



# **CORRIMAL MIXED USE DEVELOPMENT**

**CORNER PRINCES HIGHWAY AND SHORT STREET**



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## CORNER PRINCES HIGHWAY AND SHORT STREET

DATE	REVISION	STATUS
09.06.17	B	Issue for Planning Proposal
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# 01 INTRODUCTION

## 1.1 EXECUTIVE SUMMARY

AJ+C have been appointed by Stockland to prepare an Urban Design Report and indicative design for the site known as the Short Street Carpark, Corrimal, located at the corner of Princes Highway and Short Street, Corrimal, to investigate the potential for a mixed use development. The purpose of this report is to provide an initial urban design study and planning advice to support the planning proposal.

Corrimal is a northern suburb of the City of Wollongong and is a significant local retail centre for the immediate area. Corrimal is bordered by the Illawarra Escarpment to the west and the Pacific Ocean to the east.

The Town Centre lies approximately 2 kilometres west of the ocean, separated by both the north south running Memorial Drive and the South Coast Rail line. The Town Centre is approximately 6.5 kilometres north of Wollongong City Centre, and approximately 80 kilometres south of Sydney.

The proposed development site has an area of 7,485m<sup>2</sup> and is located on the south eastern corner of the intersection of Princes Highway and Short Street, Corrimal. The site is immediately south of the currently defined Town Centre, and currently accommodates an open air carpark for overflow parking of Stockland Corrimal.

Historical usage of the site include detached residential development. Stockland had previously undertaken an Environmental Risk Review, which on the basis of the investigations completed ranked the risk of contamination as minor.

Current vehicular access to the carpark site is via Short Street.

This study considered several development options for the site, each in relation to the existing available strategic work undertaken for Corrimal Town Centre.

This report describes the key urban design principles, the preferred design concept, as well as the potential development outcomes and impacts.

This Urban Design Report will form the basis of the 'story' for the project and serve as an important reference for any future architectural studies, technical reports prepared by the project team (flooding, transport, planning, landscape) and any future engagement with Council and other government agencies.





Illawarra  
Escarpment

Corrimal  
Town Centre

The Site

Sydney 80Km →

Corrimal  
Train Station

Princes Highway

Memorial Drive

South Coast  
Trainline

← Wollongong 6.5Km

Pacific Ocean



# 01 INTRODUCTION

## 1.2 THE SITE

The site is zoned in two different parcels – the majority is zoned SP2 [infrastructure] with an approximate area of 6,178 m<sup>2</sup> and the remainder is zoned R2 [low density residential] with an approximate area of 1,307 m<sup>2</sup>.

The dimensions of its two main street frontages are approximately 115m fronting Short Street and 87m fronting Princes Highway.

It's eastern frontage is stepped three times in plan and is approximately 41m for its first length which faces Corrimal library and Community Centre's western boundary. It's second length is approximately 19.5m and faces an open green space that connects to Corrimal Pool and Robert Ziems Park, its third length is approximately 25m and is the eastern boundary of the two residential lots.

It's southern boundary is also stepped three times in plan, the first is approximately 49m in length and adjoins a low density residential lot. The second and third are approximately 25m and 37m in length respectively and face the open green space connected to Corrimal Pool and Robert Ziems Park.

Currently the site usage is predominantly a surface carpark for overflow parking of Stockland Corrimal shopping centre opposite the site. There are two adjoining smaller residential lots which also form part of the landholding, which contain no building work, but include part of Corrimal Creek, which forms part of the current flood control measures for the Towradgi Creek Catchment.

There is a cross fall of approximately 1.5m across the current carpark site from the high point on Short street of RL16.52m to the low point on the southern boundary of RL15.06m.



# 01 INTRODUCTION



View of site from the intersection of Princes Highway and Short Street



# 01 INTRODUCTION

## 1.3 LOCAL CONTEXT

### LAND USE

The surrounding area is occupied by a variety of existing land uses including supermarket, retail and commercial uses immediately to the north in the Corrimal Town Centre; Corrimal Library and Community Centre immediately to the east, Corrimal Community Preschool and Occasional day care immediately to the north east; petrol stations immediately opposite the site to the west; significant open and recreation space immediately to the east; schools to the north and east including Corrimal Public, Corrimal East Public and Corrimal High School; low density detached residential housing to the south, east and west; select medium density residential in the Town Centre.

### PUBLIC TRANSPORT

Approximately 12 minutes walk [1km] from the site is Corrimal railway station. This station provides services south to Wollongong every 30 minutes approximately at peak times, with a 10 minute train journey. Trains travelling north to Sydney leave approximately once an hour, with an average travel time of 1 hour 50 minutes to 2 hours and 30 minutes, with a required train change at either Thirroul or Waterfall.

There are two north south orientated arterial roads in close proximity to the site. Memorial Drive to the east and Princes Highway along the western boundary of the site.

There are regular buses [10 – 20 minutes apart at peak times] travelling south along Princes Highway to Wollongong with a transit time of 20 minutes, and travelling north to Wollongong's further northern suburbs every half an hour.





Corrimal Public School

Petrol Station

Corrimal Park Mall

Corrimal Memorial Park

Stockland Shopping Centre

Petrol Station

Petrol Station

Corrimal Community Preschool

Corrimal Community Centre

Corrimal Pool

Robert Ziems Park

Harrigan Park

Corrimal Train Station

Corrimal High School

Corrimal East Public School





# 01 INTRODUCTION

## 1.3 LOCAL CONTEXT \_ CONTINUED

### CORRIMAL TOWN CENTRE + AMENITIES

Corrimal Town Centre lies to the immediate north of the site and is within easy walking distance, with the northern boundary of the Corrimal Town Centre approximately 5 minutes' walk [550m]. Immediately opposite the site [on the southern edge of the Town Centre] is the major retail centre of Stockland Corrimal which includes a Woolworths supermarket and various retail shops.

The Corrimal Town Centre includes a range of essential services, including banking, health, retail, restaurant, hotels and some medium density apartment dwellings [up to 4 storeys]. Also within the Town Centre is further significant retail, located in Corrimal Park Mall including a Coles supermarket.

Included within the Town Centre is the civic entrance to the recreational heart of Corrimal, Corrimal Memorial Park.



# 01 INTRODUCTION



Key  
 Town Centre  
 Site  
 Link to Corrimal Train Station

Open Space  
 Bus Stop



01 Stockland Corrimal



02 Memorial Park



03 Corrimal Park Mall



04 Corrimal Town Centre's variety of shops and services



# 01 INTRODUCTION

## 1.4 PLANNING CONTEXT: THE ILLAWARRA-SHOALHAVEN REGIONAL PLAN

The Illawarra-Shoalhaven Regional Plan released in 2015, prepared by NSW Department of Planning and Environment, provides the strategic policy, planning and decision-making framework to guide the region to sustainable growth over the next 20 years. This plan describes the rich environmental and cultural heritage of the area, and the need for growth and development which is sustainable and does not jeopardise the core reasons and values which make this area unique.

It describes the vision for the Illawarra – Shoalhaven region for a sustainable future and a resilient community, capable of adapting to changing economic, social and environmental circumstances.

The plan describes five goals:

- + A prosperous Illawarra-Shoalhaven
- + A variety of housing choices, with homes that meet needs and lifestyles
- + A region with communities that are strong, healthy and well-connected
- + A region that makes appropriate use of agricultural and resource lands
- + A region that protects and enhances the natural environment

Corrimal is identified in the plan as an Urban Centre, with its key function as a suburban centre servicing the local area and surrounds with business, retail and entertainment uses including supermarket, health and other services.

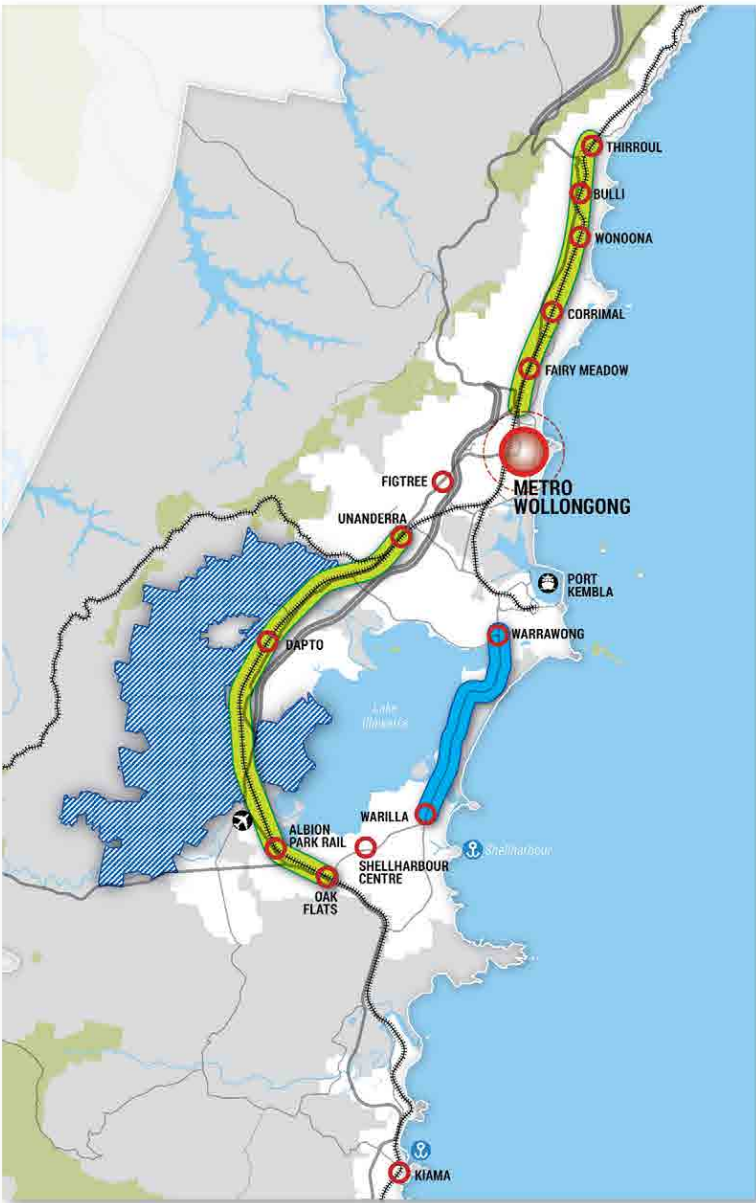
Corrimal is also identified in the plan as a focus centre for increased housing opportunities. Providing more housing in key established areas is a sustainable option because it takes advantage of existing services, jobs, commercial and retail opportunities, and infrastructure. Central to this is Corrimal's good access to public transport.

The plan describes the projected housing needed for 2016-36 for the Wollongong LGA as 14,600.

The site is very well located to help support these strategic ambitions, specifically to contribute to housing opportunities and diversity of housing type in close proximity to transport and existing services. This offers more sustainable housing through urban revitalisation which needs to be balanced with protecting local values.



FIGURE 10 INSET: WOLLONGONG AND SURROUNDS



**ACTION 2.2.1** Investigate the policies, plans and investments that would support greater housing diversity in centres

Analysis has identified locations in centres such as Thirroul, Corrimal, Oak Flats, Kiama, Gerringong and Nowra-Bomaderry where a wider range of housing options are feasible, and where changes to planning controls could facilitate this outcome. As indicated in Goal 1, Metro Wollongong has potential for higher density apartments, as well as housing suitable for students, health workers and seniors.

Additional residential development in these locations could also act as a catalyst to enhance their existing recreational and environmental features.

The NSW Government will:

- investigate any barriers that may be preventing development by:
  - exploring the types of infrastructure and public domain investments that would increase the capacity for growth;
  - identifying policies and more detailed planning that would improve certainty and streamline development processes; and
  - identifying urban design outcomes that support active and vital communities once development occurs; and
- work with Councils to review planning controls in existing urban areas to identify opportunities to increase the range of housing types.



# 01 INTRODUCTION

## 1.5 PLANNING CONTEXT: CORRIMAL TOWN CENTRE PLAN 2015-2025

After extensive local community consultation The Corrimal Town Centre Plan 2015-2025 was released in 2015, prepared by Wollongong City Council in association with Architectus, which describes a vision for the future of Corrimal that has:

- + A Distinct Identity
- + A thriving Community Heart [Memorial Park]
- + Strong Connections
- + Smart Growth
- + Pride in Quality Spaces

The plan seeks to provide strategic guidance and guide change through infrastructure improvements, stakeholder partnerships and planning control amendments.

The plan built upon the themes covered in the Corrimal Revitalisation Strategy 2009, prepared by Wollongong City Council in association with Urbis, as well as consolidating key community inputs and representative groups' subsequent feedback.

Select key themes of the 2009 community consultation included:

- + Maintain views to the escarpment from Memorial Park and Town Centre
- + Avoid increases in height above 4 storeys [6-8 was previously proposed]
- + Enhance and activate public open spaces
- + Provide cycleway and pedestrian walkway linkages
- + Upgrade and enhance community facilities and parks
- + Encourage more cafes, outdoor dining and outdoor activities within the Town Centre and Memorial Park
- + Increase residential densities within and around the Corrimal Town Centre to assist generating demand for the provision and retention of services

Select key themes of the 2014/15 community consultation included support of previous themes and the community desire for improvements to Corrimal's appearance which would make it a more enjoyable and friendly place

The document defines the geographical extent of the Town Centre, and describes the significance of the town heart which is Memorial Park, centrally located within the Town Centre. The plan also expands on the high environmental value of the beautiful, natural setting of the escarpment and the importance of maintaining views to the escarpment from Memorial Park and the Town Centre. It also describes Corrimal creek as a natural asset, which is subject to heavy flooding which has historically restricted development opportunities in the Town Centre. It expands upon the Town Centre's important role in providing the major retail centre for the northern suburbs of Wollongong, and the rich cultural history of Corrimal that is in not yet visible in the Town Centre's public places.

The site is very well located to contribute to this vision for the Corrimal Town Centre, especially in regard to improving walkability and connections, enhancing the pride in quality spaces, by offering quality public domain linkages to key community civic and recreation facilities just south of the Town Centre, and by improving the site and it's immediate neighbours flood mitigation capacity with high quality landscape amenity. There is also a strong benefit in offering a mixed use development which increases the residential population so close to the Town Centre, to help support the range of small and large businesses, and offer a range of housing choices close to essential services for people in the area.



## Vision

In the future, Corrimal Town Centre will have...



### A Distinct Identity

1. Local Aboriginal culture and heritage is acknowledged and reflected in public spaces
2. Public spaces display and communicate the multi-layered history of Corrimal (including Aboriginal, mining, sporting and industrial history)
3. The escarpment setting is reinforced through landscaping, materials, environmental initiatives and the preservation of important views of Brokers Nose from Memorial Park.
4. The Town Centre holds unique events
5. The Town Centre supports small businesses, and provides a mix of specialty and chain stores and professional services



### A Thriving Community Heart

6. Memorial Park is the community heart of Corrimal Town Centre
7. Memorial Park is beautiful, well-maintained and lively, offering a variety of activities and opportunities for socialising, playing sport, relaxing and having fun
8. Memorial Park is safe, accessible and inviting for all age groups and abilities
9. The edges of Memorial Park are active and well-maintained, adding energy and surveillance to the park



### Strong Connections

10. The Princes Highway main street is pedestrian focused and provides opportunities to stay and spend time
11. The Town Centre is easy to move around and welcoming for everyone
12. Pedestrian and cycle paths provide links to and from key destinations, and the Town Centre sits on the link from the escarpment to the sea
13. Laneway links are appreciated and are safe and inviting
14. Public transport facilities and links are safe and attractive and people use public transport more
15. A pedestrian-friendly environment reduces car trips within the Town Centre, and car parking areas are strategically situated close to essential services and high-quality pedestrian links



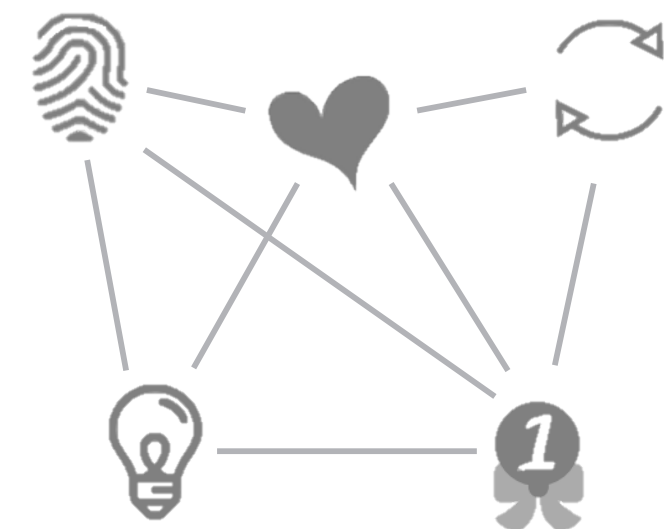
### Smart Growth

16. The Centre is the urban goods and services hub for the northern suburbs and provides a wide variety of jobs, facilities and activities in a unique environment
17. The Centre embraces inexpensive, temporary projects that enhance public space
18. Redevelopment in and around the Town Centre provides housing choice and supports the local economy
19. Care for the environment is on display through sustainable building practices, in green streets and spaces and through community and business initiatives



### Pride in Quality Spaces

20. Buildings, furnishings and parks are renewed and looked after
21. Shopfronts are attractive and address the street
22. Developments are designed to bring people to the street and blank walls have been replaced by active and pleasant frontages
23. The Town Centre embraces quality, low-maintenance landscaping, and street trees, garden beds and creek rehabilitation create a lovely atmosphere
24. New development is designed to enhance the setting and streetscape, and to offer comfort to people inside and at street level
25. High-quality design raises Corrimal's profile and encourages investment



To achieve the vision, we need to consider all these elements together



# 01 INTRODUCTION

## 1.6 PLANNING CONTEXT: LEP MAPS

### WOLLONGONG LOCAL ENVIRONMENT PLAN 2009

The relevant planning instrument for the subject site is the Wollongong Local Environment Plan 2009.

