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EXPLORER STREET, EVELEIGH
URBAN DESIGN REPORT

06.11.2023

EXPLORER STREET, EVELEIGH

DOCUMENT ISSUE INFORMATION

This report presents the urban and architectural design intent for a planning proposal focused on a site located at Explorer Street in Eveleigh. The report outlines the opportunities and constraints of the site and a potential outcome for a residential development in this location.

ACKNOWLEDGEMENT

WMK acknowledges the traditional custodians of the land on which the site sits, and recognise their continuing connection to land, waters, and culture. We pay respect to their Elders past, present, and emerging.

CONTACT

David Thompson | Director - Architecture
dthompson@wmkarchitecture.com

Jason Haworth | Senior Team Lead - Architecture
jhaworth@wmkarchitecture.com

WMK Architecture
The Atrium, Ground Floor
9 Castlereagh St
Sydney NSW
Australia, 2000
T + 61 2 92990401
wmkarchitecture.com

DATE	REV	CREATED BY	REVIEWED BY	SIZE	DESCRIPTION
23.08.2023	13.0	JHH	DT/JHH	A3 Master (Scalable)	FINAL



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EXPLORER STREET, EVELEIGH

EXECUTIVE SUMMARY

THE PROJECT

WMK have been appointed by The Department of Planning and Environment to undertake architectural master planning and urban design studies for the redevelopment of the Explorer Street precinct currently occupied by 46 Land and housing Corporation (LAHC) owned social housing dwellings and the South Sydney Rotary Park. The site sits within the South Eveleigh Precinct.

Located 2km South of Central Sydney, the site is located in the traditional lands of the Gadigal people who share a deep connection with the land and surrounding areas. The suburbs of Eveleigh and Redfern have been meeting places for Aboriginal communities for centuries. The Eveleigh railway Workshops also historically employed many Aboriginal people. today, the area is still an important cultural and political centre for Aboriginal people, and home to a number of Aboriginal organisations.

PROJECT PRINCIPLES:

The key principles of the study are:

- > Net increase of affordable and social housing
- > Indistinguishable market and social development
- > Feasible development
- > No loss of public open space
- > Address noise impacts from the rail corridor
- > Create engaging visual and physical connections between the site and the surrounding street network.
- > Improve the usability of public open space for the local community and enhance biodiversity.
- > Environmentally sustainable, Country-centred development

METHODOLOGY

WMK Architecture conducted a rigorous analysis of the site and its surroundings to develop a design that is responsive to the needs of the site and its future inhabitants.

THE SITE

The site sits within South Eveleigh. Within its central section lies the area known as the Explorer Street Precinct. It is owned by LAHC with a smaller parcel of open space owned by the City of Sydney.

The portion of the site that is owned by LAHC supports 46 town houses constructed in the 1990s. The site's context to the south is predominately low-rise single dwellings with a number of small scale multi-residential town houses and converted former industrial buildings. To the sites east is a series of mid-rise residential flat buildings with a mix of social, affordable and private tenures – to the west is the commercial core of South Eveleigh. To the sites north and west lies rail infrastructure with a mix of rail lines and workshops of varying historical importance.

The Site is bound to the north by the suburban rail corridor and the Eveleigh Railway Workshops, to the south by Henderson Road and Railway Parade, to the east by the Australian Technology Park and to the west by workshops and Erskineville Station.



STUDY PURPOSE

The objective of this study is to establish an urban design strategy and outcome that will support future developments on the Site. Through vigorous studies and analysis, we will assess various aspects such as built form, character, public domain, and connectivity. The aim is to create a framework that identifies opportunities and constraints, which will then inform the review of the existing technical studies and generate a set of design principles for new proposals.

The concept plan presented in this report fulfils the following objectives:

- > Aligns with DPE project principles and maximises delivery of new housing.
- > Demonstrates a commitment to high-quality urban design.
- > Maximises the Floor Space Ratio (FSR) while considering current development trends in inner Sydney and taking into account the 2002 State Environmental Planning Policy (SEPP) for Affordable Housing.
- > Contributes to other technical studies that collectively inform the preparation of revised planning controls.

CONTEXT

- > The Site is situated in South Eveleigh, between Redfern and Erskineville stations.
- > It spans an area of roughly 2.3 hectares.
- > It currently consists of 46 LAHC-owned town houses constructed in the early 1990s.
- > To the south, there is a park along Henderson Road called South Sydney Rotary Park and a pocket park to the east.

INTERFACES:

- North:
- > Adjacent to the TfNSW rail corridor.
- East:
- > Affordable housing with building heights ranging from 2 to 4 storeys.
- South:
- > Henderson Road, a significant local east-west connection.
 - > Private housing within a conservation area, predominantly comprised of terrace houses ranging from 1 to 4 storeys.
- West:
- > The parcel of land owned by Transport for NSW (TfNSW). Currently, it consists of on-ground parking and single-storey industrial buildings.



EXPLORER STREET, EVELEIGH
ANALYSIS

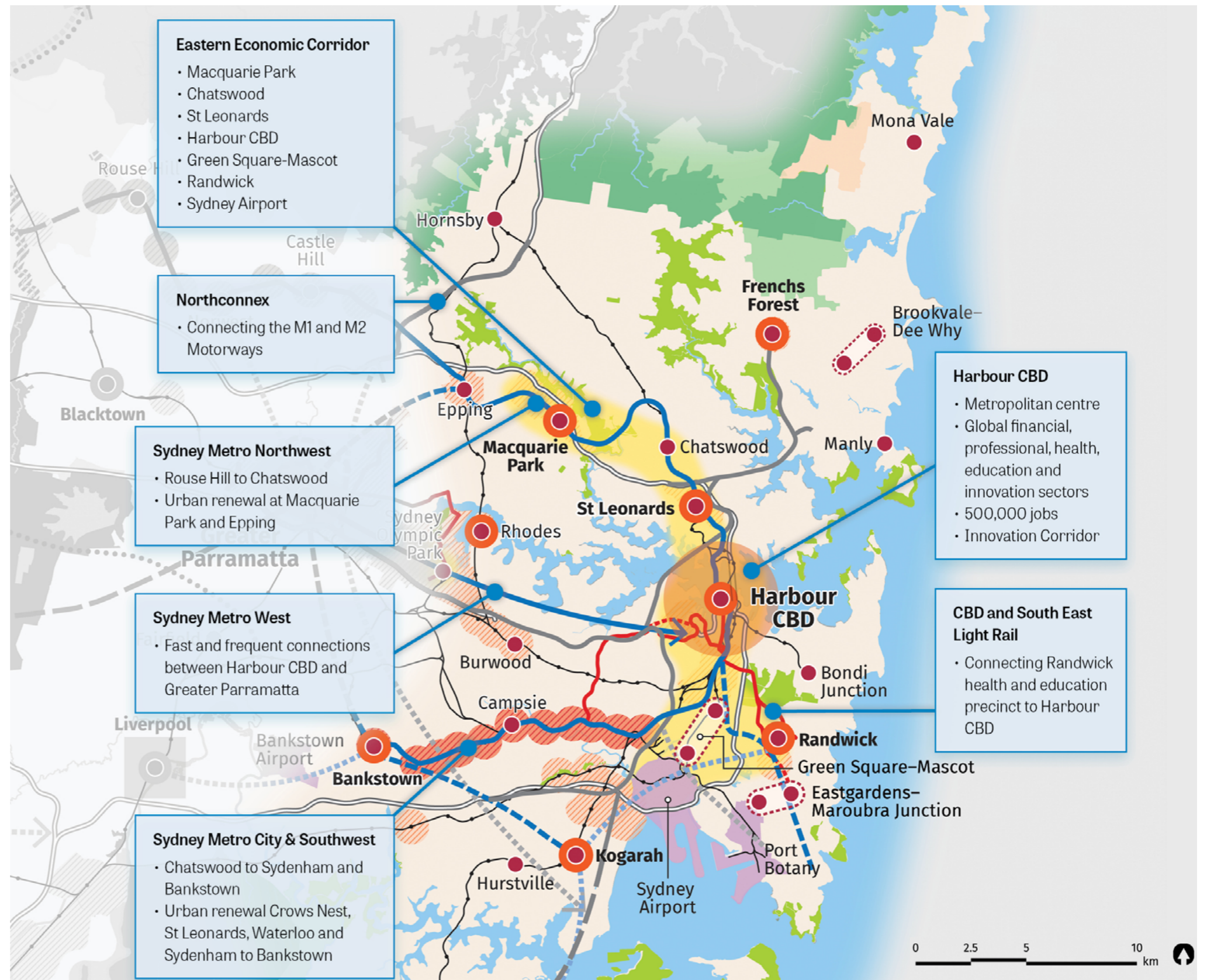


GREATER LOCALITY CONTEXT

Greater Sydney is a thriving metropolis of 4.7 million people, known for its natural beauty and economic strength. The Greater Sydney Region Plan envisions a future where residents can easily access their jobs, education, and services within 30 minutes. This plan seeks to transform Greater Sydney into three distinct cities: the Western Parkland City, the Central River City, and the Eastern Harbour City.

