



UNITING EDINGLASSIE

1-11 Emerald Street and 6-8 Troy Street, Emu Plains

Urban Design_Architecture_SEPP65_ADG Report and Design Verification Statement
Development Application (Amended)

WeacknowledgeFirstNationspeoplesandtheircontinuingconnection toland,watersandculture,becausewestronglybelieveinreconciliation and collaborative engagement for a better future.

We pay our respects to Elders past, present and emerging, whose knowledge, traditions and stories guide custodianship on what will always be their ancestral lands.

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1.0 INTRODUCTION

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1.1 INTRODUCTION

This document highlights the changes and evolution of the master plan for Edinglassie Village.

It articulates key changes made to develop a stronger placemaking narrative and coordination with the constraints presented on the site. The evolved design takes into consideration comments received from Council following the UDRP on 17th November, specifically relating to;

Site Constraints and Opportunities

Included in this material is updated constraints mapping that has been seperated into different categories to understand and draw conclusions that have informed the placement of buildings in the revised master plan, including;

- Environmental constraints (trees and tree protection zones)
- Flooding and stormwater easements
- Built form-building heights, locations and the on grade car park
- Interfaces and setbacks

Building Height

Further exploration of compatibility with the immediate neighbourhood context, and extent to which vegetation and location of open space can soften the bulk and scale in key locations.

Open Space Planning and Spatial Arrangement of Buildings

Consideration of open space and its role in placemaking for the village has driven an updated approach to building location, particularly along the southern interface.

Other Considerations

Interface with the heritage building and an urban design response to Emerald Street.

An approach to the basement, driven by ground floor levels and solar access to independent living units.



1.2 UNITING CARE’S VISION

Uniting’s vision for Edinglassie is to provide accommodation to support the needs of the ongoing and growing ageing population in the Penrith area. The recently completed RAC service provides 100 beds catering to the contemporary aged care needs for residents requiring a high level of care, including those with dementia.

Uniting sees this as a modern service provision. This is supported by;

‘Caring for Older Australians’ by the Productivity Commission, 2011

‘Living Longer. Living Better’ by the Commonwealth Department of Health, 2012

‘Care, Dignity and Respect’ recommendations outlined in the final report handed down by the recent Royal Commission into Aged Care quality and safety, 2020

Uniting is seeking to create Independent Living Units (ILU) which can allow people to age in place.

Assisted Living and Community Care is expected to be delivered to residents living in the ILUs.

Uniting sees this as certainly meeting the service provision in a modern way and, for most residents, being able to cater to their higher care needs into the future in the following ways:

- 1 By dwelling design which is purpose built for seniors living and adaptable to the needs of the residents as they age in place.
- 2 By collocating with a care hub on the site – being Residential Aged Care – where care and ancillary services such as meals, linen, assistance with daily activities and access to nurses and clinicians can be delivered from
- 3 By putting enough dwellings on the site whereby staff can be employed to work only on the site to care for individuals needs and hence not travel from place to place. More hours of care would be available for residents and there would be carers on site to meet residents needs when they need it.

UNITING EDINGLASSIE

Uniting Edinglassie was opened in the early 1970’s and has consistently enjoyed very high occupancy rates however, despite consistent efforts to maintain the property and its features, the style of the accommodation is not in keeping with contemporary market demand in terms of unit sizes, features e.g. balconies, car parking, and community services such as clubroom, pool, gym etc.

Uniting Edinglassie is an important component of Uniting’s aged care services in western Sydney which include facilities at Penrith, Blacktown, Hawkesbury and Springwood

It is important to Uniting to maintain and enhance this network of services. The new Uniting Hawkesbury service as well as the recently completed Residential Aged Care service Uniting Edinglassie on this site represent the first steps in this enhancement and the Uniting Edinglassie ILUs redevelopment will continue this growth and maintain Uniting’s presence in the Emu Plains area for year to come.



1.3 AGE CARE CONTEXT

Within the catchment of Edinglassie Village there are currently 8 retirement living services – all are on the eastern side of the Nepean River, with one in Jordan Springs, another Caddens, and the remaining 6 in Penrith.

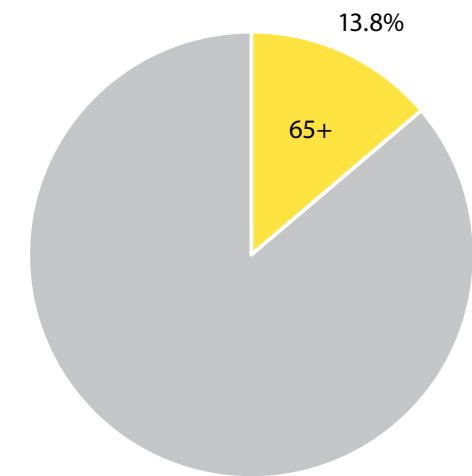
Four of these contain only Independent Living Units (ILUs) while the other 4 are collocated with a Residential Aged Care facility. Together they contain 687 ILUs with a vacancy rate of approximately 7%

Within the catchment another 8 are in the pipeline: one each in Penrith, Jordan Springs, Glenmore Park and Glenbrook, two more are in Leonay while the remaining two are in Emu Plains. Together they contain 72 ILUs.

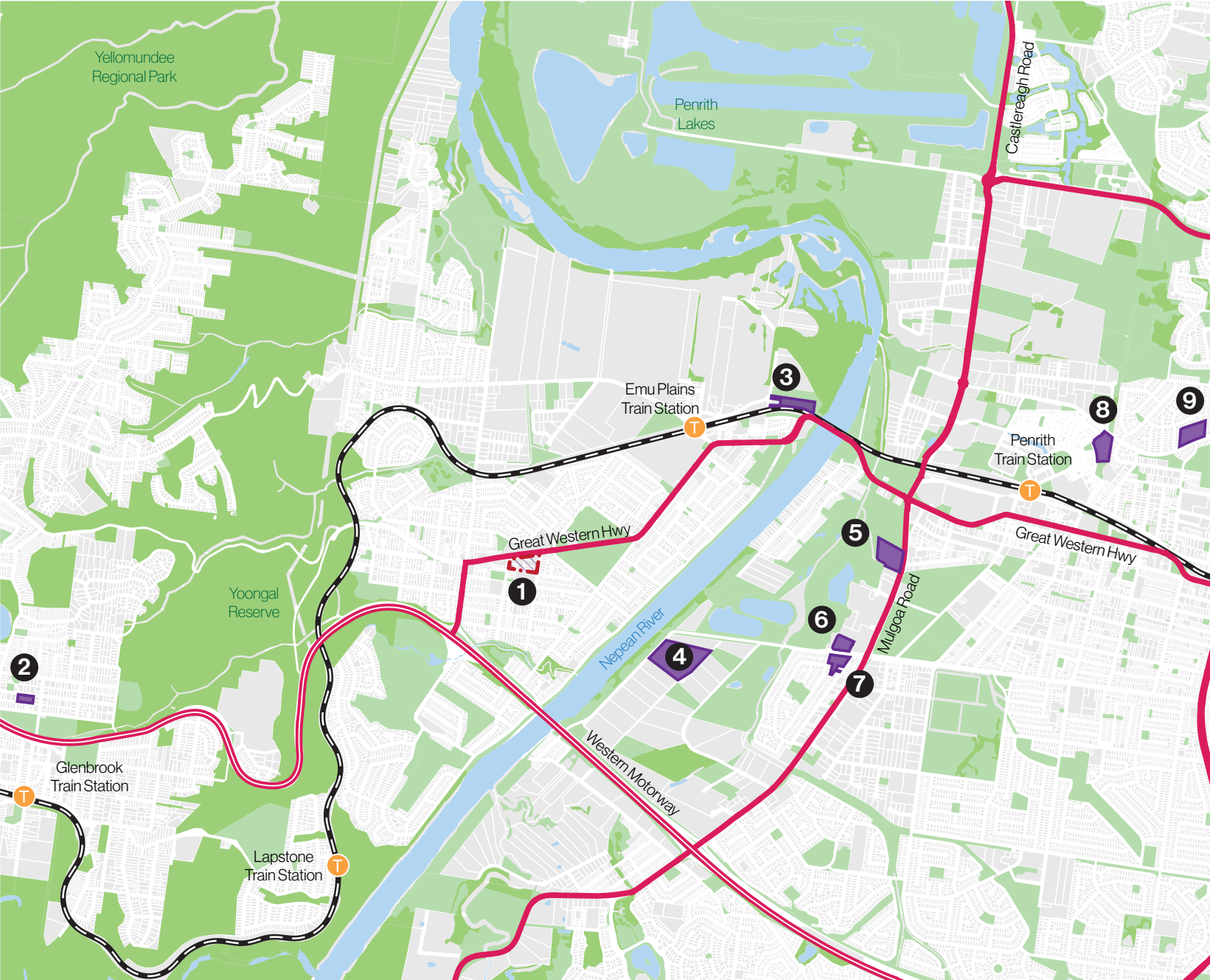
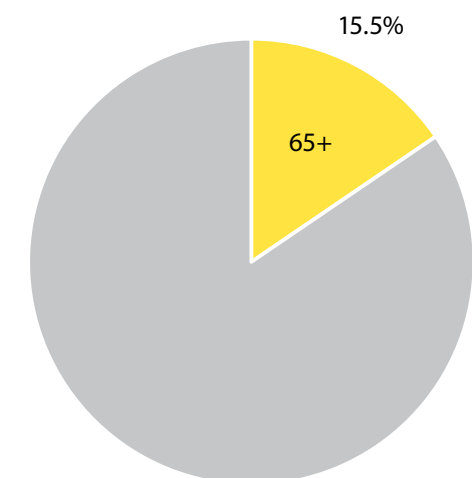
Between 2020 and 2030 the proportion of the population within the primary catchment for the elderly will increase as follows:

- 65+ from 13.8% to 15.5%, an increase of 12.3%
- 70+ from 9.3% to 11.3%, an increase of 21.5%
- 80+ from 2.8% to 4.2%, an increase of 50%

2020



2030



1	Uniting Edinglassie	45 ILU + RACF	3	Ingenia Lifestyle	Variable ILU	5	Mountainview Retreat Village	94 ILU	7	Summitcare Aged Care	RACF	9	Anglicare St Stephens	18 ILU
2	Baptistcare Merindal	9 ILU	4	Nepean Shores	187 ILU	6	The Royce	145 ILU + RACF	8	Thornton Park	48 ILU + RACF			



2.0 ANALYSIS

02

2.1 COUNTRY + ECOLOGY

We acknowledge the traditional custodians of the land upon which the site is located, the Mulgoa and Gandangara people; their connection to Country, land, water, community and spirit. We pay respect to Elders past, present and emerging.

The Aboriginal heritage of the City of Penrith area is at least 50,000 years old.

The Mulgoa Valley marked an important boundary between two major clans; the Mulgoa people of the Darug language group from the plains and the Gundungurra from the mountains.

These clans were separated, not only by the valley, but also linguistically. The Mulgoa Valley was used by both clans.

The local Aboriginal people named the nearby Nepean River 'Dyarubbin'.

Mulgoa Valley

Aboriginal groups travelled along the valley to attend ceremonies, to barter foodstuffs, and, especially during periods of drought, the valley acted as a key source of food and water.

As the Nepean River was a permanent water supply, the lands in close proximity to the river could always be relied upon to provide food reserves.

Nearby ecosystems provided Aboriginal communities with resources for food and tool manufacture as well as a means of travelling throughout the region by water. Their main food source along this river was yams, though they also ate fish and shellfish.

Occupation Sites

Occupation sites are areas that show a concentration of debris associated with human occupation.

The area was once rich in different types of Aboriginal sites. These included open camp-sites, tool workshops, carved trees, rock shelters with artwork and stratified occupation deposits.

Rock shelters and overhangs were used to provide campsites sheltered from wind, rain and sun.

Charcoal, baked clay, fire blackened stones, food remains (usually shell or bone middens) and stone tools are commonly found in occupation sites.

The site is located upon the undulating shale country of the Cumberland Plain, with rich riparian floodplains of the Nepean River.

Penrith City lies within the Hawkesbury - Nepean Catchment.

The area is dominated by rivers, creeks, waterways and associated tributaries, the most significant being the Nepean River and South Creek.

Both systems are accompanied by wide open floodplains, and the Emu Plains catchment has been identified as a priority catchment, requiring detailed overland flow flood study.

The Cumberland Plain, located over most of western Sydney, comprises open plains and low hills formed on sediments of the Wianamatta group of shales, as well as alluvial deposits along rivers and floodplains.

These unique, heavy clay soils are moderately fertile and have resulted in a distinctive type of vegetation of eucalypt woodland with a grassy understory.

Biodiversity

Penrith City boasts a wealth of biodiversity, which provide healthy, functioning ecosystems.

Penrith City contains 17.1% of the remnant vegetation of the Cumberland Plain, the highest proportion of remnant vegetation in any council area.

The LGA supports thirteen distinct vegetation communities, including shale woodlands at Emu Plains, and small pockets of Turpentine-Ironbark forests.

More than 500 species of native plants occur within the Penrith LGA, as well as more than 130 native species of fish, amphibians, reptiles and mammals.

At least 27 fauna species and at least six plant species, listed as either vulnerable or endangered under the Threatened Species Conservation Act, have been recorded in the Penrith City area.

About 85% of the vegetation on the Cumberland Plain has been cleared for residential, agricultural, industrial and commercial use and the pressure from development on the remaining patches is high.



TOP: The Nepean River at Emu Plains.
Source: Blue Mountains Visitor Information

2.2 POST-SETTLEMENT

Captain Watkin Tench named the area near the Nepean River Emu Island, after a group of emus they reported to have seen there. The group mistakenly thought they were on an island of the river.

In 1789, Captain Watkin Tench of the Royal Marines lead a party west of Parramatta to the foothills of the Blue Mountains.

They came across a river described as being “as broad as the Thames at Putney and apparently of great depth, the current running very slowly in a northerly direction”.

The river was named the Nepean River after Evan Nepean (the Under Secretary of the Home Office in Britain who was involved in the organisation of the first fleet).

Following settlement, the district rapidly developed in agriculture, producing food for the Sydney Colony.

Governor Macquarie established a government farm at Emu Plains in 1819. Here convicts cleared the land and grew wheat, maize, tobacco and other crops. The alluvial flats immediately flanking the Nepean River were often used for widespread orchard growing, especially at Emu Plains.

Emu Plains also had extensive dairy farming and grape growing before residential development occurred. Land was not available for private settlement until 1832, when the town of Emu was surveyed.

After the arrival of free settlers, the area remained mostly an agricultural and fruit-growing area. In the 1830s, 175 acres of land at the very south of Emu Plains were sold to Chief Justice Forbes, and he established there the estate of Eden Glassie.

The area around Penrith developed as a stop over and starting point for travellers west bound.

The Main Western Rail Line was opened in 1867 and the Emu Plains Train Station opened in 1868. While the rail had reached Penrith in 1862, building the line from there to the steep gradients of the Blue Mountains proved a difficult proposition.

The arrival of the railway heralded the increasing population of Emu Plains and new subdivisions, schools, halls and offices were soon established.



TOP: The Emu Plains and Nepean River, William Hatherell, 1887.
Source: Historical Australian Towns

2.3 SITE CONTEXT

The site is situated within a largely residential community, in close proximity to local commercial and community hubs.

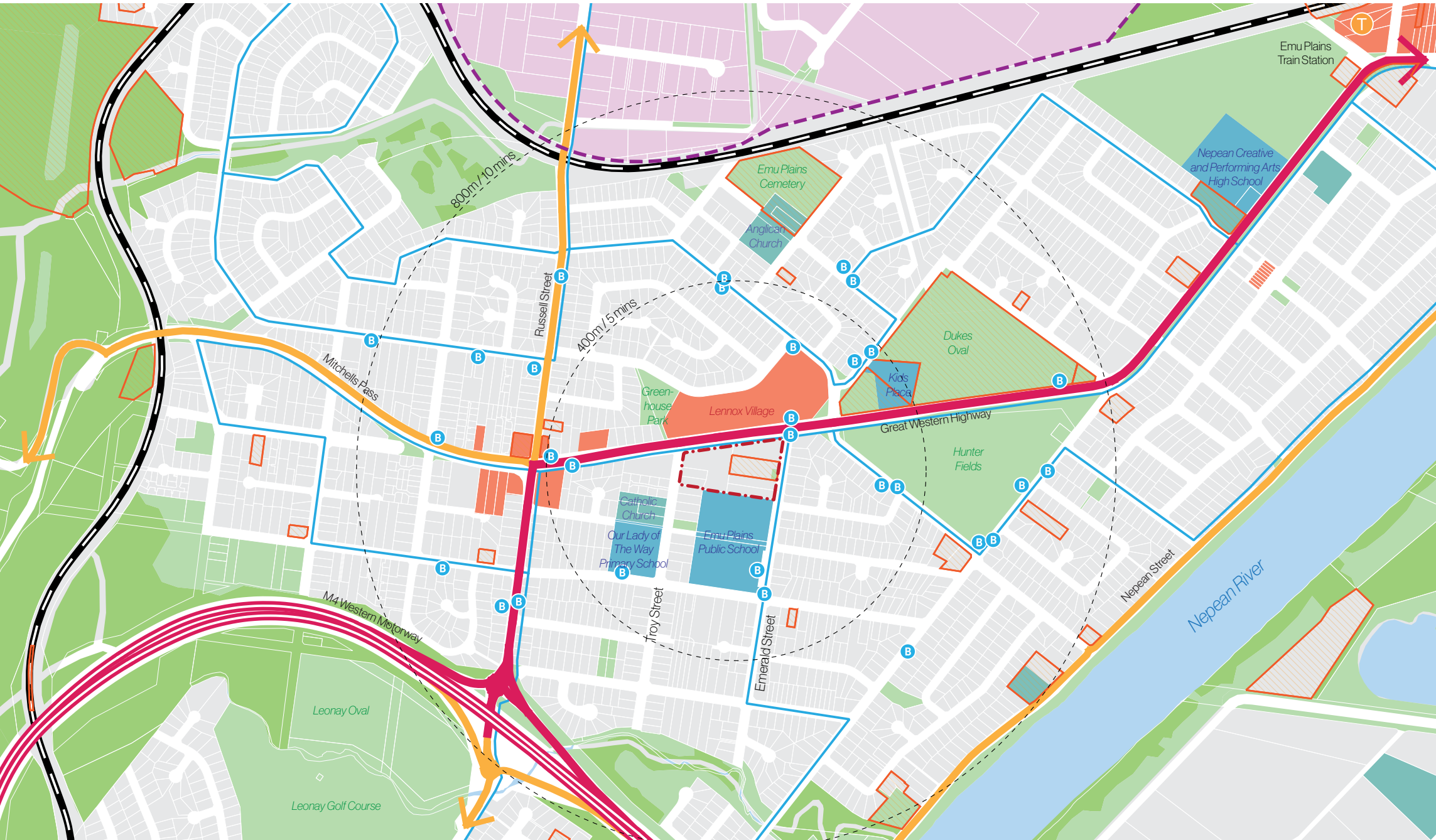
The adjacent Great Western Highway and Russell Street link the site to surrounding transport stops and urban centres.

At its south extent Russell Street intersects with the M4 Western Motorway, allowing for immediate access to Greater Sydney and the Blue Mountains to the site's west.

The Lennox Village shopping mall and nearby independent retail core alongside the Great Western Highway provides immediate access to convenient goods within a highly interconnected road network.

To the immediate south of the site is two of Emu Plains' largest schools, which face onto residential streets, effectively creating a multi-generational activity centre alongside the nearby shopping village.

The large sports and recreational precinct consisting of Dukes Oval and the Hunter Fields intersected by the Great Western Highway provides residents with an external and convenient public open space, with facilities to support a range of activity types.



2.4 CONTEXT ANALYSIS

Key to our urban design approach is a rigorous analysis of the site's relationship to its local context and present conditions.

This analysis guides the vision for the project specific to the Uniting Edinglassie retirement community and for the future character of the Emu Plains neighbourhood.

The site's local context has been analysed in reference to the existing site, which reveal its underlying urban structure including:

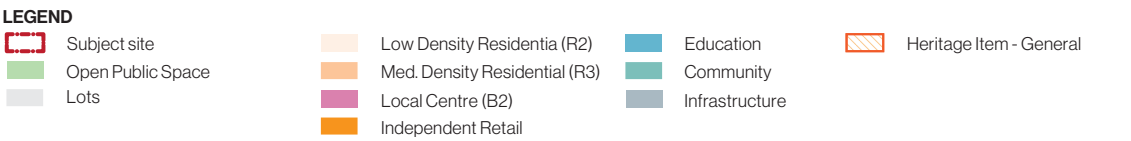
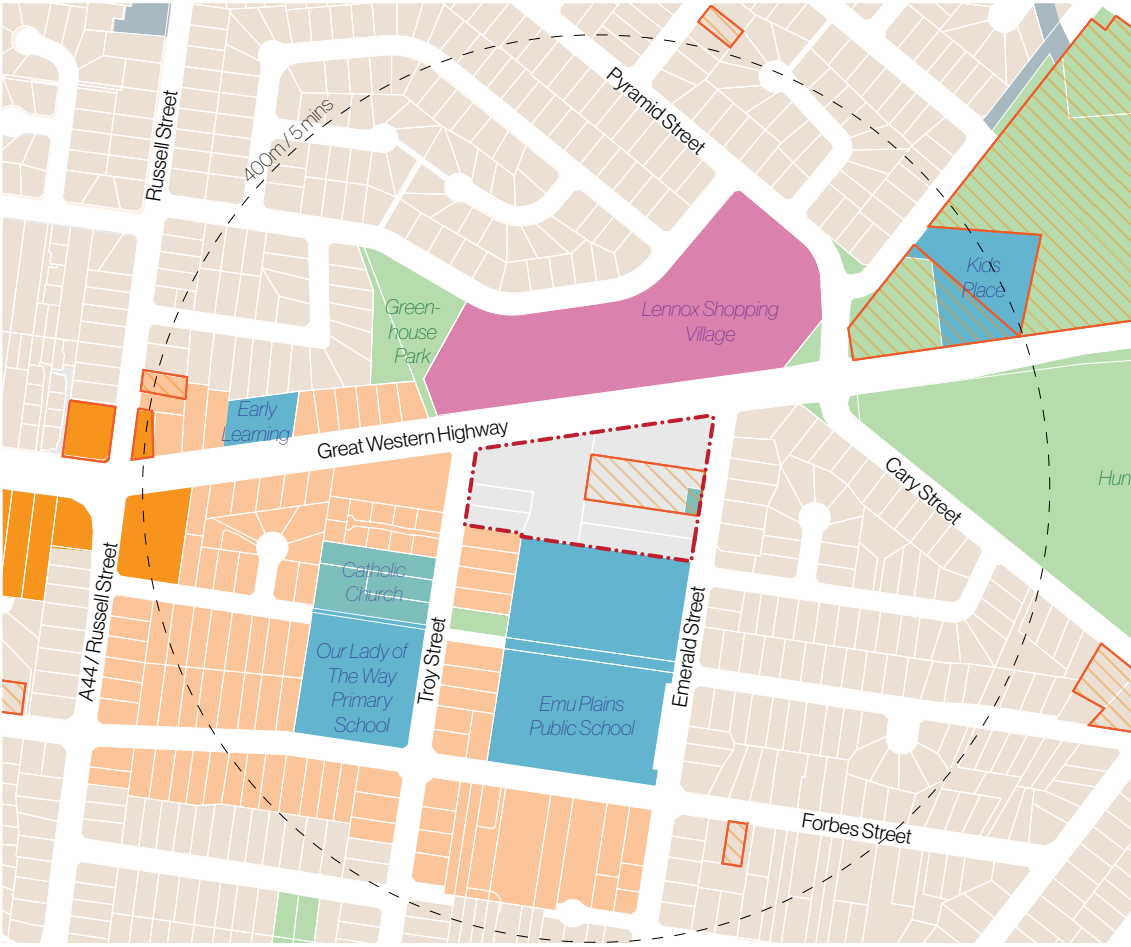
- Land Use
- Road Hierarchy
- Access and Transport
- Open Space Network

Land Use

The site is within a medium density residential neighbourhood in central Emu Plains amidst the suburb's commercial core.