The following key controls pertain to the site:

### LAND ZONING

The site is zoned a combination of SP2 [infrastructure] and R2 [low density residential]

### FLOOR SPACE RATIO

The Floor Space Ratio [FSR] for the site is as follows: none allocated to the SP2 zoning and 0.5:1 to the R2 portion of the site

### HEIGHT OF BUILDINGS

The current building height is 9m

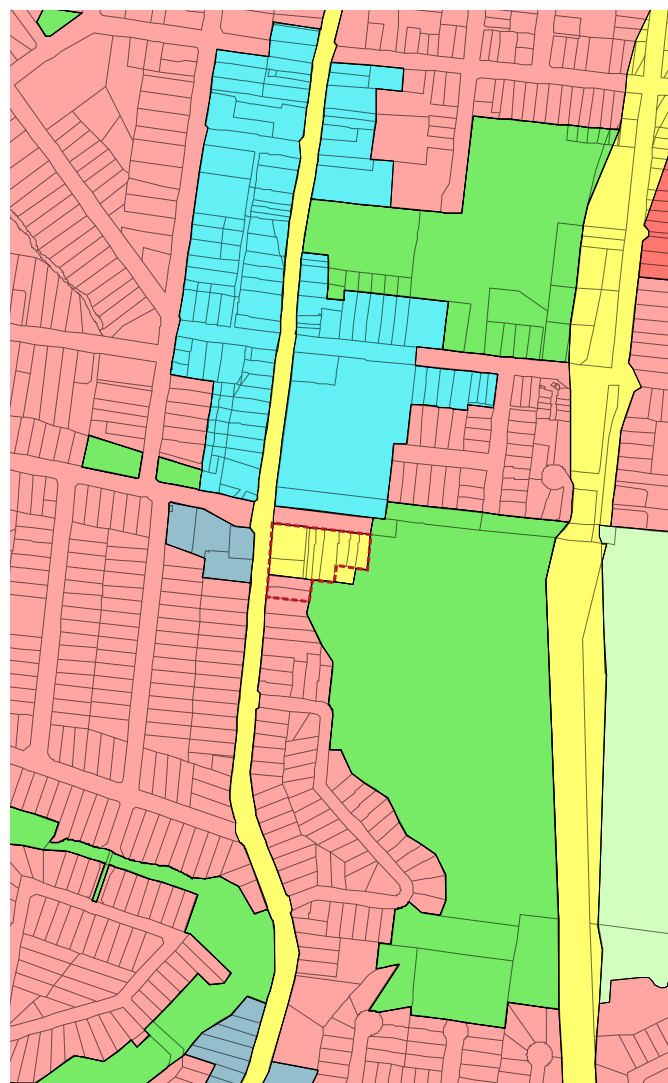
### ACID SULFATE SOILS/RIPARIAN LAND

The site is identified as containing an area of riparian land



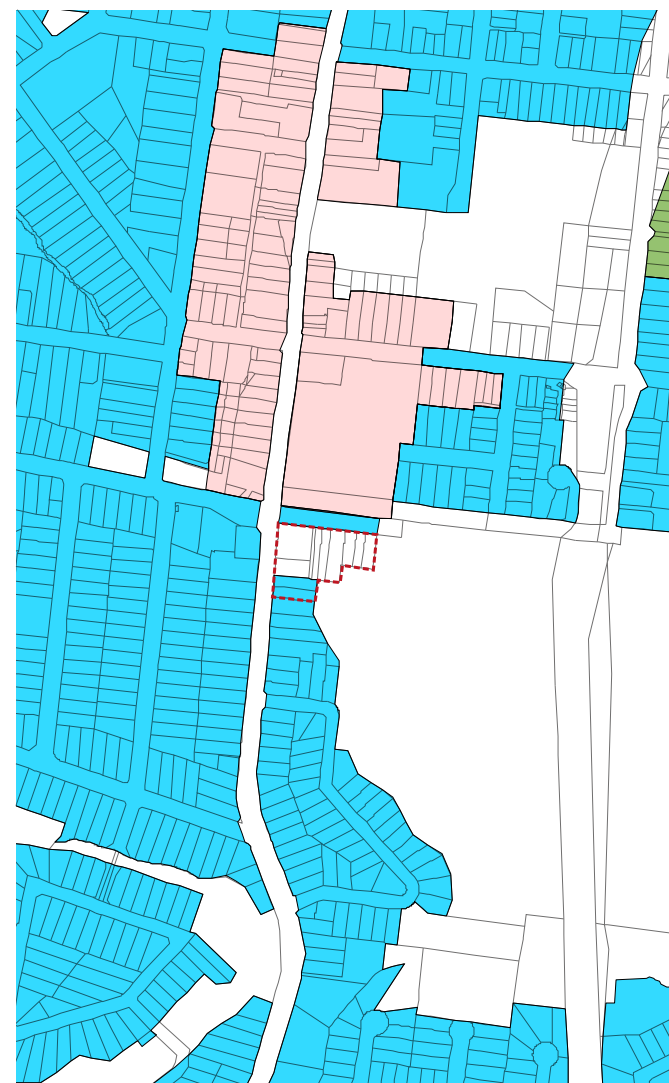
# 01 INTRODUCTION

Land Zoning Map



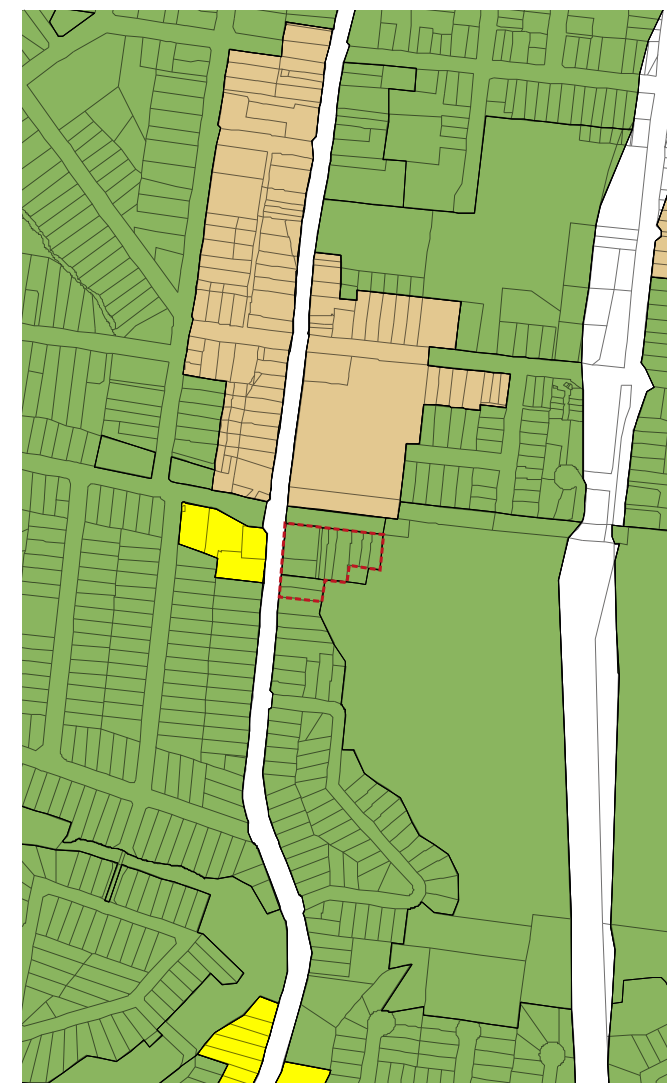
Key  
 [Red dashed line] Site  
 [Yellow] Zone SP2 - Infrastructure  
 [Grey] Zone B6 - Enterprise Corridor  
 [Red] Zone R2 - Low Density Residential  
 [Blue] Zone B2 - Local Centre  
 [Green] Zone RE1 - Public Recreation

Floor Space Ratio Map



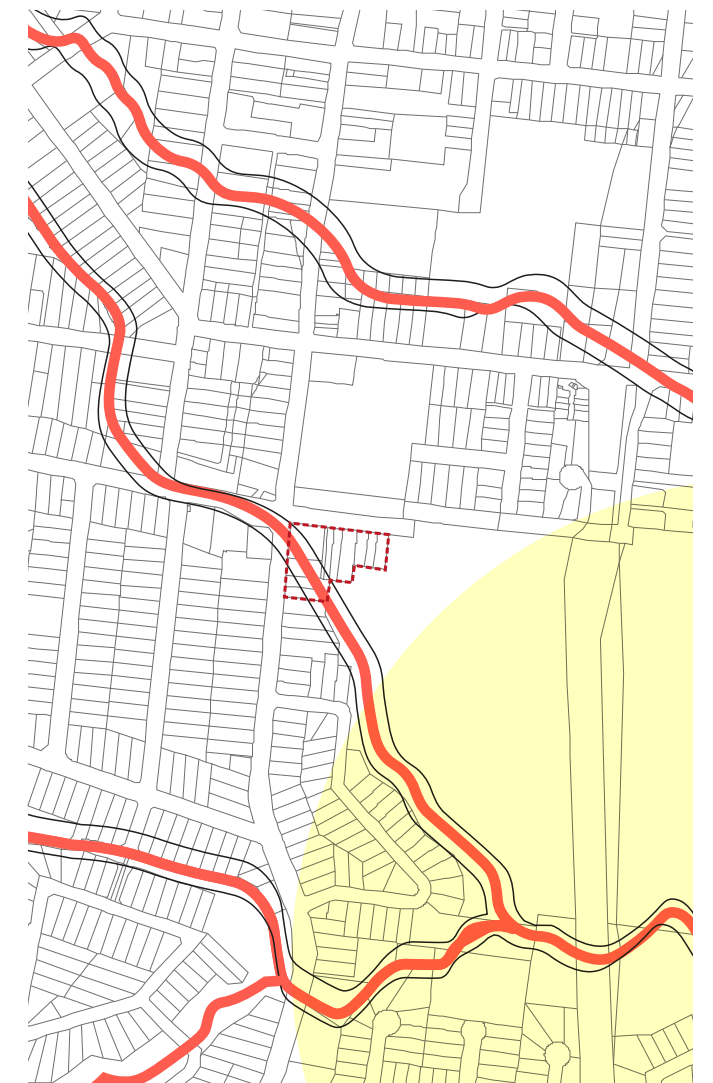
Key  
 [Red dashed line] Site  
 [Blue] Maximum FSR (n:1) 0.5  
 [Light red] Maximum FSR (n:1) 1.5

Height of Buildings Map



Key  
 [Red dashed line] Site  
 [Green] Maximum Height 9m  
 [Light brown] Maximum Height 15m  
 [Yellow] Maximum Height 11m

Acid Sulfate Soils/Riparian Land Map



Key  
 [Red dashed line] Site  
 [Red line] Riparian Land  
 [Black line] Foreshore Building Line  
 [Yellow] Class 5 Acid Sulfate Soil



# 02 STRATEGIC VISION

## 2.1 STRATEGIC POSITION

The contextual analysis and planning framework investigation identified key design principles that helped inform the preferred indicative design. Central to this analysis was the visioning document The Corrimal Town Centre Plan 2015-2025.

Our challenge was how best can we align with the vision for Corrimal Town Centre as described in The Corrimal Town Centre Plan 2015-2025.

The vision of this report and indicative design is to enhance the future Corrimal Town Centre through the following key moves





## 01 A DISTINCT IDENTITY

### Defining the Town Centre

- + Establish this site for consideration as part of the Corrimal Town Centre by undertaking flood mitigation works to enable development to occur on the site, whilst enhancing the access and landscape quality and presentation to its prominent street, park and civic frontages.
- + Contribute to the distinct identity of Corrimal Town Centre by proposing a scale of development and mix of uses which bookend the southern end of the Town Centre to create a strong and active edge condition, in lieu of an open air carpark.



## 02 STRONG CONNECTIONS

### A Walkable Town Centre Structure

- + To enhance the pedestrian and cycling connectivity to civic, community and recreational uses south of Corrimal Town Centre through the introduction of multiple through site links.
- + Through site links passively surveilled for safety, and knit in to the suite of planned enhanced town connections to further increase pedestrian connectivity to Corrimal Railway Station [1km on foot].



## 03 PRIDE IN QUALITY SPACES

### North Corrimal Creek is a Natural Asset

- + By proposing through site links the ultimate ambition is to increase community use and appreciation of the existing diversity of Corrimal's public parks, pool, library and community facilities, and enhancing connectivity to the primary green space/town heart of memorial park.
- + By including significant landscaping, including street trees, swale planting and water sensitive urban design interventions, to beautify and enhance the urban greenery of Corrimal.



## 04 SMART GROWTH

### A Centre with a Capacity for Growth

- + To positively contribute to the economic vitality and growth of Corrimal Town Centre through a complimentary mixed use development.
- + By increasing residential densities and offering a diversity of housing product type [to the majority detached dwelling types] which are in close walking distance to existing support services and infrastructure.





### DEFINING THE TOWN CENTRE

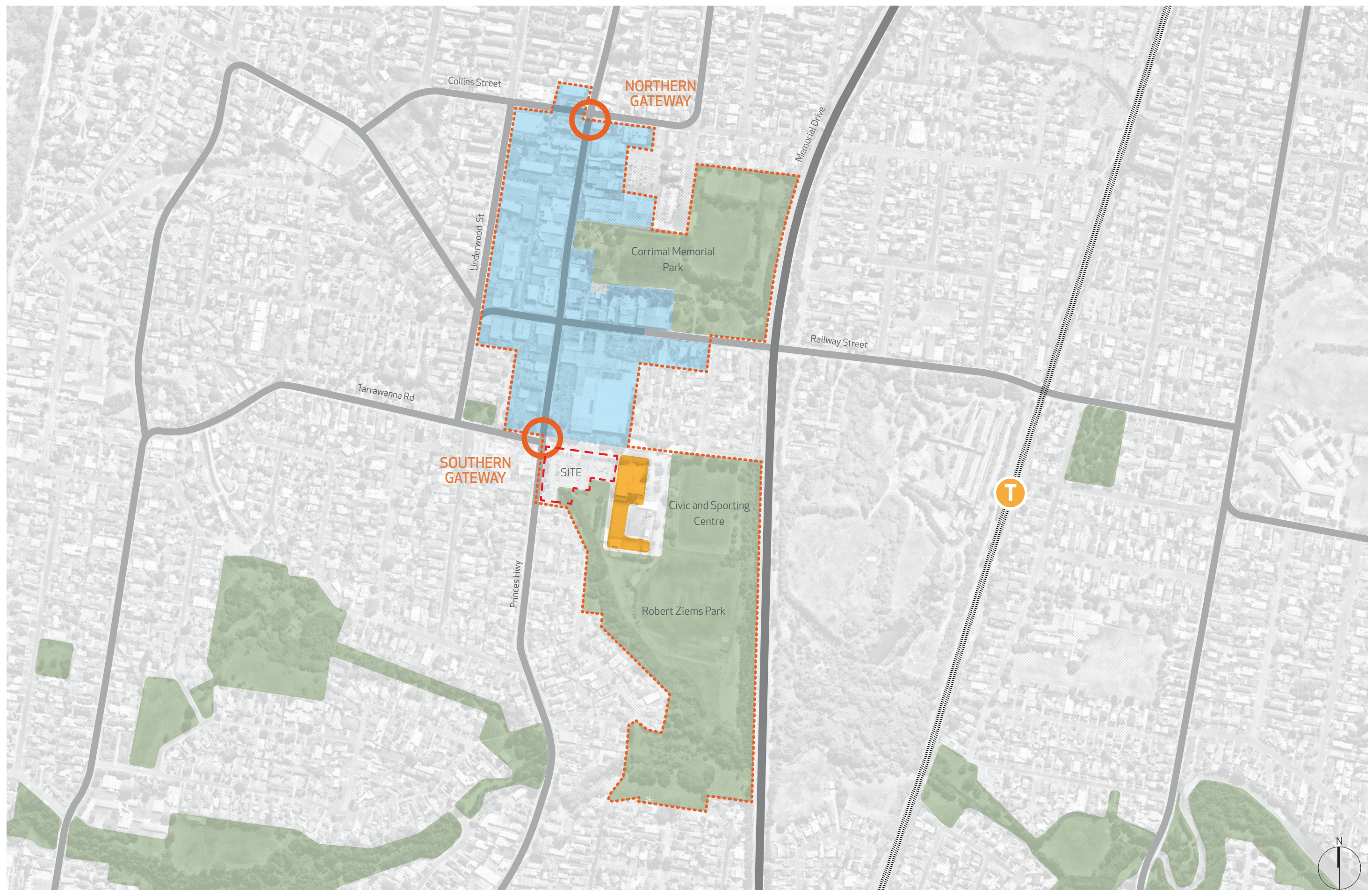
*'Growth needs to be of high quality design that adds to the overall quality of the centre and enhances resident and visitor experiences.'*

Corrimal Town Centre Plan 2015-25 and Implementation Plan, Page 20

Provide an appropriate high quality entry to the south end of the Town Centre which is currently marked by a carpark and service stations.



