

WATAGAN PARK PLANNING PROPOSAL

URBAN DESIGN REPORT

PLANNING PROPOSAL ISSUE 2
29 AUGUST 2022

AJ+C
ALLEN JACK+COTTIER

AJ+C acknowledges that we operate and function on the lands of the Wangal, Kamaygal and Gadigal people of the Eora Nation.

In addition, we acknowledge the lands of the Awabakal people, the Traditional Owners of the land on which this project is proposed.

We pay our respects to Elders past, present and emerging, who have left a legacy of culture, wisdom and knowledge embedded in these lands and waters.



JOHNSON PROPERTY GROUP



Allen Jack+Cottier Architects Pty Ltd
ABN 53 003 782 250

Directors + Nominated Architects
Michael Heenan 5264
Brian Mariotti 9451
John Whittingham 7030

79 Myrtle Street Chippendale
NSW 2008 AUSTRALIA

+61 2 9311 8222

architectsajc.com

AJ+C | JOHNSON PROPERTY GROUP

TABLE OF CONTENTS

1.0	EXISTING PLANNING FRAMEWORK	6
A.1	EXISTING STRATEGIC PLANNING FRAMEWORK	8
A.2	EXISTING STATUTORY PLANNING FRAMEWORK	10
2.0	SITE ANALYSIS OF CURRENT MASTER PLAN	11
B.1	ANALYSIS OF EXISTING SITE	12
B.2	ANALYSIS OF PREVIOUS/CURRENT MASTER PLAN	16
3.0	DESIGN PROPOSAL: TOWN CENTRE	21
C.1	INTRODUCTION	22
C.2	DESIGN PRINCIPLES	23
C.3	STRUCTURE PLAN	24
C.4	SITE PLAN	26
C.5	INDICATIVE BUILDING SCALE	28
C.6	BUILDING HEIGHTS	30
C.7	SCALE TRANSITION	32
C.8	NORTH-SOUTH INDICATIVE SITE SECTIONS	34
C.9	EAST-WEST INDICATIVE SITE SECTIONS	36
C.10	TOWN CENTRE CHARACTER: BUILDINGS	38
C.11	PROPOSED OPEN SPACE & ACTIVE TRANSIT NETWORK	42
C.12	INDICATIVE SHADOW DIAGRAMS	46
C.13	INDICATIVE ADG COMPLIANCE	50
4.0	DESIGN PROPOSAL: NEIGHBOURHOOD CENTRE	51
D.1	STRUCTURE PLAN	52
D.2	SITE PLAN	53
D.3	INDICATIVE BUILDING ENVELOPES	54
D.4	INDICATIVE SITE SECTION	55
D.5	INDICATIVE SHADOW DIAGRAMS	56
D.6	INDICATIVE ADG COMPLIANCE	57
5.0	PROPOSED CHANGES TO PLANNING FRAMEWORK	58
E.1	HEIGHT OF BUILDINGS	60
E.2	LAND ZONING & MINIMUM LOT SIZE	62
E.3	PROPOSED DCP CONTROLS	64

EXECUTIVE SUMMARY

This Urban Design Report has been prepared in support of a Planning Proposal that seeks to facilitate an intensification of uses in two locations within the new neighbourhood of Watagan Park.

The first site is described in this report as the 'Town Centre', which refers to more than a dozen blocks within Watagan Park centred on a proposed retail centre alongside a large local park and surrounded by medium density housing. The planning proposal seeks to introduce a greater diversity of housing options in this location - namely, apartments alongside small lot housing - supported by improvements to the street, open space and movement networks.

The second site is a smaller lot beside a proposed primary school and local park. This is currently identified as medium density housing with a small corner of neighbourhood retail. The purpose of including this site in the study is to facilitate, via shoptop housing, a feasible retail development in a location which has relatively low economic value. Again, this change is supported by improvements to the street network as well as providing the potential for more contributory frontage to the public open space.

In order to deliver the outcomes proposed for the two sites, limited changes to the statutory planning framework are required:

- Increases in the allowable Height of Building in order to support the introduction of 3 to 6 storey shoptop housing / residential flat buildings across the two sites, and
- Minor changes to Land Use Zoning and Minimum Lot Size maps to align with the proposed changes.

The report is structured as follows:

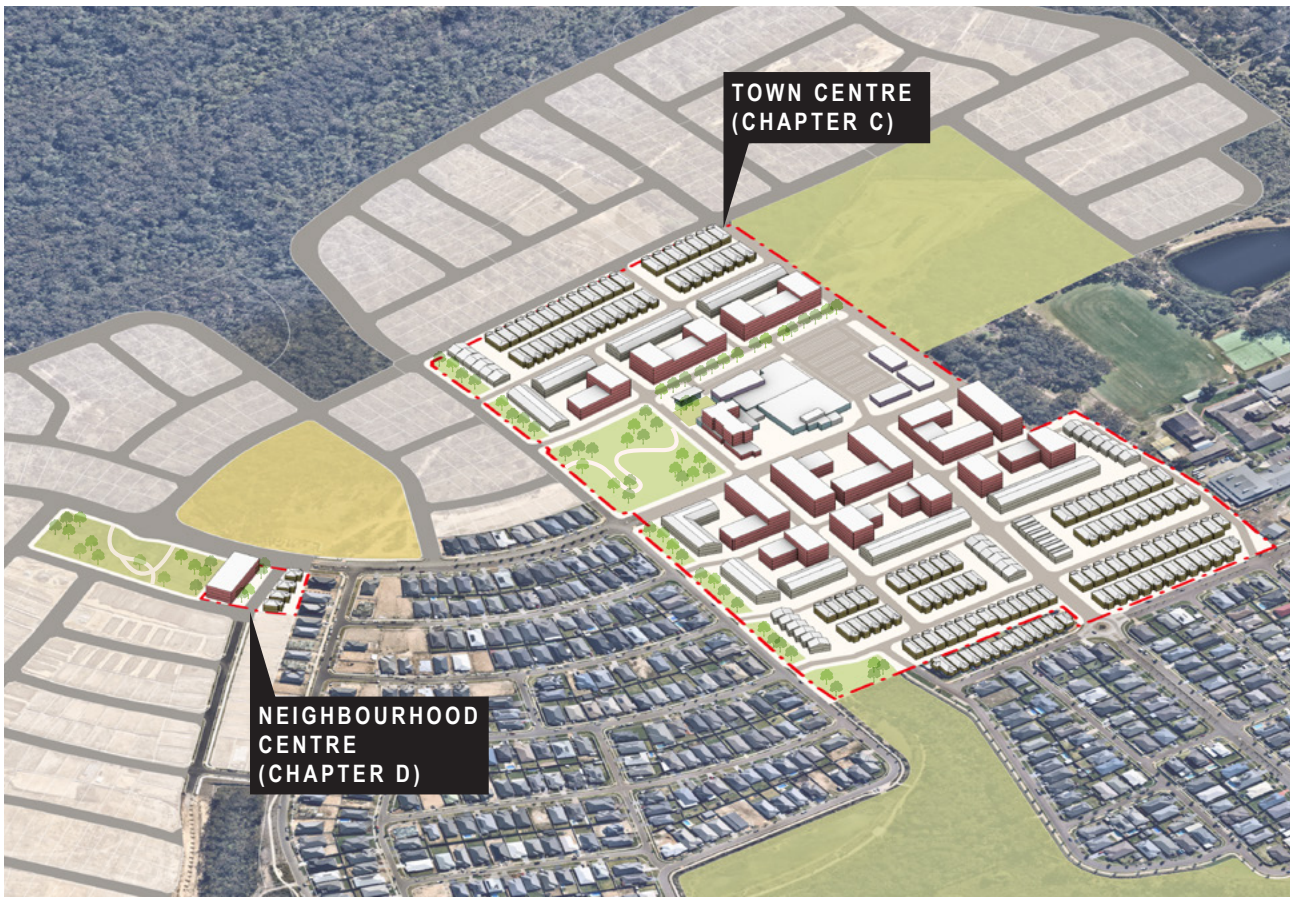
A) Existing Planning Framework outlines the existing planning framework for the area. It shows that the changes in this Planning Proposal are broadly supported by existing strategic planning, and will align well with the surrounding statutory planning framework.

B) Analysis of Current Master Plan outlines the current site condition as well as the expected outcome of the current planning framework, which is represented in the current plan supplied by Johnson Property Group. This identifies both the strengths of the current plan as well as potential opportunities for modifications.

C) Design Proposal: Town Centre illustrates an indicative master plan for the Town Centre area, showing an outcome with a more legible street network, greater diversification of uses at the retail centre, a rationalised central neighbourhood park fully surrounded by public streets, a new linear green spine linking the neighbourhood park to the regional green spaces that surround it, and a variety of medium density housing typologies.

D) Design Proposal: Neighbourhood Centre illustrates an indicative master plan for the Neighbourhood Centre lot, showing it split an extension of an existing street to create two distinct sites. Small lot housing is proposed to the south of the street, interfacing to the existing residential lots opposite, while a shoptop residential flat building is proposed to the north. The RFB provides more contributory frontage onto the local park, while positioning ground floor retail tenancies on a prominent corner that will service park users as well as the adjacent school population.

D) Proposed Statutory Planning Framework outlines the proposed changes to the current statutory planning framework that would facilitate the design proposals in Chapters C & D.



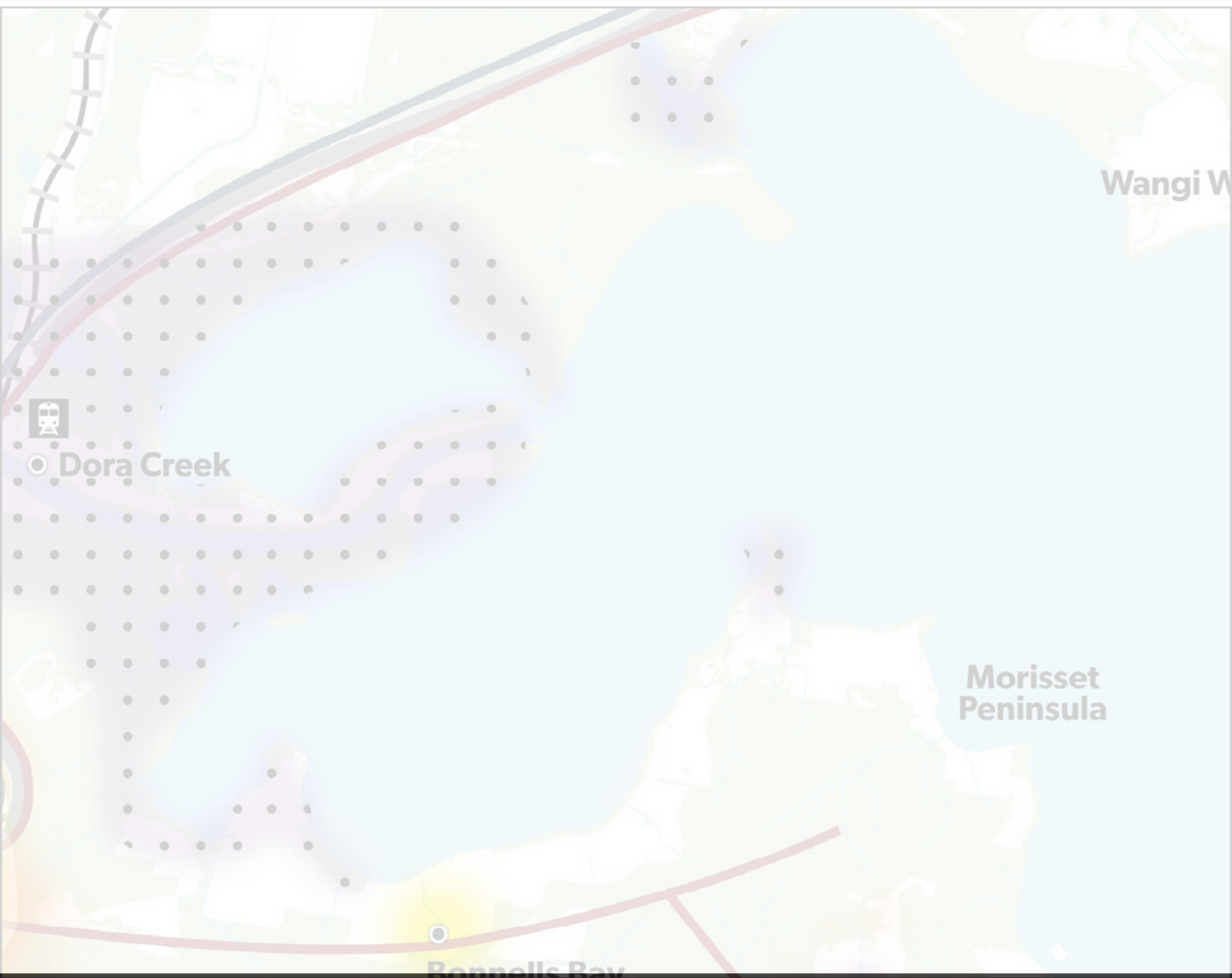
Indicative Building Envelopes



Indicative Site Plan



EXISTING PLANNING FRAMEWORK



This chapter outlines the existing planning framework for the area. It shows that the changes in this Planning Proposal are broadly supported by existing strategic planning, and will align well with the surrounding statutory planning framework.

A.1 EXISTING STRATEGIC PLANNING FRAMEWORK

STATE GOVERNMENT

The NSW Government sets the broad strategic policy framework for the area through its *Hunter Regional Plan 2036* (HRP36), a 20-year strategic planning blueprint. The strategic plan is intended to be updated every 5-years, with the current *Hunter Regional Plan 2041* (HRP41) having been issued as a draft for exhibition.

The HRP36 sets a number of goals that are relevant for the intensification of uses at Watagan Park, particularly the goals of creating “greater housing choice” and “thriving communities”.

The current Draft HRP41 adds new objectives for the region which will require a different approach to planning and development than what has been delivered previously.

The first is the concept of a 15-minute region, summarised in the objective to Create a 15 minute region made up “of mixed, multi-modal, inclusive and vibrant local communities” where residents’ everyday needs are available within a 15 minute walk or cycle. This is relevant to this report, which proposes an intensification of uses around the retail centre including job-generating commercial.

Another relevant objective is to “plan for ‘Nimble Neighbourhoods’, diverse housing and sequenced development.” This objective notes the predominance of three and four-bedroom detached homes across the region, as is the case in Watagan Park, creating a need for future development to provide “smaller and different homes”. This is relevant to this report, as it proposes a range of housing not otherwise provided for at Watagan Park or surrounding neighbourhoods.

The third most relevant objective is to “Increase green infrastructure and quality public spaces and improve the natural environment.” As will be seen in this report, the current proposal includes improvements to the interfaces with public open space and the creation of linking green infrastructure to establish a clearer network of quality public open space.

LOCAL GOVERNMENT

Lake Macquarie Council sets its LGA-specific strategy policy, which is to align with the broader framework of the NSW Government. The two key documents are *Shaping the Future: Lake Macquarie City Local Strategic Planning Statement* (LSPS) and *Let’s Thrive: Lake Macquarie City Housing Strategy 2021* (LHS)

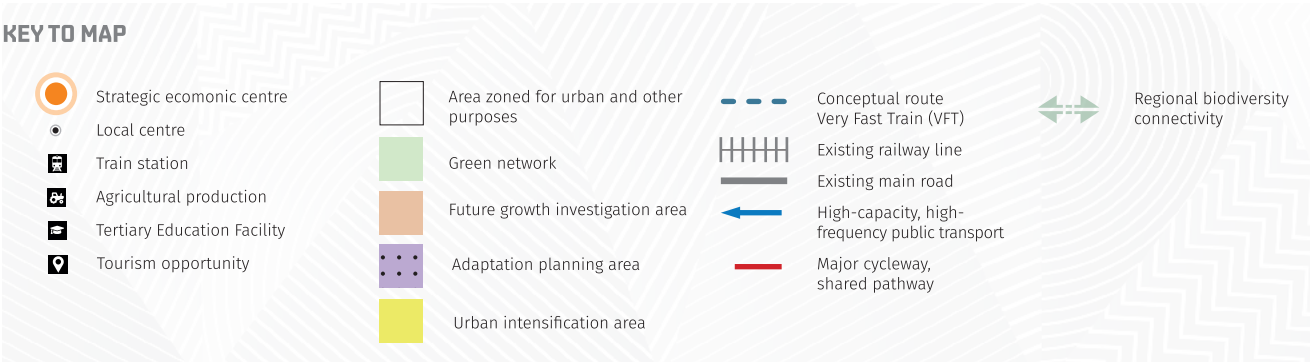
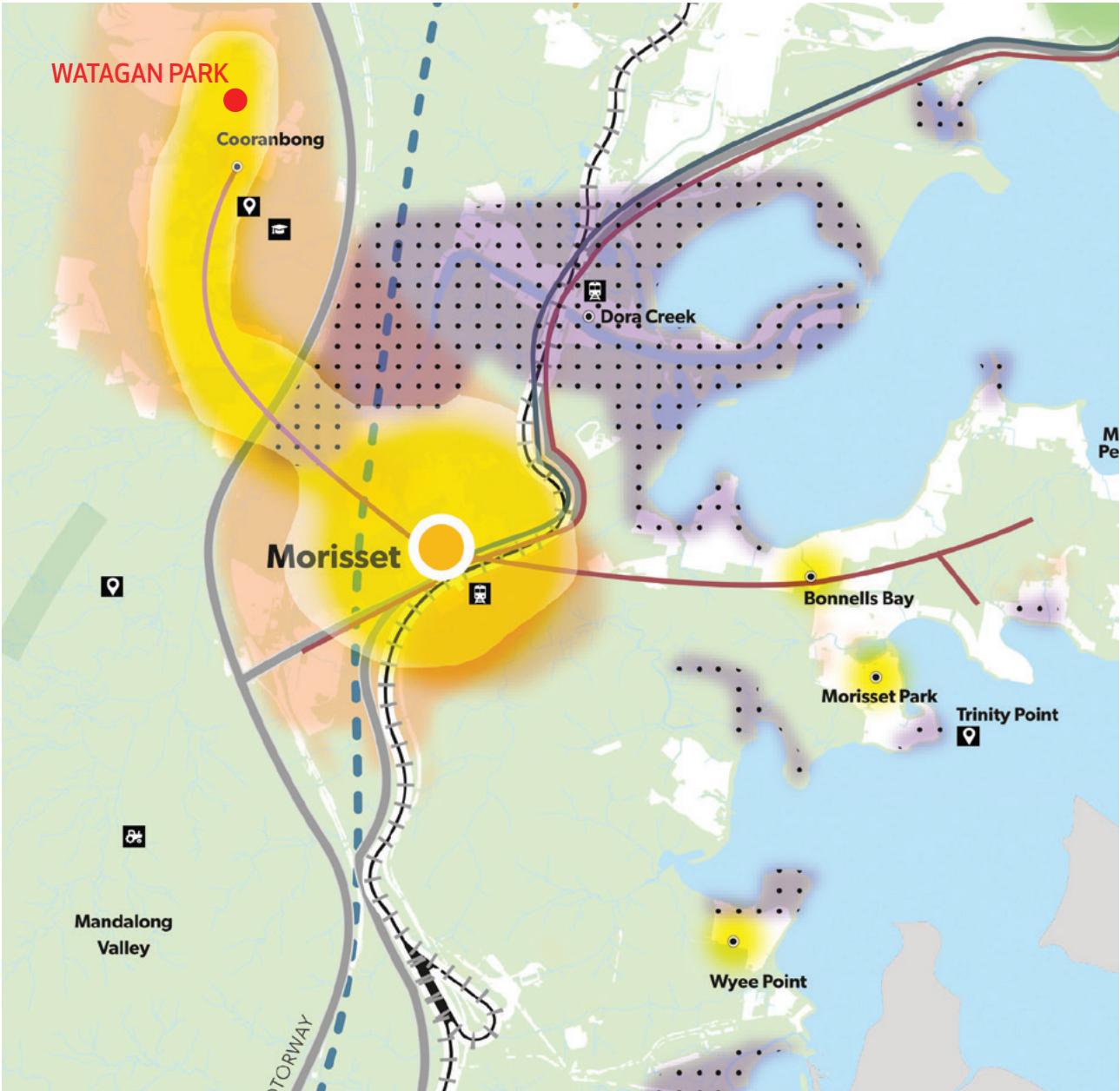
Watagan Park is within the town of Cooranbong, which is identified in the LSPS as an “Urban Intensification Area” which is surrounded by a further “Future Growth Investigation Area”, indicating that the area will have a significant role in the ongoing growth of the LGA. Cooranbong is identified as being within the zone of influence of Morisset, one of three towns described as the “Strategic Economic Centres” of the Lake Macquarie LGA.

The LHS identifies several key priorities for the LGA, each of which is relevant to this report’s proposal to increase the intensity of activity at Watagan Park:

- “facilitating housing supply and infrastructure coordination”
- “increasing diversity and choice in housing”
- “facilitate efficient opportunities for housing close to jobs and services”
- “increase affordable rental housing and home ownership”
- “facilitate housing design for innovation and sustainability”

The LHS notes that “to date new housing has predominantly been detached houses, with multi-dwelling units comprising a small proportion of overall housing,” identifying that this “detached housing has been predominantly in Cameron Park, Cooranbong, and Morisset.” The document generally calls for a greater diversity of housing than the predominant detached typologies.