This activity area associated with the Lennox Village shopping mall, adjacent to the site, and nearby retailers includes much of the central suburb's key facilities and community sites.

The surrounding neighbourhood associated with the Lennox Shopping Village is characterised by a recognisable shift in land use and lot size, indicating a potential future vision for an increase in housing density and function as an effective suburban centre.



A number of parks and small open spaces are within close proximity to the site including Hunter Fields, a large site to the east of the site zoned as Open Space.

Both the Lennox Village shopping centre and the Emu Plains Public school have unrealised development potential with allowable heights of 15m and 22m respectively.

Road Hierarchy

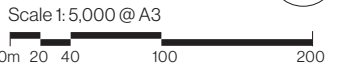
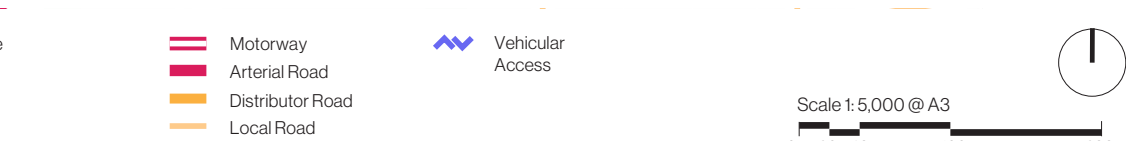
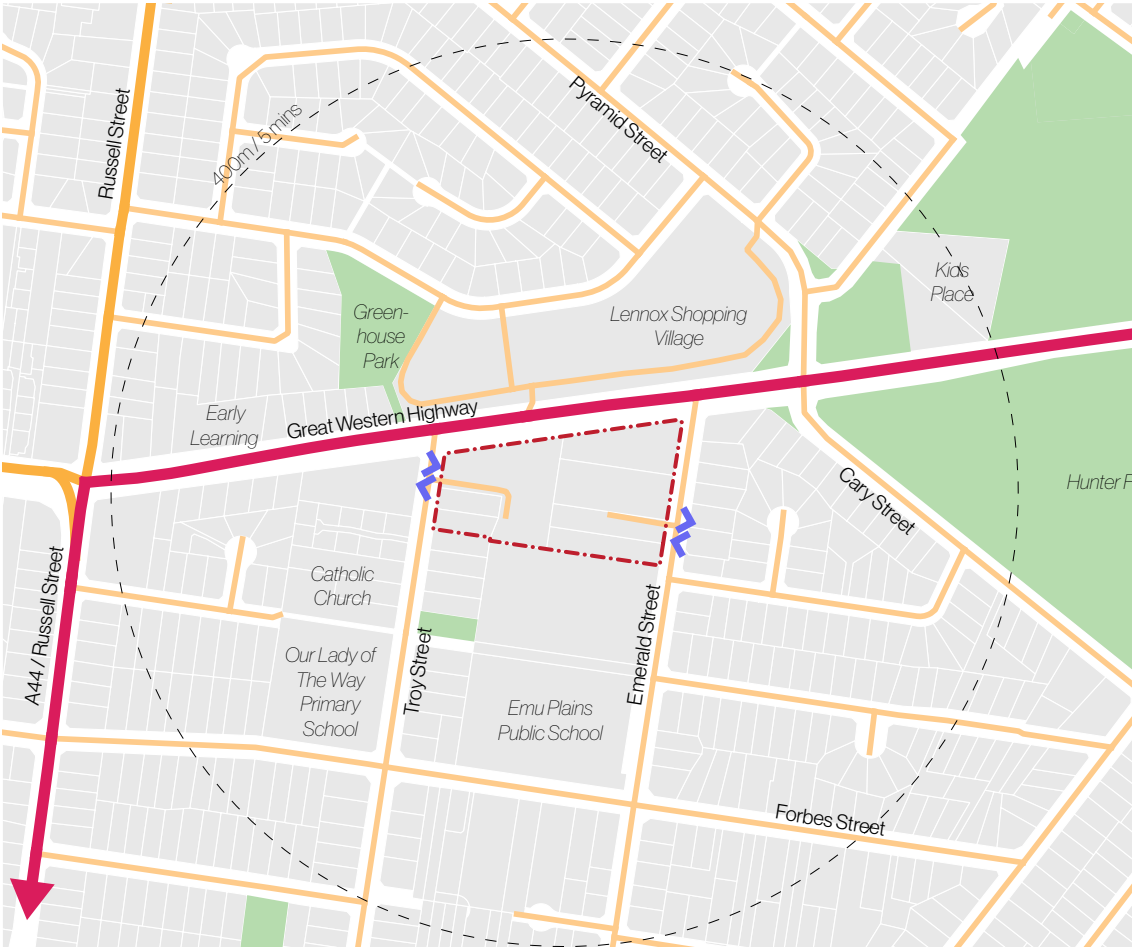
The site is accessed from the Great Western Highway, one of the city's major circulation thoroughfares and public transport arteries.

The major vehicular intersection located to the west of the site at the Great Western Highway and Western Motorway offers immediate access to surrounding areas, providing residents and employees with a more integrated and accessible region.

These two major carriageways intersect with Russell Street, which continues towards the Emu Plains industrial district and distributes traffic into Emu Plain's residential areas.

Much of the network south of the site constitutes minor local collector roads, offering residents a more effective connection to the site's residential community.

The local minor road network found to the south and south-west of the site may bypass these major roads via a system of residential linkages, offering alternative access.



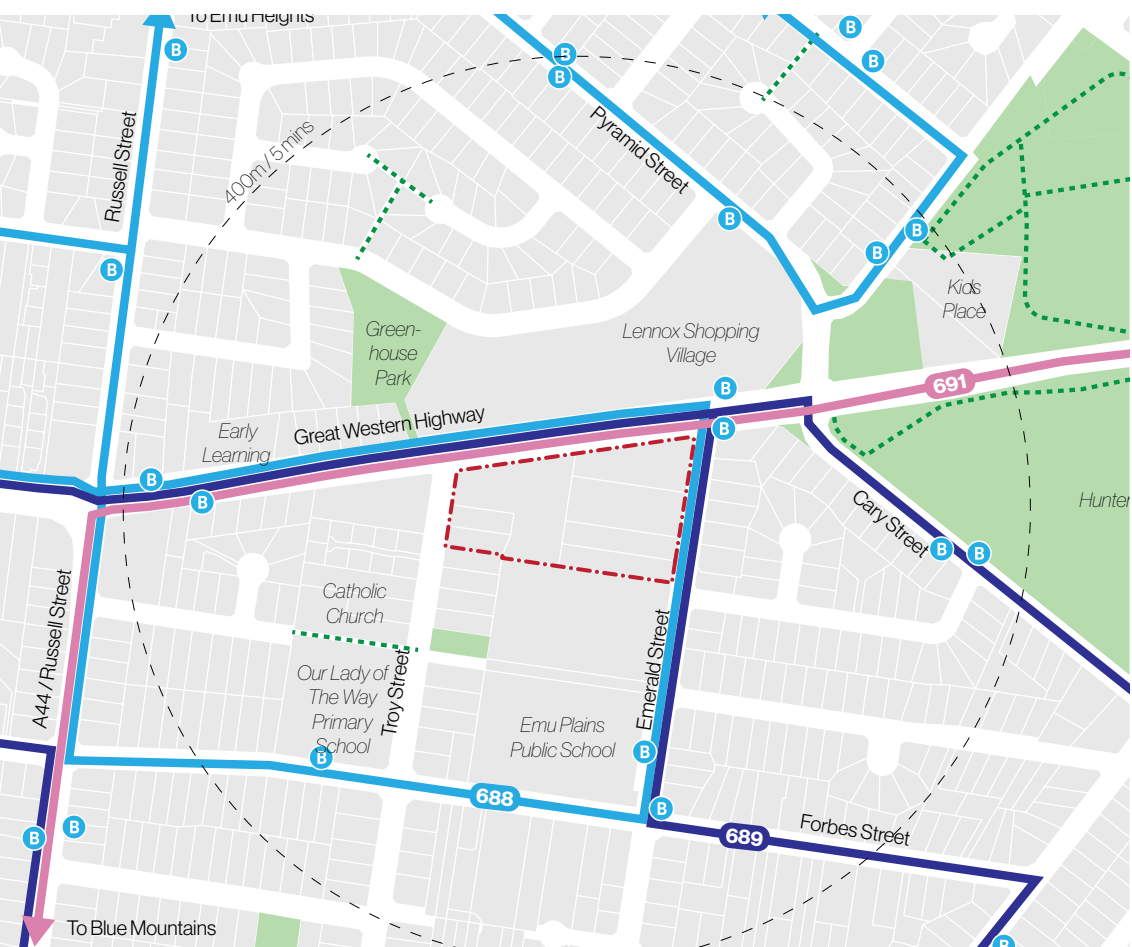
Access and Transport

An extensive public transport network connects the site to surrounding suburbs and urban centres.

The bus routes 688, 689, and 691 all originate in Penrith city centre, and terminate within nearby residential areas, or within the towns of the Blue Mountains.

Much of Emu Plains' residential streets are connected by a network of pedestrian links usually consisting of short unkept alleyways or lanes.

These routes are accessed by residents of the site primarily via the Great Western Highway to the north-east and west of the site, however there are a number of stops located also in surrounding residential areas.



Open Space Network

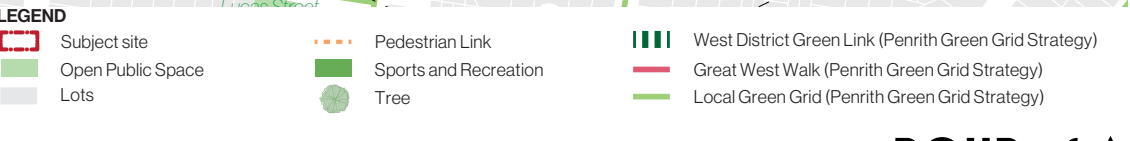
There are a number of public open spaces within proximity of the site, which vary in their state of development, and lack a dedicated access network.

The Hunter Fields sports and recreation park constitutes a large and easily accessible facility for residents, with much of the surrounding suburb otherwise lacking appropriate open space.

Within immediate proximity of the site are the two small and relatively undeveloped sites of Greenhouse Park and 18 Troy Street Park, neither of these open spaces provide residents with facilities outside of their inherent public space

The Great West Walk links the site to surrounding significant urban and natural settings, offering residents a dedicated walking track and connection to the wider community.

The Penrith Green Grid Strategy identifies much of the surrounding residential streets as part of its local green grid, due to the presence of high quality vergelandscaping and native vegetation.



2.5 SITE PHOTOGRAPHS

The existing RACF displays contemporary characteristics and is visible from the nearby Lennox Village shopping centre, with which it forms an activity corridor alongside the Great Western Highway.

The site's northern interface with the adjacent highway is mediated by a large grassy setback.

Surrounding mature vegetation which line the adjacent Great Western Highway create a buffer between the internal site and its context, whilst lifting its visual character upwards.



01 - Existing RACF showing the Great Western Highway interface



02 - Mature trees provide a visual buffer along the Great Western Highway

Emu Plain's suburban community is characterised by quiet residential streets lined with mature native trees, which protect the site from the adjacent highway.

The site experiences a variety of conditions at each of its extents, with minor local roads to its east and west.

The residential interior of the site is essentially disconnected from the Great Western Highway through landscaping and built form elements.



01 - Surrounding residential streets characterised by wide setbacks and large trees.



02 - Heritage building on Emerald Street



03 - Heritage building from the south showing existing interface



03 - The Great Western Highway interface comprises significant mature trees and a generous road reserve



04 - Lennox Village is located directly opposite the site, providing access to shops and services



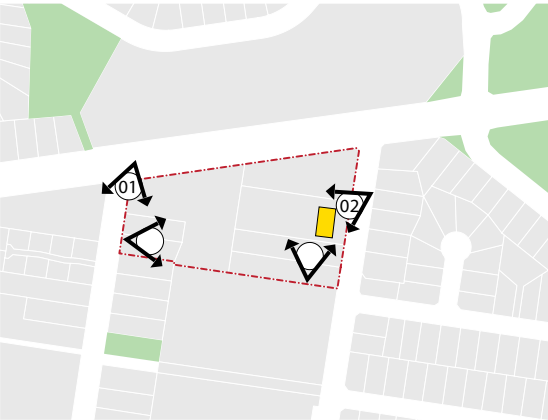
04 - Entrance to the site via Emerald Street, showing existing footpath and school interface.



05- Site boundaries are visually disconnected from the surrounding lots, reinforcing an internal community



Pg 20 Uniting Edinglassie_Design Report



Pg 21

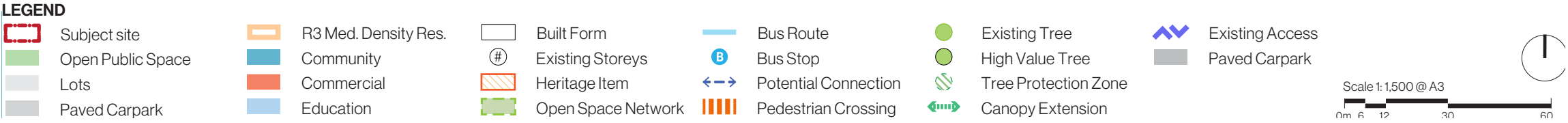
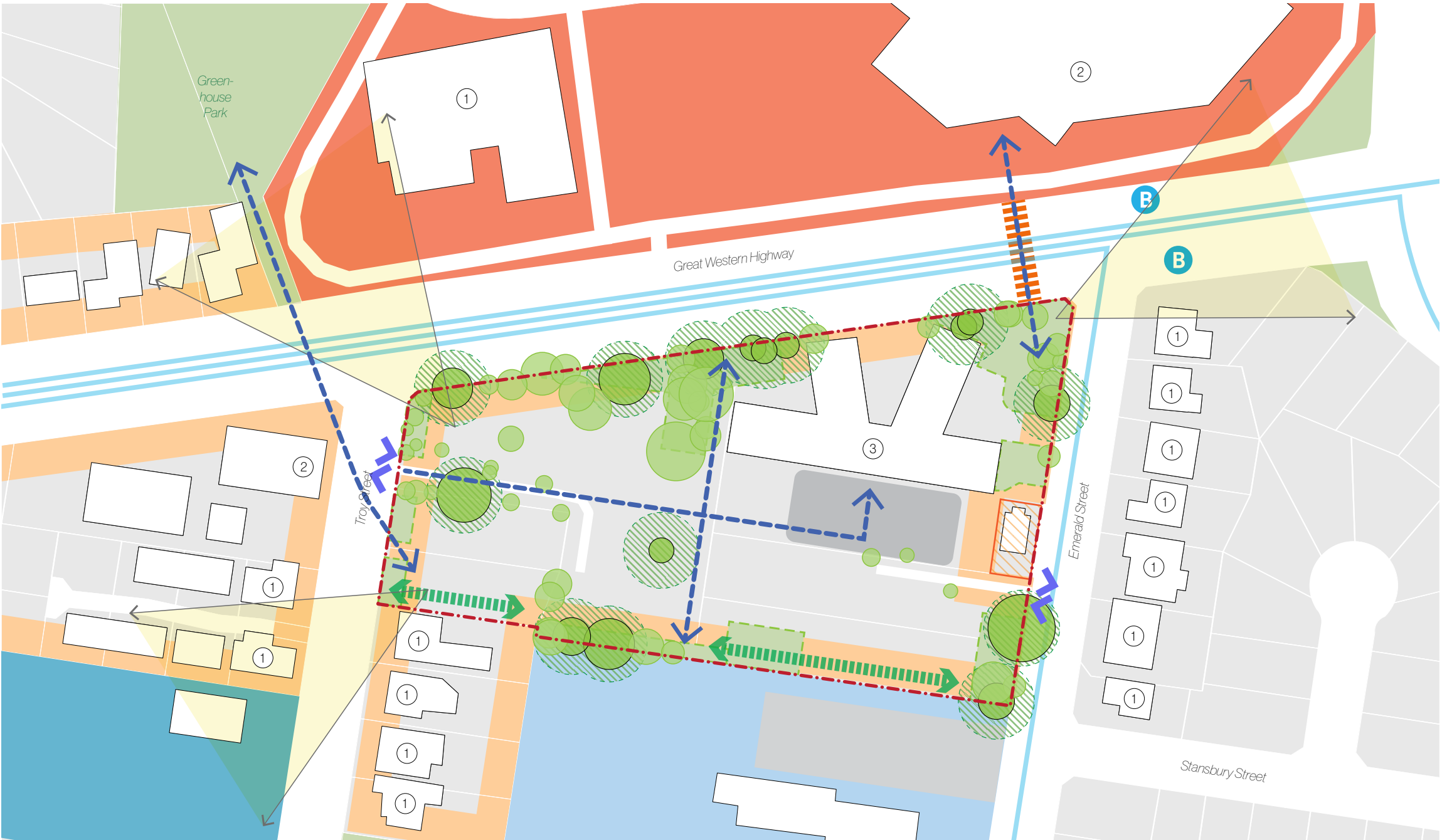
2.6 OPPORTUNITIES

Close proximity to the Lennox Village shopping mall and its surrounding strategic centre allows the site a unique amount of amenity and access throughout the suburb.

The Penrith Council Centres Hierarchy defines the sites locality as a local 'Village Centre', encouraging greater development of medium-density dwellings.

Opportunities pertaining to the site include;

- R3 zoning allows for a greater density of living spaces.
- Proximity to two religious community centres, one on-site administered by the Uniting Church, and a catholic parish to the immediate west of the site.
- Traffic controlled pedestrian crossing located to the north-east of the site allows safe access to Lennox Village shopping centre.
- Bus stops located either side of the Great Western Highway within walking distance of the traffic controlled pedestrian crossing.
- Existing vehicular access via Troy Street and Emerald Street.
- Nearby Greenhouse Park and the Hunter Fields offer external and highly accessible public open space with a potential connection via Troy Street.
- Surrounding boundary canopy of mature trees protects the site visually.
- Extension of existing canopy along southern boundary to mitigate sensitive interface with school.
- Potential future character driven by activity centre shared by retirement community, Lennox Village, and adjacent Emu Plains Public School.
- Build on existing landscape character and integrate elements into open space scheme.



2.7 CONSTRAINTS

Environmental Constraints

Mature planting and an extensive canopy is characteristic of the site, restricting widespread development where retention is most significant.

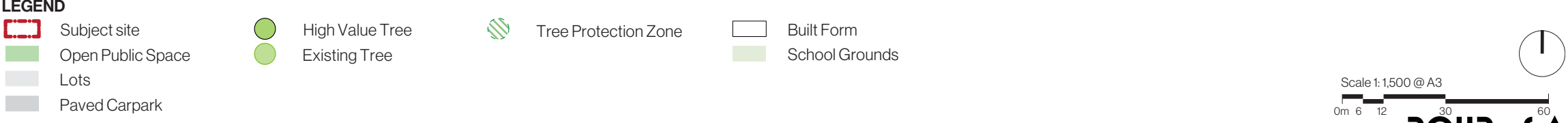
Various high value trees located at the site's periphery and throughout its centre require Tree Protection Zones (TPZ) to ensure root health, limiting potential total site coverage.

While the canopy of trees adjacent to the site's boundary are the most significant and most present environmental factor, they primarily fall within existing DCP and average setbacks, and thus constrain development to a minimal extent.

Incursions beyond the periphery towards the interior of the site are focussed to the immediate west of the existing RACF, forming a vegetation corridor north-south.

Two large trees in particular located to the west of the site and within its centre limit development to the most significant extent, as their accompanying TPZs allow for no more than a 10% encroachment.

As these two trees are of a high retention value due to their age and to their health they are not able to be removed like many of the smaller trees and areas of vegetation found throughout the site.



Flooding Constraints

Uniting Edinglassie is situated within a local topographic minimum which descends towards the south-west of the site from all directions.

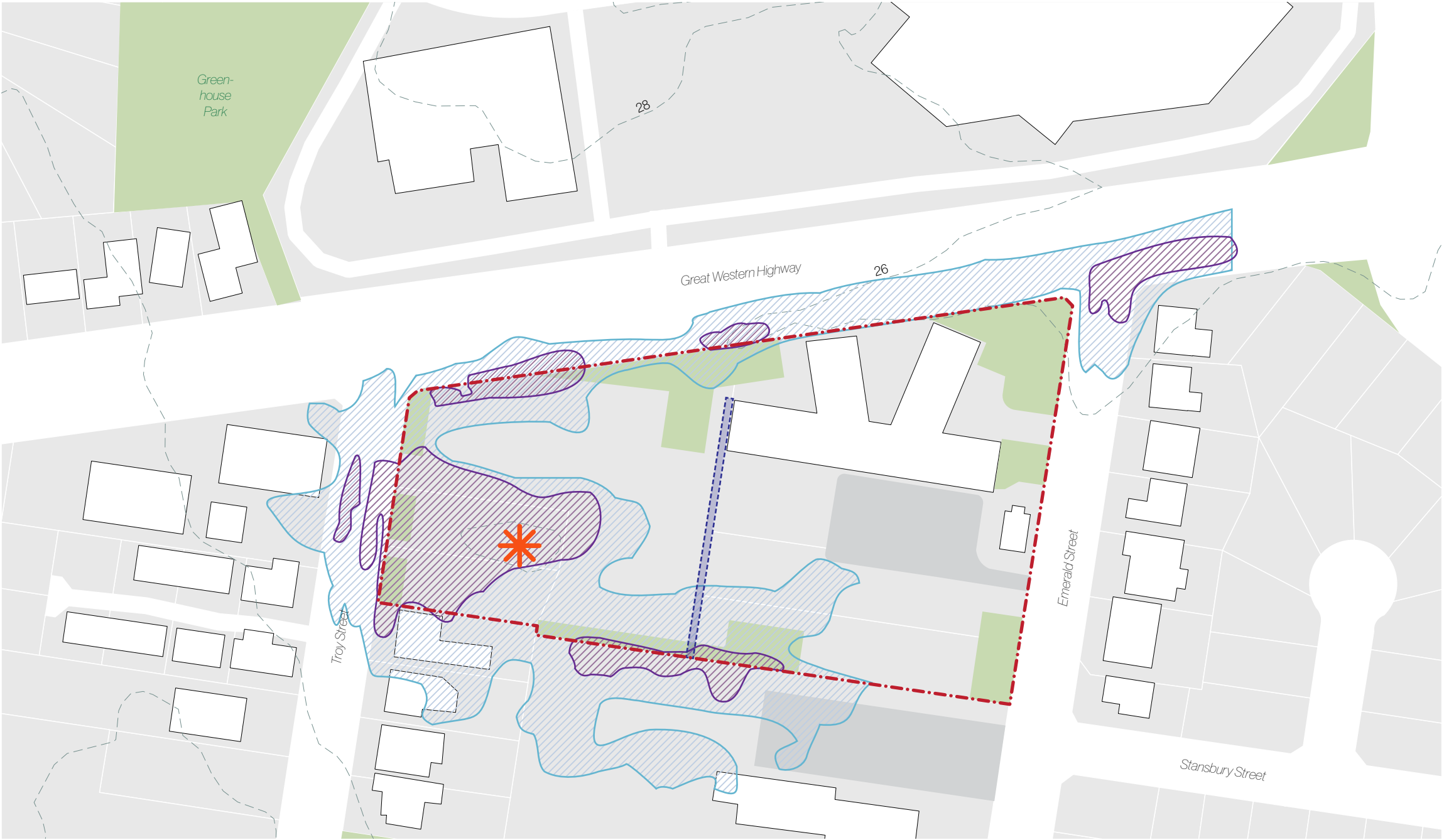
Flooding is most prominent where this topographic low point is located, with a potential flooding depth of greater than one metre in some areas during a 1% AEP event.