## 02 STRATEGIC VISION





## 02 STRATEGIC VISION



### A WALKABLE TOWN CENTRE STRUCTURE

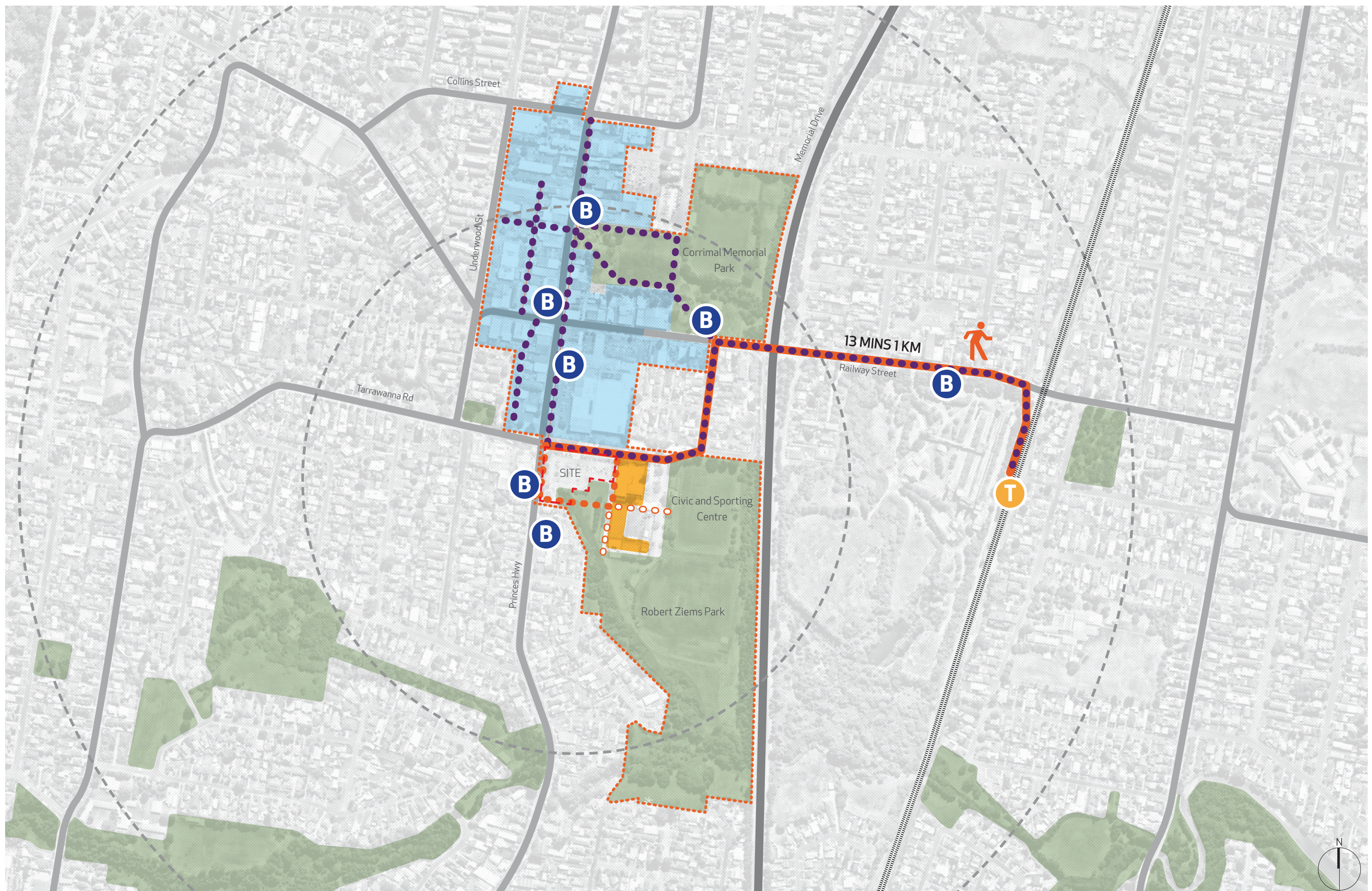
*'Corrimal Town Centre will [be] easy to move around and welcoming for everyone.'*

Corrimal Town Centre Plan 2015-25 and Implementation Plan, Page 23

Connect the Community Centre, Library and Pool to the Town Centre and Main Street (Princes Highway) with activated street frontages and through site links.



## 02 STRATEGIC VISION





## 02 STRATEGIC VISION



### NORTH CORRIMAL CREEK

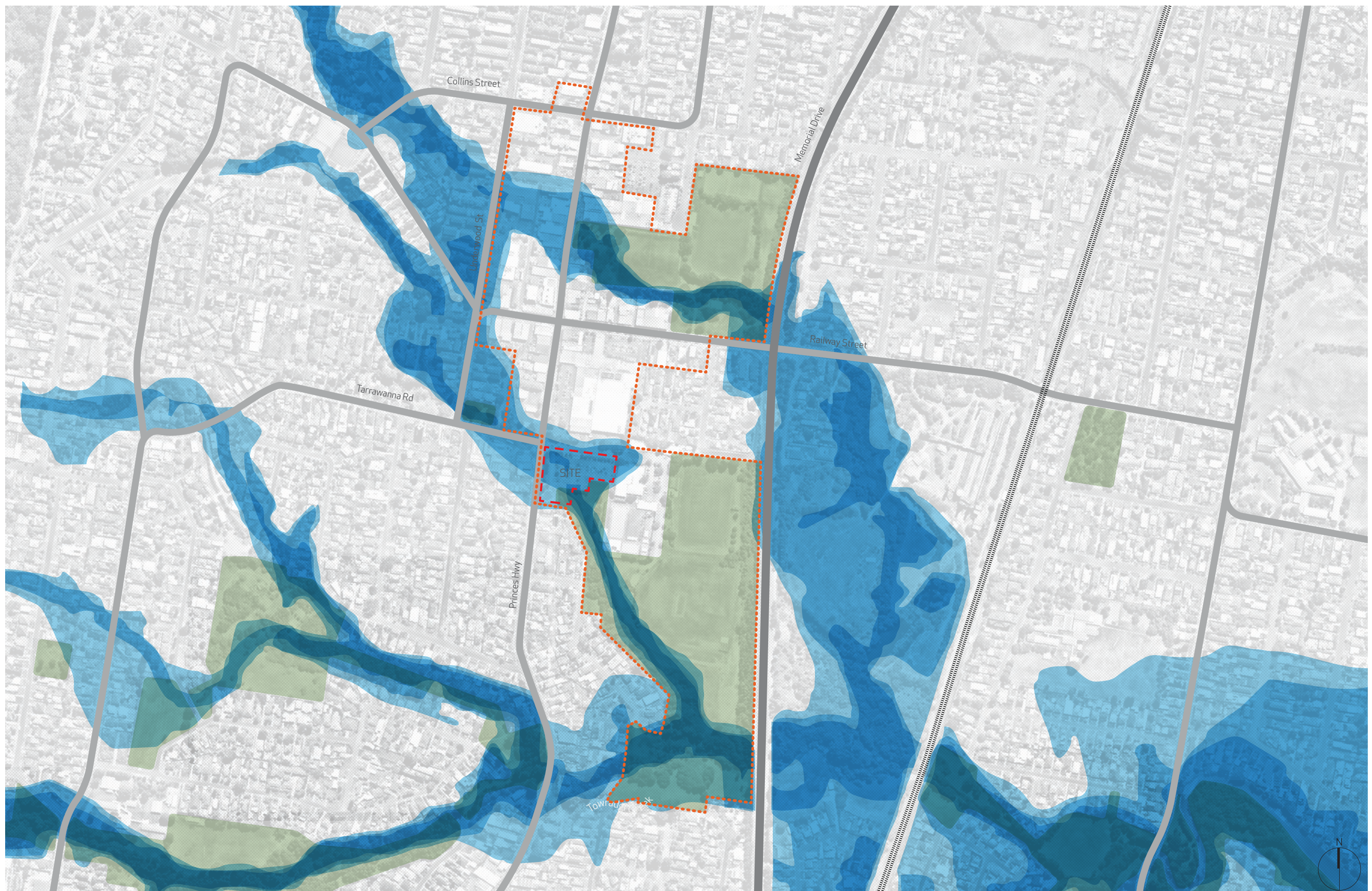
*'The Town Centre embraces quality, low-maintenance landscaping and creek rehabilitation [to] create a lovely atmosphere'*

Corrimal Town Centre Plan 2015-25 and Implementation Plan, Page 23

Undertake flood mitigation works with high quality engineering/landscaping along flood paths and provide development that will contribute to a flood solution to lower the 100 year flood potential to adjoining properties. With the creek rehabilitation and landscaping contributing to the urban greenery of Corrimal.



## 02 STRATEGIC VISION



Source: Towradgi Creek, Wollongong Floodplain Risk Management Study and Plan, 2003, Figure 4.7





### A CENTRE WITH A CAPACITY FOR GROWTH

*'Redevelopment in and around the Town Centre provides housing choice and supports the local economy.'*

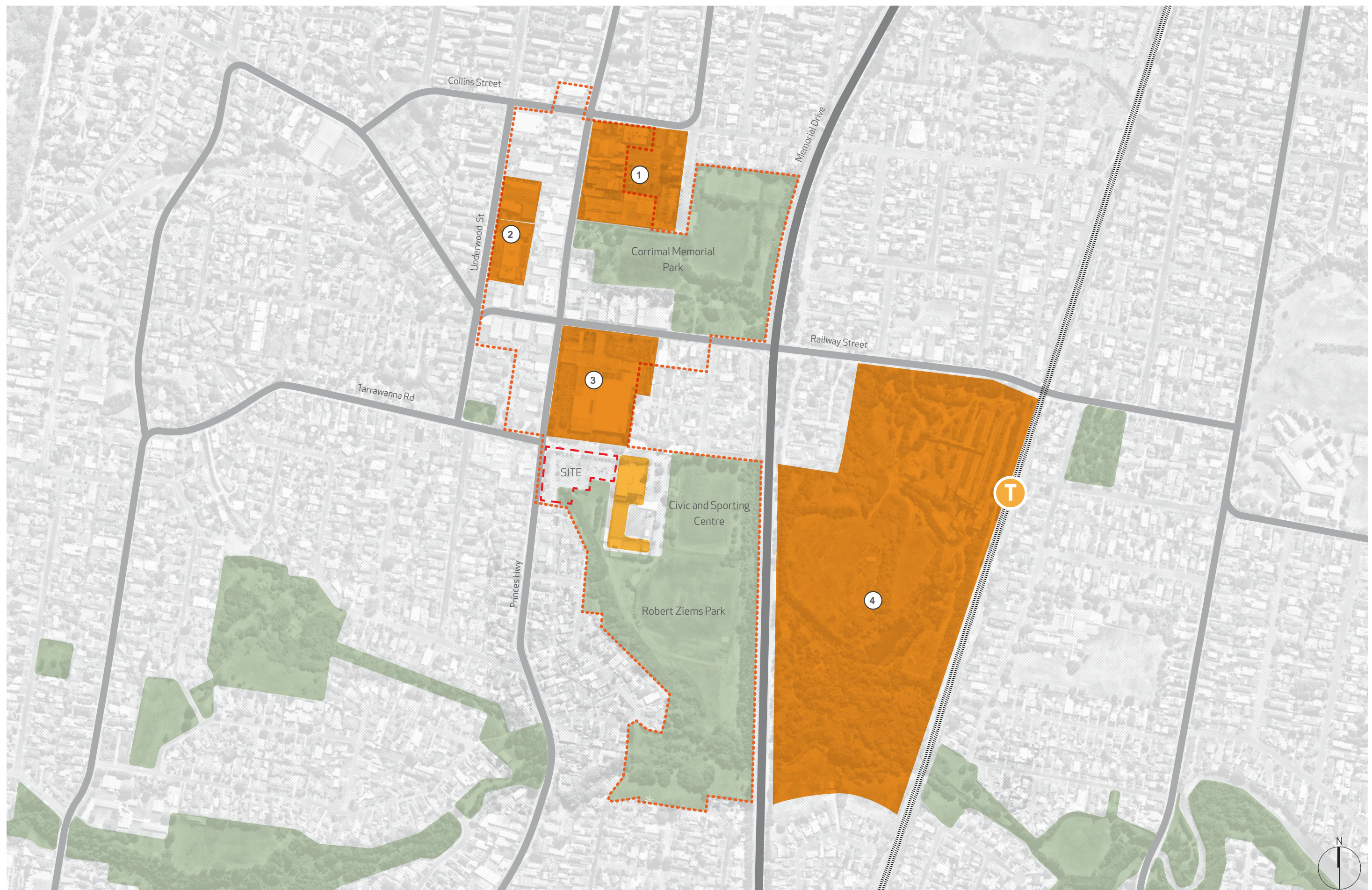
Corrimal Town Centre Plan 2015-25 and Implementation Plan, Page 23

Develop affordable housing in locations that are within walking distance to Corrimal Station

Increase residential densities in a walkable distance to the Town Centre to assist in generating demand for the provision and retention of services.



# 02 STRATEGIC VISION





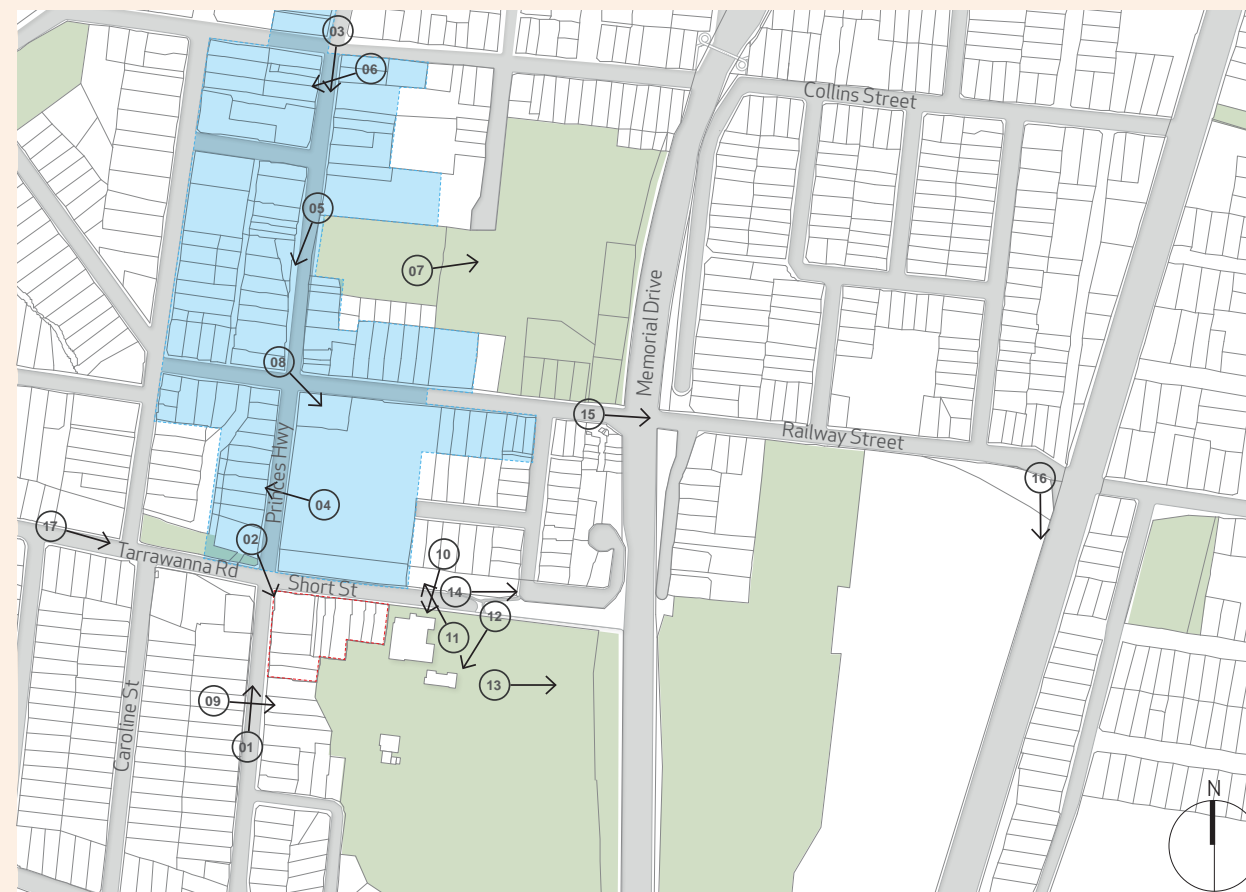
# 03 URBAN ANALYSIS

## 3.1 VIEW ANALYSIS

The following view analysis illustrates the existing context within and surrounding the Corrimal Town Centre.