Lake Macquarie Local Strategic Planning Statement: Structure Plan



A.2 EXISTING STATUTORY PLANNING FRAMEWORK

LAKE MACQUARIE LEP

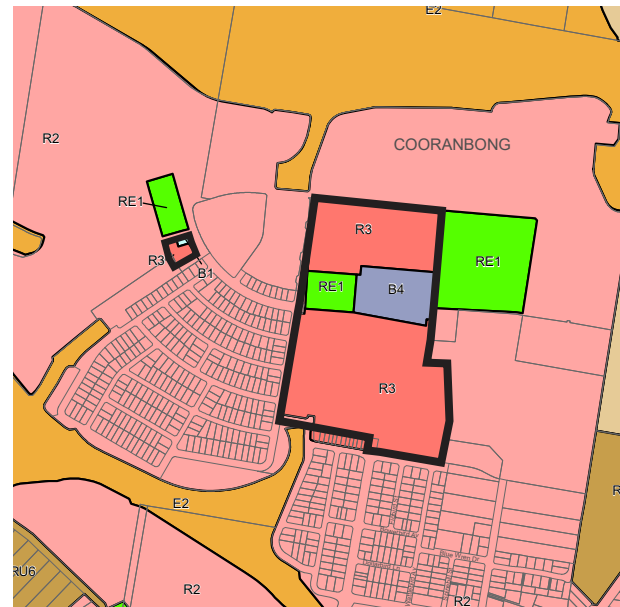
The Lake Macquarie Local Environment Plan 2014 is the primary statutory planning instrument applicable to the study area.

The key LEP controls that apply to the site are listed here:

Land Zoning: Generally R3 Medium Density Residential, as well as B4 Mixed Use at the retail centre with a small component of B1 Neighbourhood Centre at the western lot.

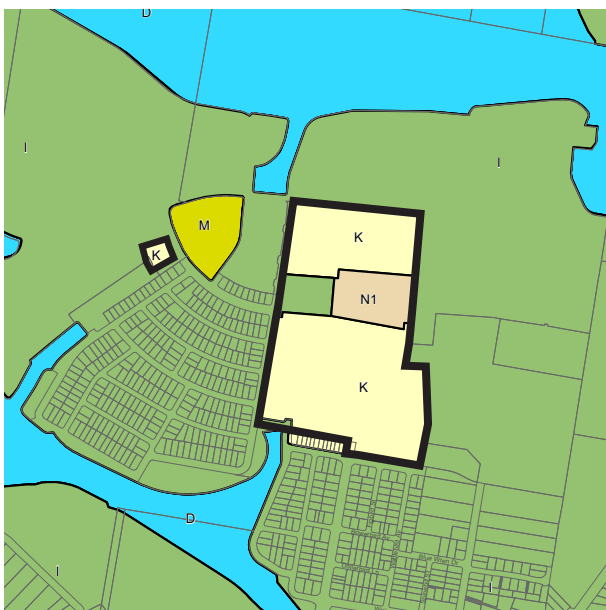
Maximum Building Height: 10m throughout the R3 zone, and 13m within the B4 Town Centre.

Minimum Lot Size: the R3 zones are identified with a 900sqm minimum lot size. However, the LEP also includes a separate control that permits small lot housing of between 200 and 450sqm within this zone.



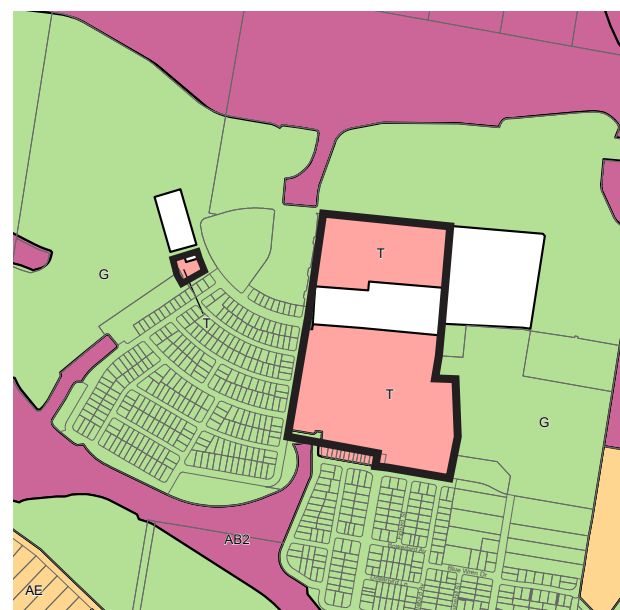
Zone

B1 Neighbourhood Centre	RE1 Public Recreation
B4 Mixed Use	RU2 Rural Landscape
E2 Environmental Conservation	RU6 Transition
R2 Low Density Residential	
R3 Medium Density Residential	



Maximum Building Height (m)

D 5.5
I 8.5
K 10
M 12
N1 13



Minimum Lot Size (sq m)

G 450
T 900 *
AB1 200000 (20 ha)
AB2 400000 (40 ha)
AE 2000000 (200 ha)

* 200-450sqm
also permitted

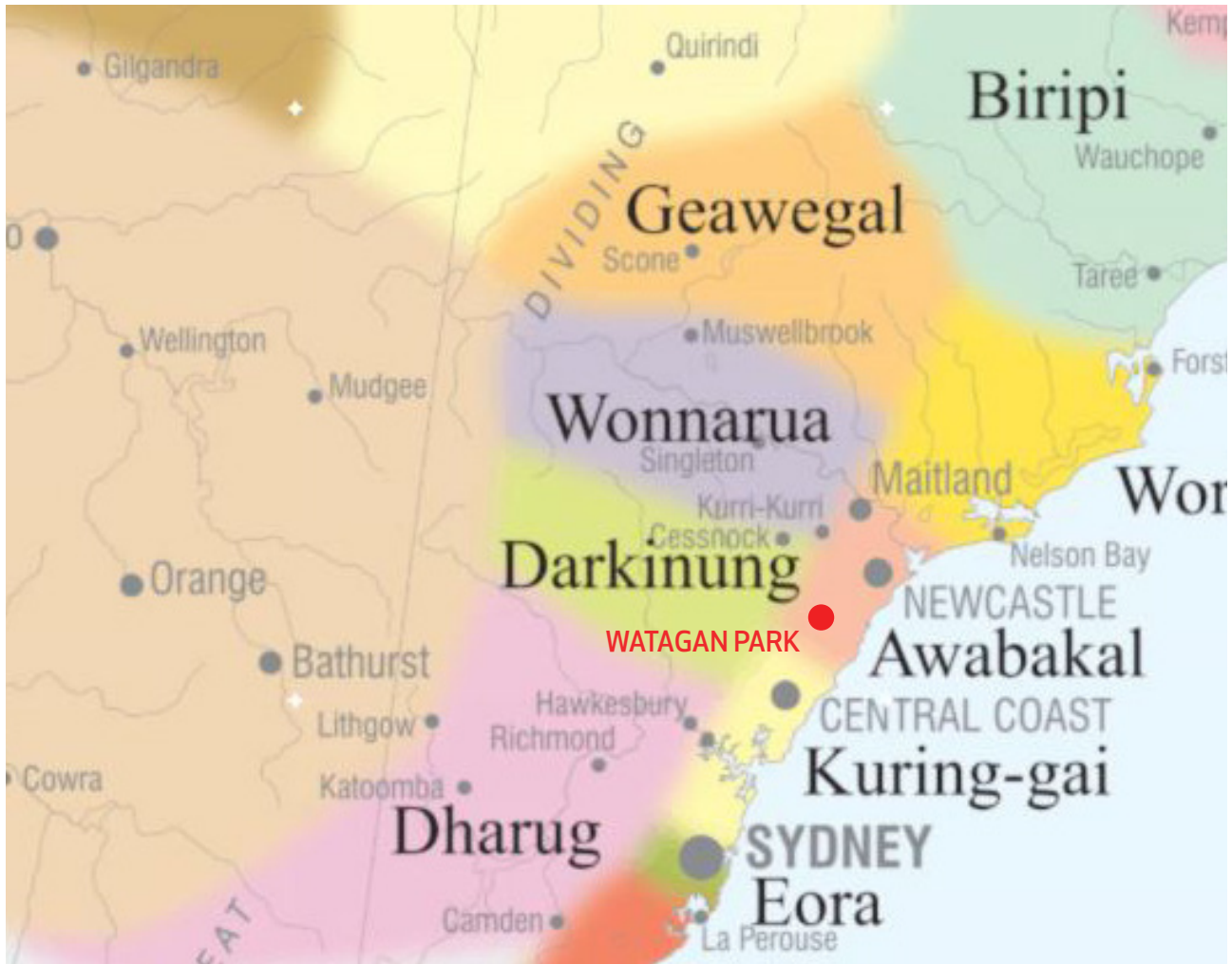


This chapter outlines the current site condition as well as the expected outcome of the current planning framework.

SITE ANALYSIS OF CURRENT MASTER PLAN

B.1 ANALYSIS OF EXISTING SITE

COUNTRY



Source: the AIATSIS Map of Indigenous Australia, 1996

Watagan Park is within Awabakal Country, understood to extend from Lake Macquarie through to Wonnarua.

Watagan Park sits as the base of the Watagan Mountains, within which there are at least 40 Awabakal sites of significance. Watagan is an Aboriginal word of unknown provenance thought to mean “many ridges”*, which is an appropriate description of the area of Watagan Park this project focuses on.

Say, Greg 1993 *The Aboriginal hunter. Supp. to The Newcastle Herald*, 11 May 1993.

CURRENT CONDITION



Watagan Park is a large residential project developing in the Cooranbong suburb in south-west Lake Macquarie. It is being developed by Johnson Property Group in partnership with the Seventh-day Adventist Church.

The town centre precinct will replace what was previously the Cooranbong Aerodrome, a private airfield established by the Church and used by the Avondale College Flying School and Adventist Aviation Association until its relocation.

KEY



SITE BOUNDARY

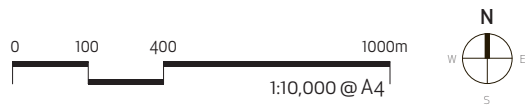
HISTORICAL GROWTH



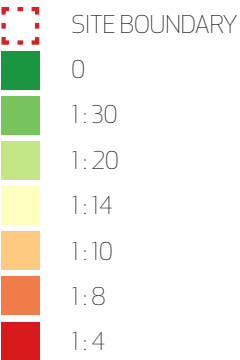
Imagery on this page show the rapid and recent growth of the new neighbourhood of Watagan Park, currently composed almost exclusively of single-storey detached homes.

The success of Watagan Park to date, and its ongoing growth, facilitates this proposal for greater intensity at the town centre.

TOPOGRAPHY



SLOPE (DEGREES)

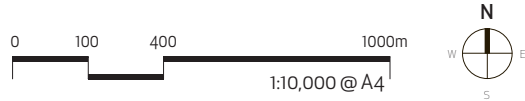
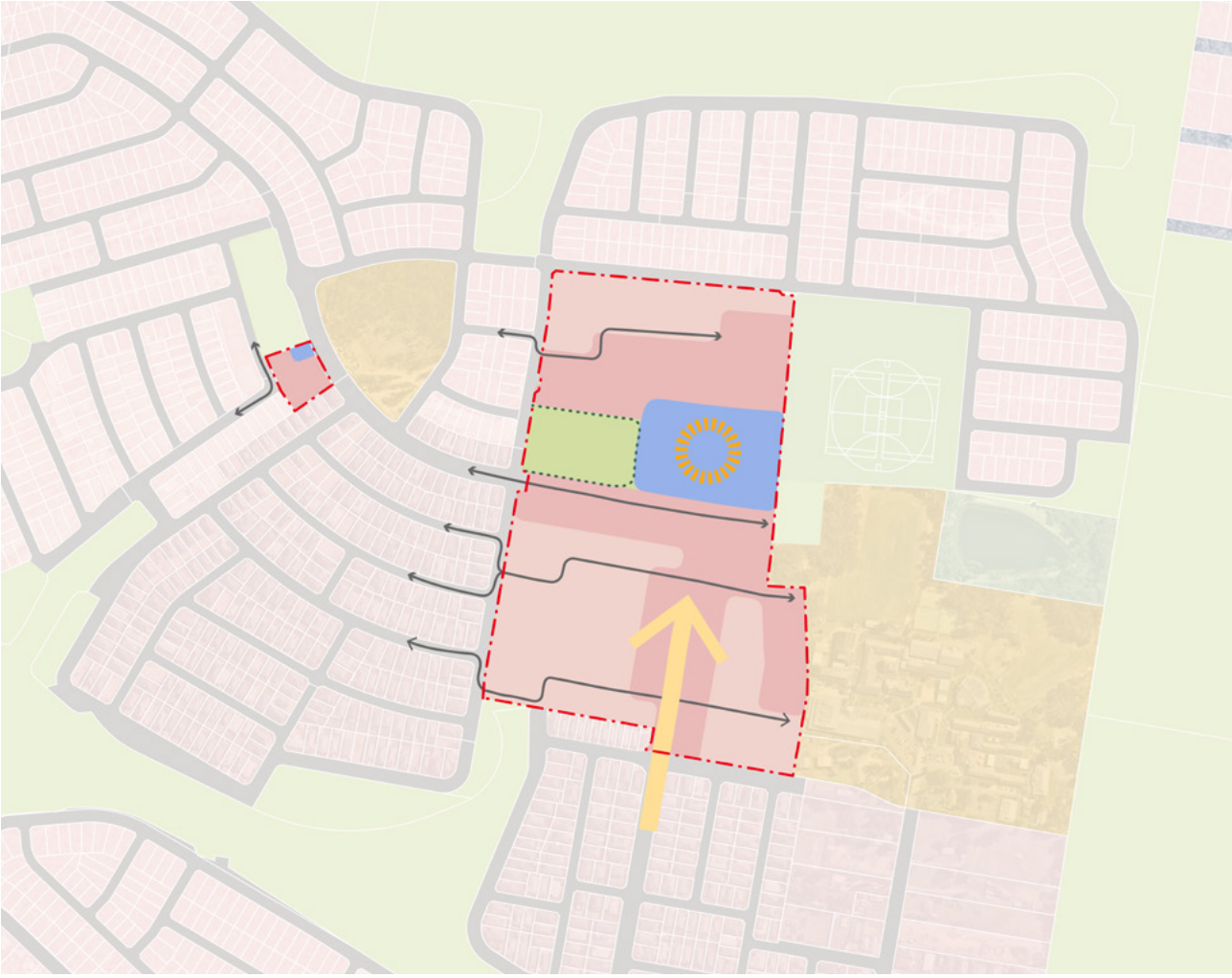


The existing topography of the town centre area of Watagan Park features a distinct northeast-to-southwest slope, interrupted by the benching of a disused airfield. The earthworks approved to date will require future development to channel towards detention areas in the southwest. Building height allowances will need to be sufficient to account for road slopes, and envelopes designed to minimise blank walls.

The topography of the neighbourhood centre site similarly features an approximately 2m fall from northeast-to-southwest, which will be maintained in the currently approved earthworks.

B.2 ANALYSIS OF PREVIOUS/CURRENT MASTER PLAN

STRUCTURE PLAN

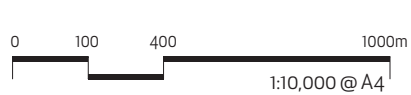
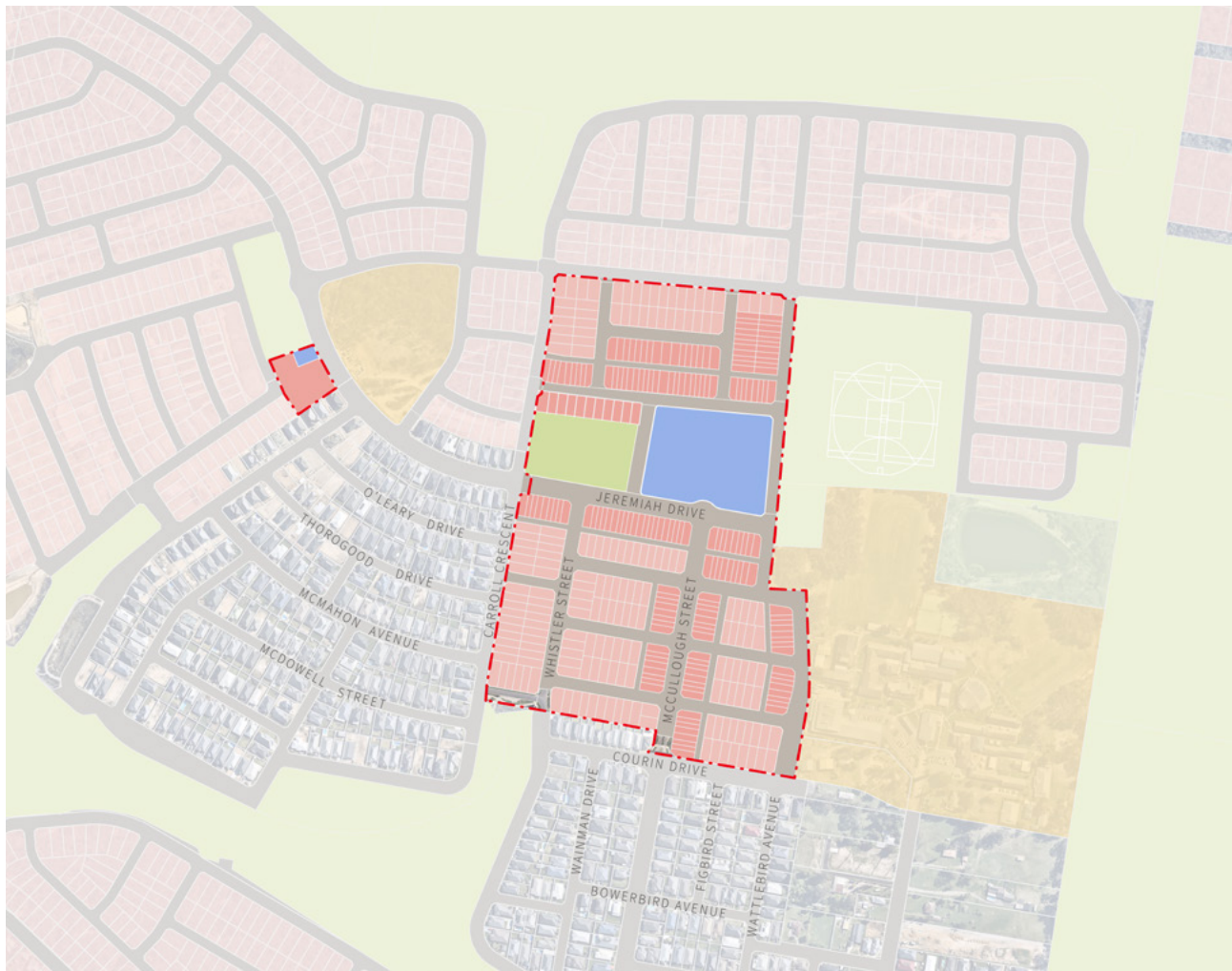


- KEY**
- SITE BOUNDARY
 - GREEN SPACE
 - OPEN SPACE LINK
 - SENSE OF ARRIVAL
 - ALIGNED STREETS
 - FRONTAGE TO PARKS
 - TOWN CENTRE

The structure plan above represents the current JPG internal master plan for the Watagan Park town centre and its surroundings. It shows a retail centre alongside a 1.3ha central neighbourhood park, surrounded to the north and south by medium density housing. Medium density housing continues south to frame an avenue into the town centre, as well as to the east facing onto the existing K-12 school. The remainder of the town centre is highlighted for lower density small lot housing. Surrounding street alignments offset when they arrive at the town centre, helping to identify it as a separate precinct to the rest of Watagan Park.

The neighbourhood centre site is identified as low and medium density housing with a retail component at its northeastern corner.

SITE PLAN



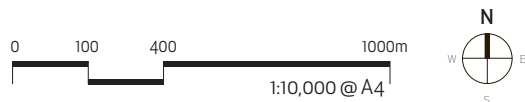
KEY

- SITE BOUNDARY
- PARK
- SCHOOL
- TOWN CENTRE
- TOWNHOUSE
- SMALL LOT DETACHED HOUSING

The current site plan for the Watagan Park town centre shows the distribution of townhouses and small lot housing around the retail centre. The offsetting of street alignments as they enter the town centre reduces legibility and walkability of the network, although this is offset by numerous rear laneways which add permeability. We understand that Lake Macquarie Council does not support public ownership of laneways meaning these would likely need to be changed. Small lot housing is shown on the north side of the park, likely resulting in blank fencing along the park edge.

The neighbourhood centre site is shown with an internal laneway to facilitate small lot housing, with a standalone retail building on its northeast corner.

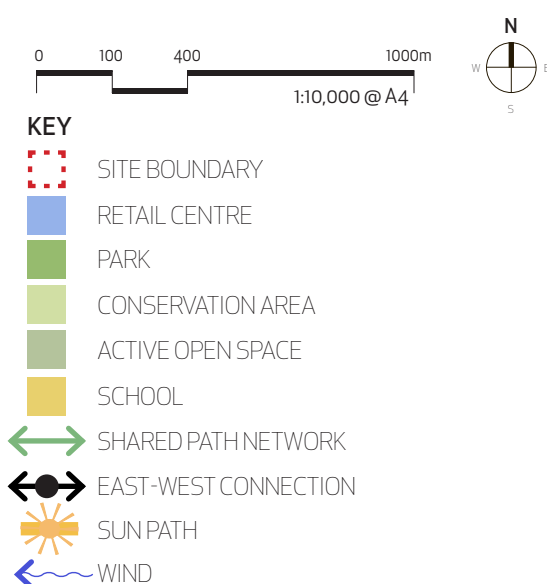
SOCIAL INFRASTRUCTURE



- KEY**
- SITE BOUNDARY
 - PARK
 - CONSERVATION AREA
 - ACTIVE OPEN SPACE
 - SCHOOL
 - 400M WALKING RADIUS
 - 800M WALKING RADIUS

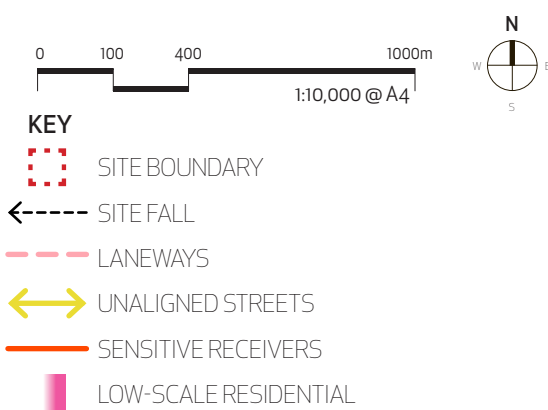
Watagan Park provides a significant amount of social infrastructure within a short walk, which supports greater residential densities. The existing K-12 Avondale School will be complemented by a new Primary School to the west of the town centre. An active open space precinct is proposed to the east where a sports field, skate park, dog park and community facility are planned. The town centre precinct will further contribute to the social infrastructure of Watagan Park through the development of a central 1.3ha neighbourhood park. A more local neighbourhood park is approved immediately to the west of the neighbourhood centre lot. Extensive amounts of existing woodland are proposed to be protected through environmental conservation zoning around Watagan Park.

