ETHOS URBAN

Cardinal Gilroy Village

Masterplan and Urban Design Report
September — 2019

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Issue to Council

Prepared by © Ethos Urban Pty Ltd.

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The information contained in this document is for submission to Cumberland Council. The client shall make its own enquiries analysis and calculations and form its own views in relation to the use or development of the property including the application of local government and statutory controls. It is assumed that the client will rely on its own expertise in considering the information.
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1.0

INTRODUCTION

1.0 Introduction

OVERVIEW

1.1 Cardinal Gilroy Village Planning Proposal

Ethos Urban has prepared this urban design report and masterplan on behalf of Southern Cross Care (SCC) in relation to a Planning Proposal for Cardinal Gilroy Village (CGV) Seniors Living in Merrylands, NSW, Australia.

Southern Cross Care has operated CGV since 1973 and the site is currently occupied by 236 independent living units (ILU) and 123 bed Residential Aged Care facility (RACF) with many structures reaching their end of life cycle. In addition, the current quality of the open space is poor with existing one to two storey houses, townhouses and apartment buildings scattered across the site creating an undefined and unstructured space between buildings.

SCC is seeking to redevelop the site to future proof its operations in this location. The proposed master plan presents an opportunity to upgrade the facility and create a better environment and better services for residents to age in place.

The masterplan proposes 460 Independent Living Units and 153 bed Residential Aged Care Facility. While the Planning Proposal is aiming to increase the density, the amount of open space has been retained and the additional dwellings present an opportunity to free up underutilised housing stock for older residents that relocate to CGV which will assist with affordability and housing stock in general.

A guiding principle of the design has been to create an integrated community, integrated for different residents and integrated with the surrounding neighbours, with the open space playing a central role. The new open spaces in the master plan are distinctive and range in their characteristics, from a public park to private garden spaces, a better outcome than the current dispersed, leftover open spaces. The masterplan considers future possibilities of intergenerational learning and contributes actively to the urban context, providing amenity and services to the surrounding residents. The masterplan retains the location of the new community centre which is currently being considered as a Development Application.

The planning proposal is requesting for the zoning of the site to change from R2 Low Density Residential to R4 High Density Residential. A Development Control Plan (DCP) is being submitted alongside this planning proposal to ensure the masterplan design principles are retained.

1.2 Site Context

Cardinal Gilroy Village (CGV) is located in Merrylands, in the Cumberland Local Government Area (LGA). It is located approximately 5km west of Parramatta.

The site is located primarily within a residential suburban area, with industrial sites to the south west. The study area includes five large parcels of land that are atypical of the subdivision pattern of the area.

The nearest large shopping centre is Stocklands Merrylands Shopping Centre, 2km away. This is located near Merrylands train station, the closest station to the site.

Context	
Locality	Cumberland LGA, previously Holroyd LGA
Suburb	Merrylands
Greater Sydney Commission District	Central City District
Distance to Parramatta CBD	5km

01 Illustration of Wider CGV Context
SCALE 1:10000 @ A3

1.3 Immediate Context

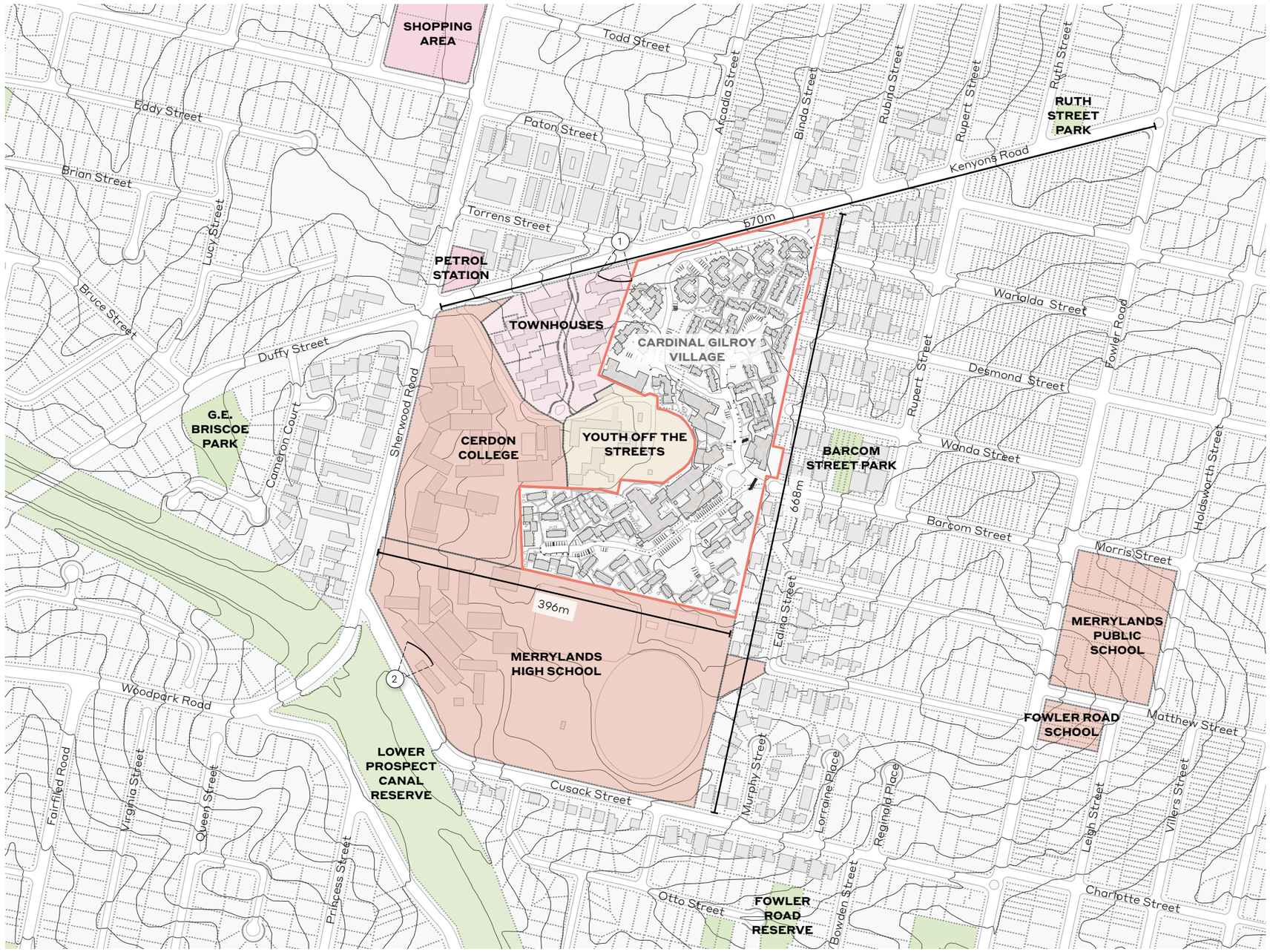
CGV is adjacent to a number of different land uses. Its eastern boundary borders a residential area, its southern boundary borders Merrylands High School and its northern boundary borders Kenyons Road, to which high density residential exists on the other side.

To its western boundary CGV borders Cerdon College, a heritage site called Sherwood Scrubs (which currently houses Youth off the Streets) and a townhouse development.

Boundaries	
Eastern Boundary	Residential (1-2 storey)
Northern Boundary	Kenyons Road
Southern Boundary	Merrylands High School
Western Boundary	Townhouses, Youth off the Streets (Sherwood Scrubs) and Cerdon College

Townhouses to the west (1)

Merrylands High School to the south-west (2)



02 Illustration of CGV Context
SCALE 1:5000 @ A3

PLANNING

1.4 Current Planning Controls

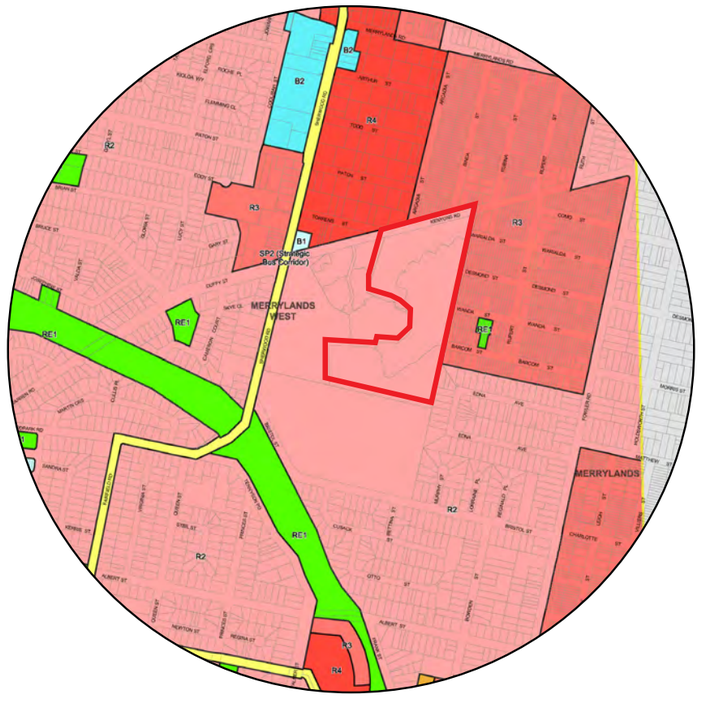
Current Planning Controls state the maximum FSR is 0.5:1.

Current Planning Controls zone CGV as R2 Low Density Residential, with high density residential bordering the north and medium density residential bordering the north east.

The maximum height of buildings that can be built on CGV is 9m, allowing for up to 3 storeys. This aligns with the majority of the surrounding context that has a maximum height of 9m. To the north, where the high density residential lies, maximum building heights increase to 15m and beyond this higher to 17m.

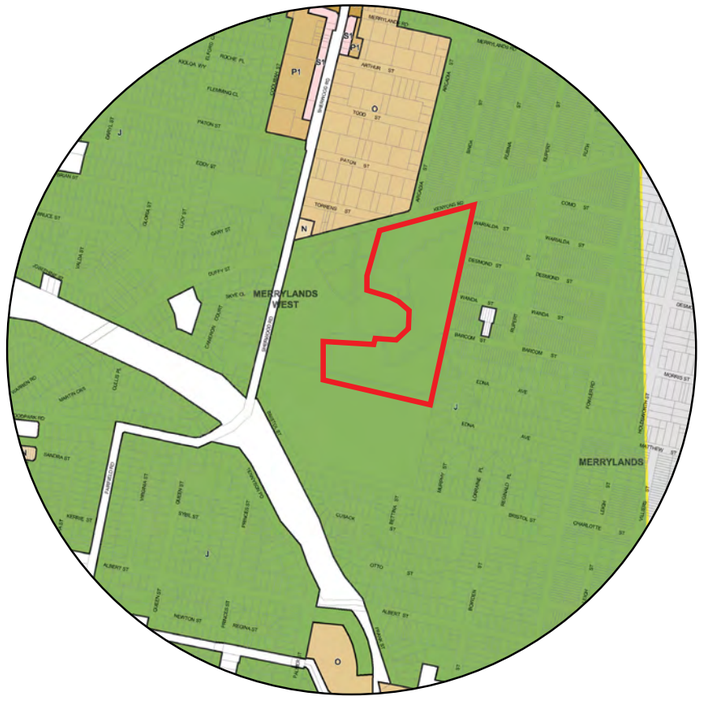
Maximum FSR 0.5:1

D	0.5	T2	2.2	Z1	5
H	0.7	T3	2.4	Z2	5.5
K	0.85	U1	2.5	AA1	6
N	1	U2	2.8	AA2	6.5
P	1.2	V	3	AB	7.5
S1	1.5	W	3.5	AC	8.5
S2	1.8	X	4	AD	9
T1	2	Y	4.5		



Zoned R2 - Low Density Residential

B1	Neighbourhood Centre	R3	Medium Density Residential
B2	Local Centre	R4	High Density Residential
B4	Mixed Use	RE1	Public Recreation
B5	Business Development	RE2	Private Recreation
B6	Enterprise Corridor	SP2	Infrastructure
E2	Environmental Conservatio	UL	Unzoned Land
IN1	General Industrial	SS	SEPP (State Significant) 2005
IN2	Light Industrial	WSE	SEPP (Western Sydney Employment Area) 2009
R2	Low Density Residential		



Maximum 9m Height of Building

J	9	R	21
K	10	S1	23
L	11	S2	24
M	12.5	T1	26
N	14	T2	29
O	15	U	32
P1	17	W	41
P2	18	Y	53
Q	20	AA	65

PLANNING

1.5 Design Policies

Greener Places (Draft)

The Office of the Government Architect, NSW, 2017

The Government Architect NSW has prepared Greener Places to guide the planning, design and delivery of Green Infrastructure in urban areas across NSW. The vision for the policy is to establish a network of well-planned Green Infrastructure that will make NSW more attractive, better connected, healthier and more resilient.

The policy outlines the following principles for well-designed Green Infrastructure:

- Integration – The principle of integrating green space with urban development and hard infrastructure (e.g. roads, storm-water drainage)
- Connectivity – promoting a network of high quality open spaces that connect with other areas of activity, such as town centres, public transport hubs, rivers, creeks and employment and residential areas. This aims to create a network of open space through the Central City District and Greater Sydney region.
- Multi-functionality - where design of green spaces provides a range of benefits in one area through careful planning. This may include the simultaneous function of green spaces for ecosystem, environmental and other services
- Participation – where stakeholders are involved in the development and implementation of neighbourhood, local, district and regional Green Infrastructure policies.

Key Takeaways

The Cardinal Gilroy Village Masterplan has the opportunity to include greener spaces designed with these principles in mind. The proposed masterplan can deliver green spaces that are well-integrated into the urban fabric and provide amenity to residents and wider public.

Better Placed

The Office of the Government Architect, NSW, 2017

The Government Architect NSW has prepared Better Placed, an integrated design policy for the built environment of NSW that establishes principles to support better design and create good places within NSW. The policy also advocates the support of design excellence of future development to create better quality places. This may utilise existing tools, such as design review panels, competitive design processes and guidelines and manuals to encourage support design excellence as part of future development proposals.

In this document, seven objectives for the built environment are identified:

- Better Fit - contextual, local and of it's place
- Better Performance - sustainable, adaptable and durable
- Better for Community - inclusive, connected and diverse
- Better for People - safe, comfortable and liveable
- Better Working - functional, efficient and fit for purpose
- Better Value - creating and adding value
- Better look and feel - engaging, inviting and attractive

Better Placed is part of a suite of documents that the NSW Government is preparing to advocate good design.

The document also advocates Design as a process and an outcome, that is constituted of three core collaborative steps - *'Discover', 'Create' and 'Deliver'.*

Key Takeaways

The Cardinal Gilroy Village Masterplan has the opportunity to be designed following these objectives. The masterplan can deliver a high quality place for senior residents providing a sense of self worth and a strong sense of community.

PLANNING

1.6 Green Grid

Sydney Green Grid (West Central / Central City District)

Tyrell Studio in association with The Office of the Government Architect, NSW, 2017

The West Central (Central City District) Green Grid identifies project opportunities to expand and enhance the green grid within the District. An important objective of the Green Grid is to create a network of rich green spaces. The Green Grid identifies a number of principles including:

- Increase access to open space
- Encourage sustainable transport connections and promote active living
- Create a high quality active public realm
- Conserve the natural environment
- Adapt to climate extremes, improve air quality and increase urban greening
- Promote green skills, improve management, maintenance and sustainable green space design

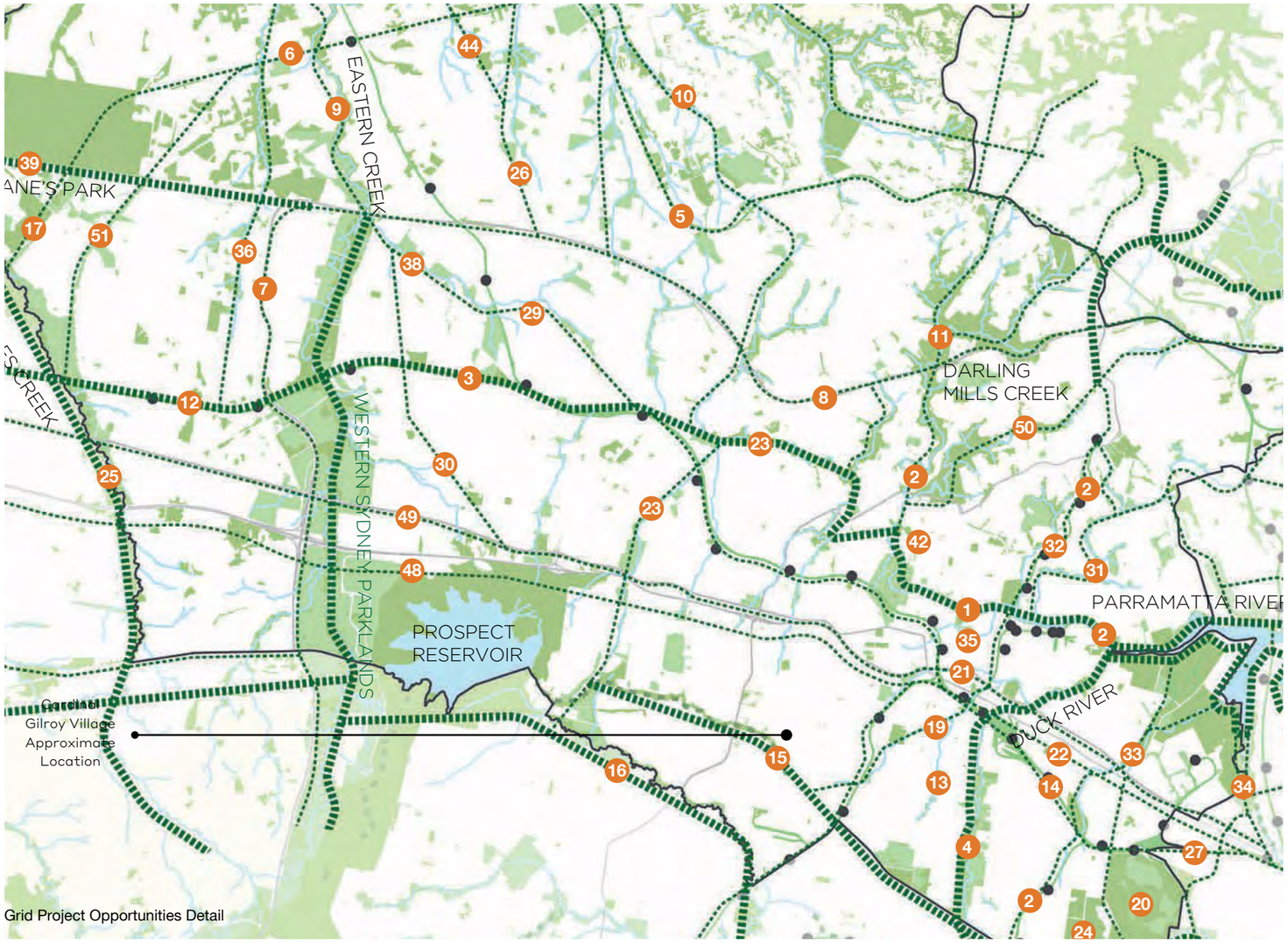
Project opportunities the document identify that could be relevant to this site include:

Prospect Reservoir Water Pipeline Corridor

- The Prospect Reservoir Water Pipeline Corridor travels from Prospect Reservoir Parklands to Duck River and Rookwood Cemetery. The Pipeline Corridor offers the potential for a linear park through Greystanes and Merrylands and builds upon the existing projects along Prospect Creek and the Lower Prospect Canal Reserve.

