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.

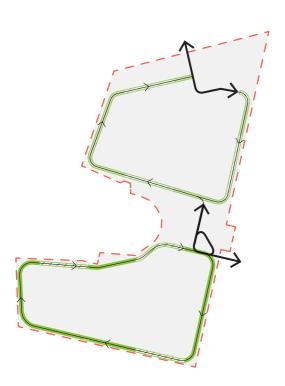
Non-residential car park spaces will come off the two way roads.

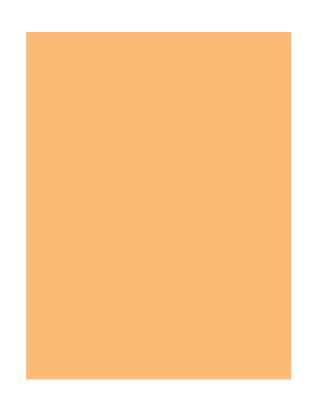
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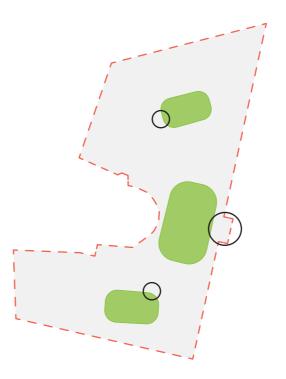
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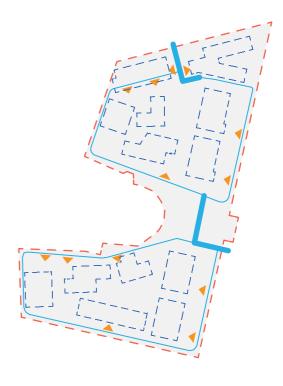
Basement Outline

Basement Entry









MASTERPLAN

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 17.
- There are 8 buildings in the Northern Precinct, 8 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.
- In the southern precinct the topography allows for buildings to have an extra storey as the site falls from north to south. Therefore there are two 4/5 storey buildings (I and K) and one 5 storey building (J).
- The connected 2 and 4/5 storey buildings on the eastern boundary are adjacent to low density single dwellings.
- Most buildings have an eastwest 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 northsouth 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.



4.2.3 Massing Model 22 Render 1 of Masterplan RACF - PARTIAL GROUND LEVEL WITH PERMISSIBLE NON-RESIDENTIAL USES NORTHERN GREEN SPACE PROPOSED COMMUNITY CENTRE CENTRAL OPEN SPACE HERITAGE BUILDING

Heritage Building

MERRYLANDS HIGH SCHOOL OVAL EXTRA LEVEL ACHIEVED WITH TOPOGRAPHY 2 STOREY / 4 STOREY BUILDINGS 4 STOREY BUILDING WITH A COMMUNITY CENTRE ON GROUND FLOOR HERITAGE BUILDING CENTRAL OPEN SPACE COMMUNITY CENTRE-4 STOREY BUILDING -Massing looking North East Over Site 4 STOREY BUILDING WITH COMMUNITY CENTRE ON GROUND FLOOR SHERWOOD COMMUNITY CENTRE ON GROUND FLOOR SOUTHERN GREEN SPACE EXTRA LEVEL ACHIEVED WITH TOPOGRAPHY PEDESTRIAN THOROUGHFARE LEGEND Independent Living Units Residential Aged Care Facility Community Centre MERRYLANDS HIGH Other Permissible Non-residential Uses SCHOOL OVAL Open Green Spaces

37

Massing looking South West Over Site

23 Render 2 of Masterplan

4.2.2 Overview of Yield

Independent Living Units

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

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

In total there is 51,430m² (GFA) for the ILU's.

RAC Facility

In total there are 148 beds in the RACF, each at 65m² (GBA) / 30m² (NSA) per room. In total there is **7,193m² (GFA)** for the RACF.

Open Space

In total 61.5% of the site is open space (all space on site excluding roads and building footprints).

Community Centres

In total there is **1,311 m² (GFA)** of space for community centres (excluding the proposed community centre building).

Space for other permissible non-residential uses

In total there is 1,480 m² (GFA) of space for other permissible non-residential uses on site.

Total Site Area and FSR

The total site area is **74,400 m**².

The total GFA of the proposed masterplan is **61,413m**². The FSR is **0.82:1**.

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.