Both the northern and southern gateways along the Princes Highway axis are poorly defined. The main Princes Highway street consists of varied built forms with a range of building heights and setbacks with uses including commercial, shop top housing, car parking and recreational. Existing uses directly adjacent the site include the Corrimal Library and Community Centre, Corrimal Pool, Corrimal Childcare Centre, Corrimal Stockland Shopping Centre and Robert Ziems Park.

The view analysis also includes the approximate 1km walk from the site to Corrimal Train Station.





# 03 URBAN ANALYSIS

01 View looking north along Princes Highway towards the southern edge of the Town Centre



02 View looking south along Princes Highway towards the southern edge of the Town Centre



03 View looking south along Princes Highway towards the northern edge of the Town Centre



03 View looking south along Princes Highway towards the northern edge of the Town Centre





# 03 URBAN ANALYSIS

04 4 storey shop top housing development on Princes Highway



05 Varied built form and uses along Princes Highway



06 Varied built form and uses along Princes Highway



07 Memorial Park





# 03 URBAN ANALYSIS

08 Heritage item within the Town Centre at the intersection of Railway Street and Princes Highway



09 Heritage item south of the Town Centre, along Princes Highway





# 03 URBAN ANALYSIS

10 Corrimal Library and Community Centre



12 Corrimal Pool



11 Corrimal Childcare Centre



13 Robert Ziems Park Sports Field





# 03 URBAN ANALYSIS

14 Journey between the site and Corrimal train station - Looking towards the pedestrian path at the east end of Short Street



15 Journey between the site and Corrimal train station - Crossing at Memorial Drive and Railway Street intersection



16 Journey between the site and Corrimal train station



17 Looking east towards the site along Tarrawanna Road





# 03 URBAN ANALYSIS

## 3.2 SITE ANALYSIS

The following diagrams explore key conditions of the site and surrounding context



Access and Movement

The site has good public transport access in the immediate area. There are no dedicated cyclist lanes and pedestrian connectivity is limited to the signalled intersection adjacent to the site.

Civic and Community Uses

Located close to the Corrimal Town Centre, are a range of civic and community uses.



- Key
- Primary Road
  - Local Road
  - Bus Stops
  - Site Access
  - Train Station
  - Intersection
  - Pedestrian Link
  - Town Centre



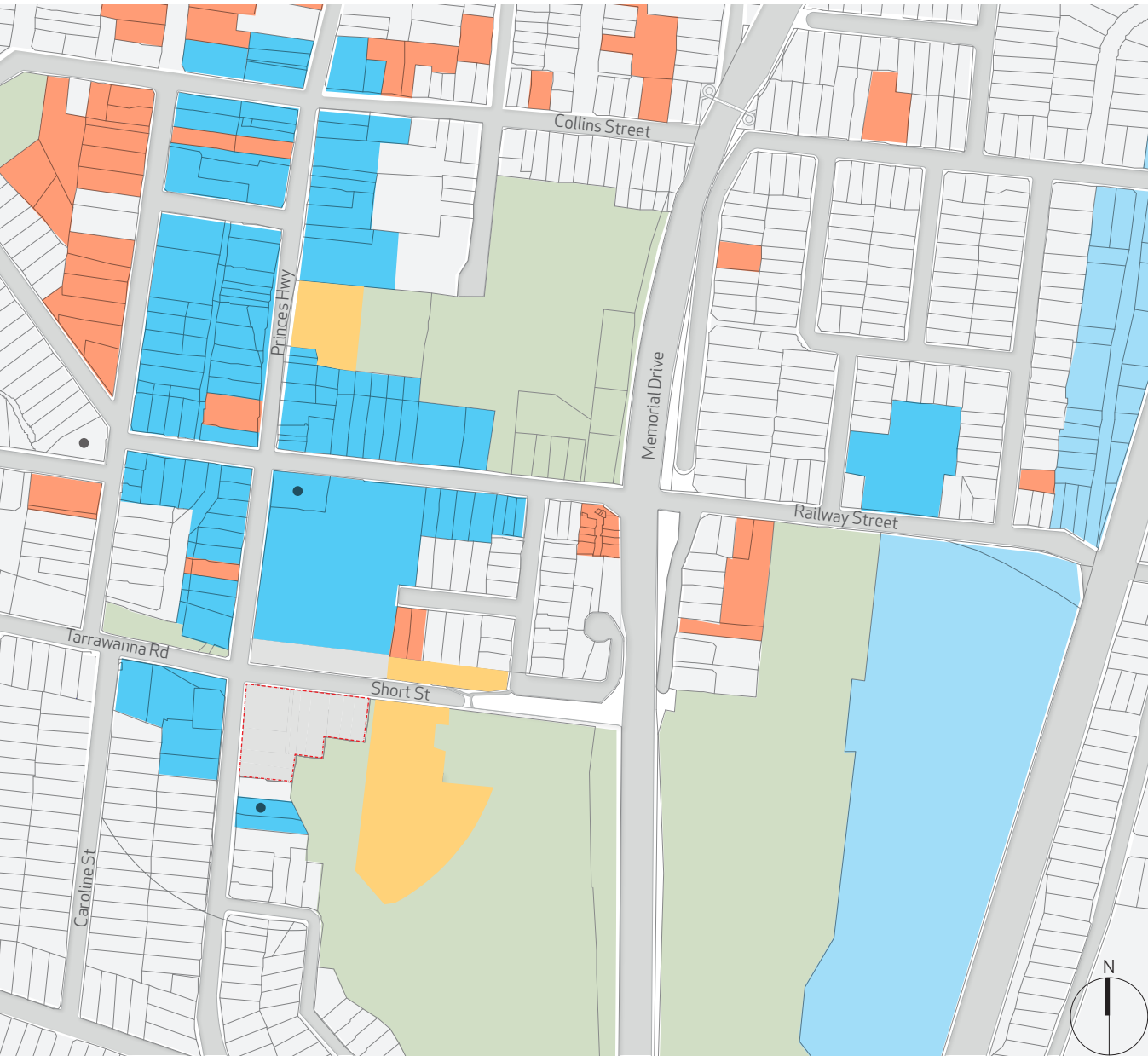
- Key
- Town Centre
  - Sports Parks
  - Community Facilities
  - Pool
  - Pedestrian Link
  - Bus Stop



# 03 URBAN ANALYSIS

## Existing Building Uses and Heritage Items

Located close to the Town Centre, existing buildings contain a variety of uses, from low density residential to commercial, retail and public buildings. An intersection of programs in a 200m catchment gives the site diverse potential.



- Key
- Non-Residential

Residential - Multi

Open Space

Industrial

Residential - Single

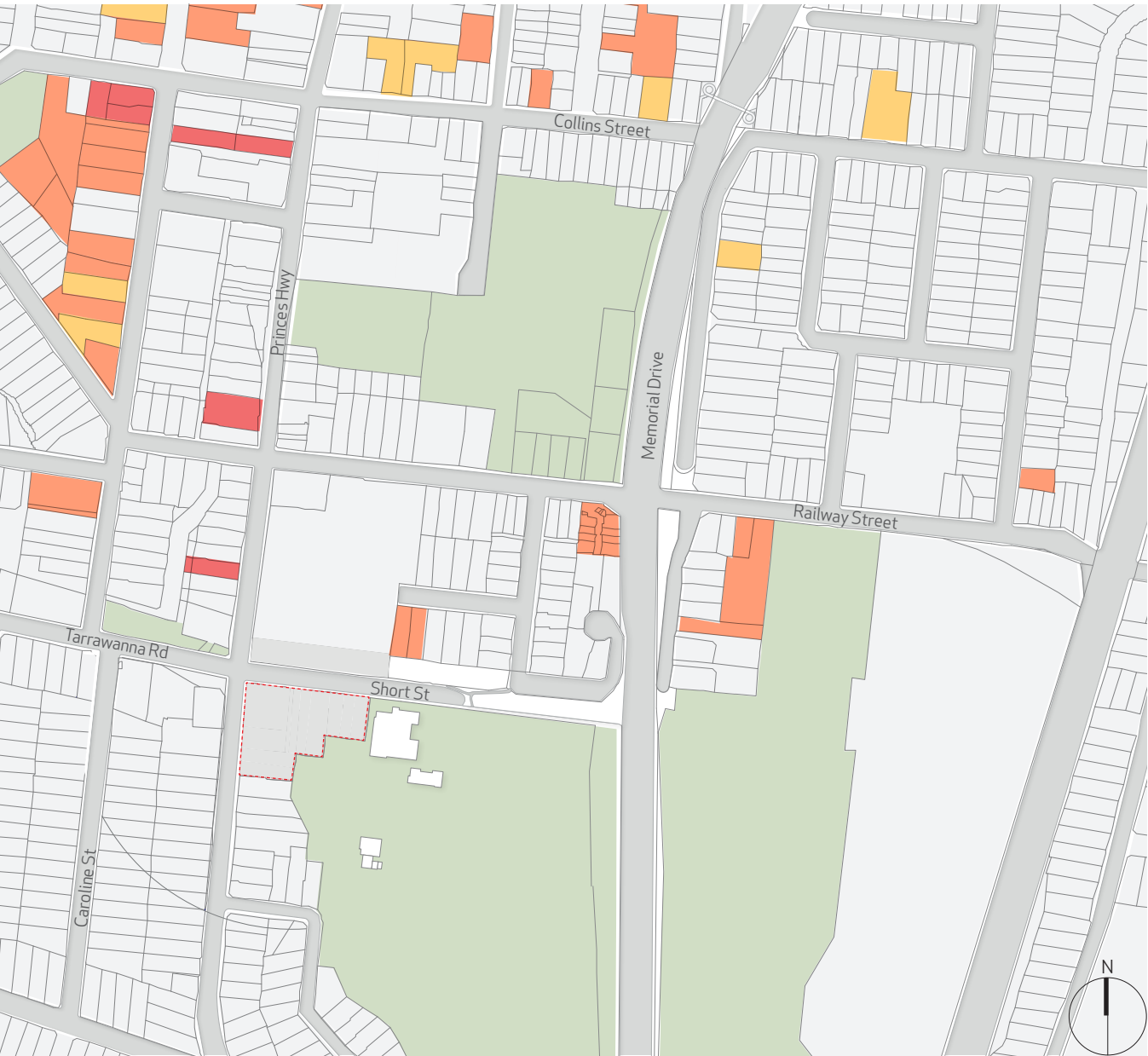
Community Facilities

Car Parking

Heritage Item

## Built Form Heights

Buildings to the south and south west of the site are typically single detached dwellings. Commercial buildings to the north and east of the site typically do not exceed 10m, except for the shopping centre. Maximum Building height in the Town Centre does not exceed 15m.



- Key
- 1 - 2 Storey Single

2 Storey Multi

3 Storeys

4 Storeys

Open Space

Car Parking



Street Frontage

Directly adjacent blocks are mostly passive or inactive. In this area, cars are prioritised over pedestrians with car parking as street frontage to the north of the site and service stations to the west and north west.



Environmental Factors

The site has good solar access throughout the day at all times of the year due to the site's relatively flat aspect and low density surrounding buildings. There is little risk of overshadowing residential blocks.





# 03 URBAN ANALYSIS

## Open Space and Vegetation

The site is bordered by extensive open space to the south east. This area is thoroughly vegetated around Corrimal Creek. There are a number of established trees bordering the site and surrounding commercial and residential properties.



- Key
- Passive Open Space

Active Open Space

Pool

Vegetation

## Topography

The site is situated in a slight valley where the Corrimal Creek passes through. There is a slope of approximately 1.5m falling to the south east. To the West there is a significant rise to the Illawarra Escarpment of approximately 400m



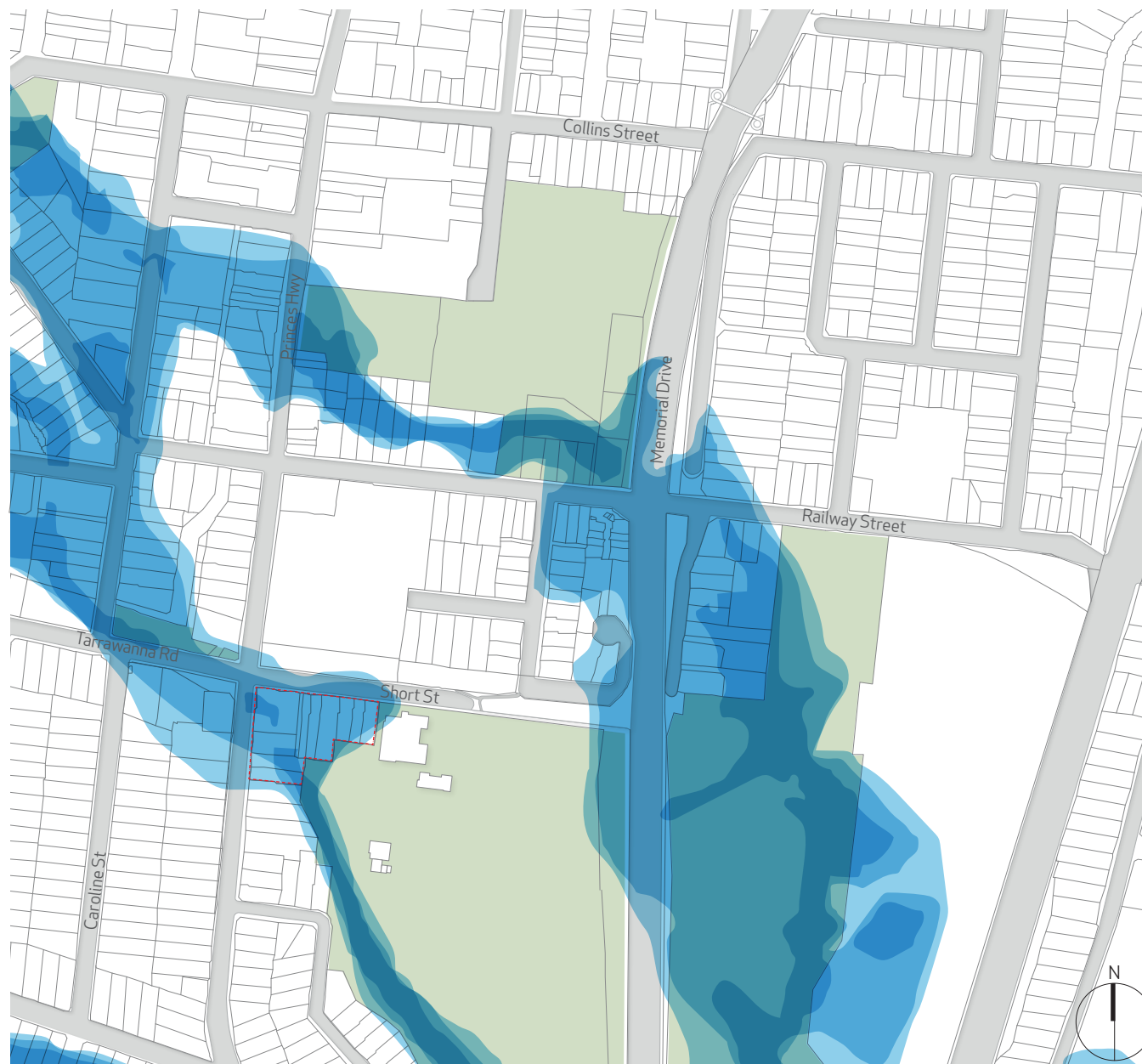
- Key
- 1m Contours

Corrimal Creek



## Flooding

Located in the Towradgi Catchment, the site is in a medium to high flood risk zone. The last major flood occurred in 1998. Due to its location near South Corrimal Creek, the shopping centre and subject site were significantly affected.



