with thresholds for design quality.
- Design led and place based plans are to prioritise good design outcomes in accordance with a centres hierarchy and place characteristics.

- Housing and population growth needs to align with existing and future infrastructure capacity.
- More affordable housing is necessary to support the community and reduce housing stress.
- The transition of Bankstown to a contemporary CBD will increase the diversity of housing in the City.
- The transition of Campsie to a lifestyle precinct will improve the housing, entertainment and leisure opportunities available to residents.
- The suburban neighbourhoods are important to the character of the City and provide low density housing to meet the needs of growing families and larger households.

Consistent with LSPS, the housing strategy also earmarks the site as having opportunity to offer sustainable community uses and open spaces to service a wider community.

CANTERBURY-BANKSTOWN AFFORDABLE HOUSING STRATEGY 2020

Council's Affordable Housing Strategy was finalised in 2020 to reduce residents' pressure on housing affordability. As is mentioned in the strategy, 'housing stress is a significant issue in Canterbury Bankstown, as with many other parts of Greater Sydney, due to comparatively low income to Sydney's high housing costs. Almost twenty-two thousand households experience housing stress in the city, or 18.6% compared to 11.8% in Greater Sydney.' This strategy also sets out 5 quide principles:

- Increase the supply of affordable housing in Canterbury Bankstown.
- Locate affordable housing near established centres to allow residents better access to transport, jobs and services.
- Focus on alleviating housing stress for very low and low income households and key workers.
- Establish clear processes for the delivery and dedication of affordable housing dwellings.
- Establish an internal framework for the management of affordable housing dwellings.

- Sitting in a suburban setting outside the strategic centre, the site has the potential to support Council achieving their housing target in a location that is well-connected and close to employment & services.
- The mismatch between current housing supply within the LGA and residents' demand will provide an opportunity to facilitate housing diversity on the site.
- In addition to housing, there is also an opportunity for the site to provide open spaces to service a wider community.
- Future development on the site will need to consider relationship with existing environmental assets.

EMPLOYMENT LAND STRATEGY

The Employment Lands Strategy forms part of Canterbury Bankstown's strategic planning framework, underpinned by the Canterbury Bankstown Local Strategic Planning Statement, Connective City 2036 (LSPS). The strategy provides evidence base and directions for employment-related actions in Connective City 2036.

The strategy highlights Milperra Precinct, a 290ha parcel of land spanning along M5 between Bankstown Airport and the subject site. The precinct currently provides 15,700 jobs and aims to be retained and strengthened in future developments.

- There is an opportunity for the subject site to provide housing to facilitate housing choices for workers from the employment lands.
- Potential future amenity provision on the site could service the employment precinct.
- Future development needs to carefully manage the interface and impacts between the industrial precinct and future uses on the subject site.



Source: Milperra Precinct - Canterbury-Bankstown Employment Lands Strategy

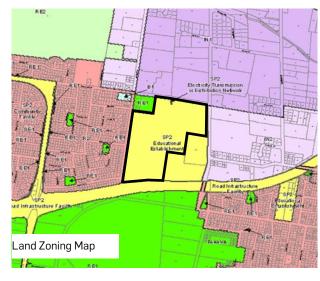
BANKSTOWN LOCAL ENVIRONMENTAL PLAN 2015

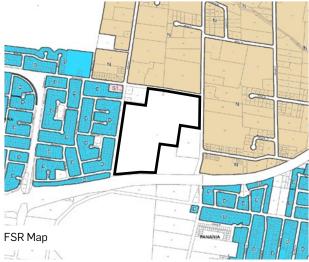
The local planing controls for the site are outlined in the Bankstown LEP 2015 (BLEP 2015), and as summarised below:

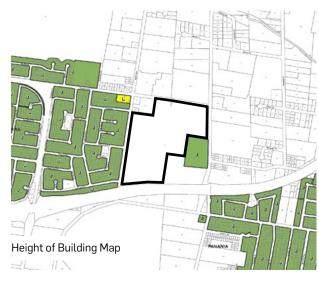
Table 1BLEP 2015 Controls

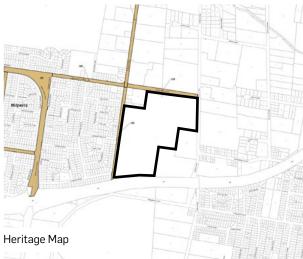
ELEMENT	CONTROLS	
Zoning	SP2 Infrastructure	
Permitted Uses	Aquaculture; Roads; The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose	
FSR	N/A	
Height of Building	N/A	
Heritage	No heritage significance item within the site but the site is bounded by a locally listed heritage item: Item No. 129 (former Milperra Soldiers Settlement).	

- The site falls into SP2 Infrastructure, which does not consider residential development. A re-zoning is needed for the campus redevelopment.
- The immediate context is predominantly zoned R2 Low Density Residential to the west, IN1 General Industrial to the north and IN2 Light Industrial to the east.





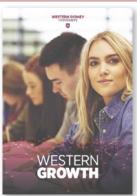




PLANNING CONTEXT SUMMARY

WSU

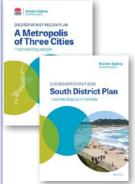
WESTERN GROWTH



The Western Growth strategy will unlock the subject site for potential redevelopment.

REGIONAL PLANS

THREE CITIES + SOUTH DISTRICT PLAN



The site's strategic location will be in line with the '30 minute city', also the proximity to Bankstown strategic centre and employment lands will give the site opportunities to support these uses and provide housing.

LOCAL PLANNING POLICIES

LSPS + HOUSING STRATEGY + AFFORDABLE HOUSING STRATEGY + EMPLOYMENT LANDS STRATEGY

+



Sitting in a suburban setting outside the strategic centre, the site has the potential to assist achieving the housing and housing affordability target.



In addition to housing, there is also an opportunity for the site to provide open spaces to service a wider community.

Future development on the site will need to consider relationship with existing environmental assets.

STATUTORY PLANNING CONTROLS

BANKSTOWN LEP 2015



The current zoning of SP2 Infrastructure is reflective of the campus' current use, however it doesn't allow for residential developments. Also, interfaces with surrounding context will need to be carefully managed.

KEY INSIGHTS

PLANNING CONTEXT REVIEW

The planning context review highlights an opportunity for the site to provide housing and housing diversity to leverage its locational advantage. The site could potentially incorporate community facilities to service a wider neighbourhood.

A re-zoning of the site is needed for the redevelopment of the campus. Further urban contextual analysis will be outlined in the following chapters to investigate the suitability of the redevelopment.



Understanding the place

"Character is what makes an area distinctive. It is the translation of land use and built form, the local economy, public realm and private spaces and the tradition and history of Aboriginal and non-Aboriginal cultures, intrinsically linked to individual places. Character is fluid and reflected by people who value and influence the places they are connected to in different ways."

Source: NSW Local Character and Place Guideline

Understanding and nurturing the unique identity of each place, whilst also meeting the existing and future needs of our communities, will ensure we create places, neighbourhoods and cities that are healthy, responsive, integrated, equitable and resilient.

NSW Government in partnership with the NSW Government Architect have prepared a series of guidelines to assist in understanding local character and place. This chapter of the report has been prepared in alignment with these guidelines to understand the place characteristics of the locality at two key scales being:

- Local Context Analysis; and
- Site Analysis.

LOCAL CONTEXT ANALYSIS

The local context analysis will investigate site's broader context include the following:

- Land use analysis;
- Movement and public transport analysis; and
- Open space analysis.