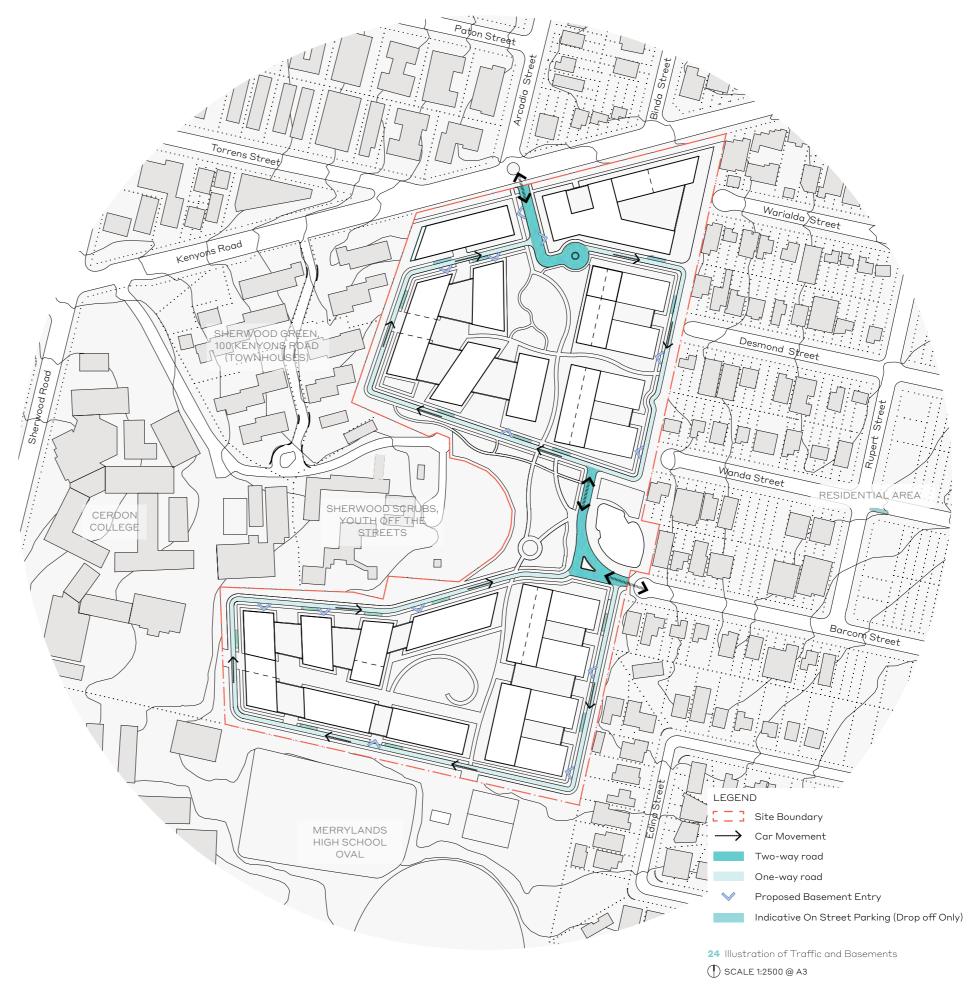
Multiple Basement Entries

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 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.



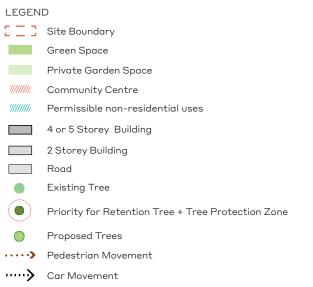
39

NORTH

4.3 Northern Precinct

4.3.1 Overview

- The northern precinct consists of the RACF building (Building B) with 148 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.
- Buildings A and B offer other permissible non-residential uses on ground floor that open out onto Kenyons Road.
- Buildings 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.



Indicative On Street Parking (Drop off Only)



40

Entrance Building Letter

Indicative Fence Line

Existing Bus Stop

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 148 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.

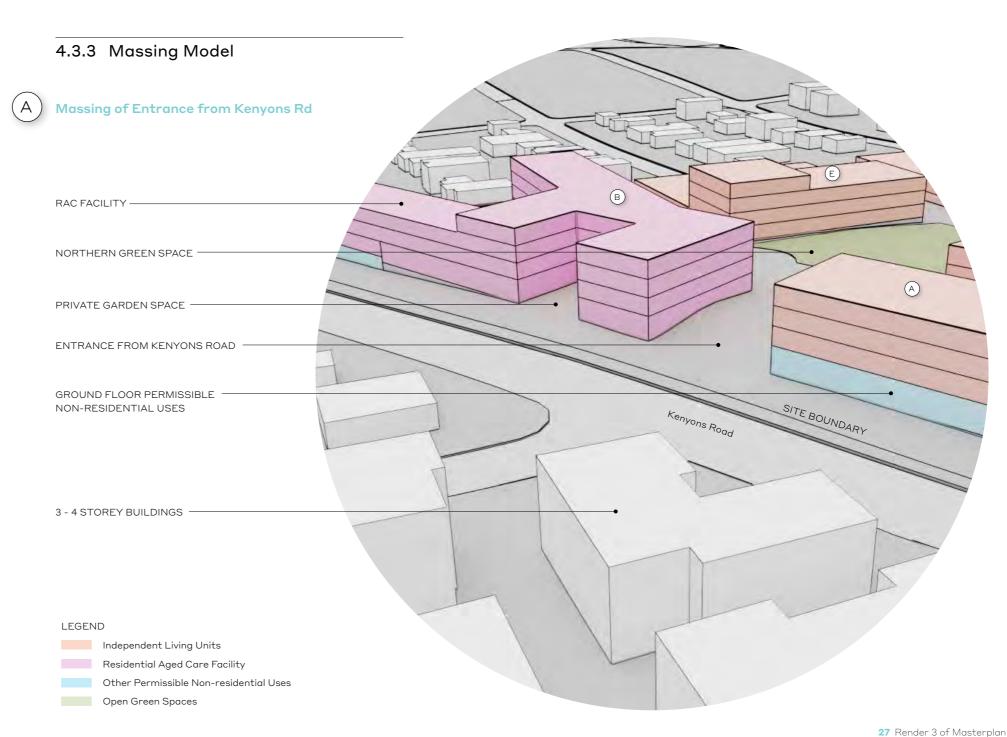
Pedestrian Network - Internal and External

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 semipublic 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 H, 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.