OPPORTUNITIES

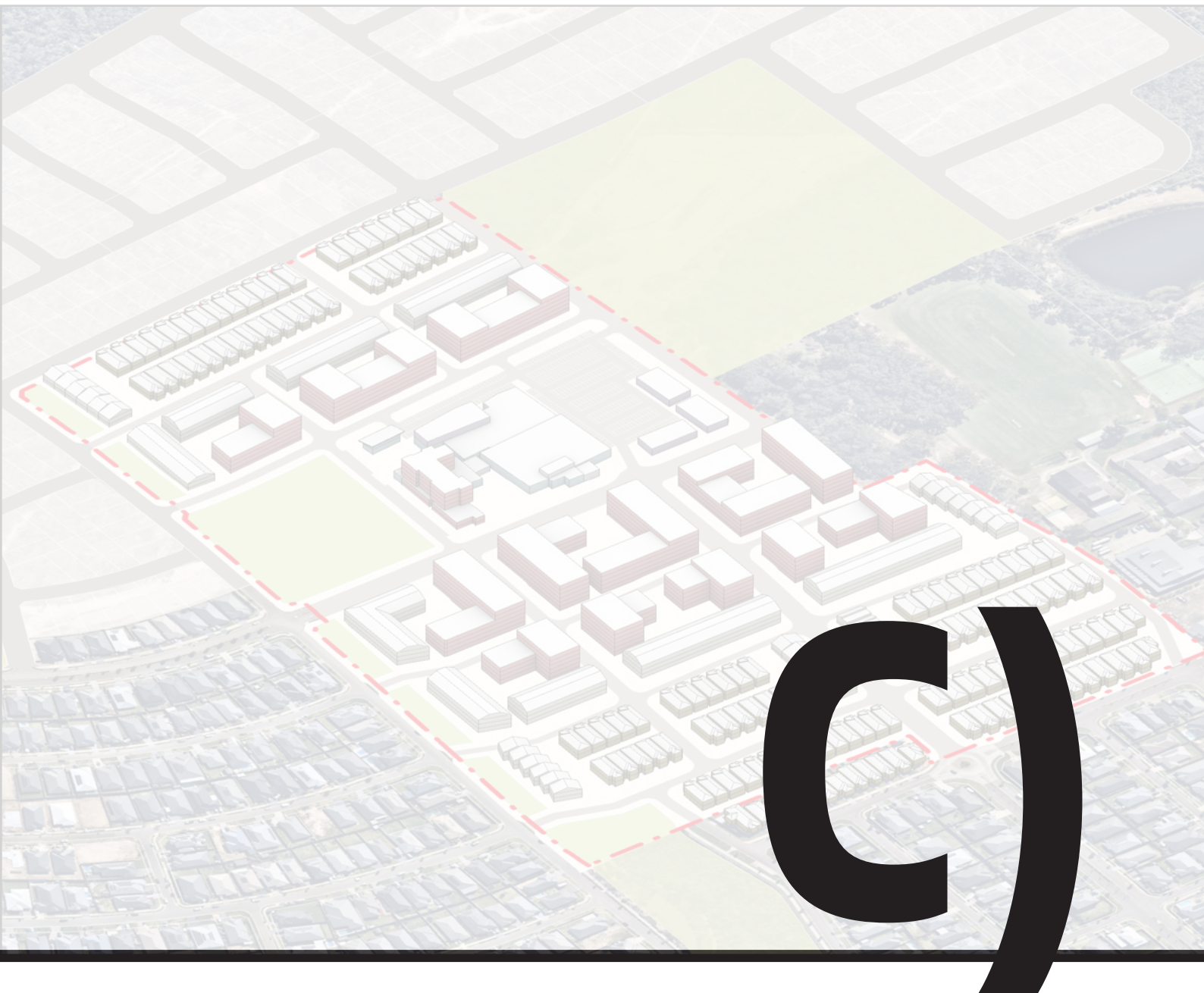


1. Extensive nearby social infrastructure: schools, passive open spaces and active open spaces.
2. Opportunity to connect public open spaces with environmental conservation land, creating a continuity in deep soil and canopy coverage.
3. Large area zoned for neighbourhood retail centre
4. Opportunity to connect major social infrastructure via town centre north-south & east-west

CHALLENGES



1. Low-scale residential surroundings
2. Nearby sensitive receivers (residential, schools)
3. Significant fall from northeast to southwest
4. Street structure dependent on rear laneways not supported by Council



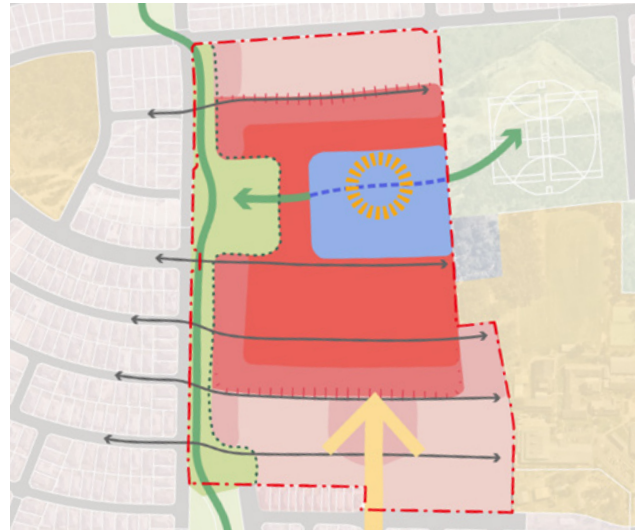
This chapter illustrates an
indicative master plan for the
Town Centre area

DESIGN PROPOSAL: TOWN CENTRE

C.1 INTRODUCTION

The intent of this planning proposal is to create a 'town centre' for Watagan Park in the true sense of the phrase: a vibrant, civic place where residents come together. For this to be realised, the aim is that the area to become more than the supermarket-anchored retail component of an otherwise homogeneous suburb currently envisaged, instead aiming to increase the level of activity in the area surrounding the retail centre as well. Bands of higher intensity residential use are proposed, transitioning down in scale and building typology to connect appropriately with the lower density community currently developing around it.

This chapter of the report outlines how design principles established here for the town centre have been translated into a structure plan, site plan and finally an envelope strategy with a range of building typologies together creating a low-to-mid-rise mixed-use town centre.



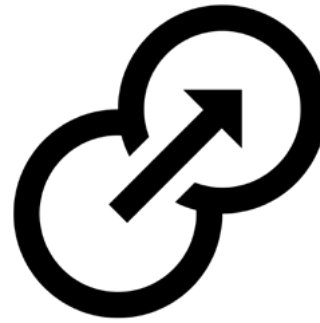
C.2 DESIGN PRINCIPLES

Four design principles are proposed here to guide the development of the town centre:



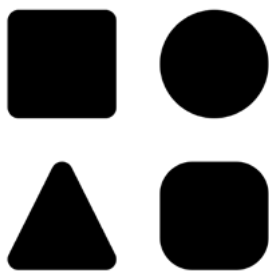
INTENSITY

Representing the key attribute required for a vibrant town centre, the principle of 'intensity' requires a change in density to increase the level of activity within the area. This principle will be implemented through a targeted increase in heights and densities around the central retail area and neighbourhood park.



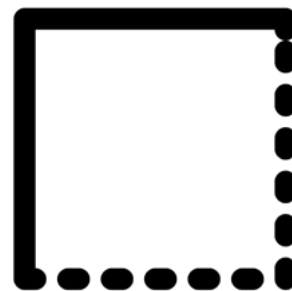
TRANSITION

This principle acknowledges and respects that the buildings developed in Watagan Park to date are low in scale and density, by requiring that the higher intensity of uses transition purposefully from a denser core down to a perimeter one step removed from the existing suburb around it.



VARIETY

A diversity of open spaces, street types, building types and unit types are proposed in order that the town centre supports an equally diverse population. This is aimed at attracting and supporting parts of the population unable or uninterested in the medium-to-large lot housing currently delivered at Watagan Park, and in doing so increase the overall vibrancy of the town centre.



LEGIBILITY

The creation of a 'town centre' should be legible as being part of but still different to the areas around it. This principle will be translated into the continuity of the street network, the distribution of building typologies into clear zones, as well as the use of streets, public open spaces and buildings to delineate the extent and the entrances of the town centre.

C.3 STRUCTURE PLAN

The proposed structure plan shows the strategy of how a master plan could appropriately increase the intensity of activity around the retail centre.

Place contributory attributes of the previous structure plan are retained, with a 'gateway' of townhouses facing McCullough Street identifying the route towards the retail centre as well as an 1.3ha neighbourhood park adjoining the retail centre to the west.

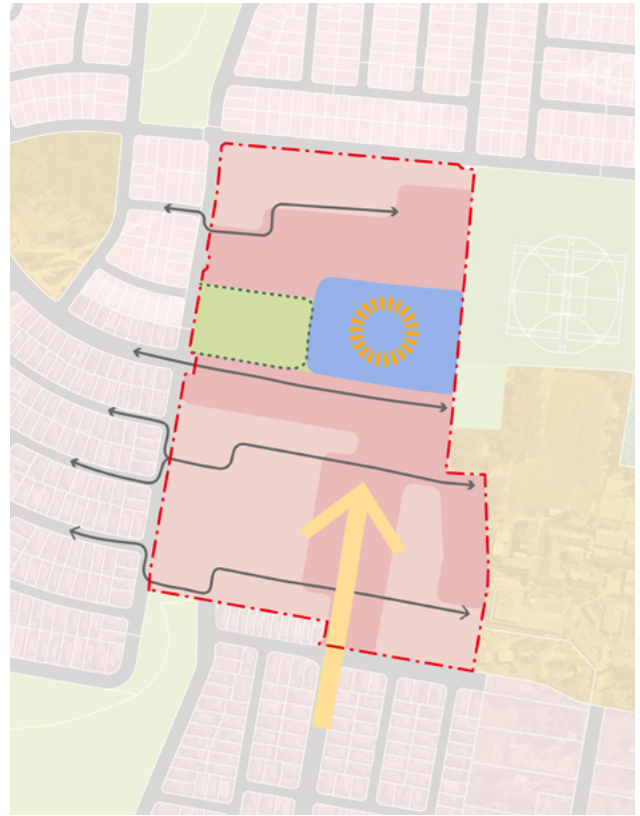
The main structural change proposed is the introduction of higher density residential within and surrounding the retail centre. This will provide the critical mass of activity required for a town centre, while providing choice and diversity in housing for those uninterested or unable or to live in Watagan Park's detached housing offerings.

Along the western edge of the proposal area, a new linear green spine is proposed that will conceptually connect the conservation areas to the north and south via the town centre and its neighbourhood park. The introduction of continuity into the open space network will:

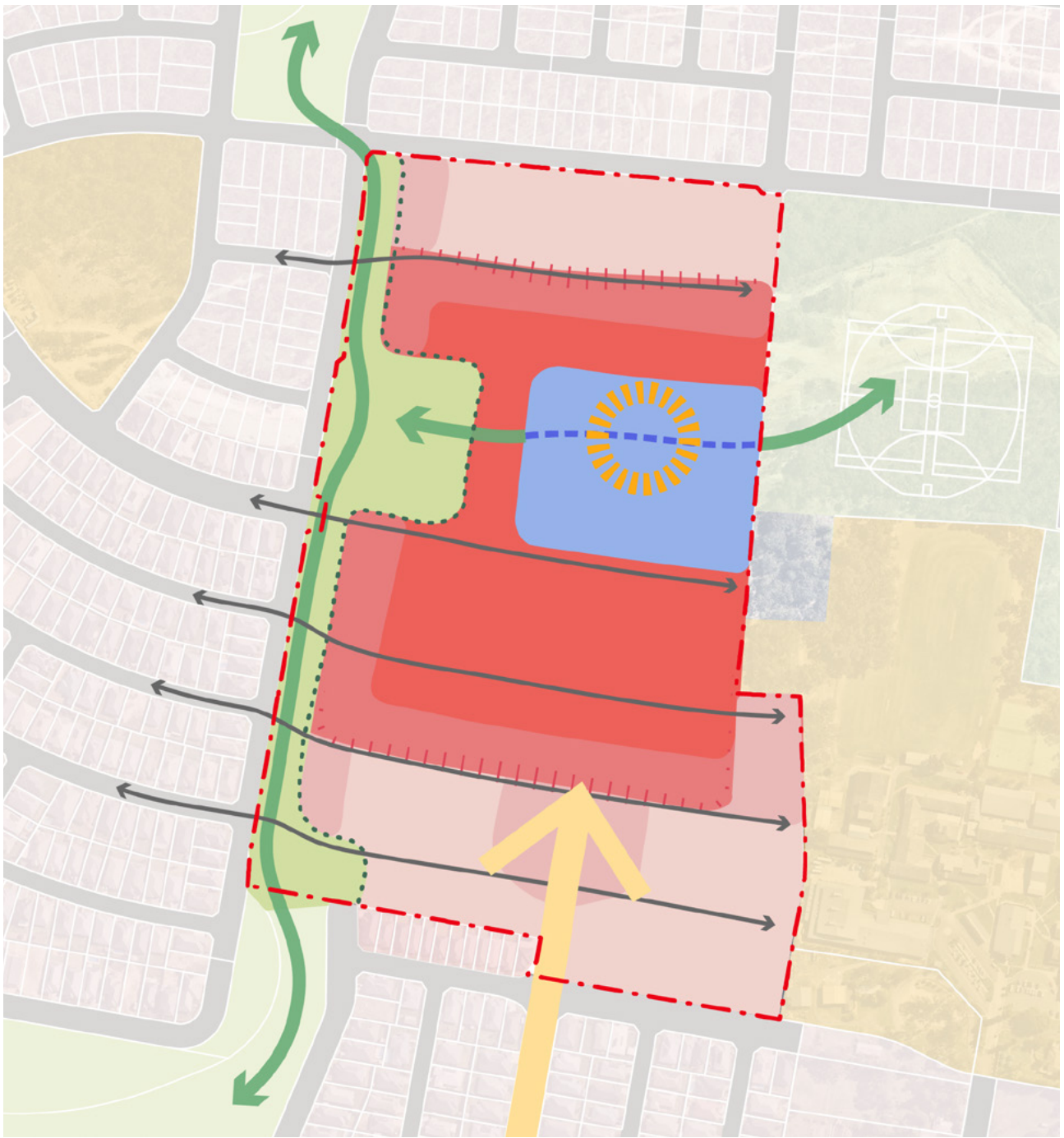
- Contribute to walkability of the neighbourhood,
- Create a continuity in deep soil and canopy coverage that continues through the suburb,
- Increase the legibility of the town centre as a distinct area within Watagan Park, and
- Provide a landscaped buffer between the predominant medium/large lot detached housing to the west and the proposed town centre.

A pedestrian connection through the retail centre block is also proposed, to connect the active sports precinct to the east of the town centre with the open space network to the west.

Finally, it is proposed that street alignments be made continuous wherever possible, to improve legibility of the network and ensure the town centre is coherent as a distinct place within Watagan Park. Where traffic requirements prevent four-way intersections, streets should still be aligned for pedestrian legibility.



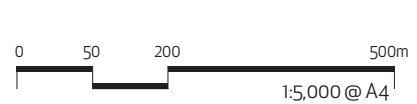
PREVIOUS STRUCTURE PLAN



PROPOSED STRUCTURE PLAN

KEY

- SITE BOUNDARY
- GREEN SPACE
- ↔ OPEN SPACE LINK
- ➔ SENSE OF ARRIVAL
- ALIGNED STREETS
- ||||| SCALE TRANSITION
- FRONTAGE TO PARKS
- ☀ TOWN CENTRE



C.4 SITE PLAN

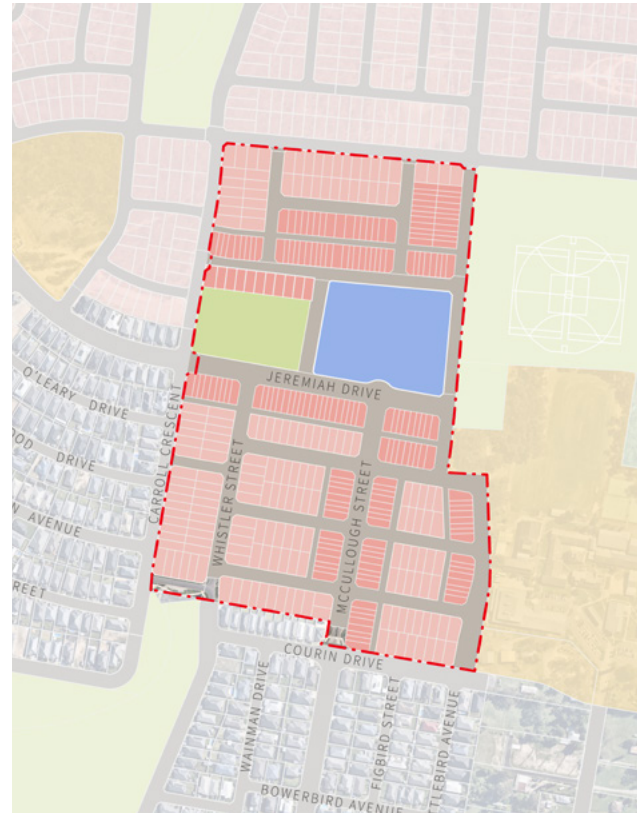
To achieve the design principles in a way that aligns with the structure plan, a new street network and distribution of building typologies is proposed.

Streets are designed to continue the alignments from the network to the west, kinking towards the south in order to facilitate the larger block sizes required for RFBs. Armitage Way is proposed to be replaced further north from its current alignment towards McMahon Ave. Whistler St. is moved east to provide a continuous alignment through to the neighbourhood park and retail centre.

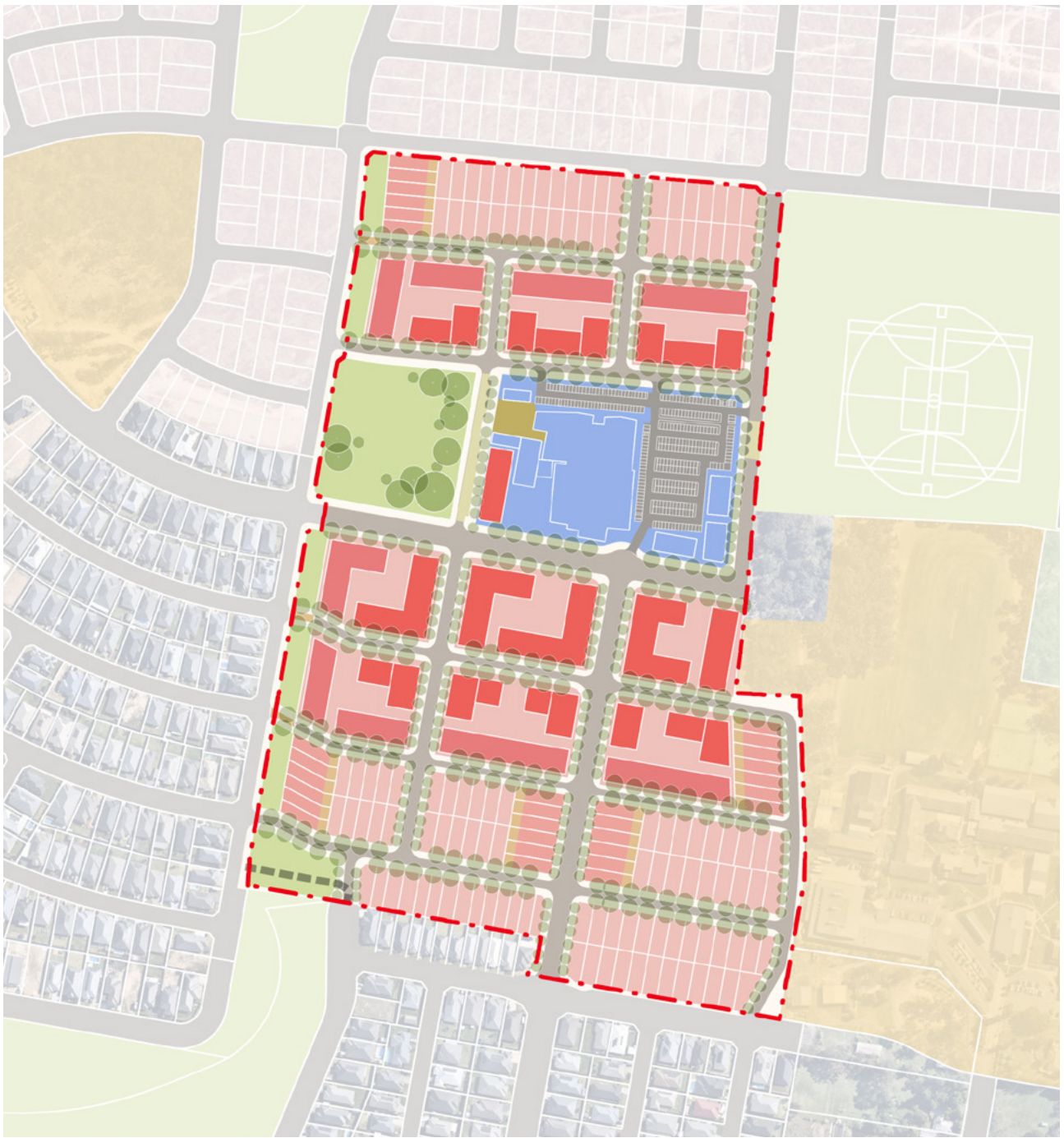
In terms of built form, shoptop and residential flat buildings of 3 to 6 storeys are now identified within and surrounding the retail centre. These buildings will contribute to creating a critical mass of activity within a contained area, as well as increasing housing choice and diversity in an otherwise heterogeneous neighbourhood.