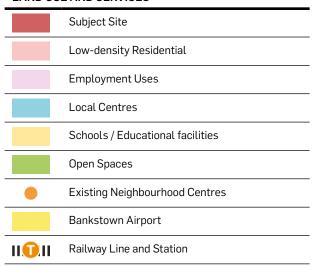
LAND USE AND SERVICES

The locality is surrounded by employment uses to the north and east, low density residential uses immediately west and a series of open/green space along the Georges River corridor.

There are no significant changes to the surrounding areas earmarked in current planning policies.

There is one existing neighbourhood centre within the 400m catchment from the site offering limited retail choices. The closest local centres are near Panania and Revesby Stations, which are approximately 1.5-2.5km south of the site.

LAND USE AND SERVICES



Key Insights

 Future population growth might put additional pressure on the existing retail facilities. There is an opportunity for the site to incorporate a small neighbourhood centre to serve the local community and diversify local retail choices without competing with existing centres.

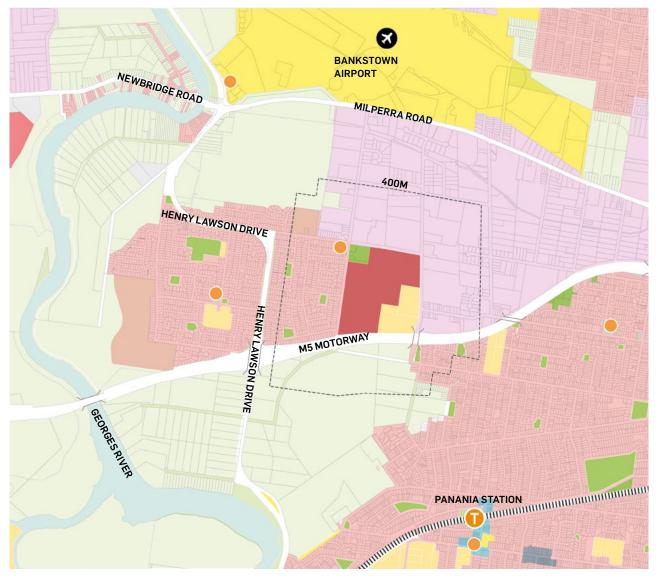


Figure 4 Contextual Land Use and Services

MOVEMENT AND PUBLIC TRANSPORT

The northern and eastern site boundaries are bounded by two collector roads - Bullecourt Avenue and Horsley Road. These two collector roads would bring traffic to/from Henry Lawson Drive to the west, and Milperra Road to the north.

The closest train station is Panania and Revesby Station. Meanwhile, there are several bus stops at the doorstep connecting to other regional centres, and Revesby Station.

MOVEMENT



Subject Site



Main Road

- Milperra Road runs east-west connecting to Liverpool and Sydney CBD.
- Henry Lawson Drive connects to Parramatta to the north, M5 could be accessed as well via Henry Lawson Drive.

Highway



M5 could be accessed via Henry Lawson Drive to the west, or via Beaconsfield Road to the east.

PUBLIC TRANSPORT

Bus Services



Bus routes including 922, 962, M90 and S5 providing services to Burwood, Bankstown, Liverpool, Miranda and etc.

Railway Line and Station



T9 train line connecting to Airport and Campbelltown



Indicative Access to Site



800m / 2km Catchment

Key Insights

■ The site is conveniently serviced by road infrastructure and public transport providing connections to key regional destinations in Sydney. This will be a strong support for any future intensification of the site.



OPEN SPACE AND ACTIVE TRANSPORT NETWORK

The neighbourhood is featured with an 'open space belt' along Georges River. The current open space network offers a combination of public open space, private open space and riparian open space that are primarily covered by bushland. At a regional scale, the public open spaces provide both active and passive recreation opportunities and they are connected by existing cycleways.

However, aside of Milperra Reserve and Beatham Reserve, there are limited parks offering sporting/playground within 400m catchment of the site.

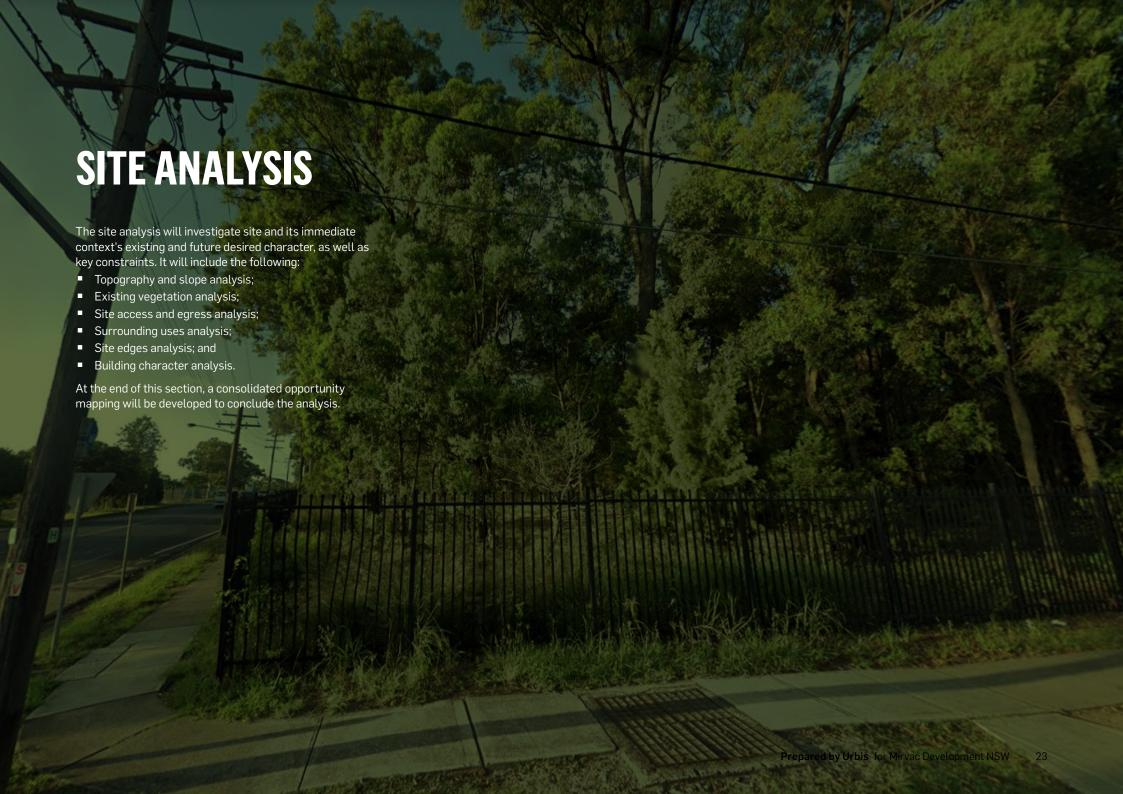
OPEN SPACE AND ACTIVE TRANSPORT

Subject Site
Private Open Space
Public Open Space
Riparian Open Space
Golf Course
Sports Field
Playground
Bushland
Cycleway

- There is an opportunity for the subject site to develop active transport network and potentially connect to wider network in the future.
- There is an opportunity to provide more active open spaces within the site and minimise additional pressure on existing open spaces.



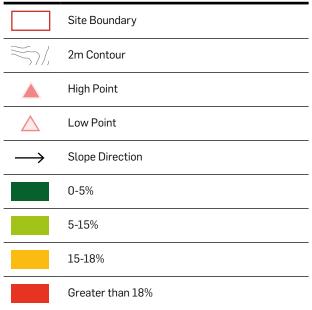
Figure 6 Contextual Open Space Network



TOPOGRAPHY AND SLOPE

The site is generally flat with most of the slope being less than 10%. The local highest point is at the northeastern corner of the site and the it falls down gently towards the southwest.