NOT TO SCALE



28 Render 1 - Northern Courtyard Image by Site Image Landscape Architects

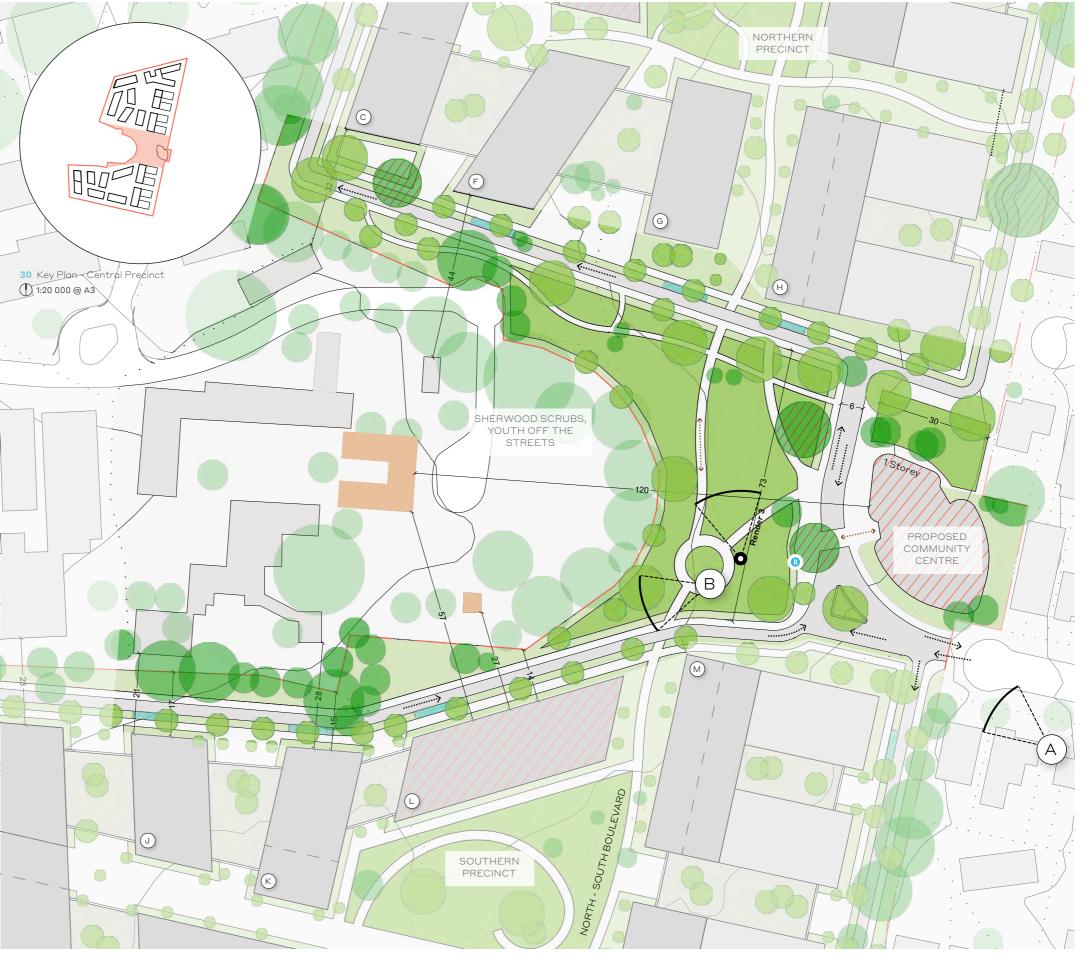
CENTRAL

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.

LEGEND [] Site Boundary Green Space Private Garden Space Heritage Buildings Community Centre Permissible non-residential uses 4 or 5 Storey Building 2 Storey Building Road Existing Tree 0 Priority for Retention Tree + Tree Protection Zone Proposed Trees ····> Pedestrian Movement ·····> Car Movement Entrance **Building Letter** Indicative Fence Line



29 Illustration of Central Precinct

SCALE 1:1000 @ A3

B

Existing Bus Stop

CENTRAL

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. Buildings 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

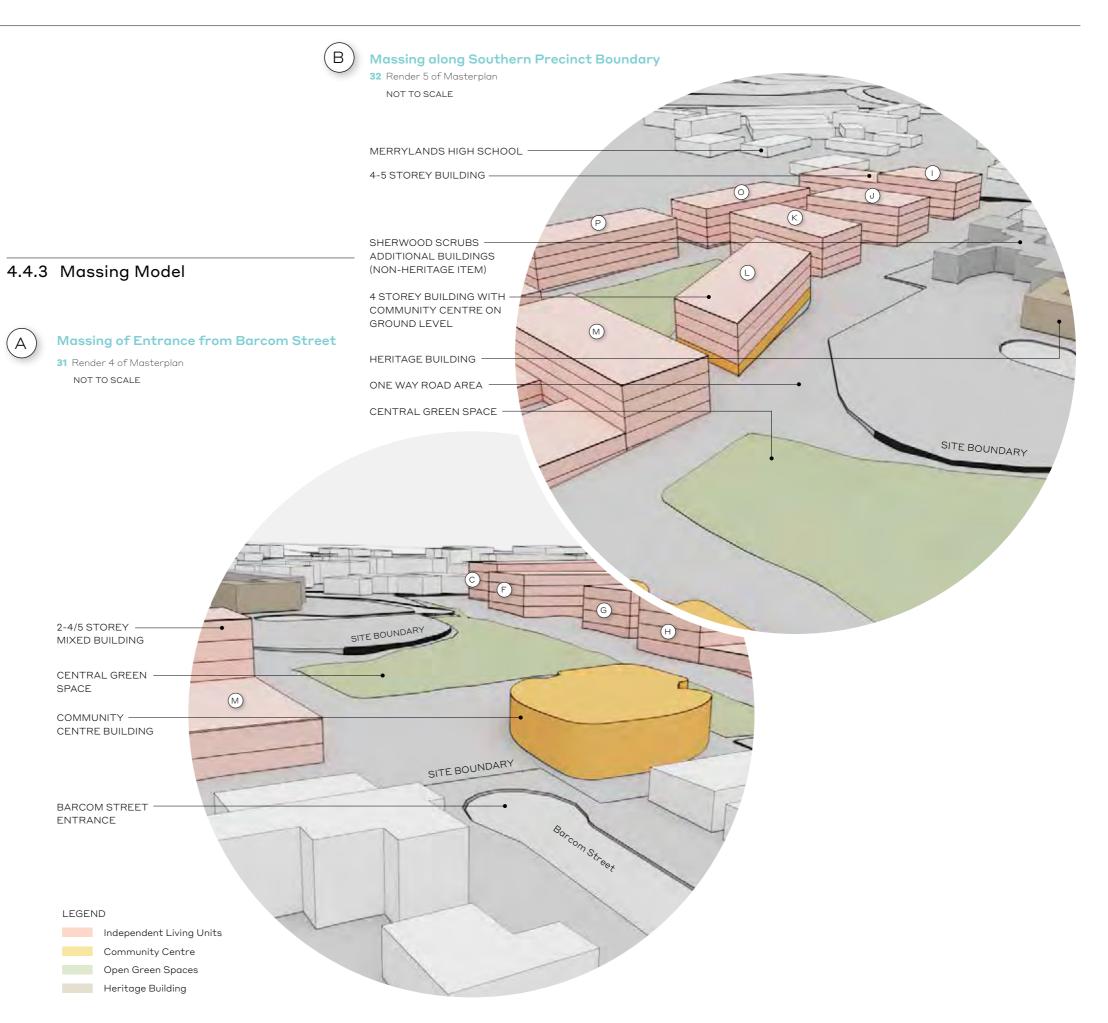
Within the central precinct is a large park accessible by all CGV residents and the public. The Community Centre opens out into this space providing a central and connected community hub for all the residents of both the northern and southern precincts.