EASTERN HARBOUR CITY

The Eastern Harbour City serves as Australia's financial capital, centred around the Harbour CBD. With excellent rail connectivity and ongoing projects, it aims to enhance global competitiveness, attract skilled workers, and foster innovation. The Eastern Economic Corridor is a key economic asset, contributing significantly to NSW's growth, while the CBD focuses on innovation and the emerging Innovation Corridor for continued expansion.



ZONING

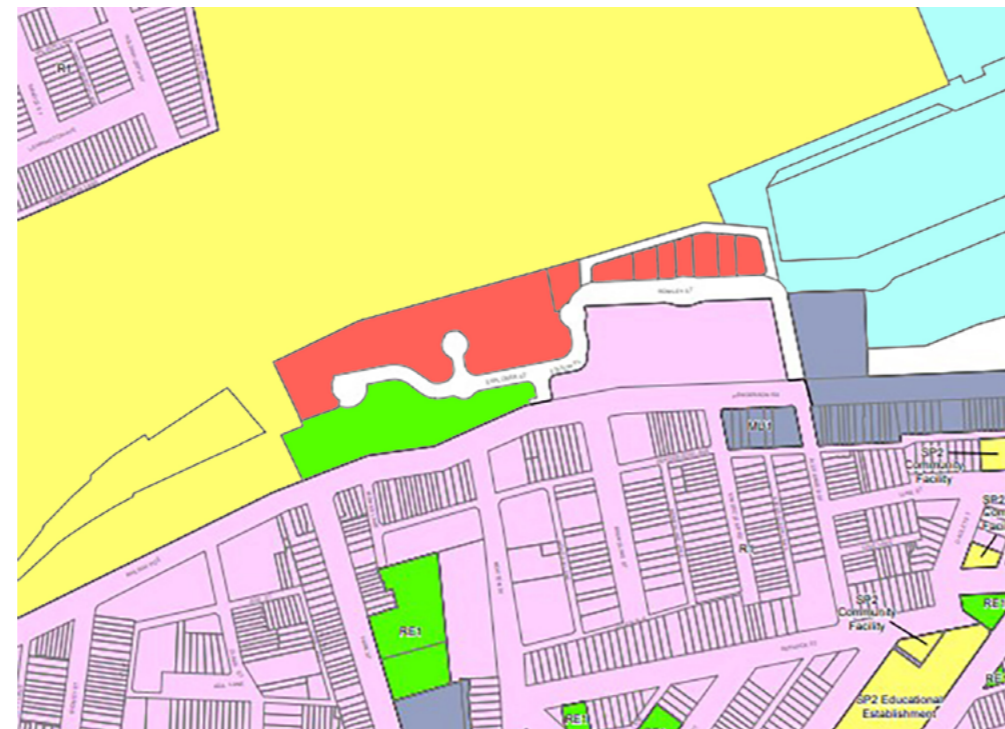
Planning controls for the site are included in the State Environmental Planning Policy (Precincts-Eastern Harbour City) 2021. South Sydney Rotary Park is zoned for public recreation. The land to the northeast has the same zoning, while the eastern and southern areas are zoned for general residential under the Sydney Local Environmental Plan 2012. The land to the west and north is part of the State Significant Precinct and zoned for infrastructure.

BUILDING HEIGHT

Planning provisions for the site currently limit development to the height of the existing buildings. In the southern direction, neighbouring buildings exhibit a range of heights from 6 meters to 15 meters. Similarly, to the east of the site, buildings have heights ranging from 15 meters to 18 meters. This variation in building heights in the surrounding areas adds to the diverse architectural character of the vicinity.

HERITAGE

The Site is situated within the Redfern-Waterloo Precinct and sits on the outskirts of a heritage conservation area. Consideration must be given to future connections with neighbouring developments, and proposals should align with the criteria outlined in the relevant SEPPs.



LAND ZONING: MEDIUM DENSITY RESIDENTIAL

Medium Density	Public Recreation	Infrastructure
Residential	Mixed Use	Business Park



BUILDING HEIGHTS

6m	12m
8m	15m



HERITAGE MAP

Conservation Area - General	Item - General
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ANALYSIS REGION PLAN

REGION PLAN

SITE LOCATION

The precinct is well-connected to the rest of Sydney, with easy access to public transport, major roads, and the Sydney CBD. Local train stations include Erskineville to the West and Redfern to the East.



ACCESS FROM SITE

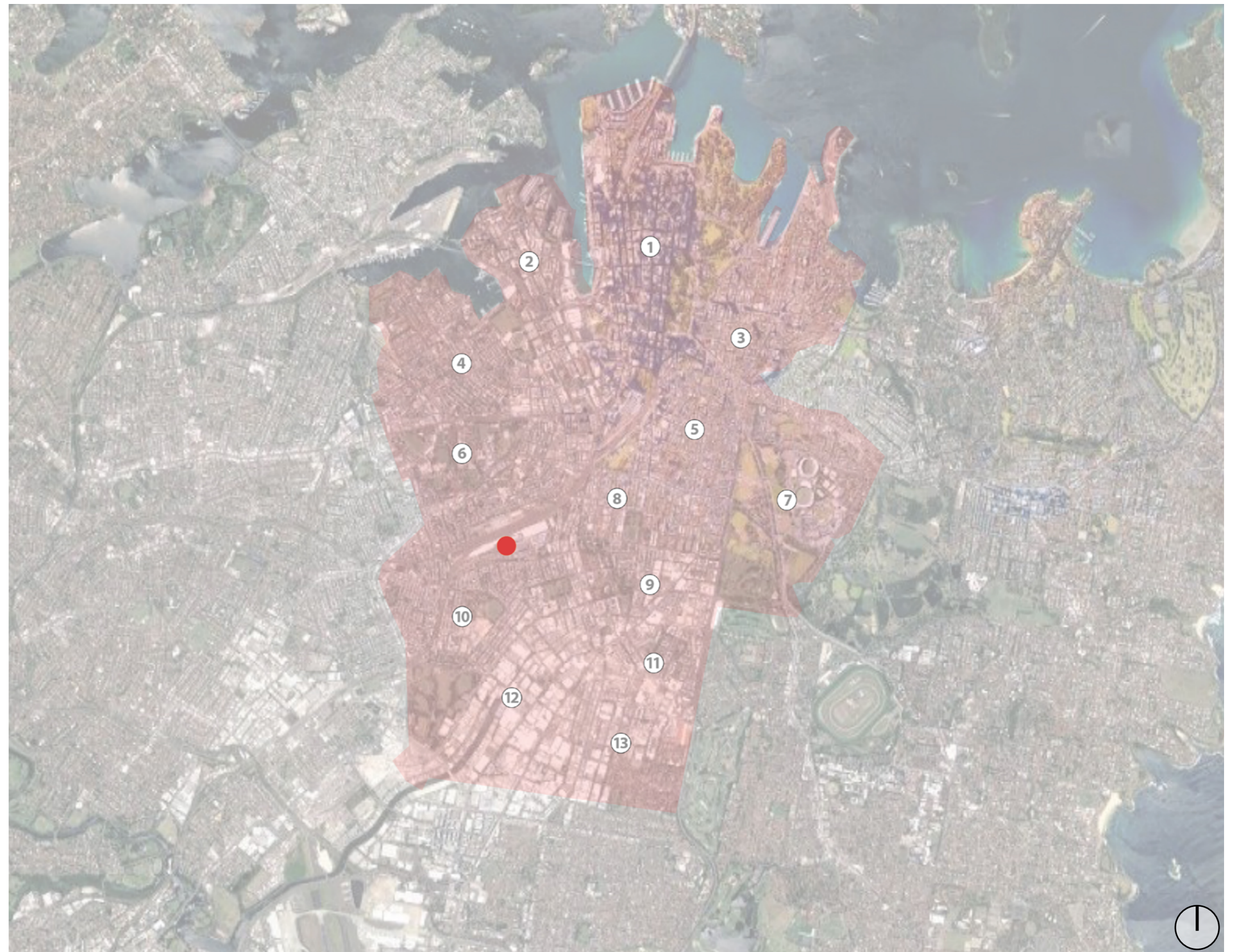
The Eastern Distributor located east of the site, provides seamless access to the city, with a 15-minute drive to Town Hall. Major roads connect the site to major destinations throughout the city.