Key  
 ■ High risk (100 year flood. Within 10m corridor of top of creek bank)  
 ■ Medium risk (+0.5m from board. Above 100 year flood level)

Source: Towradgi Creek, Wollongong Floodplain Risk Management Study and Plan, 2003, Figure 4.7



# 03 URBAN ANALYSIS

## 3.3 CONSTRAINTS

- ① Traffic and noise: associated with the Princes Hwy to the west of the site, the intersection directly north west of the site and to a lesser extent the local road on the northern site edge.
- ② Lack of legible pedestrian connectivity: Pedestrian connections are not clear.
- ③ Flooding: The site is in a high and medium flooding risk zone in a 100 year flood.
- ④ Inactive frontages: The site is flanked by inactive street frontages that preference vehicle movement rather than pedestrian activity. Therefore, the site is relatively isolated from the central commercial area despite its close proximity.
- ⑤ Interface with adjoining residential context: The interface to the south of the site is low density residential areas. Consideration will need to be given in treating the interface between the future development and existing residential development.
- ⑥ No vehicular access available from Princes Highway
- ⑦ Maintain solar access for mid-winter to Corrimal Pool





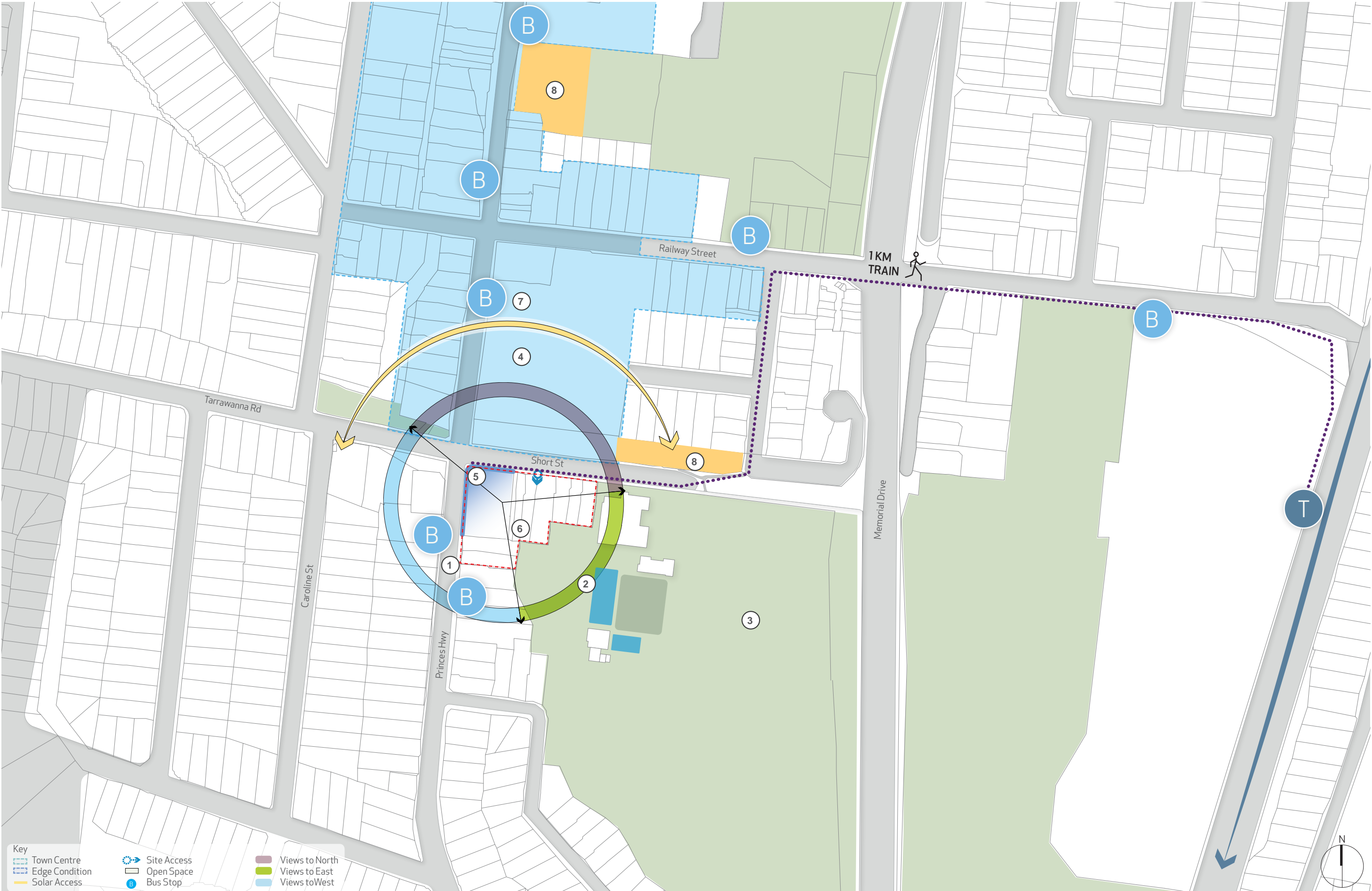


## 3.4 OPPORTUNITIES

- ① Public Transport and Amenity: Close proximity to bus stops and Town Centre in a 200m catchment, 1Km to train.
- ② Views: Unobstructed views to the south east and east of the site, featuring a large amount of open space to the east, with potential ocean views from higher levels. Views to the Town Centre to the north and high amenity escarpment views to the west.
- ③ Recreational Space: Close proximity to community pool and open space with recreational and sporting facilities within a 200m catchment.
- ④ Town Centre: Access to a diversity of uses in a 200m catchment, including retail, essential services, education, recreational and sporting.
- ⑤ Active Streetscape: Potential to reconfigure site edges on the Princes Hwy with high exposure. Activation potential to Short St edge for pedestrians approaching from the Town Centre make positive improvements to the public domain of the local area.
- ⑥ Topography: Despite the floodplain, the site is relatively level due to the existing carpark.
- ⑦ Solar Access: Consistent solar access throughout the year with no tall buildings to cast shadows.
- ⑧ Community Facilities: Access to library, community centre and childcare centre adjacent the site.



# 03 URBAN ANALYSIS





# 04 DESIGN PRINCIPLES

## 4.1 URBAN DESIGN PRINCIPLES

The following section outlines the recommended principles and objectives to establish a vibrant and attractive mixed use outcome that contributes to the growth and identity of the Corrimal Town Centre.

### 01 FLOOD MITIGATION

#### Undertake flood mitigation works

- + Provide flood mitigation works to enable a mixed use development to occur on the site which satisfies the overland stormwater path requirements and will contribute to a flood solution to lower the 100 year flood potential to adjoining properties
- + Ensure flood mitigation works integrate high quality landscaping that contribute to the identity and character of Corrimal Town Centre and complement the existing diversity of landscaped places
- + Ensure flood mitigation works allow for safe pedestrian movements throughout the site

### 02 DISTINCT IDENTITY

#### Establish a clear southern gateway and contribute to the district identity of Corrimal Town Centre

- + Provide a scale of development and mix of uses to create a coherent southern gateway and high quality entry to the Town Centre
- + Provide high quality public domain and landscaping works that enhance the landscape quality and presentation of the southern entry to the Town Centre
- + Allow for the connection of the Corrimal Library and Community Centre, Corrimal Pool and Robert Ziems Park to the Corrimal Town Centre with activated street frontages and through site links
- + Provide publicly accessible parking to contribute to the economic vitality through ease of access to the Corrimal Town Centre



03 HOUSING IN CORRIMAL

Enable delivery of housing within Corrimal

- + Contribute to the economic vitality and growth of Corrimal through a mixed use development and increased residential densities
- + Increase the opportunity for housing with access to services and public transport within a walkable distance
- + Offer housing diversity to the predominantly detached dwelling housing product on offer

04 BEST PRACTICE

Ensure massing and design of buildings achieves best practice

- + Provide apartment buildings diverse in articulation
- + Locate building height adjacent the Princes Highway and Short Street intersection, with lower building height to the southern and eastern edges respecting the adjacent Corrimal Library and Community centre, Corrimal Pool and Robert Ziems Park
- + Built form is to be configured to mitigate height, scale and bulk through building setbacks and articulated mass
- + Built form is to not increase shadow impact upon Corrimal Pool on winter solstice between the hours of 9am to 2pm
- + Deliver an accessible public open space adjacent existing community buildings and dwellings to act as a scale transition between existing and proposed.

05 VIBRANT COMMUNITY

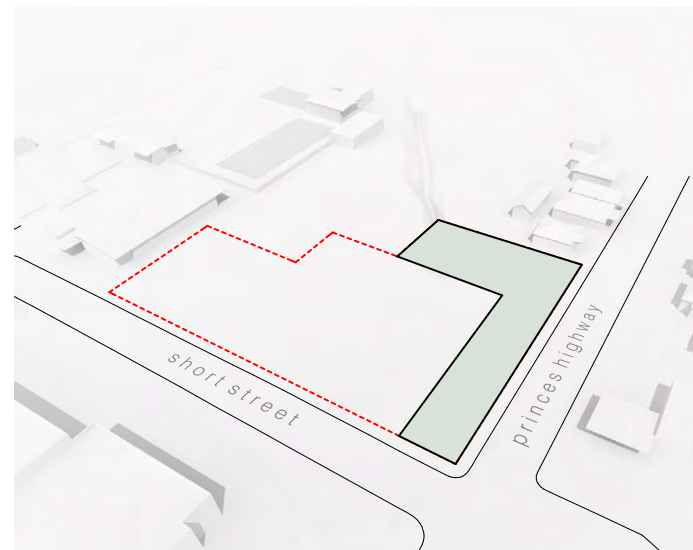
Establish a safe and vibrant place to live that fosters a vibrant community

- + Ensure passive surveillance to open space and public domain
- + Ensure building layouts and orientations provide a minimum 2 hours of direct sunlight to a minimum of 70% of apartments
- + Ensure appropriate space between buildings to provide visual and acoustic privacy to residents in accordance with the Apartment Design Guidelines
- + Ensure building lobbies are able to be clearly identified from streets or pedestrian links
- + Allow for privacy and passive surveillance with elevated ground floor apartments



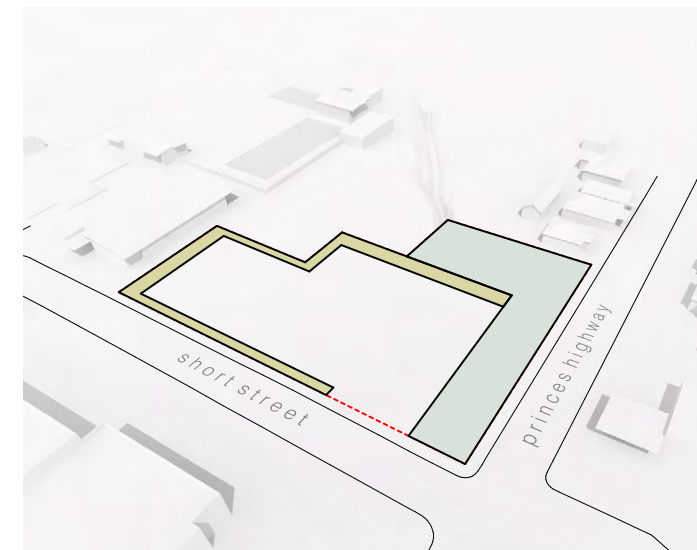
# 04 DESIGN PRINCIPLES

## 4.2 DEVELOPMENT PRINCIPLES



Establish setback zones to provide:

- + Flood mitigation works
- + Significant building separation to neighbouring southern lots
- + High quality landscaping to enhance presentation of development adjacent the southern Town Centre gateway

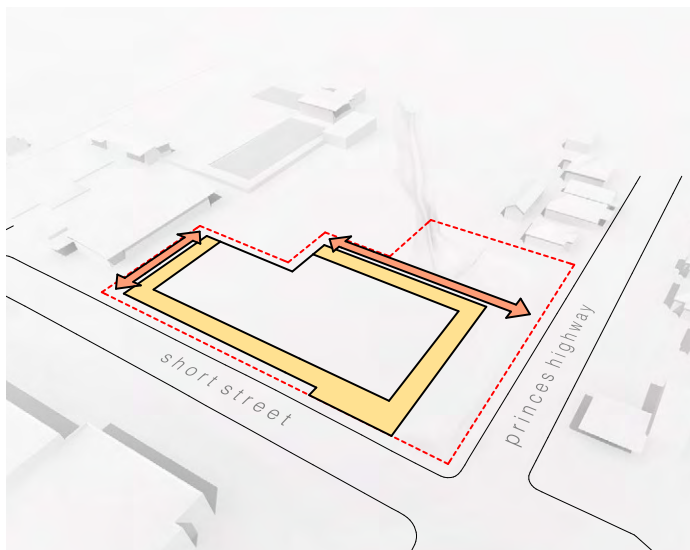


Establish additional setback zones to provide:

- + 3m setback zone to Short Street/0m setback zone to Short Street where commercial use is proposed on corner
- + 6m setback zone adjacent Corrimal Library and Community Centre
- + 6m setback zone adjacent Southern edge
- + Deep soil planting and high quality landscaping to enhance amenity and presentation of development
- + An appropriate transition between private and public domain

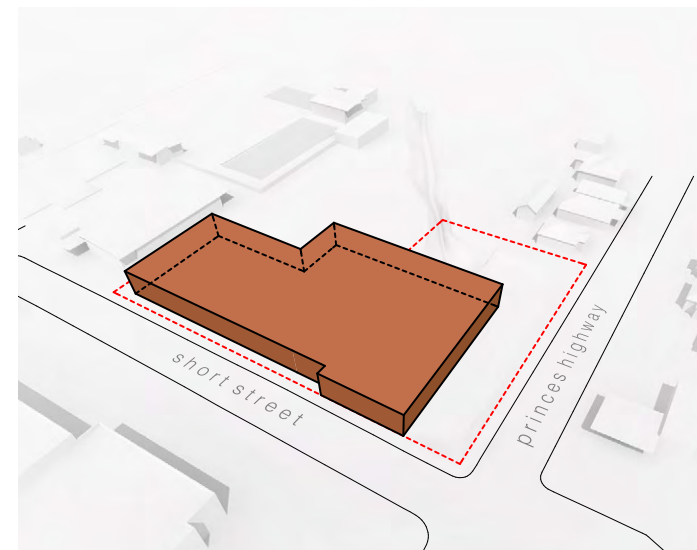


# 04 DESIGN PRINCIPLES



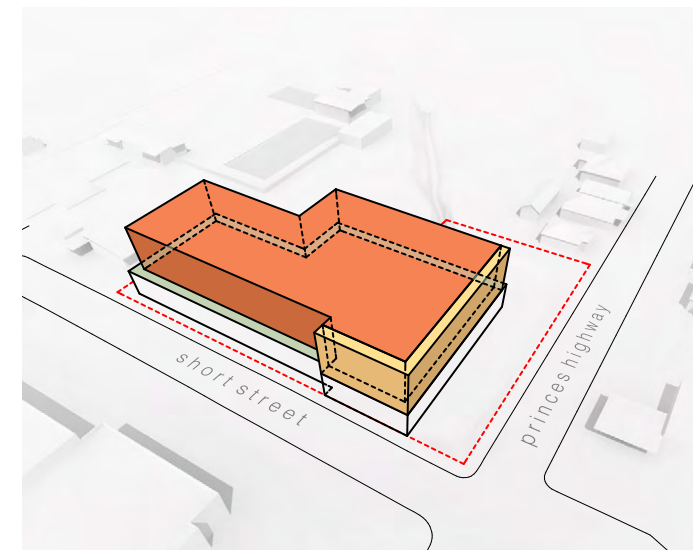
Establish through site links and active ground level frontages to provide:

- + Connections to Corrimal Library and Community Centre, Corrimal Pool and Robert Ziems Park to the Corrimal Town Centre
- + Building separation to neighbouring Corrimal Library and Community Centre
- + Positive street address including clearly articulated building entries
- + Enhance through site links via activation and passive surveillance
- + Avoid blank walls at ground level
- + Elevated ground floor apartments to allow for privacy and passive surveillance
- + All carparking is to be shared by other uses - no carparking is to front the exterior at ground level



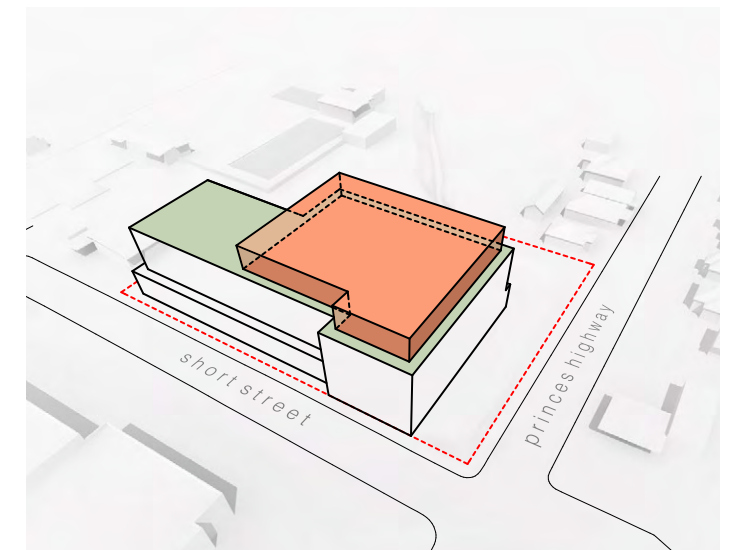
Establish a 2 storey podium form to provide:

- + A scale appropriate to the pedestrian experience and surrounding built condition
- + Mitigation to the scale and bulk of building levels above the podium
- + Defined and coherent street and through site link edges
- + Landscape opportunities located on top of the podium
- + Any carparking above ground is to be visually screened, integrated into the facade and of high quality construction.