Key Takeaways

While Cardinal Gilroy Village is not directly located on an identified green corridor the design principles applied to the master plan very much reflect the principles for the Sydney Green Grid. The CGV masterplan will deliver open spaces of high quality and quantity to improve the quality of life for the residents. The open spaces provide a variety of recreational and active living opportunities and by ensuring that the open space is integral to the precinct the proposal will contribute to keeping the area cooler, conserve the natural environment and enhance biodiversity. In addition, the permeability of the site will be greatly enhanced by the redevelopment.



03 Image from Sydney Green Grid (West Central / Central City District) Draft Policy

SITE

1.7 Site Attributes

CGV has a total area of 7.4ha. It is approximately 454m long and 211m wide. The site is only accessible from Barcom Street.

The current site is owned by Southern Cross Care (SCC) and is currently occupied by the Southern Cross Care Cardinal Gilroy Village and John Woodward Residential Aged Care. There is 236 Independent Living Units and 123 bed RACF on site.

Site Attributes	
Locality	Cumberland LGA, previously Holroyd LGA
Site Address	45 Barcom Street, Merrylands West NSW 2160
Site Area	7.4ha
Highest Point	R.L. 46.00
Lowest Point	R.L. 36.00
Frontage	211m (Kenyons Road)

Easements + Flooding

There is a drainage easement in the south eastern corner of the site where it is most likely to flood.

Images of two storey buildings on Site

04 CGV Site Plan

SCALE 1:2500 @ A3

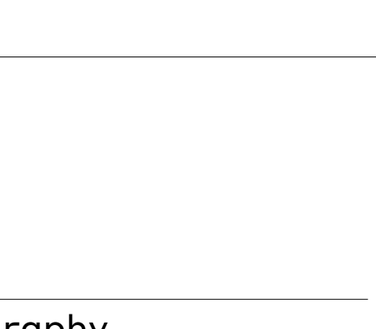
SITE

1.8 Topography

The southern boundary of the site is bordered by Merrylands High School Oval and on the south east corner the green space of Cerdon College. These boundaries are separated by fences that prevent flow of movement and sharing of resources between the three different land holders.

The change in height from the oval to the residential houses of the CGV acts as a visual block between the school and the seniors village. This height change is substantial and creates a clear demarcation between the different uses.

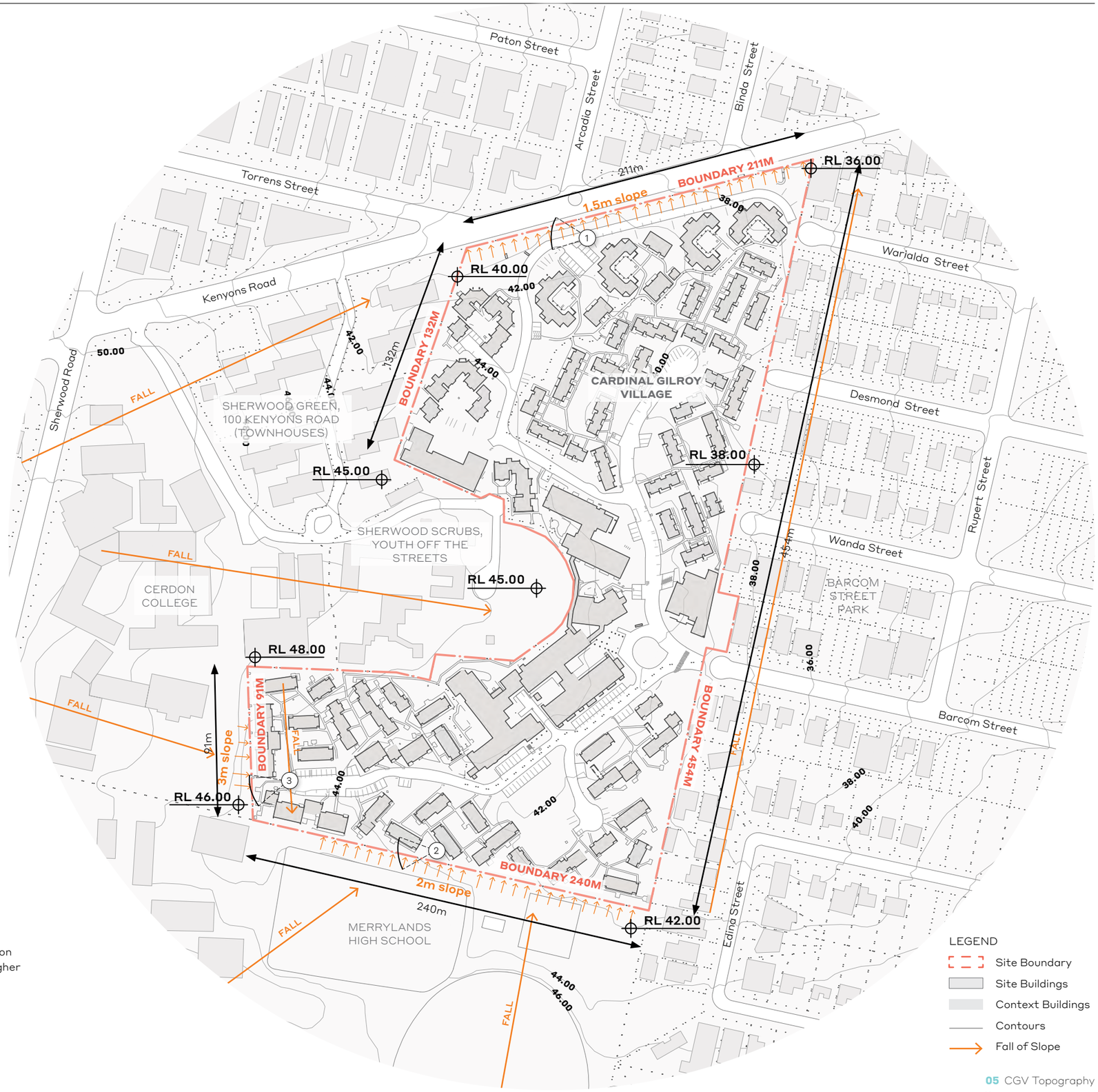
From south to north the site falls 6m, at an approximate gradient of 1:75. **From west to east the site falls 4m**, at an approximate gradient of 1:60.



1 Slope from CGV to Kenyons Road

2 Slope from Merrylands High School to CGV

3 View to Cerdon College at higher ground



05 CGV Topography

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2.0

CONSTRAINTS AND OPPORTUNITIES

2.0 Constraints and Opportunities

CURRENT ACCESS

2.1 Limited Vehicle + Pedestrian Access

There is currently one vehicle entrance to the site through Barcom Street on the eastern boundary. Along this boundary are three other cul de sac roads that terminate at the site's edge (Warialda Street, Desmond Street and Wanda Street). The northern boundary of the site is bordered by Kenyons Road. There is currently no vehicle access from Kenyons Road to CGV but there are two gates for pedestrian access along the fence. Sherwood Road is a local road with two lanes in each direction of travel. The sign posted speed limit is 60kmph, and this road is to the west of the site bordering Cerdon College.

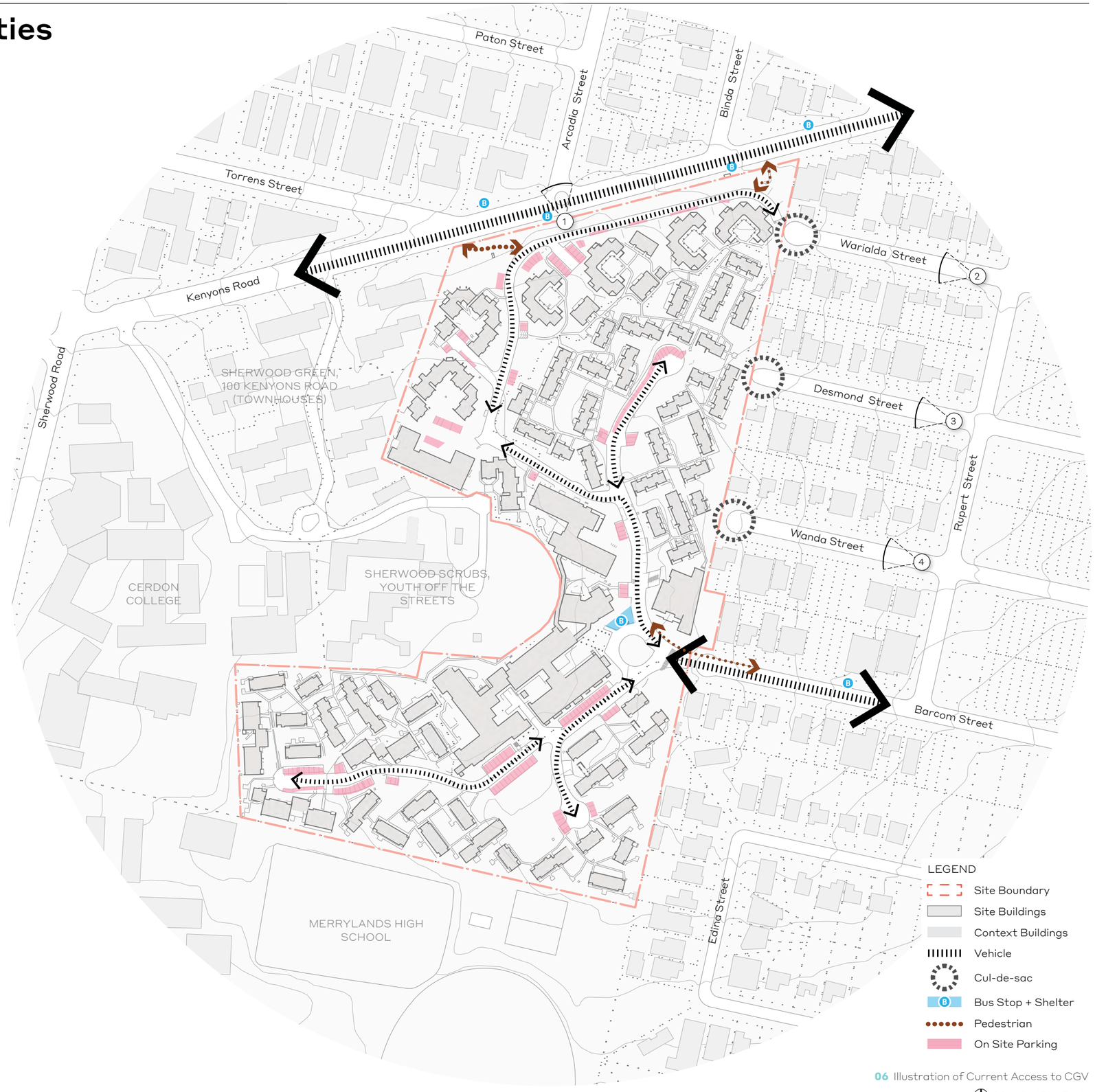
Internally the road network involves a system of moving back and forth along the same roads.

1 View of Kenyons Road + Arcadia Road

2 View to CGV from Warialda Street

3 View to CGV from Desmond Street

4 View to CGV from Wanda Street



06 Illustration of Current Access to CGV

SCALE 1:2500 @ A3

FUTURE ACCESS

2.2 Possible Multiple Vehicle + Pedestrian Entries

Second vehicle entry + Circular internal vehicular circulation

Along Kenyons Road a second vehicle entrance could be created. It could align with the roundabout at the intersection of Arcadia Street and Kenyons Road. This second entrance could allow for movement within the site to become cyclical and more dispersed.

Multiple Pedestrian Entrances

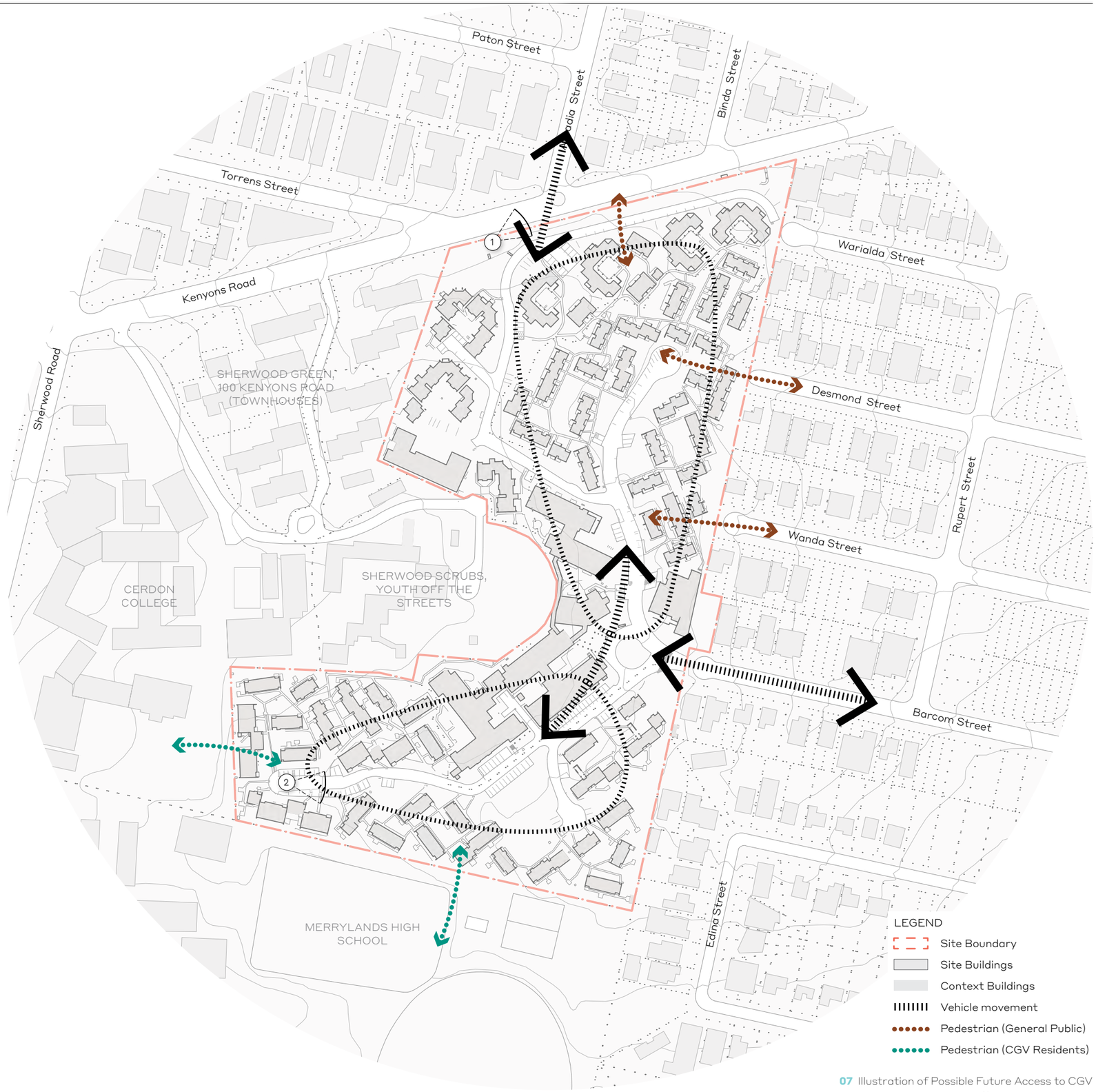
The thresholds where the cul-de-sacs meet CGV could be opened up and act as pedestrian access points for both residents of CGV and the community. These entrances could allow for the public to directly access shared amenities within CGV.

Basement Parking

There is the opportunity for the majority of parking to be removed from ground level and relocated to basements. This would provide more car spaces and allow for the ground level to be occupied by other facilities and amenities. This would improve the proximity of the resident car space to their dwelling as well.

1 View from CGV down Kenyons Road

2 On site Parking



07 Illustration of Possible Future Access to CGV

SCALE 1:2500 @ A3

2.3 No Interaction with Neighbours

The southern boundary and south-western corner of the site is bordered by Merrylands High School Oval and the green space of Cerdon College. These boundaries are fenced, preventing flow of movement and sharing of resources.

The western boundary borders backyards of the townhouses and the landscaped areas of the Heritage site, Sherwood Scrubs (currently occupied by Youth off the Streets).

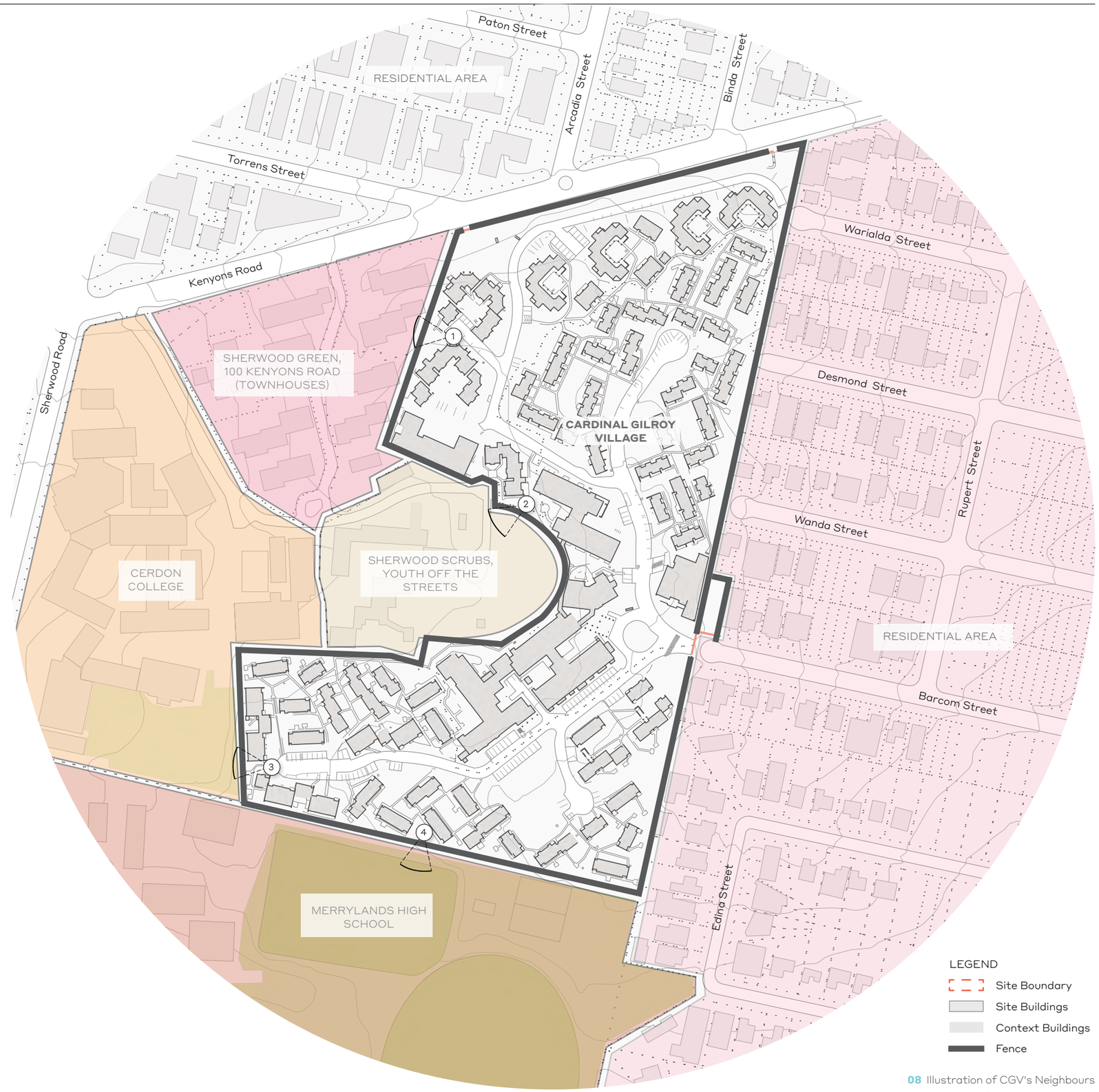
The length of the eastern boundary is fenced with a single vehicular opening for the main entrance to the site on Barcom Street.