There are smaller areas of significant flooding, with potential depths ranging of over one metre, located along the north extent of the site abutting the Great Western Highway, due to topographic and drainage impacts.

There is an additional deep flood depth region found at the southern boundary between the site and the adjacent Emu Plains Public School, which lies partially between both lots.

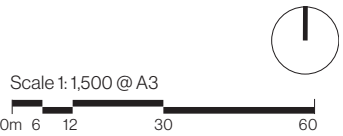
While smaller areas with a flooding hazard are manageable, with existing stormwater drainage systems redirecting flow elsewhere, the larger pool to the south-west of the retirement community lacks significant infrastructure, and would require intervention to minimise flood risk.

A stormwater easement originating on the adjacent school grounds runs north-south, culminating next to the existing RACF and contributing to the vegetation corridor found within this portion of the site.



LEGEND

	Subject site		0.25m-0.5m Flood Depth		Contours 2m (NSW EPI)
	Open Public Space		>0.5m Flood Depth		Topographic Low Point
	Lots		Stormwater Easement		
	Paved Carpark				



Built Form Constraints

Emu Plain's residential community is characterised by low-rise, one to two storey single dwellings, with the adjacent Lennox Village and public school diversifying the site's built context.

To ensure that immediately adjacent residential dwellings do not undergo significant overshadowing, a varied height limit throughout the site will be required to respond to its differing interfaces.

The existing RACF suggests a precedent for proposed built form within the retirement community, a three storey or equivalent maximum height limit forming a cohesive character which responds to surrounding heights.

To the north of the site, height limits are the least constrained, as the proximity of the existing RACF and the adjacent Lennox Village require a consistent character which abides by existing maximum heights.

The Great Western Highway also requires a significant buffer to ensure privacy within the site's interior, suggesting a taller development.

The low-scale character of the site's south and east require a lower maximum height limit to integrate with the suburb's existing character, and to not cause overshadowing or visual inconsistencies.



LEGEND

	Subject site		1 Storey Building		8.5m Max. Building Height
	Open Public Space		2 Storey Building		15m Max. Building Height
	Lots		3 Storey Building		
	Paved Carpark				



Interfaces and Setbacks

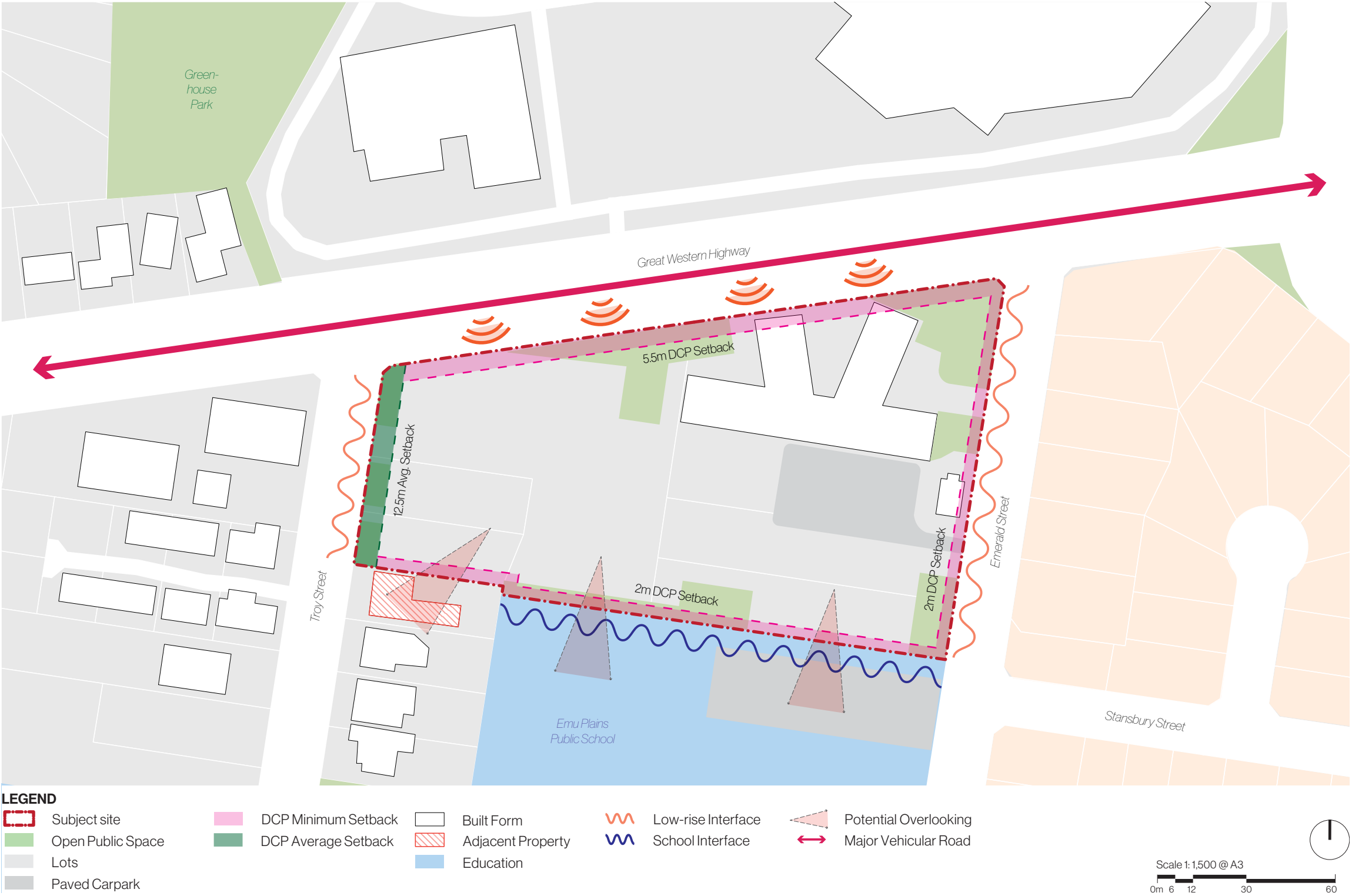
Situated on a peninsula between a low-scale residential community and a major thoroughfare, the site is subject to sensitive boundary conditions on all extents.

While DCP and average setbacks define the developable area of the site, existing interfaces limit potential height, placement, and building form.

Significant noise due to occasional high vehicular traffic originating from the adjacent Great Western Highway requires a built form buffer along the retirement communities northern extent, adjoining the existing canopy of trees.

A visual connection to the adjacent residential community limit maximum height and overshadowing to the site's east and west.

The school located to the south of the retirement community, with some developments occurring within the school's grounds, limit maximum building heights, and due to the lack of existing vegetation, requires a break up of built form to reflect the surrounding community's character.





3.0 DESIGN PRINCIPLES

03

3.1 DESIGN PRINCIPLES

The master plan concept is driven by a response to the site and its context.

Key to our methodology is the creation of a rigorous approach underpinned by urban design principles that enable a whole of precinct approach.

These underpin the identity and vision for the project and establish key objectives that respond to the site's policy context. Within these principles, built form typologies, staging, phasing and other development scenarios have been tested and confirmed in a robust way without altering the overall integrity of the project.

The urban design principles also articulate the urban logic for the precinct in the form of whole of site strategies.



Retain and Enhance Native Vegetation

- Create a natural environment based on the foundations of existing mature and established trees
- Enhance the ecological value of existing vegetation
- Expand on it proximity to the Blue Mountains and the Nepean River and condition of the natural setting with sustainable, adaptable and durable landscape design
- Reduce heat island effects common to the western Sydney settings
- Connect the site to the wider Green Grid
- Tree retention paramount to building location, orientation and scale in order to retain sites existing character as a first principle



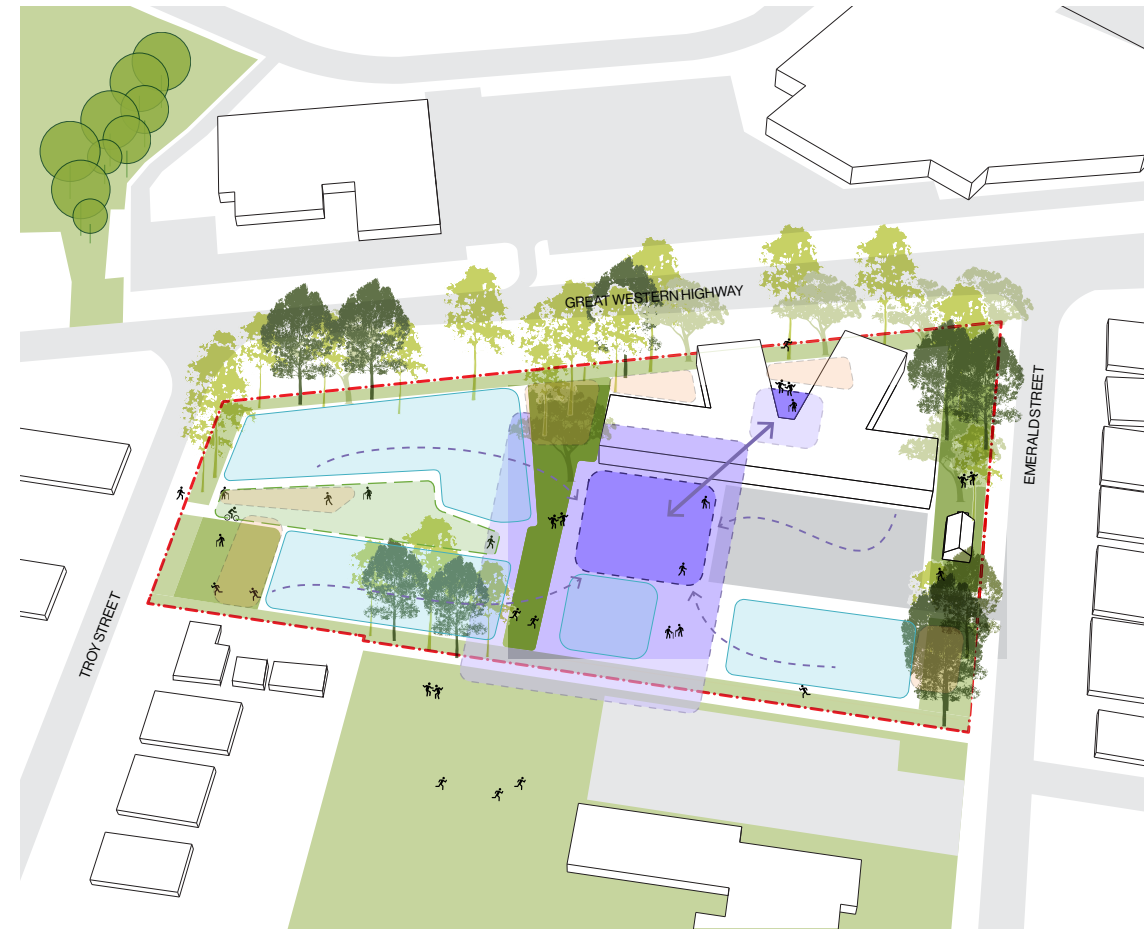
Embrace the Natural Surroundings

- Reinvigorate the natural setting of the site through the establishment of a green spine
- Secondary east west link
- Embedding a green spine to the centre of the site reinstates the quality of the environment around existing trees
- Contributes to the visual quality of the precinct
- Enhances access and interaction at pedestrian level and allows permeability across the site.
- Establish a strong network of open space that buildings across the site can be arranged around.
- Understands the likely movement patterns of residents to create a secondary movement network



Establish the Community Heart

- Create an inclusive, centralised heart for the whole community
- Connect the existing cafe in the RACF
- Emphasis on becoming the beacon of connectivity and community in retirement community.
- Create a centralised space that becomes part of the identity of the Edinglassie Village
- A permeable space that is flexible and has opportunities for a variety of indoor and outdoor uses



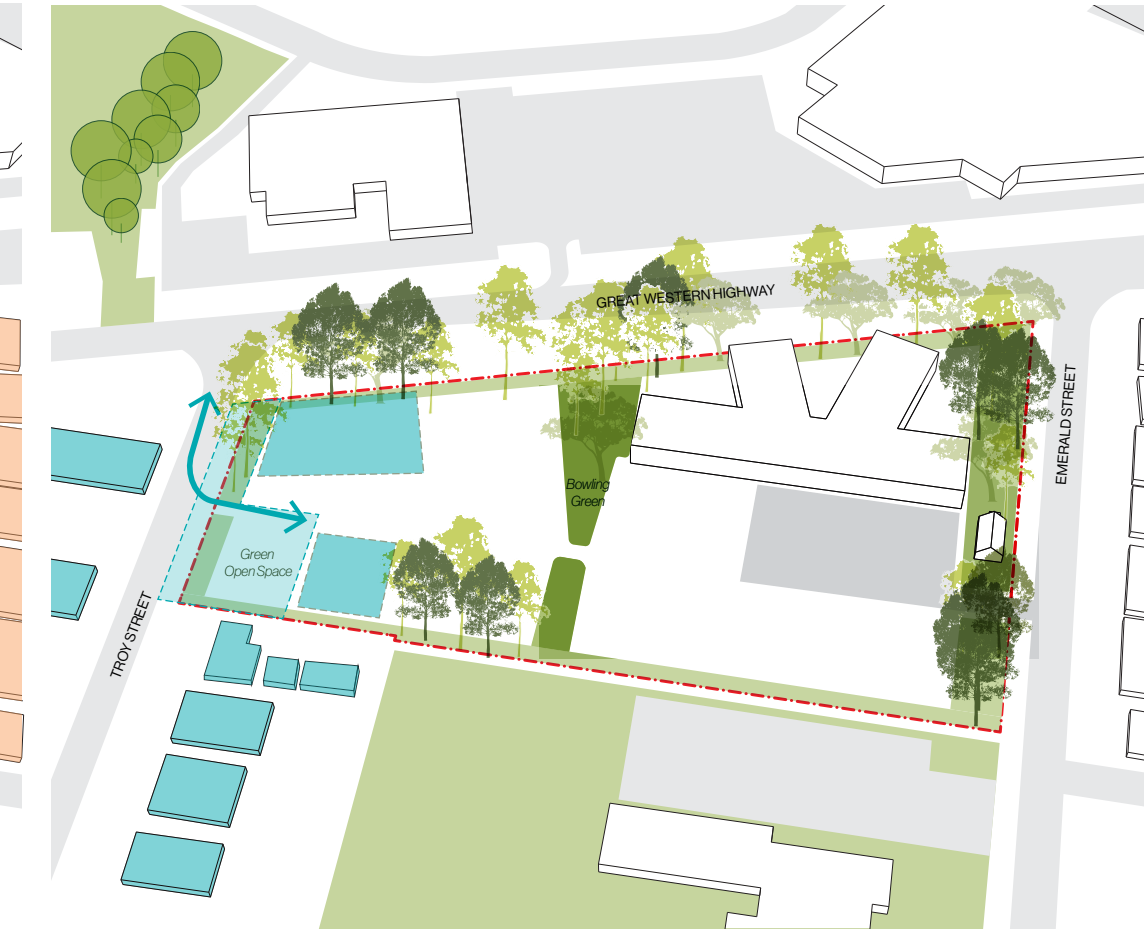
Create a Hierarchy of Spaces

- Establish a series of distinctive open spaces that define boundaries for built form
- Provide a high level of amenity and essential character.
- Have different uses, and can be used at different times of the day or season
- Embed wayfinding and dementia principles that add to the placemaking narrative for the village, with the community heart at its centre.
- A legible hierarchy eases understanding of space for residents with dementia, guiding them towards the central heart.
- Enhance social interaction and networks that inform the siting of buildings
- Support the movement of residents, both primary and secondary networks



Enhance the Emerald Street Interface

- Celebrate the existing heritage on the site
- Acknowledges the contributory character that the heritage building has on Emerald street and seeks to enhance it
- Communal gathering space on Emerald Street adjacent to the heritage building retains its prominence in the streetscape
- Consideration has been given to the orientation and height of the building at the south east end of the site so that the interface is buffered by the existing tree canopy and a lower scale
- Accessible to the retirement community, and the wider community
- Contributes to the character and identity of the precinct within the established residential area.



Respond to the Troy Street Interface

- Define a green, compatible interface with the low rise dwelling densities of the area
- Provide a green park which softens the bulk and scale of the development
- The park offers careful consideration to solar access and shadowing of neighbouring properties
- Enhances the visual and physical environment of Troy Street.



Create a Residential Community

- Establish a community of independent living units based around the core community heart
- Respond to surrounding residential buildings, the interface to Troy Street and Emerald street is minimal
- Large building separations and short building edges ensure ample landscape cartilage and careful consideration of the sensitive school interface.



4.0 ARCHITECTURAL DESIGN CONCEPT

- 01/
Articulating the Mass
- 02/
Celebrating Existing Site Qualities
- 03/
Wayfinding & Accessibility
- 04/
Outlook + Privacy Considerations
- 05/
Relationship with Existing Heritage + Material Palette

04

Articulating the Building Mass

A fine grain residential scale.

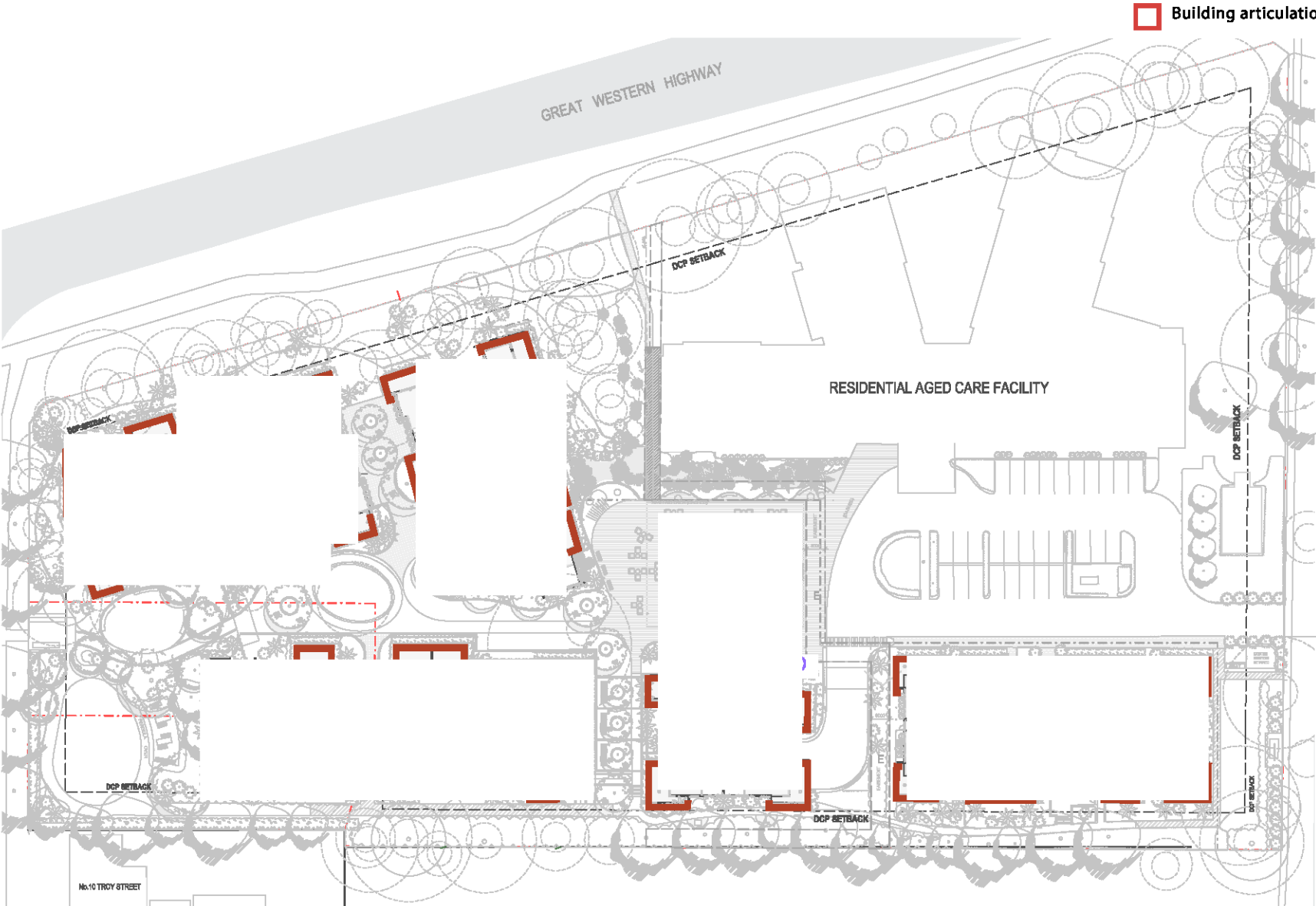
The design concept articulates the massing of buildings in smaller scale elements to reduce bulk and scale, with the intention of creating a dialogue with the immediate residential context and vernacular.

The proposal has been divided into two precincts, Dark and Light, to create a sense of reference and wayfinding for the residents, with similar elements and materials for consistency, but treated in different ways.

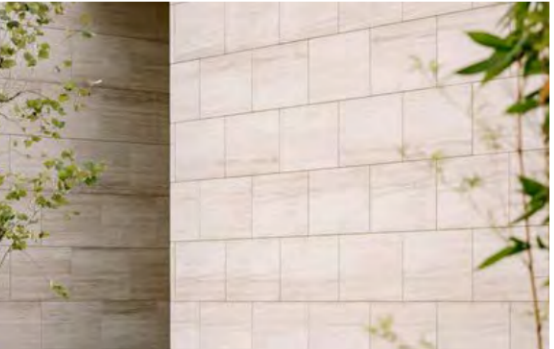
Through the use of residential scale materials, like brick work, bronze metal railings, planted vertical screenings, and sandstone (to reference the heritage church), the design emphasises a residential character, rather than an institutional one, with balcony/living room exposure further signalling its residential typology.



Articulating the Building Mass



Aluminium framed glass doors to balconies enforce differentiation between building mass and transparent materiality.



Sandstone cladding frames and emphasises entry and communal area.

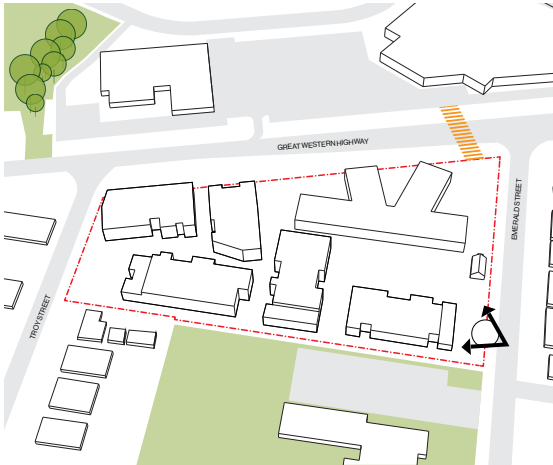


Dark brown cable trellis system creates a vertical expression that articulates the facade.

Articulating the Building Mass



Streicher bond black pearl midland brick contrasted against white, vertical elements to break up building mass and create an approachable facade.



Articulating the Building Mass



White render to concrete, rendered fins and walls to allow edges and balconies to 'pop'. This articulates a residential scale to the building mass.



