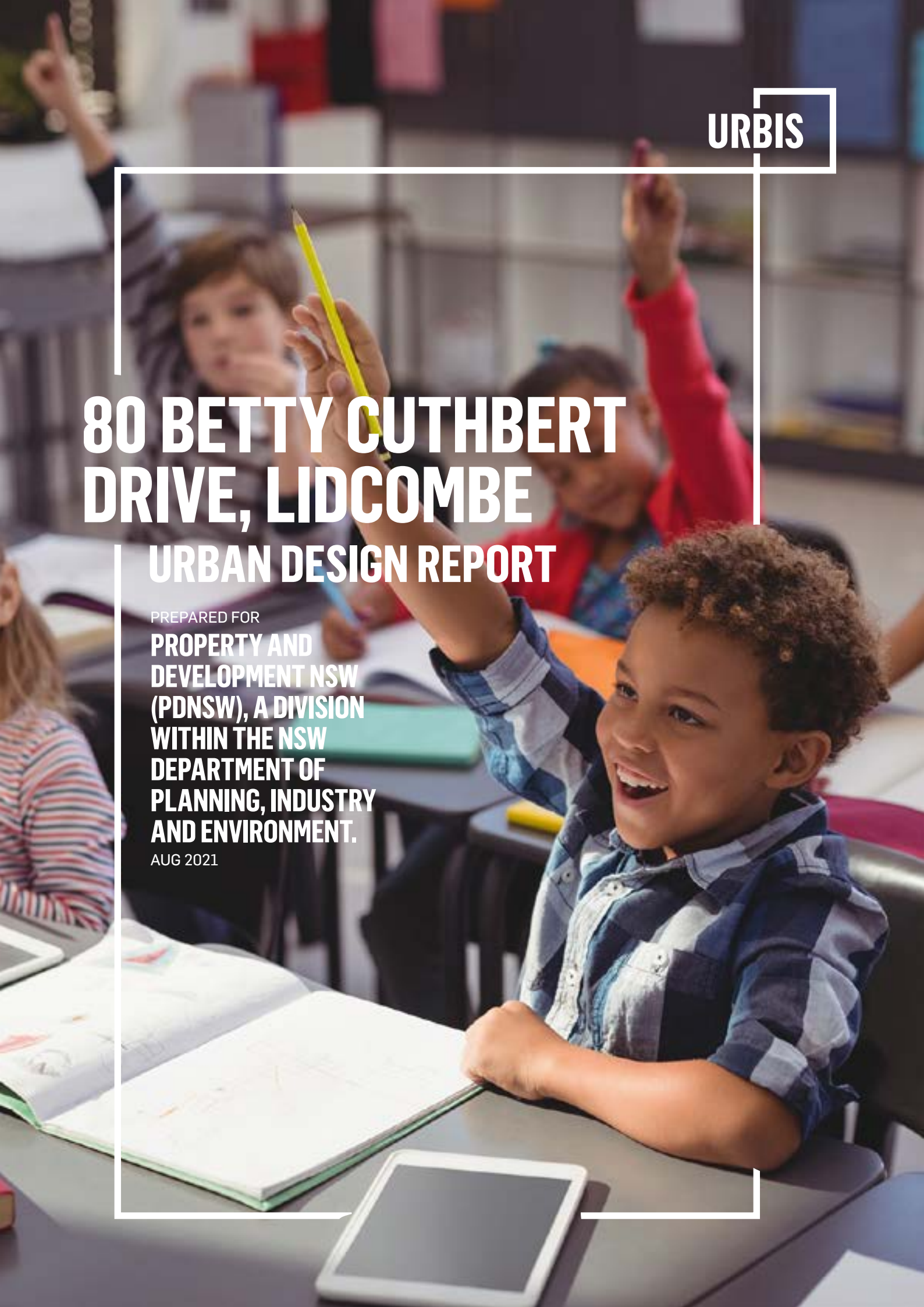


A young boy with curly hair, wearing a blue and white plaid shirt, is sitting at a desk in a classroom. He is smiling and raising his right hand, holding a yellow pencil. In front of him is an open notebook and a tablet. Other children are visible in the background, also raising their hands. The scene is brightly lit, suggesting a sunny day.

URBIS

80 BETTY CUTHBERT DRIVE, LIDCOMBE

URBAN DESIGN REPORT

PREPARED FOR

**PROPERTY AND
DEVELOPMENT NSW
(PDNSW), A DIVISION
WITHIN THE NSW
DEPARTMENT OF
PLANNING, INDUSTRY
AND ENVIRONMENT.**

AUG 2021

EXECUTIVE SUMMARY

The site at 80 Betty Cuthbert Drive, Lidcombe presents the opportunity to facilitate the development of a new multiple sclerosis facility, site suitable for residential use; and site suitable for a future educational establishment.

Multiple Sclerosis Limited (MSL) currently occupies the site with most of the land unused. The site and facilities no longer meet the requirements of MSL and is no longer fit for purpose. The 5.9 hectare subject site is adjacent to TAFE, Sydney University and the former Lidcombe Hospital precinct (Botanica) which is characterised by town houses to the south and low-rise single residential dwellings to the north.

The proposal aims to make efficient use of surplus, underutilised government land by enabling the development of a future educational establishment, a new relocated Multiple Sclerosis facility and medium density residential that sensitively transitions to the neighbourhood around it.

The health facility will be developed by Multiple Sclerosis Limited (MSL) and the future educational establishment by the Department of Education (DoE) who will respectively manage the design, development and construction of their individual facilities.

The Master Plan contained in this report is aligned with the strategic planning objectives identified in the Central City District Plan and Cumberland 2030 LSPS on housing diversity, social infrastructure provision and access to local jobs, education opportunities and care services. It establishes urban design principles and outlines the benefits of the proposal which is summarised below.

KEY OUTCOMES



AN UPGRADED & MODERN MSL FACILITY

This proposal includes a land allocation to MSL, who will be constructing a modern facility that will provide a comprehensive range of support and services for people with MS and other neurological conditions. The new MSL facility will promote better life outcomes and provide a range of medical and lifestyle management services and programs.



A FUTURE EDUCATIONAL ESTABLISHMENT

The proposal includes land allocation to the Department of Education to deliver an educational facility within a much needed local catchment. Cumberland LGA is expecting 79,000 additional people by 2036 and this growth increases demand on existing services and infrastructure such as schools.



THE MISSING MIDDLE HOUSING OFFER

Medium density housing is proposed on the surplus land not dedicated to MSL and DoE which is compatible with the adjoining residential area, maintaining the character of the locality. The form and scale of the proposed housing is similar to the housing style at Botanica.



IMPROVED PERMEABILITY AND ACTIVE TRANSPORT NETWORK

The proposed pedestrian linkage to Ironbark Walkway, new intersection at Joseph Street and pedestrian connection opportunity to Leila Street increase permeability between eastern and western communities including Berala. The direct pedestrian connection through Ironbark Walkway and Norman May Dr will also improve accessibility to more bus services and regional cycleway network at East Street.



1.0 INTRODUCTION

PURPOSE OF THIS REPORT

This Urban Design Report (UDR) has been prepared on behalf of the Property & Development NSW (PDNSW) a division of the NSW Department of Planning, Industry and Environment (DPIE). It supports the planning proposal which seeks to initiate the preparation of a Local Environmental Plan (LEP) amendment for the land identified as 80 Betty Cuthbert Drive, Lidcombe (the site). The purpose of this report is to outline the rationale of a contextually responsive plan that considers the future character of the area, unlocks surplus government land, enables the provision of social infrastructure and improves connectivity for the community to local services and destinations.

The report is structured as follows:

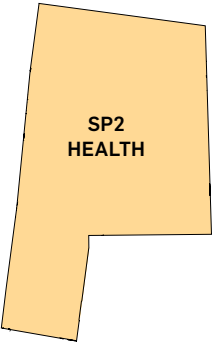
1.0	INTRODUCTION	4
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SUMMARY OF PLANNING PROPOSAL

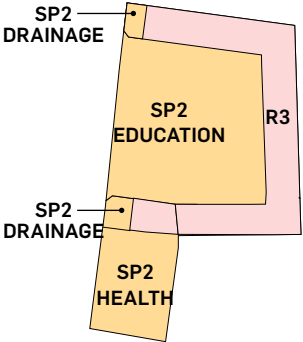
The following table and following diagram identifies the proposed planning control changes:

	EXISTING	PROPOSED
Zoning	SP2 Hospital	SP2 Education; SP2 Health; SP2 Drainage and R3 Medium Density Residential
Maximum HOB	N/A	9m within R3 zone
Maximum FSR	N/A	0.75:1 within R3 Zone

CURRENT ZONING



PROPOSED ZONING



BACKGROUND

PDNSW is seeking to obtain the necessary planning approvals for the site to enable the relocation and development of MSL, allocate the majority of the site for a future educational establishment and the remaining site for residential use. The existing health facility on site no longer meets the requirements of MSL and the remaining land is underutilised.

In 2017, PDNSW commissioned a Feasibility Study which included a concept plan that was developed and supported by MSL and the Department of Education (DoE).

The Government supports the following subdivision and use allocation (all areas are approximates):

- Approx. 1.85 ha, for a future educational establishment
- Approx. 0.95 ha, for a new health facility (MSL Land); and
- Approx. 1.8 ha, for residential.

The concept design and technical investigations have since progressed and is the subject of this planning proposal.

1.1 SITE DESCRIPTION



Figure 1 Aerial of site

The site is located at 80 Betty Cuthbert Drive, Lidcombe. The site is approximately 58,815 sqm in size.

The site is bounded by the Joseph Street to the west, and Betty Cuthbert Drive to the south-east. To the north, east and south the site is bounded by low density detached houses.

The site is zoned SP2 Hospital, for the use of MS Ltd (MSL). The site includes one building known as the 'MS Study Centre'. This building provides office space, treatment facilities and respite care facilities to support the operations of MSL.

The existing MSL facilities (including the single building, internal roads and pathways) cover approximately 12% of the site, and the remainder of the site remains underutilised.

The current MSL building condition is considered dilapidated and no longer meets MSL requirements, hence an upgrade would be vital to the longevity of this facility.

2.0 KEY CONSIDERATIONS

The following section informs the context of which 80 Betty Cuthbert situated as follows:

- Strategic Positioning
- Urban Context
- Site Analysis:
 - Access and Movement;
 - Surrounding Land Use
 - Active Transport - Public Transport
 - Active Transport - Walking and Cycling
 - Topography
 - Civil Infrastructure and Contamination; and
 - Biodiversity
 - Summary of Site Analysis

2.1 STRATEGIC POSITIONING

2.1.1 CENTRAL CITY DISTRICT PLAN



Figure 2 Central City District Plan

The Central City District Plan has identified the need to provide additional dwellings within the area close to public transport and employment generating uses. The District Plan also identifies the need to provide cohesive and socially dynamic communities which provide housing as well as new social infrastructure including schools and community services.

By 2036, Cumberland is forecast to welcome around 75,000 additional people in the community with most of the growth expected to occur in and around the centres and strategic corridors such as Lidcombe and Granville.

The Central City District Plan identifies a series of key directions that relates to 80 Betty Cuthbert, being:

- Planning Priority C1 - Planning for a City supported by Infrastructure;
- Planning Priority C3 - Providing services and social infrastructure to meet people's changing needs;
- Planning Priority C5 - Providing housing supply, choice and affordability with access to jobs, services and public transport; and
- Planning Priority C16 - Increasing urban tree canopy cover and delivering Green Grid connections.