1 View to Townhouses from CGV

2 View to Sherwood Scrubs from CGV

3 View to Cerdon College from CGV

4 View to Merrylands High School Oval from CGV



08 Illustration of CGV's Neighbours

SCALE 1:2500 @ A3

FUTURE BOUNDARIES

2.4 Permeability with Neighbours

Celebrating Historical Context

There is the opportunity to create a relationship with the Heritage Building that celebrates and opens up the site to the residents of CGV and the wider public.

Intermediary Spaces

The eastern boundary, where the cul-de-sacs terminate could be treated as intermediary spaces for residents within CGV and the public. These spaces could be treated with landscaping and pathways to become usable pedestrian access points.

Activated Boundary Along Kenyons Road

There is the possibility to activate the boundary between CGV and Kenyons Road through neighbourhood shops. This would allow for CGV to become integral to the wider community, not a fenced off, private site.

Community Interaction

There is the opportunity to create a better quality of life for both the residents of CGV and the students of the different High Schools by creating permeable boundaries with shared spaces and easier access. Current design thinking recognises the need for fenced off open space to become more accessible, utilised and enjoyed by the wider community.

Intergenerational Learning

Studies have shown the positive benefits of intergenerational interaction for seniors in improving their quality of life and longevity. There is the opportunity for activation along the boundaries, between the different land holders, to encourage interaction between the elder and younger generations.

Liverpool Park, Brussels, Belgium

This park was previously urban wasteland and was transformed into a recreational, eco-friendly green space.

Victoria Avenue Community Precinct, Canada Bay

This school demonstrates a shift in pedagogical approach to schools in NSW, designed as a community-based open school.

09 Illustration of CGV's Possible Boundaries

SCALE 1:2500 @ A3

GREEN SPACE

2.5 De-centralised, undefined green spaces

While there is currently residential open space on site its quality is poor as it is dispersed and undefined. The open space is residual and unstructured with buildings scattered across the site. **62% of the site is currently open space** (site area with road and building footprints removed). The green spaces are not private nor public with residents back and front doors opening out onto the same areas.

Even though there is an abundance of grass there is little landscaped areas apart from the pot plants seen outside many of the residents houses. Shade is provided in open areas solely by trees, creating many undesirable spaces in the summer months.

1 View to internal green space between buildings

2 View to internal green space and tree between buildings

3 View of Apartment with pot plants outside

10 Illustration of CGV's Green Space

SCALE 1:2500 @ A3

FUTURE GREEN SPACE

2.6 Possible consolidated, distinctive open spaces

There is the opportunity to create defined open spaces serving different purposes and relating to different levels of privacy. Large green spaces could become hubs of interaction and action, accessible to the wider community. The green space central to the site could be publicly accessible but remain in private ownership. Smaller more intimate spaces can become more private for primary use by residents of CGV. These spaces could become meeting places and provide clear points of orientation.

Trees are a part of the natural assets of the village and a point of reference for current residents. The masterplan will aim to prioritise the retention of trees as part of the proposed open space.

Riverlight, London, England

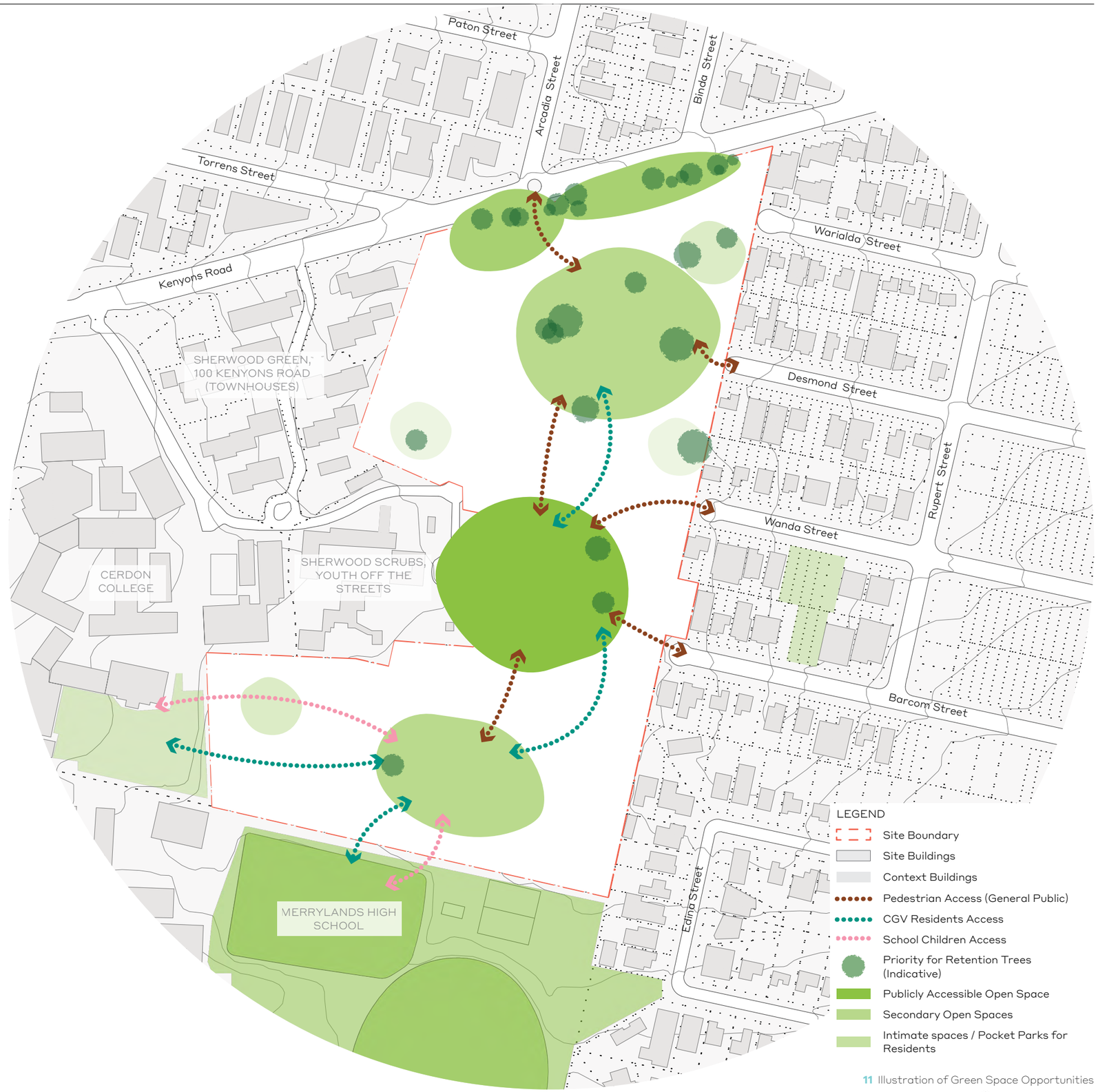
This is a residential-led development consisting of 6 towers with high-quality landscape spaces between.

Civic Park, Warragul, Australia

This park has a gardenesque style incorporating expansive lawns, ponds, and trees.

Roof Park, Montreal, Canada

This park is in an urban area and is accessible by all. The park is a colourful combination of trees and shrubs, constantly changing with the season.



11 Illustration of Green Space Opportunities

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DENSITY

2.7 Existing Building Density

The boundaries of the site border different densities of housing. To the north there are 3 and 4 storey apartment units in a High Density Residential zone. To the east and west of the site the buildings range from 1 to 2 storey and are in medium and low density housing zones. The houses adjacent to the site on the eastern boundary are mostly free standing houses but new development in the residential area to the east reveals an increase in town house development.

To the west and south there are school buildings which have the visual appearance of 2-4 storey buildings when considering their pitched roofs and ceiling heights. There is a clear visual difference between the school buildings and the residential buildings adjacent to different CGV boundaries.

1. View of new townhouses on Kenyons Road
2. View of Cerdon College from Sherwood Road
3. View of new townhouses on Kenyons Road
4. View of single storey residential home

12 Illustration of Density on Site + Context

SCALE 1:2500 @ A3

OPPORTUNITIES

2.8 Opportunities for Contextual Density

(A) Potential building height along Kenyons Road

Along Kenyons Road there is the opportunity for 4 storeys buildings mirroring the density on the other side of street. There are a number of existing 3-4 storey apartment buildings on the northern side of Kenyons Road which have a visual appearance of 4-5 storeys due to their pitched roofs and topography. Furthermore, the fall in topography from the north west to the site allows for this density to be achieved, the buildings blending into the surrounding context. The street facing nature of these buildings have the capacity to offer future amenity to the wider public.

(B) Opportunity for higher buildings placed centrally

There is the opportunity for 5-6 storey buildings to be placed centrally to the site with impacts being mitigated by the site layout and density distribution overall. Taller buildings will have extensive setbacks from any site boundaries and the heritage site, making this location the most appropriate for heightened density. Furthermore, the topography drops from west to east and hence the 6 storey building does not appear out of place compared to the 2 or 3 storey buildings on higher grounds in both school sites.

(C) Potential greater density achieved in the south west corner of the site

There is the opportunity for 5-6 storey buildings to be placed along the southern and south western boundaries. This height responds to the topography that drops both significantly from Merrylands High School Oval and the Cerdon College Green Space.

The surrounding buildings to this part of the site reach 3 storeys and their location on higher ground allows for this density to be absorbed.

(D) Lower buildings placed adjacent to the eastern boundary

The master plan is proposing 2 storey buildings to be placed along the length of the eastern boundary to contextually respond to the residential neighbourhood to the east.

(E) Transition of heights from lower to higher buildings

In addition to placing contextual building heights along the perimeter of the site the heights will also step towards the centre of the site to provide a measured transition.

13 Illustration of Density Opportunities on Site

SCALE 1:2500 @ A3

FUTURE DENSITY

2.9 Proposed Building Density

The size of the site provides the opportunity for a contextual approach with greater density and height placed centrally and not impact on the surrounding context. Density and height can taper to the boundary to reflect the surrounding contexts.

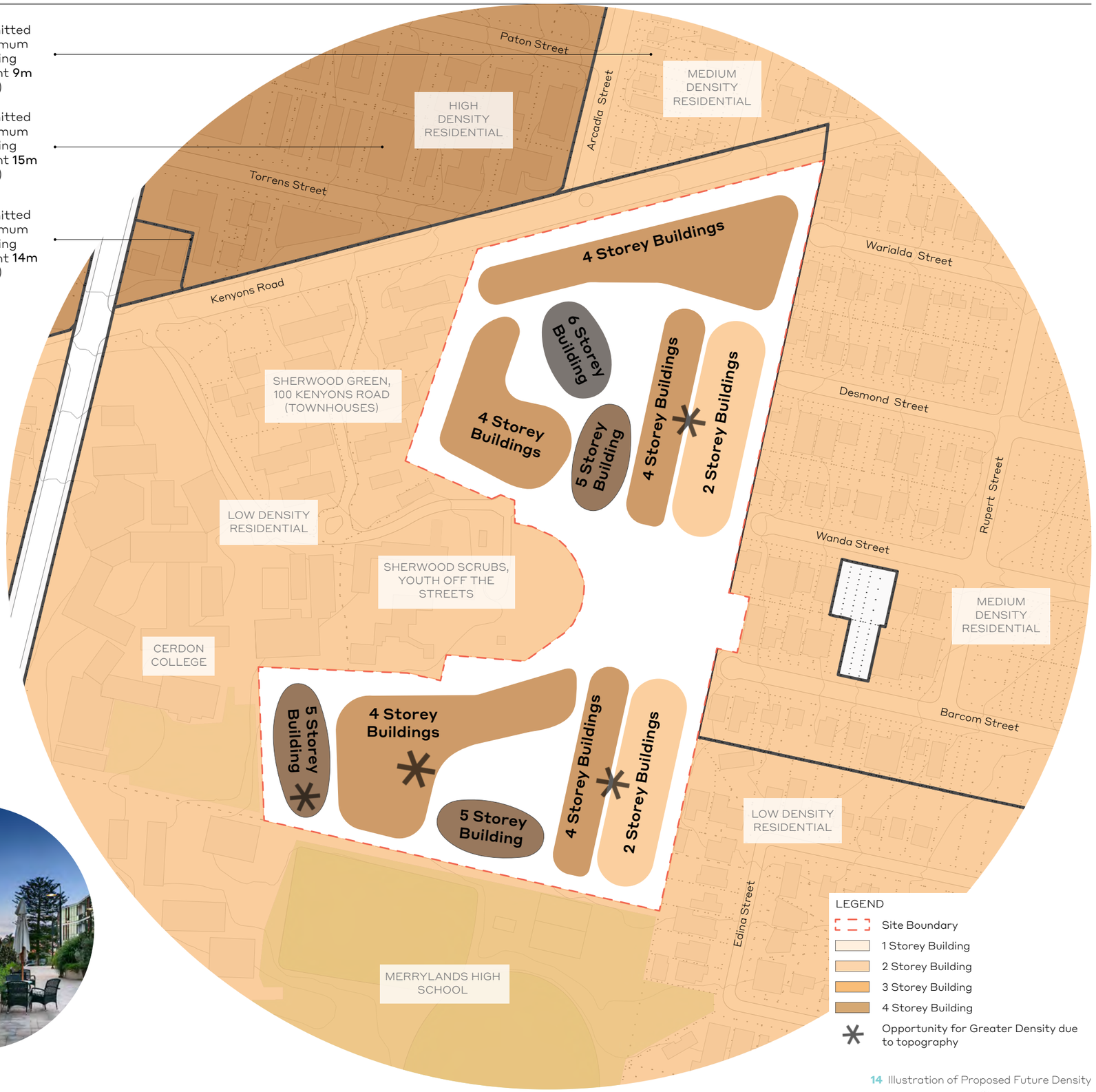
- Along the eastern boundary lower density will be placed with 2 storey buildings.
- Along the southern boundary greater density can be achieved as it borders on to open spaces, hence buildings of 4 and 5 storeys are appropriate. In some instances 6 storeys can be achieved due to the falling topography from north to south.
- At the northern boundary 4 storey buildings can be placed as this will mirror the density on the opposite side of the road.
- 5 and 6 storeys buildings can be placed internally on site without impacting on the surrounding residential context. The height gradually increases to this maximum in a sensitive manner. 6 storeys is the maximum height achieved across the site to ensure the buildings blend into and are absorbed by there context.

These varying building heights appropriate to their different locations on site will be controlled by a site specific Development Control Plan (DCP).

The Avenue Retirement Living, Maroochydore, Australia

Mark Moran, Vauclause, Australia

AVEO, Bayview, Australia



14 Illustration of Proposed Future Density

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USE

2.10 Current Building Use

Currently the RACF is located along the western border against the heritage building, opposite the main entrance centrally to the site. This location is appropriate as the RACF needs easy vehicle accessibility due to deliveries and ambulances.

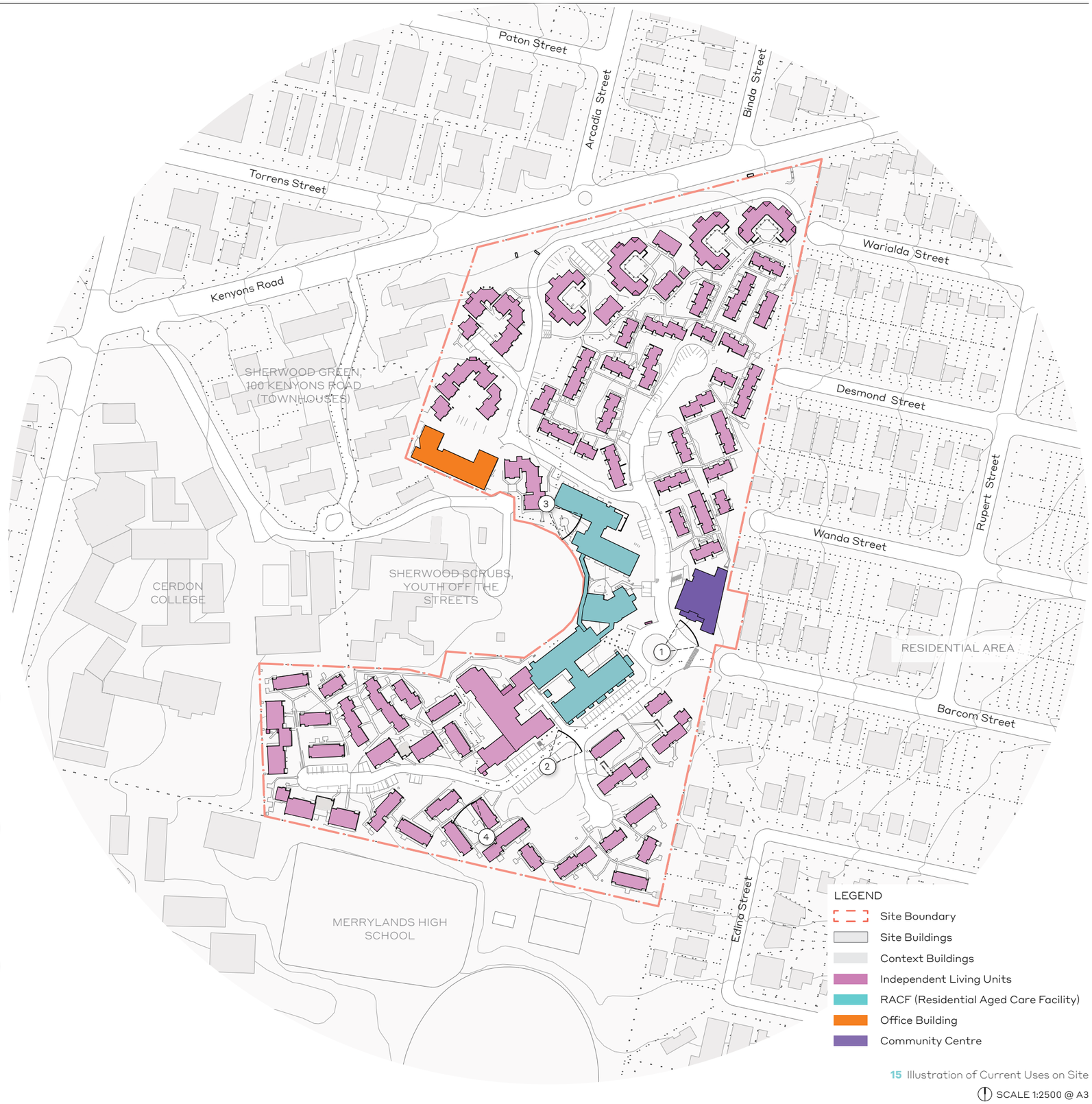
The community centre is located to the right as you enter the property.