Celebrating Existing Site Qualities

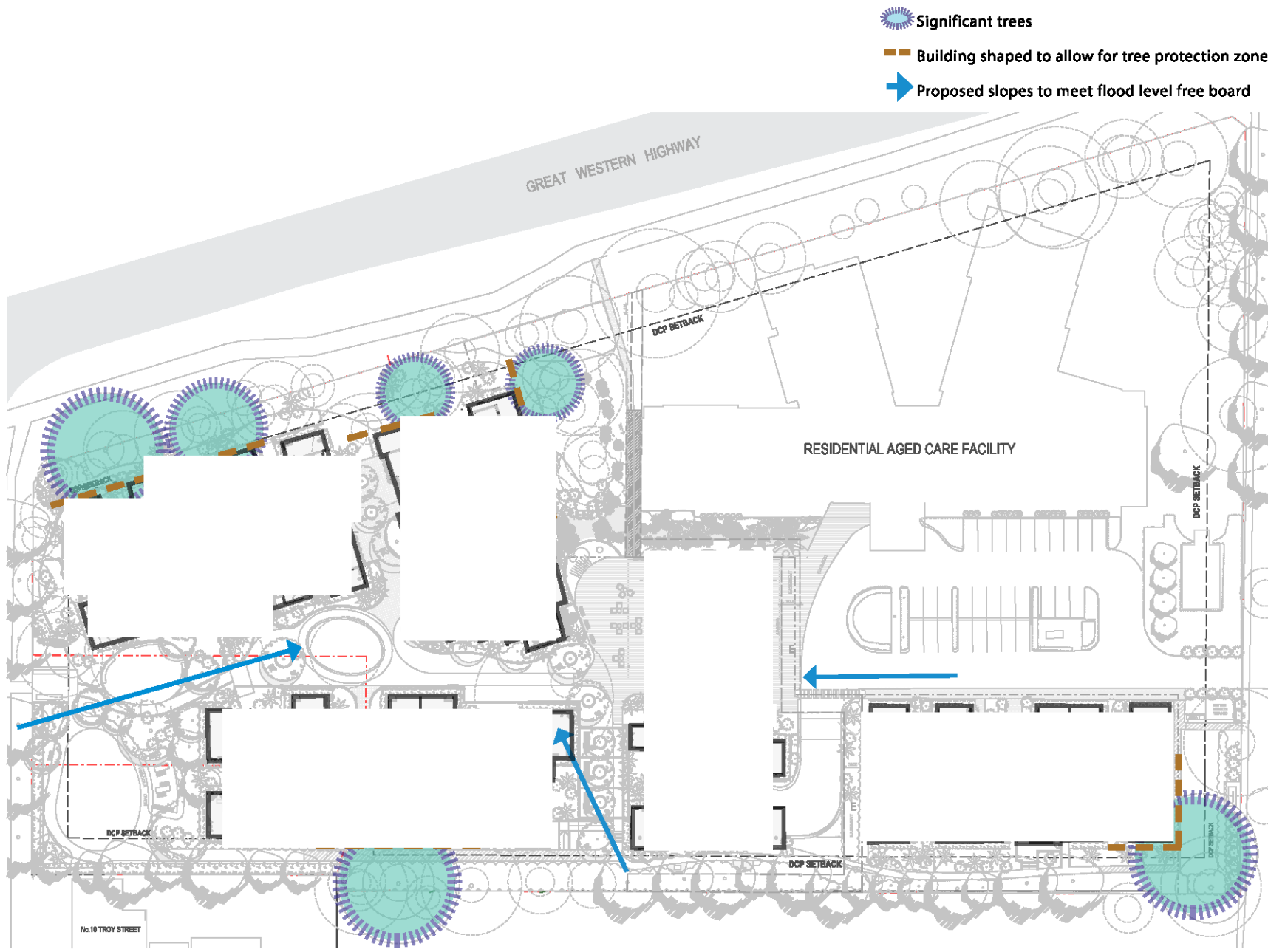
Maintaining and celebrating the existing trees on site has been an integral part of this design. Buildings face into the trees and central courtyards, with particular aim for the residents to interact with the public space from their apartment.

Integrated, vertical planting was included in the facade design to further explore the urban greenery concept on a residential scale. Each unit includes an integrated planting zone that will bring a variety of planting to the ground plane and stretches to above units.

The ground floor plane has been sloped responding to the site's flood level constraints, achieving continuous accessibility across all areas of the village, assisting on wayfinding strategies.

The new topography also allows for privacy at ground level for several apartments terraces and reduction of excavation volumes to the basement car parking levels.

Buildings have been positioned and shaped to achieve a maximum of 10% encroachment into deep soil planting zones.



Existing greenery



Existing greenery



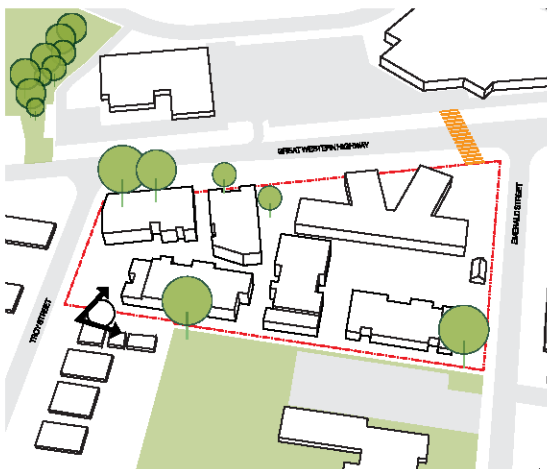
Existing greenery



Celebrating Existing Site Qualities



Example of existing trees on site



Celebrating Existing Site Qualities



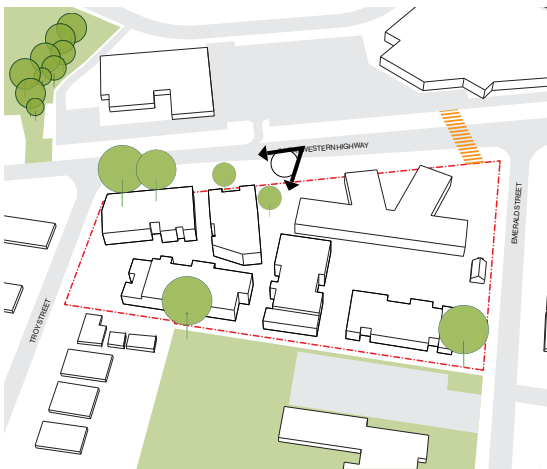
Example of existing trees.



Celebrating Existing Site Qualities



Example of vertical planting growing up cable trellis.



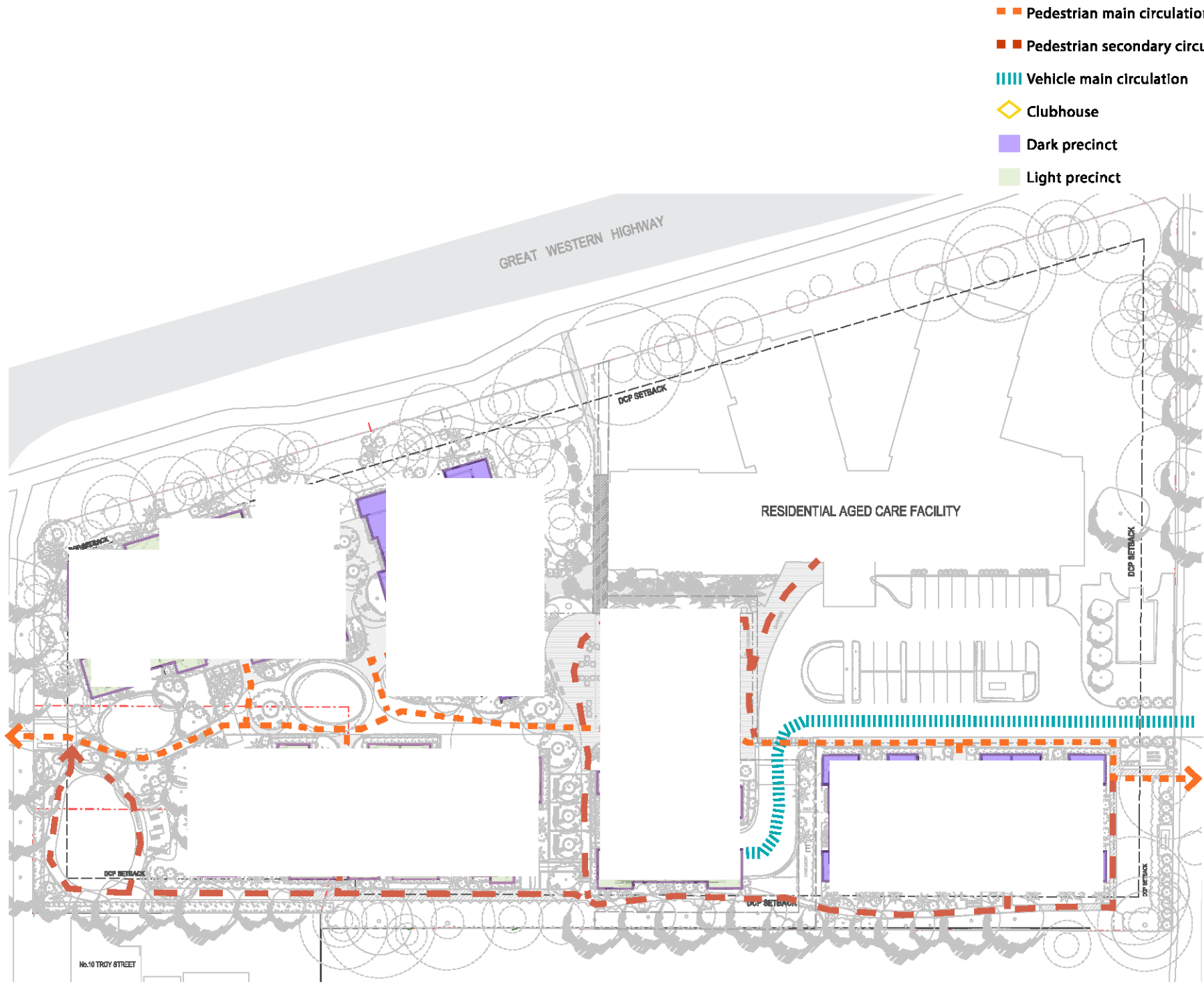
Wayfinding & Accessibility

The proposal has been divided into two precincts, Dark and Light, to create a sense of reference and wayfinding for the residents, with similar elements and materials for consistency, but treated in different ways.

Direct access from pedestrian paths into secured lobby areas increases security and privacy to apartment entries, also providing natural light access and passive surveillance.

Car parking entry has been set back within the site, to protect existing vegetation, allow for a greener and more balanced streetscape, and to encourage drop off zones closer to building entries.

A secondary pedestrian path lines the southern edge of the site adding to the network of pedestrian access. It meanders through resident gardens encouraging direct interaction with greenery and promoting physical activity.



Varied paving



Wayfinding through familiar landscape design



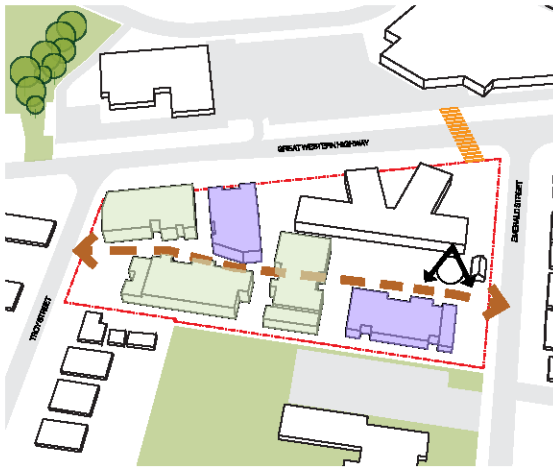
Integrated with landscape design



Wayfinding & Accessibility



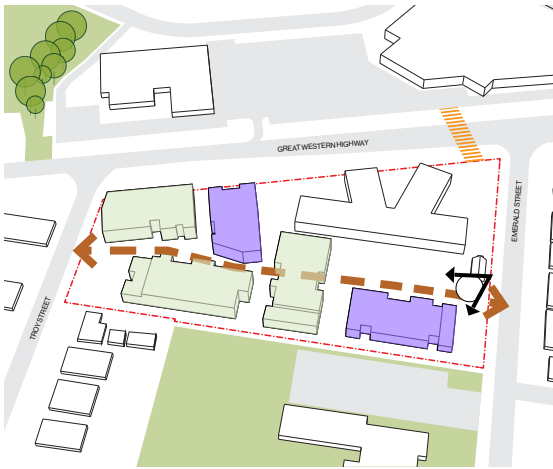
The first precinct, the 'Dark' is defined by dark brick, dark brown window spandrel, slab edge and concrete vertical fins; the building feels heavy in contrast to the lightness of the Light precinct.



Dark precinct
precinct



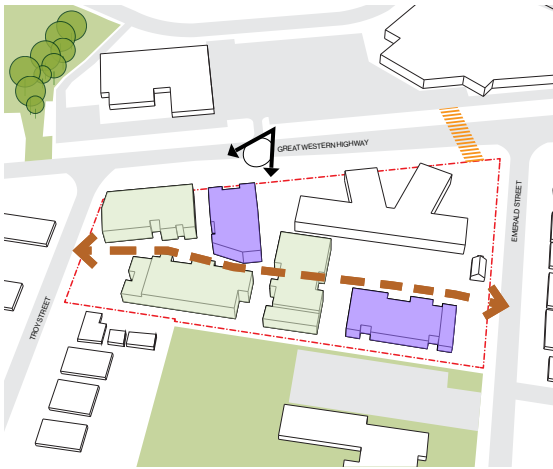
DARK PRECINCT
Pg 48 Uniting Edinglassie_Design Report



Dark precinct
Light precinct



DARK PRECINCT
Pg 49



Dark precinct
Light precinct

BUILDING C + D

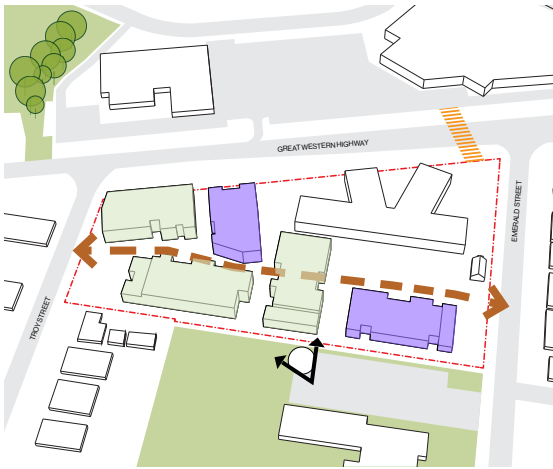


LIGHT PRECINCT

EAST PRECINCT



The difference between dark and light buildings is in their seeming heaviness or lightnes of materials.



Dark precinct
Light precinct

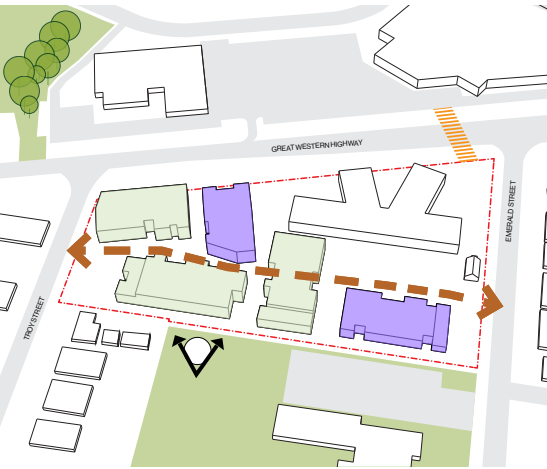
BUILDING C



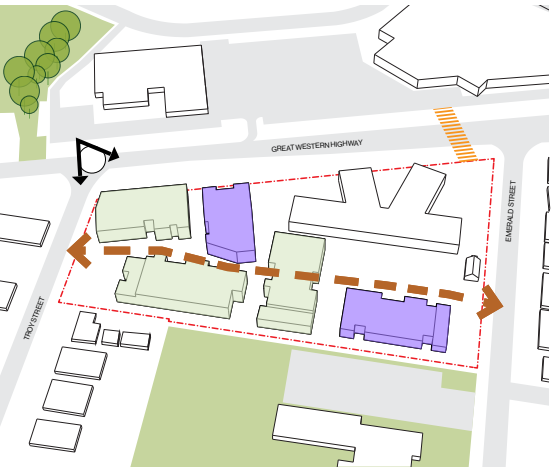
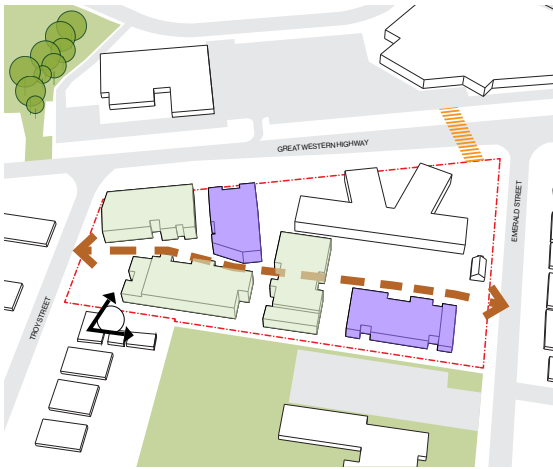
LIGHT PRECINCT



The Light precinct is defined by wide parapets, recessive light brickwork, and beige window spandrel panels, slab edges.



Dark precinct
Light precinct

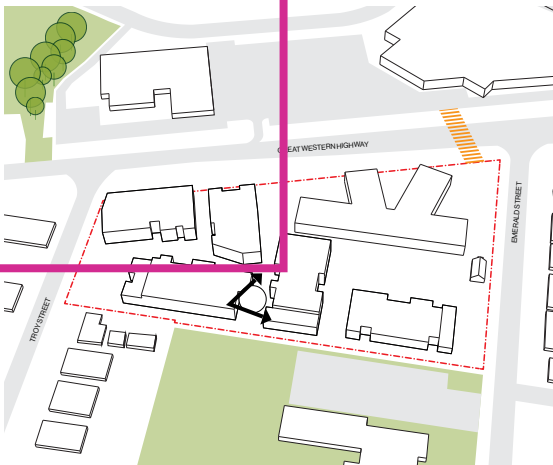


Provide Amenity to Outlook + Privacy

BUILDING D

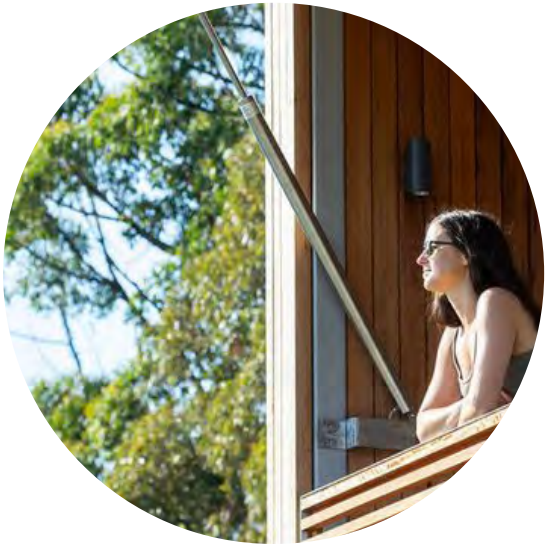


Main building entrance positioned to allow privacy to individual residence entrance.

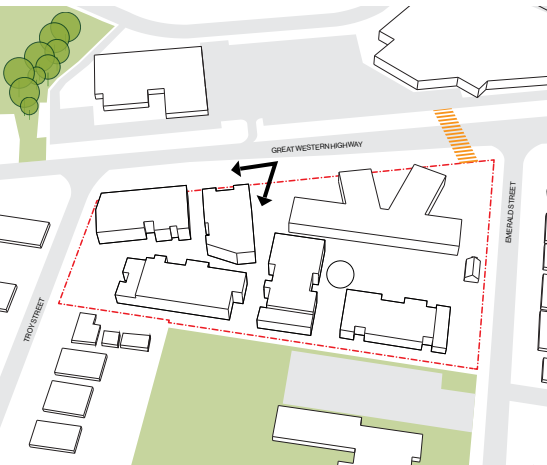


Provide Amenity to Outlook + Privacy

BUILDING B



Balconies with views out to the north to allow passive surveillance.

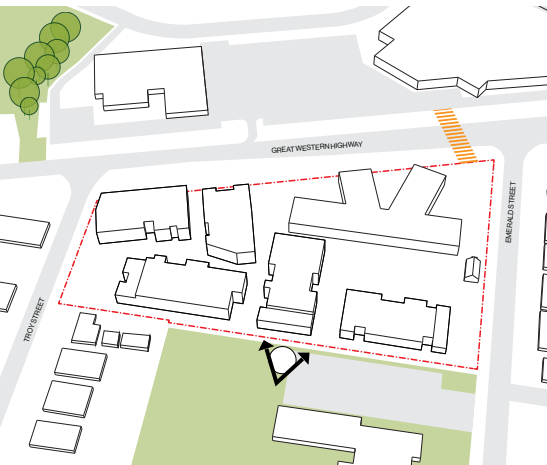


Provide Amenity to Outlook + Privacy

BUILDING D



Bedroom windows carefully placed to avoid direct views into other apartments.



Relationship with Existing Heritage+ Material Palette

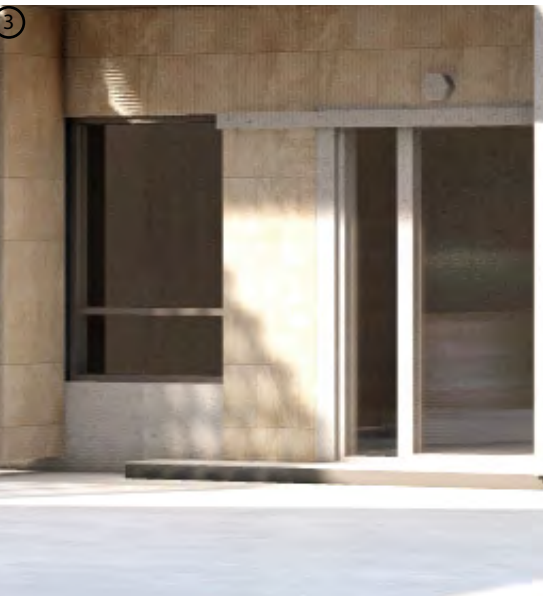
The small sandstone church that is being maintained on site has also been a significant reference for material selection. Warmer tones were generally selected throughout the project to reflect the light beige tones of the sandstone. In particular, this materiality is reflected in the eastern precinct that incorporates sandstone, bronze and brickwork.

Furthermore, the clubhouse also utilises the sandstone to bring this materiality to the foreground. This celebrates the existing culture and associated materiality in the community realm.

A curated external material palette softens the length of the building and emphasises moments of program that interact with the larger site. Beige render matches the window frames to allow the vertical brick expression to protrude. Again, the balconies are prioritised through their visual language - in contrast to the darker coloured architectural elements.

The scale of balconies and external living spaces is in reference to the residential surrounds, and is emphasised through materiality. Dark render and brick were chosen to match dark coloured window frames, whereas the balcony is framed in lighter tones. This creates a visual hierarchy where balcony and external living spaces appear to 'pop.'

This discontinuous language creates a dialogue with the immediate residential context through breaking the mass into smaller and more approachable forms.



- ① Existing church materiality details
- ② View of clubhouse showing use of stone and overhanging planting, similar to existing church
- ③ Sandstone cladding to emphasise entrance.