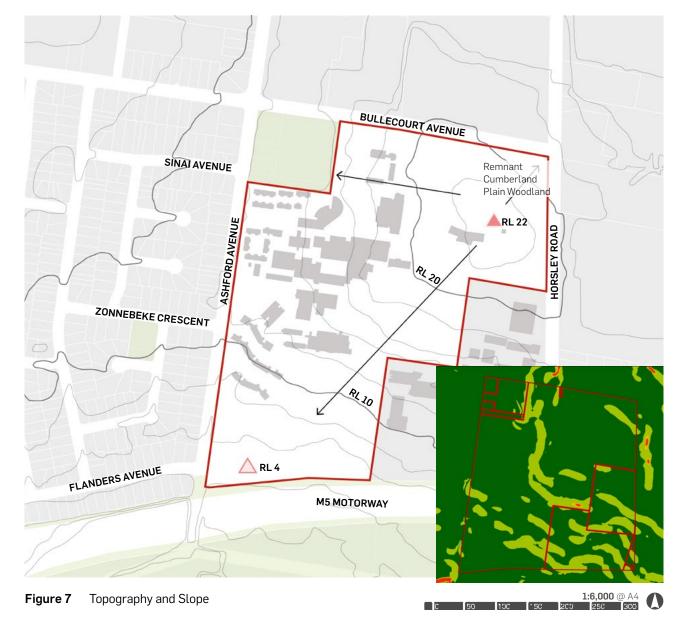
TOPOGRAPHY AND SLOPE



Key Insights

■ The relatively moderate slope within the site will be beneficial in minimising cut and fill.

WSU Milperra Campus Urban Context Report



EXISTING VEGETATION

The north eastern corner of the site contain and patch of Cumberland Plain Woodland, which is classified as a critically endangered ecological community.

There are trees of varying significance scattered across the northern half of the site.

EXISTING VEGETATION

Site Boundary
Existing Trees
Open Spaces / Sports Field
Cumberland Plain Woodland

- The Cumberland Plain Woodland will need to be retained and it has the opportunity to become a part of the locality's identity.
- Subject to further detailed design, other significant trees should be protected where possible.

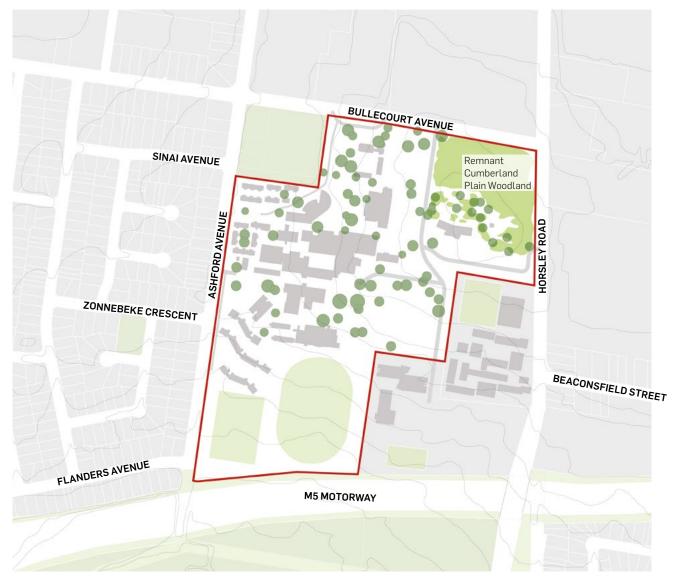


Figure 8 Existing Vegetation



OPEN SPACE

A series of existing open spaces are located in the vicinity of the site, however, as was mentioned in previous chapters, there is a lack of open space diversity in the locality.

Within the subject site, a cricket oval and a sports field are sitting at the south end of the site. However, they are more designed to service the university and not directly accessible to the community.

OPEN SPACE



- Although the site is adjacent to the existing Milperra Reserve, demands and opportunities of new open spaces will be unlocked to support local communities.
- Redevelopment of the site has a potential to provide more publicly accessible open spaces for wider community.

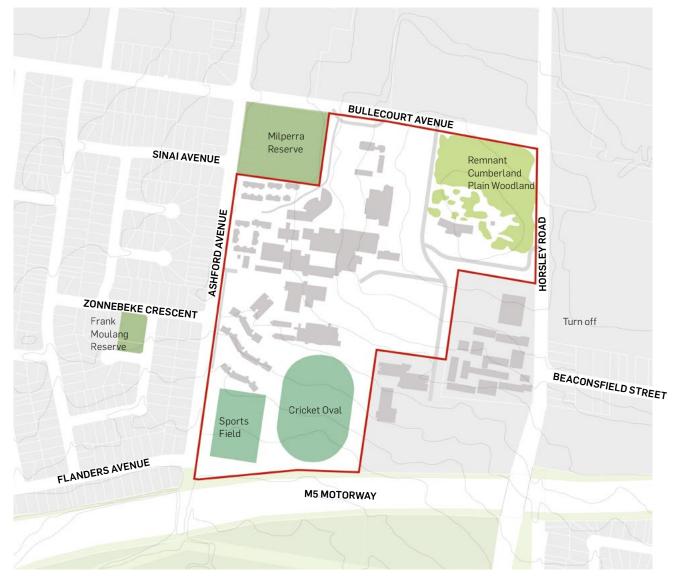


Figure 9 Existing Open Space Provision



MOVEMENT NETWORK

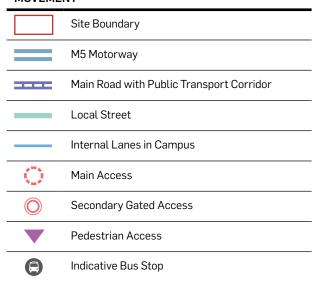
The site is bounded by three streets along the northern, western and eastern boundaries. There is one access point off each one of the external roads:

- There is one vehicular access on Bullecourt Avenue, and a pedestrian access off a bus bay,
- One on Horsley Road that is directly connected to carpark, and
- One secondary gated access point on Ashford Avenue, which is not available for general public uses.

There are a few vehicular traffic lanes within the subject site, however these are disconnected and mainly used for services.

Bus services mainly run along Bullecourt Avenue and Horsley Road with several stops.

MOVEMENT



Key Insights

 The site is currently perceived as a movement barrier, unlocking the site could bring better permeability to both pedestrians and vehicles.

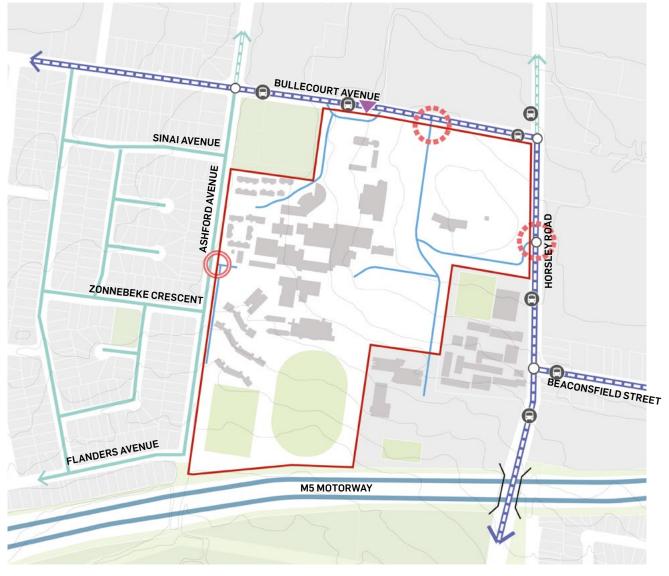


Figure 10 Site Access and Movement Network

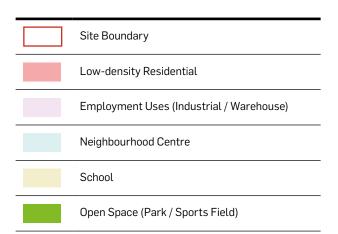


EXISTING USES

Existing Immediate Context

The site sits between employment precinct and low rise residential houses. There is a small neighbourhood centre just beyond the northwestern site corner offering limited retail choices. Uses to the other side of M5 are mainly open space and low-density residential houses.