View of Community Centre Building (1)

View of RACF (2)

View of RACF fenced garden (3)

View of 1 storey residential unit (4)



15 Illustration of Current Uses on Site

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FUTURE USE

2.11 Relocation of Uses

Relocation Idea 1

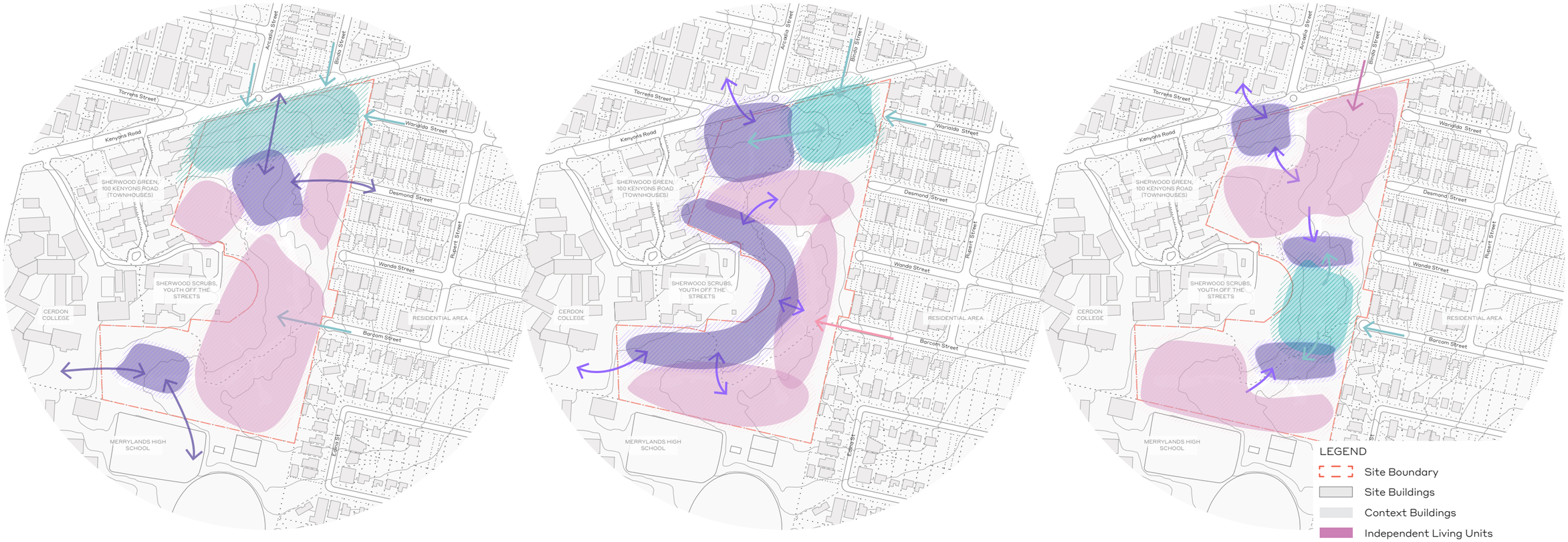
The RACF has been placed along Kenyons Road with the assumption that vehicle access could be provided from Kenyons Road. In close proximity to the RACF is a community centre that could be utilised by all residents and visitors. A secondary community centre has been placed between the schools and CGV as a space for intergenerational interaction and activities to occur.

Relocation Idea 2

The RACF has been placed along Kenyons Road and borders the residential area to the east. Access to this site could be placed along Kenyons Road or Warialda Street. Community Centres have been placed both internally and externally facing for use by the RACF, visitors, residents and the public living in the higher density buildings on the other side of Kenyons Road.

Relocation Idea 3

The RACF could be centred in a similar current location bounded by community centres that service residential areas to the north and south. Residential access could be provided along Kenyons Road with facilities both public and internally facing.



16 Illustration of Relocation Idea 1
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17 Illustration of Relocation Idea 2
SCALE 1:5000 @ A3

18 Illustration of Relocation Idea 3
SCALE 1:5000 @ A3

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3.0

DESIGN PRINCIPLES

3.0 Design Principles

Privacy + Community Interaction

Spaces within the masterplan will span from publicly accessible (privately owned) to completely private to the residents, creating spaces with three different types of interaction.

1. Public Places (privately owned): where residents and visitors can engage and interact with shared amenities
2. Semi-Public Environment: Smaller pockets of green space predominantly accessible by residents.
3. Semi-Private Spaces: Shared intimate spaces where residents can create their own identity.

Defined Open Space

Open spaces within the masterplan will be defined for different purposes and users. Various strategies applied to the public realm and outdoor furniture will bring connectivity, permeability and inclusiveness to the residents and visitors.

Intergenerational Exchange

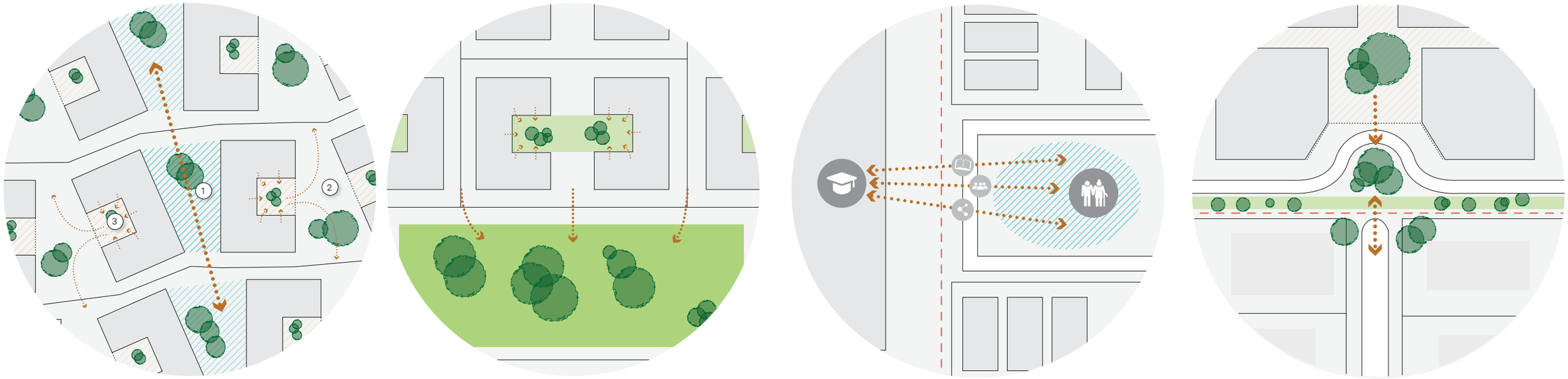
Proximity to Merrylands High School and Cerdon College creates an opportunity for interaction, exploration and transmission of knowledge.

There is the opportunity for seniors to share their wisdom and life experiences, and for students to share their skills. This opportunity will be considered spatially within the masterplan.

Being a Good Neighbour

The masterplan will respond sensibly to the various interfaces the site presents through setbacks, form, height and use. These interfaces include:

1. Sherwood Scrubs: the masterplan will explore possible engagements with this heritage building, whether it be visual or physical.
2. Merrylands High School and Cerdon College: offer the opportunity to connect the elderly community and students.
3. Residential Context (east and north interfaces): the masterplan will respond to the transition from low density to high density.



19 Illustrations of Design Principles

Staging + Flexibility

The masterplan will be implemented progressively during different stages. The staging will need to meet financial, management and community needs.

The masterplan, considering staging and changes that could be made throughout the length of the project, requires the design to incorporate flexibility and variety. This will allow for responses to future markets and requirements to occur seamlessly.

Retaining Natural Assets

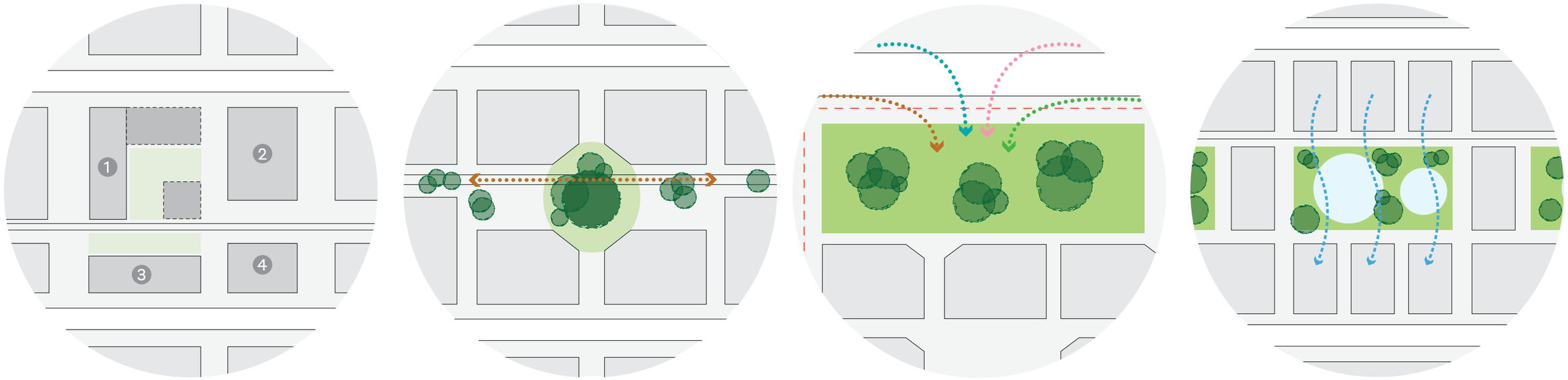
The site contains several trees that will bring benefit to any future resident. These trees will remain as point of references for residents as the built environment changes and coincide with open green spaces.

Inclusivity

Greater permeability and integration with the community at various scales, will allow for greater exchange between residents, visitors and the general public.

Urban Heat Island + Sustainability

The masterplan will explore ways to mitigate current and future temperature increases. This approach is relevant for Western Sydney with temperatures predicted to rise, something particularly important in the context of an ageing population. Other sustainability measures will be considered throughout the masterplan.



20 Illustrations of Design Principles

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4.0

MASTERPLAN

4.0 Masterplan

MASTERPLAN

4.1 Design Principles

The masterplan presents a well considered design that responds, in the most appropriate ways, to density, the site's boundaries and neighbours, pedestrian and car networks, access to the site and hierarchy of open/green spaces.

The masterplan provides an extensive amount of amenity to both the CGV residents, the wider public and visitors.

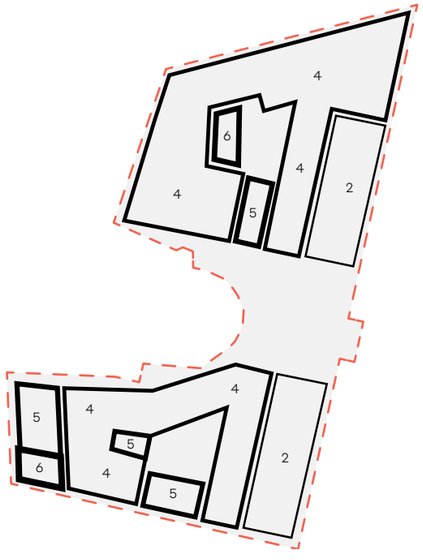
Density

Density will be concentrated in the centre of the northern precinct and within the southerly part of the southern precinct, bounding the open spaces of the schools. This will allow for a large central open space that is sensitive to the heritage site.

Along the northern boundary, there will be street facing, 4 storey buildings with ground floor permissible non-residential uses, open to the public and CGV residents.

Along the eastern boundary there will be 2 storey buildings, sensitive to the 2 storey residential context.

The changing levels and topography across the site allows for greater density to be achieved in certain locations, avoiding the stepping of building forms.



Public and Private Areas

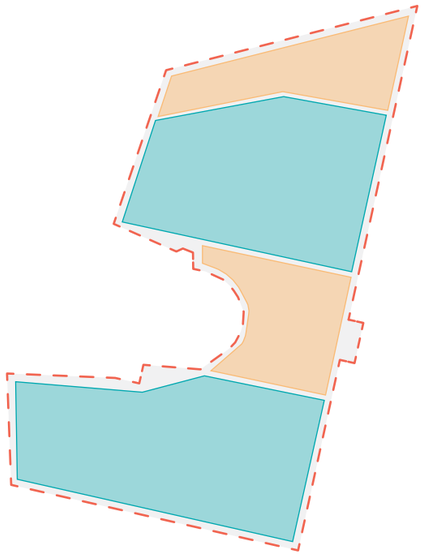
The layout of the masterplan allows for the northern and southern precincts to have a degree of privacy, whilst the central precinct can be open and accessible to the wider community.

The street facing buildings are open to the public on the ground floor levels providing amenity to the wider community and CGV residents.

LEGEND

Publicly Accessible

Private Areas
(Open in day, Swipe card at night)



Retaining Trees and Public Amenity

Within the masterplan, the retention of trees has been prioritised.

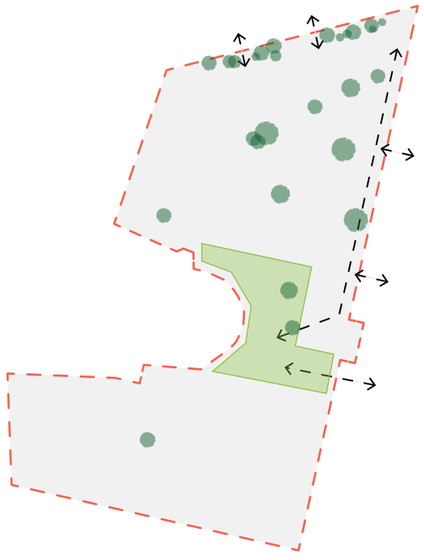
The views along the cul-de-sac roads on the eastern boundary align with retained mature trees, private garden spaces or the internal road network.

There is the possibility for public pedestrian access to be provided along the road network through public gates open at certain times of the day. This would allow for multiple public access points to the central green space whilst maintaining the privacy for the CGV residents.

LEGEND

Priority for Retention Trees

Public Open Space (Privately Owned)



MASTERPLAN

4.1 Design Principles

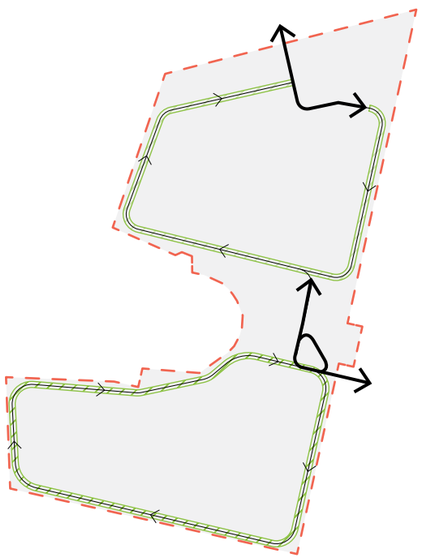
Road Network

Apart from the two entrances, the road network primarily travels along the boundary of the site. This creates a large central space for undisturbed pedestrian networks, creating walk-able communities and minimising clashes with cars.

The loops of the road networks are one way and the two entrances are two ways. The loops are relatively long, ensuring cars drive slowly and cautiously.

By proposing the road along the boundary, greater separation is achieved between the neighbours and proposed buildings.

These proposed low speed roads will be landscaped to provide amenity to pedestrians and visitors and deal with noise and lights from cars.

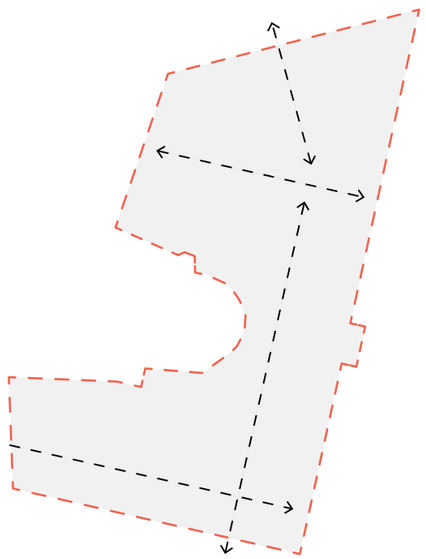


Internal Pedestrian Network

The masterplan includes a north-south pedestrian connection travelling the extent of the site and ending at the RACF. This north-south connection angles when it meets the RACF to align with the pedestrian and car entrance from Kenyons Road.

There are two east-west connections, one in the northern precinct and the other in the southern precinct.

These direct lines of sight and pedestrian movement allow for easy way finding for the residents of CGV and for the different precincts to be easily navigated to and from.

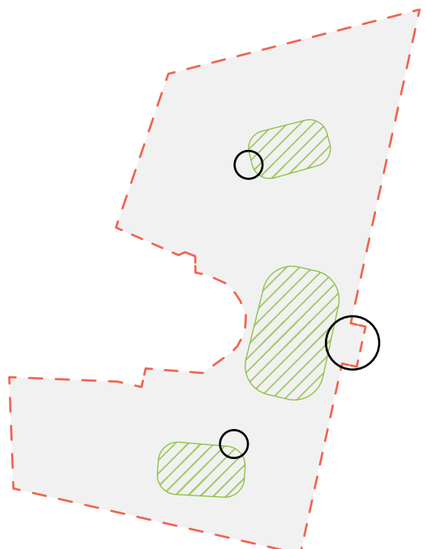


Publicly Accessible Space

The masterplan includes three community centres accompanied by open green space.