Relationship with Existing Heritage + Material Palette

CHURCH [BUILDING D + E TO BACK]

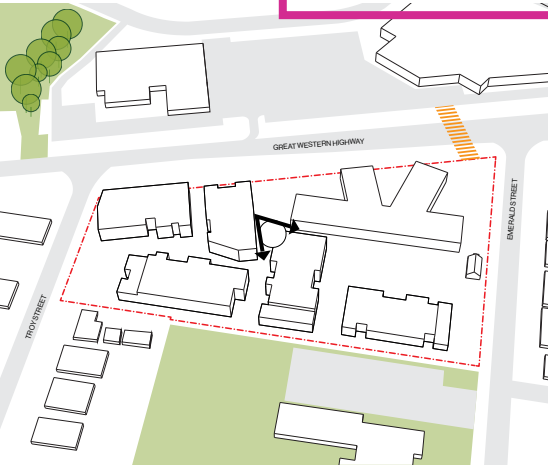


Existing church maintained and celebrated in the architecture to continue the existing heritage.



Relationship with Existing Heritage + Material Palette

Reference to the existing sandstone (as shown below) is included in the material palette. In this instance, it lines the communal clubhouse facade, which links the Dark and Light precincts.

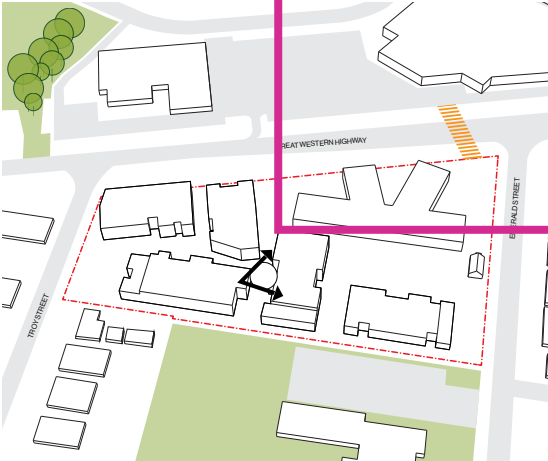
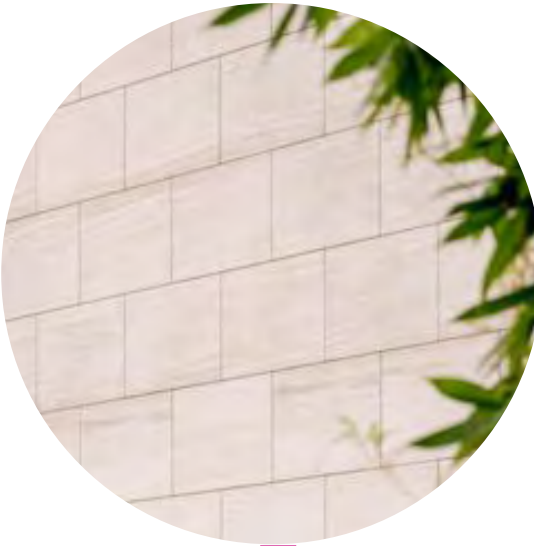


BUILDING D

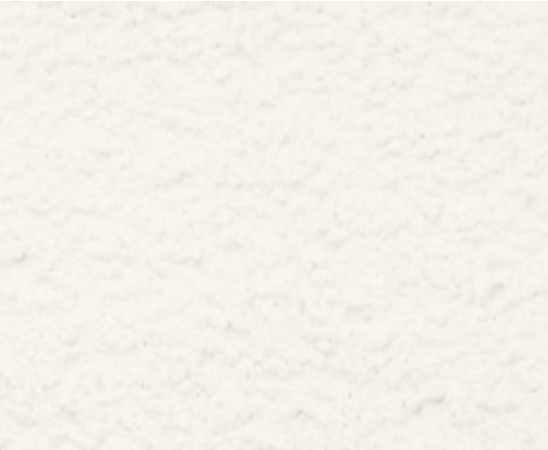


Relationship with Existing Culture + Material Palette

Reference to the existing stone is included in the material palette. In this instance, it covers the entrance facade provided with weatherproof canopy covers.



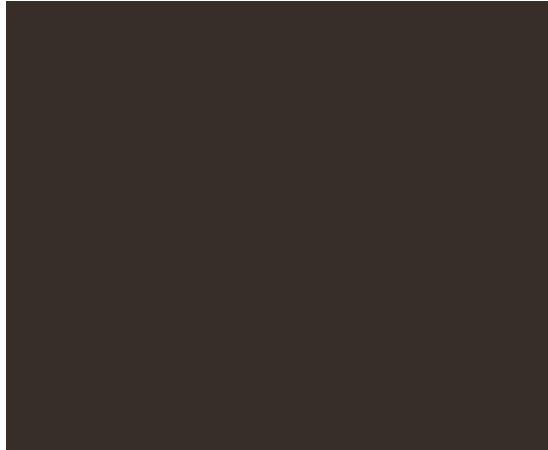
Relationship with Existing Culture + Material Palette



P01: White Render



P02: Beige Window Frame/ Spandrel/ Slab Edge



P03: Dark Brown Window Frame/ Spandrel/ Slab Edge



BR01: Strecher Bond - Beige Brick



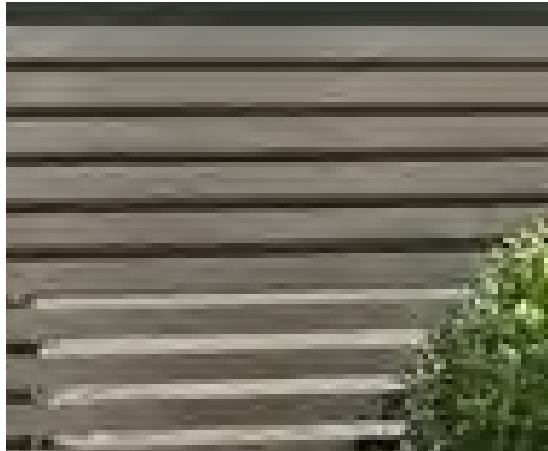
BR02: Strecher Bond - Black Pearl Midland Brick



BR03: Sandstone Facade Cladding



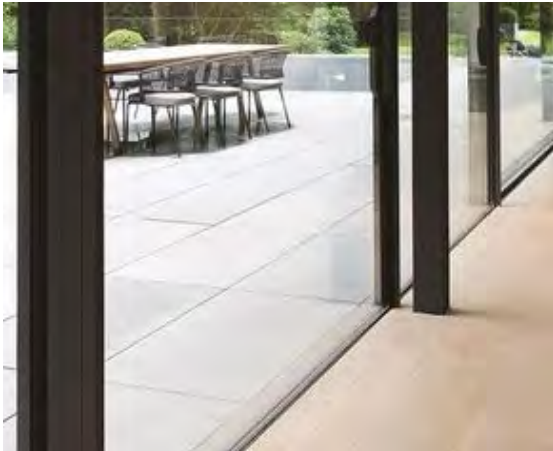
LV01: Dark Brown Cable Trellis



LV02: Plant Louvre



BAL: Bronze Metal Balustrade



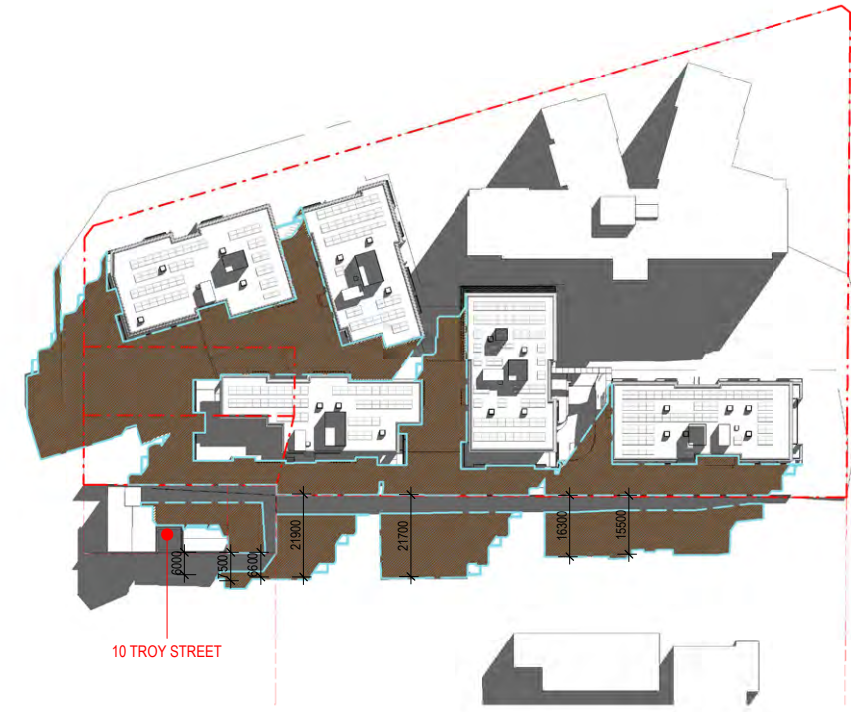
GL01: Clear Glass External Glazing



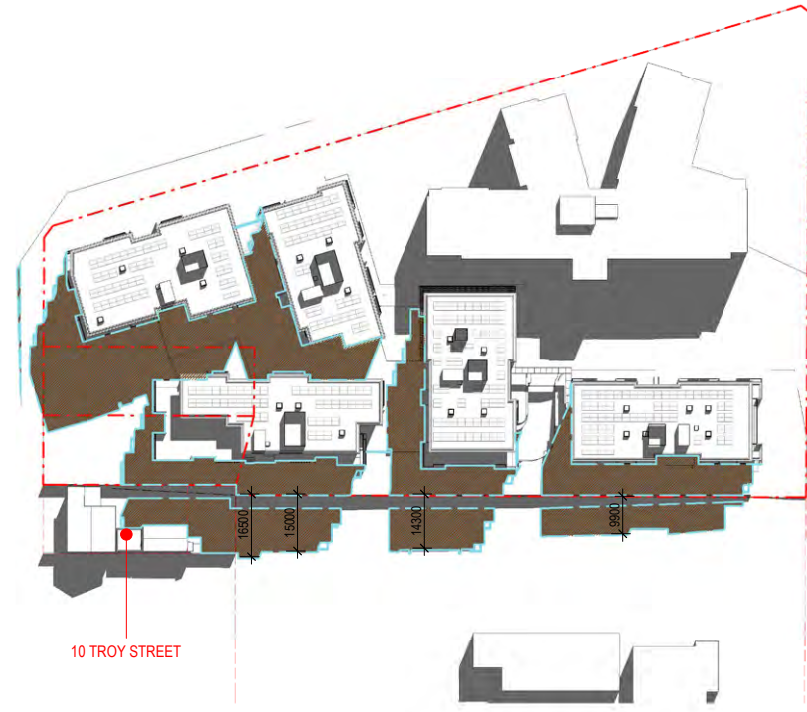
5.0 AMENITY + ENVIRONMENT

05

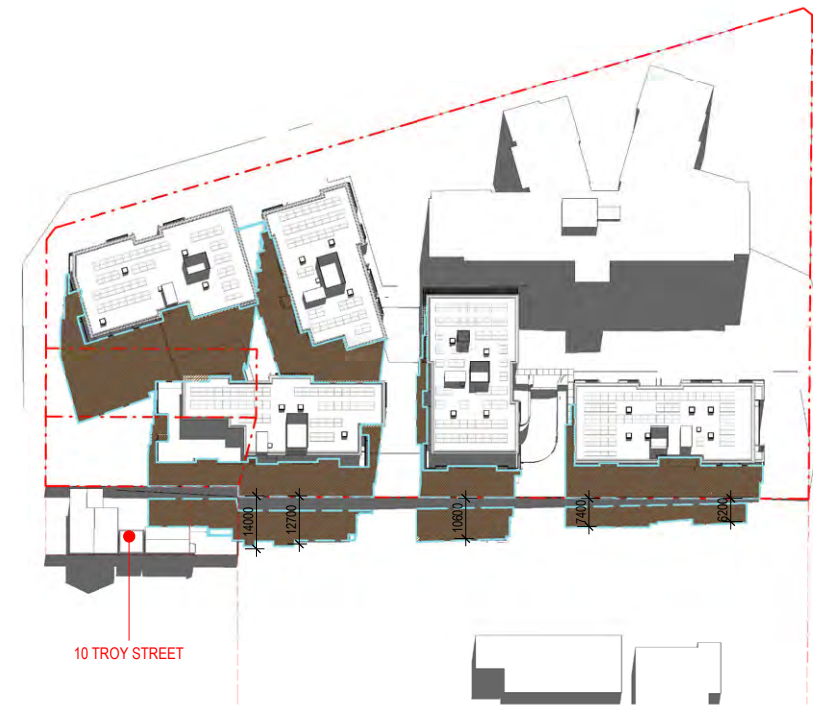
5.1 SHADOW DIAGRAMS



① SITE - SHADOW STUDY - 9 AM
1:1000



② SITE - SHADOW STUDY - 10 AM
1:1000



③ SITE - SHADOW STUDY - 11 AM
1:1000



④ SITE - SHADOW STUDY - 12 PM
1:1000

EXISTING SCHOOL OPEN
SPACE

5.1 SHADOW DIAGRAMS



① SITE - SHADOW STUDY - 1 PM
1:1000



② SITE - SHADOW STUDY - 2 PM
1:1000

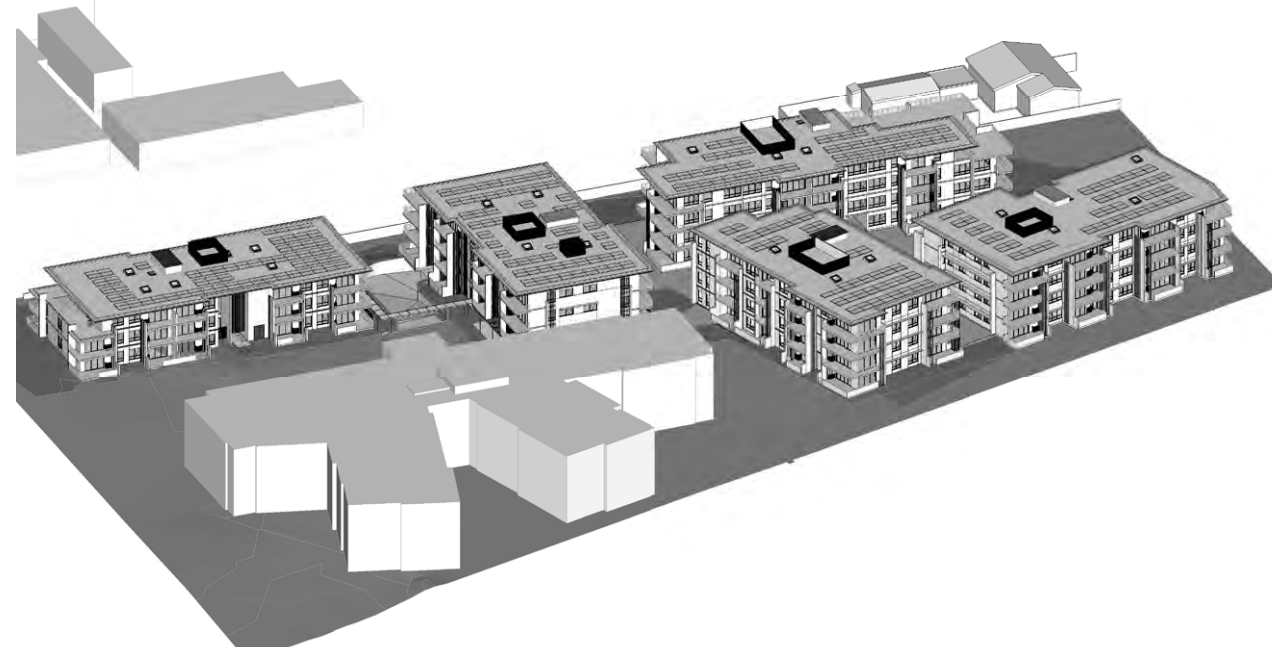


③ SITE - SHADOW STUDY - 3 PM
1:1000

5.2 VIEWS FROM THE SUN

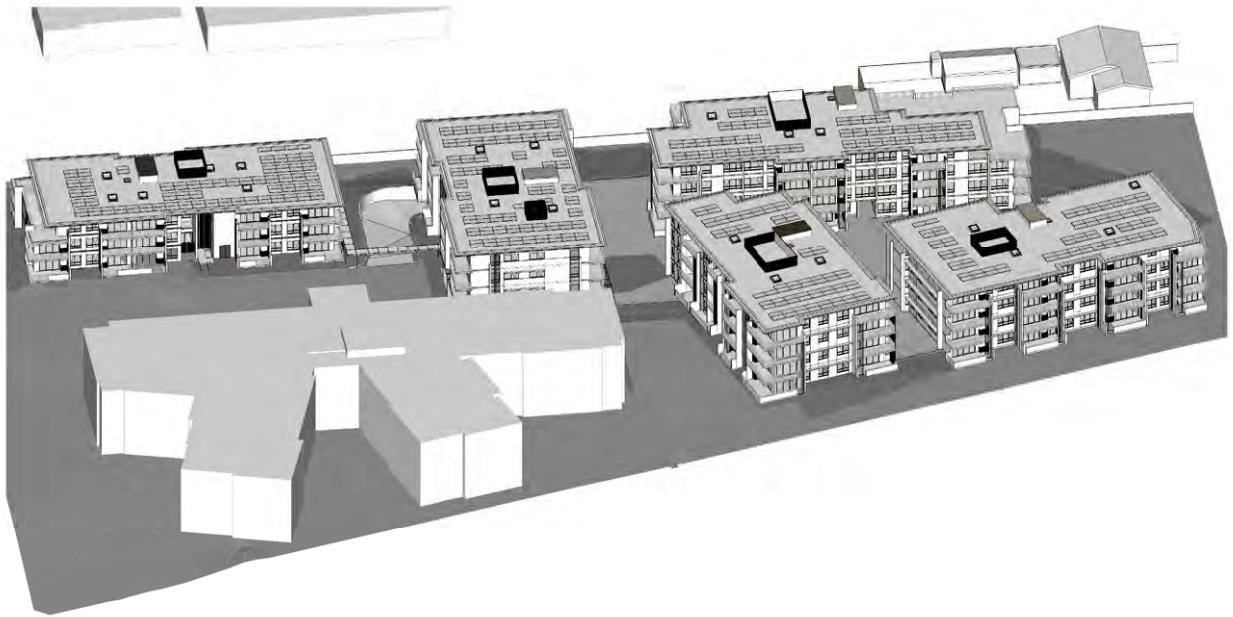


① 3D - SUN EYE VIEW - 21 Jun 0900



② 3D - SUN EYE VIEW - 21 Jun 1000

5.2 VIEWS FROM THE SUN

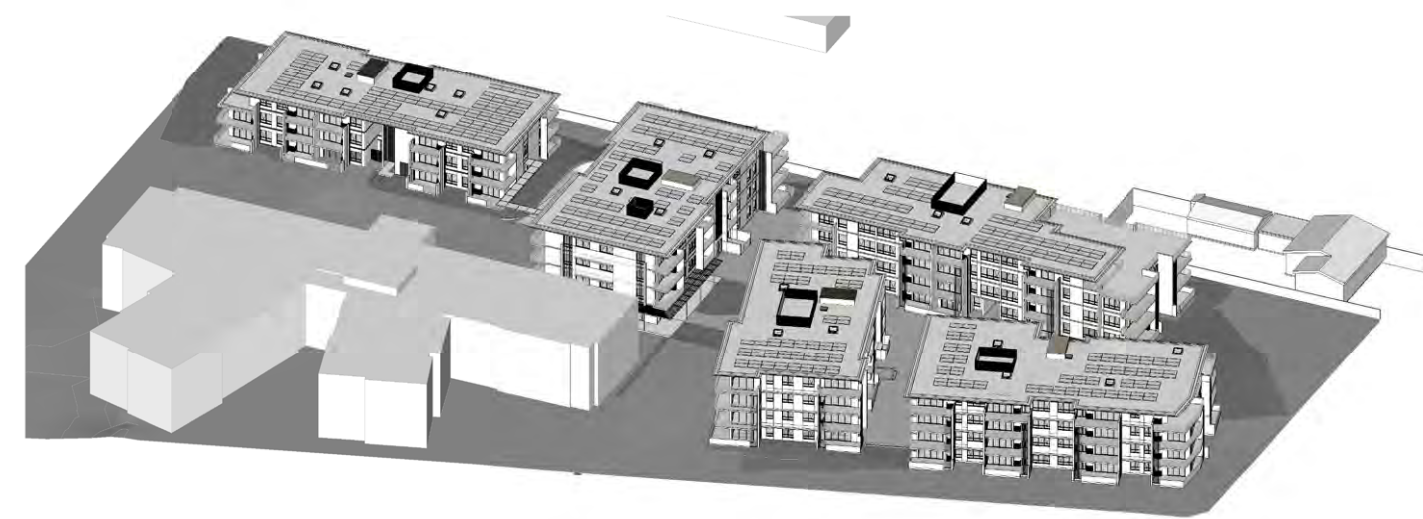


③ 3D - SUN EYE VIEW - 21 Jun 1100



④ 3D - SUN EYE VIEW - 21 Jun 1200

5.2 VIEWS FROM THE SUN

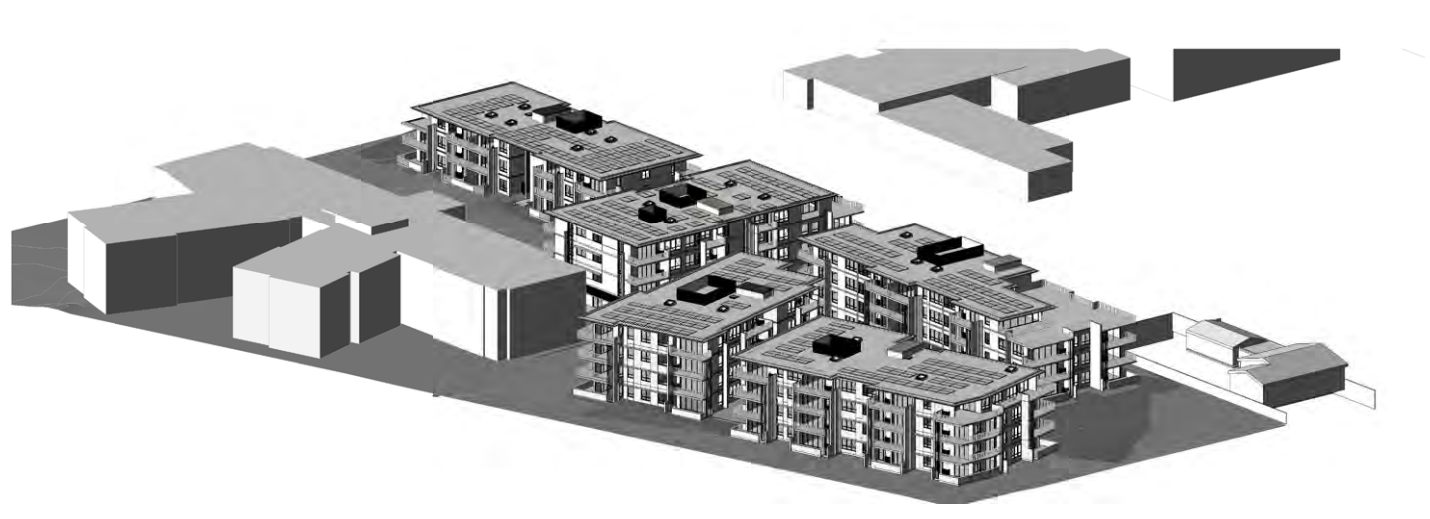


① 3D - SUN EYE VIEW - 21 Jun 1300



② 3D - SUN EYE VIEW - 21 Jun 1400

5.2 VIEWS FROM THE SUN



③ 3D - SUN EYE VIEW - 21 Jun 1500

5.3 SOLAR COMPLIANCE

ADG REQUIREMENTS

- 70% MINIMUM on 2 HOUR SOLAR ACCESS
- 15% MAXIMUM on 0 HOUR SOLAR ACCESS

SOLAR COMPLIANCE:

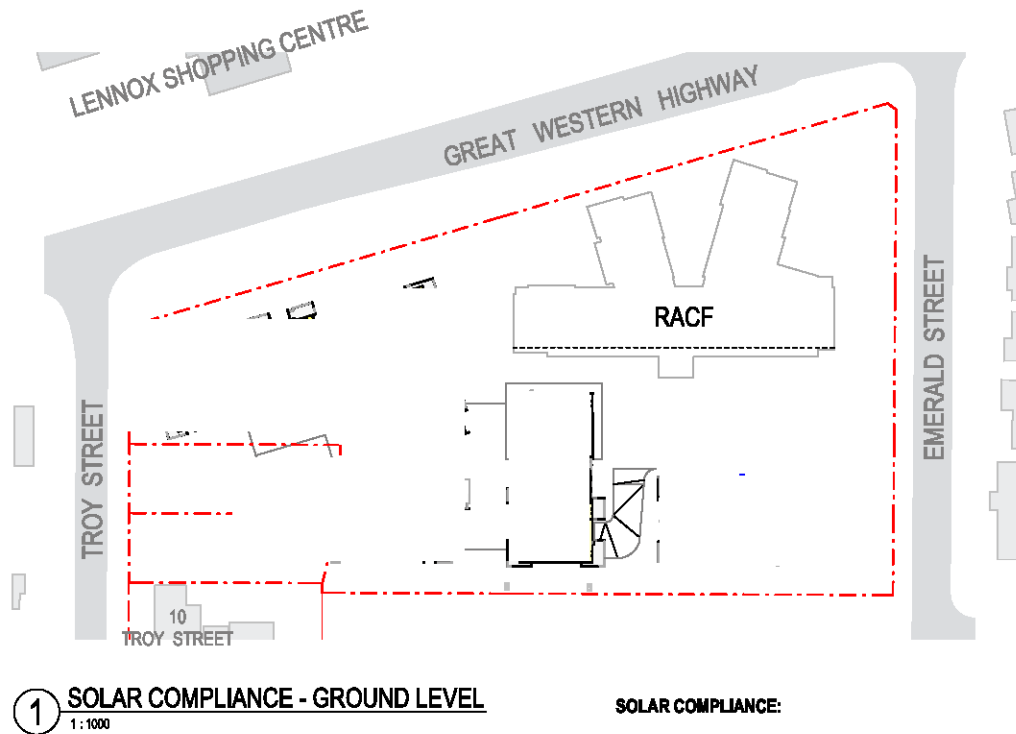
2H SOLAR ACCESS: 106/ 147 = 72.1%

>0H SOLAR ACCESS: 21 / 147 = 14.3%

0H SOLAR ACCESS: 20 / 147 = 13.6%

NOTES:

S.L. : SOLAR ACCESS THROUGH SKYLIGHT

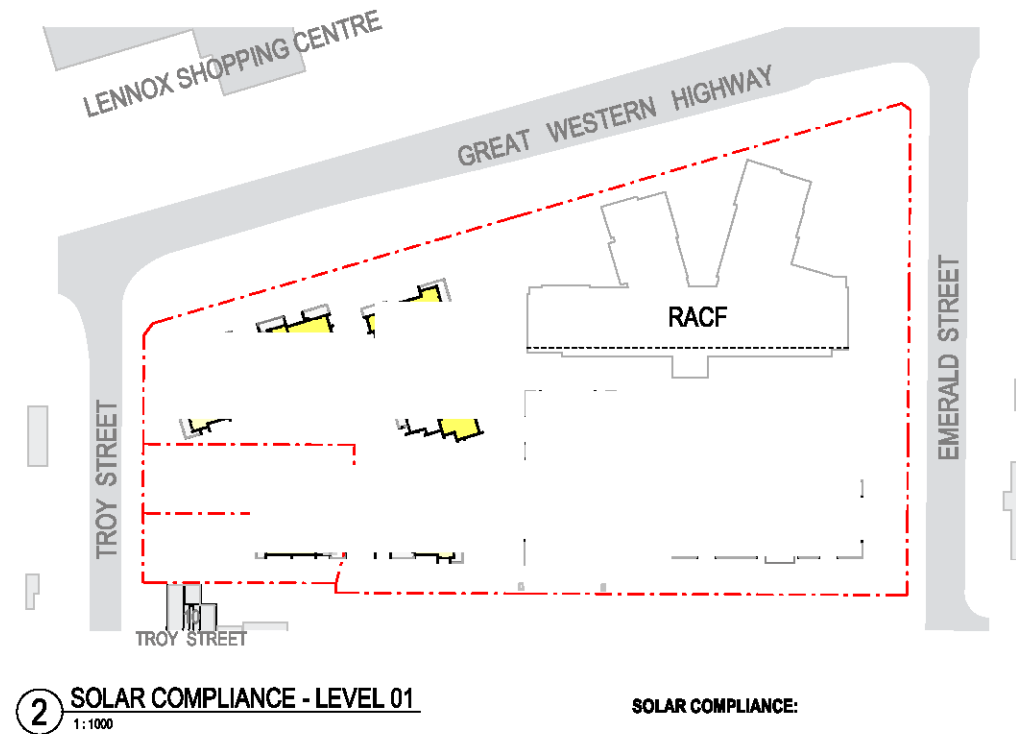


SOLAR COMPLIANCE:

2H SOLAR ACCESS: 24

>0H SOLAR ACCESS: 6

0H SOLAR ACCESS: 8

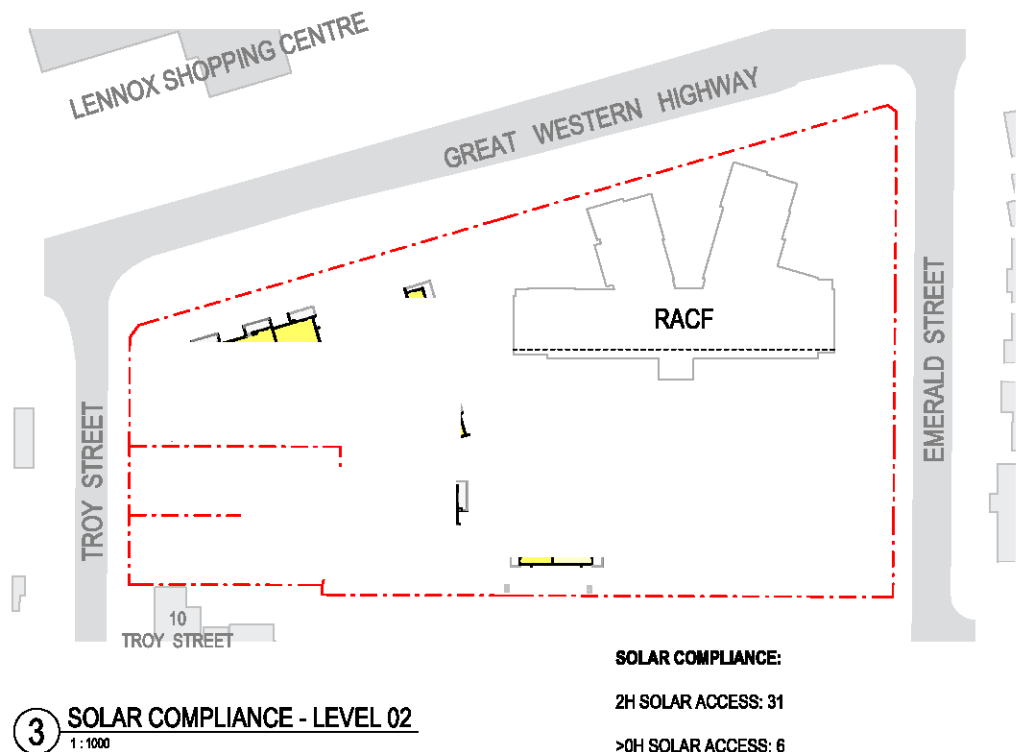


SOLAR COMPLIANCE:

2H SOLAR ACCESS: 28

>0H SOLAR ACCESS: 6

0H SOLAR ACCESS: 8

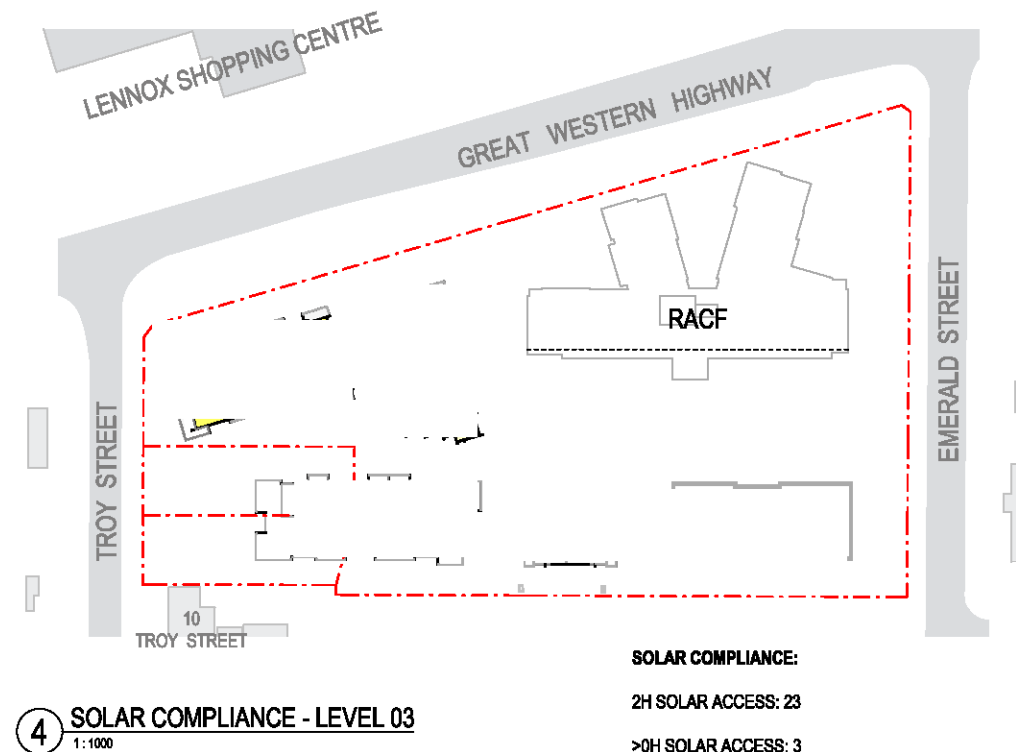


SOLAR COMPLIANCE:

2H SOLAR ACCESS: 31

>0H SOLAR ACCESS: 6

0H SOLAR ACCESS: 4



SOLAR COMPLIANCE:

2H SOLAR ACCESS: 23

>0H SOLAR ACCESS: 3

0H SOLAR ACCESS: 0

5.4 CROSS VENTILATION

ADG REQUIREMENTS

- 60% MINIMUM on TOTAL NUMBER OF APARTMENTS

CROSS VENTILATION

Building A - 19/31 (61.3%)

Building B - 19/28 (67.9%)

Building C - 17/32 (53.1%)

Building D - 17/27 (63.0%)

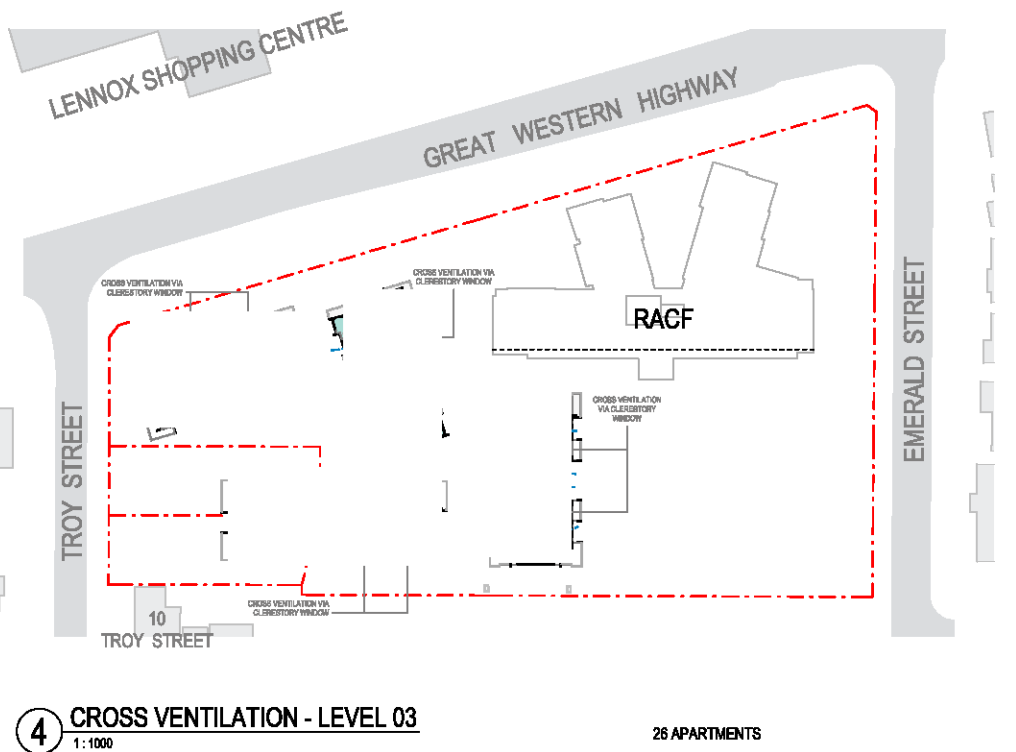
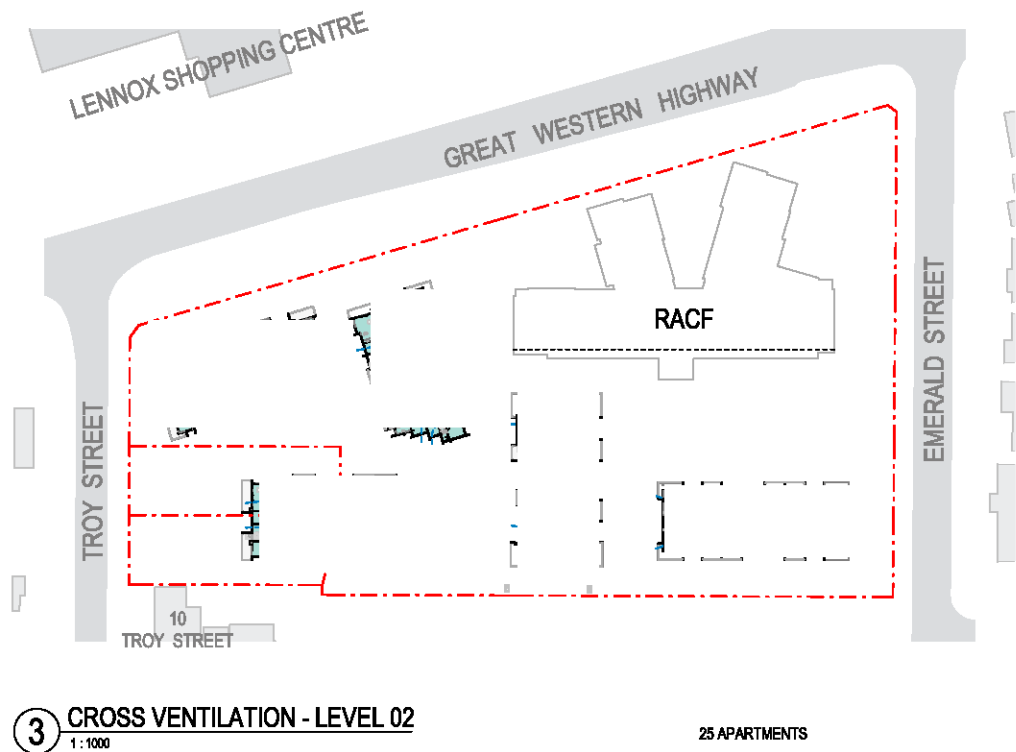
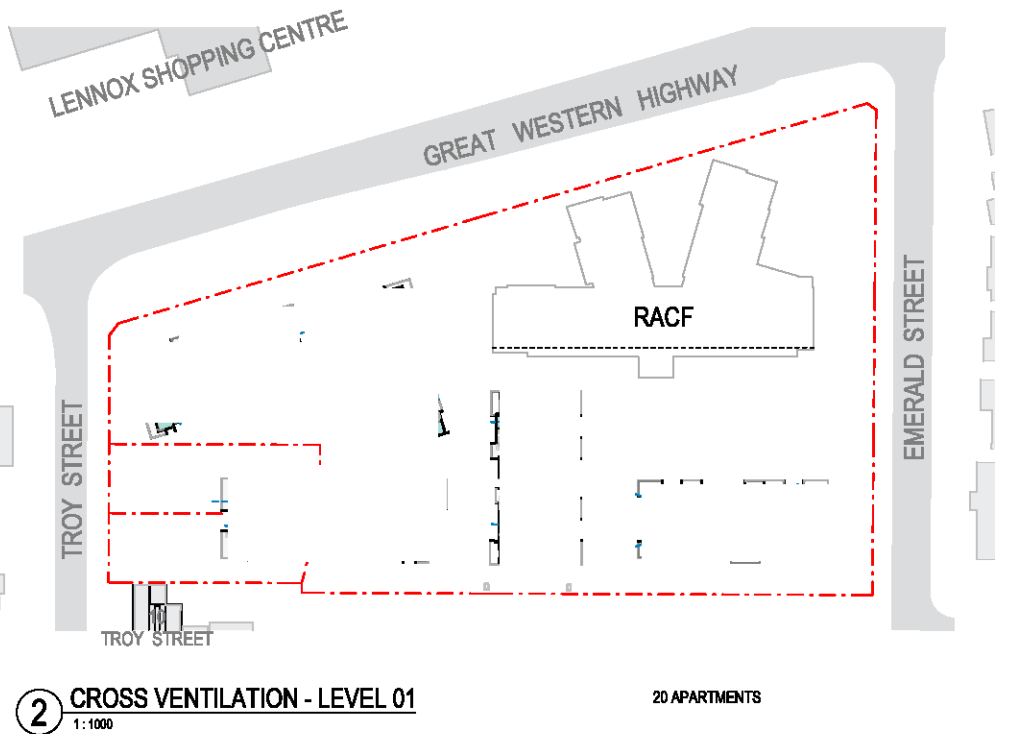
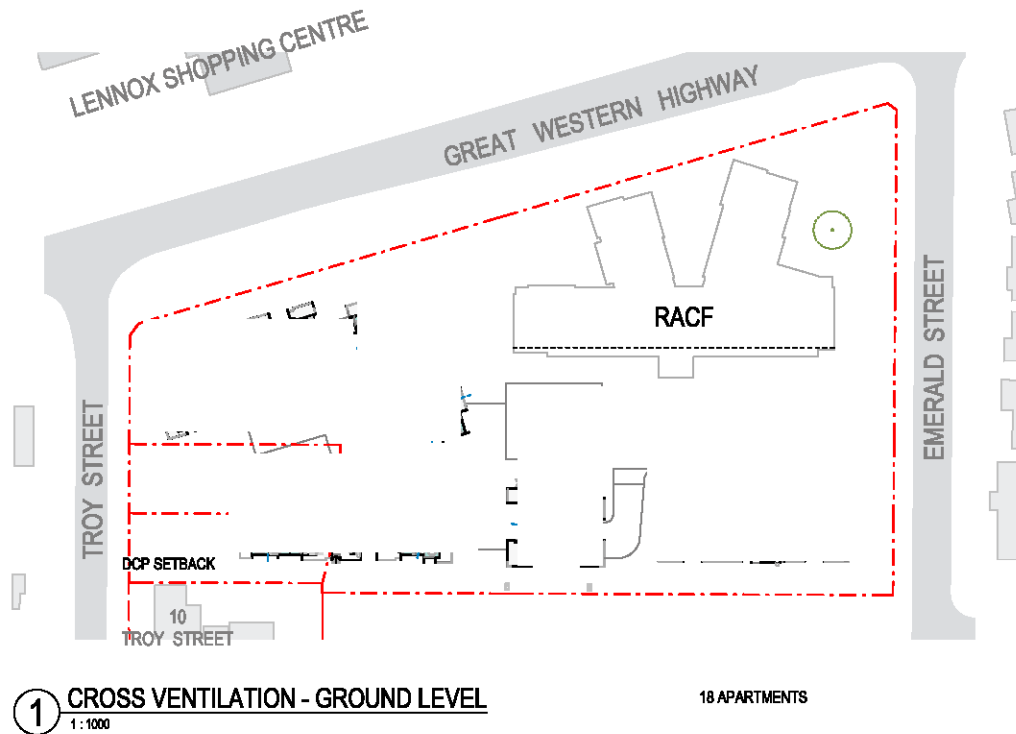
Building E - 17/29 (58.6%)

TOTAL

Apartments with CV = 89/147 (60.5%)

NOTES:

C.W. : CROSS VENTILATION VIA CLERESTORY WINDOW



5.5 STORAGE SCHEDULE

ADG REQUIREMENTS

- 1 BED_Total of 6m3_With a minimum of 3m3 (50%) volume located within the Apartment.
- 2 BED_Total of 8m3_With a minimum of 4m3 (50%) volume located within the Apartment.
- 3 BED_Total of 10m3_With a minimum of 5m3 (50%) volume located within the Apartment.