2.1.2 CUMBERLAND LSPS



Figure 3 Cumberland 2030 LSPS - Strategic Land Use Framework

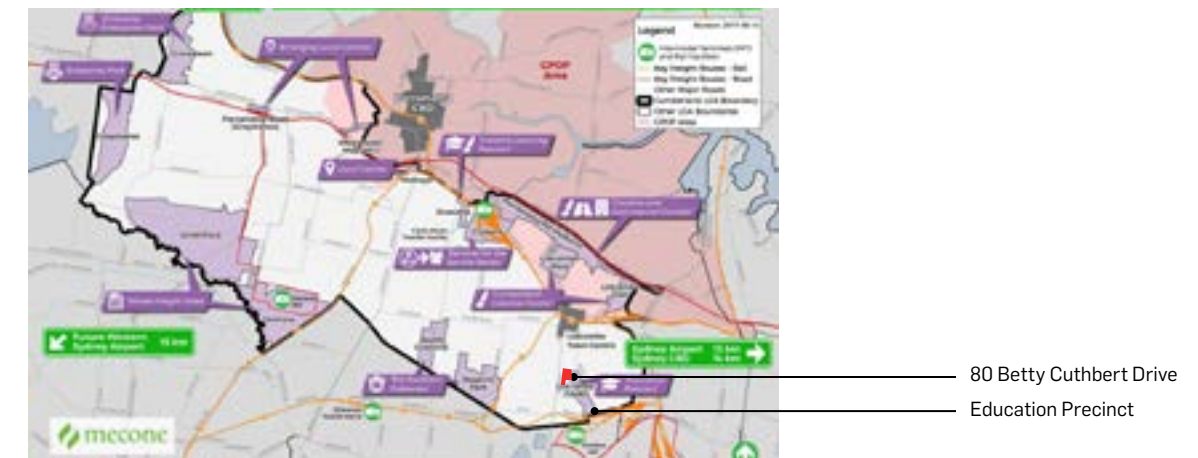


Figure 4 Cumberland 2030 LSPS - Employment and Innovation Lands Strategy

In response to the Central City District Plan key directions, The Draft Cumberland LSPS identifies a series of local planning priorities that relates to 80 Betty Cuthbert, being:

- Planning Priority 4 - Improving accessibility within our town centres;
- Planning Priority 5 - Delivering housing diversity to suit changing needs;
- Planning Priority 9 - Providing high quality, fit-for-purpose community and social infrastructure in line with growth and changing requirements;
- Planning Priority 11 - Promoting access to local jobs, education opportunities and care services; and
- Planning Priority 13 - Protecting, enhancing and increasing natural and green spaces.

TAFE Lidcombe and University of Sydney that are situated to the south east of 80 Betty Cuthbert forms the Education Precinct as one of the key employment and innovation precincts identified in Cumberland Employment and Innovation Lands Strategy.

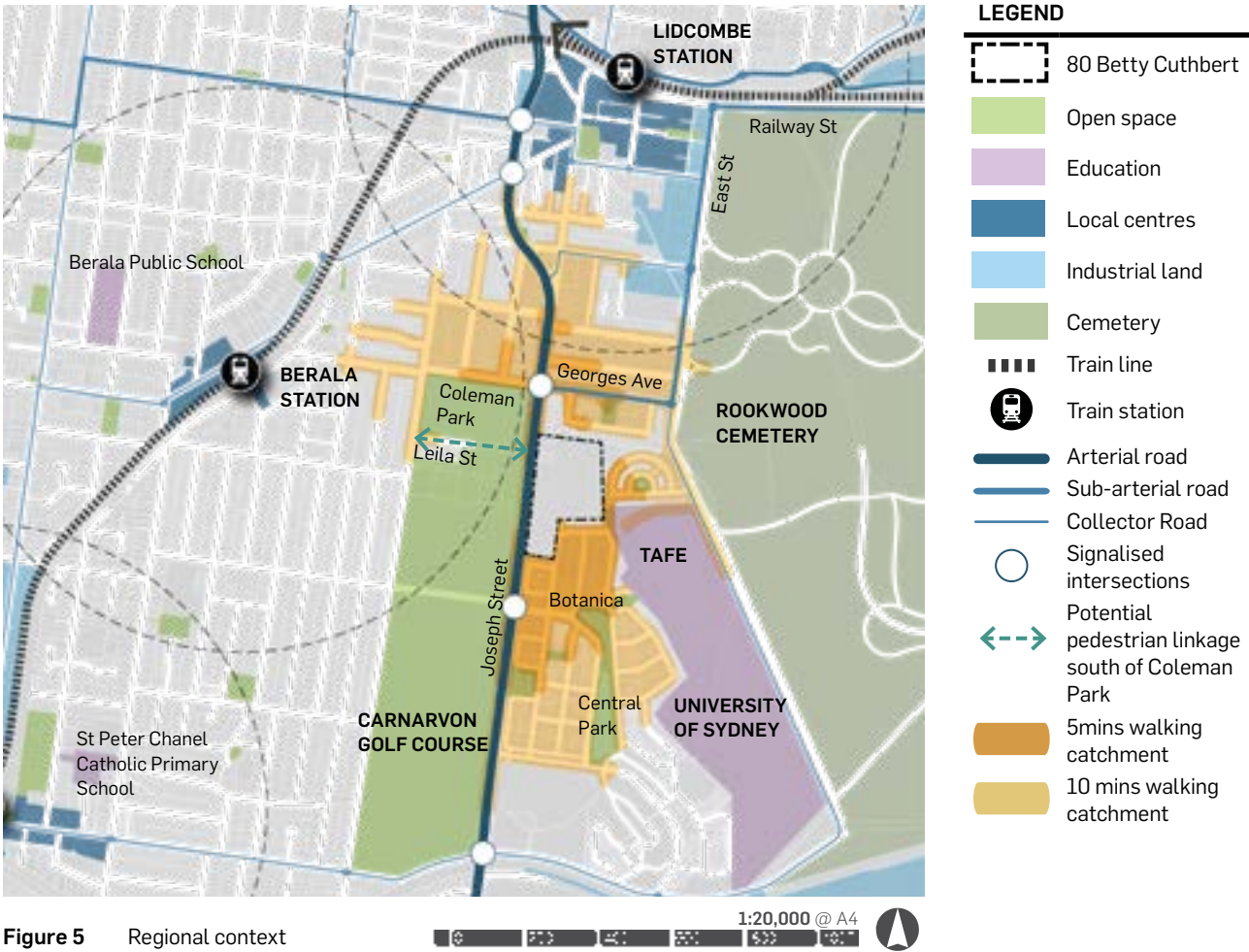
Joseph Street that forms the western boundary of 80 Betty Cuthbert Drive also identified as one of the main key road corridors that connects to major centres such as Lidcombe and Bankstown.

Key Opportunities

- Align the site objectives to the planning priorities identified in Draft Cumberland LSPS being housing diversity, social infrastructure provision, and promoting access to local jobs, education opportunities and care services.

2.2 URBAN CONTEXT

2.2.1 LOCAL CONTEXT



The site is located along the arterial road - Joseph Street, which provides access to Bankstown, north of Lidcombe, Lidcombe and Berala Train Stations which are located approximately 1km north and west of the site respectively.

Major tertiary educational facilities including TAFE Lidcombe Campus and the University of Sydney Lidcombe Campus form an educational precinct to the south east of the site.

The site sits between two major open spaces, being the Rookwood Cemetery and the Carnarvon Golf Course.

Two primary schools are located approximately 1.5km to the west and southwest from the site being Berala Public School and St. Peter Chanel Catholic Primary School.

The pedestrian shed analysis identifies limited major destination and public transport are within 10 minutes walking catchment from the site. This includes East Street, TAFE, Coleman Park and Central Park at Botanica.

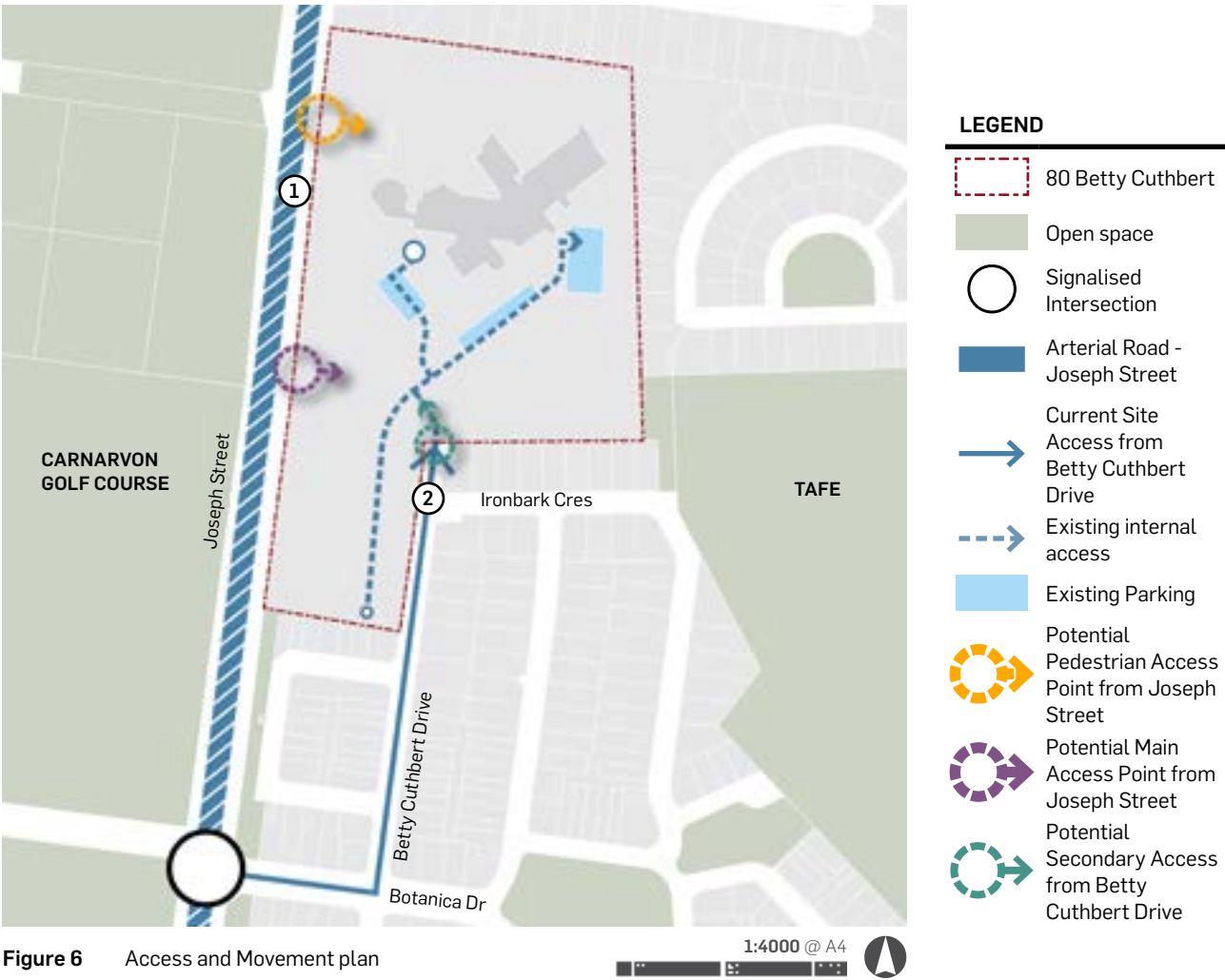
Access to Leila Street road reserve which is currently closed to pedestrians will improve the future pedestrian catchment to residential uses east of Berala Station.

Key Opportunities

- Improve the pedestrian accessibility between residential communities east of Berala Station and Education Precinct

2.3 SITE ANALYSIS

2.3.1 ACCESS AND MOVEMENT



There is limited vehicular accessibility to the site from the existing road network. Access to the MSL facility is available via the signalised intersection at Joseph Street and Botanica Drive 300 metres south of the site and via Betty Cuthbert Drive, a local road.

Access within the site currently connects Betty Cuthbert Drive to the internal MSL parking facilities.

Key Opportunities

- Given the residential nature of Betty Cuthbert Drive, it is not deemed appropriate that this existing route be maintained as the primary access for future development. This access route would be suitable as a secondary access.
- Provides primary vehicular access route off Joseph Street that consist of signalised intersection and/or left in left out intersection.



2.3.2 SURROUNDING LAND USE



The site sits within a predominately residential area, bounded by low density residential to the north, south and east. The northern residential uses are low density older housing stock with primarily 1-2 storey detached houses.

New housing stock (built in the late 2000s) are located to the east and south. These houses are also low density, 1-2 storeys in height and mixed of detached and attached homes including terrace homes.

There are a number of parks in close proximity to the site, including a series of small scale parks south of the site that are good quality and provide high amenity, including Central Park and Terpentine Park.