KEY

- | | |
|-------------------------|--------------------------|
| 1. Sydney (4.8km) | 8. Redfern (1.9km) |
| 2. Pyrmont (4.0km) | 9. Waterloo (1.9km) |
| 3. Darlinghurst (5.2km) | 10. Erskineville (1.0km) |
| 4. Glebe (3.9km) | 11. Zetland (2.8km) |
| 5. Surry Hills (3.7km) | 12. Alexandria (1.9km) |
| 6. Camperdown (3.0km) | 13. Rosebery (4.1km) |
| 7. Moore Park (5.0km) | |

LEGEND

-  Sydney Council
-  The Site



ANALYSIS LOCALITY PLAN

OVERALL LOCALITY PLAN

The site is located in a mixed-use area, surrounded by residential and industrial uses. The surrounding streets are lined with trees and public open space, providing a pleasant green environment. The site is also close to a number of shops, restaurants, and schools.

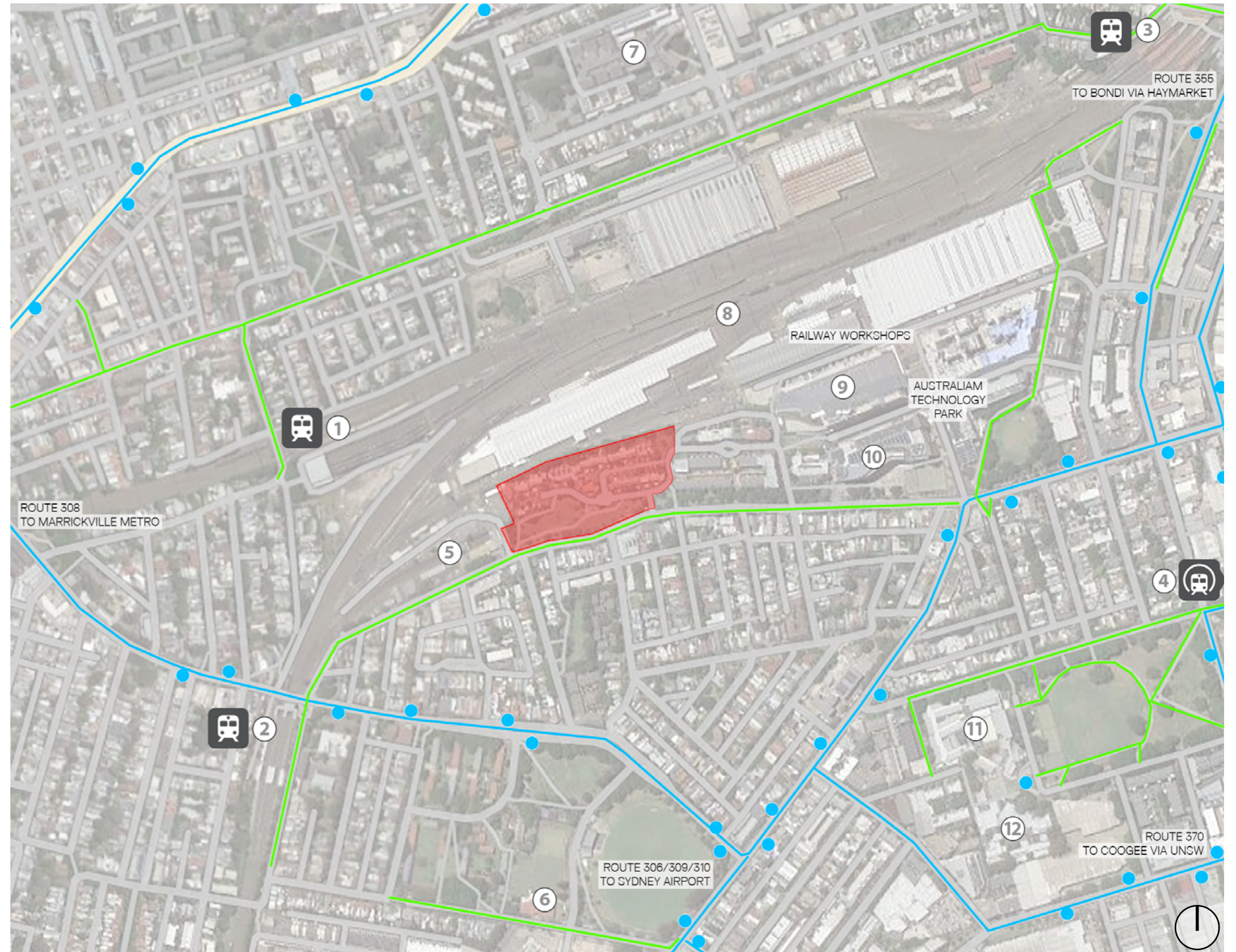
The precinct is home to a number of significant cultural and industrial heritage sites, including the Australian Technology Park and the Eveleigh Railway Workshops.

KEY

- | | |
|----------------------------------|-------------------------|
| 1. Macdonaldtown Station (0.9km) | 7. USYD Business School |
| 2. Erskineville Station (0.5km) | 8. Railway Workshop |
| 3. Redfern Station (1.7km) | 9. NEP HQ, Pacific+, |
| 4. Future Waterloo Metro (1.9km) | 10. CommBank Office |
| 5. Sydney Train Depot | 11. Alexandria Park |
| 6. Erskineville Bowling Club | Community School |
| | 12. Wunanbiri Preschool |

LEGEND

- The Site
- Bike Paths
- Bus Routes
- Bus Stops



ANALYSIS

LAND OWNERSHIP

DEVELOPMENT AREA

The land north of Explorer Street is owned by the Land and Housing Corporation (LAHC). The land currently is used exclusively for social housing.

SOUTH SYDNEY ROTARY PARK

Owned by LAHC and managed by the City of Sydney, this park opened in 1986 and is named after the Rotary Club of South Sydney.

EXPLORER STREET ROAD


Explorer Street and Aurora Place are public roads managed by Council. The roads will remain in their current alignments with some design modifications to provide a safe and enjoyable pedestrian environment.

NORTH EAST POCKET PARK

Owned by City of Sydney Council, located at 4A Station Place, one of the many pocket parks located in the Eveleigh region.



LEGEND

-  Site Boundary
-  LAHC Owned
-  CoS Owned









ANALYSIS

SITE OPPORTUNITIES

OPPORTUNITIES

- > Potential to provide new social and affordable housing
- > Unimpeded access to northerly winter sun over the rail corridor.
- > Improve connectivity and visibility throughout the site
- > Integrate development with surrounding landscape, storm water, flow path, topography, emerging character, and nearby contemporary apartment patterns.
- > Continue green canopy extending to ATP, establish a local green space network, enhance linkage between open spaces, and improve usability and amenity in Rotary Park.

LEGEND

-  Site Boundary
-  Existing Public Open Space
-  Green Belt
-  Solar Access
-  Adjacent Street Interfaces
-  Proximity to Transportation
-  Bicycle Lane
-  Pedestrian Access



ANALYSIS

SITE CONSTRAINTS

CONSTRAINTS

> Eastern Suburbs Line (ESL) Tunnel located beneath the site limiting location and scale of potential development

> Poor existing conditions of Rotary Park, comprised of a lack of public amenities, and steep topography that dips into the centre of the site. Providing a lack of passive surveillance over the area

> The northerly position of the development area limits the height and bulk of any future development in order to mitigate overshadowing of the South Sydney Rotary Park and of existing properties to the south of Henderson road.

> A depression in the topography of the South Sydney Rotary park is currently used for storm water retention. Considerable storm water run-off has been identified from the railway infrastructure to the north.

> Existing road network could be problematic accommodating for the new development