Establish a setback zone and articulation zone to middle building levels to provide:

- + Mitigation to the scale and bulk of building levels above the podium
- + Increased building separation relative to height
- + An appropriate transition between podium and above podium level uses
- + Articulation to north western corner to signify and address the corner [articulation zone to include balconies and architectural devices only]
- + Articulation to western façade to enhance presentation of building and reinforce presence as the southern Town Centre gateway [articulation zone to include balconies and architectural devices only]
- + Building envelopes to limit overshadowing to the adjacent Corrimal Pool



Establish additional setback 2 storey zone to upper building levels to provide:

- + Further mitigation to the scale and bulk of development
- + Further restrictions to building envelopes to limit overshadowing
- + A defined building top
- + Opportunity for architectural expression and building articulation



# 05 INDICATIVE DESIGN

## 5.1 INDICATIVE DESIGN

The following indicative design was prepared to demonstrate how the site could potentially accommodate a mixed use development at the densities and heights proposed, with the following key features and benefits:

### KEY FEATURES

- + Future opportunity for the provision of approximately 123 publicly accessible car spaces which will continue to serve the local shoppers and community member [the detailed design/arrangement of these car parking spaces will be the subject of a future development application as the Planning Proposal is only seeking amendments to the zoning and development standards applicable to the site.]
- + Substantial flood mitigation works to enable both development to occur on the site and to improve neighbouring properties flood mitigation abilities
- + Substantial landscaping works to accompany flood mitigation works
- + Activated ground floor to Princes Highway frontage and Short Street corner frontage
- + Generous deep soil setback provisions to frontages with high quality landscaping proposed
- + Two integrated high quality public domain through site links to:
  - + Enhance pedestrian and cycling connectivity to Corrimal Library, Corrimal Pool and Ziems Park
  - + Enable building entries which are clearly visible from the public domain
  - + To be passively surveilled by ground floor apartments which front [and are slightly elevated above] these through site linkages
- + Increase the opportunity for housing with good pedestrian access to the Town Centre, existing services and public transport
- + Offer housing diversity to the predominantly detached dwelling market in Corrimal
- + Built form which is highly articulated and does not increase overshadowing to Corrimal Pool mid-winter between 9am and 2pm
- + Built form which complies with and potentially exceeds ADG building separation, solar, natural ventilation minimum targets

### YIELD SUMMARY

Site Area	7,485m <sup>2</sup>
Residential GFA	10,361 m <sup>2</sup>
Commercial GFA	478 m <sup>2</sup>
Total GFA	10,839 m <sup>2</sup>
Floor Space Ratio (Gross)	1.45:1



# 05 INDICATIVE DESIGN



## Ground Floor Plan

Date 07.06.17

Rev B

1:500 @ A3

## Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight





# 05 INDICATIVE DESIGN





# 05 INDICATIVE DESIGN



Typical Level 3

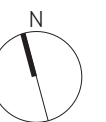
Date 07.06.17

Rev B

1:500 @ A3

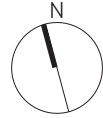
Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight



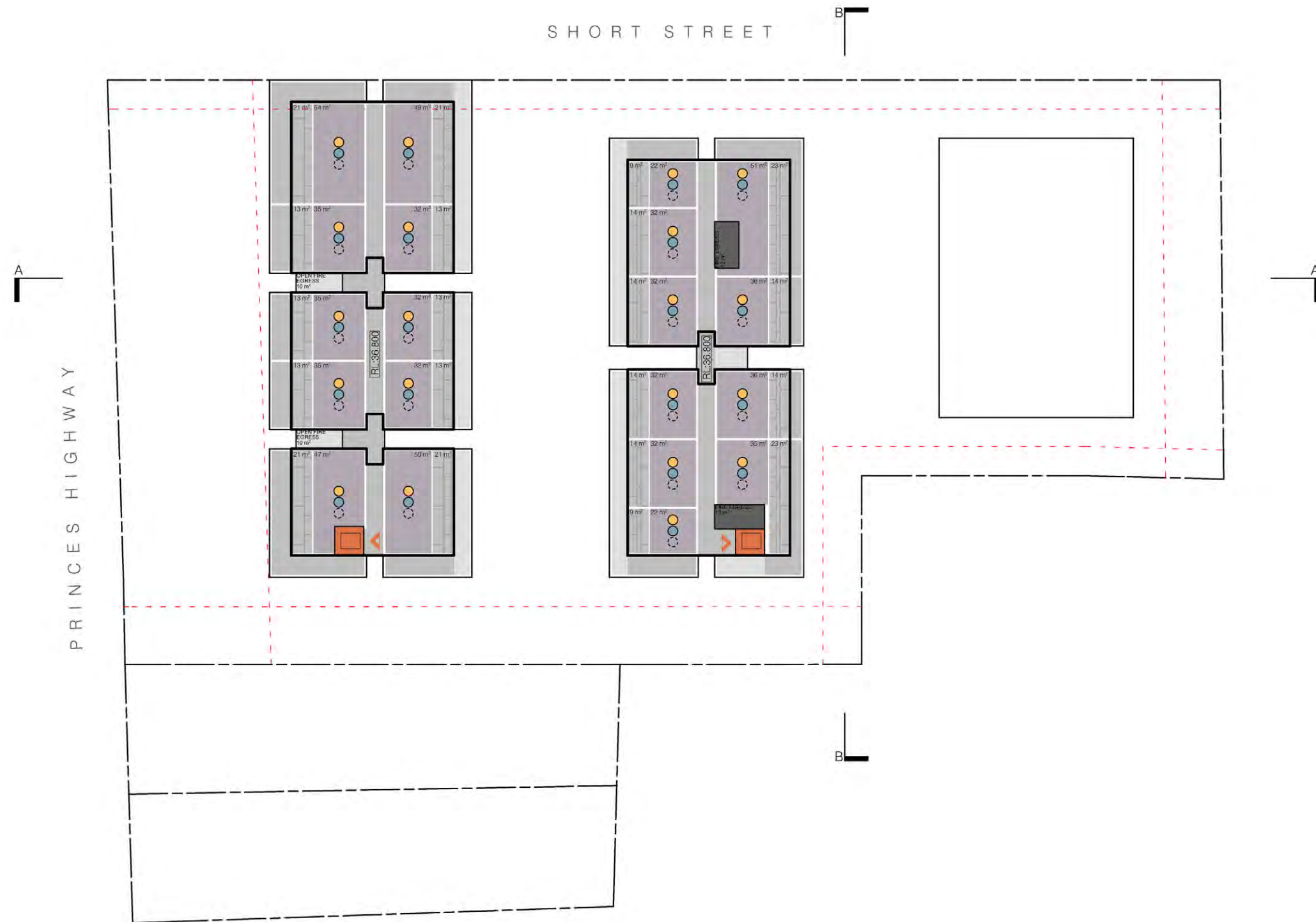


# 05 INDICATIVE DESIGN





# 05 INDICATIVE DESIGN



Typical Level 7

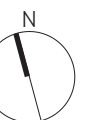
Date 07.06.17

Rev B

1:500 @ A3

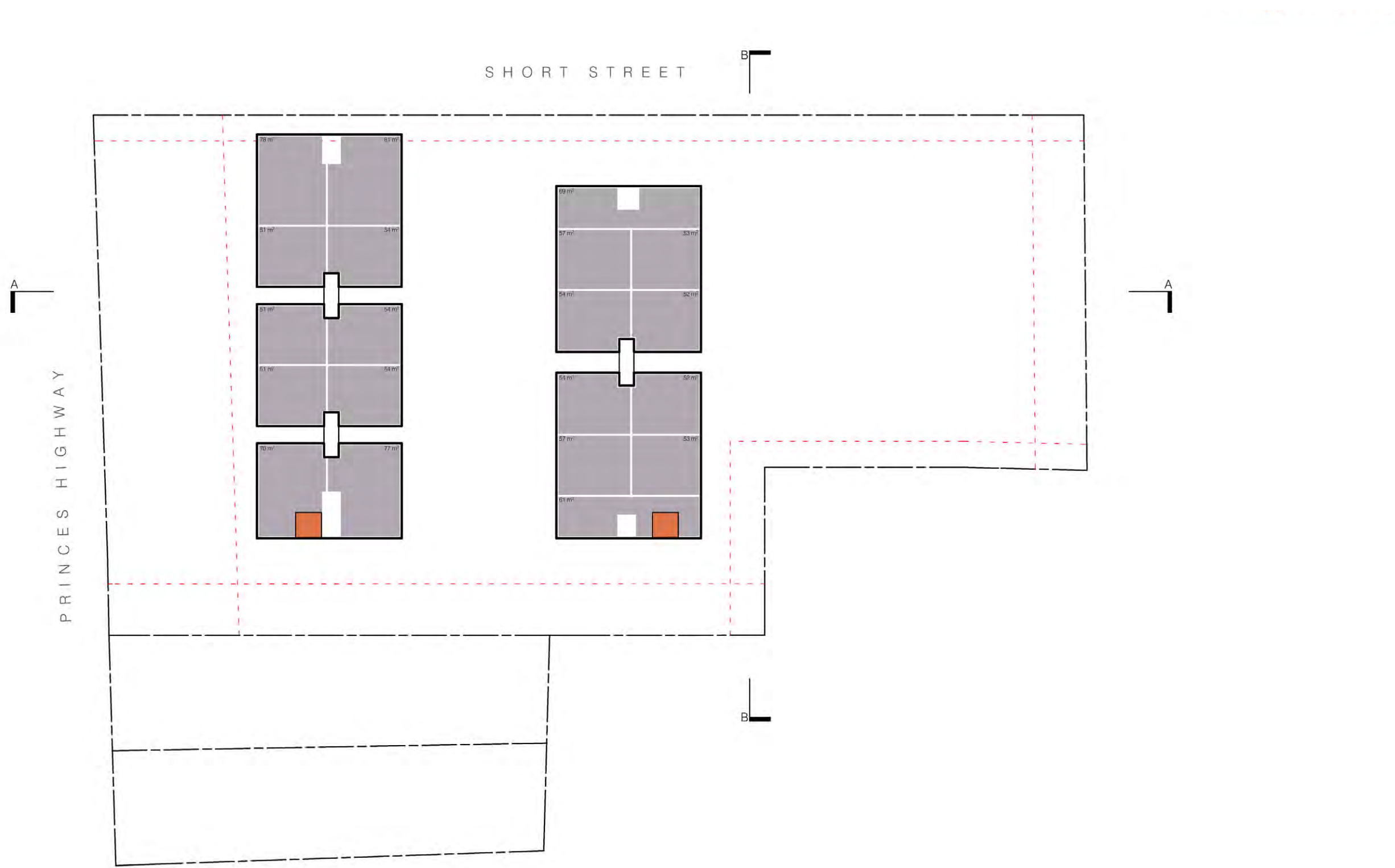
Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight



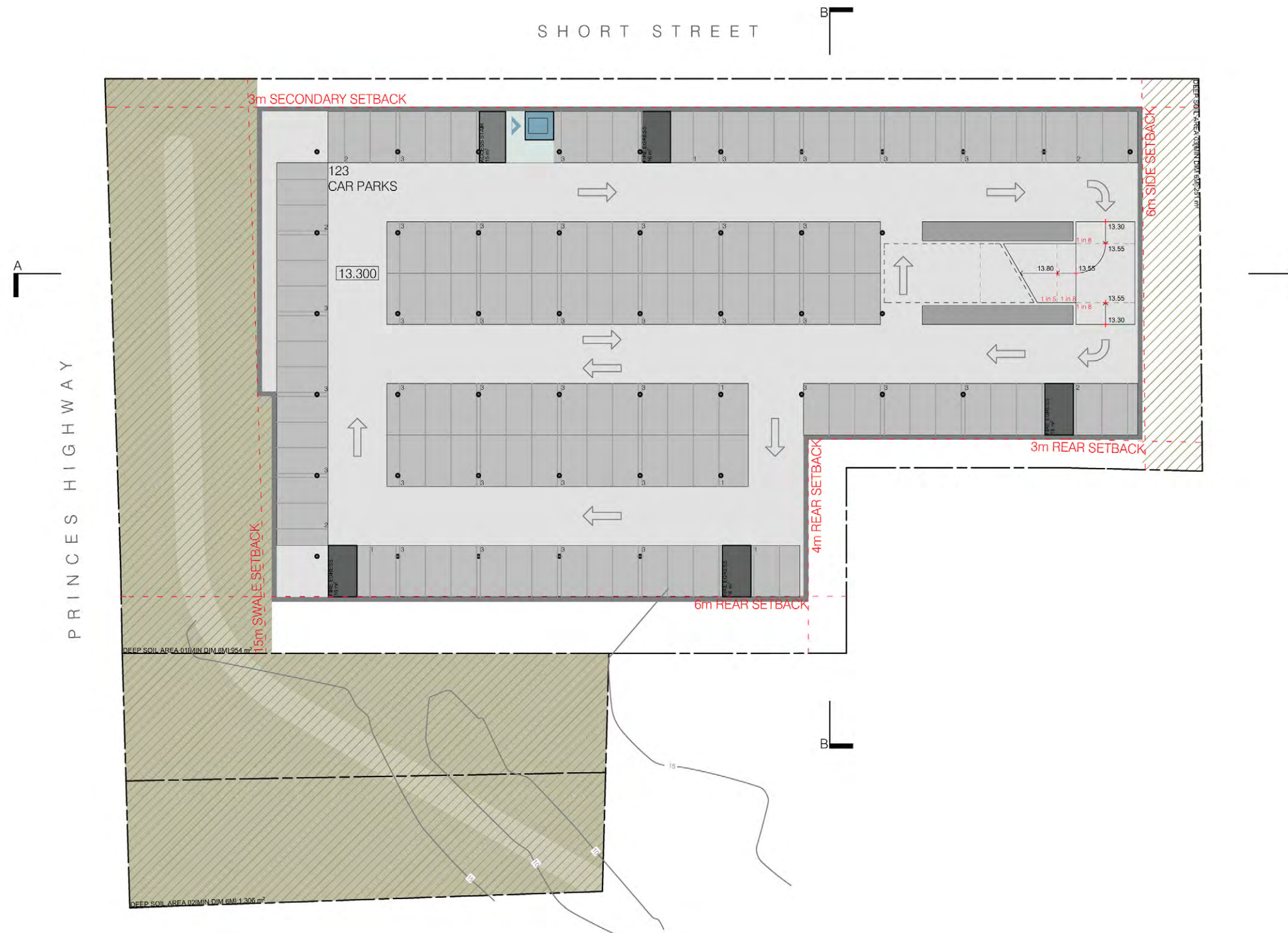


# 05 INDICATIVE DESIGN





# 05 INDICATIVE DESIGN

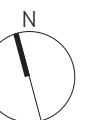


Typical Parking Level (Basement)