To ensure the town centre is appropriate to its lower density context, the scale of buildings are reduced to create a number of transition zones. Along the north and south perimeters of the RFB blocks, the plan shows a row of 3-storey units or strata townhouses that will provide a height step before lower scale 1-2 storey small lot detached housing proposed across the street. Beyond this (outside of the planning proposal area), the density steps down again to 1-2 storey medium-to-large lot detached housing.

As described under the Structure Plan, the linear green spine performs a the transition function to the west, managing the points where only one scale step is provided from 6 down to 3 storey RFBs. The green spine then divides and screens this from the lower scale detached housing on the opposite side of Carroll Crescent. Low-rise apartments, strata townhouses and torrens titled townhouses are proposed along the green spine so that front doors - rather than side fences - face onto it, contributing to its safety, feel and visual quality.



PREVIOUS SITE PLAN



PROPOSED SITE PLAN

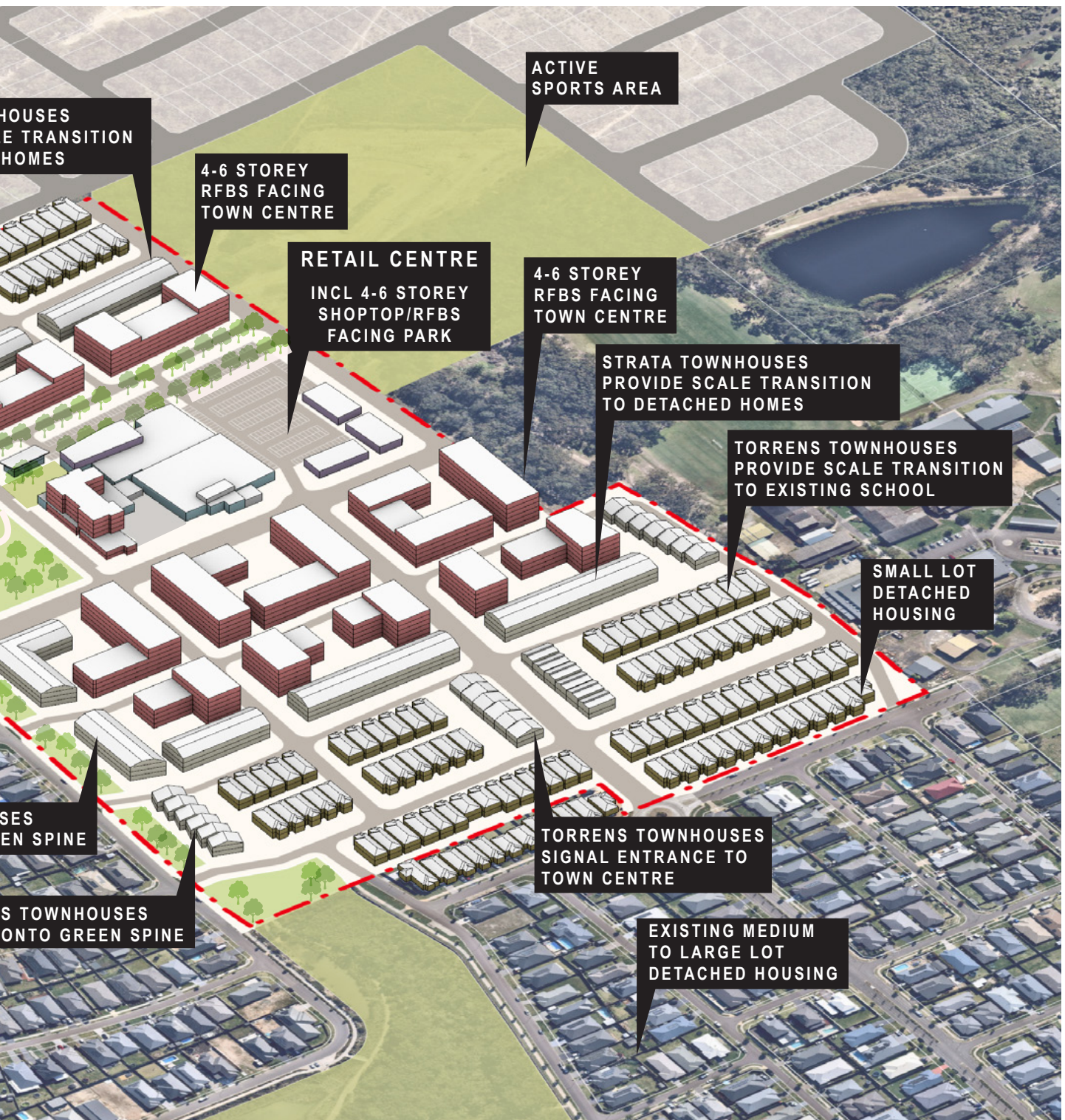
KEY

- SITE BOUNDARY
- GREEN SPACE
- RETAIL PLAZA
- RETAIL CENTRE
- RFB INNER RING
- STRATA TOWNHOUSES
- TORRENS TOWNHOUSES
- SMALL LOT DETACHED HOUSING



This aerial map illustrates the proposed development for the Torrens Valley Urban Renewal Project. The map features several key areas and facilities, each labeled with a callout box:

- STRATA TOWNHOUSES PROVIDE SCALE TO DETACHED HOUSING:** Located in the upper right corner, showing a row of townhouses adjacent to detached housing.
- SMALL LOT DETACHED HOUSING:** Located in the upper right corner, showing a row of detached houses.
- STRATA TOWNHOUSES FACING ONTO GREEN SPINE:** Located in the upper middle, showing a row of townhouses facing a central green spine.
- TORRENS TOWNHOUSES FACING ONTO GREEN SPINE:** Located in the lower middle, showing a row of townhouses facing a central green spine.
- STRATA TOWNHOUSES FACING ONTO GRE:** Located in the lower right, showing a row of townhouses facing a central green spine.
- TORREN FACING:** Located in the lower right, showing a row of townhouses facing a central green spine.
- FUTURE SCHOOL SITE:** A large yellow triangular area in the center of the map.
- NEIGHBOURHOOD CENTRE (CHPT D):** A red rectangular building located near the future school site.
- FUTURE LOCAL PARK:** A green area with trees located near the future school site.
- FUTURE MEDIUM TO LARGE LOT DETACHED HOUSING:** A large area in the upper left corner, showing a grid of large lots.



C.6 BUILDING HEIGHTS

To deliver on the structure plan and the design principle of 'Transition', a range of building heights are proposed ranging from 1-2 storey detached dwellings up to 4-6-storey residential flat buildings. As described elsewhere in this report, the height differences have been designed to provide step changes up from the lower density surroundings to the higher intensity of land use around the town centre.

The maximum 6-storey height of the residential flat (and shoptop) buildings have been proposed as an appropriately mid-rise typology for a generally low scale area. At 6-storeys, the uppermost floor is still within the 'human scale' of being able to provide eyes on the street without blocking views to the sky, yet provides the floor space sufficient to overcome increased construction costs that are triggered at 4-storeys and above.

Under the National Construction Code, any residential building with a rise in storeys of 3-storeys or more (that is, a building 4-storeys or higher, including any semi-basement levels if they are more than 1m above ground) triggers increased fire protection requirements including sprinklers. It is also considered the height where an elevator is considered essential*. This means there is typically a significant jump in the cost of construction of a four storey building compared to a three storey one; a cost jump that then applies to all the storeys below the fourth storey as well.

Adding a fourth storey on a building can therefore result in reducing the overall development margin when compared to a three storey building, despite the additional units provided. Typically, then, residential flat buildings jump from 3-storeys to 5 or 6 storeys in height, in order to average the increased construction cost over a greater number of apartments.

The section diagram on the next page illustrates this principle:

A) 1-3 storey buildings have relatively low construction costs.

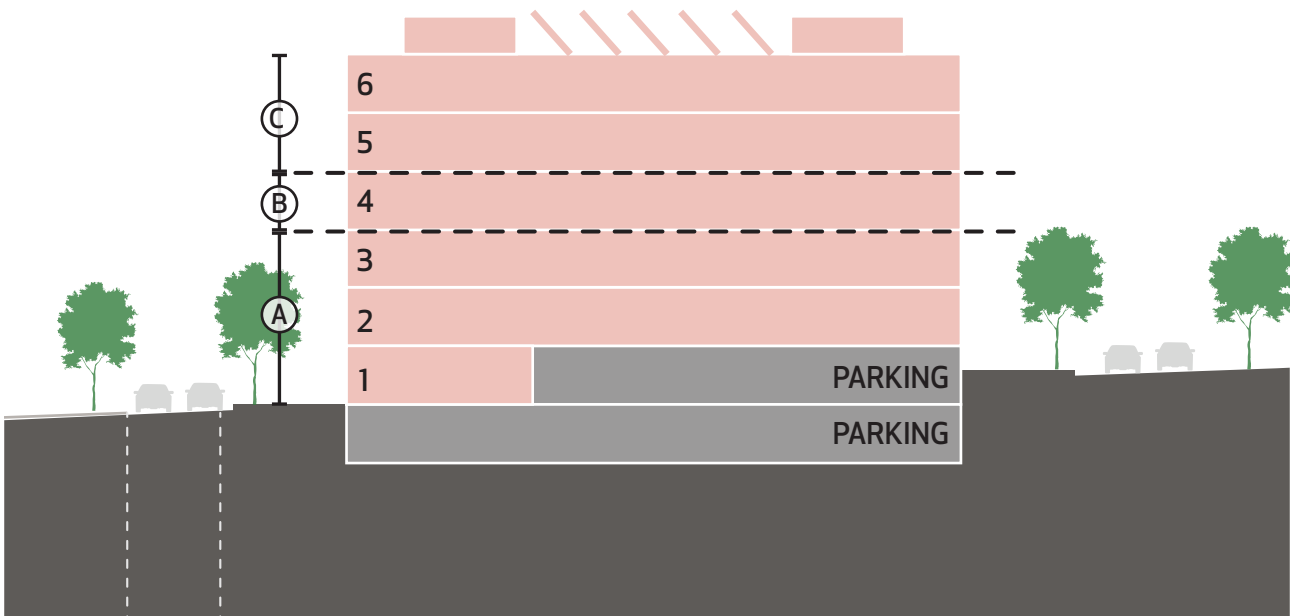
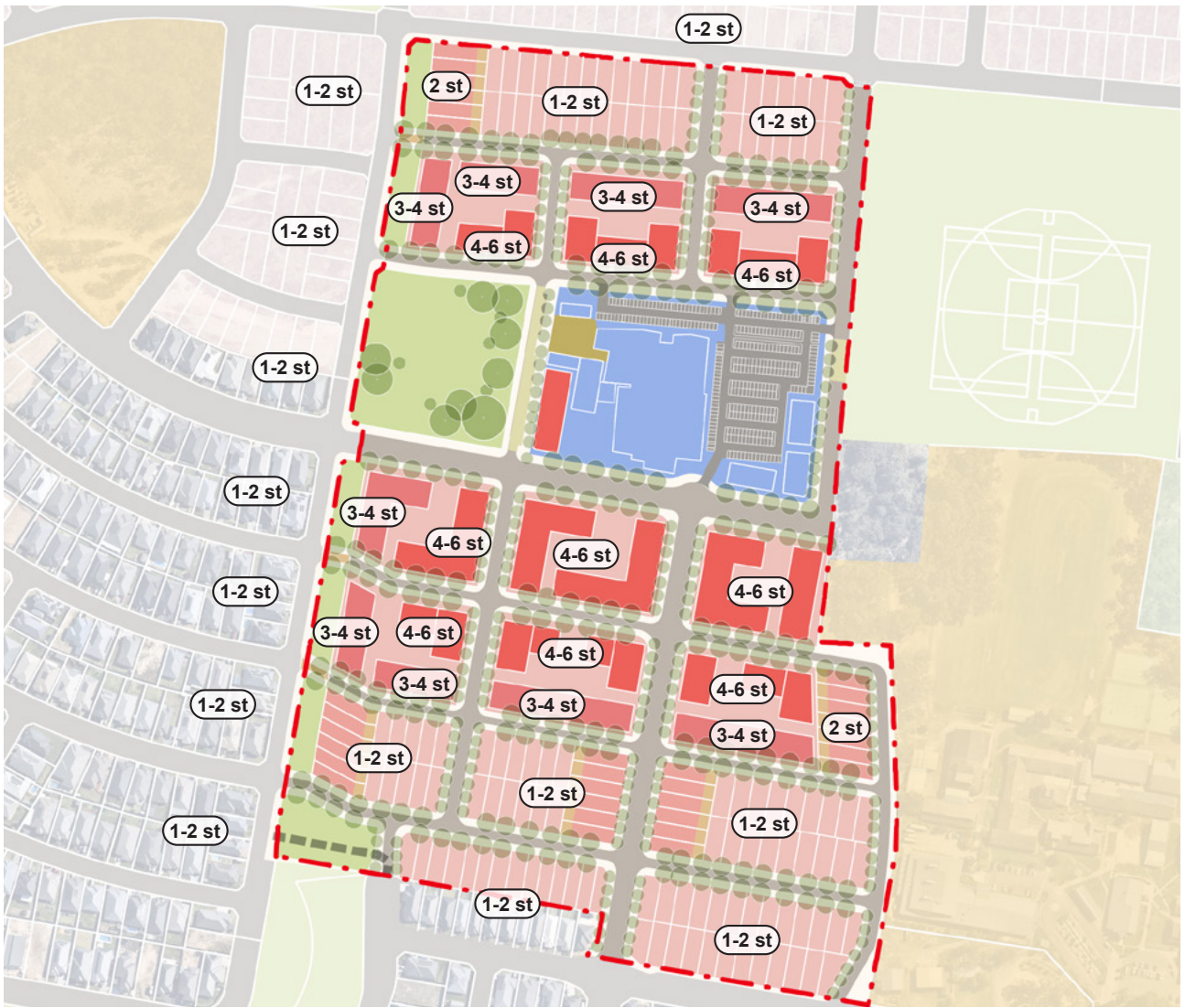
B) At 4-storeys, higher construction costs are triggered across the whole building. This can make a 4-storey building unviable if the sales value of the apartments on the extra floor do not cover the increased development cost.

C) Consequently, buildings in the higher construction cost bracket are more typically 5 or 6 storeys, or higher.

The next 'jump' in construction costs is between 8 and 10 storeys.

Note that this is a simple description, and development feasibilities as well as construction costs are complex. The cost of home builders insurance required in NSW, for example, differs according to the size and track record of the contractor, meaning the availability of large contractors in an area (or lack of) can either make a fourth storey unviable or demand it.

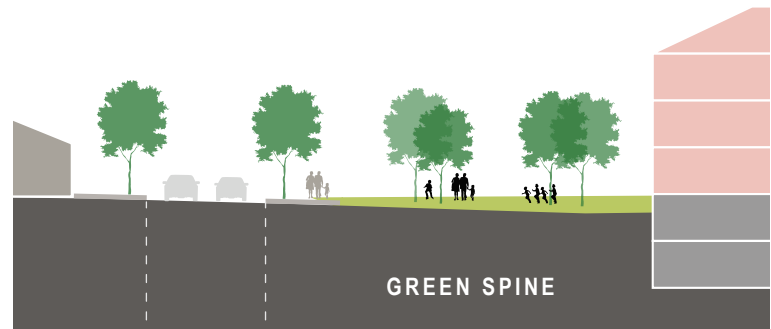
**Essential here referring to market demand. Principles of universal accessibility would demand an elevator to any apartment without an alternative accessible part of travel, whatever the height.*



C.7 SCALE TRANSITION

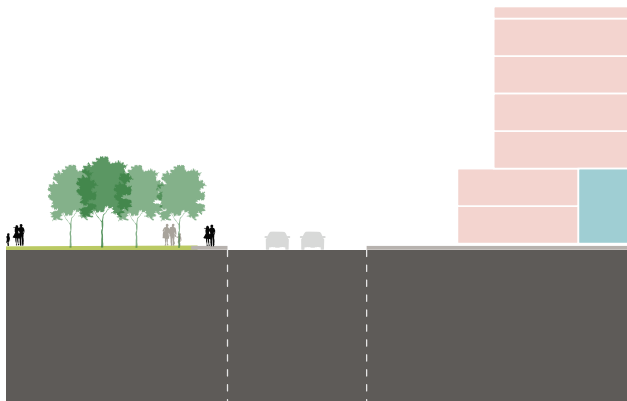
This page shows snapshots of the changes in building scale and typology used to transition between the higher intensity uses of the Town Centre down to the low-rise detached housing surrounding it.

The pages that follow show the longer sections across the site that these snapshots are taken from.



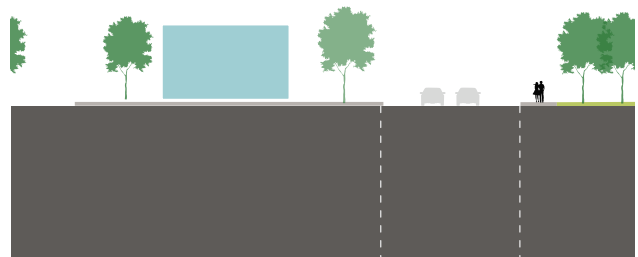
STRATA TOWNHOUSES FACING GREEN SPINE

Rear & basement entries with living rooms and patios facing onto the Green Spine.



RETAIL CENTRE FACING PARKS TO EAST & WEST

The central neighbourhood park to the west of the retail centre is large enough that buildings do not need to transition in scale along it. The passive surveillance provided by apartments facing the park will provide a safety benefit without significant overshadowing.



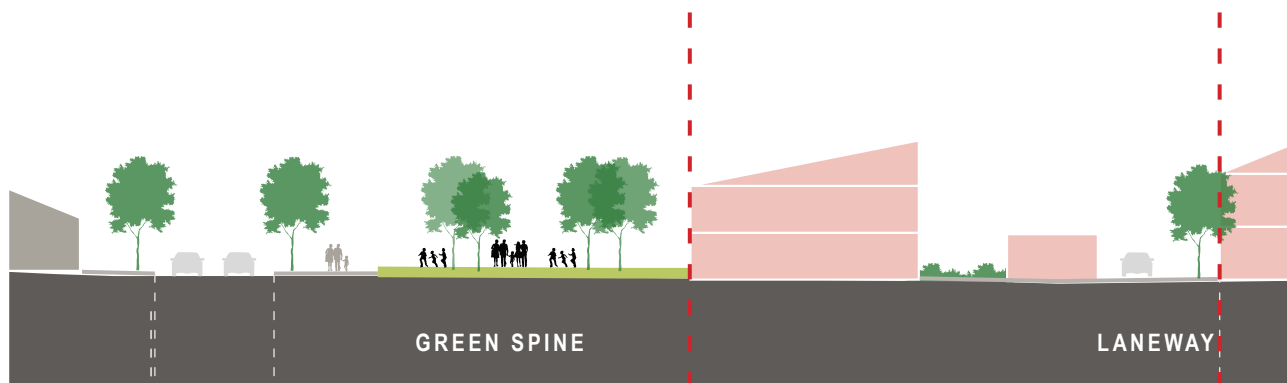
RETAIL CENTRE FACING ACTIVE SPORTS PRECINCT

The retail centre's surface car park faces the active sports precinct to the east, and it is proposed that low-rise retail/commercial buildings are built to partially screen it.

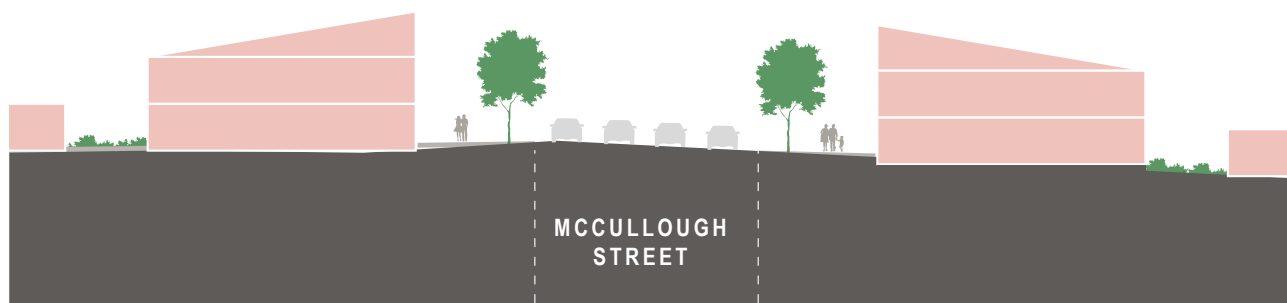


SCALE TRANSITION THROUGH TYPOLOGY CHANGE

This long section illustrates how buildings step down from 6-storey RFBs through to existing detached dwellings.