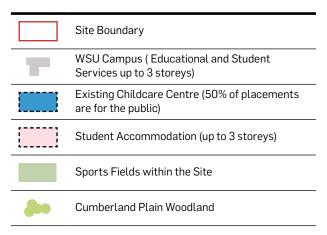
Mount St Joseph Catholic College is a secondary school that sits along the eastern boundary. The land just outside the southeastern corner is currently also a part of the university and it is set aside for potential school expansion.



Existing Buildings within the Campus

Buildings within the site are mainly used for education and student services. The site also has multiple student accommodation buildings within the western boundary up to 3 storeys. At the northeastern corner of the site there is a childcare building next to the Cumberland Plain Woodland servicing both the university staff and public.

Most of the buildings and facilities are currently not directly available for public use.



- The site is mostly used to service the university students. In the future, the site could be opened up and face a wider community.
- There are limited retail facilities in the locality. With growing population, the existing facilities will be under even more pressure.
- The existing childcare centre could be retained and re-adapted to facilitate a range of possible future uses including cafe/restaurant and small scale retail.



Figure 11 Existing Uses

BUILT FORM AND STREET EDGES

There are four types of buildings in the vicinity of the site.

BUILDING TYPOLOGY

Detached Low Rise Dwellings

Building to the west of Ashford Avenue are primarily low-rise detached dwellings. They are 1-2 storeys in height and span along the entire length of the western site boundary.

Local Shops

The shop at the northwestern corner of the site are up to 2 storeys in height. They do not form any dominant character in the locality due to its limited presence.

Industrial Warehouses

The employment areas to the north and east of the site are typically 1-3 storeys.

The frontages of these warehouses are characterised by loading docks/carparks, forming an inactive and unwelcoming presence towards the subject site.

Schools

The site wraps around the Mount St. Joseph Catholic School on two sides. The school buildings are up to 3 storeys and there is a sportsfield adjacent to the site boundary.

Vegetated Buffer

M5 Motorway stretches along the southern site boundary, and significant green buffers are identified along this edge.

Fences

the perimeter of the site, imposing a defensive

The site is currently surrounded by fences along interface towards the surrounding.

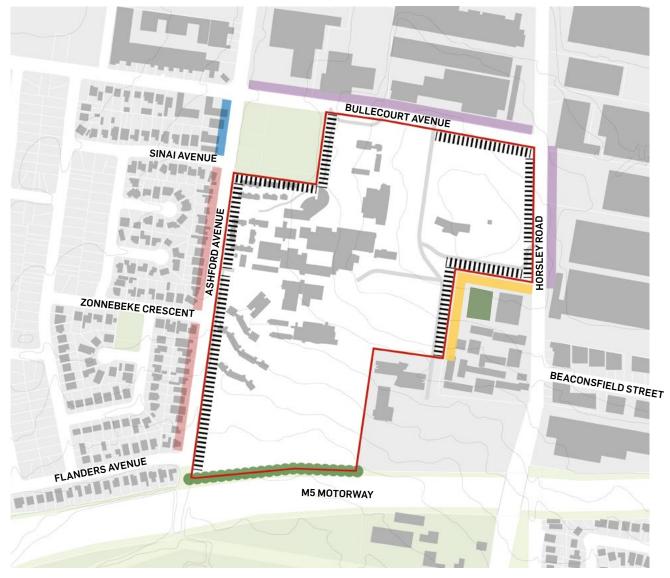
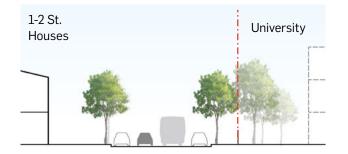


Figure 12 Built Form and Street Edges



STREET INTERFACE

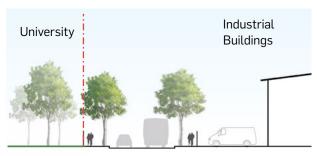


Indicative Ashford Avenue Interface



Key Insights

- Interface to the east of Ashford Avenue is a mix of university open space and buildings up to 3 storeys, and they are not directly open to public. 1-2 storey houses to the west of Ashford Avenue and they are orientated towards the university.
- Future development will need to be compatible and sympathetic with the scale of these houses.

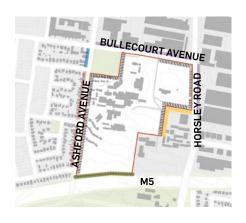


Indicative Horsley Road and Bullecourt Avenue Interface



Key Insights

- The streetscape is mostly vegetated on university side, and parking/loading areas on the industrial buildings side.
- The industrial building interface brings negative visual impact and potential noise/air pollutions. Future developments need to minimise direct primary interface with these building.





Indicative M5 Interface



- M5 is a major Motorway with significant traffic volumes. This incurs air and noise pollution to the neighbouring sites. There is a buffer zone consists of cluster of trees and noise wall along the university interface to reduce the impacts on university operation.
- Future development will also need to consider noise/ air pollution mitigation measures, and minimise residential development along this boundary.

SITE OPPORTUNITIES

Based on the site-specific analysis above, following site opportunities are identified.

STREET INTERFACE

Street Interface - Ashford Avenue

Low-density Residential



Existing low-density houses fronting the site to the west of Ashford Avenue.

Site Frontage Opportunity



In response to the contextual Ashford Avenue street edge, low-density fine-grained residential developments are recommended as more sympathetic response.

Street Interface - Bullecourt Avenue & Horsley Road

Industrial Interface



Existing industrial buildings characterised by large vehicle access, carparks and goods loading zones.

Site Frontage Opportunity



In response to the contextual street edge, buffers along Bullecourt Avenue and Horsley Road are recommended as a response.

OPEN SPACES AND COMMUNITY AMENITIES

Open Space



Potential additional active and passive open spaces to diversify local open space provision.

Potential Community/Retail Facilities



The existing childcare centre could be readapted to accommodate additional community or retail facilities.

CONNECTIVITY

Potential Primary Local Connection



Primary local connections are suggested linking Ashford Avenue, Horsley Road and Bullecourt Avenue. One entry point is proposed on each of these streets to ensure no excessive additional vehicle movements are brought to the neighbourhood while improving local permeability.

Secondary Local Connection



Secondary local connections will provide an inter-connected movement network within the site.

Potential Pedestrian Connection



Two pedestrian links are suggested off Ashford Avenue: One along Milperra Reserve and another one linking to the proposed open space.

One additional pedestrian link connects the site to Milperra Reserve along the Bullecourt Ave.



Primary Access off Bullecourt Avenue

Access with Turning Restriction (left in-right out)



This will limit vehicular activities via this entry point and minimise the impacts on the neighbourhood.

RESPONSE TO SITE CONSTRAINTS



Cumberland Plain Woodland

The endangered vegetation will be retained.