The central green space and proposed community centre building are the most prominent and important, located centrally between the northern and southern precincts. This space is privately owned and open to the residents and their guests.

The smaller community centres and green spaces within the northern and southern precincts can be open to the public in the day and private to the residents of CGV at night. This will create smaller more intimate and safe atmospheres for community engagement and activities.



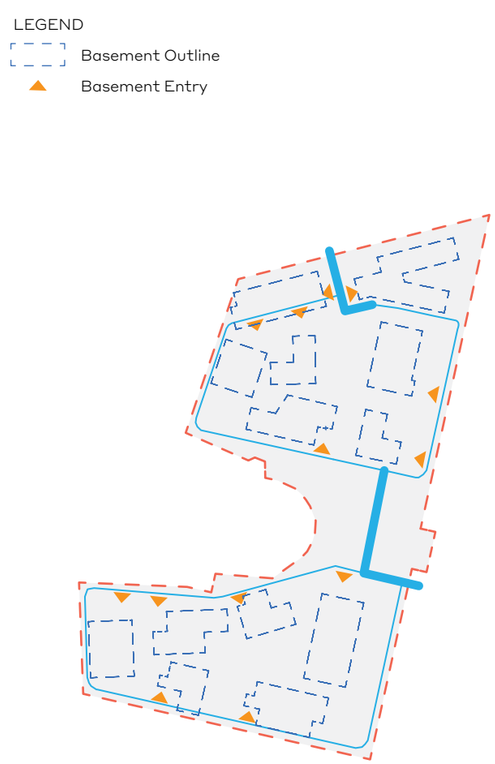
Basements and Parking

Basements will be built under different groupings of the buildings (aligned with the future staging of the project). Basement entries will come off the one way roads.

Along the one way roads will be some on-street parking for easy and quick drop off, visitor parking will be in the basements.

This strategy of parking will ensure residents have car spaces near their apartment and that there will be spaces for visitors too.

Non-residential car park spaces will come off the two way roads.



4.2 Masterplan

4.2.1 Overview of Masterplan

- The masterplan is divided into three precincts, North, Central and South.
- Possible connections to both schools have been indicated.
- An extensive buffer zone to the heritage building is provided.

Building Typology

- The total number of buildings is 18.
- There is 8 buildings in the Northern Precinct, 9 in the Southern Precinct and 1 building (the proposed Community Centre) in the central precinct.
- Buildings along Kenyons Road are 4 storeys. The RACF is partially 3 storeys to respond to the topography.
- There is one 6 storey building (D) and one 5/6 storey building (I), concentrating the tallest buildings in the centre of the northern precinct and to the southerly part of the southern precinct.
- In the southern precinct the topography allows for buildings to have an extra storey as the site falls from north to south. Therefore there is one 5/6 storey building (I) and a 4/5 storey building (K).
- The connected 2 and 4 storey buildings on the eastern boundary are adjacent to low density single dwellings.
- Most buildings have an east-west orientation to comply with solar access requirements.

RAC Facility (Building B)

- The RACF is located next to the main entrance and is easily accessible by public transport, cars and pedestrians.

Road Network

- The road network consists of one way and two way roads.
- The loops of the road network are relatively long ensuring traffic drives slowly.
- View corridors to gardens, from the roads on the eastern boundary are created.

Open Space

- There is a hierarchy of green spaces with public (privately owned), semi-public to the residents and semi-private to the residents green spaces.
- The central green space contains the community centre, the existing bus stop and is intersected by the main north-south pedestrian boulevard.
- Three clear accessible green spaces are created, each with a distinctive purpose / character.
- The view when entering through either entrance is green open space and trees.
- The open spaces are overlooked by buildings, allowing for passive surveillance by residents.

21 Illustration of Masterplan

SCALE 1:2500 @ A3

4.2.2 Overview of Yield

Independent Living Units

In total there is **460 Independent Living Units,** of these:

- 93 1 bedroom units at 70m2 (NSA) - 20%
- 348 2 bedroom units at 100m2 (NSA) - 76%
- 19 3 bedroom units at 130m2 (NSA) - 4%

In total there is **51 565m2 (GFA)** for the ILU's.

RAC Facility

In total there are **153 beds in the RACF**, each at 65m2 (GBA) / 30m2 per a room (NSA).

In total there is **7442m2 (GFA)** for the RACF.

Open Space

In total **62% of the site is open space** (all space on site excluding roads and building footprints).

Community Centres

In total there is **1311 m2 (GFA)** of space for community centres (excluding the proposed community centre building).

Space for other permissible non-residential uses

In total there is **1480 m2 (GFA)** of space for other permissible non-residential uses on site.

Total Site Area and FSR

The total site area is **74 886 m2 .**

The total GFA of the proposed masterplan is **61 797 m2.**

The FSR is **0.83 : 1**

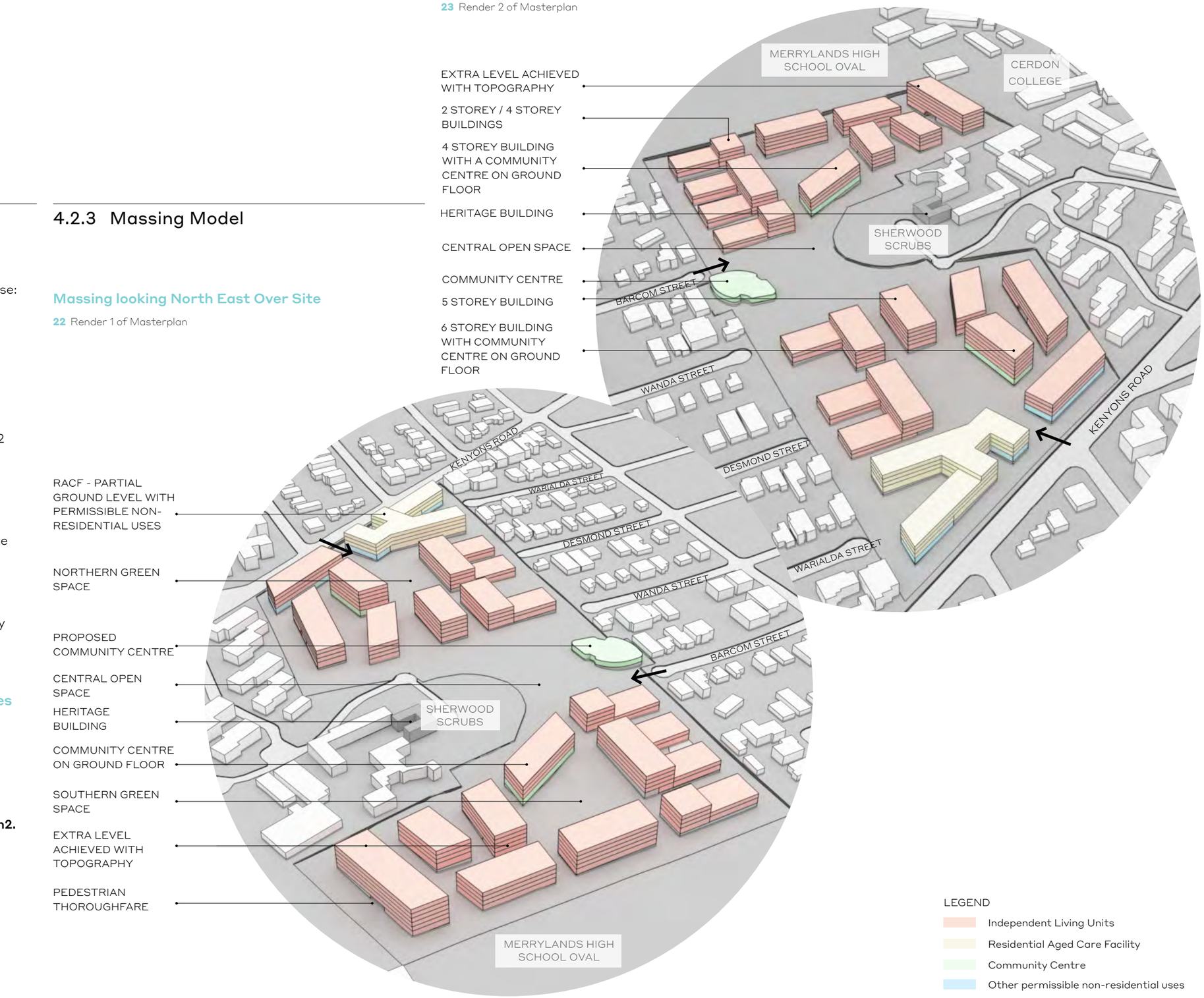
4.2.3 Massing Model

Massing looking North East Over Site

22 Render 1 of Masterplan

Massing looking South West Over Site

23 Render 2 of Masterplan



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4.2.4 Traffic

Two-way road entrances and One-way road loops

There are two entrances proposed in the masterplan, one from Kenyons Road and the other from Barcom Street. Both these entrances are two way roads.

From Kenyons Road the two way road can take cars and ambulances into the RACF or to a roundabout where they can drop off and return out of the site. Cars entering from this entrance can then enter onto the one way loop road circling the northern precinct. The internal roundabout at the entrance from Kenyons Road is large enough for ambulances and delivery vehicles.

From Barcom Street the two way entrance allows for cars to enter into the site and leave by turning around via the roundabout. Otherwise, the cars entering from here can choose to enter into the northern or southern one way road loop. This location for the roundabout has the ability to allow for buses to enter into and back out of the site, refinement of this roundabout is subject to the detailed design stage.

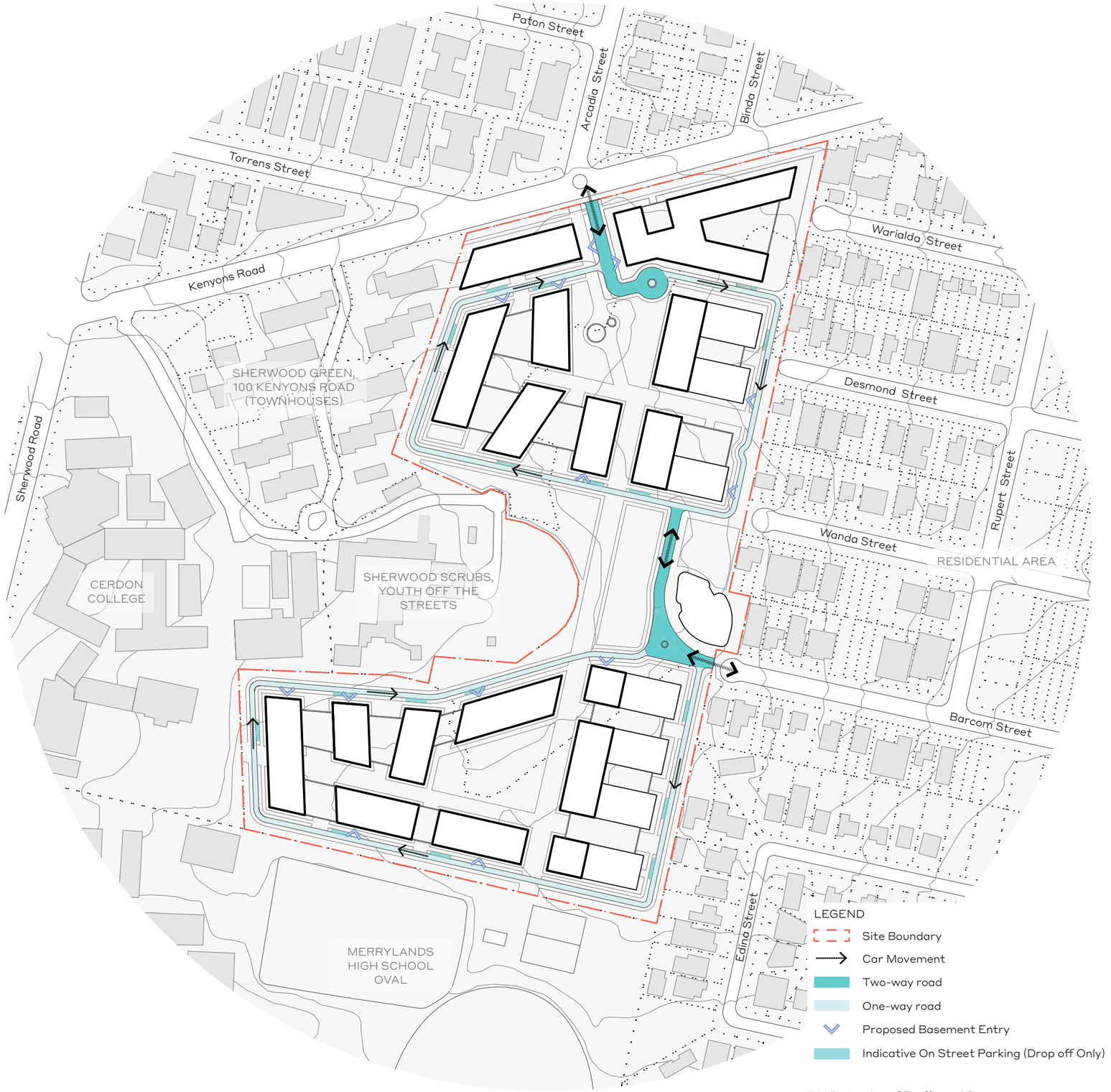
Multiple Basement Entries

There will be basement entries located along the one way road loops. These basement entries are placed to not clash with the pedestrian entries into the buildings, the pedestrian boulevards or any trees that are a priority for retention.

On Street Parking for Drop Off Only

There will be 2 parking spaces provided per a building for drop off only coming off the one way road loops. These spaces will be located in close proximity to the entrances of the buildings.

This will make it easy for residents to be dropped back to their homes if transported somewhere by car. Permanent parking will be in the basements.



24 Illustration of Traffic and Basements

SCALE 1:2500 @ A3

NORTH

4.3 Northern Precinct

4.3.1 Overview

- The northern precinct consists of the RACF building with 153 beds, 7 ILU buildings and the northern green space.
- Every building, apart from Building A, has access to a private garden area on the ground level. Building A will be provided a private open space through the provision of a rooftop garden or courtyard.
- Building A and Building B offer other permissible non-residential uses on ground floor that open out onto Kenyons Road.
- Building A and B are setback 10m from the boundary to allow for the retention of mature trees.
- Building C has been designed to include a public thoroughfare and ensure the preservation of a priority for retention tree.
- The northern green space is central to the northern precinct. The green space retains multiple existing priority for retention trees.
- Building D offers a community centre on the ground floor.
- Buildings are generally setback 15m from the boundary.

LEGEND

- Site Boundary
- Green Space
- Private Garden Space
- Community Centre
- Permissible non-residential uses
- 4,5 or 6 Storey Building
- 2 Storey Building
- Road
- Existing Tree
- Priority for Retention Tree + Tree Protection Zone
- Proposed Trees
- Pedestrian Movement
- Car Movement
- Entrance
- Building Letter
- Indicative Fence Line
- Existing Bus Stop
- Indicative On Street Parking (Drop off Only)

26 Key Plan - Northern Precinct
1:20 000 @ A3

25 Illustration of Northern Precinct
SCALE 1:1000 @ A3

NORTH

4.3 Northern Precinct

4.3.2 Characteristics

Building A and B - Permissible Non-residential Uses

Partial areas of the ground floors of Building A and B will provide permissible non-residential uses to both the wider public and the residents of CGV. As a result, access to these buildings will be both internally and externally.

In Building A above the ground floor there will be ILU's.

Partially on the ground floor and on the higher levels of Building B there will be the RACF, housing 153 beds.

Building D - Community Centre on Ground Floor

Building D will house a community centre for the residents. This community centre will be located on the ground floor opening out into the northern green space.

Private and Public Space

The indicative fence line details the secure area within the Northern Precinct that is only accessible by the residents at night. The buildings fronting the street are not within the 'secure area' as these are accessible by the public.

Pedestrian Network - Internal and External

The public have access to the pathways on the perimeter of the secure areas, providing easy access to the public facilities (privately owned), internal to the site.

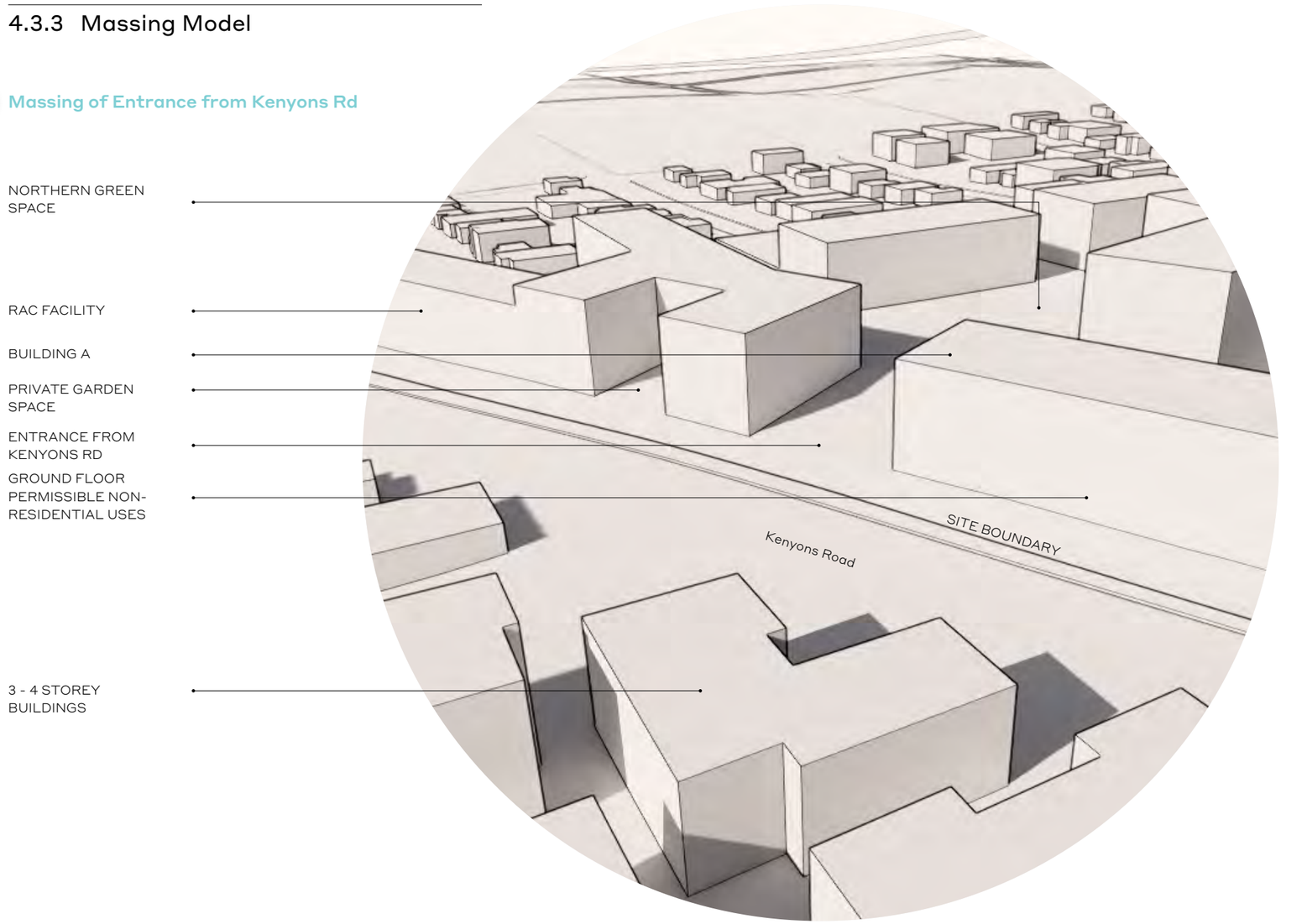
During the day the public can access the internal semi-public green spaces in the northern and southern precincts but at night it will be restricted by a swipe card. CGV Residents can access all areas with their swipe cards.