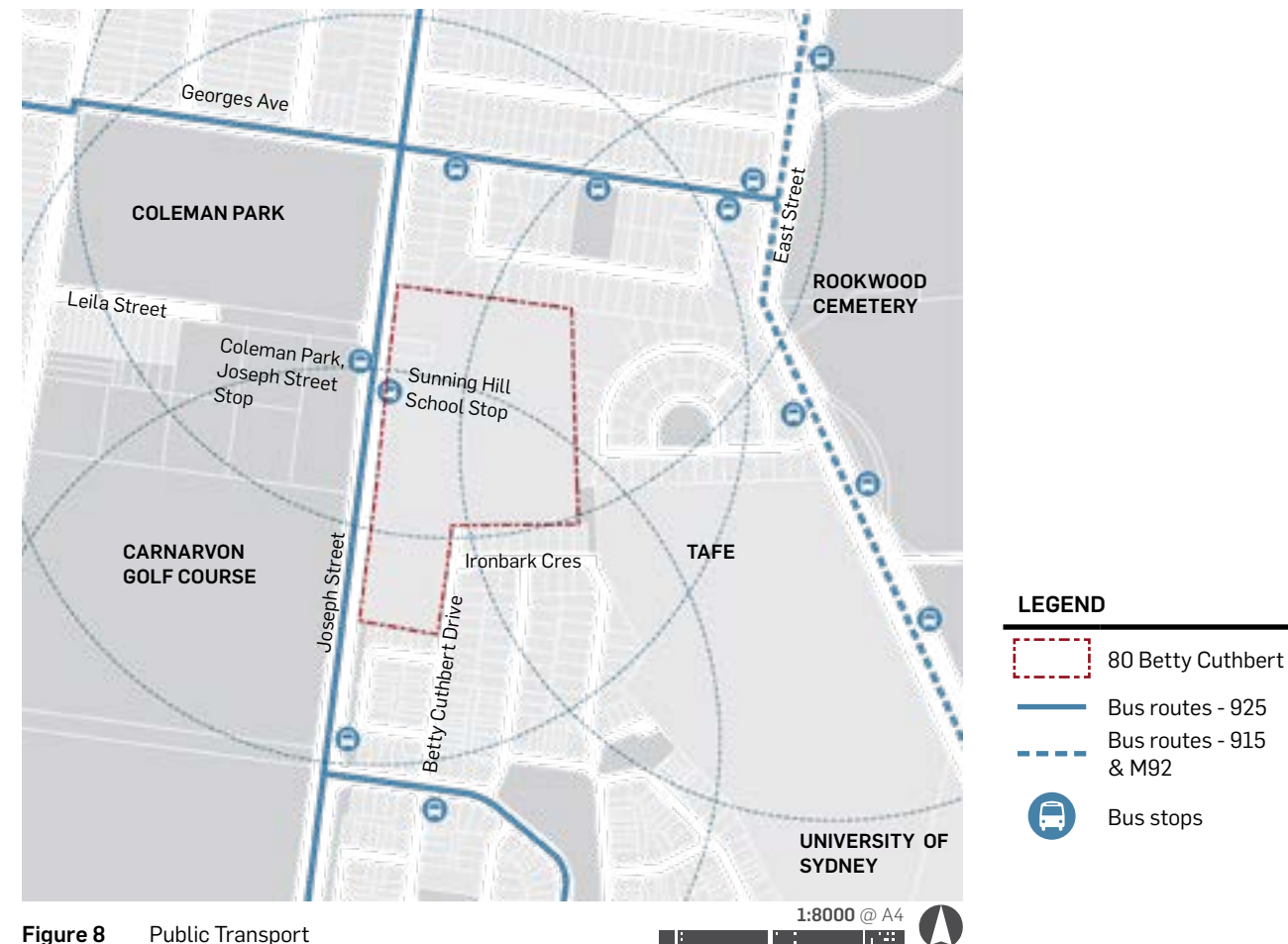
Given the surrounding existing residential uses with access to higher education and public open space in the vicinity there is great potential to provide a future educational establishment.

Key Opportunities

- Deliver infill social infrastructure facilities such as educational and care facilities to serve surrounding communities
- Provides residential uses as transition to adjoining neighbourhoods



2.3.3 ACTIVE TRANSPORT - PUBLIC TRANSPORT



There are three bus routes located within the vicinity of the site with more frequent bus services along East Street, being:

- 925, between East Hills - Lidcombe via Joseph Street with one-two buses per hour;
- M92, between Sutherland and Parramatta via East Street with four-six buses an hour; and
- 915, between University of Sydney and Lidcombe Station via East Street.

The two bus stops geographically closest to the site on Joseph Street, being The Sunning Hill School stop and Coleman Park Stop are both serviced by one bus route - the 925 in opposing directions.

There is no direct crossing between these two stops requiring bus users to walk an additional 400m and cross at Joseph Street/Georges Avenue intersection or an additional 900m and cross at Joseph Street/Botanica Drive intersection.

Key Opportunities

- When considering vehicular access to the site, placing a signalised intersection adjacent to the bus stops will improve its accessibility and convenience for bus users

2.3.4 ACTIVE TRANSPORT - WALKING AND CYCLING



Pedestrian Environment

- The current pedestrian access points to the site are from Joseph Street and Betty Cuthbert Drive.
- Whilst a footpath is provided to the eastern side of Joseph Street, the walking condition is not considered to be very attractive given its location along a six-lane, 80km/hr road.
- Crossing points across Joseph Street are limited and fairly far from the site at Georges Avenue and Botanica Drive.
- A pedestrian link from Ironbark Crescent to Norman May Drive through Ironbark Walkway provides access to East Street with more frequent bus services.



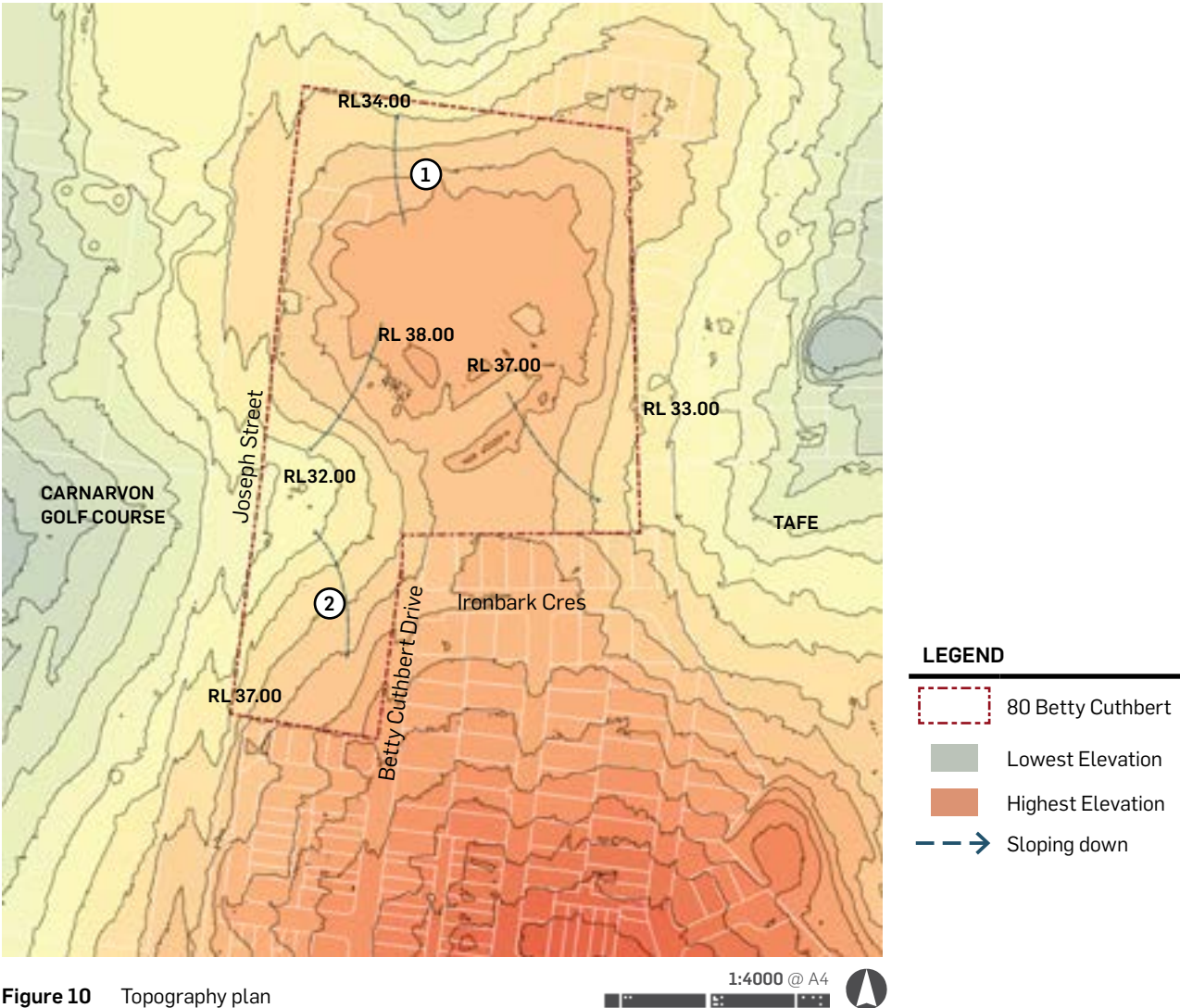
Cycling

- East Street currently has dedicated cycle lanes as part of regional cycle network that connects to Lidcombe and Olympic Park to the north. However, these lanes run between fast traffic and parked cars that are identified as "moderately difficult" by NSW Transport Cycleway Finder.
- An off-street cycleway runs along Joseph Street at Botanica and stops at the southern boundary of 80 Betty Cuthbert.

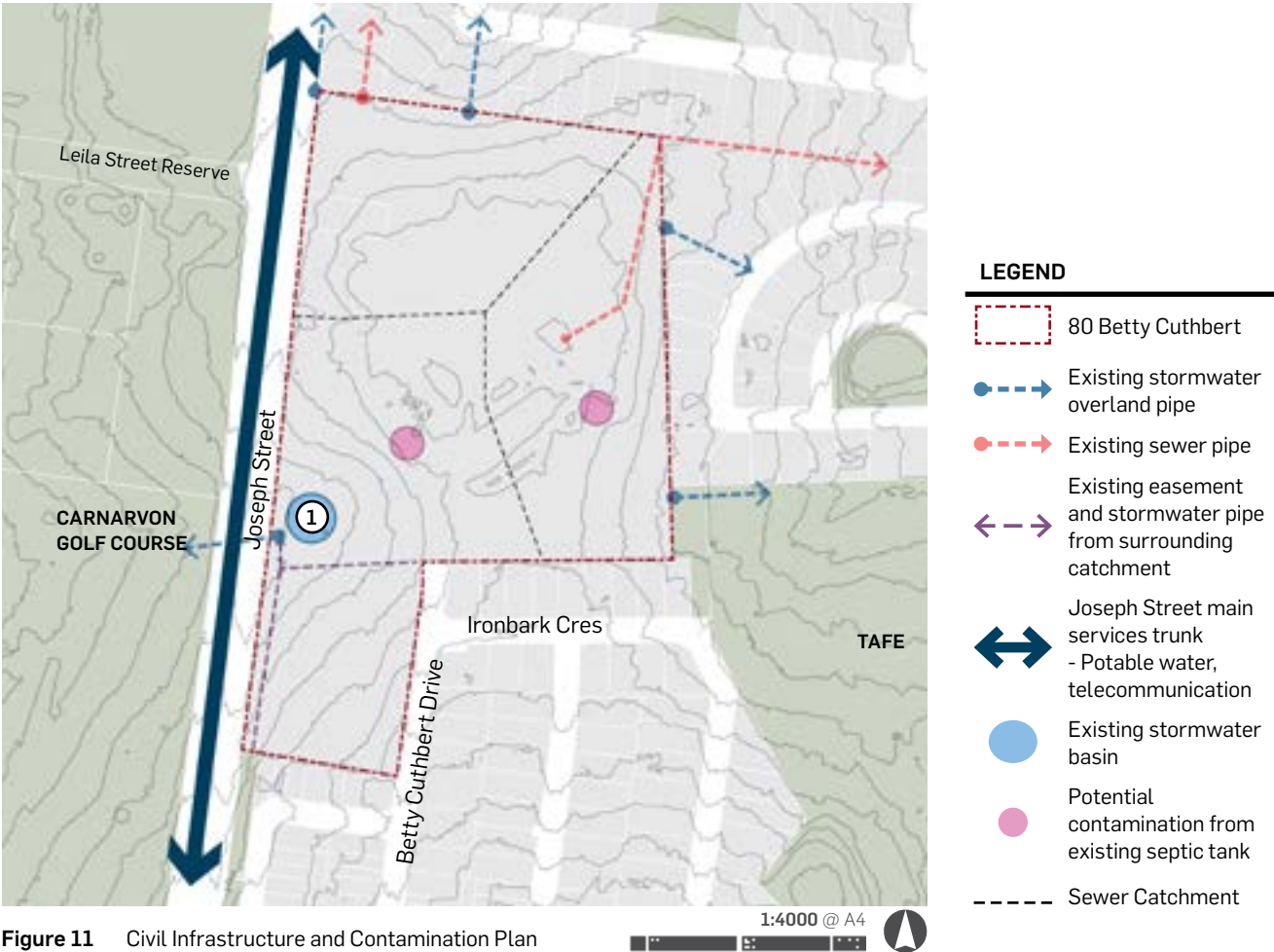
Key Opportunities

- Improve accessibility to East Street where currently limited by providing direct pedestrian access to Ironbark Walkway
- Provide through site linkage from Joseph Street to Ironbark Walkway
- Extend current northbound cycleway along Joseph Street

2.3.5 TOPOGRAPHY



2.3.6 CIVIL INFRASTRUCTURE AND CONTAMINATION



2.3.7 BIODIVERSITY



Figure 12 Biodiversity plan

The site is dominated by scattered planted including tallowwood, red mahogany, red Ironbark and spotted gum. The trees are generally concentrated around the site boundary and the existing building, leaving open areas of grassland in between.