Setback from M5



Buildings will be setback away from this edge to reduce potential noise impact.

POTENTIAL HOUSING OPPORTUNITIES



Opportunities For Diverse Housing Provision There is an opportunity to provide diverse

housing types facing different users

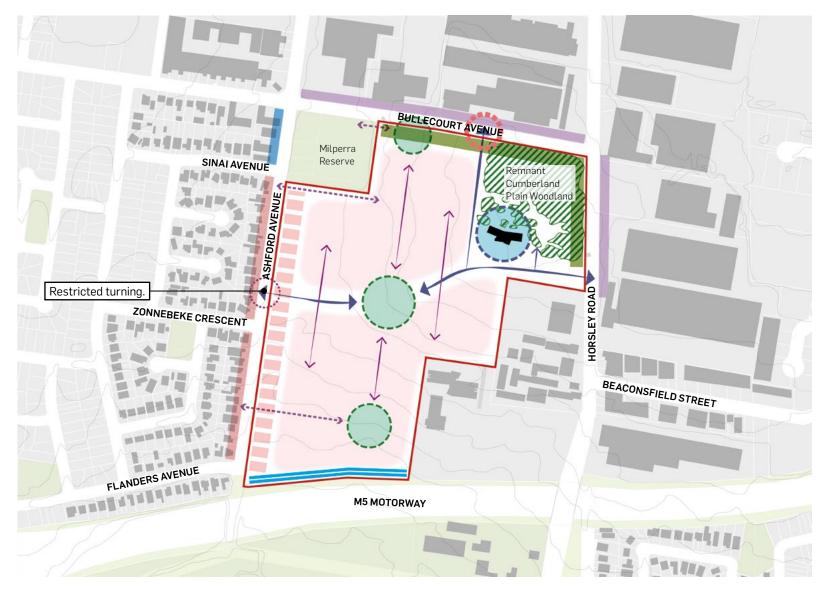
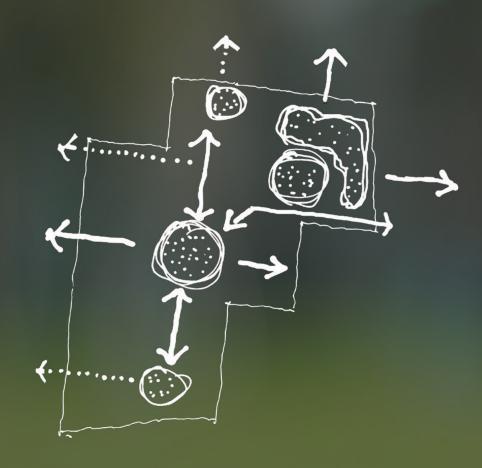


Figure 13 Site Opportunities

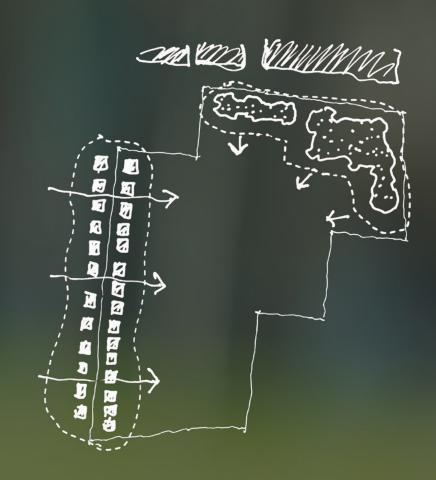
KEY DIRECTIONS



OFFER THE WIDER COMMUNITY WITH PLACES TO GATHER AND THRIVE



ESTABLISH A CONNECTED NETWORK OF OPEN SPACES



BUILT FORMS THAT ARE SENSITIVE TO THE EXISTING CONTEXT



PROVIDE A DIVERSITY OF HOUSING TYPES

MASTER PLAN

VISION

The new neighbourhood is intended to create its own unique character with a diversity of housing types interspersed with a range of parks and green spaces offering both active and information recreation opportunities for both future and existing residents in the surrounding area. These landscape and public realm components will anchor the neighbourhood and contribute to the sense of community.

The Illustrative Master Plan illustrates high-level landscape design and character areas within the intended road network. The precinct has been designed to respond to the adjacent residential area to the west of the site, as well as the employment areas to the north and east.

Table 2 Key Development Parameters		
USES	PROPOSED YIELD	
Childcare Centre & Retail Hub	Approximately 690 m²	
The existing child care building is to be re future demand analysis, a component of retrofitted to a cafe/restaurant, shared caddition to child care placements.	the child care may be	
Public Parks	14,441 m²	
The precinct will provide additional 3 public parks of different types to the a wider community:		
 Northern Open Space along the northern boundary near the bus stop, 	4,643 m²	
Central Open Space at the heart of the precinct and	5,076 m ²	
Southern Open Space by the southern boundary.	4,722 m²	
A Diversity of Housing Provision	Up to 430 Dwellings	
Proposed lot size range 135sqm-450sqm types containing a range from 2 to 5 bedr either attached, semi-detached and deta	room homes being	
Retained Cumberland Plain Woodland	> 2 ha	
Ongoing protection of the existing Cumber as a key natural feature.	erland Plain Woodland	



ACCESS AND MOVEMENT

A tree-lined street network is designed to enhance the local movement permeability and creates a pedestrian and cyclist friendly environment.

ACCESS AND MOVEMENT



Site Boundary

Site Access

One main access is proposed on each one of the adjacent street. This is consistent with the current campus arrangement and will minimise the amenity impact from the additional traffic.



Primary Access (off the Bullecourt Avenue)



Main Access

Access with Turning Restriction



An access off the Ashford Avenue will be provided with restricted to left in - right out movement, minimising the additional traffic impact and opportunities for the drivers to use the site and existing local roads as a shortcut.

Main Movement Corridor



The main movement corridor will:

- Traverse east-west across the precinct and also,
- · Connect northwards to Bullecourt Avenue.
- · Accommodate footpath within the street corridor.

Local Street / Laneway



The local streets and laneways will further improve the permeability of the site. Local streets will also be associated with footpath within the street corridor.

Pedestrian Access

- Two pedestrian-only access points are proposed off Ashford Avenue:
 - The northern one is to the south of Milperra Reserve will leverage the park amenities, and
 - The southern access provides direct pedestrian connection to the southern open space.
- One off Bullecourt Avenue next to the bus stop to provide easier site access to commuters.

.....

Pedestrian Path



Existing Bus Stops

Childcare Centre Site



Bus Stops Adjacent to the Site



The Childcare Centre Site will be bounded by two main movement corridors near the access points to enhance its exposure to passing traffic and maximise its accessibility.