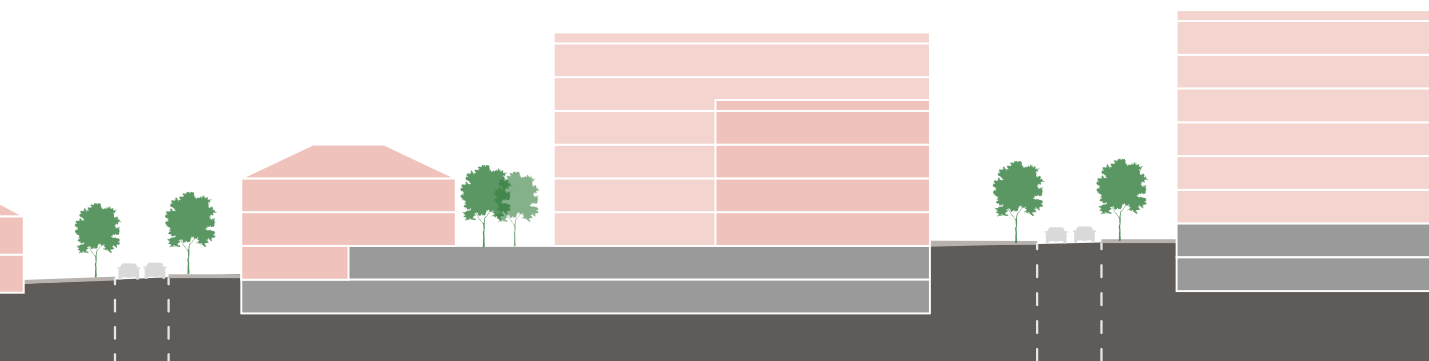


TORRENS TOWNHOUSES *Utilisation of title easements to provide access to rear garages, allowing townhouses to present front doors rather than side fences onto the Green Spine.*

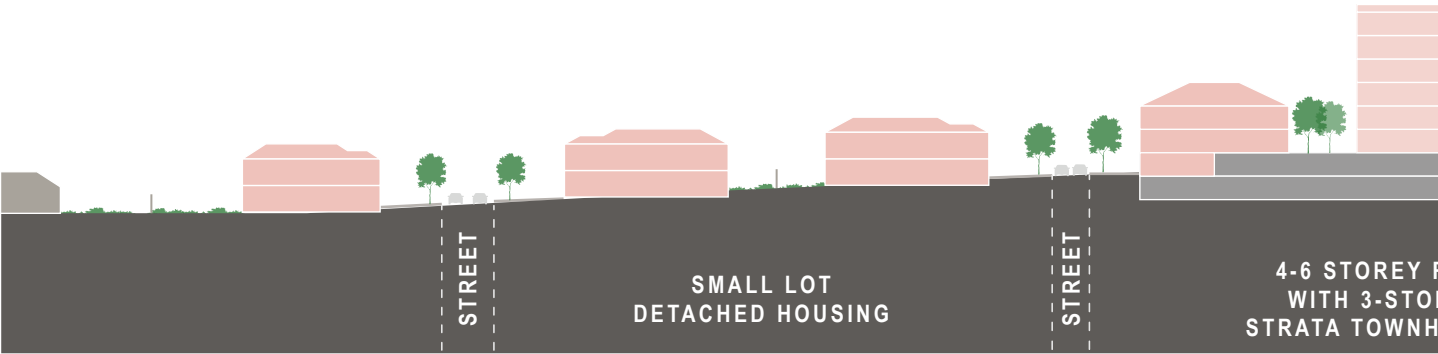
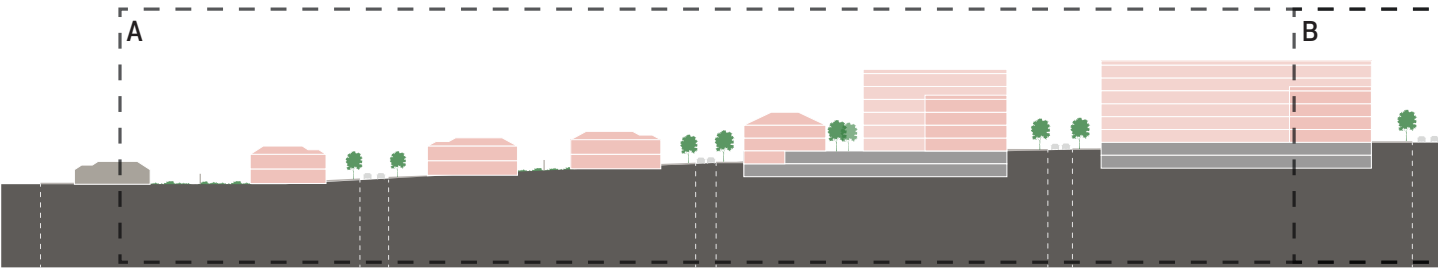


TORRENS TOWNHOUSES FACING MCCULLOUGH STREET

Similarly to the previous image, the use of rear lanes in easements allow townhouses to be positioned facing onto McCullough St to provide a framing gateway into the higher intensity areas of the town centre.



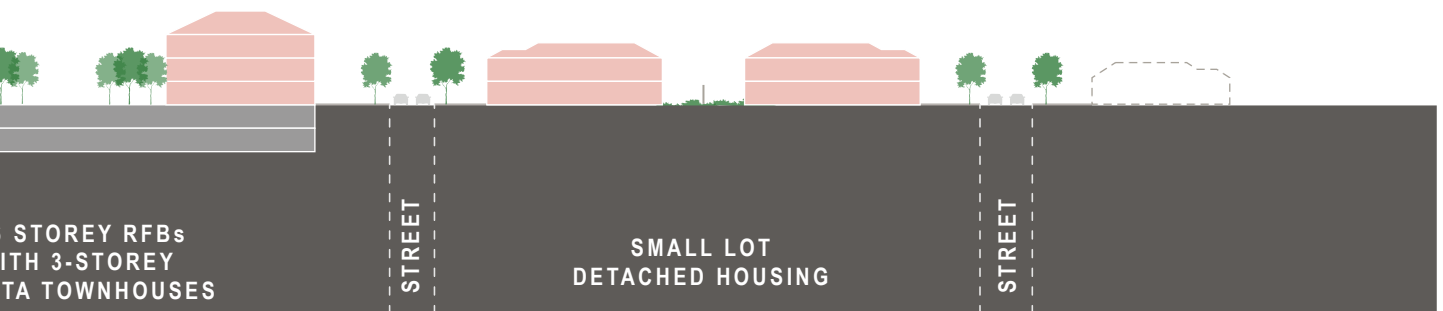
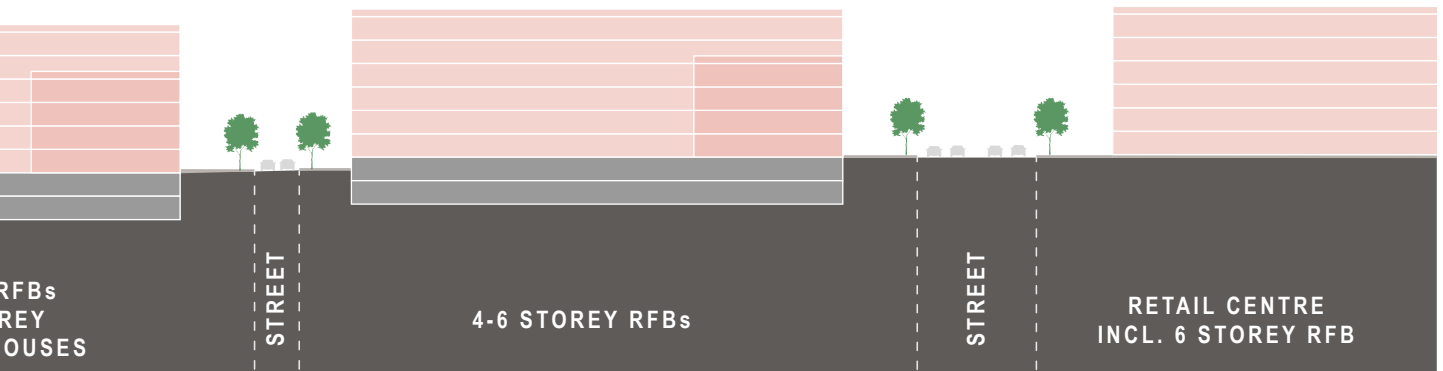
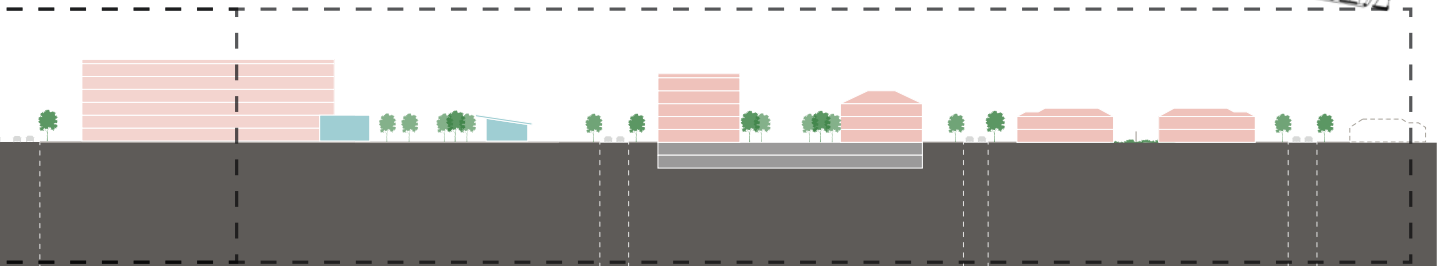
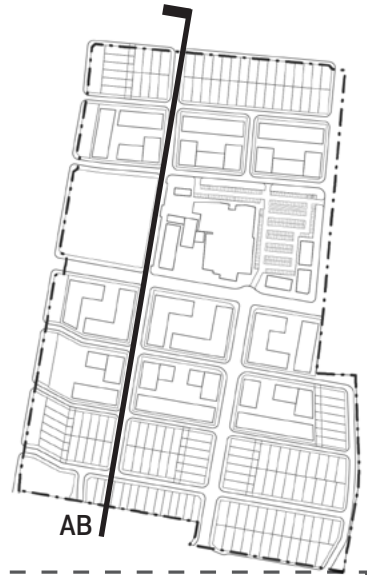
C.8 NORTH-SOUTH INDICATIVE SITE SECTIONS



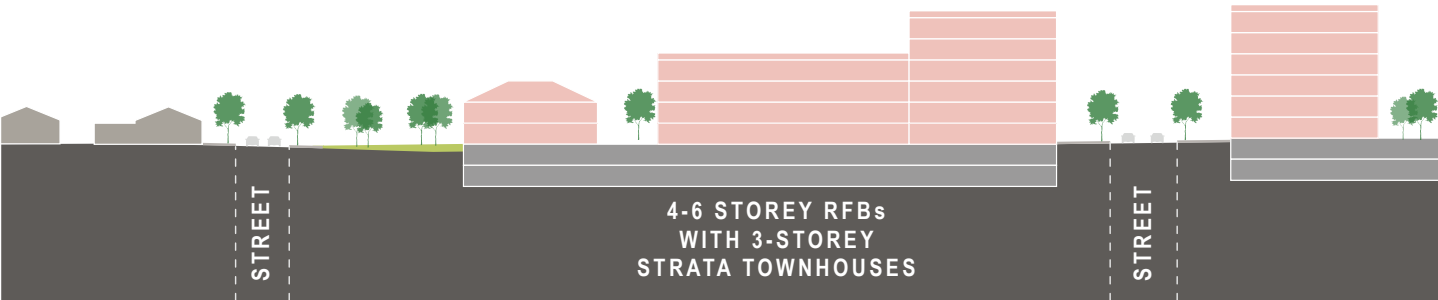
SECTION A



SECTION B



C.9 EAST-WEST INDICATIVE SITE SECTIONS



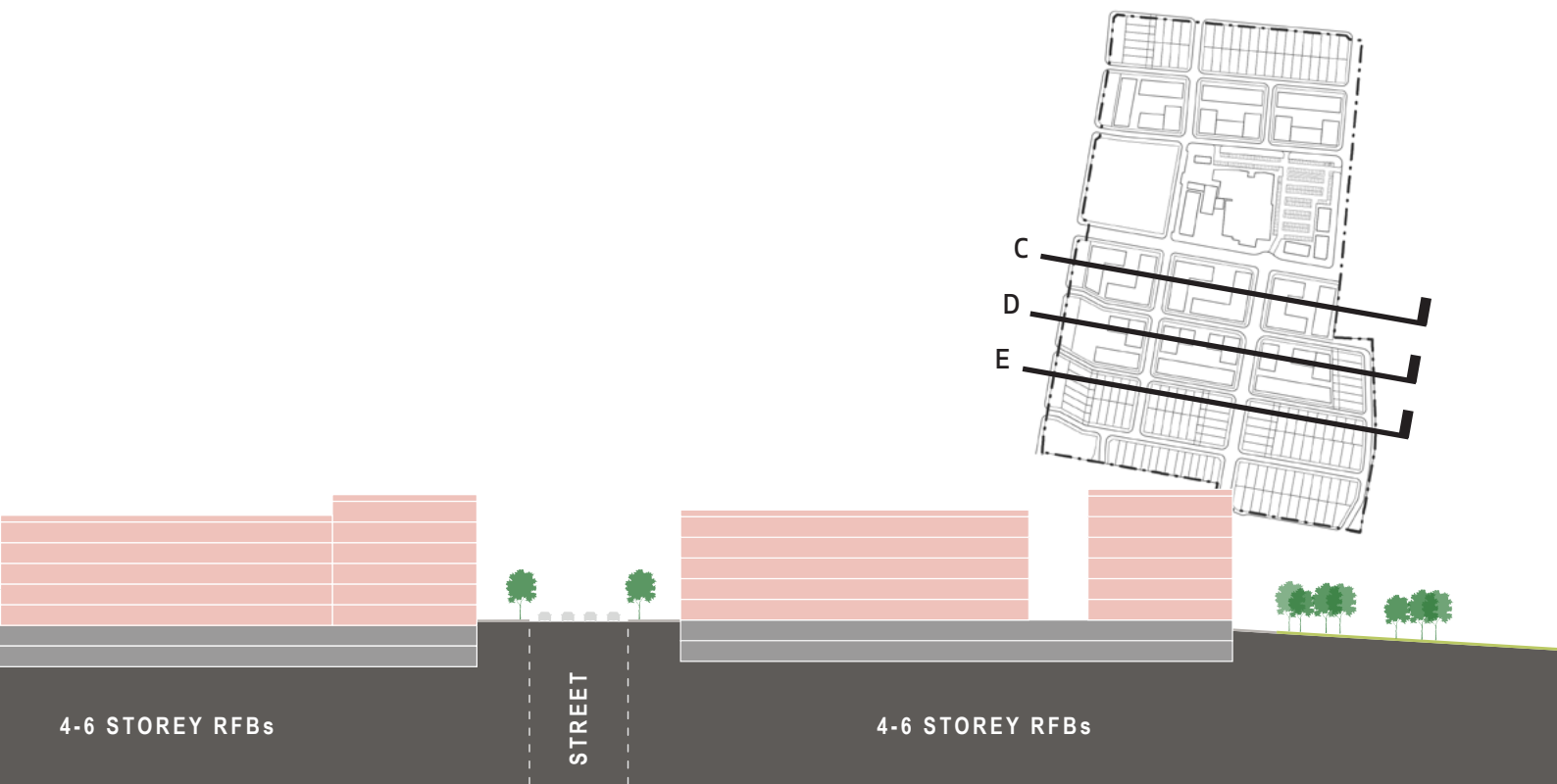
SECTION C



SECTION D



SECTION E



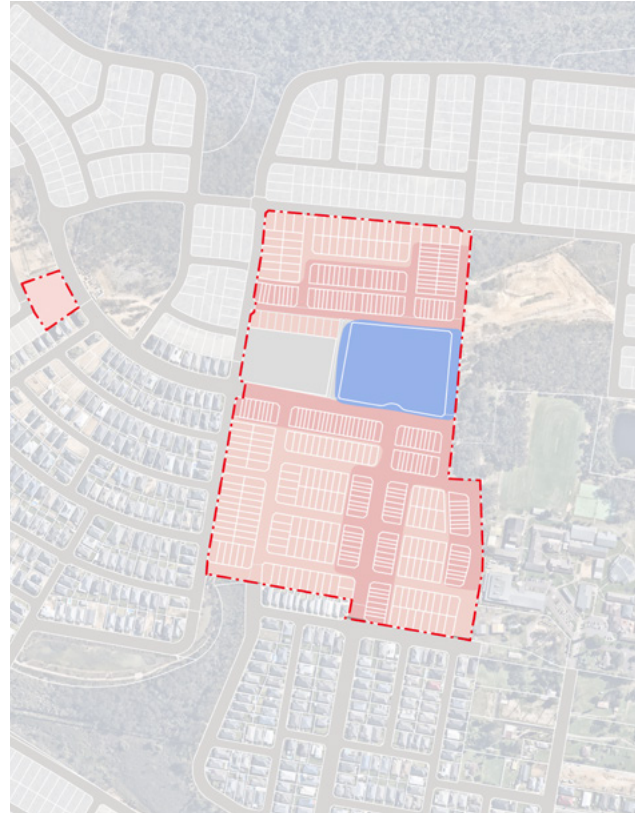
C.10 TOWN CENTRE CHARACTER: BUILDINGS

As described above, a suite of building typologies are proposed to be introduced to Watagan Park in its town centre, providing a variety and vibrancy beyond the current predominance of medium-to-large detached housing:

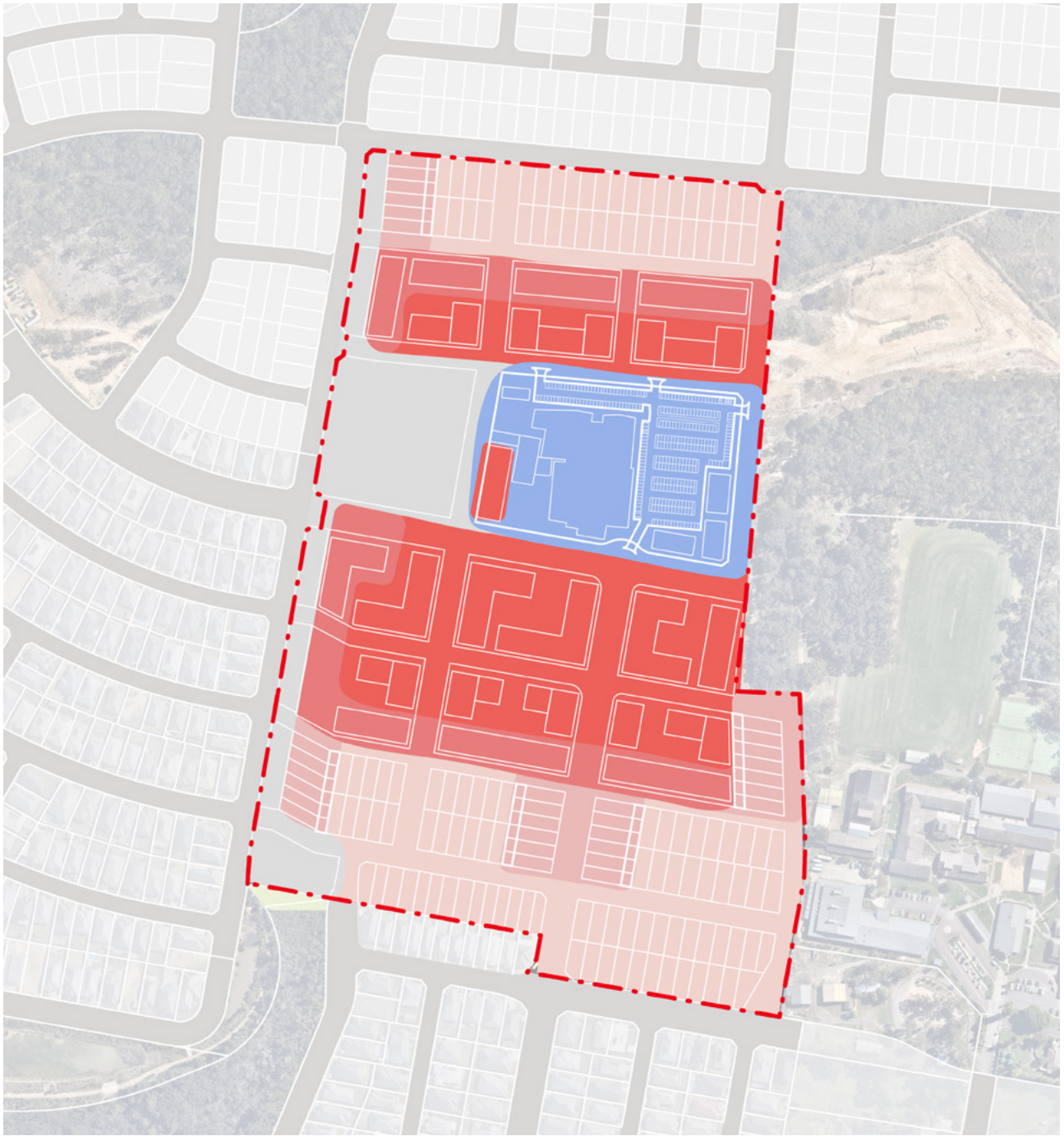
- A neighbourhood retail centre, with a full-line supermarket anchoring a number of specialty shops and cafés. A development application is currently being prepared for this component, which will comply with the existing statutory framework.
- RFBs of up to 6-storeys which will be associated with the neighbourhood retail centre.
- Residential flat buildings of up to 6-storeys surrounding the neighbourhood retail centre and its housing.
- Strata-titled townhouses of up to 3-storeys associated with the RFB blocks - or a similar-scaled apartment product.
- Torrens-titled townhouses of 2-storeys, using access easements over the lots to provide rear-lanes to off-street garages.
- Small-lot detached housing of 1-to-2 storeys.

The pages that follow provide a precedent example of each building typology, with a brief description of its relevance to Watagan Park.

In comparison, the previous master plan proposed the small-lot detached housing, the neighbourhood retail centre without any associated housing, and a much greater extent of torrens-titled townhouses.



PREVIOUS DISTRIBUTION OF BUILDING TYPOLOGIES



PROPOSED DISTRIBUTION OF BUILDING TYPOLOGIES

KEY

-  SITE BOUNDARY
-  RESIDENTIAL FLAT BUILDINGS
-  STRATA TOWNHOUSES
-  TORRENS TOWNHOUSES
-  SMALL LOT DETACHED HOUSING
-  RETAIL CENTRE





RESIDENTIAL FLAT BUILDINGS

The major typology change in this proposal is the introduction of residential flat buildings of up to 6-storeys. As identified, this is being done to introduce a critical mass of activity to create vibrancy in the town centre.