Utilising Topography

Topography allows for an extra storey to be added to part of Building E, avoiding the stepping of buildings internally. Along Kenyons Road, topography allows for the stepping of the building to ensure it remains sensitive to the surrounding context.

4.3.3 Massing Model

A **Massing of Entrance from Kenyons Rd**



27 Render 3 of Masterplan

NOT TO SCALE

CENTRAL

4.4 Central Precinct + Heritage

4.4.1 Overview

- The central precinct is the central hub of the village housing the large public (privately owned) green space and community centre.
- The public park is open to both the residents of CGV and the public.
- The community centre is open to the residents of CGV and their guests.
- The relationship to the heritage building is considered here with a complementary relationship between the heritage building, heritage trees and CGV proposed.
- The north-south boulevard cuts through the central precinct providing easy way finding and lines of visual connection from the north precinct to the south precinct and vice versa.

29 Key Plan - Central Precinct
1:20 000 @ A3

LEGEND

- Site Boundary
- Green Space
- Private Garden Space
- Heritage Buildings
- Community Centre
- Permissible non-residential uses
- 4,5 or 6 Storey Building
- 2 Storey Building
- Road
- Existing Tree
- Priority for Retention Tree + Tree Protection Zone
- Proposed Trees
- Pedestrian Movement
- Car Movement
- Entrance
- Building Letter
- Indicative Fence Line
- Existing Bus Stop

28 Illustration of Central Precinct
SCALE 1:1000 @ A3

4.4 Central Precinct + Heritage

4.4.2 Characteristics

Relationship to Heritage

The Heritage building on the Sherwood Scrubs site is provided with an extensive setback. At the northern side of the heritage building it is setback from the nearest buildings by 44m and 32m.

To the southern side of the site the proposed buildings are setback from the Heritage site between 21m and 57m. Building J and K are only setback 21-28m from the nearest building on Sherwood Scrubs site, yet this building is not the original heritage building.

Public Park + Community Centre

Within the central precinct is a large park accessible by all CGV residents and the public. The Community Centre opens out into this space providing a central and connected community hub for all the residents of both the northern and southern precincts.

The park responds appropriately to the Heritage site and complements the large trees on the site boundary to Sherwood Scrubs.

This park is open to the public but privately owned and operated by SCC.

Existing Bus Stop

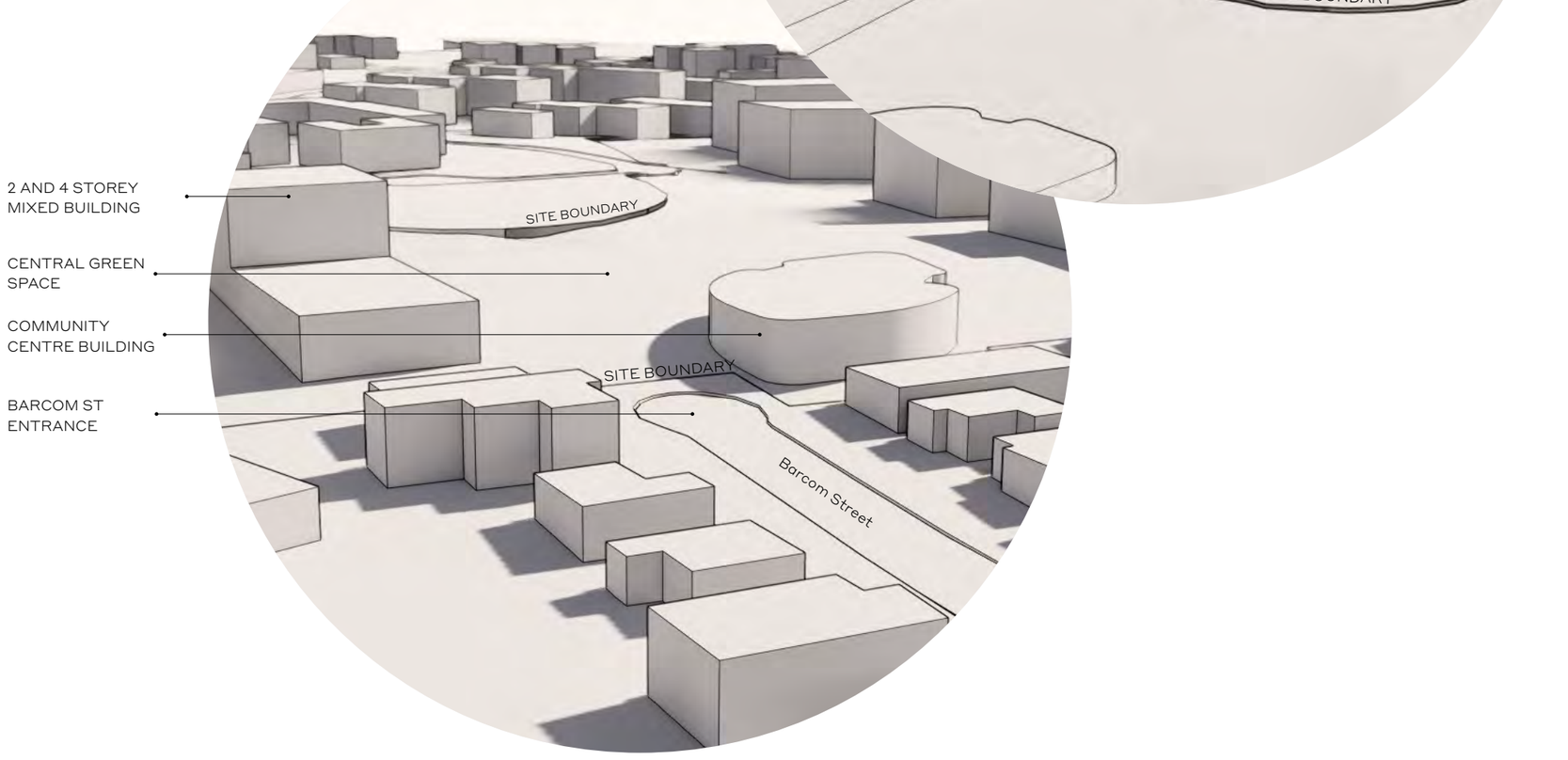
The internal Bus Stop of CGV is located within the Central Precinct and is accessible easily by both residents from the northern and southern precincts. Its location also makes it easy for buses entering and exiting the site.

4.4.3 Massing Model

A **Massing of Entrance from Barcom Street**

30 Render 4 of Masterplan

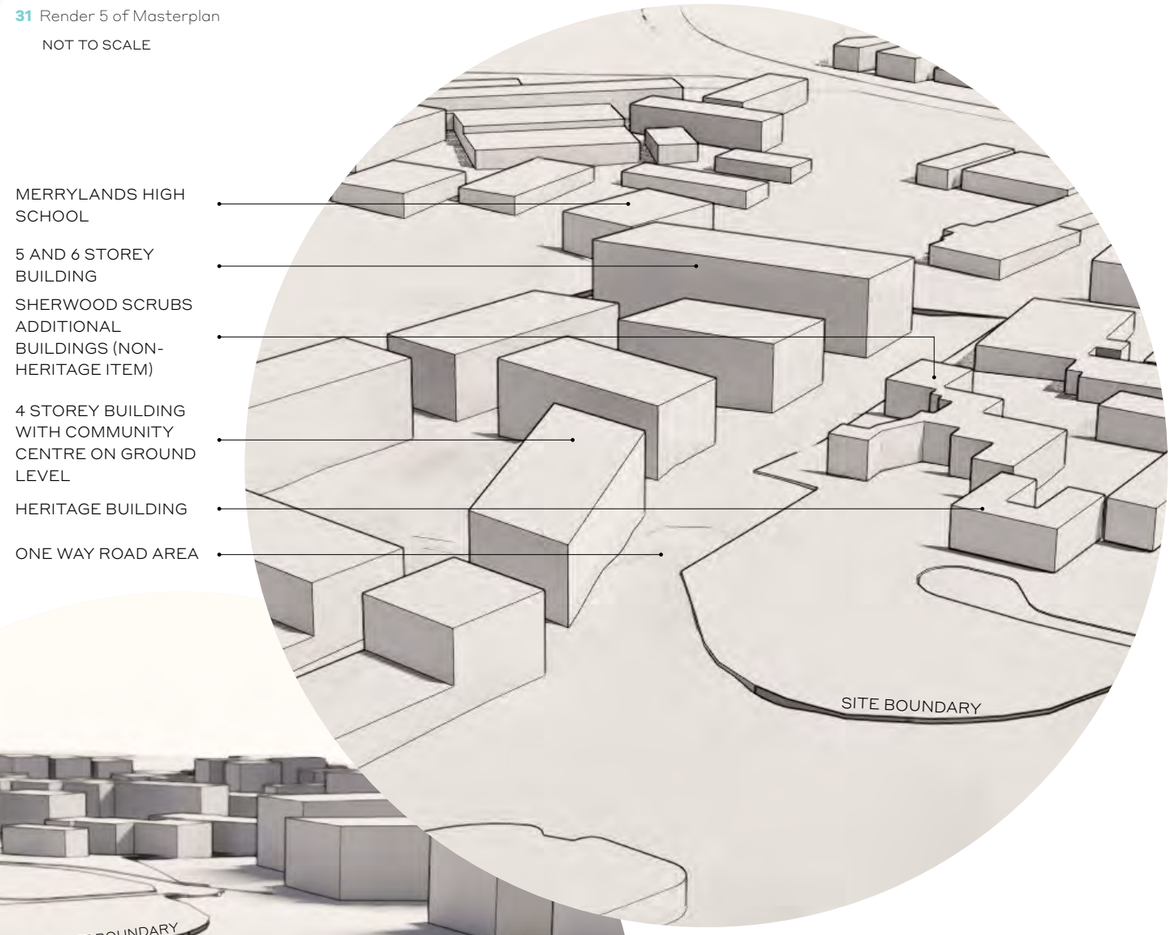
NOT TO SCALE



B **Massing along Southern Precinct Boundary**

31 Render 5 of Masterplan

NOT TO SCALE



SOUTH

4.5 Southern Precinct

4.5.1 Overview

- The Southern precinct consists of 9 ILU buildings and the southern green space.
- All buildings have access to a private garden area at ground level.
- The open space is central to the southern precinct. This space is access controlled with a swipe card required during the night.
- The southern green space align with the east-west pedestrian boulevard running through this precinct.
- Building L offers a community centre on the ground floor.
- Buildings are generally setback 15m from the boundary.
- Building I has been designed to include a public thoroughfare that could allow for potential future connections with Cerdon College to be formed.

LEGEND

- Site Boundary
- Green Space
- Private Garden Space
- Community Centre
- Permissible non-residential uses
- 4,5 or 6 Storey Building
- 2 Storey Building
- Road
- Existing Tree
- Priority for Retention Tree + Tree Protection Zone
- Proposed Trees
- Pedestrian Movement
- Car Movement
- Entrance
- Building Letter
- Indicative Fence Line
- Existing Bus Stop
- Indicative On Street Parking (Drop off Only)

32 Key Plan - Southern Precinct
1:20 000 @ A3

33 Illustration of Southern Precinct
SCALE 1:1000 @ A3

SOUTH

4.5 Southern Precinct

4.5.2 Characteristics

Building L - Community Centre on Ground Floor

Building L will house a community centre for the residents. This community centre will be located on the ground floor opening out into the central green space in the Southern Precinct.

Private and Public Space

The indicative fence line details the secure area within the Southern Precinct that is only accessible by the Residents. All buildings are contained within this.

Access to Merrylands High School and Cerdon College

The pedestrian boulevards in the southern precinct have been continued beyond the residential areas to allow for possible future connections to both High Schools. These potential thresholds could be locked when not in use.

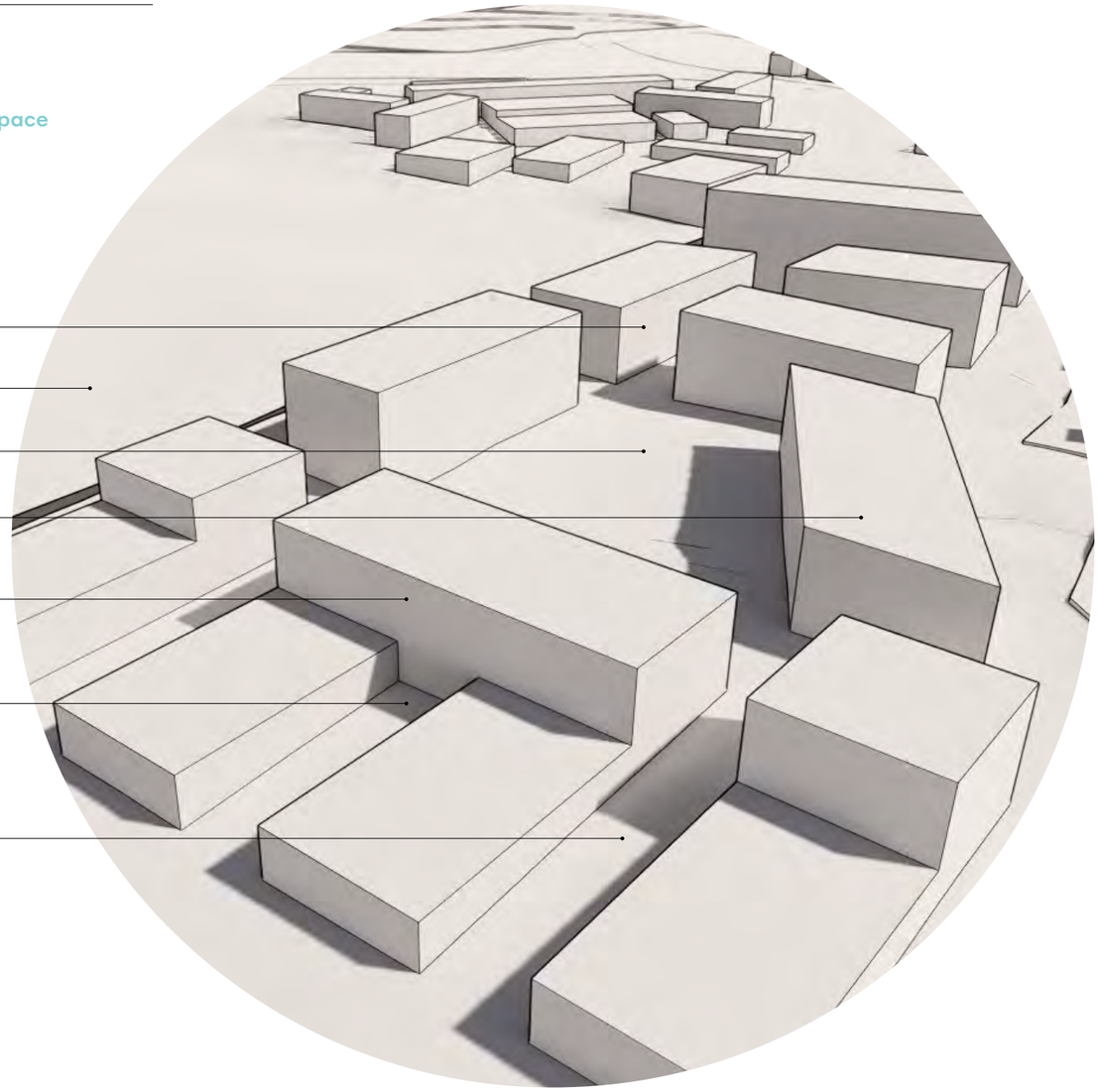
NOTE: Topography allows for an extra storey to be added to part of Building I, K and N, avoiding the stepping of the building form.

4.5.3 Massing Model

A **Massing of Southern Precinct Open Space**

34 Render 5 of Masterplan

NOT TO SCALE



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5.0

SOLAR ACCESS

5.0 Solar Access

SOLAR ACCESS

5.1 Buildings

- The following diagram illustrates the degree of compliance achieved by building envelopes of the masterplan.
- Solar analysis was carried out based on the following parameters as outlined in the SEPP 65 Solar Access requirements:
  - Analysis occurs on the 21st June (Mid Winter)
  - Analysis occurs between 9am - 3pm
  - Non-compliant surfaces are those that do not receive 2 hours of sunlight between the above times
  - Compliant surfaces are those that do receive 2 hours of sunlight between the above times
- 62% of building envelope surfaces are compliant.
- SEPP 65 requires 70% of apartments in a building to receive, as a minimum, 2 hours direct sunlight between 9am and 3pm at mid winter.
- As a result the apartments will need to be designed to ensure, at a minimum, 70% of the apartments have access to the building surfaces that receive 2 hours of sunlight mid winter.
- Buildings are capable of complying with SEPP 65 solar access requirements.

LEGEND

- Site Boundary
- ADG Compliance Surface
- ADG Non-Compliance Surface

35 Illustration of Solar Access Compliance - North East

NOT TO SCALE

SOLAR ACCESS

5.1 Buildings

LEGEND

- Site Boundary
- ADG Compliance Surface
- ADG Non-Compliance Surface

36 Illustration of Solar Access Compliance - South West

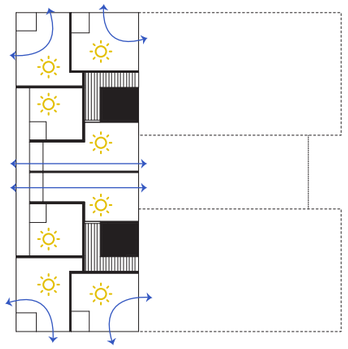
NOT TO SCALE

5.2 Example Apartment Solar Appliance

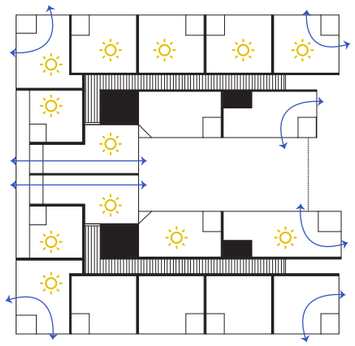
5.1.1 Indicative Apartment Layout - Building N

Building N has been used to demonstrate an indicative layout of the ILU's. Demonstrating that the building envelopes are capable of complying with SEPP 65.