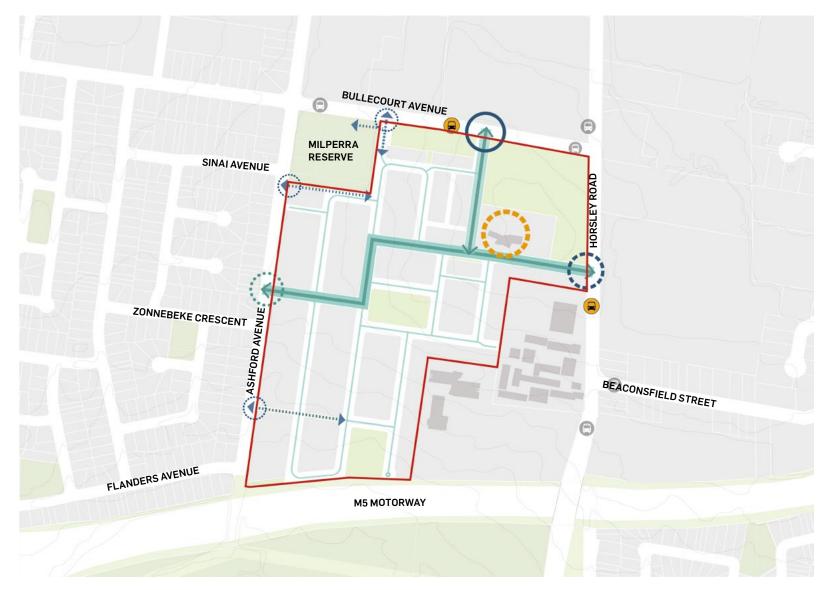
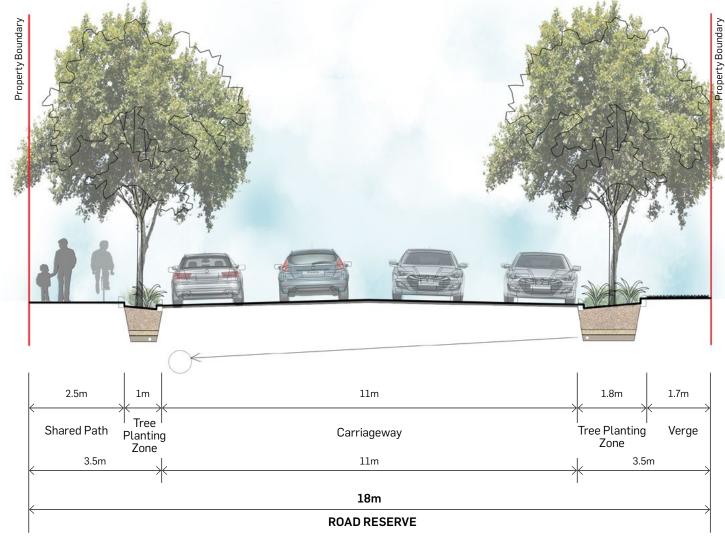
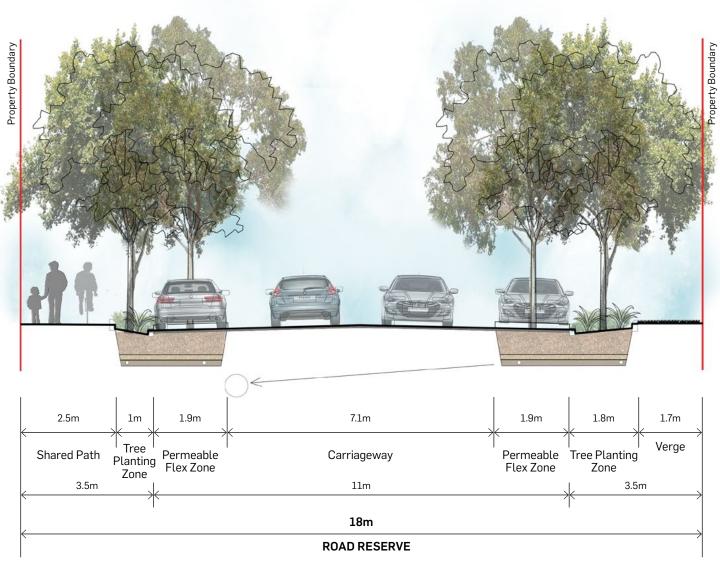


Figure 15 Proposed Movement Network

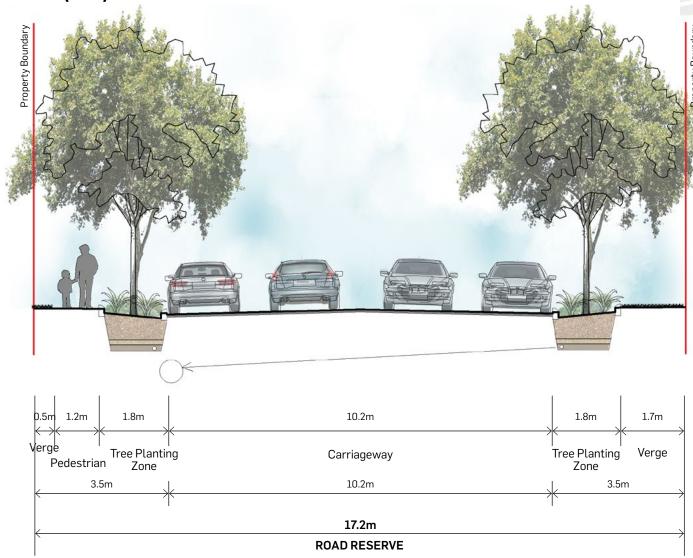
LOCAL ROAD (18M)



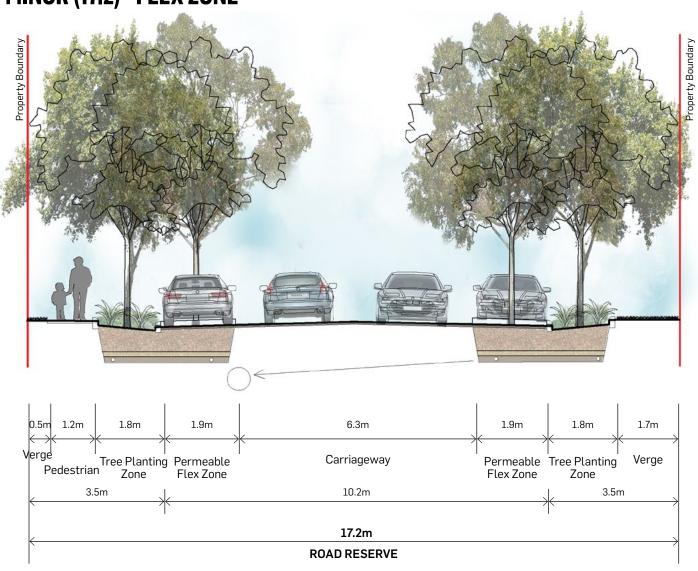
LOCAL ROAD (18M) - FLEX ZONE



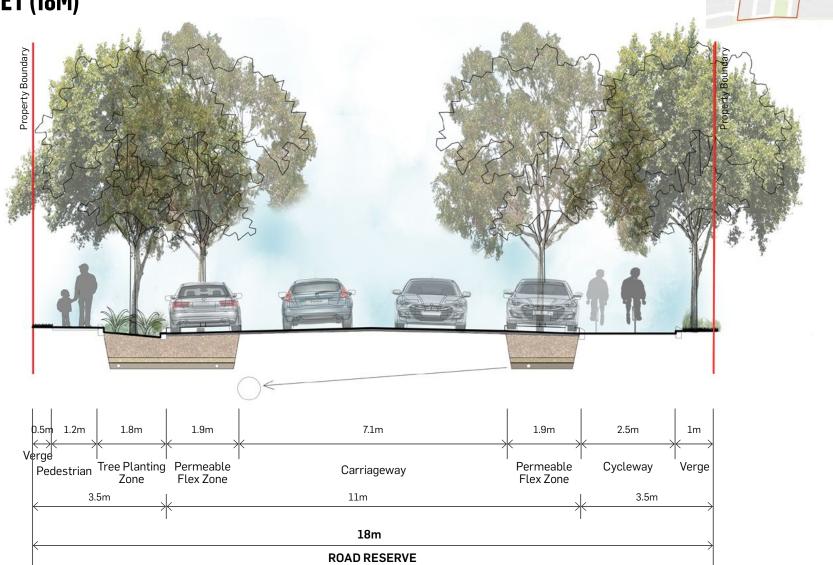
LOCAL ROAD - MINOR (17.2)