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.

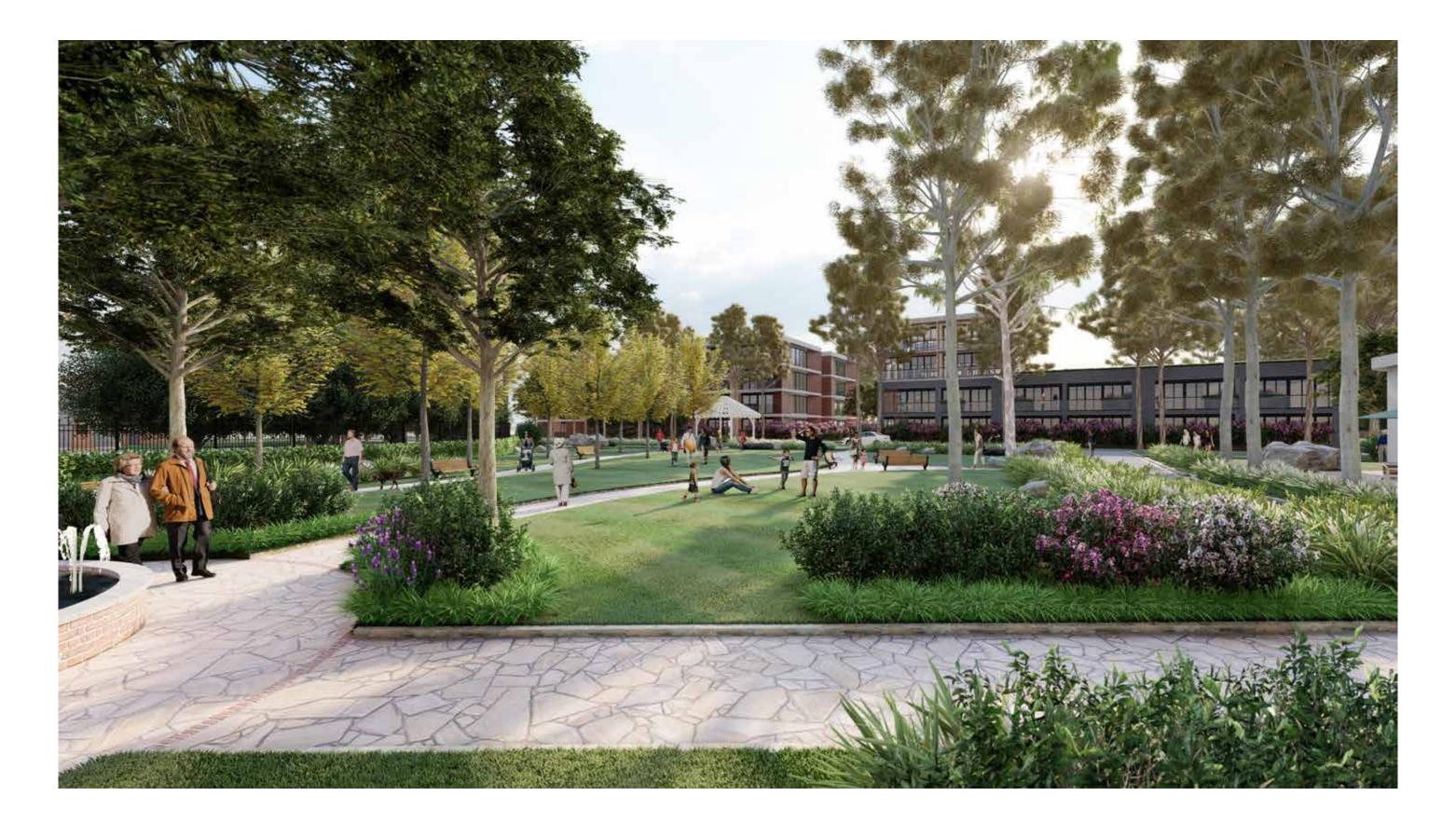
Existing Bus Stop

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.





³³ Render 2 - Aerial View of Central Open Space Image by Site Image Landscape Architects



34 Render 3 - View of Central Open Space Image by Site Image Landscape Architects

SOUTH

4.5 Southern Precinct

4.5.1 Overview

- The Southern precinct consists of 8 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.
- $\bullet \quad \ \, \text{Building L} \,\, \text{offers a community centre on the ground floor.}$
- 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.