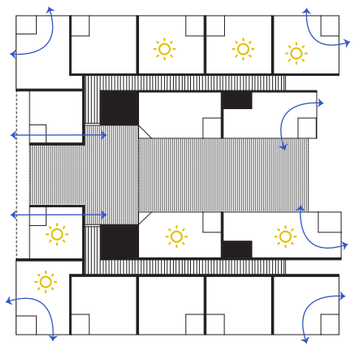
In total **74% of apartments have solar access** and 65% **have cross ventilation.**



37 Upper Level Floor Plan - Building N
1:1000 @ A3

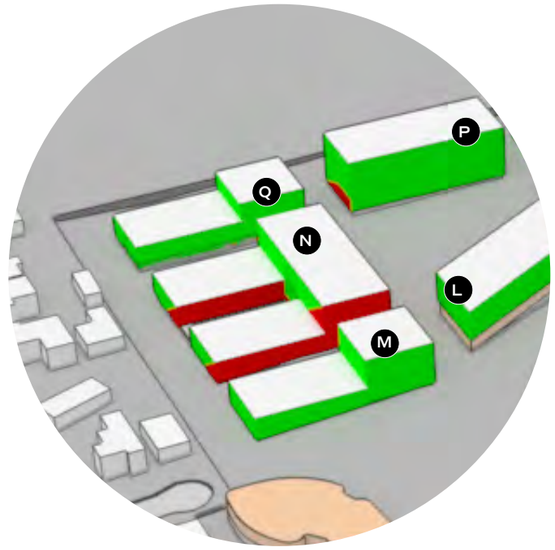


38 Typical Floor Plan - Building N
1:1000 @ A3



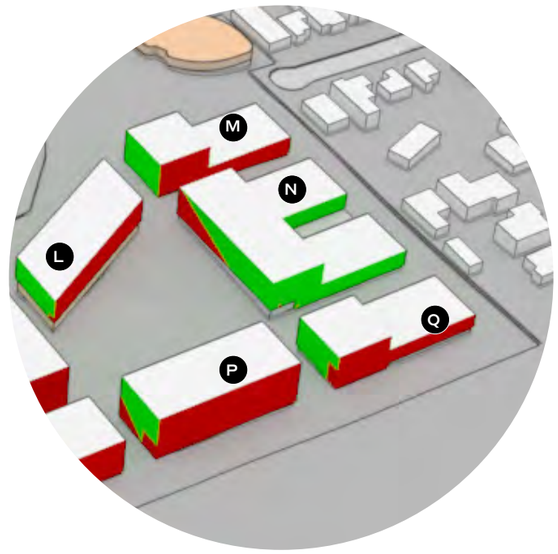
41 Ground Floor Plan - Building N
1:1000 @ A3

LEGEND
Solar Access Provided to Apartment
Cross Ventilation Provided to Apartment



39 Solar Access Diagram: Compliant Façades - SEPP 65
NOT TO SCALE

LEGEND
Site Boundary
ADG Solar Access Compliance Surface
ADG Solar Access Non-Compliance Surface



40 Solar Access Diagram: Non-compliant Façades - SEPP 65
NOT TO SCALE

5.3 Open Space

- The following diagram illustrates the degree of solar access achieved by the draft masterplan.
- Areas in green achieve 2 hours of solar access between 9am and 3pm on 21st June.
- 69% of all open space receives at minimum 2 hours of sunlight hours between the above times and dates.

LEGEND

- Site Boundary
- ADG Compliance Surface
- ADG Non-Compliance Surface

42 Illustration of Solar Access Compliance - Plan

NOT TO SCALE

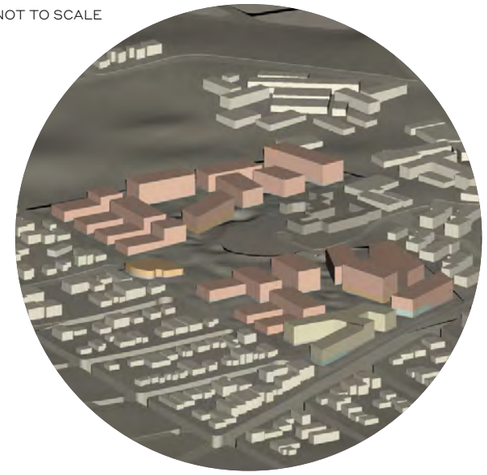
SOLAR ACCESS

5.4 Shadow Study

- The following 3D images capture the sun position at 9am, 12pm and 3pm on the 21st of June (Winter) in relation to the site.
- The plan images capture the shadows at each of the times of day.
- The impact on the surrounding character is minimal.

43 Illustration of site at 9am Winter

NOT TO SCALE

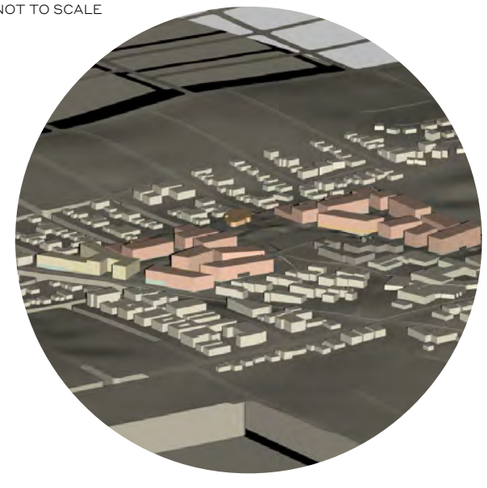


44 Illustration of site at 12pm Winter

NOT TO SCALE

45 Illustration of site at 3pm Winter

NOT TO SCALE



47 Illustration of shadows at 9am Winter

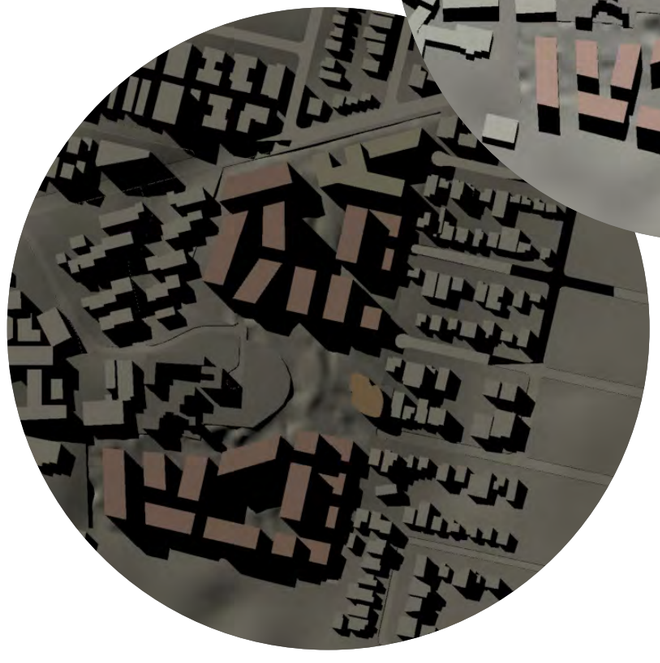
NOT TO SCALE

46 Illustration of site at 12pm Winter

NOT TO SCALE

48 Illustration of site at 3pm Winter

NOT TO SCALE



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6.0

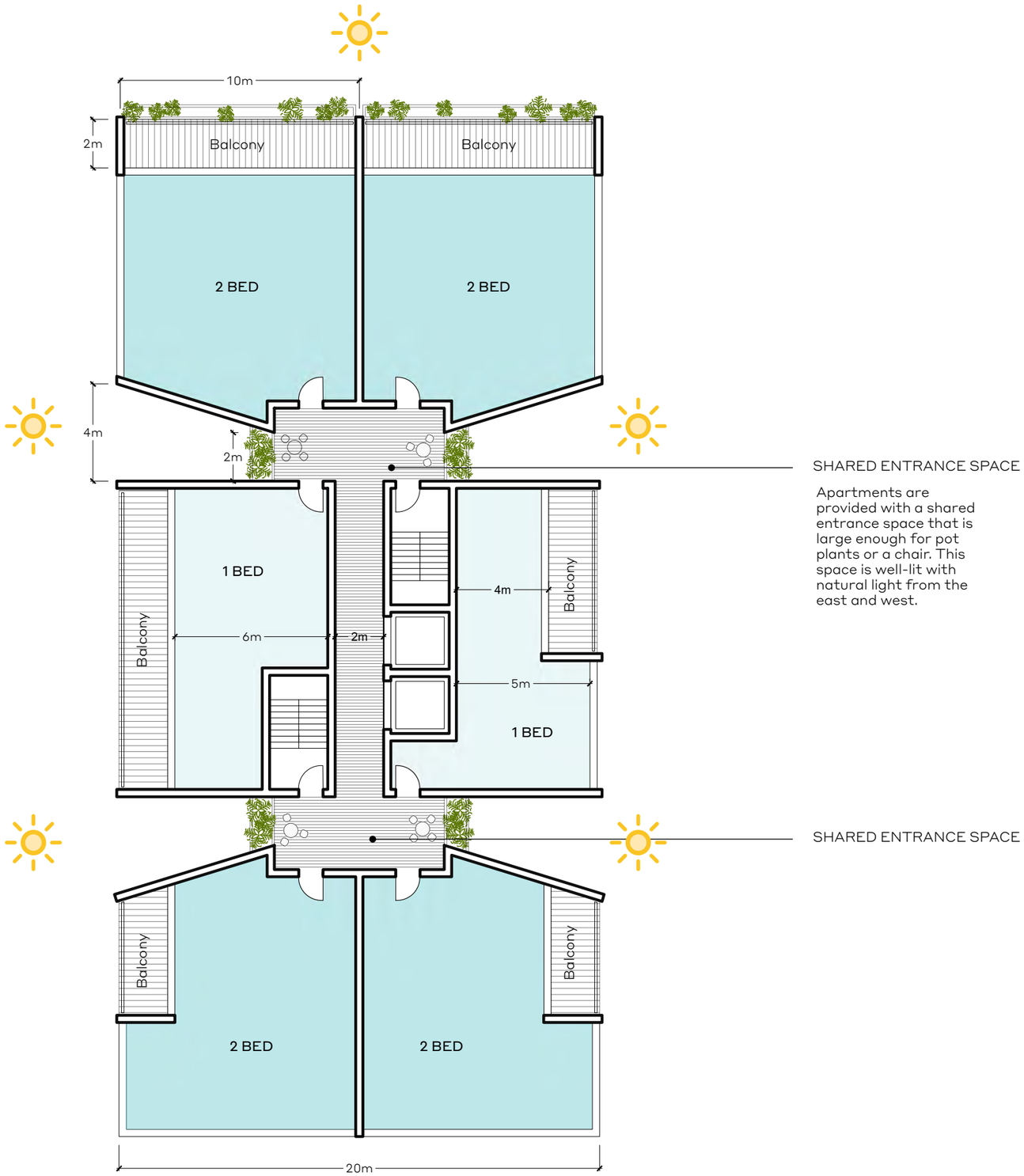
TYPICAL FLOORPLANS

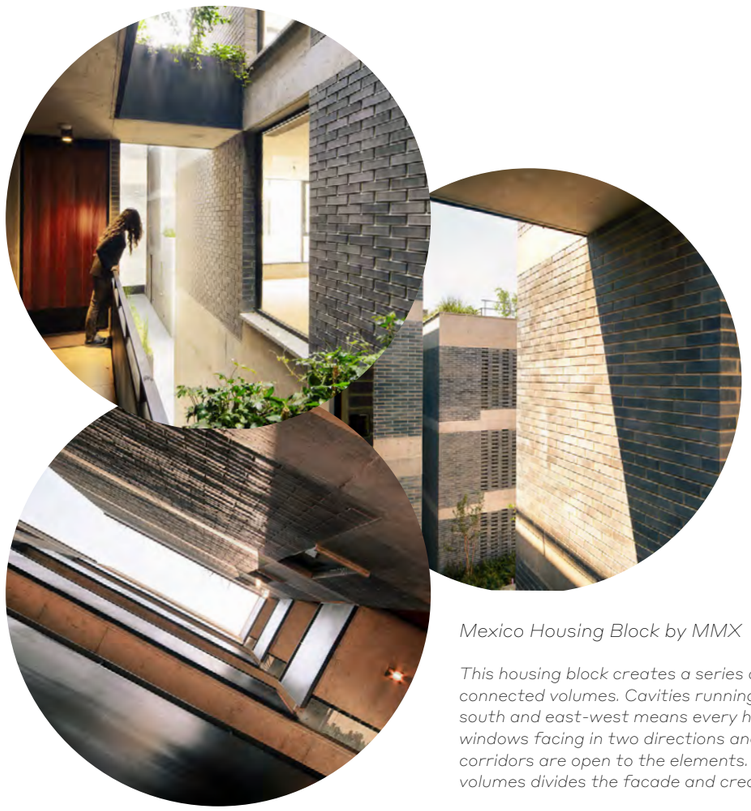
6.0 Typical Floorplans

FLOOR PLANS

6.1 Type 1: East-West Typology

- This floorplan for east-west orientated buildings situate the apartments equally on either side of the building.
- Entrance spaces have been created in this type through angled openings. These accentuate the light entering into the space and the views outwards to create a conceptual 'front garden' where residents can mingle with there neighbours.
- This typology has been applied to Buildings C, D, F, G, I, J, and K. It has been adapted to suit the variations in the building envelopes.





Mexico Housing Block by MMX

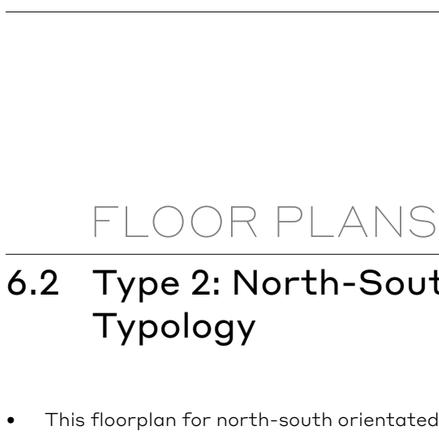
This housing block creates a series of connected volumes. Cavities running north-south and east-west means every home has windows facing in two directions and access corridors are open to the elements. The open volumes divides the facade and creates depth.

49 Illustration of Type 1 Apartment

1:200 @ A3

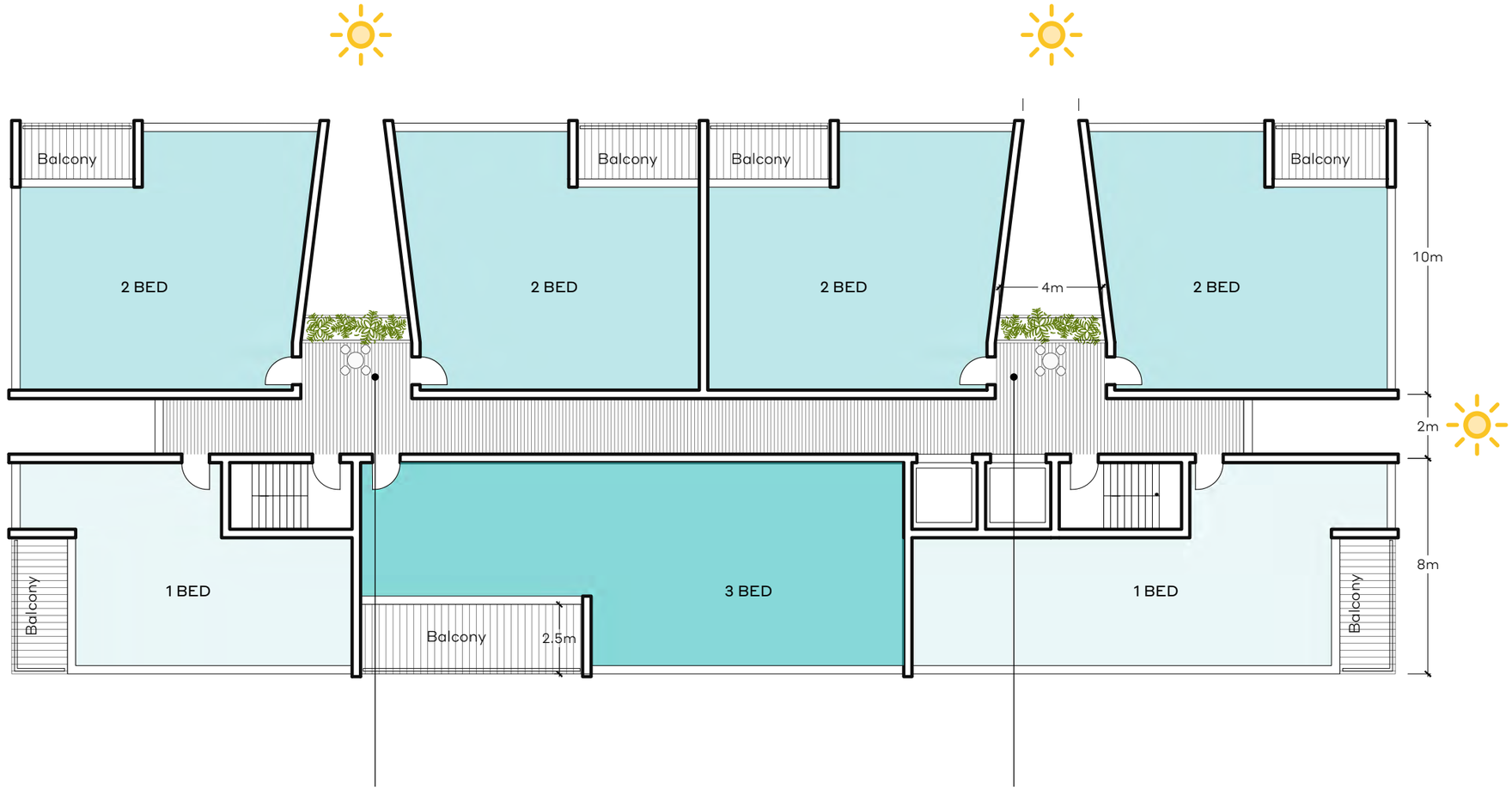
6.2 Type 2: North-South Typology

- This floorplan for north-south orientated buildings aims to maximise solar access by orientating the majority of apartments along the northern facade.
- Entrance spaces have been articulated in this typology through angled openings on the northern face. This prioritises daylighting, frames views and creates a space for a conceptual 'front garden' where residents can mingle with there neighbours.
- This typology has been applied to Buildings A, E, H, L, M, N, O, P, and Q. It has been adapted to suit the variations in the building envelopes.



Senior Citizens Housing, Masans, Switzerland By Peter Zumthor

The apartments in this complex are all connected by an external corridor that is wide enough for residents to use as a communal, social space. The apartments are arranged around a spacious courtyard.