Date 07.06.17

Rev B

1:500 @ A3





# 05 INDICATIVE DESIGN



Short Street Elevation



# 05 INDICATIVE DESIGN



## Princes Highway Elevation

Date 07.06.17

Rev B

1:500 @ A3



# 05 INDICATIVE DESIGN



East Elevation



# 05 INDICATIVE DESIGN



South Elevation

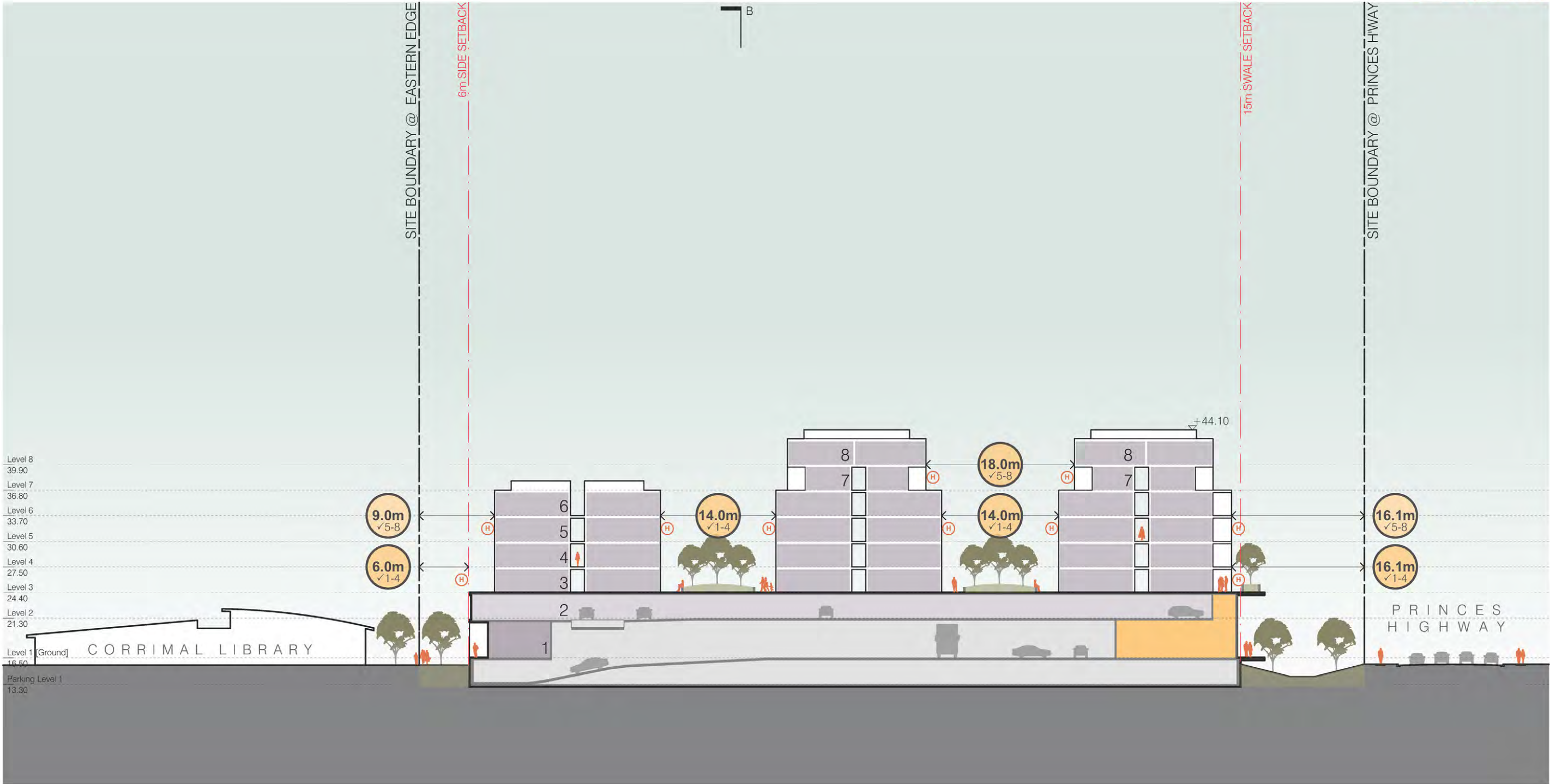
Date 07.06.17

Rev B

1:500 @ A3



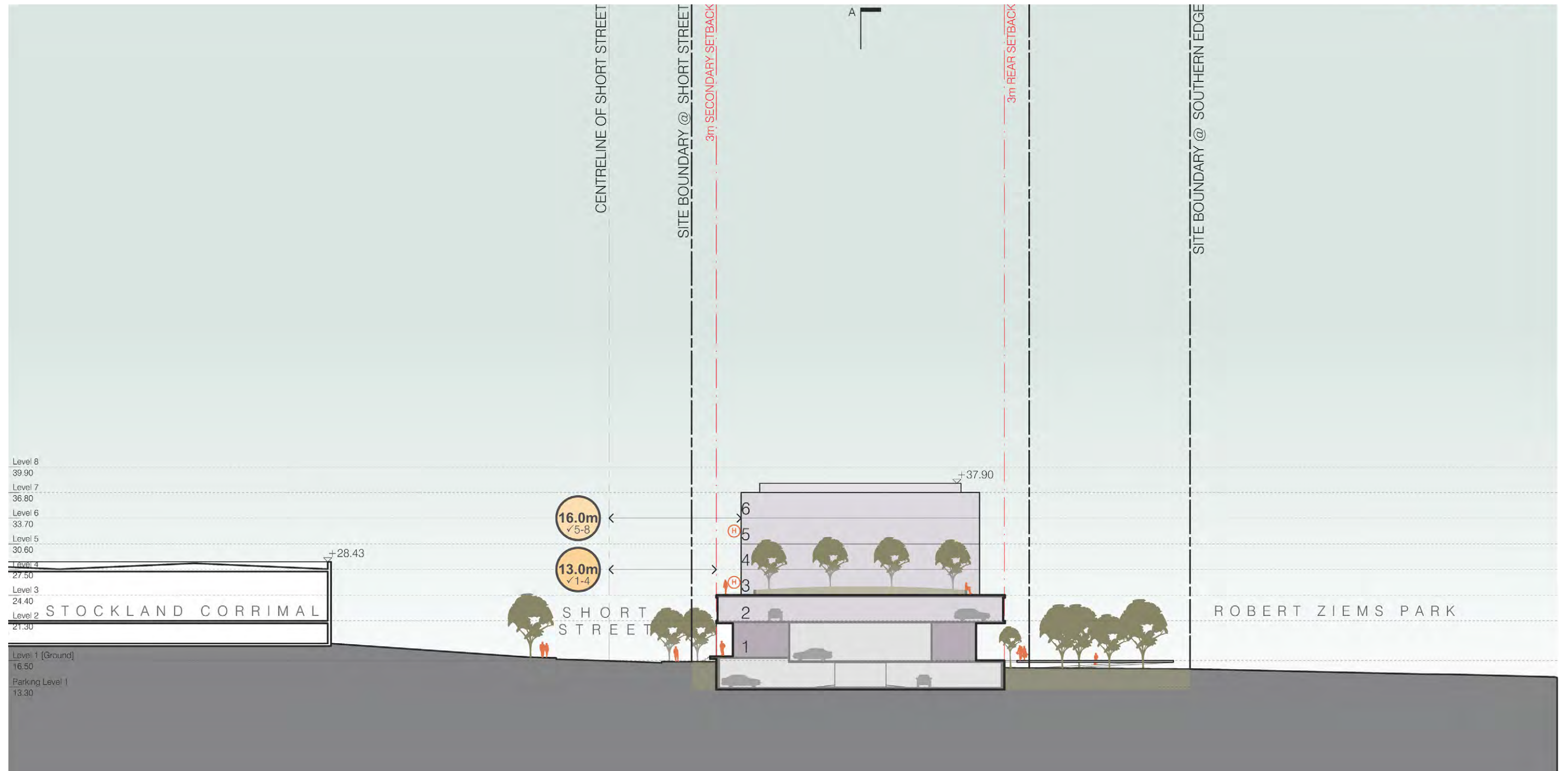
# 05 INDICATIVE DESIGN



Section A



# 05 INDICATIVE DESIGN



## Section B

Date 07.06.17

Rev B

1:500 @ A3



# 05 INDICATIVE DESIGN



june 22\_9am



june 22\_10am



june 22\_11am



june 22\_12midday

Shadow Plan Mid Winter 1

Date 07.06.17      Rev B      1:2000 @ A3





# 05 INDICATIVE DESIGN



june 22\_1pm



june 22\_2pm



june 22\_3pm



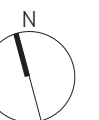
june 22\_4pm\_completely overshadowed by escarpment

Shadow Plan Mid Winter 2

Date 07.06.17

Rev B

1:2000 @ A3





# 05 INDICATIVE DESIGN



march 22\_9am



march 22\_10am



march 22\_11am



march 22\_12midday





# 05 INDICATIVE DESIGN



march 22\_1pm



march 22\_2pm



march 22\_3pm



march 22\_4pm

Shadow Plan Equinox 2

Date 07.06.17

Rev B

1:2000 @ A3



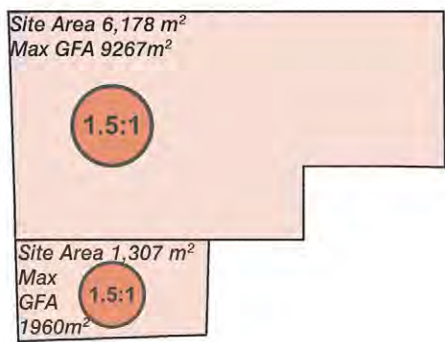


# 05 INDICATIVE DESIGN

## 5.2 SCHEDULE

### YIELD SUMMARY

Total FSR	1.45:1
Commercial FSR	0.06:1
Residential FSR	1.38:1
Residential Units	122





Residential Areas

Site-Building	Storeys	NSA	GFA	FECA	UCA	NSA/GFA	NSA/FECA
A	8	3,595	4,236	6,127		85%	59%
B	8	3,380	3,861	4,937		88%	68%
C	6	1,887	2,264	2,800		83%	67%
		8,862	10,361	13,863			

Non Residential Areas

Building	Use	NSA	GFA	FECA	UCA	NSA/GFA	NSA/FECA
CAFÉ	Café	478	478	478	95	100%	100%
Total		478	478	478	95		

Carparking areas

Site-Building	Use	NSA	GFA	FECA	UCA	Efficiency
A	Carparking		0	1,546		
B	Carparking		0	1,335		
C	Carparking		0	632		
CAFÉ	Carparking		0	2,213		
WOOLWORTHS	Carparking		0	4,045		
Total		0	0	9,770		

Residential numbers and mix

Building	Unit Type	Studio	1B	1B+Study	2B_1Bth	2B_2Bth	3B	Total
	Mix	0%	20%	15%	25%	30%	10%	100%
	Average NSA	40	54	59	73	83	98	73
A		0	10	7	12	15	5	50
B		0	9	7	12	14	5	47
C		0	5	4	6	8	3	26
		0	24	18	31	37	12	122

Carparking numbers

A
B
C
CAFÉ
WOOLWORTHS
Service parking
Visitor parking
Total

Site Summary

FECA+UCA - Residential	15,369
FECA+UCA - Non residential	573
FECA+UCA - Carparking	9,770
FECA+UCA - Total	25,712
Site Area	7,485
GFA - Resi	10,361
FSR - Resi	1.38 :1
GFA - Non resi	478
FSR - Non resi	0.06 :1
GFA - Total	10,839
FSR	1.45 :1
No. of apartments	122
No. of cars	
Disclaimer	This is for high level feasibility only and all projections are approximate



# 05 INDICATIVE DESIGN

Perspective view from intersection of Short Street and Princes Highway





# 05 INDICATIVE DESIGN

Perspective view from north side of Short Street looking south west

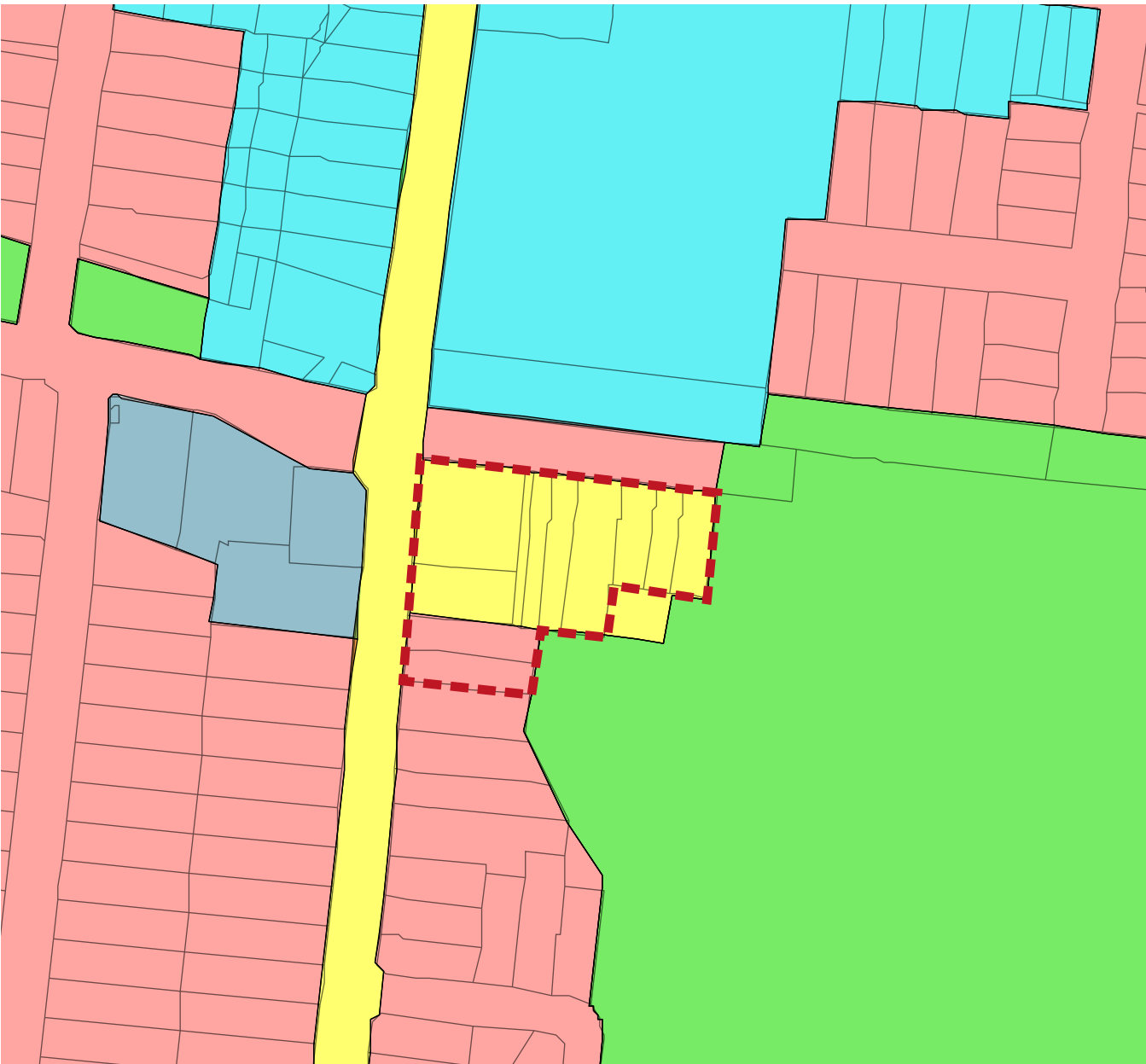




# 06 PROPOSED PLANNING CONTROLS

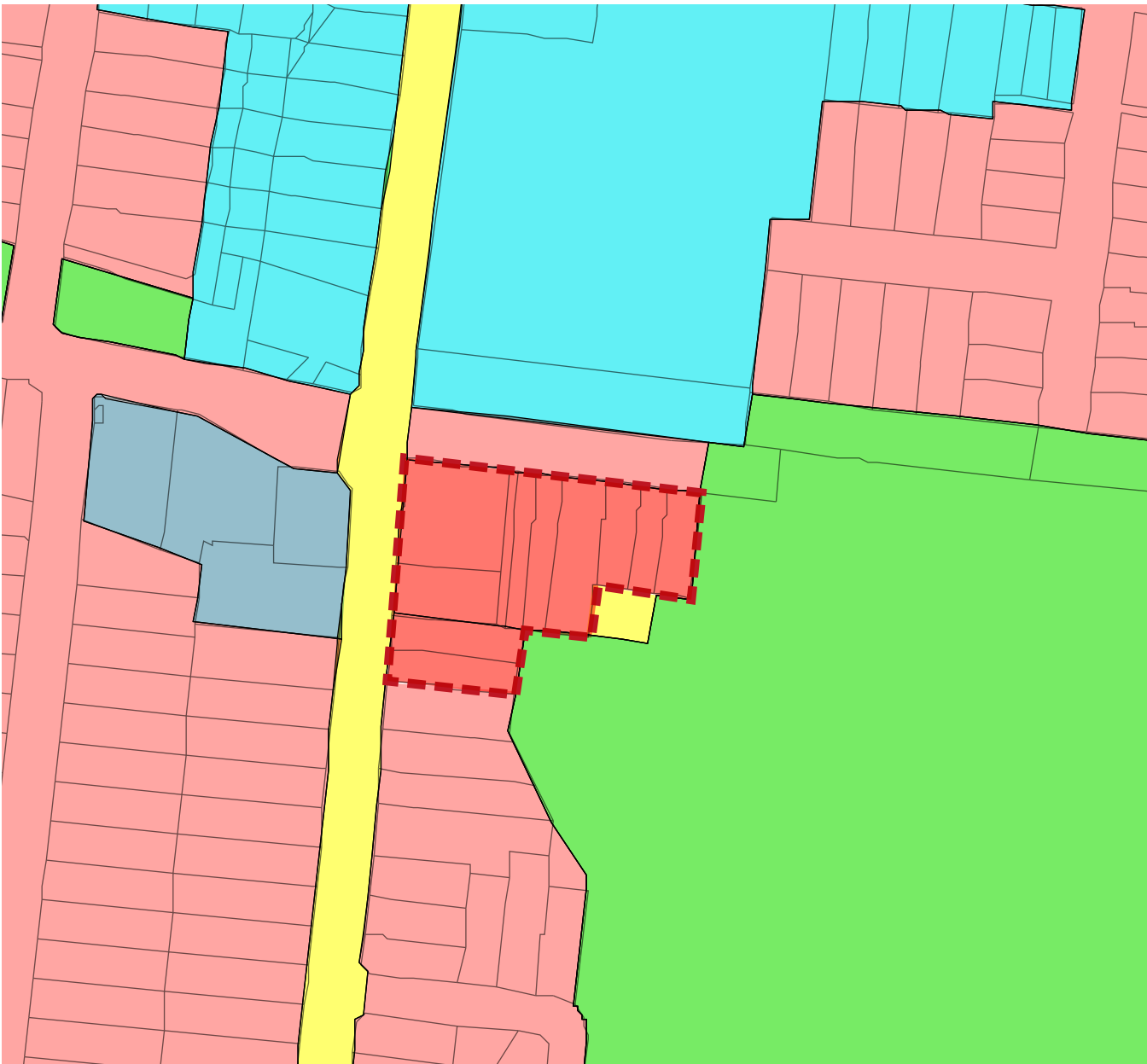
## 6.1 LAND ZONING

Existing



Key  
Site  
Zone SP2 - Infrastructure  
Zone R2 - Low Density Residential  
Zone B2 - Local Centre  
Zone B6 - Enterprise Corridor  
Zone RE1 - Public Recreation