Gr

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

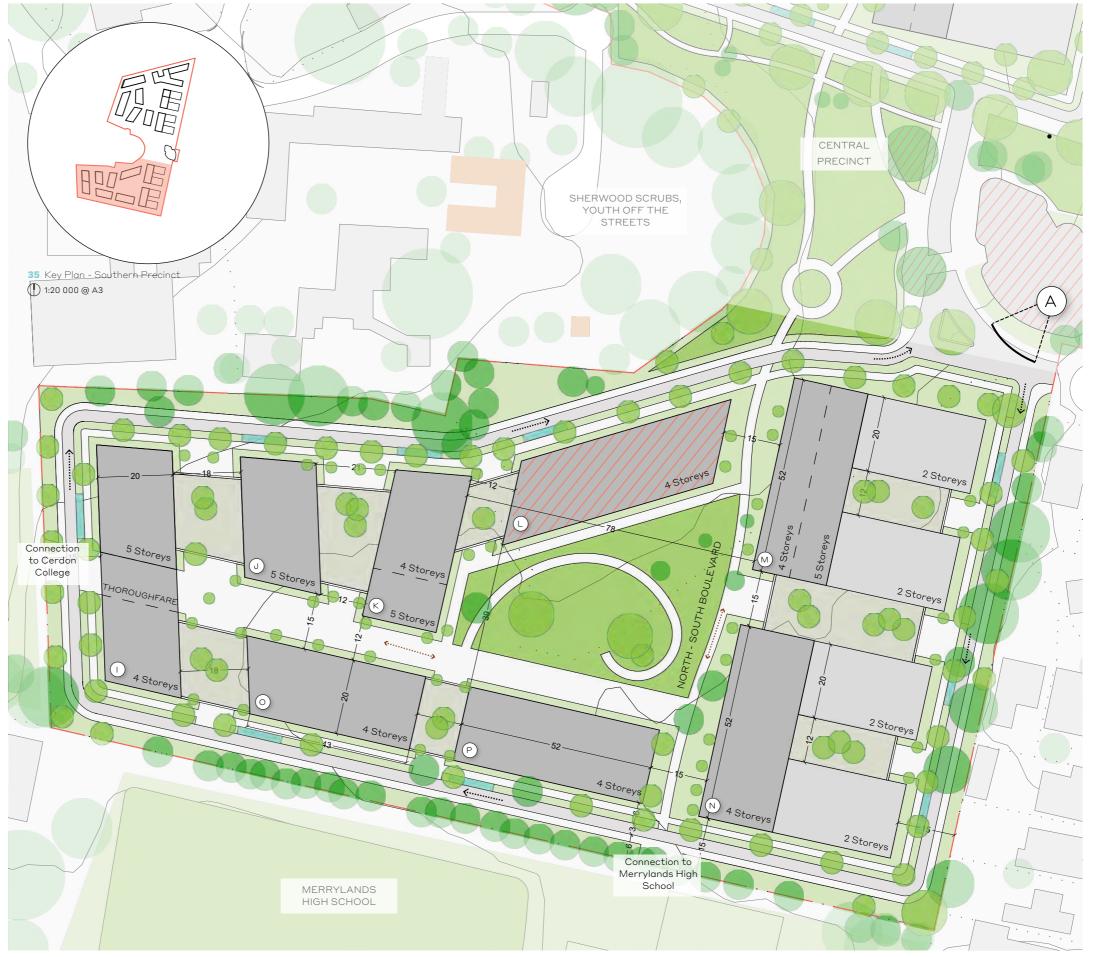
Entrance

Building Letter

...... Indicative Fence Line

B Existing Bus Stop

Indicative On Street Parking (Drop off Only)



36 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.