LEGEND

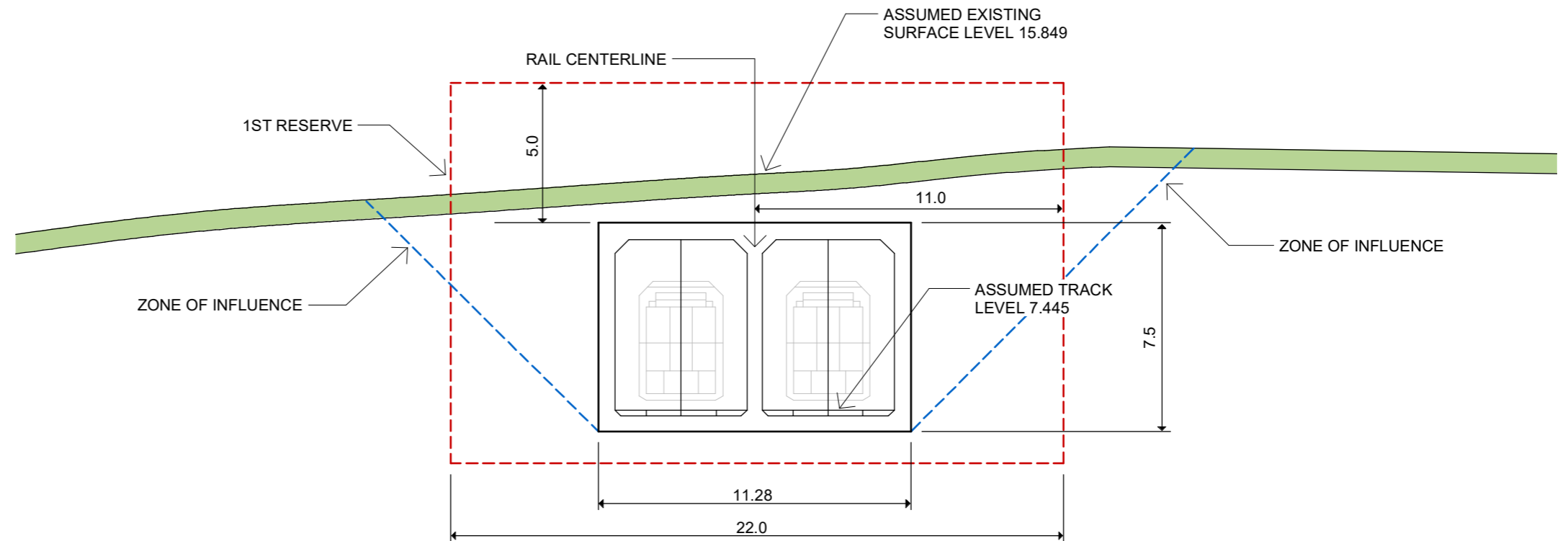
- Site Boundary
- - - ESL Tunnel - Primary Reserve
- - - ESL Tunnel - Secondary Reserve
- Railway Corridor
- Security Fence
- Steep Topography
- Solar Access to Neighbours
- ~ Tunnel Vibration
- Storm water Retention



UNDERGROUND RAILWAY TUNNEL

> The Eastern Suburbs Line (ESL) runs underground beneath the site, entering a tunnel between Erskineville Station and Redfern. The depth of the tunnel varies from east to west, with shallower sections towards the west.

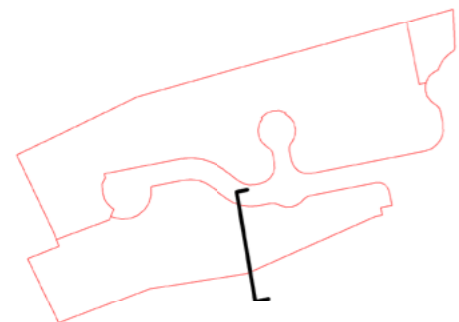
> Due to the need to prevent excessive loading on the underground structures of the tunnel, there are development constraints in the areas above and surrounding the ESL tunnel.



Indicative Section Through ESL Tunnel with Reserves (Source AECOM)



Section Through Site with ESL Tunnel & Reserves



ANALYSIS

LOCAL CHARACTER

LOCAL PARKS

The site belongs to a network of other parks in the local area, including Erskineville Oval and Alexandria Park. These parks offer residents a variety of recreational opportunities and serve as welcoming green spaces for community engagement.

RAIL CORRIDOR

Living right in front of a railway corridor can bring challenges such as noise disruptions and visual impact. However, close proximity to train stations will be beneficial to residents.

SOUTH EVELEIGH & ERSKINEVILLE MIXED USE

A mixed-use corridor offers convenient access to amenities, fosters a vibrant social atmosphere, promotes walk ability, creates employment opportunities,







BOTANY ROAD CORRIDOR

The corridor's proximity to major transportation routes and industrial hubs can present opportunities for employment and business growth,.

EDUCATION

Located near schools and universities brings the benefits of convenient access to educational resources and an enriching cultural and social environment.

LEGEND

-  The Site
-  Open Space
-  Rail Corridor
-  Mixed Use
-  Botany Road Corridor
-  Education Facilities



SIGNIFICANT HERITAGE SITES





RAILWAY

North east of the site, the Eveleigh Railways Workshops, hold significant heritage value and are officially recognised under the Heritage Act. These sites are listed on the State Heritage Register.

SOUTHERN RESIDENTIAL

On the southern side, just across Henderson Road, lies the C3 Kingsclear Heritage Conservation Area. Composed of Victorian-era small lot subdivision, with one or two-storey terrace houses.

LEGEND

-  Site Boundary
-  State Heritage Item
-  Local Heritage Item
-  Conservation Areas



ANALYSIS

VIEWS & VISTAS






SITE & SURROUNDING VIEWS

- > Views into the Site are localised along neighbouring streets, predominantly terminating at open spaces.
- > Due to the discontinuous street grid to the south, views into the Site that end at Rotary Park are limited to a single street block.
- > Both easterly and westerly approaches along Henderson Road offer strong visual connections to the South Rotary Park.
- > Rowley Street concludes at a small open space in the northern part of the Site.
- > Views of the Site from across the rail corridor to the north are not clear, but the increased scale of buildings on the Site enhances its visibility.

KEY

- 1. Camperdown Viewpoints
- 2. Conservation Area/ Alexandria Viewpoints
- 3. CBD Viewpoints

LEGEND

-  The Site
-  Potential Views from Site
-  Major View Corridor into Site
-  Minor View Corridor into Site
-  Potential View Corridor into Site



ANALYSIS

PUBLIC SPACE & GREEN SPACE

SIGNIFICANT LOCAL PUBIC SPACE

SOUTH SYDNEY ROTARY PARK (1)
Located within the site, Rotary Park provides easily accessible public space for the surrounding Eveleigh area.






SOLANDER PARK (2)
Situating 300m from the site, Solander park continues the pocket park theme in the area. Easily accessible through pathways that cut through from Monks Lane.

ERSKINEVILLE OVAL (3)
Further south from Solander Park, 600m from Explorer Street. A Large sports oval is connected to Harry Nobel Reserve and Alexandria Erskineville Bowling Club

ALEXANDRIA PARK (4)
Located South east of the site, 900m away. Alexandria park consists of bike tracks, tennis and basketball courts along with a connecting sports field.

GREEN CORRIDOR (5)
The green space from Rotary Park is connected to a larger green corridor that extends throughout the north of Henderson Road and ends at the intersection on Davy Road, connecting the site to Australian Technology Park. This further connects to a park across the street, Eveleigh Green (6).

LEGEND

-  The Site
-  Green Space
-  Trees
-  Major View Corridor
-  Minor View Corridor



ANALYSIS

USABLE PUBLIC SPACE

PUBLIC SPACE

1. Slope down from the footpath, slope up from Henderson Road, stacked sandstone ledges, edge of housing development, poor ground condition and directly in front of cul de sac parking
2. Slope running along the entirety of the southern side of the site facing Henderson Road. On the boarder of a busy road and active bike lane.
3. Sandstone ledges, poor ground conditions and transformer box

LEGEND

- Site Boundary
- Usable Public Space
- Steep Public Space
- - - ESL Tunnel - Indicative First Reserve
- - - ESL Tunnel - Indicative Second Reserve



LOCAL ROAD NETWORK

MAIN ROADS:

The site has one entry point from the main road, located south of the site where Explorer Street and Henderson Road meet. Further east this street becomes Railway Parade

LOCAL STREETS:

Local streets dominate local area, with the surrounding areas belonging mostly to low rise residential. Two significant streets, Park Street and Newton Street lead into the site providing a primary view corridor and natural circulation for users.

SERVICE LANE:

There are numerous service lanes within the area branching off streets and connecting to local public spaces. Most of these streets are narrow, serving mostly for resident access to their homes.

PEDESTRIAN PATHS:

These are present within local parks (Rotary Park and Solander Park) along with providing pedestrians quicker access from certain streets and lanes. There are also pedestrian paths that branch off Rowley Lane, providing access to commercial hubs.

LEGEND

-  The Site
-  Main Roads
-  Local Streets
-  Service Lanes
-  Pedestrian Paths
-  Bike Path
-  1km Radius



ANALYSIS

WALKING CATCHMENT

SIGNIFICANT WALKING DESTINATIONS

TRANSPORTATION

Erskineville, Macdonaldtown and Redfern are all located within a 20 minute walk from the site. Bus routes leading to a variety of destinations are scattered throughout Eveleigh.

SUPERMARKETS & GROCERIES

Romeo's IGA Eveleigh located within Australia Technology park, Erskineville Woolworths and Alexandria Woolworths.