A total of 173 trees with a low retention value are not considered important for retention. A total of 294 trees with a medium retention value should be retained wherever possible, but should not be a constraint on the development.

A total of 16 trees with a high retention value are considered important for retention and should be retained and protected wherever possible.



Key Opportunities

- All opportunities to retain these 16 high retention value trees using design modifications and tree sensitive construction techniques should be explored
- Medium value trees to be retained wherever possible

2.3.8 SITE ANALYSIS SUMMARY



Figure 13 Opportunities and constraints plan

80 Betty Cuthbert provides opportunity to reinvigorate an underutilised surplus government site to deliver a robust plan that delivers improvements to existing health services which are currently not meeting the needs of patients, additional social infrastructure and care facilities, connectivity to the surrounding residential uses and is an overall benefit to the community.

The consolidated opportunities and constraints of 80 Betty Cuthbert are summarised on the diagram and key above that includes accessibility, biodiversity and potential land use programs.

LEGEND

80 Betty Cuthbert

ACCESSIBILITY

- Potential to extend shared path network utilising the setback to Joseph Street
- Potential new signalised intersection consolidating vehicular access to site and pedestrian crossings between bus stops
- Potential new overpass pedestrian bridge to connect to Leila Street Reserve
- Potential green link connection for pedestrian and cycleway through Ironbark Walkway to East Street and Botanica
- Secondary access from Betty Cuthbert Drive
- Joseph Street - fast moving traffic potential constraints for pedestrian and cyclists.

BIODIVERSITY

- High value trees - retain where possible
- Medium value trees - retain where possible

BUILT FORM AND LANDUSE PROGRAM

- Residential typology to respond surrounding housing types with high best use consideration
- Potential location for future educational establishment
- Potential location for MSL facility
- Potential stormwater basins within lower level of the site

CIVIL AND INFRASTRUCTURE

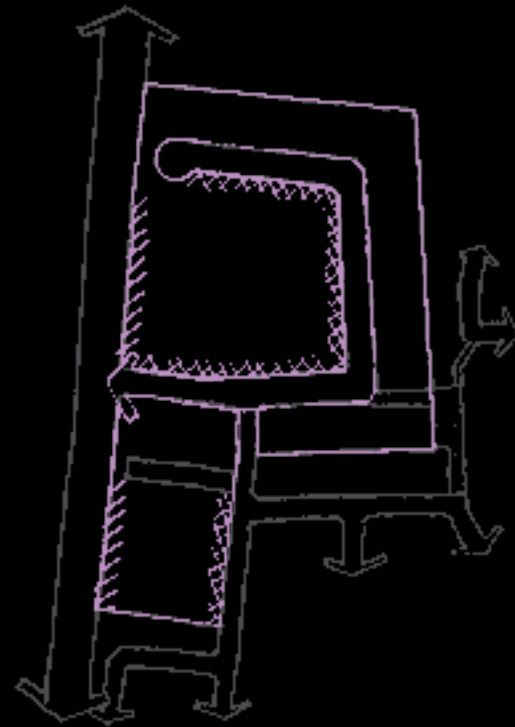
- Existing easement and stormwater pipe from surrounding catchment
- Sloping down

SURROUNDING INTERFACE

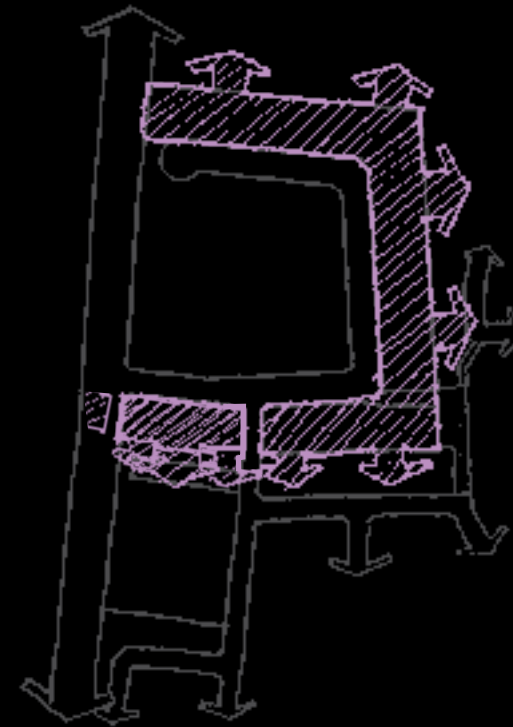
- Residential interface - potential noise and visual change impact
- Noise from traffic on Joseph Street

3.0 DESIGN PRINCIPLES

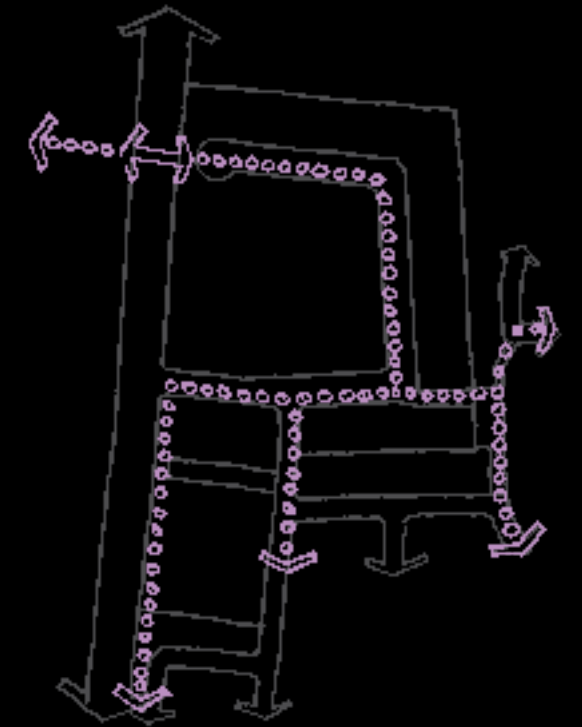
The development of 80 Betty Cuthbert has been guided by the following principles:



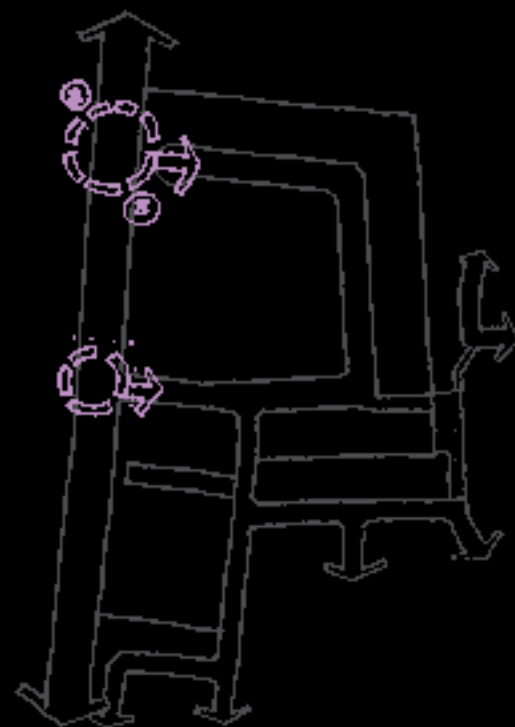
MAXIMISE STREET FRONTAGE & VISIBILITY TO NEW FACILITIES



A LEGIBLE RESIDENTIAL TRANSITION ZONE & INTERFACE



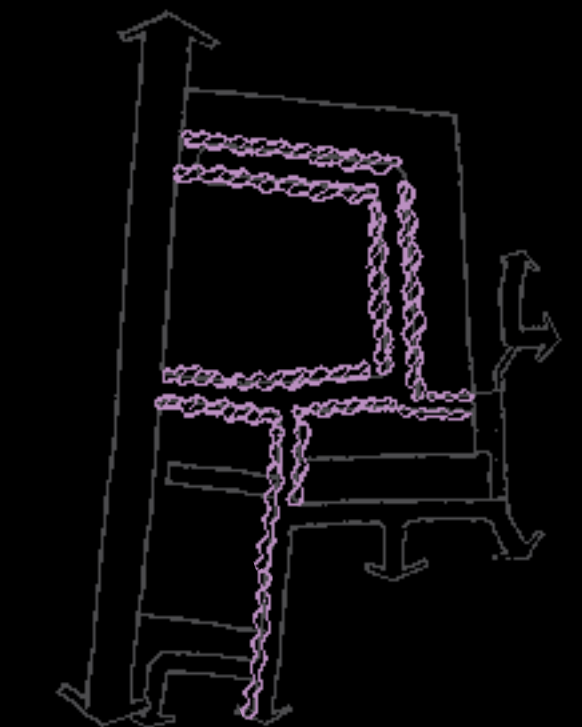
IMPROVE CONNECTIONS TO THE SURROUNDING COMMUNITY



CONSOLIDATE VEHICULAR AND PEDESTRIAN ACCESS AT JOSEPH STREET



EXTEND THE LANDSCAPE EDGE ALONG JOSEPH STREET



A COHERENT STREET HIERARCHY & LANDSCAPE TREATMENT

4.0 MASTER PLAN

The master plan has been formulated to accommodate the following uses:

- A future educational establishment allocated for the Department of Education;
- A health facility; and
- Residential uses along the site periphery.

The following figure illustrates the proposed Master Plan in 80 Betty Cuthbert Drive based on the surrounding context, site considerations and guided by design principles identified in the previous sections.

The key strategies in formulating the master plan are explained in the following section being:

- Land Use Strategy;
- Access and Movement Strategy; and
- Landscape and Public Domain Strategy.



4.1 LAND USE STRATEGY



Figure 14 Land Use Plan

PROPOSED LAND USE

The future educational establishment and MSL facilities are located along Joseph Street to address the street frontage and provide a buffer to the residential uses to the east.

Residential uses are situated along the perimeter of the northern, eastern and southern site boundaries providing transition to the surrounding residential communities as well as passive surveillance to the future educational establishment.

Two stormwater basins are located within the lower level of the site boundary as part of stormwater management strategy.

A minimum 6m buffer is proposed along Joseph Street as a continuation of the green buffer to the south within Botanica.

The following figures and table illustrates the proposed land use configuration and development summary.