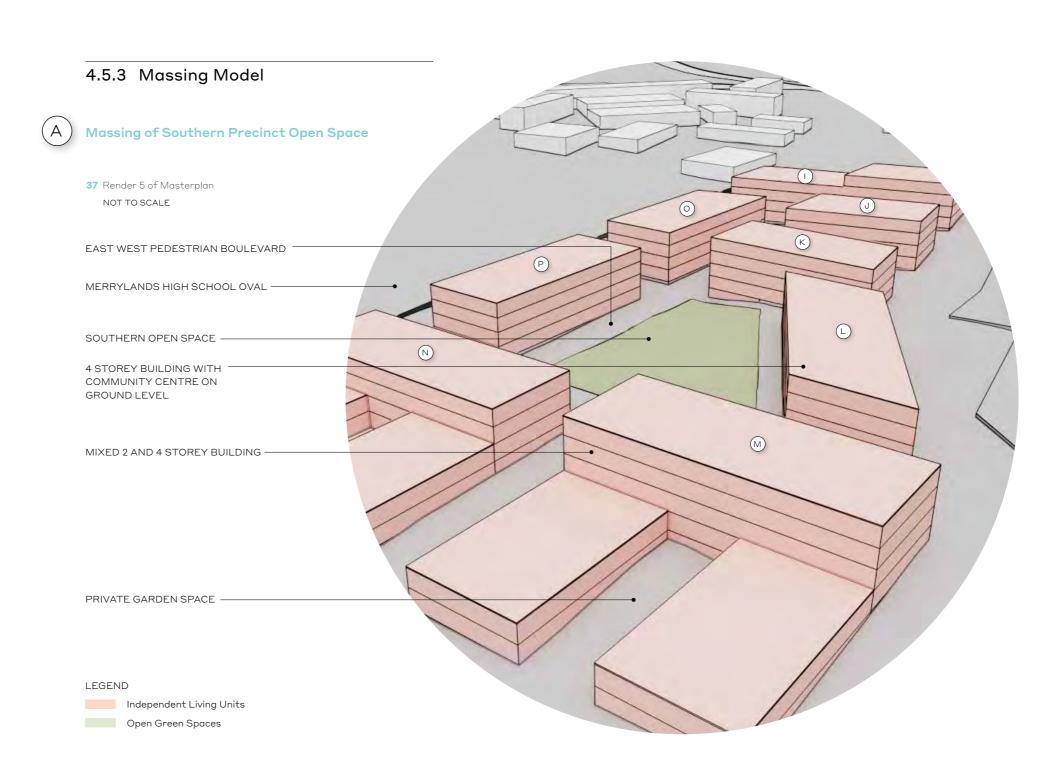
Private and Public Space

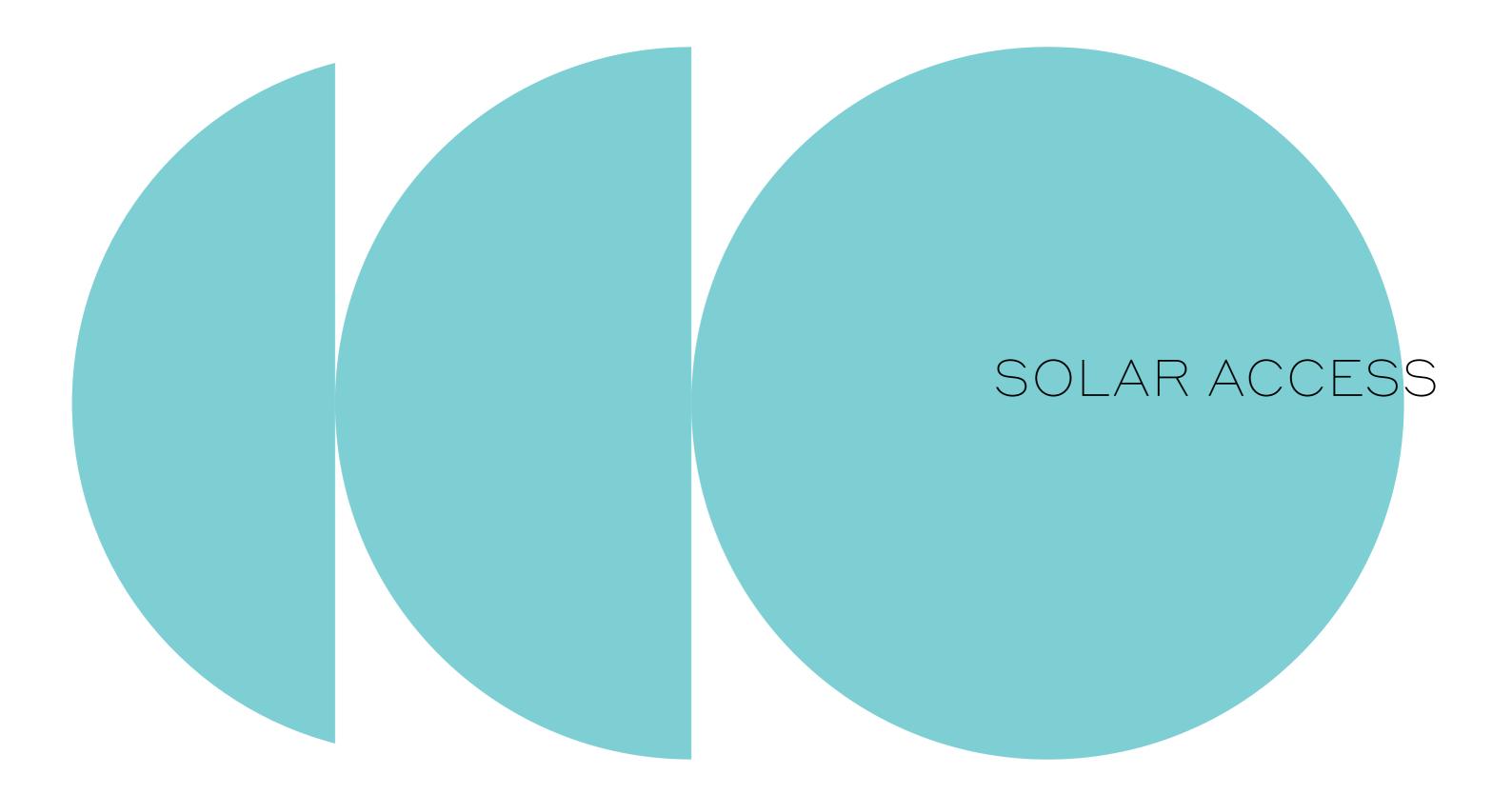
The indicative fence line details the secure area within the Southern Precinct that is only accessible by the Residents. All buildings are contained within this.

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 M, avoiding the stepping of the building form.





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
- 71% 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

38 Illustration of Solar Access Compliance - North East

ADG Non-Compliance Surface

52

SOLAR ACCESS

5.1 Buildings



Cardinal Gilroy Village - Urban Design Report

LEGEND

Site Boundary

SOLAR ACCESS

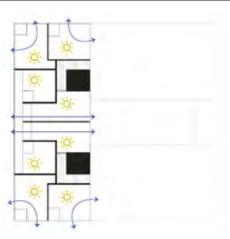
5.2 Example Apartment Solar Appliance

5.1.1 Indicative Apartment Layout - Building M

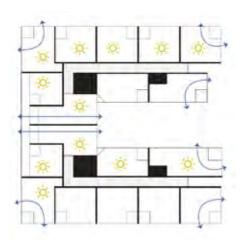
Building M has been used to demonstrate an indicative layout of the ILU's. It demonstrates that the building envelopes are capable of complying with SEPP 65.

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

54

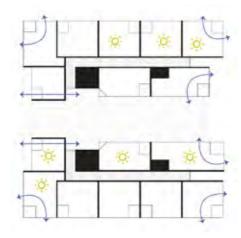


- 40 Upper Level Floor Plan Building M
- ① 1:1000 @ A3



41 Typical Floor Plan - Building M

1:1000 @ A3

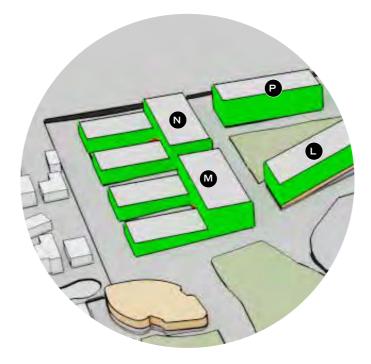


44 Ground Floor Plan - Building M
(1) 1:1000 @ A3

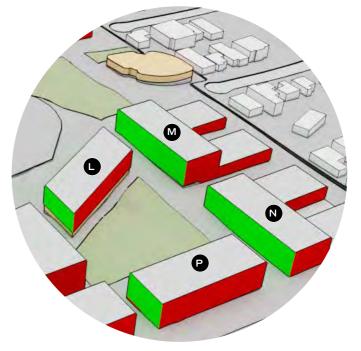
LEGEND

↔

Solar Access Provided to Apartment
Cross Ventilation Provided to Apartment



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



43 Solar Access Diagram: Non-compliant Façades - SEPP 65

NOT TO SCALE

LEGEND

Site Boundary

ADG Solar Access Compliance Surface

ADG Solar Access Non-Compliance Surface

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.
- 77% 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

45 Illustration of Solar Access Compliance - Plan

① 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.