LEISURE

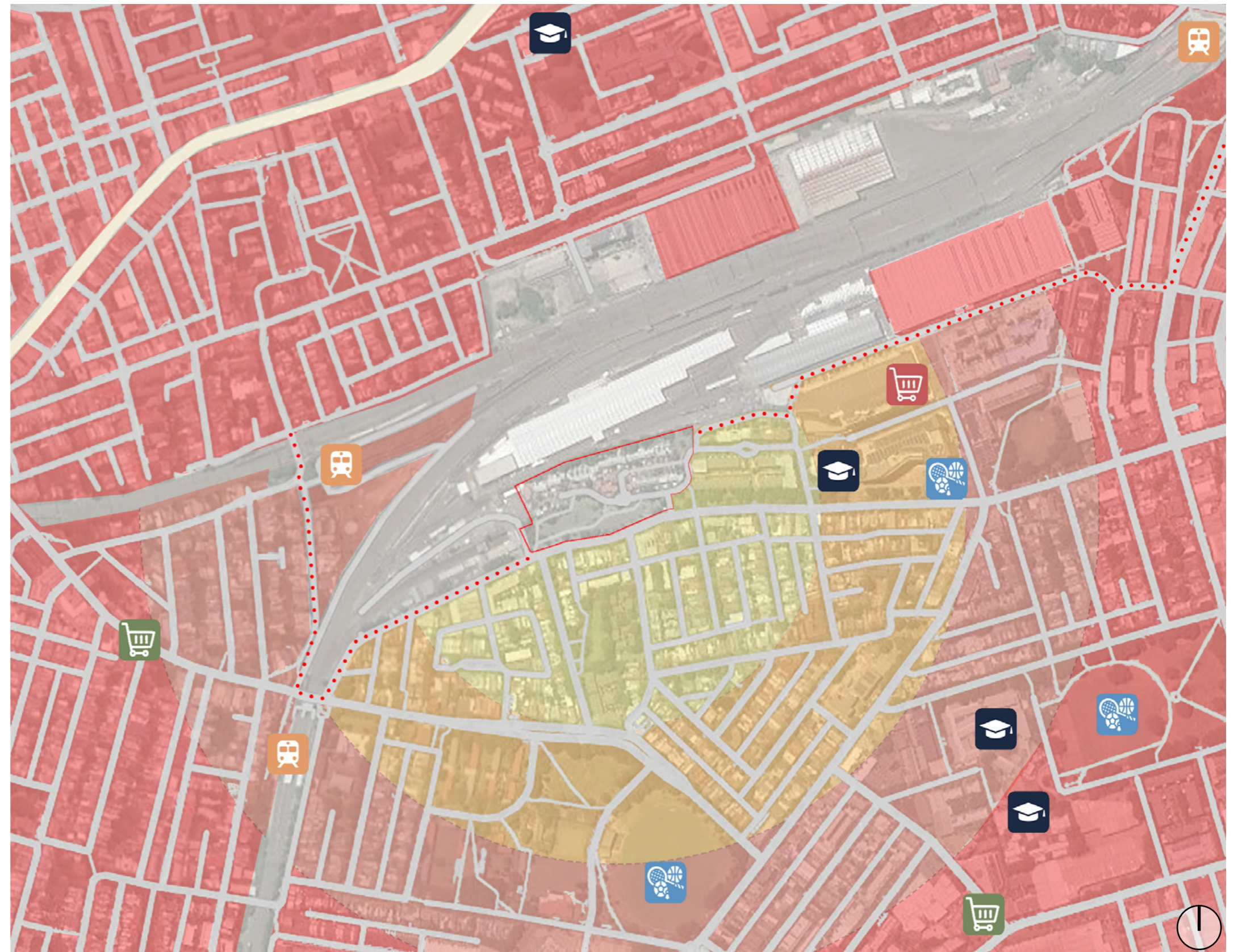
Pocket parks scattered throughout the Eveleigh area along with Aus Technology Park Basketball Court and South Eveleigh Sports Courts & Skate park

EDUCATION

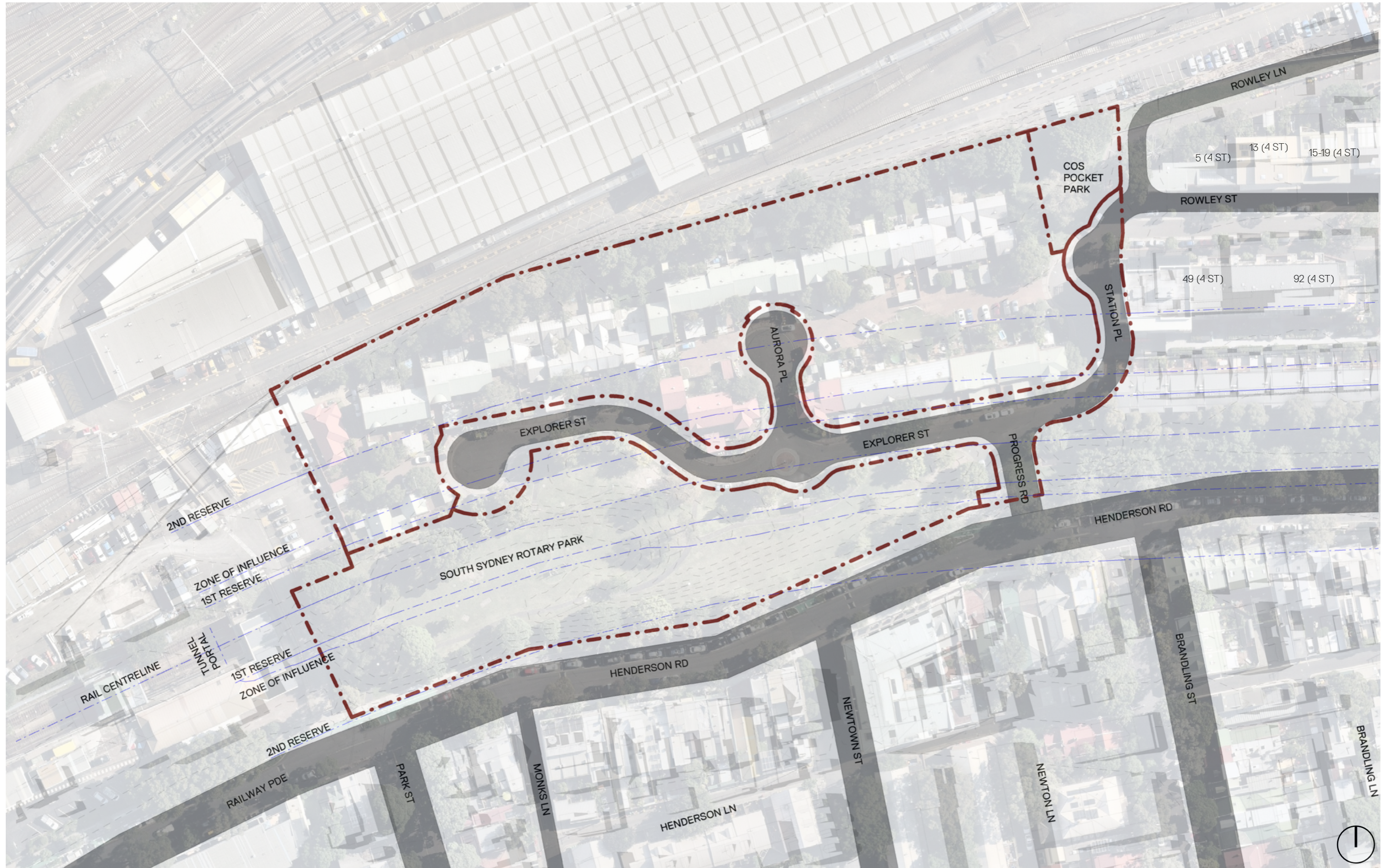
Eveleigh Early Learning & Preschool, Wunanbiri Preschool, Alexandria Park Community School and The University of Sydney build up much of the education district within the area

LEGEND

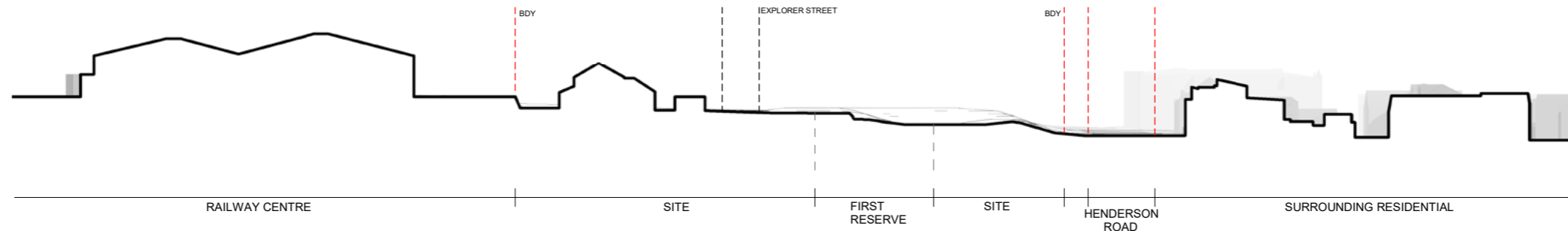
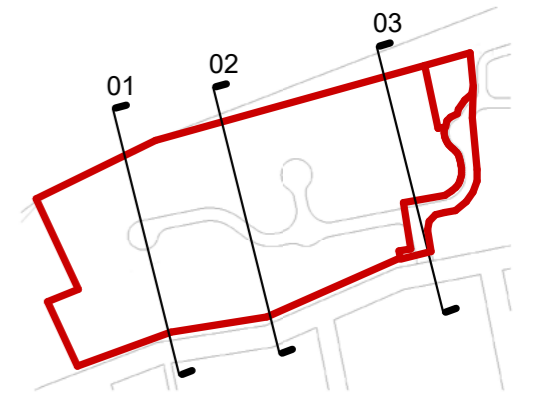
-  The Site
-  <5 Minute Walk
-  <7 Minute Walk
-  <10 Minute Walk
-  >10 Minute Walk
-  Route to Train Station