The RFBs are proposed to be variable in height and footprint, with portions of each building at 4-5 storeys to allow more sun into streets and communal courtyards. At the tallest points of 6-storeys, the RFBs are still at a human scale where there are easy visual connections between the uppermost level and the street.

Pictured: Arkadia, Erskineville NSW



STRATA TOWNHOUSES

Within the same lots as RFBs, strata-titled townhouses are proposed to provide a transition in scale towards the torrens townhouses and small-lot housing. These are designed to share basement parking and loading with the RFBs, with enclosed garages within the basement providing a stair entry into each townhouse from below. Each townhouse will also have a direct street address, contributing to the quality of the surrounding streets.

Note that, depending on market conditions, these townhouses may instead be replaced with low-rise 3-storey apartments. This would result in a similar scale and character, but with a greater number of dwelling units compared to the townhouse model.

Pictured: The Reserve, Zetland NSW

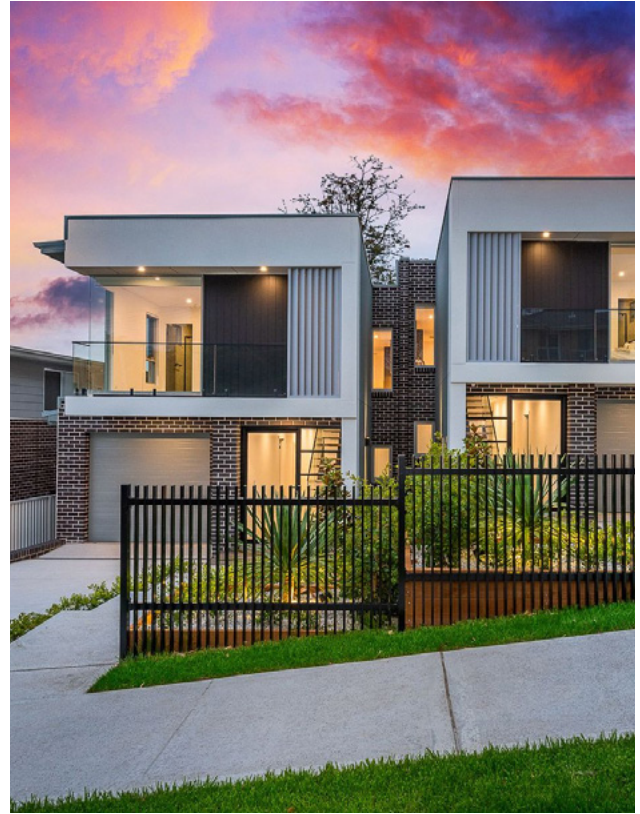


TORRENS TOWNHOUSES

Townhouses with torrens-title are also proposed, providing another density step before housing. These are intended to be rear loaded so they provide only building entrances and front gardens to the public streets and open spaces. Each townhouse has a lock-up garages facing onto a private laneway at the rear.

Lake Macquarie Council has communicated that they do not currently support public ownership or maintenance of service laneways, so the lanes are proposed to be delivered via easements on each title, with residents contributing to maintenance costs. This model limits the number of townhouses able to be supported, so they are only identified at the end of blocks.

Pictured: Trinity Point Townhouses, Lake Macquarie Point, NSW (Johnson Property Group)



SMALL-LOT HOUSING

The remainder of the planning proposal area is identified for small-lot housing. With the area proposed to remain being zoned R3 Medium Density, semi- and detached housing is permitted with lot sizes of 200-450sqm. This housing is expected to be two-storey, although recent developments in this area have been single-storey.

This will provide a further density step before the larger lot, detached homes that will surround the town centre.

Pictured: Dundas Valley, NSW

C.11 PROPOSED OPEN SPACE & ACTIVE TRANSIT NETWORK

The proposed master plan concept includes a number of distinct open spaces, each contributing to the overall town centre in a different way:

- A central neighbourhood park of approximately 1.3ha is positioned alongside the western edge of the retail centre, bounded by four public streets. This provides adequate room for local passive recreation as well as a children's playground, picnic and barbeque facilities (as pre-determined by the relevant Planning Agreement in place).
- A town square ringed with cafés/specialty retail will provide a more active, retail-oriented public space.
- A green spine runs the length of the study area's western boundary, conceived as a widened landscape area within the road reserve that will visually can physically link into the conservation areas at its north and south.

The pages that follow provide a precedent example for each open space typology, with a brief description of its relevance to Watagan Park.

These open spaces will complement an expanding active transport network within Watagan Park. Significant shared paths have already been delivered, with extensions along the conservation areas and main streets approved under existing development consents..

The current Planning Proposal area will provide key connections between these developing links, in particular:

- A north-south shared path through the green spine along the western edge of the town centre area, connecting with the east-west shared path between the existing and future school sites.
- An additional east-west open-air through-site link through the retail centre connecting the green spine to the active sports area on the east to the town square and neighbourhood park.
- Extension of the shared path link along Jeremiah Drive from the future primary school to the west through to the active sports area on the east.

The completed active transport network will directly connect all residents in the planning proposal area to two schools, two neighbourhood parks, a neighbourhood retail centre and an active sports area.

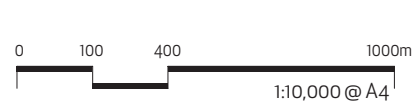


KEY

- - - SITE BOUNDARY
- EXISTING SHARED PATH
- - - FUTURE SHARED PATHS OUTSIDE OF PLANNING PROPOSAL AREA
- - - FUTURE ACTIVE TRANSPORT LINKS WITHIN PLANNING PROPOSAL AREA
- OPEN SPACES
- SCHOOLS
- CONSERVATION AREAS

POINTS OF INTEREST

1. Future Local Park (Under Construction)
2. Future Primary School
3. Future Neighbourhood Park
4. Future Retail Plaza (DA Submitted)
5. Future Retail Centre (DA Submitted)
6. Future Active Sports Area
7. Existing Avondale School

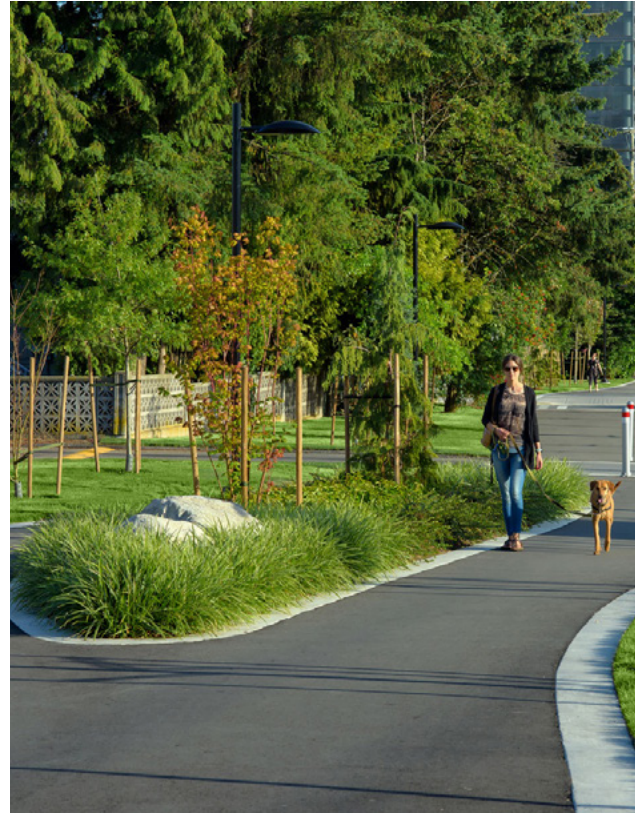




NEIGHBOURHOOD PARK

The main public open space proposed for the town centre remains the central neighbourhood park. This 1.3ha park will accommodate toilet facilities, a children's district level playground (meeting the key needs and abilities of children in the 4-12 year age group), picnic and barbeque facilities, shared and general pathways, shade and dense landscape planting.

Pictured: Gathering Place, Tulsa OK USA



GREEN SPINE

As discussed throughout this report, one of the major public benefits proposed in the revised master plan is the introduction of a linear green spine running along the western edge of the town centre. Conceived as a landscaped component of a widened road reserve, this will link the conservation areas to the north and south via the neighbourhood park, creating a continuity in deep soil and canopy coverage that will encourage walkability, help establish the town centre as a distinct location within Watagan Park, and provide a transitional function between the different densities on either side.

Pictured: Willingdon Linear Park, Vancouver Canada



TOWN SQUARE

An additional semi-public open space is proposed within the retail centre lot. This approximately 30x30m space is designed to be large enough to feel public but intimate enough to activate shopfronts on three sides.

Pictured: Rouse Hill Town Centre, NSW



RETAIL PATH

As the retail centre sits between the central neighbourhood park to the west and the active open space precinct to the east, an open air retail pathway is proposed to link the two. This will be tree-lined on one or both sides, with shopfronts facing onto the pathway. The path is intended to provide an all-hours public link between these open spaces without requiring walking through the interior mall area of the retail centre.

Pictured: Edmonson Square, NSW

C.12 INDICATIVE SHADOW DIAGRAMS

Shadow diagrams of the indicative envelope massing show that there is not expected to be any significant overshadowing of the park nor the surrounding properties.





Shadow Diagram, 9am June 21st



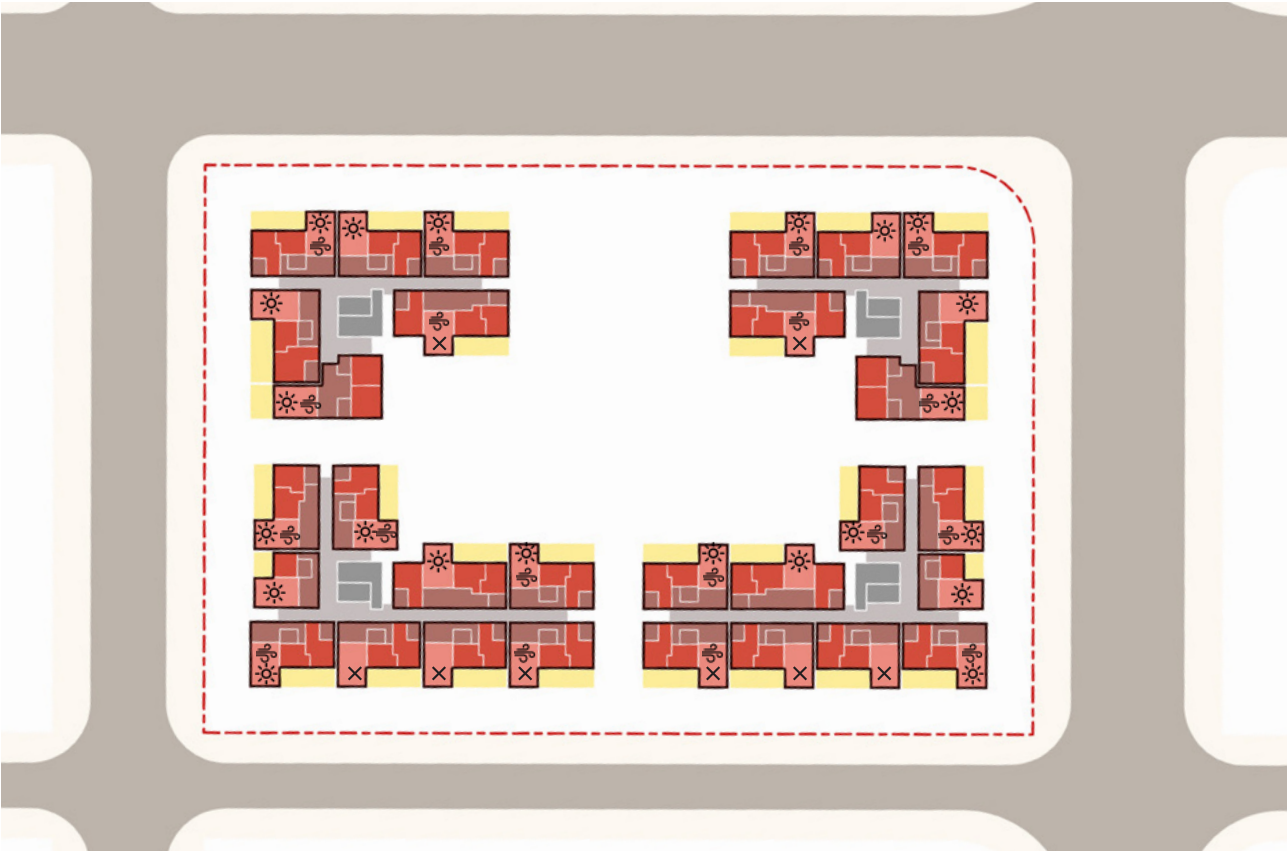
Shadow Diagram, 12pm June 21st



Shadow Diagram, 3pm June 21st

C.13 INDICATIVE ADG COMPLIANCE









To test solar access, and to test cross-ventilation, indicative floor layouts of each level were drawn. These confirm ADG compliance is achievable in this format.

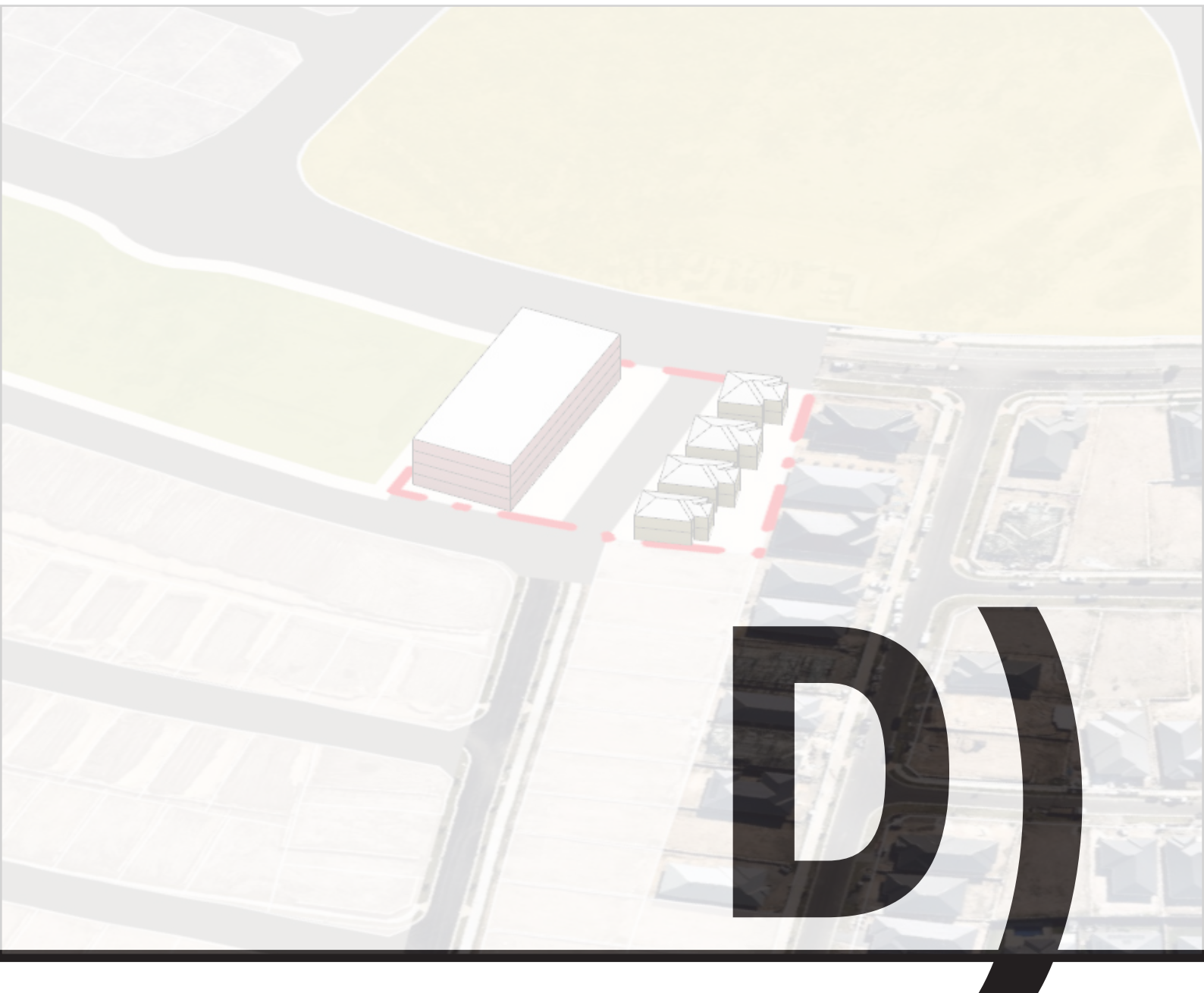


TYPICAL FLOOR PLAN



KEY

-  SITE BOUNDARY
-  LIVING
-  BEDROOM
-  OTHER SPACES
-  PRIMARY OPEN SPACE
-  CROSS-VENTILATED
-  2 HOURS DIRECT SUNLIGHT
-  NO DIRECT SUNLIGHT (DAYLIGHT ONLY)



This chapter illustrates an indicative master plan for the site currently zoned R2, R3 & B1 Neighbourhood Centre.

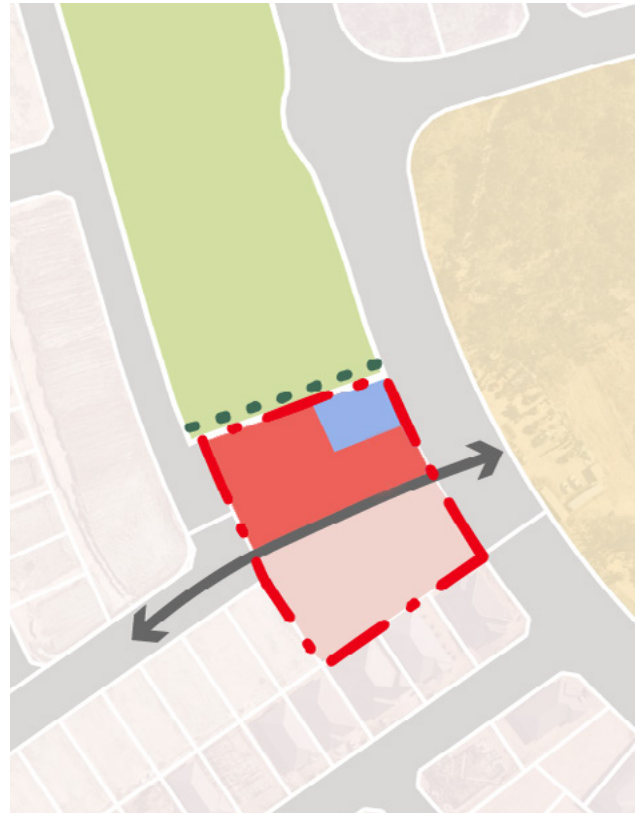
DESIGN PROPOSAL: NEIGHBOURHOOD CENTRE

D.1 STRUCTURE PLAN









The second site covered by this planning proposal is a small area immediately south of Watagan Park's Local Park North. It is currently zoned B1 Neighbourhood Centre in its northeast corner, with R2 Low Density and R3 Medium Density filling the rest of the site. This sets its current structure plan: a small retail component on the edge of the park opposite the proposed primary school, surrounded by medium density housing.

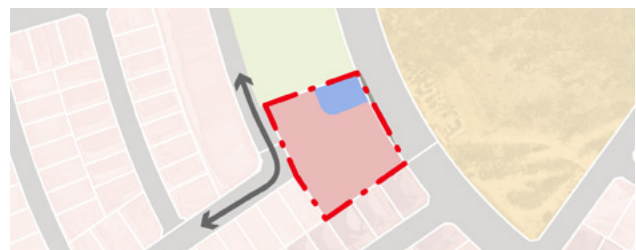
The current planning proposal offers an expanded structure plan that includes the continuation of the street network to subdivide the site in two. The north-east portion remains a small retail component, with the remainder a mix of medium density housing. As will be seen, it is proposed that a low-rise residential flat building be included in the housing component, providing a greater range in density than the previous scheme's intent of exclusively small lot housing.

The introduction of that small density increase is to ensure front patios/balconies face onto the park rather than the rear fences of detached housing. It is also designed to integrate the retail component into a wider development, in order to make it more viable than a free-standing single-use building which is not expected to be delivered.