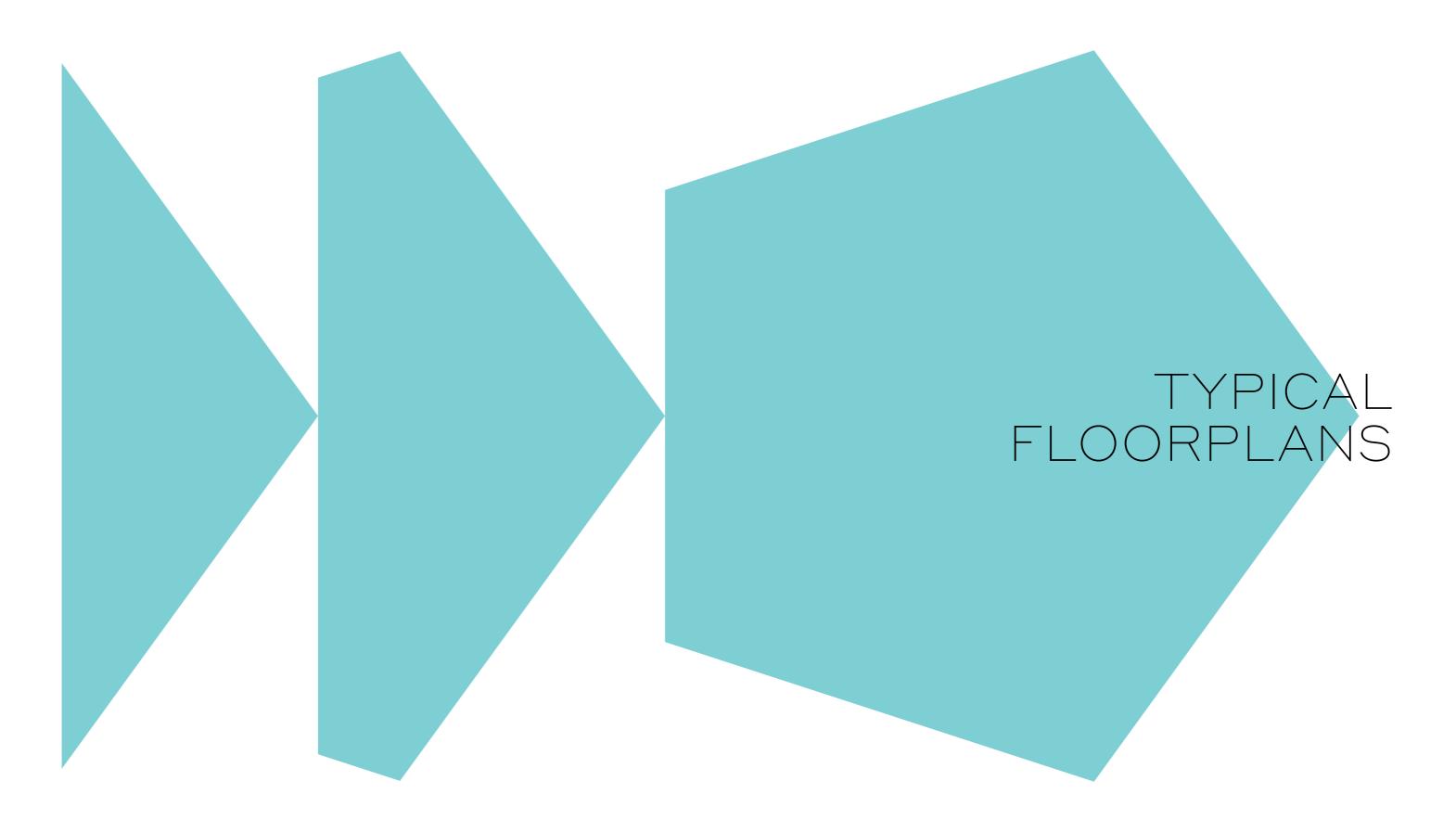
47 Illustration of site at 12pm Winter



48 Illustration of site at 3pm Winter





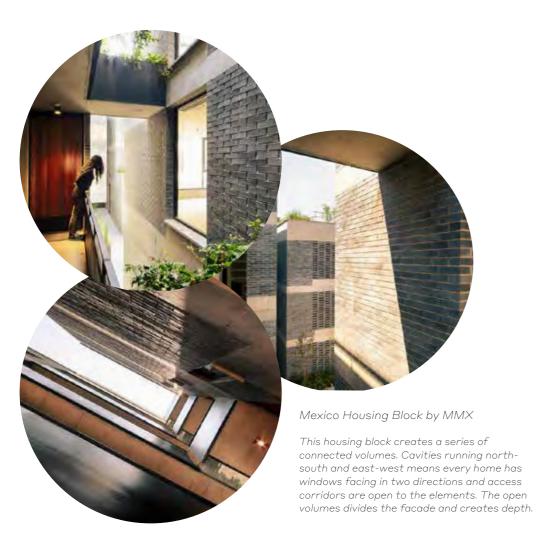


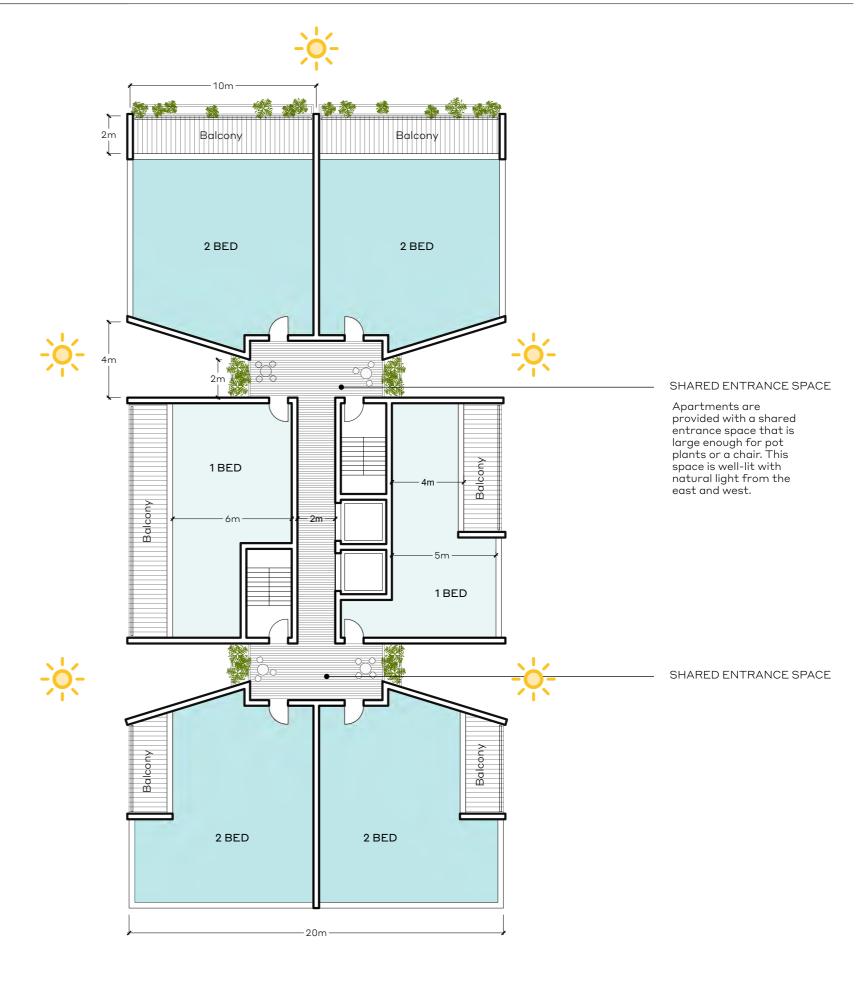
6.0 Typical Floorplans

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.