STORAGE SCHEDULE BUILDING A		
Room Number	Room Type	Volume
GROUND LEVEL		
AG01	3 BED	5.93 m³
AG02	2 BED	4.98 m³
AG03	2 BED	4.98 m³
AG04	3 BED	6.56 m³
AG05	2 BED	9.40 m³
AG06	1 BED	3.31 m³
AG07	1 BED	7.22 m³
AG08	2 BED	5.93 m³
LEVEL 1		
A101	3 BED	5.93 m³
A102	2 BED	4.98 m³
A103	2 BED	4.98 m³
A104	3 BED	6.56 m³
A105	2 BED	9.20 m³
A106	1 BED	3.31 m³
A107	1 BED	7.22 m³
A108	2 BED	7.98 m³
LEVEL 2		
A201	3 BED	5.93 m³
A202	2 BED	4.98 m³
A203	2 BED	4.98 m³
A204	3 BED	6.56 m³
A205	2 BED	9.20 m³
A206	1 BED	3.31 m³
A207	1 BED	7.22 m³
A208	2 BED	7.98 m³
LEVEL 3		
A301	3 BED	8.57 m³
A302	2 BED	4.98 m³
A303	2 BED	4.98 m³
A304	3 BED	6.56 m³
A305	2 BED	9.46 m³
A306	1 BED	3.32 m³
A307	2 BED	6.28 m³
TOTAL		192.76 m³

STORAGE SCHEDULE BASEMENT	
TOTAL COUNT	TOTAL VOLUME
BASEMENT	
145	736.57 m³

STORAGE SCHEDULE BUILDING B		
Room Number	Room Type	Volume
GROUND LEVEL		
BG01	2 BED	7.98 m³
BG02	2 BED	8.08 m³
BG03	2 BED	6.25 m³
BG04	1 BED	3.38 m³
BG05	2 BED	8.06 m³
BG06	1 BED	5.64 m³
BG07	1 BED	7.22 m³
LEVEL 1		
B101	2 BED	7.98 m³
B102	2 BED	7.07 m³
B103	2 BED	6.25 m³
B104	1 BED	3.38 m³
B105	2 BED	8.06 m³
B106	1 BED	5.64 m³
B107	1 BED	7.22 m³
LEVEL 2		
B201	2 BED	8.00 m³
B202	2 BED	8.08 m³
B203	2 BED	6.25 m³
B204	1 BED	3.38 m³
B205	2 BED	8.04 m³
B206	1 BED	4.61 m³
B207	1 BED	7.22 m³
LEVEL 3		
B301	2 BED	8.00 m³
B302	2 BED	8.08 m³
B303	2 BED	6.25 m³
B304	1 BED	3.38 m³
B305	2 BED	8.04 m³
B306	1 BED	4.61 m³
B307	1 BED	7.22 m³
TOTAL		183.35 m³

STORAGE SCHEDULE BUILDING E STORAGE ROOM	
TOTAL COUNT	TOTAL VOLUME
LEVEL 1	
3	12.13 m³
LEVEL 2	
3	12.13 m³
6	24.26 m³

STORAGE SCHEDULE BUILDING C		
Room Number	Room Type	Volume
GROUND LEVEL		
CG01	3 BED	9.20 m³
CG02	2 BED	4.98 m³
CG03	1 BED	7.22 m³
CG04	2 BED	4.98 m³
CG05	3 BED	6.84 m³
CG06	2 BED	8.00 m³
CG07	1 BED	3.74 m³
CG08	1 BED	3.38 m³
CG09	3 BED	11.40 m³
LEVEL 1		
C101	3 BED	9.20 m³
C102	2 BED	4.98 m³
C103	2 BED	4.98 m³
C104	2 BED	4.98 m³
C105	3 BED	6.84 m³
C106	2 BED	7.98 m³
C107	1 BED	3.26 m³
C108	1 BED	3.38 m³
C109	3 BED	11.40 m³
LEVEL 2		
C201	3 BED	9.20 m³
C202	2 BED	4.98 m³
C203	2 BED	4.98 m³
C204	2 BED	4.98 m³
C205	3 BED	6.84 m³
C206	2 BED	7.98 m³
C207	1 BED	3.26 m³
C208	1 BED	3.38 m³
C209	3 BED	11.40 m³
LEVEL 3		
C301	3 BED	5.50 m³
C302	2 BED	4.98 m³
C303	2 BED	4.98 m³
C304	3 BED	6.84 m³
C305	3 BED	12.77 m³
TOTAL		208.78 m³

STORAGE SCHEDULE BUILDING D		
Room Number	Room Type	Volume
GROUND LEVEL		
DG01	1 BED	6.84 m³
DG02	2 BED	4.98 m³
DG03	3 BED	5.32 m³
DG04	2 BED	7.13 m³
LEVEL 1 - BLD D		
D101	2 BED	9.95 m³
D102	2 BED	7.53 m³
D103	2 BED	4.98 m³
D104	2 BED	4.98 m³
D105	3 BED	5.30 m³
D106	2 BED	7.63 m³
D107	1 BED	6.84 m³
D108	1 BED	6.84 m³
LEVEL 2 - BLD D		
D201	2 BED	9.95 m³
D202	2 BED	7.53 m³
D203	2 BED	4.98 m³
D204	2 BED	4.98 m³
D205	3 BED	5.30 m³
D206	2 BED	7.63 m³
D207	1 BED	6.84 m³
D208	1 BED	6.84 m³
LEVEL 3		
D301	2 BED	9.95 m³
D302	2 BED	7.26 m³
D303	2 BED	4.98 m³
D304	2 BED	4.98 m³
D305	3 BED	14.67 m³
D306	1 BED	6.84 m³
D307	1 BED	6.84 m³
TOTAL		187.92 m³

STORAGE SCHEDULE BUILDING E		
Room Number	Room Type	Volume
GROUND LEVEL		
EG01	1 BED	3.17 m³
EG02	1 BED (AFF. H)	3.17 m³
EG03	1 BED (AFF. H)	3.17 m³
EG04	1 BED (AFF. H)	3.17 m³
EG05	1 BED	3.17 m³
EG06	1 BED	3.17 m³
EG07	1 BED (AFF. H)	3.17 m³
EG08	1 BED (AFF. H)	3.17 m³
EG09	1 BED (AFF. H)	3.17 m³
EG10	1 BED	3.17 m³
LEVEL 1		
E101	1 BED	3.17 m³
E102	1 BED (AFF. H)	3.17 m³
E103	1 BED (AFF. H)	3.17 m³
E104	1 BED (AFF. H)	3.17 m³
E105	1 BED	3.17 m³
E106	1 BED	3.17 m³
E107	1 BED (AFF. H)	3.17 m³
E108	1 BED (AFF. H)	3.17 m³
E109	1 BED (AFF. H)	3.17 m³
E110	1 BED	3.17 m³
LEVEL 2		
E201	1 BED	3.17 m³
E202	1 BED	3.17 m³
E203	1 BED	3.17 m³
E204	1 BED	3.17 m³
E205	1 BED	6.89 m³
E206	1 BED (AFF. H)	3.17 m³
E207	1 BED (AFF. H)	3.17 m³
E208	1 BED (AFF. H)	3.17 m³
E209	1 BED	3.17 m³
TOTAL		94.69 m³

5.6 COMMUNAL OPEN SPACE

ADG REQUIREMENTS

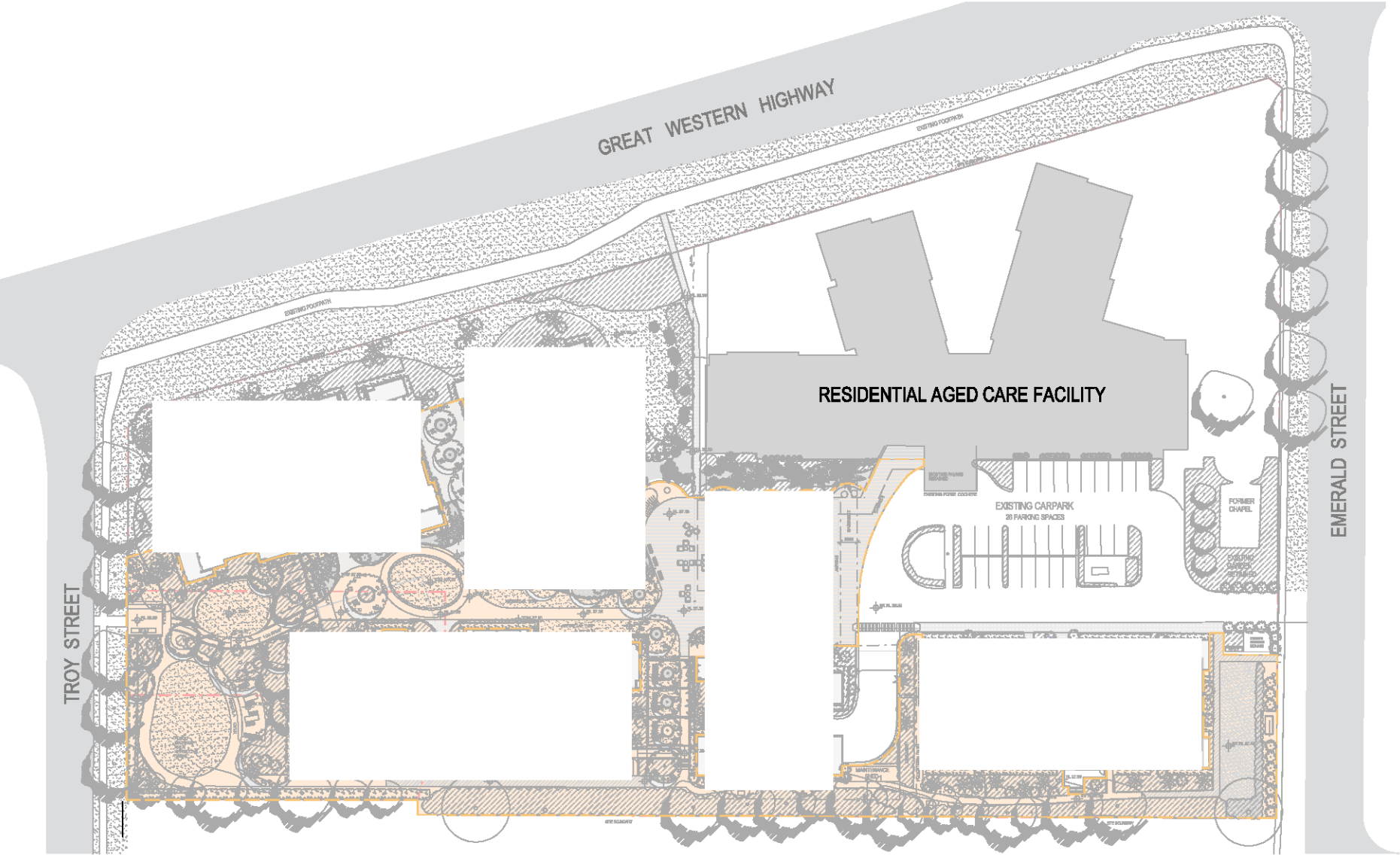
- 25% minimum of the Site area (2,823.75 m2)

ADG REQUIREMENTS

- 25% minimum of the Site area (2,824 m2)

COMMUNAL OPEN SPACE

TOTAL SITE AREA 11296 m²
COMMUNAL OPEN SPACE 5325 m² 47%



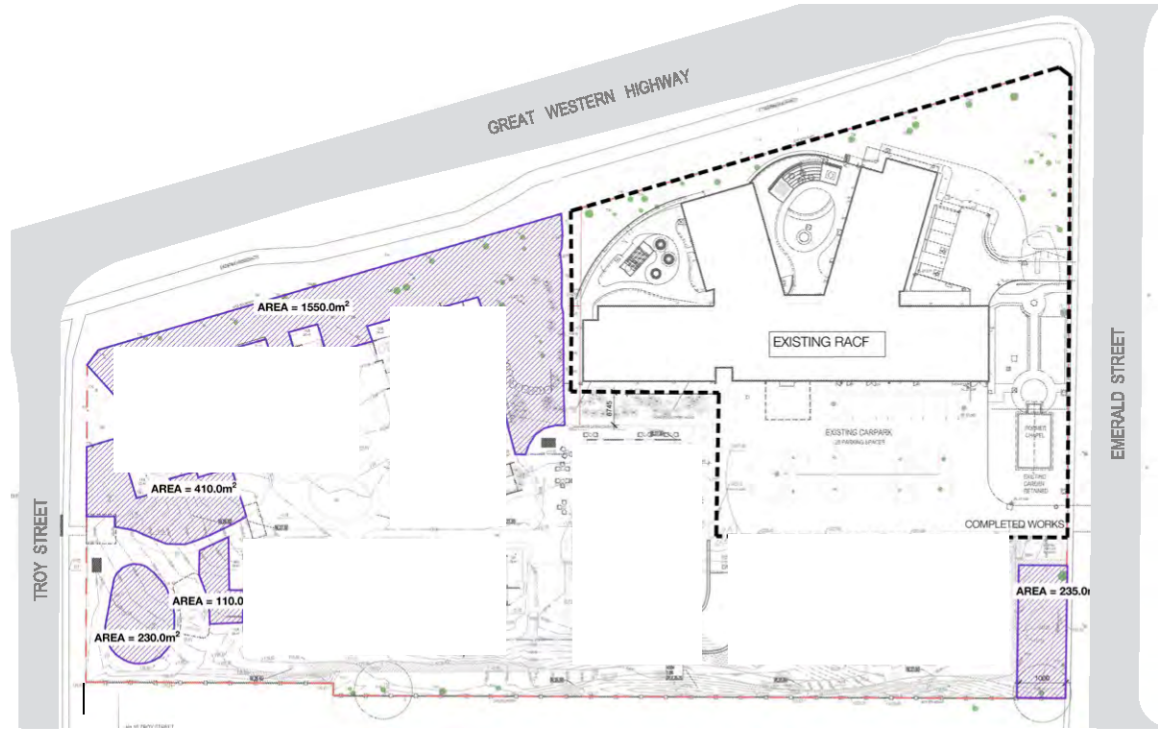
1 COMMUNAL OPEN SPACE
1:500

5.7 DEEP SOIL DIAGRAM

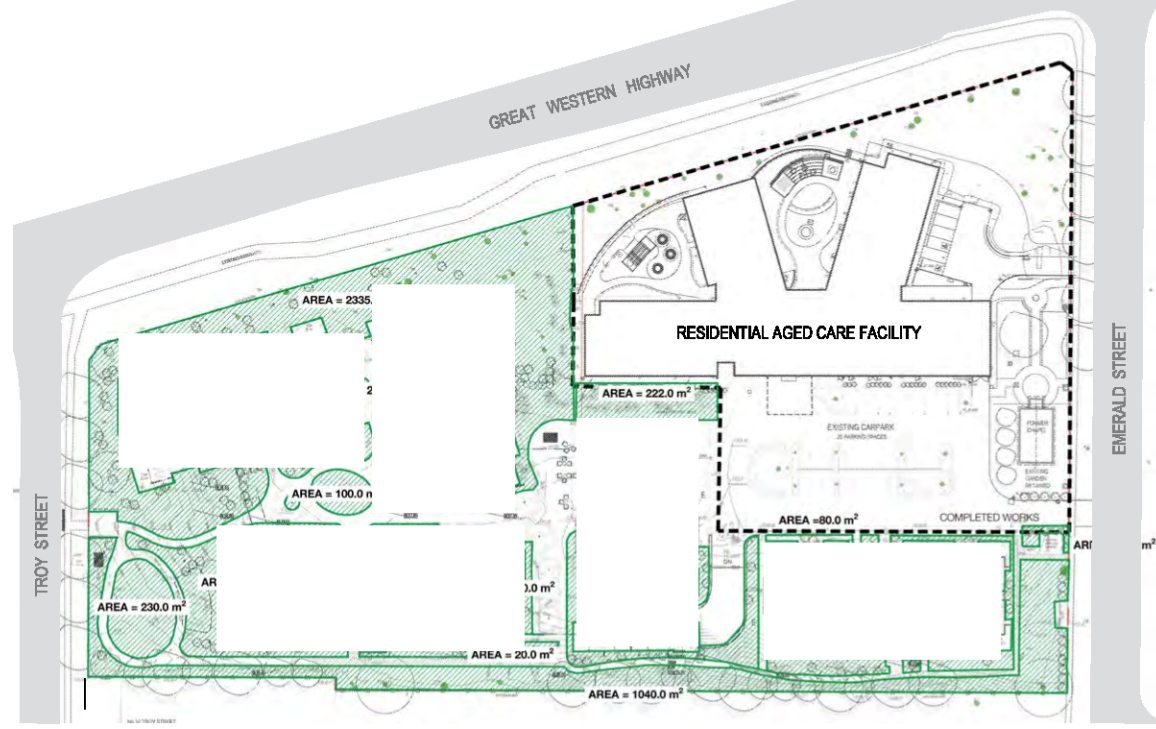
- ADG REQUIREMENTS
- 6mts with 15% minimum of the site area. (1,694.25m2)
- HOUSING SEPP REQUIREMENTS
- 3mts with 15% minimum of the site area. (1,694.25m2)

- ADG REQUIREMENTS
- 6mts with 15% minimum of the site area. (1,694.25m2)
- HOUSING SEPP REQUIREMENTS
- 3mts with 15% minimum of the site area. (1,694.25m2)

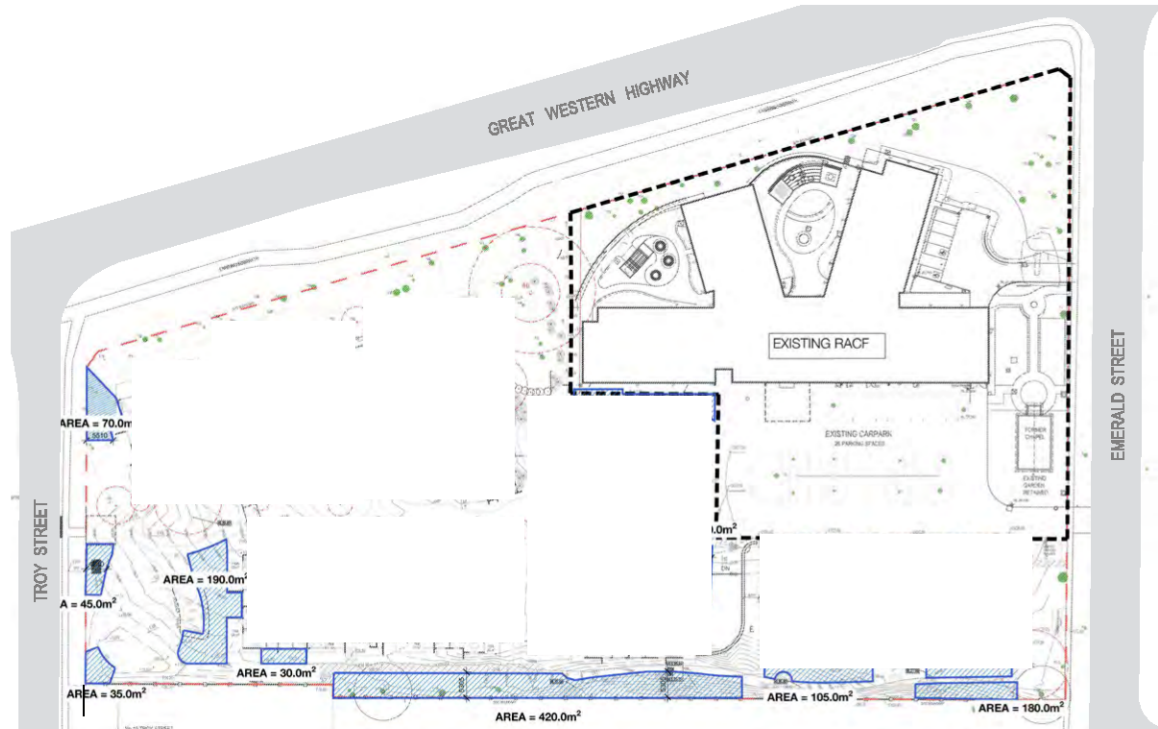
LANDSCAPE AREA			
TOTAL SITE AREA	11295.00 m²		
DEEP SOIL AREA	5258.00 m²	46.55%	
DEEP SOIL 6M			
TOTAL SITE AREA	11295.00 m²		
DEEP SOIL AREA	2535.00 m²	19.50%	
DEEP SOIL 3M (ADDITIONAL TO 6M)			
TOTAL SITE AREA	11295.00 m²		
DEEP SOIL AREA	1370.00 m²	12.13%	
TOTAL DEEP SOIL (6M & 3M)			
TOTAL SITE AREA	11295.00 m²		
DEEP SOIL AREA	3005.00 m²	34.57%	