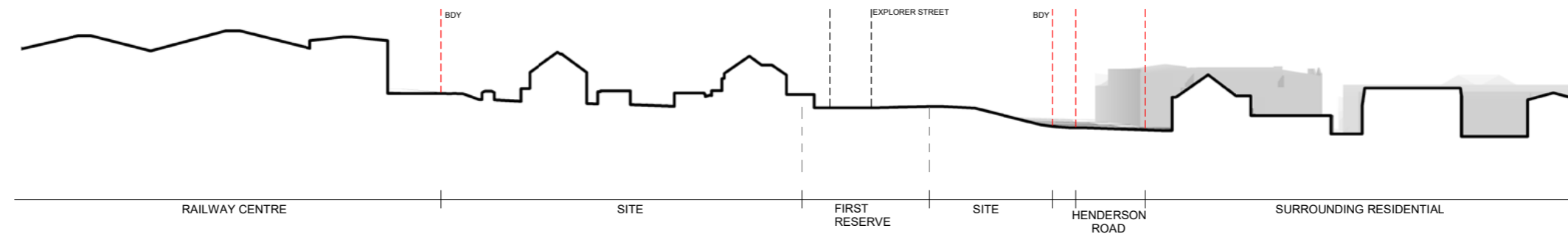
ANALYSIS
EXISTING SITE PLAN



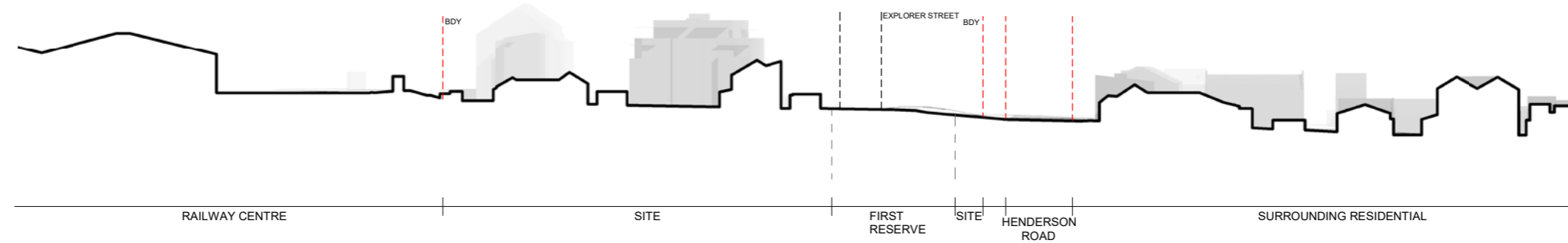
ANALYSIS
EXISTING SITE SECTIONS



1 SECTION 01

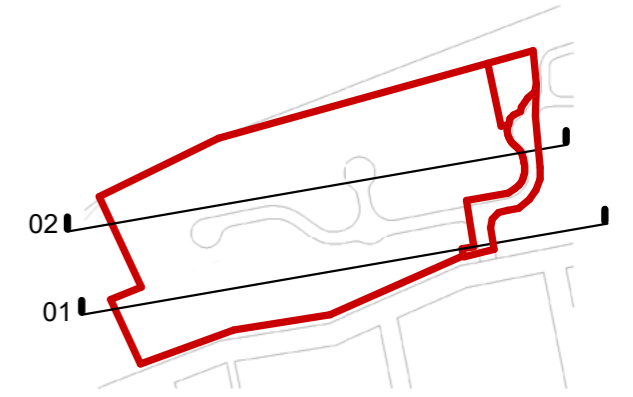


2 SECTION 02

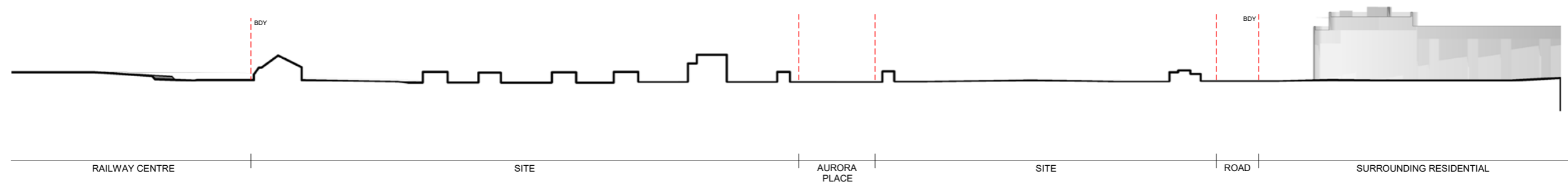


3 SECTION 03

ANALYSIS
EXISTING SITE SECTIONS



1 LONG SECTION 01



2 LONG SECTION 02

Site SWOT Analysis

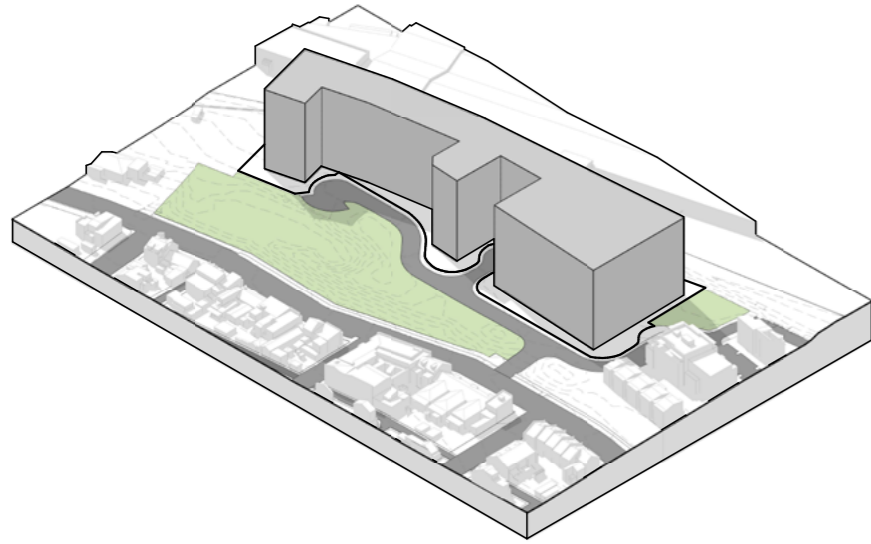
This table summarises the sites strengths, weaknesses, opportunities, and threats (SWOT) . Information has been drawn from our analysis of the site, illustrated in the previous pages of this report and in previous investigations undertaken by others.

The site sits within a well connected area that offers future residents good access to employment, recreation, amenity and public open space. The Site is also close to existing and future transport connections.

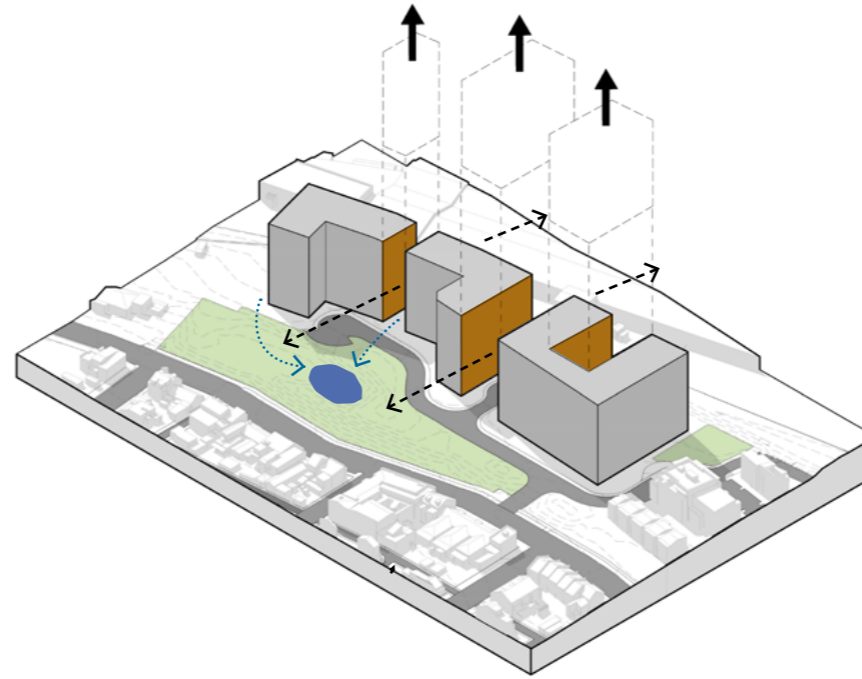
Whilst the rail corridor to the north and the rail tunnel through the site limit the development opportunities, there are a number of opportunities that exist.