DEVELOPMENT SUMMARY

LANDUSE	AREA (sqm)	AREA(ha)	%
Future Educational Establishment	18,518	1.85	32%
MSL Land	9,516	0.95	16%
Residential Land	17,777	1.78	30%
Sub Total Developable	45,811	4.58	78%
Basin	2,272	0.23	4%
Road Areas incl. Joseph Street additional lanes	10,731	1.07	18%
Sub Total Non Developable	12,977	1.3	22%
Total Site Area	58,814	5.88	100%

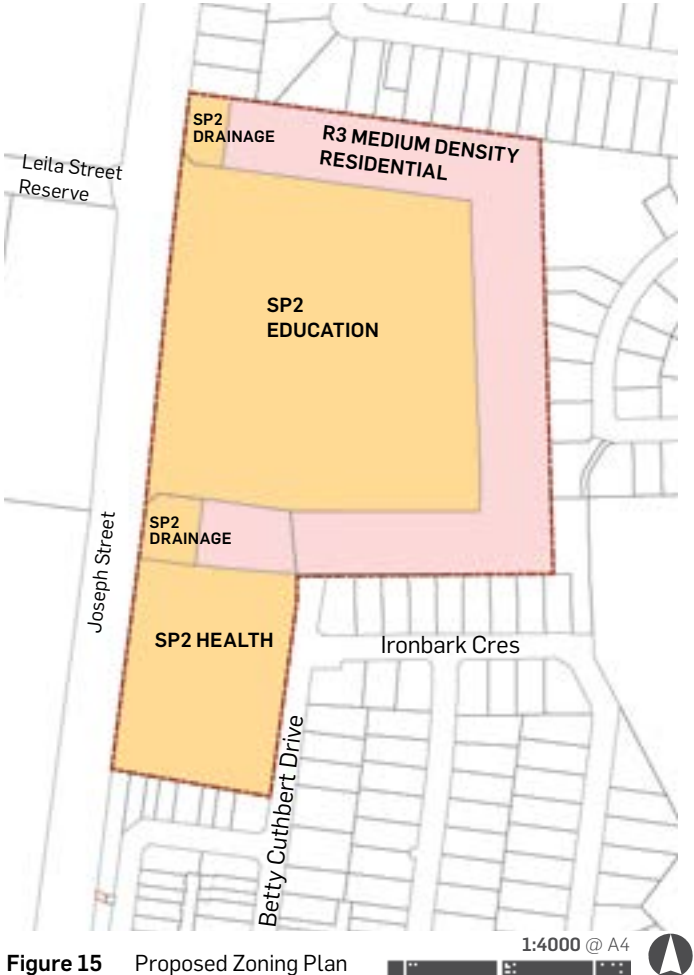


Figure 15 Proposed Zoning Plan

PROPOSED ZONING

The following table and above diagram identifies the proposed planning control changes to the site:

	EXISTING	PROPOSED
Zoning	SP2 Hospital	SP2 Education; SP2 Health; SP2 Drainage and R3 Medium Density Residential
Maximum HOB	N/A	9m within R3 zone
Maximum FSR	N/A	0.75:1 within R3 Zone

Key Insights

- Approximately 78% of the site area is allocated as developable land for the use of a future educational establishment, MSL facility and residential uses with the remaining 22% as non developable land including stormwater basins and road.
- The planning proposal identifies a proposed rezoning of the current SP2 Health into a mix of SP2 Education, SP2 Health, SP2 Drainage and R3 Medium Density Residential with 9m HOB and 0.75:1 FSR within R3 Zone.
- An approx. 65% of the site area is zoned as SP2.

PROPOSED ZONING AREA SCHEDULE

LANDUSE	AREA (sqm)	AREA (ha)	%
SP2 Education	28,494	2.84	48.4%
SP2 Health	9,763	0.97	16.5%
SP2 Drainage	2,272	0.22	3.86%
R3 Medium Density Residential	18,285	1.91	31%
Total Site Area	58,814	5.88	100%

4.2 EXAMPLES OF EDUCATIONAL FACILITY

We have been working with PDNSW and the Department of Education in collaboratively developing the proposal which includes provision of land for a potential new primary school. Planning has included early analysis of student enrolment projections together with site specific analysis of catchment alignment, traffic and transport needs and other early phase due diligence.

Once the planned re-zoning is complete, the Department will commence more detailed service need planning to identify the projected timing of dwelling growth and the impact of enrolments in the short and medium term on current schools in the areas.

These images are examples of what the proposed educational facility may look like in terms of bulk/scale and built form style.



4.3 ACCESS AND MOVEMENT STRATEGY



This section illustrates the access and movement strategy including the following studies:

- Vehicular Access and Movement;
- Active Transport Network;
- Streetscape Strategy;
- Pedestrian Shed Analysis; and
- Future Educational Establishment Circulation Strategy.

DoE have also identified part of the site to provide a future educational establishment. To assist with the assessment of this proposal, the future educational establishment has been designed with consideration of a maximum capacity of 1,000 students.

Consultation with Transport for NSW has confirmed that if the future educational establishment is to be designated as a primary school in the development stage, an overpass pedestrian bridge on Joseph Street may be required for pedestrian safety.

VEHICULAR ACCESS AND MOVEMENT

Following extensive consultation with Transport for NSW (TfNSW) in 2020, the agreed road structure proposes two access points comprising of:

- A signalised intersection at the midpoint of the site fronting Joseph Street; and
- The extension of Betty Cuthbert Drive to the south.

The primary street will wrap north around the future educational establishment which provides an extended street frontage along all sides of the future educational establishment to allow better vehicular circulation within the site rather than stopping traffic on Joseph Street. A cul-de-sac terminates this street as advised by TfNSW to avoid disruption of traffic flow along Joseph Street and deceleration potential lane north of the site.

The proposed local streets comprise of three categories that will be explained further under Streetscape Strategy section. This includes:

- Local Street Type A - 22.5m
- Local Street Type B - 22.5m
- Local Street Type C - 19m
- Local Street Type D - 13.5m (Betty Cuthbert Drive)

ACTIVE TRANSPORT NETWORK

The southbound bus stop on Joseph St is required to be relocated due to the construction of the turning lane proposed as part of the signalised intersection upgrade into the site. The bus stop is proposed to be located just north of the bridge as shown in Figure 16 Access and Movement.

The existing cycleway to the south within Botanica is proposed to be extended along Joseph Street utilising the proposed buffer and connecting the wider street network.

An overpass pedestrian bridge located at the proposed signalised intersection would be required by TfNSW when a future educational establishment development occurs within the site.

STREETSCAPE STRATEGY

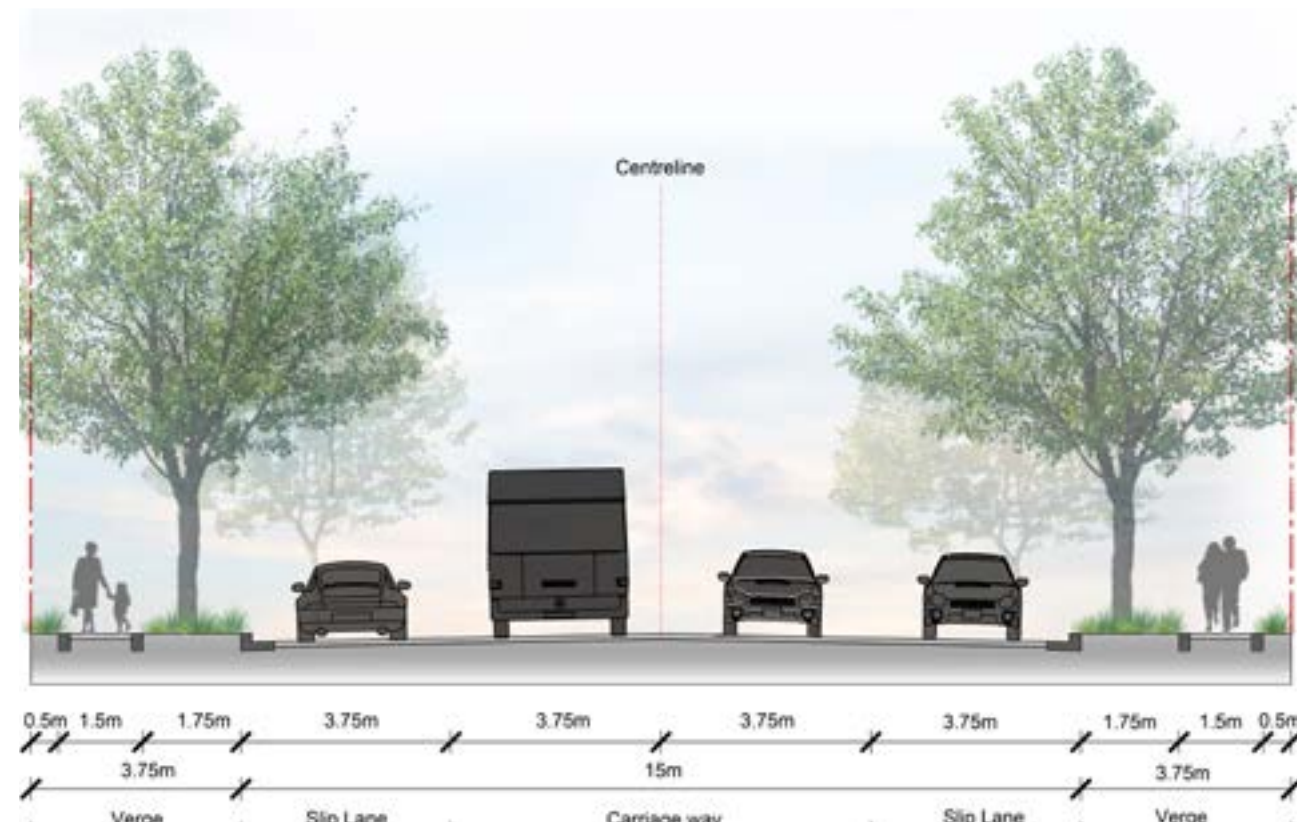
The proposed local streets typologies are based upon the standard 13m local street reserve identified in the Former Lidcombe Hospital DCP with modification to accommodate both vehicular and bus circulation.

The proposed streetscape applies 1.5m minimum footpath width in accordance with the Disability Discrimination Act (DDA) given it adjoins the future educational establishment and health facility. This also satisfies the minimum 1.2m footpath width as identified in the DCP.

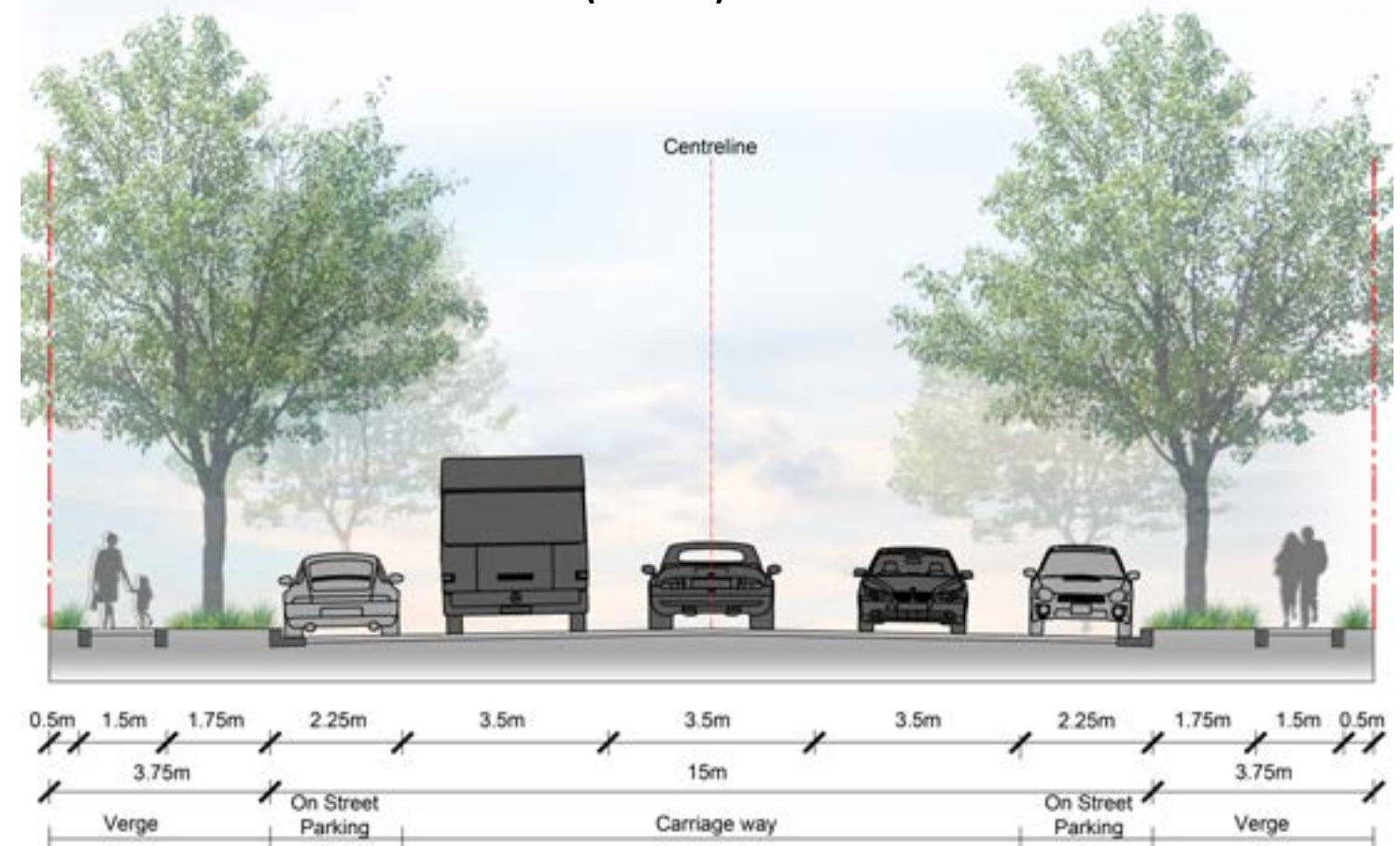
Street trees are proposed within the verge and in between on street parking with tree pits and wheel stop bar treatment where the verge could not accommodate street trees.