1 DEEP SOIL AREA CALCULATION - 3M
1:100

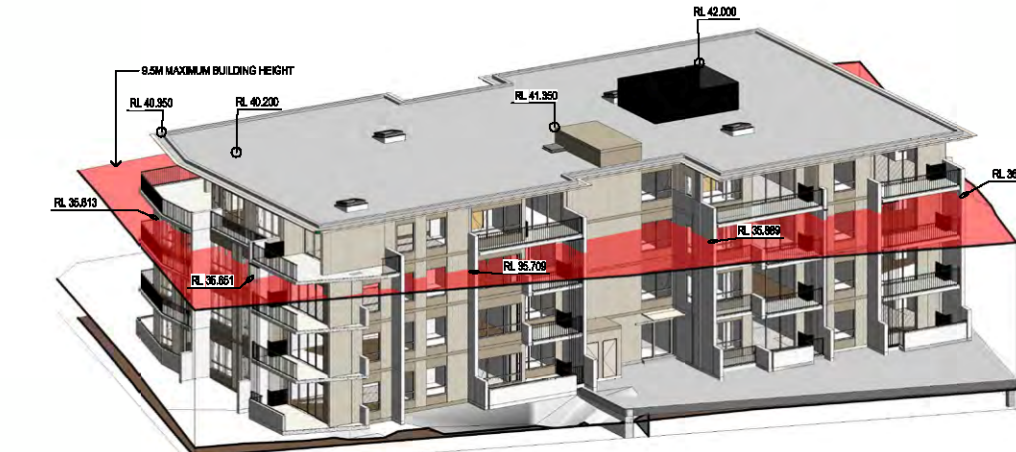


1 LANDSCAPE AREA AREA CALCULATION
1:100

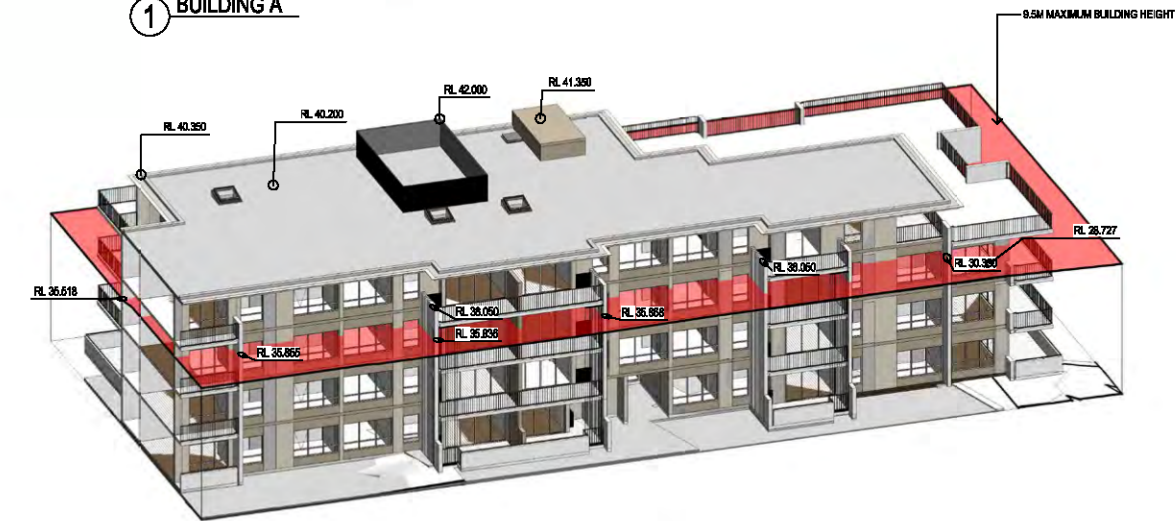


1 DEEP SOIL AREA CALCULATION - 3M
1:100

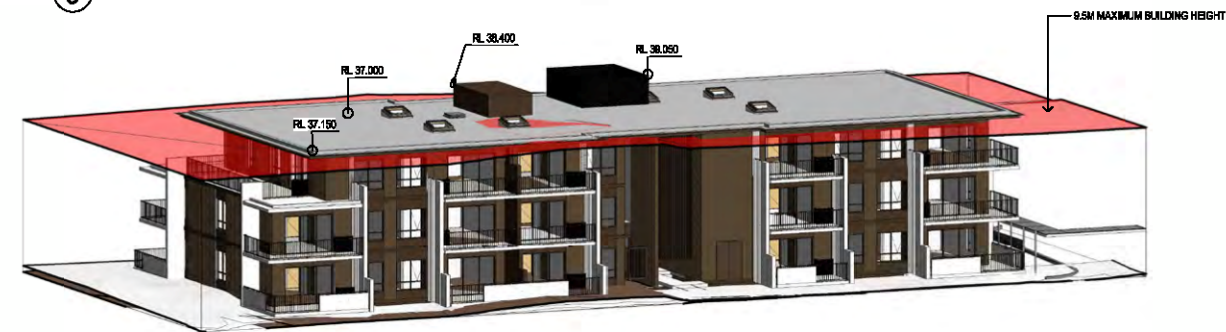
5.8 HEIGHT PLANE DIAGRAMS



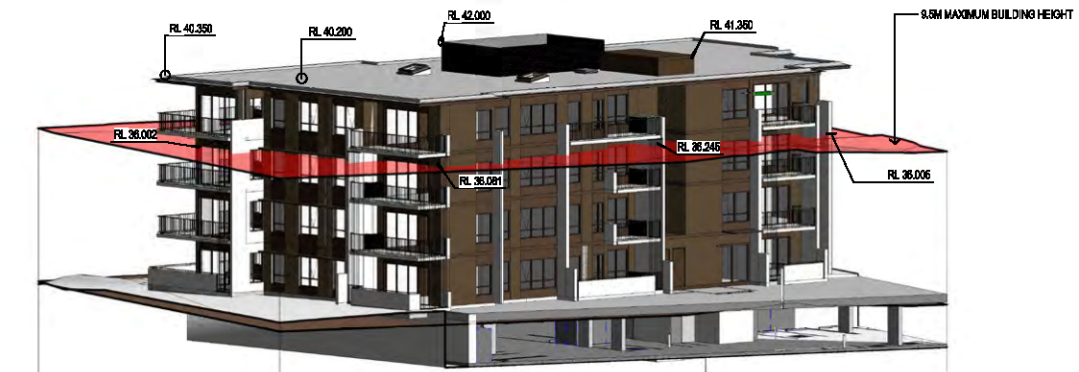
1 BUILDING A



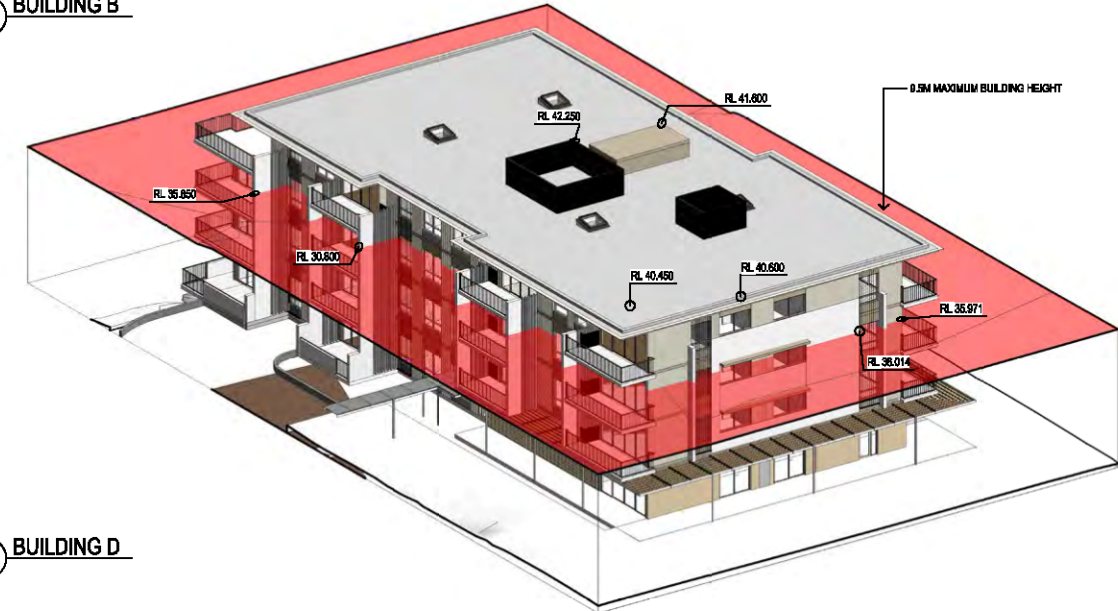
3 BUILDING C



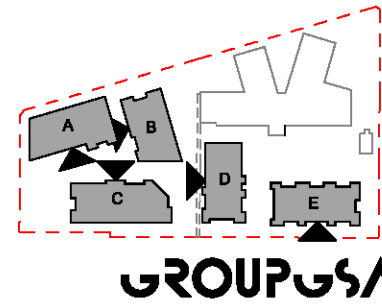
5 BUILDING E



2 BUILDING B



4 BUILDING D





6.0 DENSITY + YIELD


06



7.0 APPENDIX

07

7.1 DESIGN VERIFICATION STATEMENT



Design Verification Statement -Uniting Edinglassie

(1-11 Emerald Street and 6-8 Troy Street, Emu Plains)

Prepared for Uniting

24th November 2022

Pursuant to Clause 60 (1A) of the Environmental Planning and Assessment Regulation 2000, effective from July 26, 2003, we confirm that Ms Lisa-Maree Carrigan of GroupGSA directed the design of the development application and that Ms Carrigan is a qualified architect, which means a person registered as an architect in accordance with the Architects' Act 1921 as defined by clause 3 of the Environmental Planning and Assessment Regulation 2000. We affirm that the design achieves or is capable of achieving that design quality principles as set-out in Part 2 of the State Environmental Planning Policy No. 65-Design quality of Residential Flat Development.

Yours sincerely

Lisa-Maree Carrigan
Director | GroupGSA Pty Ltd
Registered Architect 75968

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ARB 7589 / BCAQ 5896
/ ARSV 20773

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7.2 DESIGN QUALITY PRINCIPLES

PRINCIPLE	CONSIDERATIONS	DESIGN RESPONSE	COMPLIES
PRINCIPLE 1 CONTEXT & NEIGHBOURHOOD CHARACTER	Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.	<p>The site is situated within a largely residential community, in close proximity to local commercial and community hubs. The adjacent Great Western Highway and Russell Street link the site to surrounding transport stops and urban centres. At its south extent, Russell Street intersects with the M4 Western Motorway, allowing for immediate access to Greater Sydney and the Blue Mountains to the west. The Lennox Village shopping mall and nearby independent retail core alongside the Great Western Highway provides immediate access to convenient goods within a highly interconnected road network. To the immediate south of the site is two of Emu Plains largest schools, which face onto residential streets, effectively creating a multi-generational activity centre alongside the nearby shopping village.</p> <p>The proposed development is highly considerate of this context and neighbourhood character. It enhances its role within the wider network of Uniting's aged care facilities within Western Sydney.</p> <p>The design responds to the adjacent sites, streetscape and neighbourhood, through enhancing the Emerald Street interface by celebrating existing heritage, considering accessibility and maintaining the existing significant trees. It responds to the Troy Street interface by defining the edge, providing a park and considering solar access and shadowing to neighbouring properties. The five buildings face into and interact with the existing trees and church. Additionally, pedestrian access is designed to link through and meander past these spaces, providing a strong connection to the existing context of landscape and heritage for the future users.</p>	YES
PRINCIPLE 2 BUILT FORM & SCALE	Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.	<p>The design recognises the potential of the Emu Plains area with a significant consideration to its existing scale, bulk and height. Emu Plain's residential community is characterised by low-rise, one to two storey single dwellings, with the adjacent Lennox Village and public school diversifying the site's built context. The proposal responds with three to four level buildings that comply with the R3 zoning requirements.</p> <p>The architectural form and floor plan configuration responds specifically to requirements for available view opportunities; solar access; natural ventilation; private amenities; and desire to provide an articulated built form to site and context.</p> <p>The bulk and scale of the building is articulated through the compositional arrangement of form and materials. A curated external material palette softens the length of the building and emphasises moments of program that interact with the larger site. Brickwork, Sandstone, beige and brown render matches the window frames to allow the vertical brick expression to protrude. Again, the balconies are prioritised through their visual language - in contrast to the darker coloured architectural elements.</p> <p>The design concept articulates the massing of buildings in smaller scale elements to reduce bulk and scale, with the intention of creating a dialogue with the immediate residential context and vernacular.</p>	YES

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7.2 DESIGN QUALITY PRINCIPLES

PRINCIPLE	CONSIDERATIONS	DESIGN RESPONSE	COMPLIES
PRINCIPLE 3 DENSITY	Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment	<p>The site is within a medium density residential neighbourhood in central Emu Plains amidst the suburb's commercial core.</p> <p>This activity area associated with the Lennox Village shopping mall, adjacent to the site, and nearby retailers includes much of the central suburb's key facilities and community sites.</p> <p>The surrounding neighbourhood associated with the Lennox Shopping Village is characterised by a recognisable shift in land use and lot size, indicating a potential future vision for an increase in housing density and function as an effective suburban centre.</p> <p>The site is accessed from the Great Western Highway, one of the city's major circulation thoroughfares and public transport arteries. An extensive public transport network connects the site to surrounding suburbs and urban centres. In addition, there are a number of public open spaces within proximity of the site, which vary in their state of development, and lack a dedicated access network.</p>	YES
PRINCIPLE 4 SUSTAINABILITY	Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.	<p>The proposed development meets the NSW government requirements for sustainability through a BASIX Certificate, with commitments for Water, Energy and Thermal comfort for dwellings and water and energy for common areas and central systems/facilities.</p> <p>The development also has achieved a 7.7 average star rating on NatHERS.</p> <p>A central hot water system (electric heat pump, air sourced) is proposed, as well as a photovoltaic system to all roofed buildings, and low energy consumption appliances and cooling systems.</p> <p>Cross ventilation is achieved to a minimum of 60% of the 147 Apartments, in terms of solar access the proposal achieves a minimum of 70% on 2 hour and maximum of 15% on 0 hour solar access a day.</p> <p>Landscape deep soil areas proposed are to a total of 3905m2, covering 34.57% of the total site area with a combination of 3meter and 6meter width zones.</p> <p>A Waste Management Plan is in place to ensure that waste management practices are consistent across all areas of the development, with the maximum quantity of materials directed away from landfill to more environmentally beneficial outcomes.</p>	YES

7.2 DESIGN QUALITY PRINCIPLES

PRINCIPLE	CONSIDERATIONS	DESIGN RESPONSE	COMPLIES
PRINCIPLE 5 LANDSCAPE	Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, hawbitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management.	<p>Maintaining and celebrating the existing trees on site has been an integral part of this design. Buildings face into the trees and central courtyards, with particular aim for the residents to interact with the public space from their apartment.</p> <p>Integrated, vertical planting was included in the facade design to further explore the urban greenery concept on a residential scale. Each unit includes an integrated planting zone that will bring a variety of planting to the ground plane and stretches to above units. The ground floor plane has been sloped responding to the site's flood level constraints, achieving continuous accessibility across all areas of the village, assisting on wayfinding strategies.</p> <p>Car parking entries have been set back within the site, to protect existing vegetation, allowing for a greener and more balanced streetscape, and to encourage drop off zones closer to building entries.</p> <p>The landscape design incorporates house gardens for residents with raised vegetable gardens, shade and seating areas to enhance usability, privacy and opportunities for social interaction.</p>	YES
PRINCIPLE 6 AMENITY	Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.	<p>Close proximity to the Lennox Village shopping mall and its surrounding strategic centre allows the site a unique amount of amenity and access throughout the suburb.</p> <p>The proposal has been divided into two precincts, Dark and Light, to create a sense of reference and wayfinding for the residents, with similar elements and materials for consistency, but treated in different ways.</p> <p>Apartments, building layouts and balconies have been positioned strategically for the best access possible to sunlight, shade, cross ventilation, views and privacy. All lobby spaces have been provided with natural light and ventilation access to create a direct connection between internal and external common areas.</p> <p>A secondary pedestrian path lines the southern edge of the site adding to the network of pedestrian access. It meanders through resident gardens encouraging direct interaction with greenery and promoting physical activity.</p>	YES
PRINCIPLE 7 SAFETY	Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.	<p>Living areas have been located in corner zones to increase amenity and exposure for passive surveillance. Direct access from pedestrian paths into secured lobby areas increases security and privacy to apartment entries, also providing natural light access and passive surveillance. Clear site lines between public and private places maximise natural surveillance to the street.</p> <p>Appropriate lighting throughout the grounds of the site will be proposed to ensure consistent surveillance of each residential building. Residents are spread evenly throughout the site, ensuring that there exists some passive surveillance at all times and spaces. This will ensure that there are minimal areas for potential offenders to conceal themselves on and around the site.</p> <p>The site layout promotes clear sight lines, natural surveillance and ease of access and wayfinding. The proposed through-site circulation which follows east-west will provide a strong sight-line which bisects the site.</p>	YES

7.2 DESIGN QUALITY PRINCIPLES

PRINCIPLE	CONSIDERATIONS	DESIGN RESPONSE	COMPLIES
PRINCIPLE 8 HOUSING DIVERSITY & SOCIAL INTERACTION	Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.	<p>Approximately 10% one bedroom affordable housing, 32% one bedroom, 42% two bedroom and 16% three bedroom apartments have been provided to allow a varied mix housing options.</p> <p>The project establishes a series of distinctive open spaces that define boundaries for built form. A clubroom provides a high level of amenity and essential character through different uses that can be used at different times of the day or season. It embeds wayfinding and dementia principles that add to the placemaking narrative for the village while enhancing social interaction and networks that inform the siting of buildings. Additionally, it supports the movement of residents, with both primary and secondary networks.</p>	YES
PRINCIPLE 9 AESTHETICS	Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.	<p>The design concept articulates the massing of buildings in smaller scale elements to reduce bulk and scale, with the intention of creating a dialogue with the immediate residential context and vernacular.</p> <p>The proposal has been divided into two precincts, Dark and Light, to create a sense of reference and wayfinding for the residents, with similar elements and materials for consistency, but treated in different ways.</p> <p>Through the use of residential scale materials, like brick work, bronze metal railings, planted vertical screenings, and sandstone (to reference the heritage church), the design emphasises a residential character, rather than an institutional one, with balcony/ living room exposure further signalling its residential typology.</p> <p>The small sandstone church that is being maintained on site has also been a significant reference for material selection. Warmer tones were generally selected throughout the project to reflect the light beige tones of the sandstone. In particular, this materiality is reflected in the Light precinct that incorporates sandstone, bronze and brickwork.</p> <p>Furthermore, the clubhouse also utilises the sandstone to bring this materiality to the foreground. This celebrates the existing culture and associated materiality in the community realm.</p> <p>The scale of balconies and external living spaces is in reference to the residential surrounds, and is emphasised through materiality. Dark render and brick were chosen to match dark coloured window frames, whereas the balcony is framed in lighter tones. This creates a visual hierarchy where balcony and external living spaces express themselves.</p> <p>This discontinuous language creates a dialogue with the immediate residential context through breaking the mass into smaller and more approachable forms.</p>	YES

OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
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	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Bicycle and Car Parking	Vehicle Access	Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	Complies	Clear sight lines have informed the design ensuring safety for pedestrians.
	Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	For development in the following locations: <ul style="list-style-type: none">on sites that are within 800 meters of a railway station or light rail stop in the Sydney Metropolitan Area; oron land zoned, and sites within 400 meters of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less	Complies	Car parking has been based on appropriate parking rates informed by DCP,Housing SEPP and ADG under which this DA is being lodged. This is a low traffic generating development.
		The car parking needs for a development must be provided off street.		
		Objective 3J-2 Parking and facilities are provided for other modes of transport		
		Objective 3J-3 Car park design and access is safe and secure		
		Objective 3J-4 Visual and environmental impacts of underground car parking are minimised		
		Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised		
		Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised	N/A	A fully opened and uncovered car port for 5 vistors spaces has been provided. No enclosed parking is provided.

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
PART 4 - DESIGNING THE BUILDING				
Solar and Daylight Access	Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas	Complies	106 of the 147 apartments (72.1%) receive a minimum of 2 hours direct sunlight during the required hours.
		2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter	N/A	
		3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	Complies	20 of the 147 apartments (13.6%) do not receive direct sunlight due to their orientation.
	Objective 4A-2 Daylight access is maximised where sunlight is limited		Complies	Large external fenestrations are proposed maximising the daylight access. Room depth are kept to minimum to maximise Day light penetration.
	Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months		Complies	Roof canopies, window hoods and louvres are incorporated in the facade design to control glare.
Natural Ventilation	Objective 4B-1 All habitable rooms are naturally ventilated		Complies	Adequate operable windows provided to all habitable rooms.
	Objective 4B-2 The layout and design of single aspect apartments maximises natural ventilation		Complies	Apartment layouts are generally open plan and minimise corners and corridors that could limit available air flow.
	Objective 4B-3 The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	Complies	89 of the 147 apartments (60.5%) achieve cross ventilation.
		2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	N/A	

OBJECTIVE		DESIGN CRITERIA	PROPOSED	COMMENT
Ceiling Heights	Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Complies	All habitable rooms have a ceiling height of 2.7m
		Minimum ceiling height for apartment and mixed use buildings		
		Habitable Rooms 2.7m	Complies	
		Non-Habitable 2.4m	Complies	
		For 2 Storey Apartments 2.7m for main living area floor. 2.4m for second floor, where its area does not exceed 50% of the apartment area	N/A	
		Attic Spaces 1.8m at edge of room with a 30 degree minimum ceiling slope	N/A	
		If located in mixed use areas promote future flexibility of use 3.3m for ground and first floor to	N/A	
		Objective 4C-2 Ceiling height increases the sense of space in apartments and provides for well proportioned rooms	Complies	
		Objective 4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building	Complies	
Apartment Size and Layout	Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity	1. Apartments are required to have the following minimum internal areas:		
		Studio 35m3		
		1 bedroom 50m3	Complies	1 Bedroom apartments are larger than minimum sizes required.
		2 bedroom 70m3	Complies	2 Bedroom apartments are larger than minimum sizes required.
		3 bedroom 90m3	Complies	3 Bedroom apartments are larger than minimum sizes required.
		2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	Complies	External glazing to all habitable rooms is greater than the minimum 10% required.
	Objective 4D-2 Environmental performance of the apartment is maximised	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height	Complies	
		2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Complies	Living room depths do not exceed required maximum dimensions.

OBJECTIVE		DESIGN CRITERIA	PROPOSED	COMMENT
	Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs	1. Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)	Complies	Master bedrooms and bedrooms provided are larger than minimum size required.
		2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Complies	
		3. Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	Complies	
		4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	Complies	
	Private Space and Balconies	Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity	Complies	Apartments meets ADG minimum for internal and external areas.
		1. All apartments are required to have primary balconies as follows:		
		Dwelling type Min Area Min Depth		
		Studio 4m2 -		
		1 bedroom 8m2 2m		
		2 bedroom 10m2 2m		
		3+ bedroom 12m2 2.4m		
		The minimum balcony depth to be counted as contributing to the balcony area is 1m	Complies	Generous terraces have been provided to all ground floor apartments.
		2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m2 and a minimum depth of 3m		
		Objective 4E-2 Primary private open space and balconies are appropriately located to enhance liveability for residents	Complies	Balconies are located in front or adjacent to living spaces on all apartments.
		Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	Complies	All downpipes will be concealed and integrated into the design.
		Objective 4E-4 Private open space and balcony design maximises safety	Complies	Typical balcony balustrade heights are 1100mm.

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
C o m m o n Circulation and Spaces	Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments	1. The maximum number of apartments off a circulation core on a single level is eight	Complies	
		2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	N/A	
	Objective 4F-2 Common circulation spaces promote safety and provide for social interaction between residents		Complies	Tight corners and spaces are avoided, and legible way finding will be proposed. A generous lobby is proposed at ground level fo each building promoting social interaction amongst residents.
Storage	Objective 4G-1 Adequate, well designed storage is provided in each apartment	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided	Complies	All Apartments exceed ADG minimum requirements for 50% of storage located within the apartment and 50% located in the basement and storage rooms of building E.
		Dwelling Type Storage size volume		
		Studio 4m3		
		1 bedroom 6m3		
		2 bedroom 8m3		
		3+ bedroom 10m3		
		At least 50% of the required storage is to be located within the apartment		
	Objective 4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments		Complies	Extra storage is provided to all apartments on basement level and storage rooms of building E.

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
A c o u s t i c Privacy	Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout		Complies	Care has been taken within the layout of apartment to locate non-habitable rooms to act as buffer noise to common corridors where possible.
	Objective 4H-2 Noise impacts are mitigated within apartments through layout and acoustic treatments		Complies	Construction methods that minimise noise impact will be proposed. Vegetation buffer through landscape offers further visual and acoustic treatment along the boundaries.
Noise and Pollution	Objective 4J-1 In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings		Complies	
	Objective 4J-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission		Complies	Window system will meet the acoustic rating as per the Acoustic report prepared by JHA. Vegetation buffer through landscape design offers further visual and acoustic treatment along the boundaries.
Apartment Mix	Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future		Complies	1 Bedroom , 2 Bedroom and 3 Bedroom units have been provided. About 10% (15 one bedroom apartments) of the units are identified for affordable housing.
	Objective 4K-2 The apartment mix is distributed to suitable locations within the building		Complies	A variety of apartments has been provided within a floor plate. .
Ground Floor Apartments	Objective 4L-1 Street frontage activity is maximised where ground floor apartments are located		Complies	
	Objective 4L-2 Design of ground floor apartments delivers amenity and safety for residents		Complies	
Façades	Objective 4M-1 Building façades provide visual interest along the street while respecting the character of the local area		Complies	The facade treatment draws on local residential character through materiality choice, expressed in varying complimentary ways across the development. Facade materials identifies the each precinct and also pay respect to the heritage building within the site.
	Objective 4M-2 Building functions are expressed by the facade		Complies	Bedrooms and living areas are uniquely expressed on the building facade

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Roof Design	Objective 4N-1	Roof treatments are integrated into the building design and positively respond to the street	Complies	
	Objective 4N-2	Opportunities to use roof space for residential accommodation and open space are maximised	N/A	
	Objective 4N-3	Roof design incorporates sustainability features	Complies	An electric heat pump (air sourced) is to be installed as well as a photovoltaic system to all roofed buildings.
L a n d s c a p e Design	Objective 4O-1	Landscape design is viable and sustainable	Complies	
Planting on Structures	Objective 4P-1	Appropriate soil profiles are provided	Complies	
	Objective 4P-2	Plant growth is optimised with appropriate selection and maintenance	Complies	Landscape architects have designed a suitable solution taking into consideration available light levels and wind effects to choose appropriate planting species.
	Objective 4P-3	Planting on structures contributes to the quality and amenity of communal and public open spaces	Complies	
U n i v e r s a l Design	Objective 4Q-1	Universal design features are included in apartment design to promote flexible housing for all community members	Complies	
	Objective 4Q-2	A variety of apartments with adaptable designs are provided	Complies	
	Objective 4Q-3	Apartment layouts are flexible and accommodate a range of lifestyle needs	Complies	
Adaptive Reuse	Objective 4R-1	New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	N/A	
	Objective 4R-2	Adapted buildings provide residential amenity while not precluding future adaptive reuse	N/A	

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Mixed Use	Objective 4S-1	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	N/A	
	Objective 4S-2	Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	N/A	
Awnings and Signage	Objective 4T-1	Awnings are well located and complement and integrate with the building design	Complies	
	Objective 4T-2	Signage responds to the context and desired streetscape character	Complies	
Energy Efficiency	Objective 4U-1	Development incorporates passive environmental design	Complies	The majority of apartments enjoy good solar amenity and maximise natural ventilation.
	Objective 4U-2	Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Complies	
	Objective 4U-3	Adequate natural ventilation minimises the need for mechanical ventilation	Complies	All apartments have natural ventilation. 60.5% achieve cross ventilation
Water Management and Conservation	Objective 4V-1	Potable water use is minimised	Complies	
	Objective 4V-2	Urban stormwater is treated on site before being discharged to receiving waters	Complies	
	Objective 4V-3	Flood management systems are integrated into site design	Complies	
Waste Management	Objective 4W-1	Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Complies	Waste rooms for buildings A, B, C & D are located within the basement, thereby having no impact on the streetscape. The waste room for building E is located on the Ground level, designed with an airlock, solid external wall & louvre with dark colour, and separated from the entry by a fire stair.
	Objective 4W-2	Domestic waste is minimised by providing safe and convenient source separation and recycling	Complies	There is a waste room in each level that provides access to a garbage chute general waste and bins for recycling waste.
Building Maintenance	Objective 4X-1	Building design detail provides protection from weathering	Complies	
	Objective 4X-2	Systems and access enable ease of maintenance	Complies	
	Objective 4X-3	Material selection reduces ongoing maintenance costs	Complies	

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