Consideration	Strengths	Weaknesses	Threats	Opportunities
Topography	<ul style="list-style-type: none"> The Site's topography from east to west is generally flat with a more evident slope appearing on Rotary Park. 	<ul style="list-style-type: none"> Significant slope from north to south seen in Rotary park, serves as storm water detention 	<ul style="list-style-type: none"> The existing overland flow path dissecting the Site north to south. The existing storm water detention in Rotary Park 	<ul style="list-style-type: none"> Development scale transitioning to reflect the local topography
Local Character	<ul style="list-style-type: none"> Sites location to ATP, close proximity to future Metro Station as well as existing railway stations. Proximity to University Proximity to significant Open Green Spaces Fine grain character to the south of the site along Henderson Road 	<ul style="list-style-type: none"> Existing TfNSW land to the West Railway corridor to the northern boundary 	<ul style="list-style-type: none"> Potential overshadowing to the southern neighbouring buildings 	<ul style="list-style-type: none"> Enables a transition of scale and delivery of diversity in built form. Can provide an active focal point to the emerging future character Potentially connecting to the emerging contemporary apartment patterns to the South and East
Heritage	<ul style="list-style-type: none"> The site is not identified as heritage of local or state significance 	<ul style="list-style-type: none"> Interface with low-scale existing conservation area to the south 		<ul style="list-style-type: none"> Draw on local heritage character to inform materials and design features.
Views and Vistas	<ul style="list-style-type: none"> Rotary Park as the major visual element on the Site Current termination of views to the Site are on to open space and mature trees 		<ul style="list-style-type: none"> Termination of views on new development 	<ul style="list-style-type: none"> Aligning new development with existing street grid Draw on local architectural
Public Space	<ul style="list-style-type: none"> Rotary Park provides a significantly large amount of public realm for the local community, along with providing a visual element for the site. The park also forms an extension of an 'urban forest' that runs along the north of Henderson Rd. Various size parks are also located further south of the site, within walking distance. Existing art wall within the Site that contributes to social and cultural heritage, existing art on concrete barriers 	<ul style="list-style-type: none"> Poor quality lane way in adjoining land to North Poor natural surveillance and overlooking along the northern edge 	<ul style="list-style-type: none"> Solar access as a result of higher development to the north 	<ul style="list-style-type: none"> Retaining and embellishing Rotary Park to provide a more engaging public area. Potential to enhance the existing green network in the local area and linking between surrounding open spaces.
Trees and Canopy	<ul style="list-style-type: none"> Several high and moderate quality trees and mature landscape on the Site 			<ul style="list-style-type: none"> Retaining high quality trees and providing improved green canopy in public domain within the Site Provide greater linkage back to local contextual urban canopy
Solar Access	<ul style="list-style-type: none"> Great orientation towards the north 	<ul style="list-style-type: none"> Relatively limited solar access to the public space to the East of the Site 	<ul style="list-style-type: none"> Potential for overshadowing of open space on the site Orientation for solar access opens up acoustic issues from rail corridor 	<ul style="list-style-type: none"> Potential to design built-form that maximises solar access for residents while minimising the effects of overshadowing to the south.
Connectivity and Transport	<ul style="list-style-type: none"> Connected to different modes of public transport including future Metro Station Proximity to ATPs and other employment centres Access to wide array of shops and community facilities in walking catchment 	<ul style="list-style-type: none"> Single access off Henderson Road Railway corridor on the northern boundary 	<ul style="list-style-type: none"> Existing road (Explorer Street) is narrow and may be unsuitable for a future development. Single access from Henderson Road may also cause congestion during busy periods. 	<ul style="list-style-type: none"> Uplift of paths and road networks and safe and walk able streets. Accommodating private and on-street parking
Engineering and rail consideration	<ul style="list-style-type: none"> Proximity to railway stations and depot 	<ul style="list-style-type: none"> Development-restricted area defined by rail tunnel going west-east in the middle of the Site Other elements linked to tunnels such as fire egress and existing visible structures 	<ul style="list-style-type: none"> Located south of a large railway yard and railway lines, apartments on higher floors facing north may require noise mitigation measures. 	<ul style="list-style-type: none"> Use existing rail infrastructure to shield noise to lower levels of any proposed developments