LOCAL ROAD - MINOR (17.2) - FLEX ZONE

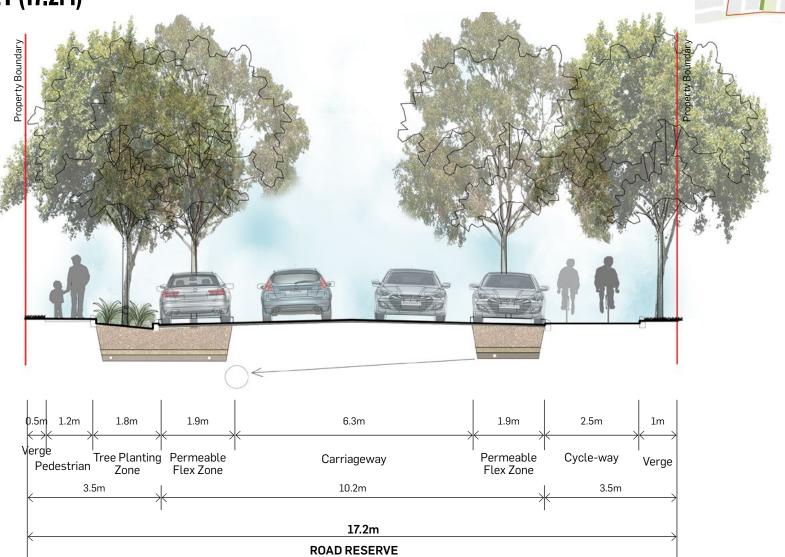


GREEN STREET (18M)

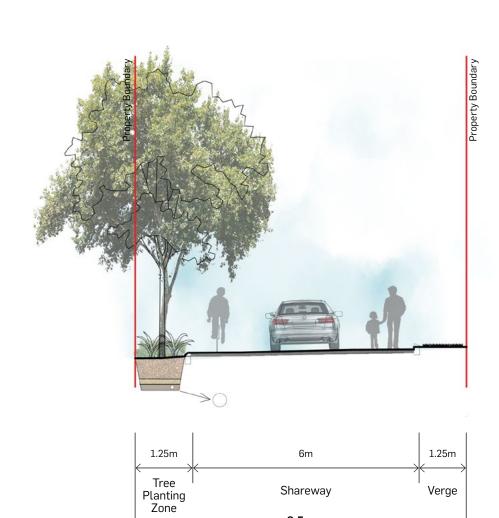


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GREEN STREET (17.2M)



LANEWAY



8.5m ROAD RESERVE



STREETSCAPE PRECEDENTS

The master plan has envisioned a well-connected street network that facilitates walking, cycling and driving in a high quality leafy environment.

With the proposal of additional street trees, bio-retention swales and permeable flex zones, the local streets will offer a green network that greatly enhances the walking and cycling experience and contribute to the delivery of a sustainable neighbourhood.







SENSITIVE & RESPONSIVE INTERFACE

Sensitive and responsive interfaces have been proposed to minimise the impact to and from the existing context.

INTERFACE



Site Boundary

Residential Front Facade Interface



Low rise detached residential houses are proposed along Ashford Avenue. This will provide a sympathetic response to the existing houses west of Ashford Avenue.

Green Buffer



Residential interfaces towards the adjacent employment precinct will be minimised by the proposal of northern open space, and the retention of Cumberland Plain Woodland.

The vegetation buffer along the M5 Motorway will be retained.

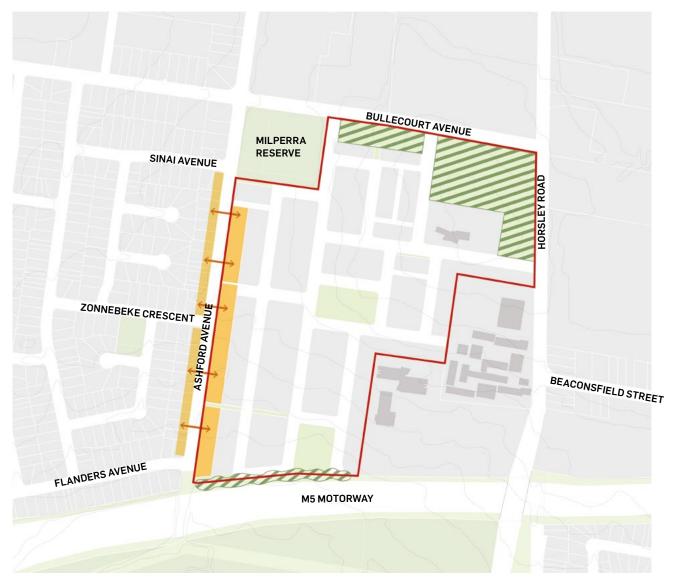


Figure 16 Proposed Interface Response





Figure 17 Bullecourt Avenue Entry Looking North

DIVERSE OPEN SPACE OFFERING

A well-connected open space network with diverse destinations and green links is envisaged in the site. The open spaces will not only service the site itself but also a wider neighbourhood.

OPEN SPACE & ACTIVE TRANSPORT CORRIDOR



Site Boundary

Primary Active Transport Network

The primary active transport network provides both cycling and pedestrian connections to/between:



- Site entries.
- All the proposed open spaces as well as Milperra Reserve, and
- Around the central and southern open spaces.

Secondary Active Transport Network



The secondary active transport network provides pedestrian connections as a supplement to the primary active transport network to ensure a connected walking network across the entire precinct.

Existing Cycle Network on Horsley Road



The cycling network with the precinct could potentially be connected to a wider cycling network.

Northern Open Space



Integrated with a designed basin and wetland planting, Northern Open Space dominantly provides gathering places for local residents and educational opportunities for school students from the surroundings.

Central Open Space



As an open space heart for local families, Central Open Space facilities a variety of activities and functions including a kick around space, large open lawn areas, BBQ and picnic facilities and amenities.

Southern Open Space



It will provide an small turfed kick around space with fitness equipment and continuous perimeter shared path.

Retained Cumberland Plain Woodland



Apart from the ecological value, the retained Cumberland Plain Woodland will also contribute to creating a sense of place and connect to the past of the precinct.

Milperra Reserve

There will be embellishments to Milperra Reserve under the proposed draft VPA:

- New lawn / turf and irrigation to expand the footprint of the existing area to allow for more sporting codes soccer / rugby etc. (currently set up for hockey);
- Basic seating around the periphery of the playing area;
- Rubbish bins:
- Lighting;



- Shaded seating (under trees);
- Upgrade to amenities (toilets etc.);
- Drinking fountains;
- Some areas of shade trees on the periphery of the playing fields; and
- Landscaping treatments, including paths to better integrated Milperra Reserve with the Land.

This will further improve the quality of open space provision within the locality and the reserve will be integrated with the new child care/commercial precinct via pedestrian connections.



Figure 18 Proposed Open Space Network

NORTHERN OPEN SPACE

The design intent for the Northern Park is an environmentally sensitive landscape offering a calm, green, quiet oasis, the foundation of which is its connections to the important remnant Cumberland Plain Woodland. The Park integrates existing mature trees to the east with a new detention basin to the west, brought together by enhanced habitat understorey and wetland planting.

A variety of native tree species offers enhanced habitat which also gives structure to the park's boundary. Wide paths give comfortable access to key destinations whilst navigating under the large existing tree canopy. The park may also include educational interpretive bush tucker planting woven into the naturalistic landscape planting.