SHARED ENTRANCE SPACE

Apartments are provided with a shared entrance space that is large enough for pot plants or a chair. This space is well-lit with natural light coming from the north.

SHARED ENTRANCE SPACE

50 Illustration of Type 2 Apartment

1:200 @ A3

6.3 Typical Floor Plans Northern Precinct

- This drawing of the northern precinct shows the typical layouts for all the ILU buildings.
- The Northern precinct consists of:
  - One Type 2 building, Building A.
  - Five Type 1 buildings, Buildings C, D, F and G.
  - One building that is a mix of both Type 1 and Type 2, Building H.
  - Building E is another typology of building, adopting some characteristics of Type 1.

52 Key Plan - Northern Precinct
1:20 000 @ A3

51 Illustration of Typical Floorplans Northern Precinct
SCALE 1:1000 @ A3

6.4 Typical Floor Plans Southern Precinct

- This drawing of the southern precinct shows the typical layouts for the ILU buildings.
- The Southern precinct consists of:
  - Three Type 1 buildings, Buildings I, J and K .
  - Five Type 2 building, Building L, M, O, P and Q.
  - One building that is a mix of both type 1 and type 2, Building N.

53 Illustration of Typical Floorplans Southern Precinct

SCALE 1:1000 @ A3

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6.5 Typical Floor Plans RACF

- The plan of the RACF places the rooms along the arms of the building.
- Each room is 25m2 with a 5m2 bathroom.
- The central common area of the building is connected to each of the arms and the private RACF gardens.
- Within the arms of the RACF there are semi-private communal spaces for the residents.
- The semi-private spaces along the arms are accentuated by diagonal walls, similar to that seen in the typical floor plans. These accentuate views and daylight entering into the spaces.

56 Key Plan - RACF
1:20 000 @ A3

55 Illustration of Typical Floorplan RACF
SCALE 1:500 @ A3

LEGEND
- Site Boundary
- Private Garden Space
- Aged Care Bedroom
- Staff Room / Storage
- Common Area
- Core
- Shared Private Spaces
- Shared Corridor

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7.0

TYPICAL BASEMENT LAYOUTS

7.0 Typical Basements

BASEMENTS

7.1 Typical Basements Northern Precinct

- Basement locations and layouts relate to the staging of the development.
- Driveway access is off the perimeter roads.
- The minimum requirement for parking spaces has been provided using the Holroyd DCP 2013 and SEPP Housing for Seniors or People with a Disability 2004.
- The controls guiding the basements are as follows:
    - 1 car space for a 1 bedroom unit
    - 1 car space for a 2 bedroom unit
    - 1.2 car space for a 3 bedroom unit
    - 0.2 car space per a visitor
    - 1 car space for every 30m2 of a neighbourhood shop
    - 1 space per every 10 RACF beds
    - 1 space for each 2 people employed at the RACF
    - 1 space suitable for an ambulance
    - 5% of total car spaces are accessible spaces
- There are 7 basements in the northern precinct supporting 7 ILU buildings and 1 RACF Building.
- Building F and G share a basement.

Please note that drawings are indicative only. Further technical requirements may need to be allocated on basements at a detailed stage of development.

57 Illustration of Basement Layout Northern Precinct

SCALE 1:1000 @ A3

7.2 Typical Basements Southern Precinct

- There are 6 basements in the southern precinct supporting 8 ILU buildings.
- Building J and K share a basement.
- Building M and N share a basement.
- Building P and Q share a basement.

Please note that drawings are indicative only. Further technical requirements may need to be allocated on basements at a detailed stage of development.

LEGEND

- Spaces for persons with disabilities
- Neighbourhood shop spaces
- Minimum parking spaces
- Ambulance Space

58 Illustration of Basement Layout Southern Precinct

SCALE 1:1000 @ A3

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8.0

APPENDIX A
DETAILED YIELD

8.0 Appendix A - Yield

YIELD

8.1 Yield - Masterplan

8.1.1 Total Yield

SITE AREA	74886	
TOTAL GFA	61,797	m2
TOTAL NSA	51,919	m2
FSR	0.83	:1

Independent Living Units GFA	51,565	m2
Residential Aged Care Facility GFA	7,442	m2
Neighbourhood Shops GFA	1,480	m2
Community Facilities GFA	1,311	m2 *(not including proposed community centre)*

ILUs	Number
TOTAL 1 Bed	93
TOTAL 2 Bed	348
TOTAL 3 Bed	19
Total ILUs	**460**

Total RACF Bedrooms	**153**

Carspaces	Number
ILUs	557
Retail	50
RACF	51
Total Carspaces	**658**

(not including the 1 extra space for an Ambulance)

8.1.2 Assumptions

Apartment Size and Mix

Apartment Type	Apartment Size (NSA)	Apartment Mix
1 Bedroom Apartment	70sqm	15%
2 Bedroom Apartment	100sqm	80%
3 Bedroom Apartment	130sqm	5%

Efficiency

Level	GBA Efficiency	NSA Efficiency
Ground Floor	65%	75%
Level 1 +	75%	85%

Car Parking

- All ILUs, RACF, Neighbourhood Shops and visitor spaces are located on basements.
- 2 x car park spaces at grade per building for drop-off only.
- The car park spaces have been calculated based on the controls below:

Legislation	Number of Spaces	Per
Residential Flat Buildings (ILUs) (Holroyd DCP)	1	Studio / 1 Bedroom Apartment
	1	2 Bedroom Apartment
	1.2	3 Bedroom Apartment
	0.2 (Visitor)	Every Apartment
Neighbourhood Shop (Holroyd DCP)	1	Every 30sqm of leasable GFA
Residential Care Facilities (SEPP Housing for Seniors or People with a Disability 2004)	1	10 Beds
	1	2 persons employed in connection with the development and on duty at any one time
	1 for an Ambulance	
Persons with a Disability (SEPP Housing for Seniors or People with a Disability 2004)	5% of car spaces	To be an accessible care space (at least one if fewer than 20 spaces)

BUILDING YIELDS

NORTHERN PRECINCT

BUILDING A - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	**5,164**	**sqm**			**3,744**	**sqm**		**3,098**	**sqm**					**26**			**59**
	Ground	**1,291**	**sqm**	*Retail*	*65%*	**839**	**sqm**	*75%*	**629**	**sqm**	*1Bed*	*70*	*sqm*	*15%*	**5**	1Bed	1	**5**
	1	**1,291**	**sqm**	*Residential*	*75%*	**968**	**sqm**	*85%*	**823**	**sqm**	*2Bed*	*100*	*sqm*	*80%*	**20**	2Bed	1	**20**
	2	**1,291**	**sqm**	*Residential*	*75%*	**968**	**sqm**	*85%*	**823**	**sqm**	*3Bed*	*130*	*sqm*	*5%*	**1**	3Bed	1.2	**1**
	3	**1,291**	**sqm**	*Residential*	*75%*	**968**	**sqm**	*85%*	**823**	**sqm**						Visitor	0.2	**5.2**
																Retail	1 space / 30sqm	**28**

BUILDING B - RACF

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	**10,908**	**sqm**			**8,082**	**sqm**		**6,838**	**sqm**					**153**			**74**
	Lower Ground	**496**	**sqm**	*Retail*	*65%*	**322**	**sqm**	*75%*	**242**	**sqm**	*Bedroom*	*65*	*sqm*	*100%*	**153**	Residents	1 space / 10 beds	**16**
	Ground	**490**	**sqm**	*Retail*	*65%*	**319**	**sqm**	*85%*	**271**	**sqm**	*RACF yield has been calculated using 65m2 per a room - divided into the GBA*					Staff	1 space / 2 workers	**35**
	Ground	**2,335**	**sqm**	*Residential*	*75%*	**1,751**	**sqm**	*85%*	**1,489**	**sqm**						Ambulance	1	**1**
	1	**2,826**	**sqm**	*Residential*	*75%*	**2,120**	**sqm**	*85%*	**1,802**	**sqm**						Retail	1 space / 30sqm	**22**
	2	**2,826**	**sqm**	*Residential*	*75%*	**2,120**	**sqm**	*85%*	**1,802**	**sqm**								
	3	**1,935**	**sqm**	*Residential*	*75%*	**1,451**	**sqm**	*85%*	**1,234**	**sqm**								

BUILDING C - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	**5,221**	**sqm**			**3,806**	**sqm**		**3,164**	**sqm**					**33**			**40**
	Ground	**1,093**	**sqm**	*Residential*	*65%*	**710**	**sqm**	*75%*	**533**	**sqm**	*1Bed*	*70*	*sqm*	*15%*	**7**	1Bed	1	**7**
	1	**1,376**	**sqm**	*Residential*	*75%*	**1,032**	**sqm**	*85%*	**877**	**sqm**	*2Bed*	*100*	*sqm*	*80%*	**25**	2Bed	1	**25**
	2	**1,376**	**sqm**	*Residential*	*75%*	**1,032**	**sqm**	*85%*	**877**	**sqm**	*3Bed*	*130*	*sqm*	*5%*	**1**	3Bed	1.2	**1**
	3	**1,376**	**sqm**	*Residential*	*75%*	**1,032**	**sqm**	*85%*	**877**	**sqm**						Visitor	0.2	**6.7**

BUILDING D - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	6	**5,136**	**sqm**			**3,766**	**sqm**		**3,146**	**sqm**					**29**			**35**
	Ground	**856**	**sqm**	*Community Facilities*	*65%*	**556**	**sqm**	*75%*	**417**	**sqm**	*1Bed*	*70*	*sqm*	*15%*	**6**	1Bed	1	**6**
	1	**856**	**sqm**	*Residential*	*75%*	**642**	**sqm**	*85%*	**546**	**sqm**	*2Bed*	*100*	*sqm*	*80%*	**22**	2Bed	1	**22**
	2	**856**	**sqm**	*Residential*	*75%*	**642**	**sqm**	*85%*	**546**	**sqm**	*3Bed*	*130*	*sqm*	*5%*	**1**	3Bed	1.2	**1**
	3	**856**	**sqm**	*Residential*	*75%*	**642**	**sqm**	*85%*	**546**	**sqm**						Visitor	0.2	**5.7**
	4	**856**	**sqm**	*Residential*	*75%*	**642**	**sqm**	*85%*	**546**	**sqm**								
	5	**856**	**sqm**	*Residential*	*75%*	**642**	**sqm**	*85%*	**546**	**sqm**								

BUILDING E - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	5	7,250	sqm			5,257	sqm		4,352	sqm					46			56
	Lower Ground	1,802	sqm	Residential	65%	1,171	sqm	75%	878	sqm	1Bed	70	sqm	15%	9	1Bed	1	9
	Ground	2,325	sqm	Residential	75%	1,744	sqm	85%	1,482	sqm	2Bed	100	sqm	80%	35	2Bed	1	35
	1	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm	3Bed	130	sqm	5%	2	3Bed	1.2	2
	2	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm						Visitor	0.2	9.2
	3	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm								

BUILDING F - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	3,664	sqm			2,061	sqm		2,198	sqm					23			29
	Ground	916	sqm	Residential	65%	595	sqm	75%	447	sqm	1Bed	70	sqm	15%	5	1Bed	1	5
	1	916	sqm	Residential	75%	687	sqm	85%	584	sqm	2Bed	100	sqm	80%	18	2Bed	1	18
	2	916	sqm	Residential	75%	687	sqm	85%	584	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	3	916	sqm	Residential	75%	687	sqm	85%	584	sqm						Visitor	0.2	5

BUILDING G - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	5	4,200	sqm			3,066	sqm		2,552	sqm					27			32
	Ground	840	sqm	Residential	65%	546	sqm	75%	410	sqm	1Bed	70	sqm	15%	5	1Bed	1	5
	1	840	sqm	Residential	75%	630	sqm	85%	536	sqm	2Bed	100	sqm	80%	20	2Bed	1	20
	2	840	sqm	Residential	75%	630	sqm	85%	536	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	3	840	sqm	Residential	75%	630	sqm	85%	536	sqm						Visitor	0.2	5.4
	4	840	sqm	Residential	75%	630	sqm	85%	536	sqm								

BUILDING H - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	4,644	sqm			3,335	sqm		2,738	sqm					29			35
	Ground	1,482	sqm	Residential	65%	963	sqm	75%	722	sqm	1Bed	70	sqm	15%	6	1Bed	1	6
	1	1,482	sqm	Residential	75%	1,112	sqm	85%	945	sqm	2Bed	100	sqm	80%	22	2Bed	1	22
	2	840	sqm	Residential	75%	630	sqm	85%	536	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	3	840	sqm	Residential	75%	630	sqm	85%	536	sqm						Visitor	0.2	5.8

SOUTHERN PRECINCT

BUILDING I - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	6	6,638	sqm			4,933	sqm		4,163	sqm					44			53
	Lower Ground	456	sqm	Residential	65%	296	sqm	75%	222	sqm	1Bed	70	sqm	15%	9	1Bed	1	9
	Ground	1,054	sqm	Residential / Thoroughfare	75%	791	sqm	85%	672	sqm	2Bed	100	sqm	80%	33	2Bed	1	33
	1	1,282	sqm	Residential	75%	962	sqm	85%	817	sqm	3Bed	130	sqm	5%	2	3Bed	1.2	2
	2	1,282	sqm	Residential	75%	962	sqm	85%	817	sqm						Visitor	0.2	8.8
	3	1,282	sqm	Residential	75%	962	sqm	85%	817	sqm								
	4	1,282	sqm	Residential	75%	962	sqm	85%	817	sqm								

BUILDING J - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	2,672	sqm			1,937	sqm		1,603	sqm					17			21
	Ground	668	sqm	Residential	65%	434	sqm	75%	326	sqm	1Bed	70	sqm	15%	3	1Bed	1	3
	1	668	sqm	Residential	75%	501	sqm	85%	426	sqm	2Bed	100	sqm	80%	13	2Bed	1	13
	2	668	sqm	Residential	75%	501	sqm	85%	426	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	3	668	sqm	Residential	75%	501	sqm	85%	426	sqm						Visitor	0.2	3.5

BUILDING K - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	5	3,552	sqm			2,638	sqm		2,225	sqm					24			29
	Lower Ground	260	sqm	Residential	65%	169	sqm	75%	127	sqm	1Bed	70	sqm	15%	5	1Bed	1	5
	Ground	823	sqm	Residential	75%	617	sqm	85%	525	sqm	2Bed	100	sqm	80%	18	2Bed	1	18
	1	823	sqm	Residential	75%	617	sqm	85%	525	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	2	823	sqm	Residential	75%	617	sqm	85%	525	sqm						Visitor	0.2	5
	3	823	sqm	Residential	75%	617	sqm	85%	525	sqm								

BUILDING L - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	4,644	sqm			3,367	sqm		2,786	sqm					24			29
	Ground	1,161	sqm	Community Facilities	65%	755	sqm	75%	566	sqm	1Bed	70	sqm	15%	5	1Bed	1	5
	1	1,161	sqm	Residential	75%	871	sqm	85%	740	sqm	2Bed	100	sqm	80%	18	2Bed	1	18
	2	1,161	sqm	Residential	75%	871	sqm	85%	740	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	3	1,161	sqm	Residential	75%	871	sqm	85%	740	sqm						Visitor	0.2	5

BUILDING M - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	2,884	sqm			2,059	sqm		1,682	sqm					18			22
	Ground	1,041	sqm	Residential	65%	677	sqm	75%	507	sqm	1Bed	70	sqm	15%	4	1Bed	1	4
	1	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm	2Bed	100	sqm	80%	13	2Bed	1	13
	2	401	sqm	Residential	75%	301	sqm	85%	256	sqm	3Bed	130	sqm	5%	1	3Bed	1.2	1
	3	401	sqm	Residential	75%	301	sqm	85%	256	sqm						Visitor	0.2	3.6

BUILDING N - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	5	7,247	sqm			5,255	sqm		4,350	sqm					46			55
	Lower Ground	1,801	sqm	Residential	65%	1,171	sqm	75%	878	sqm	1Bed	70	sqm	15%	9	1Bed	1	9
	Ground	2,323	sqm	Residential	75%	1,742	sqm	85%	1,481	sqm	2Bed	100	sqm	80%	35	2Bed	1	35
	1	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm	3Bed	130	sqm	5%	2	3Bed	1.2	2
	2	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm						Visitor	0.2	9.2
	3	1,041	sqm	Residential	75%	781	sqm	85%	664	sqm								

BUILDING O - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	3,680	sqm			2,668	sqm		2,208	sqm					23			29
	Ground	920	sqm	*Residential*	*65%*	598	sqm	*75%*	449	sqm	*1Bed*	*70*	*sqm*	*15%*	5	1Bed	1	5
	1	920	sqm	*Residential*	*75%*	690	sqm	*85%*	587	sqm	*2Bed*	*100*	*sqm*	*80%*	18	2Bed	1	18
	2	920	sqm	*Residential*	*75%*	690	sqm	*85%*	587	sqm	*3Bed*	*130*	*sqm*	*5%*	1	3Bed	1.2	1
	3	920	sqm	*Residential*	*75%*	690	sqm	*85%*	587	sqm						Visitor	0.2	5

BUILDING P - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	5,155	sqm			3,763	sqm		3,132	sqm					33			39
	Ground	1,031	sqm	*Residential*	*65%*	670	sqm	*75%*	503	sqm	*1Bed*	*70*	*sqm*	*15%*	6	1Bed	1	6
	1	1,031	sqm	*Residential*	*75%*	773	sqm	*85%*	657	sqm	*2Bed*	*100*	*sqm*	*80%*	25	2Bed	1	25
	2	1,031	sqm	*Residential*	*75%*	773	sqm	*85%*	657	sqm	*3Bed*	*130*	*sqm*	*5%*	1	3Bed	1.2	1
	3	1,031	sqm	*Residential*	*75%*	773	sqm	*85%*	657	sqm						Visitor	0.2	6.5
	4	1,031	sqm	*Residential*	*75%*	773	sqm	*85%*	657	sqm								

BUILDING Q - ILU

	LEVELS	GBA		USE	Efficiency Rate	GFA		Efficiency Rate	NSA		Unit Size and Type			Mix	# Units	Car Spaces Rates		# Spaces
Total	4	2,884	sqm			2,059	sqm		1,682	sqm					18			22
	Ground	1,041	sqm	*Residential*	*65%*	677	sqm	*75%*	507	sqm	*1Bed*	*70*	*sqm*	*15%*	4	1Bed	1	4
	1	1,041	sqm	*Residential*	*75%*	781	sqm	*85%*	664	sqm	*2Bed*	*100*	*sqm*	*80%*	13	2Bed	1	13
	2	401	sqm	*Residential*	*75%*	301	sqm	*85%*	256	sqm	*3Bed*	*130*	*sqm*	*5%*	1	3Bed	1.2	1
	3	401	sqm	*Residential*	*75%*	301	sqm	*85%*	256	sqm						Visitor	0.2	3.6

ETHOS

URBAN