The following sections illustrates the three local streets typology being 13.5m, 19m and 22.5m ROW.

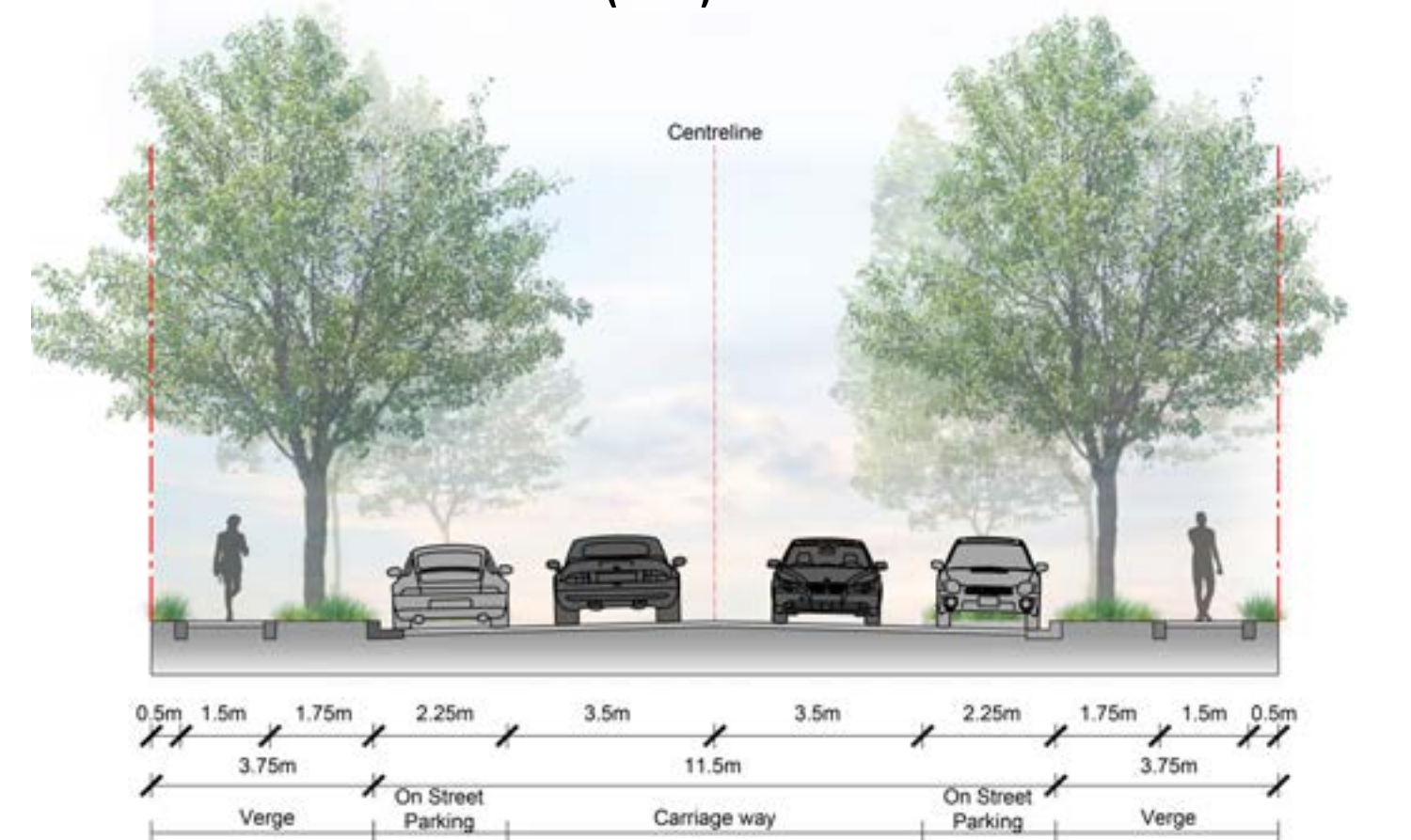
LOCAL STREET TYPE A (22.5M)



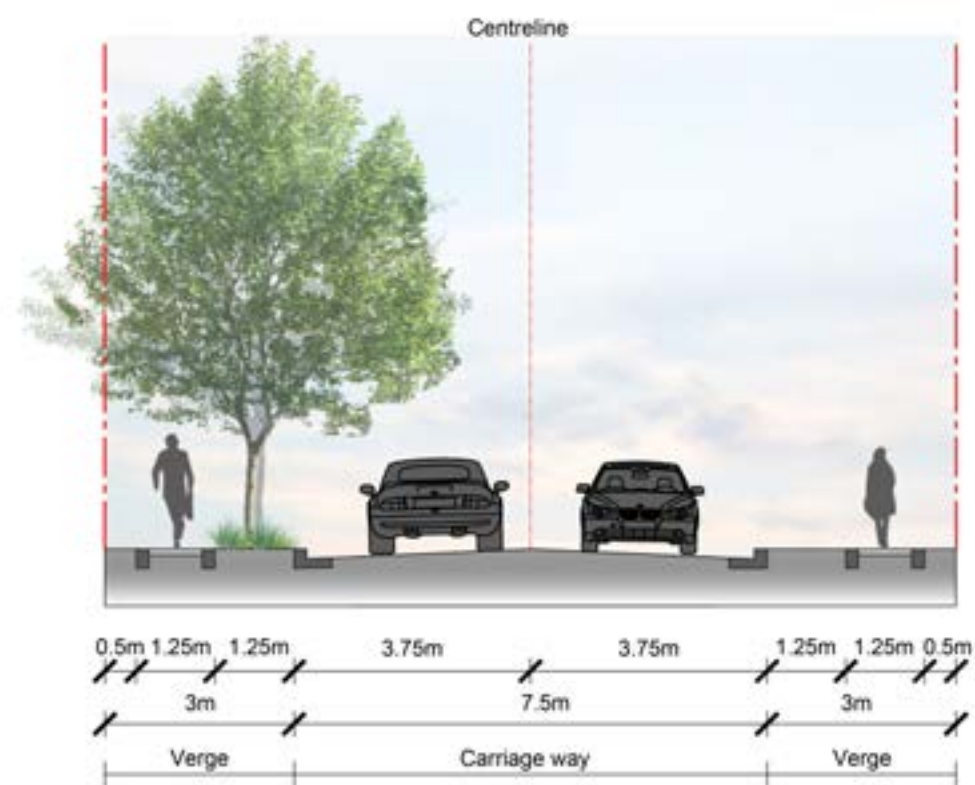
LOCAL STREET TYPE B (22.5M)



LOCAL STREET TYPE C (19M)



LOCAL STREET TYPE D (13.5M)



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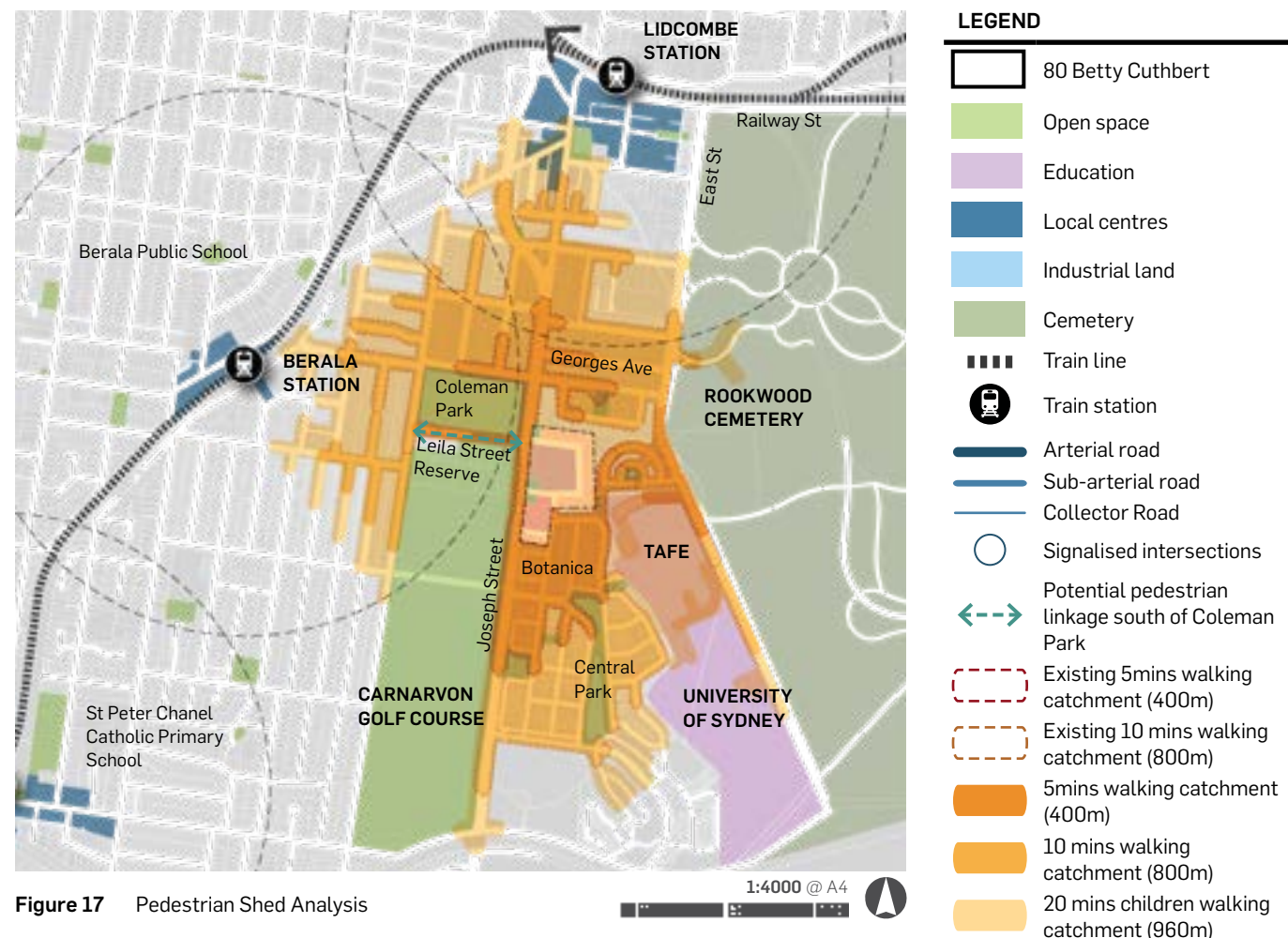


Figure 17 Pedestrian Shed Analysis

PEDESTRIAN SHED ANALYSIS

The proposed pedestrian connection to Ironbark Walkway and new signalised intersection at Joseph Street improves the pedestrian catchment from 80 Betty Cuthbert to the surrounding neighbourhood and key destinations including East Street and residential communities west of Carnarvon Golf Course with assumptions the road reserve south of Coleman Park is accessible.

The diagram above illustrates the improved pedestrian catchment resulting from the proposed master plan. This includes reduced travel time to East Street with more frequent bus services within 5 minutes of the site and University of Sydney within 10 minutes. By providing access Leila Street road reserve, it will also improve the pedestrian catchment to residential uses and services east of Berala Station.