Proposed



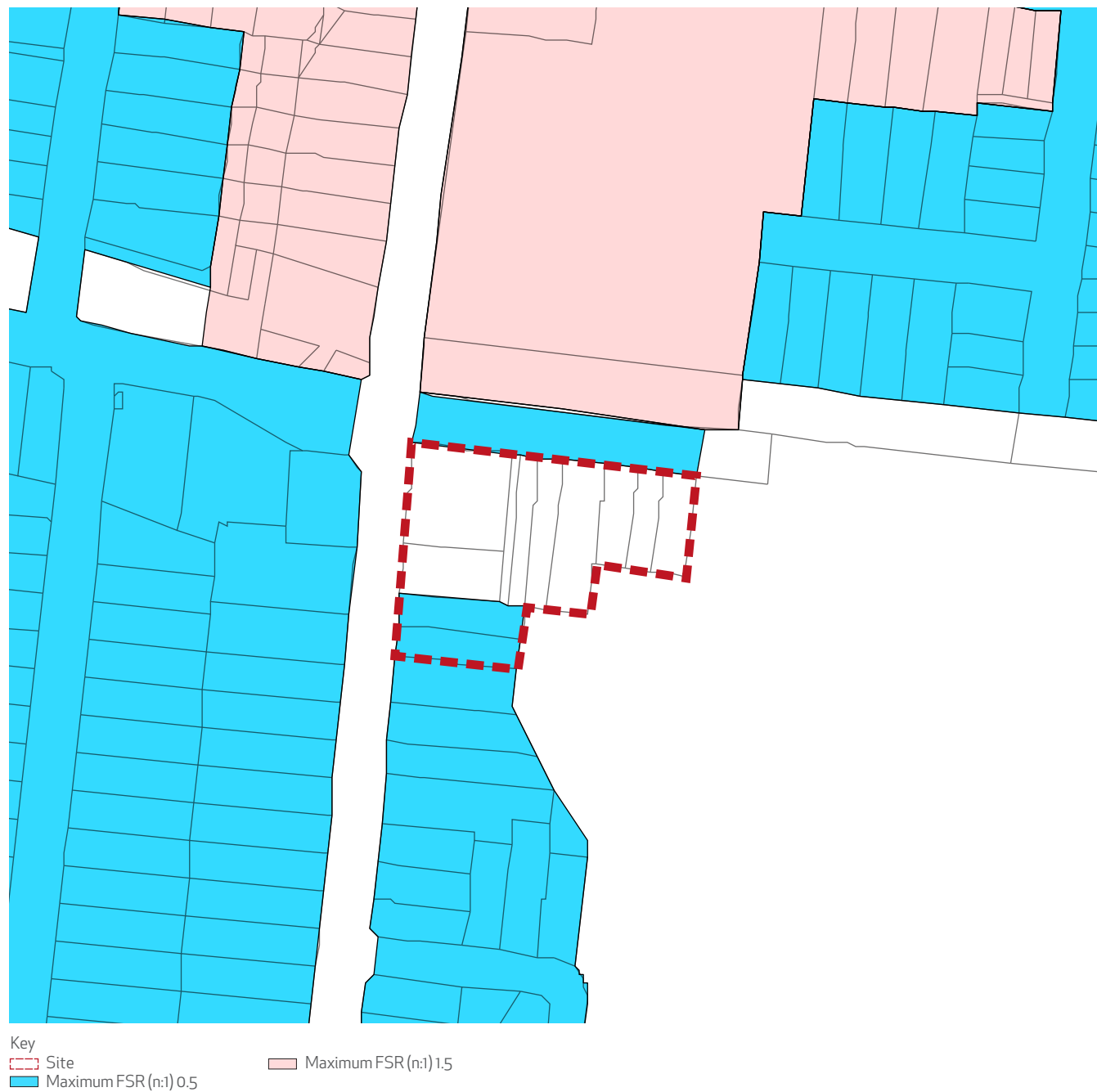
Key  
Site  
Zone SP2 - Infrastructure  
Zone R2 - Low Density Residential  
Zone R3 - Medium Density Residential  
Zone B2 - Local Centre  
Zone B6 - Enterprise Corridor  
Zone RE1 - Public Recreation



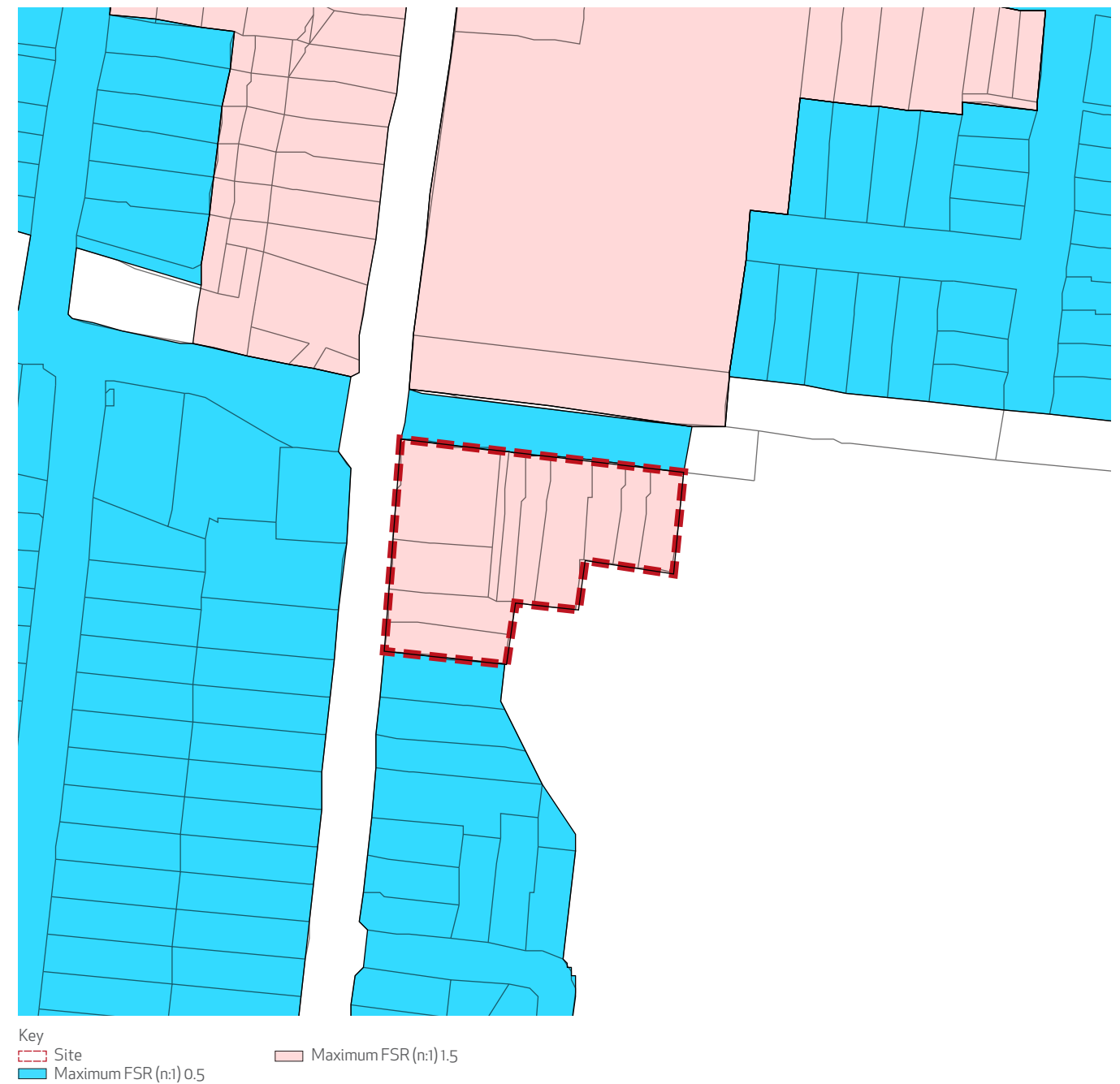
# 06 PROPOSED PLANNING CONTROLS

## 6.2 FLOOR SPACE RATIO

Existing



Proposed

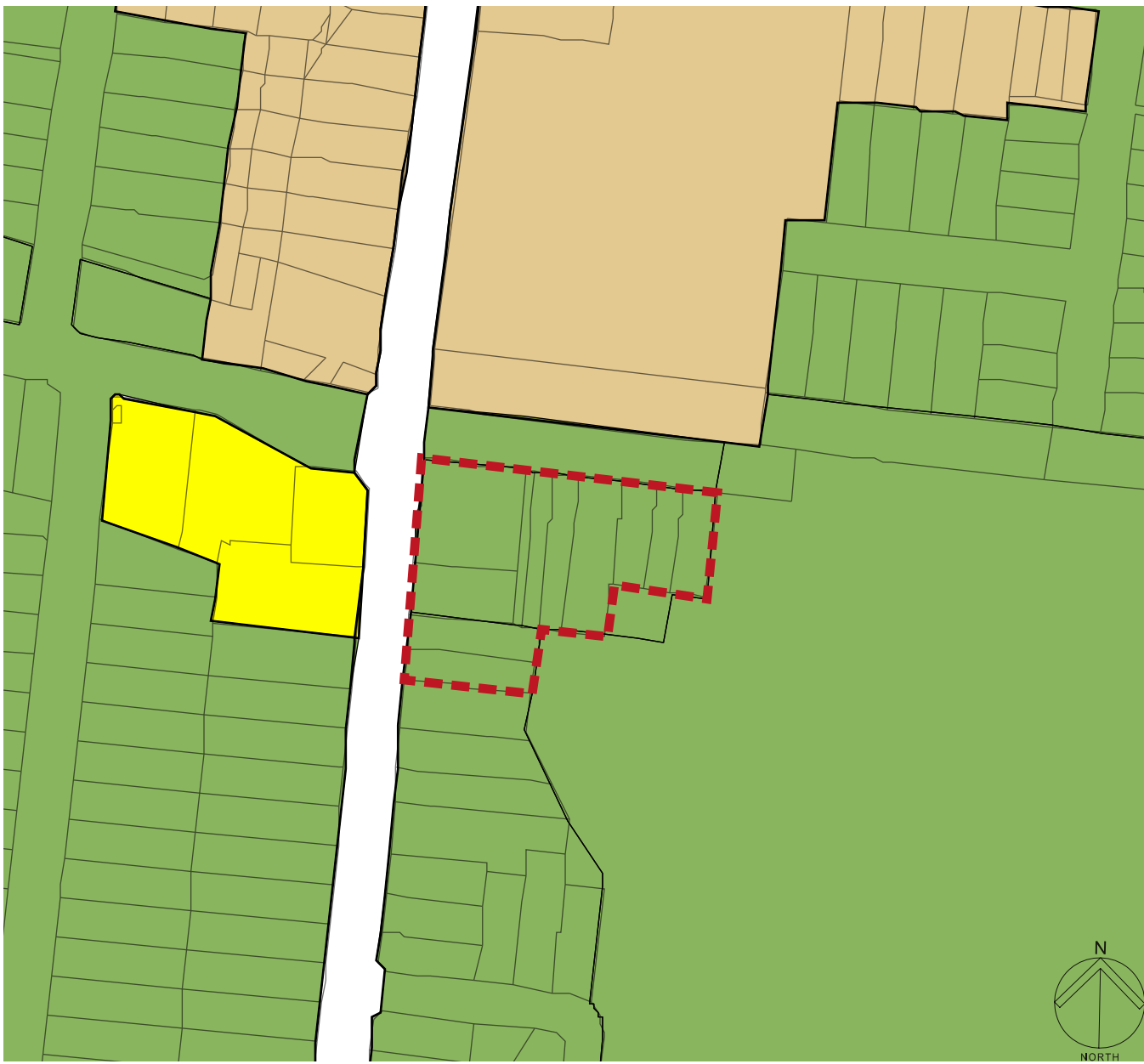




# 06 PROPOSED PLANNING CONTROLS

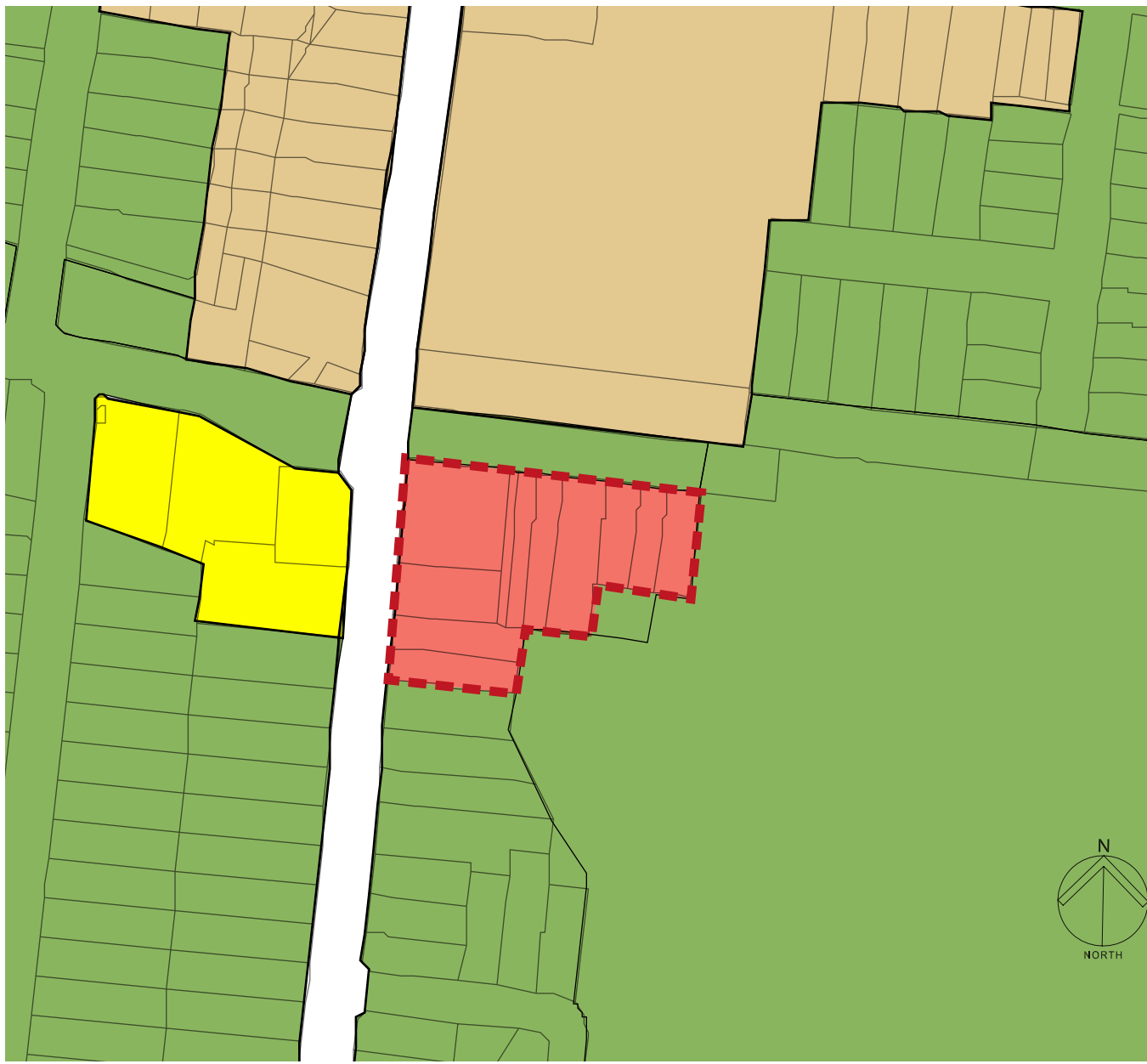
## 6.3 HEIGHT OF BUILDINGS

Existing



Key  
[Dashed Red Line] Site  
[Green] Maximum Height 9m  
[Yellow] Maximum Height 11m  
[Tan] Maximum Height 15m

Proposed



Key  
[Dashed Red Line] Site  
[Green] Maximum Height 9m  
[Yellow] Maximum Height 11m  
[Tan] Maximum Height 15m  
[Red] Maximum Height 30m



# 06 PROPOSED PLANNING CONTROLS





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