PROPOSED STRUCTURE PLAN

- KEY**
-  PROPOSED STRUCTURE PLAN SITE BOUNDARY
 -  GREEN SPACE
 -  TORRENS TOWNHOUSES
 -  SMALL LOT DETACHED HOUSING
 -  RETAIL
 -  OPEN SPACE LINK
 -  ALIGNED STREETS
 -  FRONTAGE TO PARKS



PREVIOUS STRUCTURE PLAN

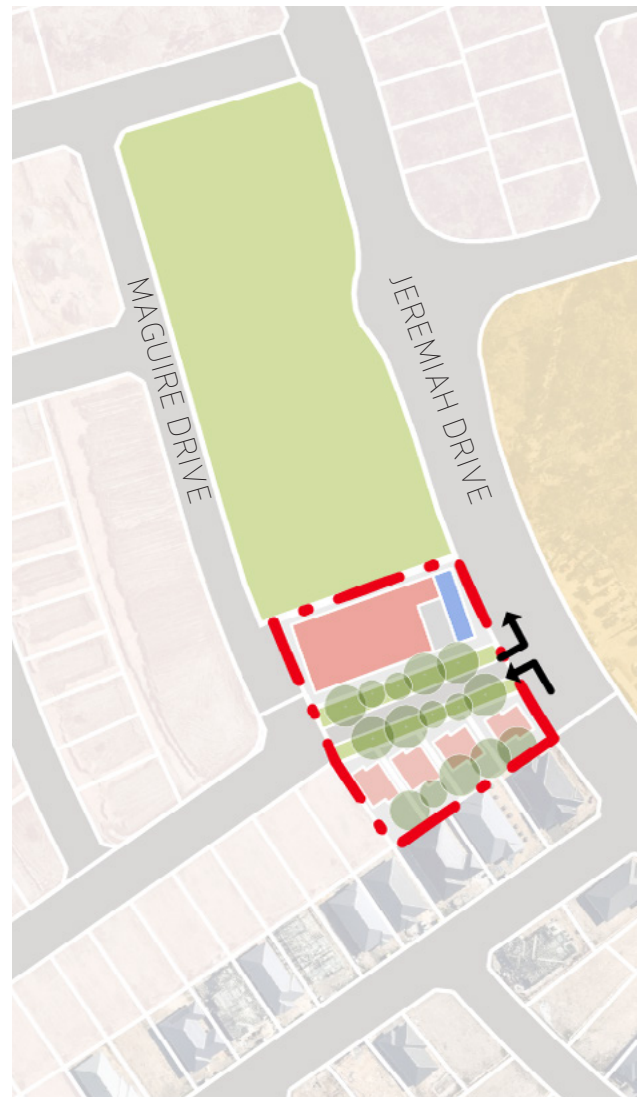
D.2 SITE PLAN

The structure plan for this site translates directly into a simple site plan, showing an extension of the existing street to the southwest to meet Jeremiah Drive to the east as a left-in/left-out intersection.

The new streets creates a distinct northern site, facing onto the park, which is shown with a 3-storey high shoptop/residential flat building (RFB) with basement parking. The ground floor of the RFB is intended to have a retail tenancy facing both onto Jeremiah Drive to the east and onto the park to the north, as well as ground floor dwellings facing onto the park and the extension of Maguire Drive.

The southern site created by the street is shown with small lot semi-detached or detached housing of 1 to 2 storeys in height.

This site plan thus creates a distinct site where a different building typology is appropriate, with the RFB designed to improve the amenity of the park to the north as well as parents and children attending the school to the east. The remaining site area to the south of the new street will merge seamlessly with the lower-density surroundings.



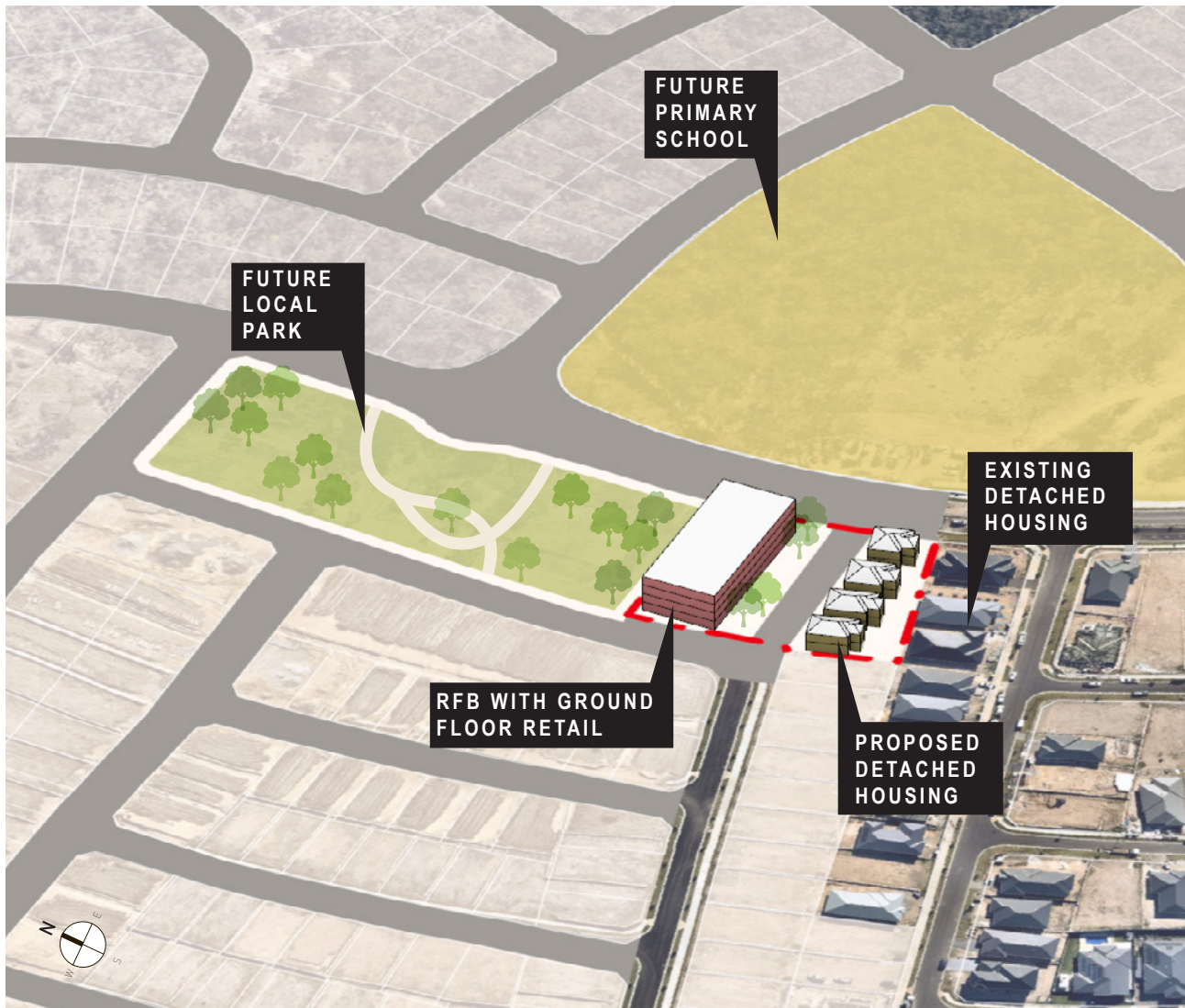
PROPOSED SITE PLAN

KEY

	SITE BOUNDARY
	GREEN SPACE
	RETAIL
	RESIDENTIAL FLAT BUILDING
	SERVICES
	DETACHED HOUSING



D.3 INDICATIVE BUILDING ENVELOPES



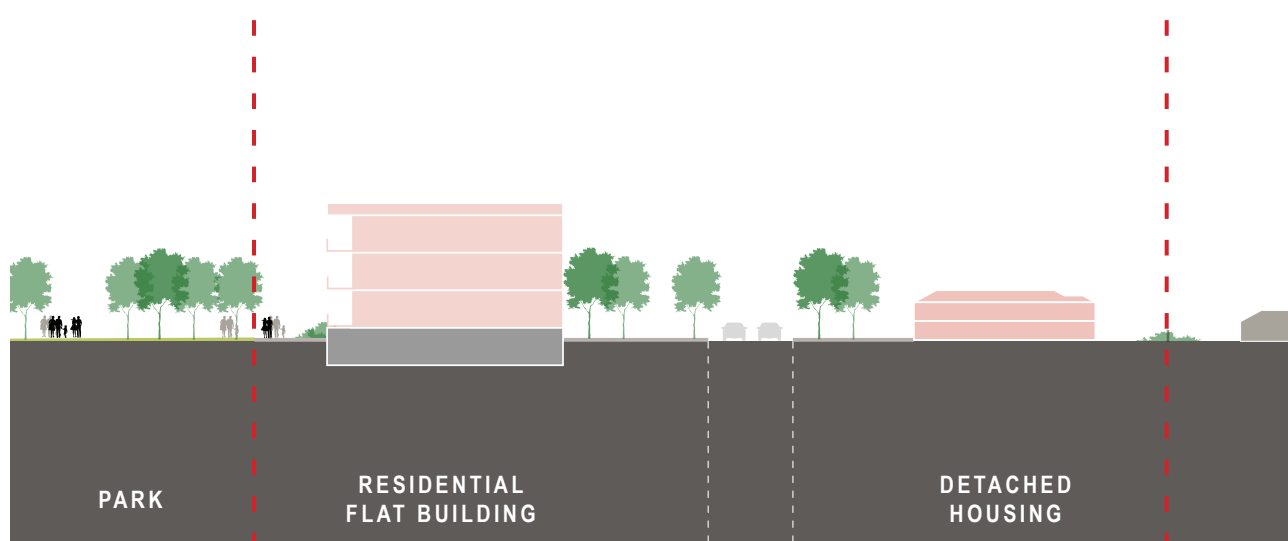
The indicative building envelopes can be seen to be a relatively minor change in building scale: from 1-storey medium-lot detached housing surrounding and within the study area transitioning into a single 3-storey shoptop/residential flat building facing onto the park.

The residential flat building is bounded by an existing street to the west and a newly proposed street to the south, with these streets providing adequate transition to the lower scale surroundings. Another existing street bounds the site to the east, although no transition is needed to the school as its buildings will be of a similar scale.

The park to the north similarly does not require any transition from the 3-storey RFB, as its position on the site means there will be no overshadowing. The RFB will provide passive surveillance and a level of urbanity which will contribute to the character of the park.

The small lot housing is not considered to require any transition to its surrounding neighbours.

D.4 INDICATIVE SITE SECTION



This indicative site section shows the intended relationship between the buildings proposed and the surrounding area.

The 3-storey building residential flat building provides contributory frontage onto the park: with balconies and living rooms facing north into the park. Landscaping between provides the transition between public and private.

The RFB is separated from the small lot housing proposed to the south by a new street. That housing is not considered to require any transition to the medium-to-large lot housing sharing its boundary.

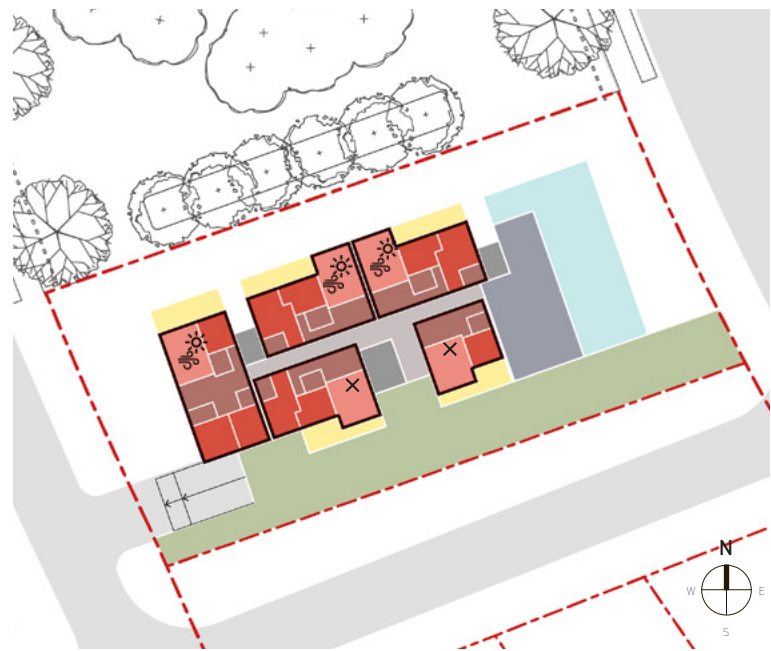
D.5 INDICATIVE SHADOW DIAGRAMS

Shadow diagrams of the indicative envelope massing show that there is not expected to be any significant overshadowing of the park nor the surrounding properties, due to the relatively low scale of the building typologies proposed.



D.6 INDICATIVE ADG COMPLIANCE

To test solar access, and to test cross-ventilation, indicative floor layouts of each level were drawn. These confirm ADG compliance is achievable in this format.



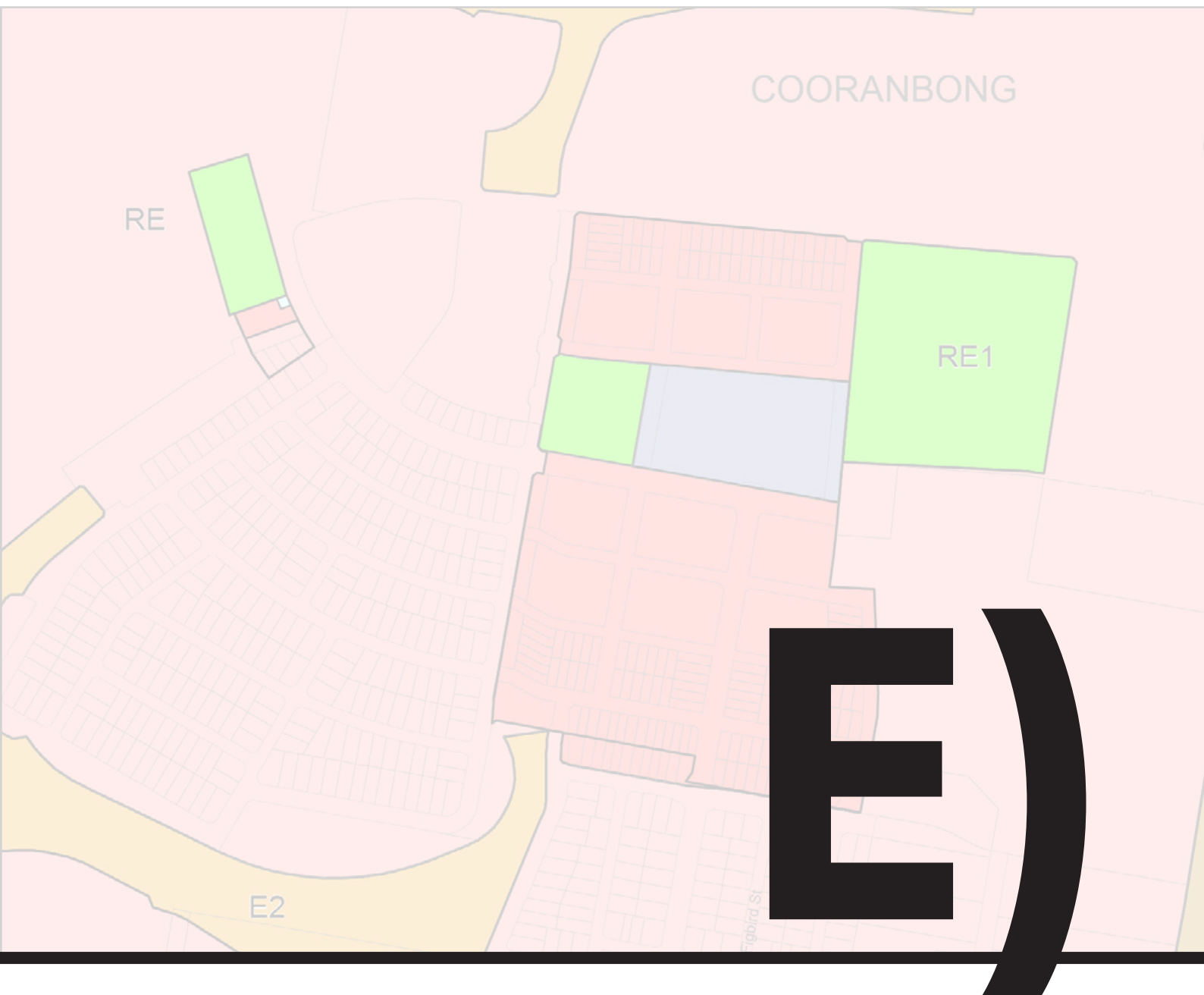
GROUND PLAN

KEY

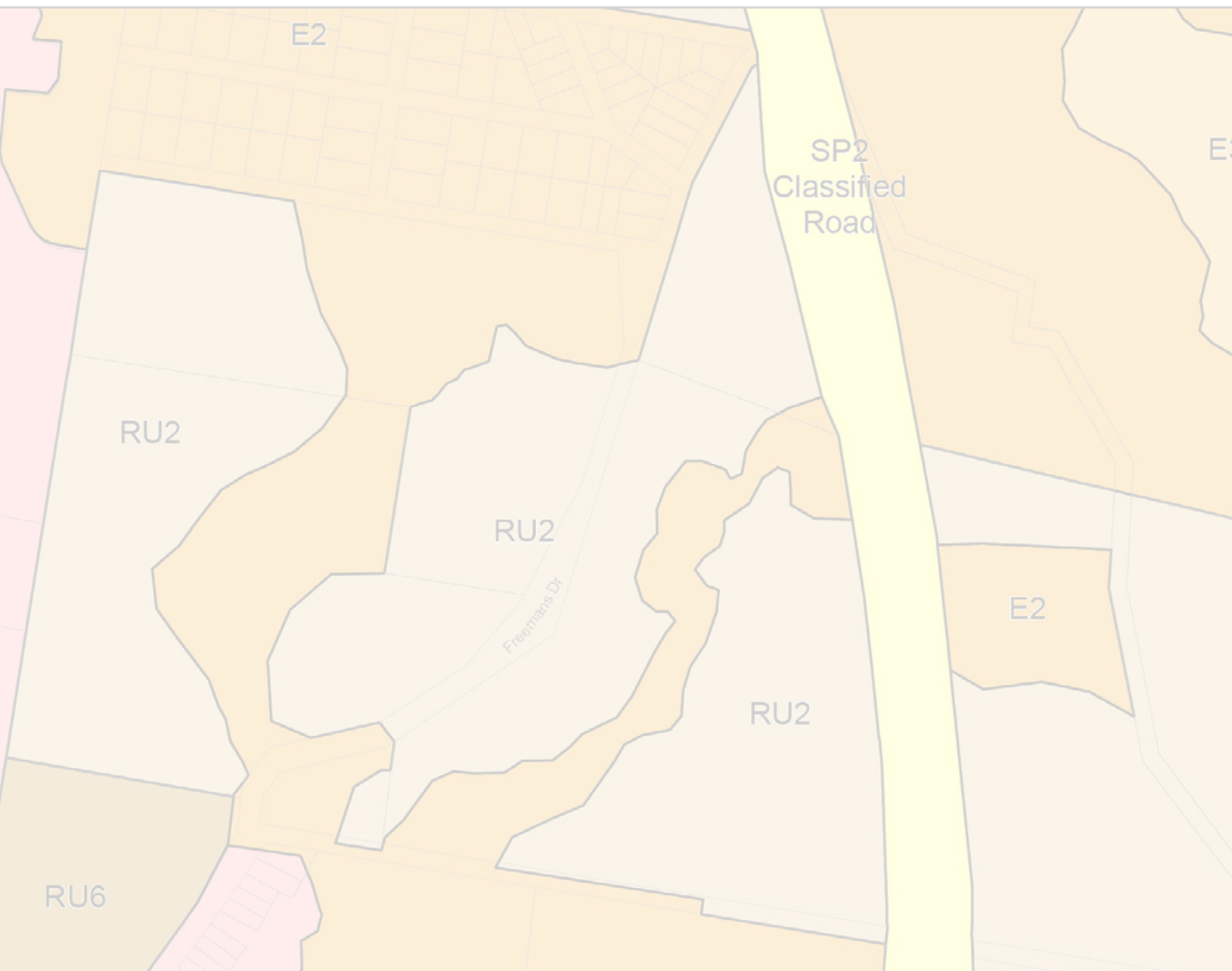
- SITE BOUNDARY
- LIVING
- BEDROOM
- OTHER SPACES
- PRIMARY OPEN SPACE
- CROSS-VENTILATED
- CROSS-VENTILATED, UPPER LEVEL ONLY
- 2 HOURS DIRECT SUNLIGHT
- × NO DIRECT SUNLIGHT (DAYLIGHT ONLY)



LEVEL 1 & 2 PLAN



PROPOSED CHANGES TO PLANNING FRAMEWORK



This chapter outlines the proposed changes to the current statutory planning framework to facilitate the design proposals in Chapters C & D.

E.1 PROPOSED HEIGHT OF BUILDINGS LEP CONTROL

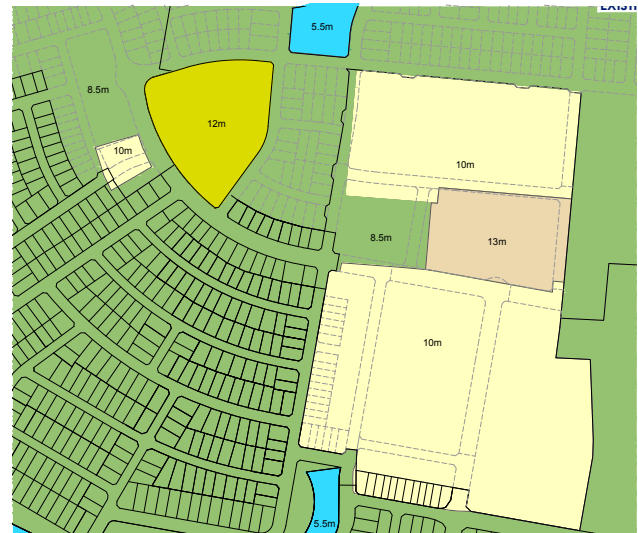
The facilitating change required to deliver the outcome outlined in this planning proposal is an increase in height of building controls where residential flat buildings are proposed.

On the B1 Neighbourhood Centre site, a three-storey shoptop/residential flat building is proposed to on the northernmost lot, with residential subdivision on the southern half of the lot. Consequently the southern half of the lot is proposed to be changed to an 8.5m maximum building height, down from 10m currently.

For the Town Centre, a height limit of 23m is proposed. This is to facilitate maximum 6-storey residential flat buildings across part of the town centre area. The 23m is based on:

- 2m - Average north-to-south cross fall across sites.
- 4m - Ground level floor-to-floor to facilitate loading.
- 5 x 3.1m - Typical residential floor-to-floor heights
- 1.5m - Minimum tolerance for lift overrun and roof parapets.
- Total 23.0m.

Other HOB zones across the planning proposal area are unchanged.