A 20 minute walking catchment for children from the future educational establishment is calculated to equal 960m walking distance. This catchment covers most of the Botanica residential neighbourhoods including a small portion of Lidcombe and Berala Town Centres.

Key Insights

- The proposed pedestrian connection to Ironbark Walkway, signalised intersection at Joseph Street and Leila Street reserve access improves the pedestrian catchment from 80 Betty Cuthbert to surrounding neighbourhoods and key destinations including East Street, University of Sydney, and residential uses east of Berala Station.

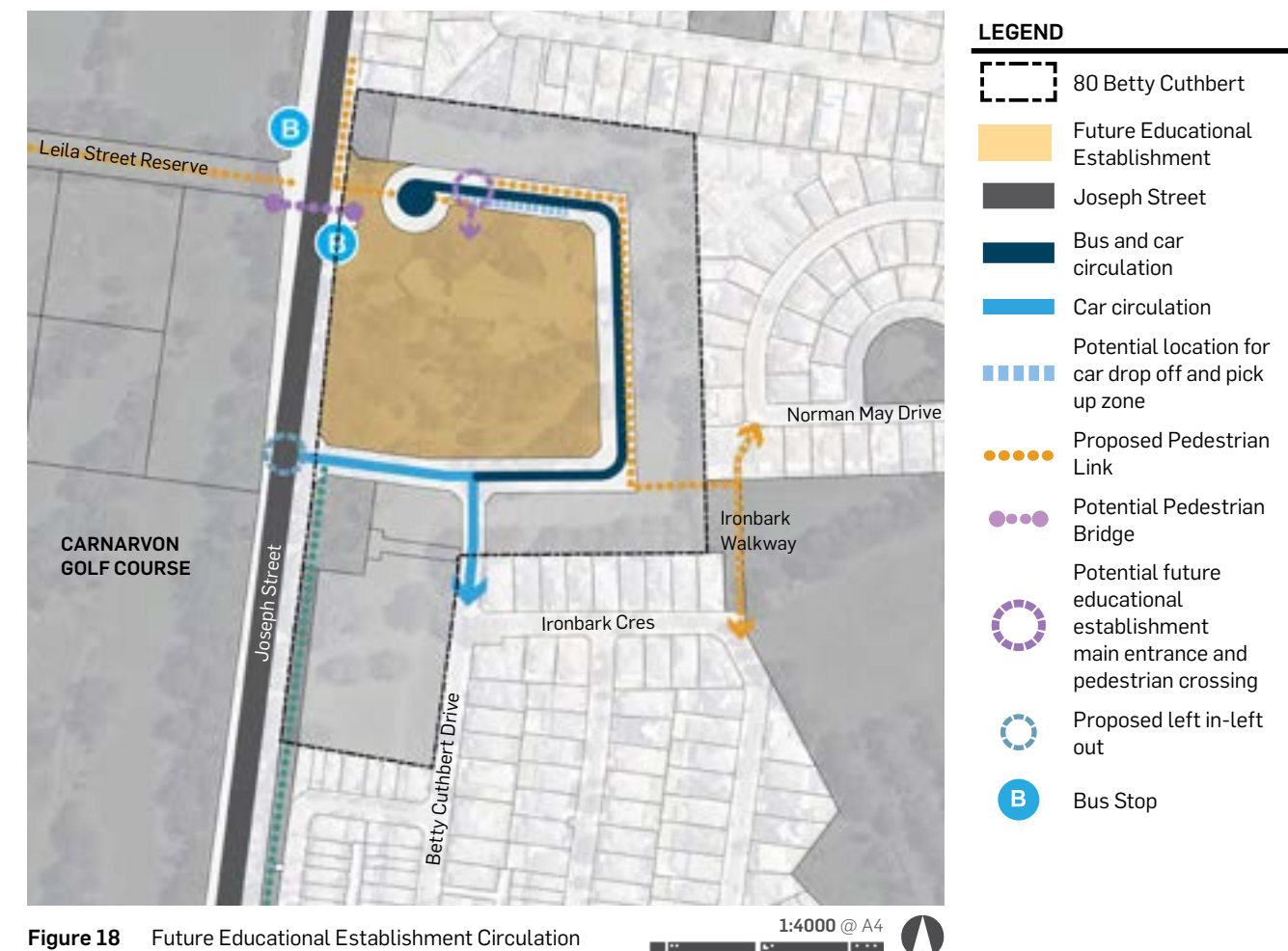


Figure 18 Future Educational Establishment Circulation

FUTURE EDUCATIONAL ESTABLISHMENT CIRCULATION STRATEGY

A future educational establishment requires a robust pedestrian and vehicular access and movement strategy to ensure the generated traffic does not impact the surrounding network.

The perimeter street layout provides an approximately 390m of street frontage for the use of the future educational establishment which is considered an adequate length to accommodate on street parking and pick up/drop off points during peak hours.

It is assumed the future educational establishment will accommodate bus circulation internally.

Bus access and egress points to the site are proposed to occur at the Joseph Street near the proposed pedestrian bridge. Pick up/drop off and turning facilities to be accommodated within the future educational establishment site.

Vehicular ingress and egress will be expected predominantly along Joseph Street and minimum volume through Betty Cuthbert Drive.

The proposed connection through Ironbark Walkway and along Joseph Street provides a safe connection for students coming by bus and on foot to the future educational establishment. Further safety requirements will be addressed at the detailed design stage.

An future pedestrian bridge situated at the northern portion of the over Joseph Street will provided with the construction of the future educational establishment, to ensure safe passage for pedestrian and students across the main road.

Key Insights

- The perimeter street wrapping the future educational establishment provides approximately 390m of local street frontage to allows flexibility to accommodate vehicular circulation including car and buses during peak hours
- Potential overpass pedestrian bridge situated at the Joseph Street main intersection be provided, it will provide a safe passage for pedestrian and students across the main road.

PEDESTRIAN BRIDGE STANDARD DESIGN



VERTICAL CIRCULATION VARIATION



BRIDGE DESIGN VARIATION



4.4 LANDSCAPE AND PUBLIC DOMAIN STRATEGY



The landscape and public domain strategy is aiming to maintain the landscape character of the site by retaining medium to high value trees where possible. Further assessment will be require in DA stage.

The street and pedestrian links identified on the previous access and movement strategy section illustrates the proposed streetscape strategy whereby the footpath, trees and verges comply with Council's development controls and infrastructure requirements whilst providing a similar street character to Botanica.

The proposed stormwater basins situated along Joseph Street are proposed for a non-recreational uses with landscape treatment.

*Note: The green buffer is to be consistent with the Botanica interface along Joseph Street to the South

- Key Insights
- High and medium value trees to be retained where possible subject to future educational establishment, MSL and residential development.
 - Extend streetscape character of Betty Cuthbert Drive and establish the streetscape character to the future educational establishment perimeter street.

5.0 CONCEPT LANDSCAPE PLAN

The following section identifies the concept landscape plan for 80 Betty Cuthbert with following sections:

- Landscape Design Statement;
- Concept Landscape Plant List;
- Landscape Concept Plan; and
- Typical Plan.

5.1 LANDSCAPE DESIGN STATEMENT

INTRODUCTION

Street trees are an important element in the appearance of streets and the public interface. Street trees significantly contribute to the amenity, identity and a sense of place. Trees provide a consistency of urban character and promote liveability. Trees are fundamentally important to the social, environmental and economic well-being of the Lidcombe community. This Street Tree Plan is critical to the short and long term management of trees in Lidcombe. This document also establishes direction for the future implementation and replacement of the street trees.

OBJECTIVES

- Provide a safe and beautiful suburb for the community to live, work and visit;
- Select the most appropriate street tree species, based on current knowledge, experiences and the needs of the community and environment;
- Retain existing character by reinforcing and enhancing the leafy characteristics of Lidcombe;
- Provide direction on the most appropriate species and planting techniques that are best suited to the environmental and growing conditions;
- Provide a street tree palette that is an appropriate scale;
- Minimise the heat island effect by providing continued tree canopy cover for shade and cooling of hard surfaces;
- Protect and enhance urban ecology and biodiversity for a healthy ecosystem;
- Increase tree species diversity;
- To educate the community on the values of street trees through participation and engagement;
- Guide Council decision making for planting, maintenance and management of new and existing trees

STREET TREE SELECTION

- Right tree for the right street
- Acceptable leaf and fruit fall characteristics
- Not prone to major limb drop
- Low risk of becoming an environmental weed
- Narrow footpath and verges
- Value of street tree diversity
- Low maintenance
- Proven performance record



Tree Species: Cupaniopsis anacardioides

Common Name: Tuckerroo

Location : Street type 1 & 2

Tree Dimensions: Max 6m

General Comments: Hardy to frost and drought once established; Tolerates a variety of soil types; Rounded canopy; Cream flower in autumn.



Tree Species: Flindersia australis

Common Name: Crow's Ash

Location : Street type 3

Tree Dimensions: Max 12m

General Comments: Good shade tree; Robust and hardy; Dense rounded canopy.

STREET TREE DESIGN AND PLACEMENT

The quality of street tree design and implementation is critical in the successful growth of a tree.

LOCATING STREET TREES

There are many limitations to the positioning of street trees within the verge. Distances from infrastructure elements such as intersections, light and electricity poles, stormwater inlets, underground service pits and bus stops, are important in determining final planting locations. Typically this requires individual site assessment and will be determined on a case-by-case basis. As a guide, recommended distances from infrastructure elements are:

- Bus Stop – 5 metres from determined bus stop;
- Driveway – 2 metres from driveways;
- Pedestrian Crossing – 5 metres from pedestrian crossings;
- Storm water inlet/outlet – 2 metres from storm water inlet/outlet pits;
- Street intersection – 10 metres from intersection kerb line;
- Street light pole – 3 metres from centre of light pole;
- Underground service pit - 2 metres from edge of pit.

SPACING OF THE STREET TREES

- Right tree for the right street
- Acceptable leaf and fruit fall characteristics
- Not prone to major limb drop
- Low risk of becoming an environmental weed
- Narrow footpath and verges
- Value of street tree diversity
- Low maintenance
- Proven performance record

TREE RETENTION STRATEGY

High and medium value trees to be retained where possible subject to arborist report and design development.

ACCESSIBILITY & SAFETY

Paving materials, inclusion of tactiles and other relevant measures will be implemented as part of the landscape works for compliance with the relevant standards.

SAFETY & CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The proposal has considered the principles of Crime Prevention Through Environmental Design (CPTED) and the enhancement of personal safety throughout the site. Places of concealment have been minimised and clear signage / way-finding will be incorporated. The main thoroughfare and Internal street has direct access through the site and maintains a clear visual link to the wider context.

Planting treatments will maintain clear sight lines through the use of clear trunked trees and lower level understory species where visibility for safety is required.

LIGHTING

All external areas will be designed to meet relevant Australian Lighting Standards. Integrated landscape lighting is proposed to all the landscape elements.

WATER MANAGEMENT

Water Sensitive Urban Design (WSUD) principals have been realised into the landscape design in a way that celebrates a sustainable water cycle.

- Where possible storm water runoff will be directed to WSUD kerbs and garden beds.
- All soft landscape zones on structure will be detailed to have subsurface drainage.

MAINTENANCE NOTES:

General

- Planting maintenance period: the planting maintenance period will be 52 weeks and will commence from the date of practical completion. Of each phase of planting works (hereby specified to be a separable part of the works). It is anticipated that planting works will be undertaken in one phase
- Planting maintenance program: 2 weeks prior to practical completion, furnish a proposed planting establishment program, and amend it as required. Such proposal should contain details of the types and frequency of maintenance activities involved with the establishment of plants and grassed areas. Comply with the approved program.
- Planting maintenance log book: keep a log book recording when and what maintenance work has been done and what materials, including approved toxic materials, have been used. Log book must be signed off by the client's representative after each maintenance visit. Maintain log book in location
- Product warranty: submit the supplier's written statement certifying that plants are true to the required species and type, and are free from diseases, pests and weeds.
- Insurance: the contractor is to ensure suitable insurance cover and / or bank guarantee is in place for the theft and / or damage of all works executed under this contract for the plant maintenance period.

WATERING

If the watering regime is intended to be amended the contractor must seek written approval from the superintendent immediately prior to the deferment of watering.