- 1 Bio-Retention Basin
- **2** Footpath
- **3** Existing Planting
- 4 Proposed Planting
- 5 Seating
- **6** Gathering Space

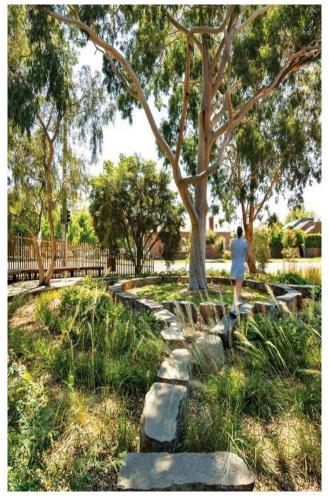


PROGRAMS AND PRECEDENTS









CENTRAL OPEN SPACE

The design intent for the Central Park is fun, friendly active community park, that provides a number of high-quality amenities set in an existing mature tree canopy. This new community hub offers a lawn for picnics and community events, a community garden, a playground interlaced into retained mature trees and a contemplative gardens set amongst existing tree canopy for more quiet family friendly activity. These spaces are woven together through a comprehensive path network which links back to the central play space

- 1 Kick Around Space
- 2 Footpath
- 3 Community Gardens
- 4 Play Equipment
- **5** BBQ and Seating
- 6 Discovery Play
- 7 Proposed Planting
- (8) Existing Planting





PROGRAMS AND PRECEDENTS















SOUTHERN OPEN SPACE

The design intent for the Southern Park is a multipurpose active green open space. An optimised basin which allows for improved functionality, providing a flexible open lawn for a range of activities, surrounded by a fun junior skills track that uses the level change to add excitement and adventure, adjacent is a wide path for strolling round the park under tree canopy. The north edge of the park locates a fitness area and large terraced steps creating a focal point in the park based around health and wellbeing.

- 1 Fitness Equipment
- 2 Steps
- **3** Terraced Seating
- 4 Bench Seating
- 5 Scooter Track
- 6 Kick Around Space / Basin
- **7** Planting Beds



PROGRAMS AND PRECEDENTS











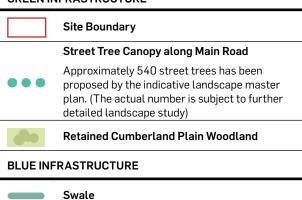


GREEN AND BLUE INFRASTRUCTURE

Integrated with WSUD approach, a series of green and blue infrastructures have been proposed to enhance biodiversity and create a greener and more sustainable community.

The proposed Northern and Southern Open Spaces will be able to accommodate drainage basins for temporary storm inundation events.

GREEN INFRASTRUCTURE



Indicative Proposed Dry Basins

Indicative Water Flow



Figure 19 Proposed Green and Blue Infrastructure



ACTIVATION OF OPEN SPACES

The proposed dwellings are orientated towards the new open spaces to leverage the amenity and views while providing activation and pass surveillance to the parks.

INTERFACE

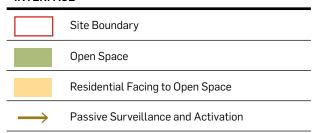




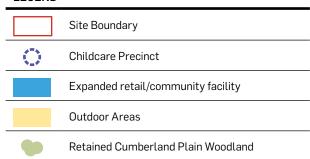
Figure 20 Activation of Open Space

ENHANCEMENT TO EXISTING CHILDCARE FACILITY

A new childcare precinct is envisioned within this master plan. The existing childcare will be retained and expanded into a mix of retail/community facility to service the precinct as well as the wider community. It will include:

- Childcare centre,
- Cafe and Restaurant, and
- Co-working Space.

The outdoor areas will borrow amenity from the retained bushland and offer activities including dining, play area and gardens.



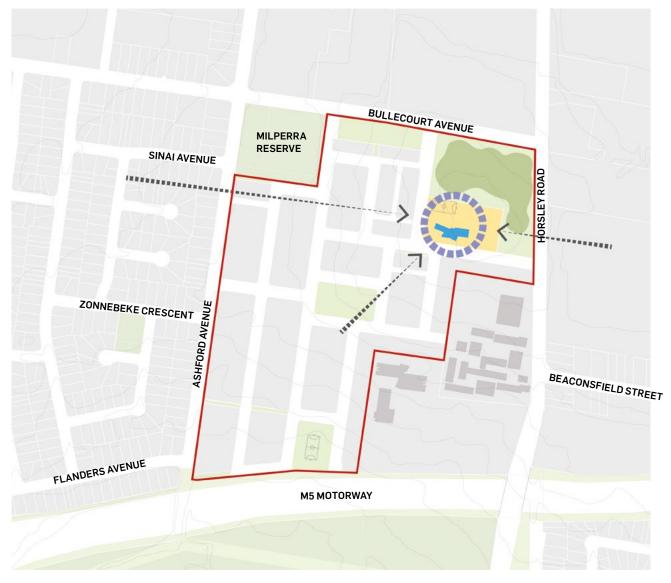
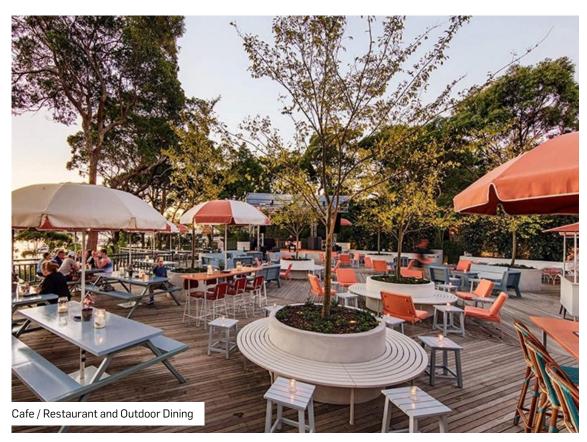


Figure 21 Enhancement of Existing Childcare Facility



THE NEW CHILDCARE PRECINCT







DIVERSE HOUSING TYPOLOGY

A vibrant and liveable neighbourhood with diverse housing typologies has been imagined in the site to cater for a wide range of demographics and their demands over a range of price points.

The predominantly north-south orientated residential blocks will optimise the solar amenity.

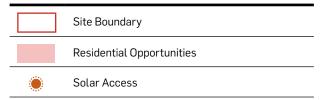




Figure 22 Diverse Housing Typology



VARIETY OF HOUSING TYPES













CONCLUSION

The masterplan has carefully responded to the existing site attributes and delivered an outcome in accordance with best urban design practices. It unlocks a vision for a thriving community to live, work and grow in a liveable precinct that is situated in a high-quality environment with a strong sense of place.

The design has not only catered for the need of the new residents, but also considered and offered a variety of benefits to a broader community. In summary, the master plan has proposed:

New Public Parks

3 new public parks comprising of active and passive activity opportunities are proposed across the site. They will service a wider community. Also, there will be embellishments to Milperra Reserve.

1 Retained Bushland

Cumberland Plain Woodland will be retained. This will protect an endangered ecological community, and also preserve the site's legacy.



540 street trees have be incorporated in the indicative plan. The additional trees will present a leafy street character and contribute to a better sustainability outcome. However, this is subject to further detailed DA design.

1430 Diverse houses

Up to 430 dwellings are provided. This includes a mix of dwelling types provide housing variety for emerging communities.



New Childcare
Precinct

The existing childcare centre will be converted into a community focal point / meeting place to include retail, cafe/restaurant and shared office space.