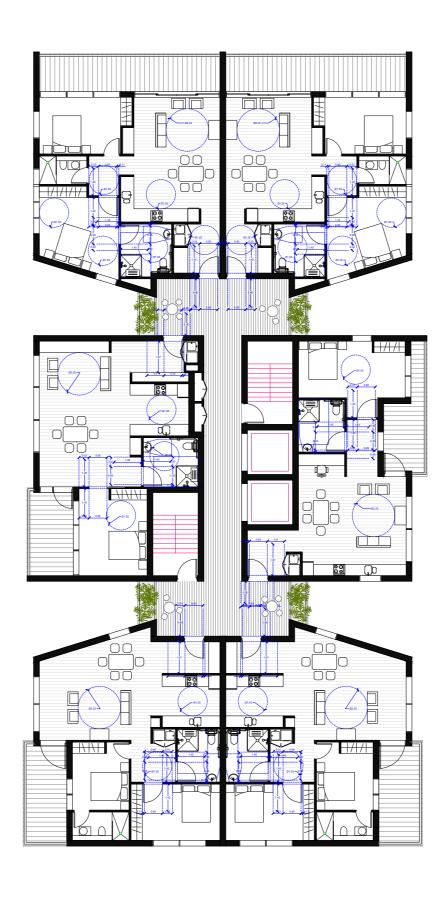




52 Illustration of Type 1 Apartment

1:200 @ A3 Cardinal Gilroy Village - Urban Design Report

6.2 Typical Floor Plan: East-West Typology



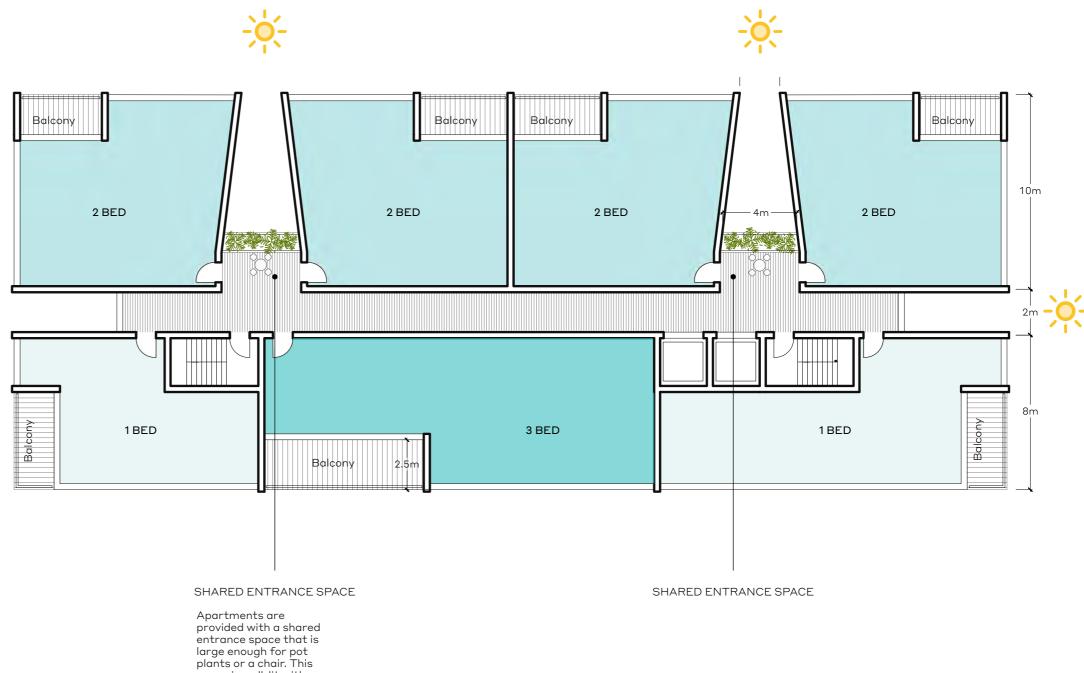
6.3 Type 2: North-South Typology

- 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 and P. 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.



54 Illustration of Type 2 Apartment

① 1:200 @ A3

Cardinal Gilroy Village - Urban Design Report

space is well-lit with

natural light coming

from the north.

6.4 Typical Floor Plan: North-South Typology



6.5 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.
 - Four Type 1 buildings, Buildings C, D, F and G.
 - One building that is a mix of both Type 1 and Type
 - Two buildings that are a mix of both Type 1 and Type 2, Buildings E and H.



LEGEND



Private Garden Space

Landscaping

3 Bedroom Apartment 2 Bedroom Apartment

1 Bedroom Apartment

Road

Core

Balcony

Shared Corridor

SCALE 1:1000 @ A3

6.6 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.
 - Three Type 2 building, Building L, O and P.
 - Two buildings that are a mix of both Type 1 and Type 2, Buildings M and N.



Green Space Private Garden Space Landscaping 3 Bedroom Apartment 2 Bedroom Apartment 1 Bedroom Apartment Road Core Balcony

Shared Corridor

LEGEND

58 Illustration of Typical Floorplans Southern Precinct

SCALE 1:1000 @ A3

6.7 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.





LEGEND

[] Site Boundary

Private Garden Space

Aged Care Bedroom Staff Room / Storage

Common Area

Core

Shared Private Spaces

Shared Corridor