Watering permits: the contractor is responsible for obtaining the necessary watering permits required to carry out the watering as specified.

PLANTING MAINTENANCE

Protection of works: provide any fencing or barriers necessary to protect the planting from damage throughout the planting establishment period.

Recurrent works: throughout the planting maintenance period, continue to carry out recurrent works of a maintenance nature all to the extent required to ensure that the plants are in the best possible condition at the end of the planting maintenance period. These activities are including but not limited to:

- weeding,
- rubbish removal,
- fertilizing,
- pest and disease control,
- adjust / replace stakes and ties
- topping up mulch,
- cultivating,
- pruning,
- keeping the site neat and tidy

Replacements: the contractor is responsible for the replacement of failed, damaged or stolen trees, shrubs and groundcovers throughout the planting establishment period.

WEEDING

Generally: regularly remove, by hand, rubbish and weed growth that may occur or recur throughout turfed, planted and mulched areas. Continue eradication throughout the course of the works and during the planting establishment periods.

Weed eradication: the contractor must make allowance for a higher level of maintenance during establishment to ensure that weeds are controlled.

Herbicide use: re-application of herbicide such as Ronstar or equivalent if required.

COMPLIANCE

- Requirement: plant maintenance shall be deemed complete subject to the following compliance with the criteria:
- Repairs to planting media completed
- Ground surfaces are covered with the specified treatment to the specified depths
- Pests, disease, or nutrient deficiencies or toxicities are not evident.
- Organic and rock mulched surfaces have been maintained in a weed free and tidy condition and to the specified depth
- Vegetation is established and well formed
- Plants have healthy root systems that have penetrated into the surrounding, undisturbed ground and not able to be lifted out of its planting hole
- Vegetation is not restricting essential sight lines and signage
- Collection and removal of litter
- All non-conformance reports and defects notifications have been closed out.
- Plant maintenance compliance schedule:

MATERIALS & QUALITY

The design strategy is to provide a durable and high quality landscaped building setting with a consistency of quality and treatments across the site selected to compliment the character of the architecture. Consideration has been given to durability and practicality for ongoing maintenance.

Proposed precast Concrete paving in the public domain will be in accordance Council's standards for public domain works. Material, finishes, furniture and fixtures will be selected with consideration to whole of life costs, detailed and installed to minimize ongoing maintenance needs.

Pruning

- Generally: tree plantings shall be left to grow in a form consistent with the growth habit of the species.
- Pruning: cut back tree canopies and groundcovers to road verges, and light poles and signs as required achieving clear sight lines when viewed along roadway.

Requirement: pruning to be undertaken by a qualified tree surgeon / arborist

Plant Material	Acceptable failure per area	Acceptable concentration of failure
Tube stock given location*	<10%	<15% in any
100-150mm given location*	<5%	<15% in any
45L	<nil	nil%
Turf	<5%	nil%
Trees (200L/ 400L/ 1000L/ Trunk)	< nil%	< nil%

Fertilising

- Generally: the fertiliser regimes have been devised to provide sufficient long-term fertility for the vegetation type and it is anticipated that all except the very high status horticultural beds such as feature plantings (entry and courtyard planting) for colour and foliage will not need regular fertiliser regimes.
- Testing: additional nitrogen may be required due to drawdown effects from composts and mulches and localised waterlogging. To compensate for this, soil testing is to be carried out after 12 months to ascertain nutrient requirements.

Completion

- Cleaning: remove temporary protective fences and tree stakes at the end of the planting maintenance period.



WSUD kerbs and garden beds.

5.2 CONCEPT LANDSCAPE PLANT LIST

PLANT CODE	BOTANICAL NAME	COMMON NAME	MATURITY HEIGHT AND SPREAD (m)	SUPPLY HEIGHT AND SPREAD (m)	CONTAINER SIZE	DENSITY/m²
TREES						
CUP ana	Cupaniopsis anacardioides	Tuckeroo	12m x 3m	5.6 x 5.2	100L	as shown
FLI aus	Flindersia australis	Crow's Ash	12m x 5m	5.6 x 5.2	100L	as shown
TRI lau	Tristaniopsis laurina	Water Gum	8m x 6m	5.6 x 5.2	100L	as shown
SUBTOTAL						
GRASSES						
DIA jes	Dianella caerulea 'Little Jess'	Dianella Little Jess	0.5m x 0.5m	na	150mm	4
DIA luc	Dianella caerulea 'Lucia'	Dianella Lucia	0.5m x 0.5m	na	150mm	4
LIR isa	Liriope muscari 'Isabella'	Liriope Isabella	0.5m x 0.5m	na	150mm	4
LOM eve	Lomandra labilli 'Evergreen Baby'	Lomandra Evergreen Baby	0.5m x 0.5m	na	150mm	4
LOM luc	Lomandra hystrix 'Lucky Stripe'	Lomandra	0.5m x 0.5m	na	150mm	4
PEN naf	Pennisetum alopecuroides 'Nafray'	Pennisetum Nafray	0.6m x 0.6m	na	150mm	4
POA esk	Poa labillardieri 'Eskdale'	Poa	0.6m x 0.6m	na	150mm	4
POA kin	Poa poliformis 'Kingsdale'	Poa Kingsdale	0.5m x 0.5m	na	150mm	4
SUBTOTAL						
GROUNDCOVERS						
CAR ram	Carpobrotus glaucescens 'Aussie Rambler'	Pig Face	Creeping	na	150mm	5
WES mun	Westringia fruticosa 'Mundi'	Westringia	Creeping	na	150mm	5
ALT lit	Alternanthera dentata 'Little Ruby'	Alternanthera Little Ruby	Creeping	na	150mm	5
TRA jas	Trachelospermum jasminoides	Star Jasmine	Creeping	na	150mm	5
WES low	Westringia fruticosa 'Low Horizon'	Westringia Low Horizon	Creeping	na	150mm	5



Indicative quantities subject to design development

5.3 LANDSCAPE CONCEPT PLAN



Note: Street tree location are indicative only and are subject to co-ordination with future residential driveways and future educational establishment.

1:1,500 @ A4



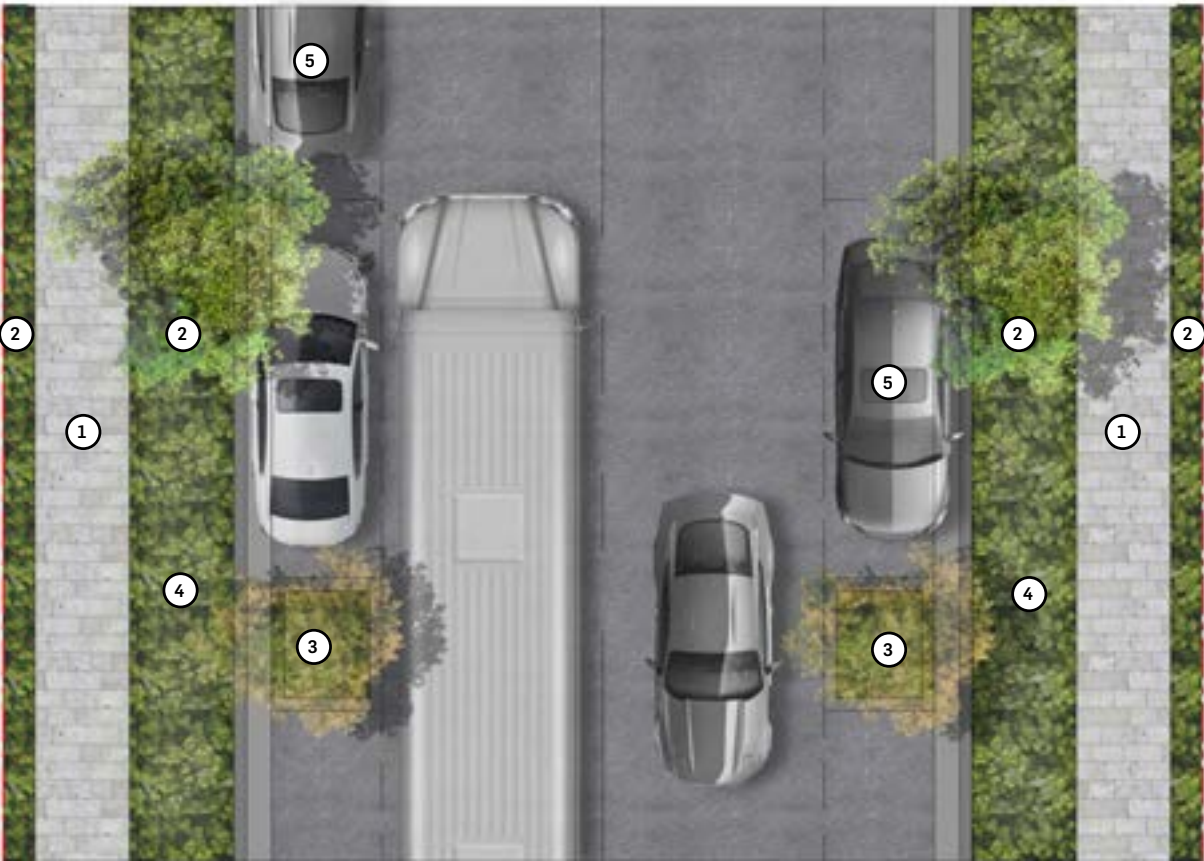
Note: Street tree location are indicative only and are subject to co-ordination with future residential driveways and future educational establishment.

1:1,500 @ A4



5.4 TYPICAL PLAN

- LEGEND
- 1 Precast concrete footpath to Council standard
 - 2 Planter verge refer planting schedule
 - 3 WSUD tree pits - *Tristaniopsis laurina*
 - 4 Proposed trees - *Flindersia australis*
 - 5 Street parking



6.0 CONCLUSION

The planning proposal for 80 Betty Cuthbert Drive, Lidcombe has been developed in response to strategic planning directions, the surrounding urban context and existing site constraints and opportunities which resulted in the design principles outlined in this report.

The following table and page identifies 80 Betty Cuthbert proposed development outcome alignment with strategic planning objectives as well as summary of the public benefit.

	CENTRAL CITY DISTRICT PLAN	CUMBERLAND 2030 - LOCAL STRATEGIC PLANNING STATEMENT	PROPOSED OUTCOMES
HOUSING AND COMMUNITY	Planning Priority C5 Providing housing supply, choice and affordability with access to jobs, services and public transport.	Planning Priority 5: Delivering housing diversity to suit changing needs.	Deliver 1.8ha residential land suitable for low-medium density housing types.
	Planning Priority C3 Providing services and social infrastructure to meet people's changing needs	Planning Priority 9: Providing high quality, fit-for-purpose community and social infrastructure in line with growth and changing requirements.	Deliver a future educational establishment. Deliver a health facility.
ECONOMY, EMPLOYMENT AND CENTRES	Planning Priority C1 Planning for a City supported by Infrastructure	Planning Priority 4: Improving accessibility within our town centres Planning Priority 11: Promoting access to local jobs, education opportunities and care services.	- Deliver new pedestrian connection to Ironbark Walkway, improving access to TAFE and University of Sydney - Deliver new signalised intersection at Joseph Street, improving the future educational establishment and MSL facility pedestrian catchment and access to regional centres such as Lidcombe and Bankstown



AN UPGRADED & MODERN MSL FACILITY

This proposal includes a land allocation to MSL, who will be constructing a modern facility that will provide a comprehensive range of support and services for people with MS and other neurological conditions. The new MSL facility will promote better life outcomes and provide a range of medical and lifestyle management services and programs.



THE MISSING MIDDLE HOUSING OFFER

Medium density housing is proposed on the surplus land not dedicated to MSL and DoE which is compatible with the adjoining residential area, maintaining the character of the locality.



A FUTURE EDUCATIONAL ESTABLISHMENT

The proposal includes land allocation to the Department of Education to deliver an educational facility within a much needed local catchment. Cumberland LGA is expecting 79,000 additional people by 2036 and this growth increases demand on existing services and infrastructure such as schools.



IMPROVED PERMEABILITY AND ACTIVE TRANSPORT NETWORK

The proposed pedestrian linkage to Ironbark Walkway, new intersection at Joseph Street and pedestrian connection opportunity to Leila Street increase permeability between eastern and western communities including Berala. The direct pedestrian connection through Ironbark Walkway and Norman May Dr will also improve accessibility to more bus services and regional cycleway network at East Street.