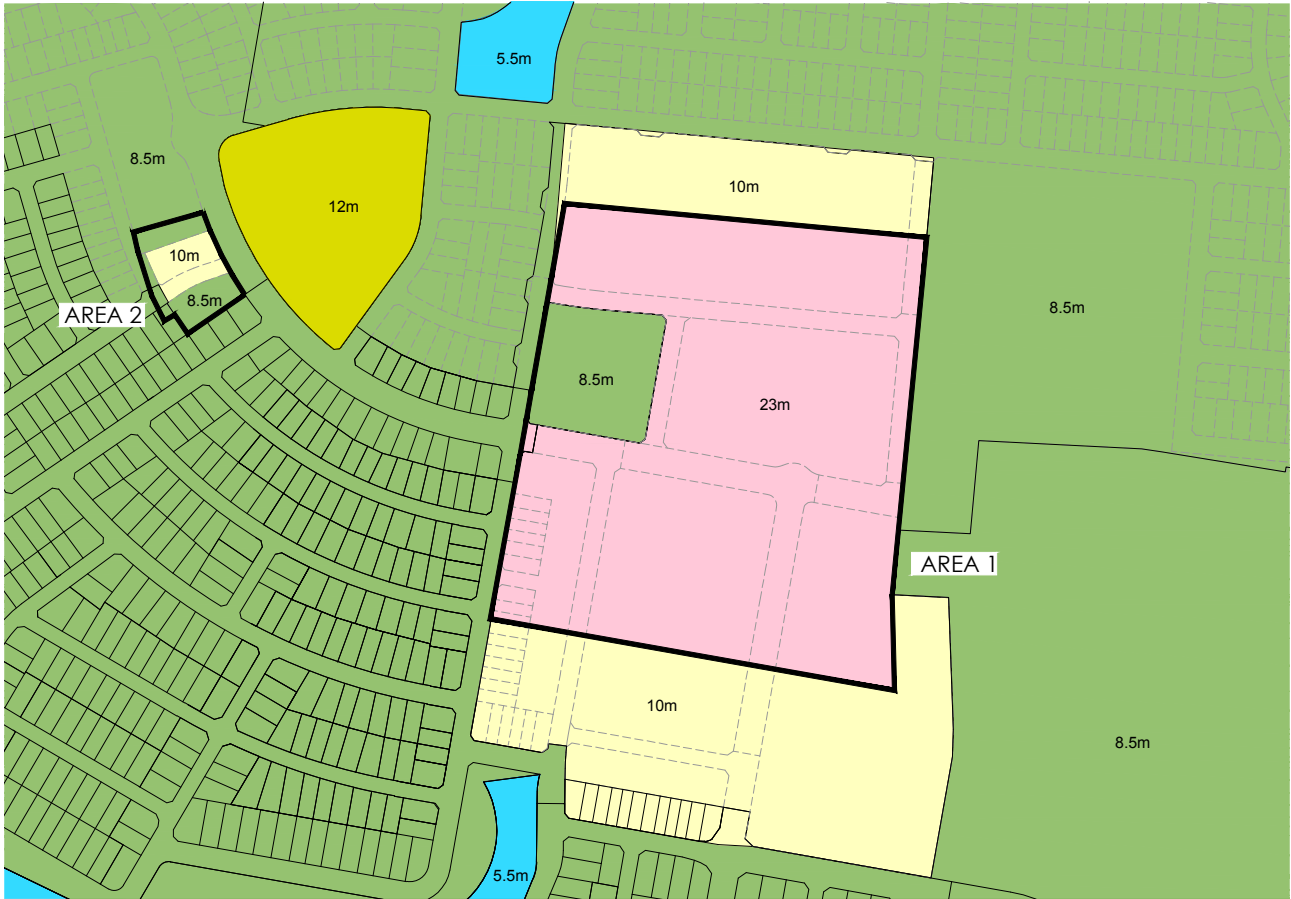


CURRENT LEP MAP

image credit: ADW Johnson

Maximum Building Height (m)

D	5.5
I	8.5
K	10
M	12
N1	13



PROPOSED LEP MAP

image credit: ADW Johnson

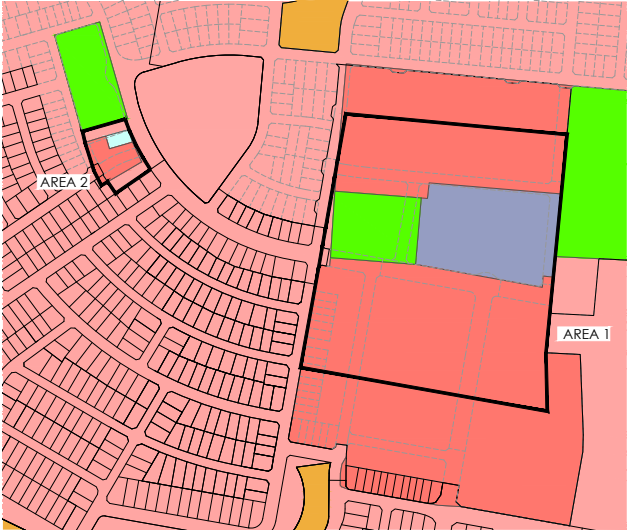
Maximum Building Height (m)

D	5.5
I	8.5
K	10
M1	12
N2	14
S	23

E.2 PROPOSED LAND ZONING & MINIMUM LOT SIZE LEP CONTROLS

The Land Zoning Map and the Minimum Lot Size Maps are also proposed to be modified to better match the intended street layout and the typologies proposed.

These are generally minor changes related to road alignments. The only non-administrative departure from the current statutory framework is a reduction of the R3 Medium Density zone on the Neighbourhood Centre Lot, inserting an R2 area to facilitate larger housing lots. The original intent of the existing B1/R3 zone will be maintained through a retail tenancy positioned within a 3-storey RFB facing the park.

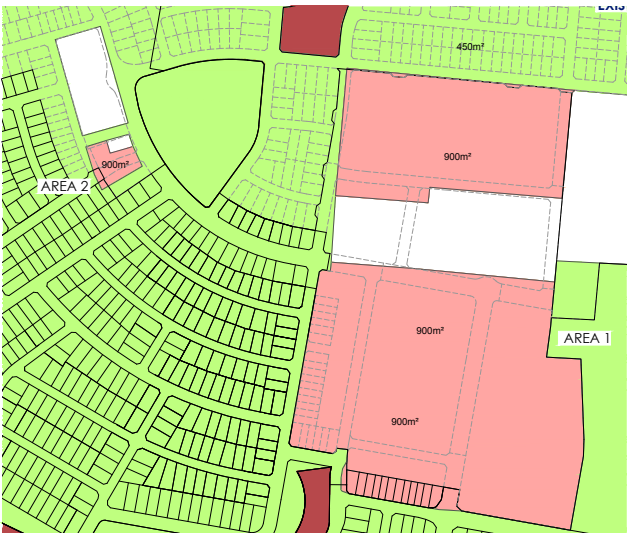


EXISTING LAND ZONING MAP

image credit: ADW Johnson

Zone

- B2 Local Centre
- B4 Mixed Use
- E2 Environmental Conservation
- R2 Low Density Residential
- R3 Medium Density Residential
- RE1 Public Recreation

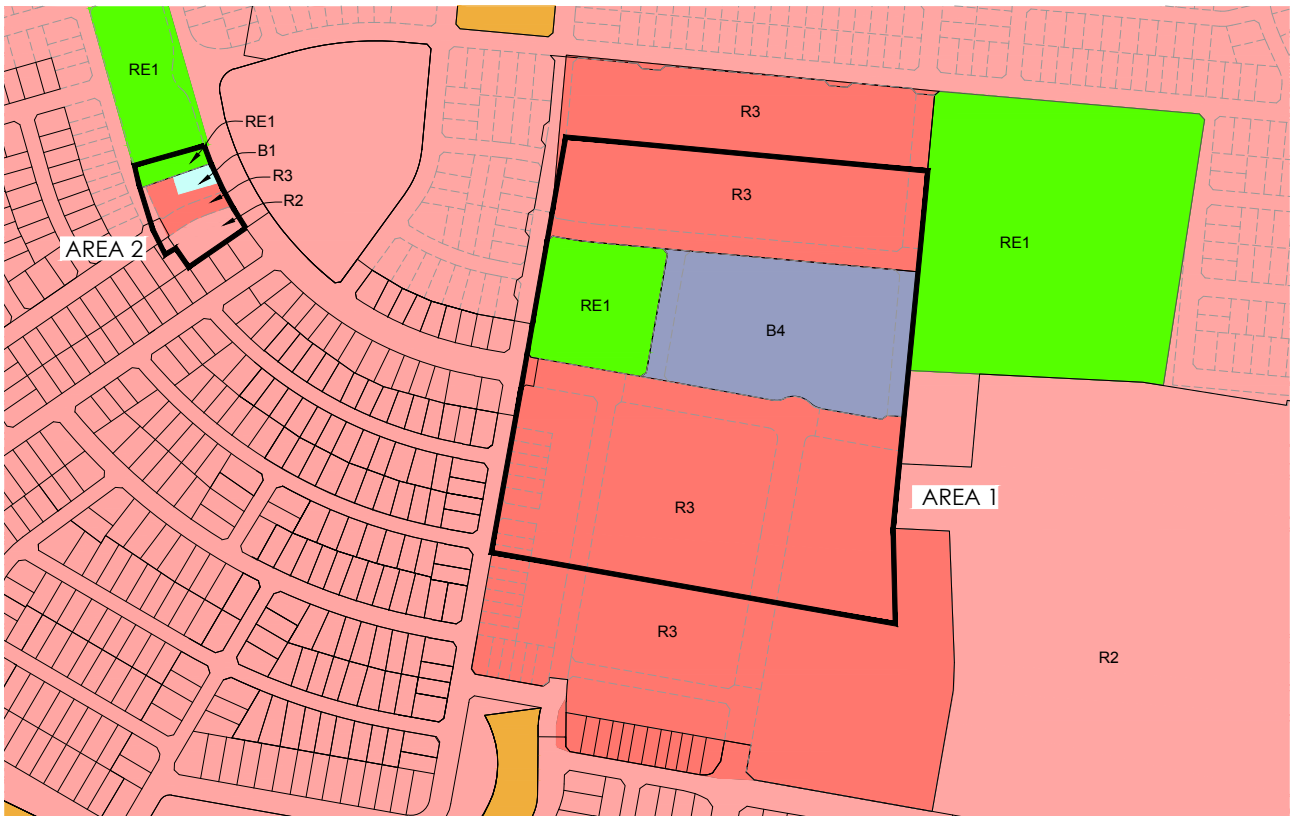


EXISTING MINIMUM LOT SIZE MAP

image credit: ADW Johnson

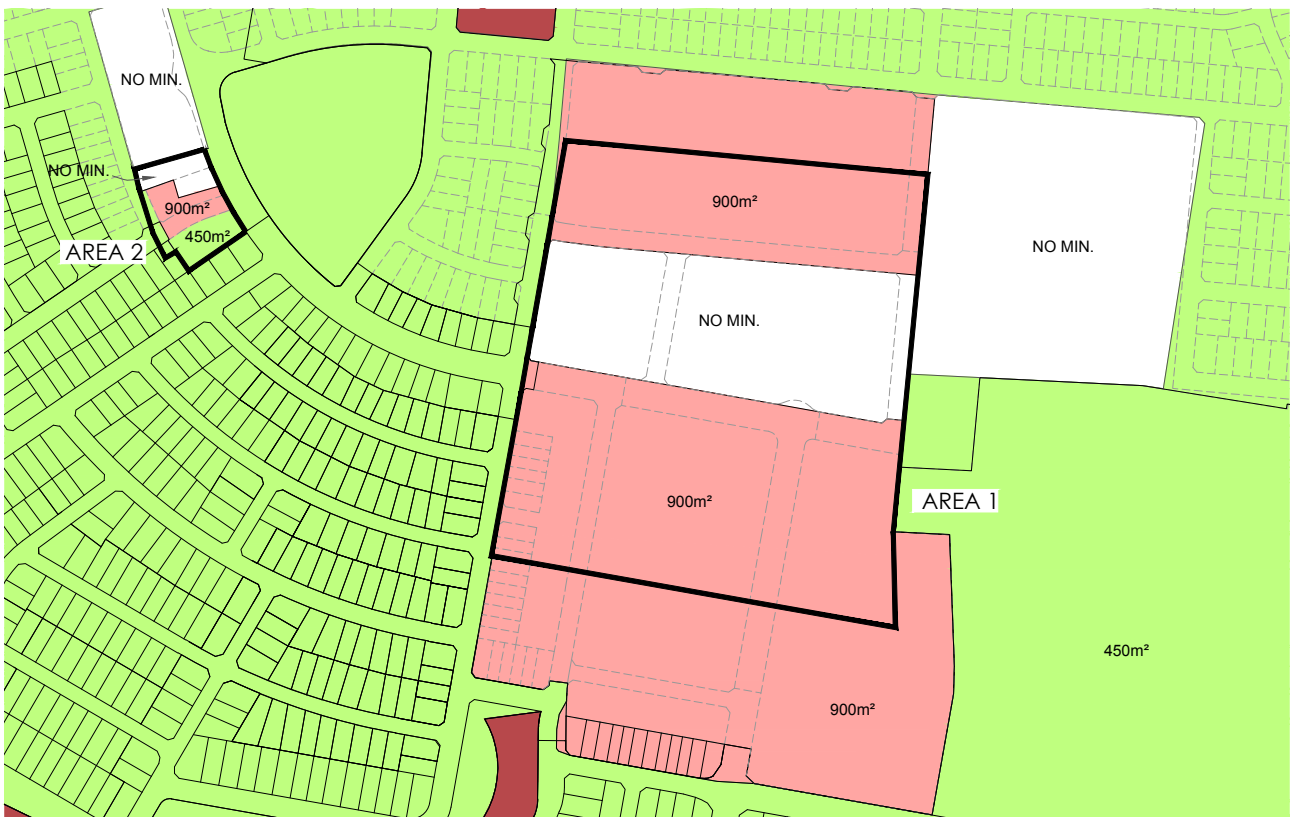
Minimum Lot Size (sq m)

- G 450
- T 900
- U2 1500
- AB2 400000 (40 ha)



PROPOSED LAND ZONING MAP

image credit: ADW Johnson



PROPOSED MINIMUM LOT SIZE MAP

image credit: ADW Johnson

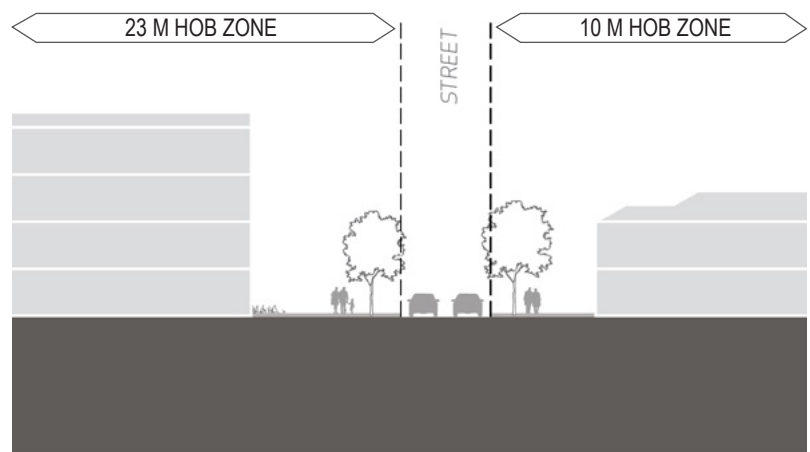
E.3 PROPOSED DCP CONTROLS

Limited site-specific DCP controls are proposed to ensure that appropriate height variation is achieved within the proposed 23m HOB zone, without locking-in specific building locations (prior to the necessary design development) through a height map.

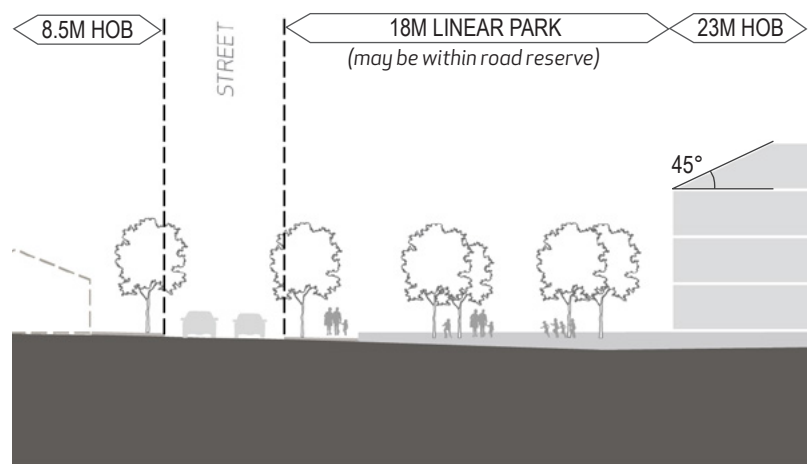
This is proposed to be delivered via a plan view Height-in-Storeys map with clarifying Section Control diagrams.

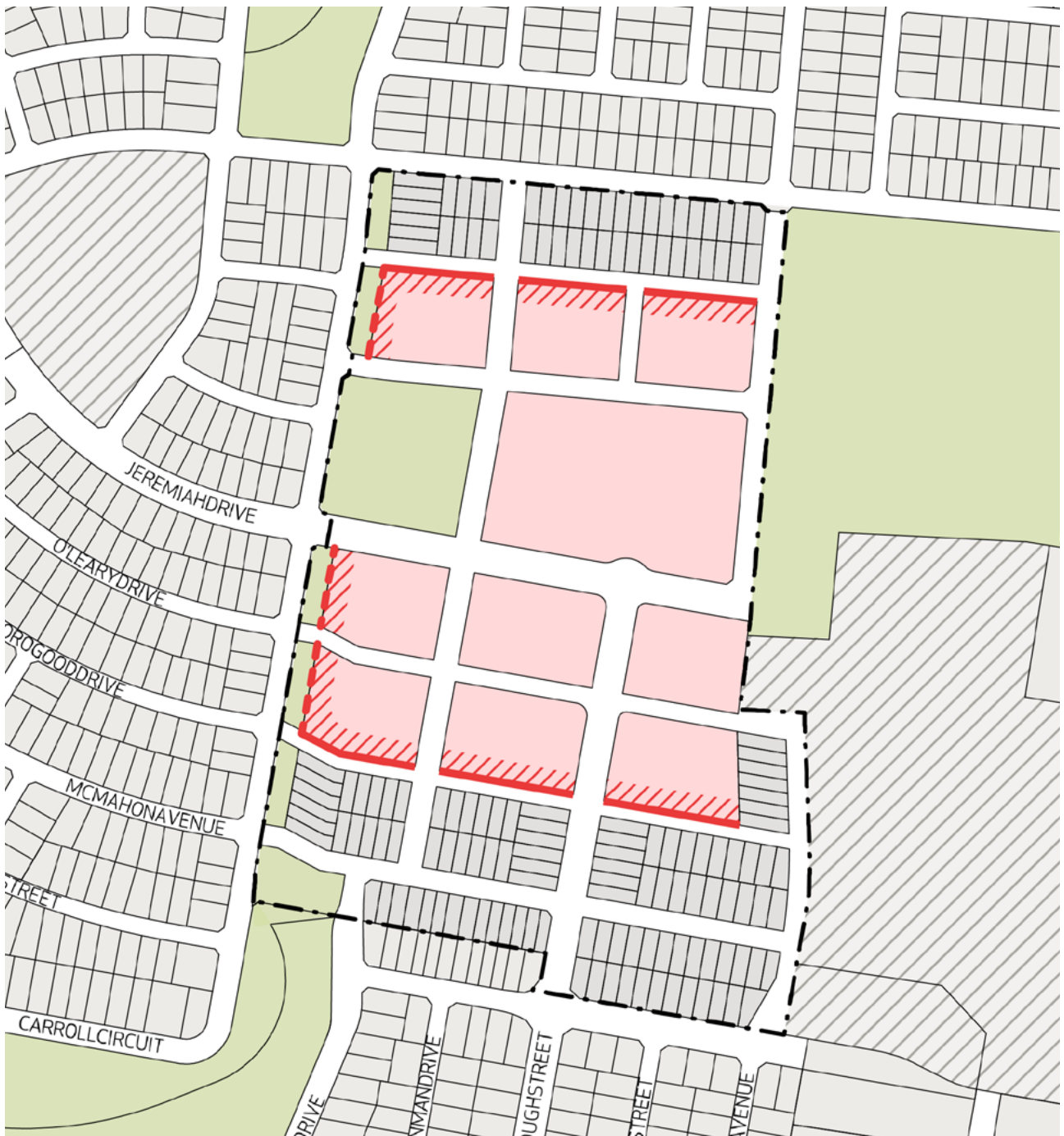
PROPOSED DCP CONTROLS: SECTION DIAGRAMS

Condition A:
Where new buildings within the 23m HOB zone are across a street from a 10m HOB zone within the planning proposal area, they shall present to the relevant street at a maximum of 4-storeys.










Condition B:
Where new buildings within the 23m HOB zone face across a linear park onto the existing 8.5m HOB zone outside of the planning proposal area, they shall present to the linear park at a maximum height of 4-storeys. The uppermost storey will be set back within a 45 degree height plane, measured from the uppermost point of the storey below.





PROPOSED DCP CONTROL: HEIGHT-IN-STOREYS MAP

KEY

-  SITE BOUNDARY
-  SCHOOL
-  OPEN SPACE
-  23M HEIGHT ZONE
-  DCP LIMITATION: MAXIMUM 4-STOREYS
-  DCP SECTION CONTROL, 'CONDITION A'
-  DCP SECTION CONTROL, 'CONDITION B'





Allen Jack and Cottier Architects Pty Ltd
ABN 53 003 782 250

Directors + Nominated Architects
Michael Heenan 5264
Brian Mariotti 9451
John Whittingham 7030

79 Myrtle Street Chippendale
NSW 2008 AUSTRALIA
tel +61 2 9311 8222