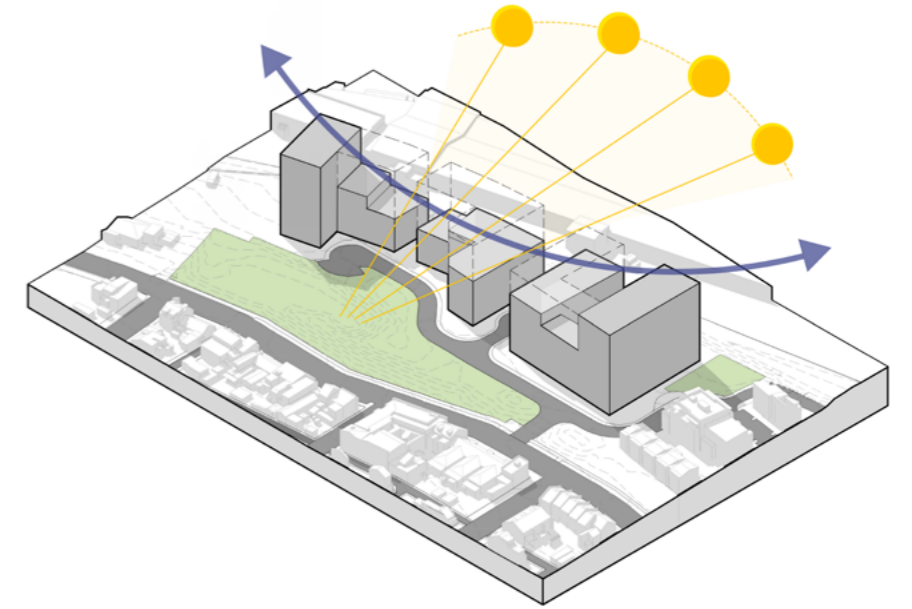




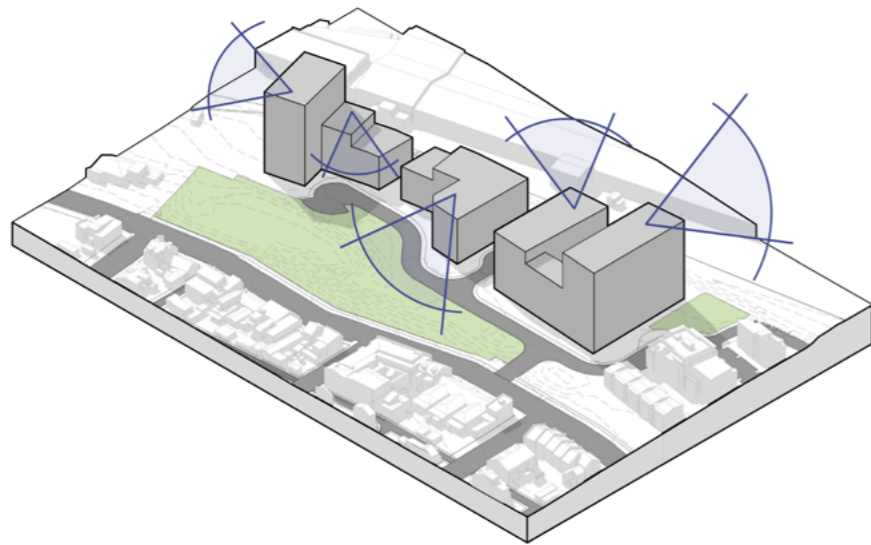
ENVELOPE



PERMEABILITY



SOLAR ACCESS



VIEWS AND VISTAS



MOVEMENT AND ACCESS



GROUND FLOOR GREEN SPACE

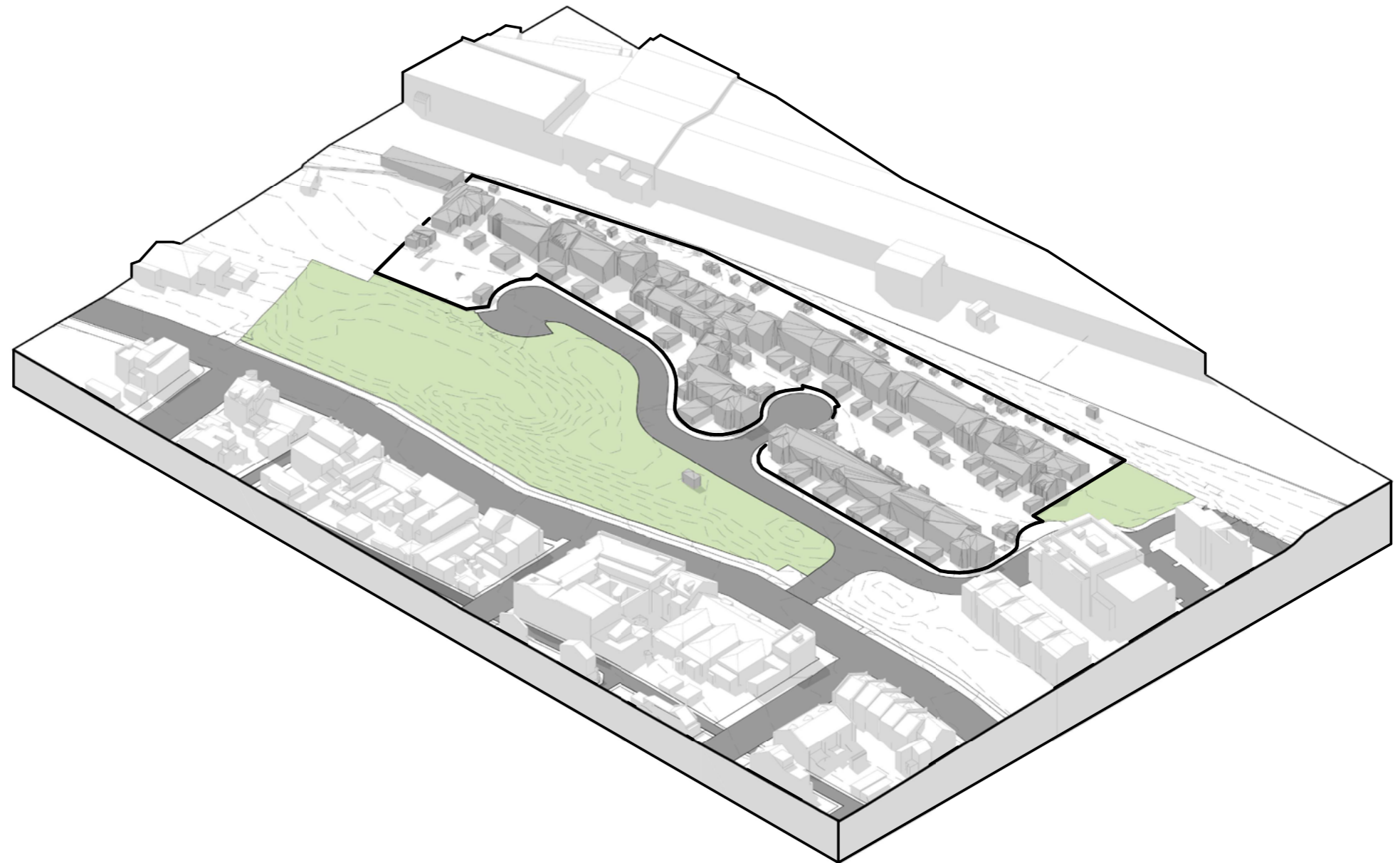
KEY INFLUENCES

EXISTING

The current site consists of 46 social dwellings, with an existing road network that cuts through the site from Rowley Street to Aurora Place. Explorer Street culminates in a turning circle at its most westerly point and the shorter Aurora Place also offers a turning circle towards the heart of the site.

PROPOSAL

The new proposal intends to demolish the existing social housing structures on the site, making way for a larger development. This will introduce a significant increase from the previous 46 social dwellings. The proposal aims to create a modern and dynamic community while maximizing the available space and incorporating functional and sustainable design principles whilst adhering to the various constraints the site presents.



ARCHITECTURAL DESIGN STRATEGY

POTENTIAL DEVELOPMENT ENVELOPE

KEY INFLUENCES

ROAD SETBACKS

The proposal configures itself around the existing road network. The design incorporates setbacks of various amounts from the street edge to create a buffer zone and provide deep soil to the perimeter of the built forms.

RAILWAY TUNNEL SETBACKS

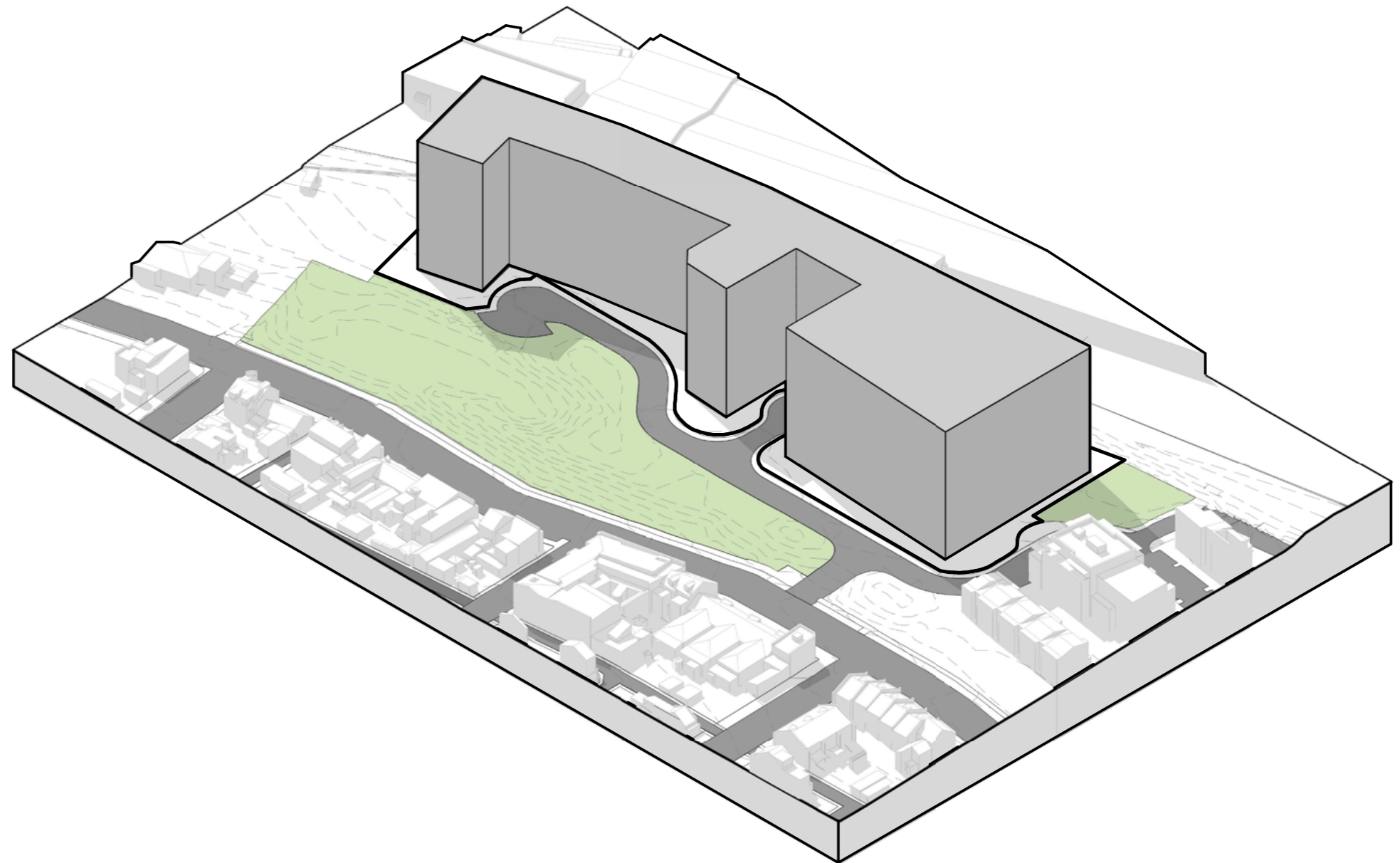
The Eastern Suburbs Line (ESL) tunnel has a significant influence over the scale and positioning of the proposal. The zone of influence around the tunnel requires further investigation to determine development parameters.

NORTHERN & WESTERN SETBACKS

9-metre setbacks from the north and west boundaries allow for deep soil areas generous communal open spaces that will benefit from the northerly aspect.

EASTERN SETBACK

A 3 metre setback has been applied to the boundary shared by the small city-owned park to the east. This setback grows organically as the shape of the boundary follows Station Place around to Explorer Street. The entire park still benefits from at least 4 hours of sun in mid winter, despite the smaller setback.



ARCHITECTURAL DESIGN STRATEGY

PERMEABILITY & SEPARATION

KEY INFLUENCES

BULK REDUCTION

The site is divided into 3 blocks with setbacks in accordance to the ADG. An opening in the larger block to the east forms a generous courtyard space with a northerly aspect.

MOVEMENT

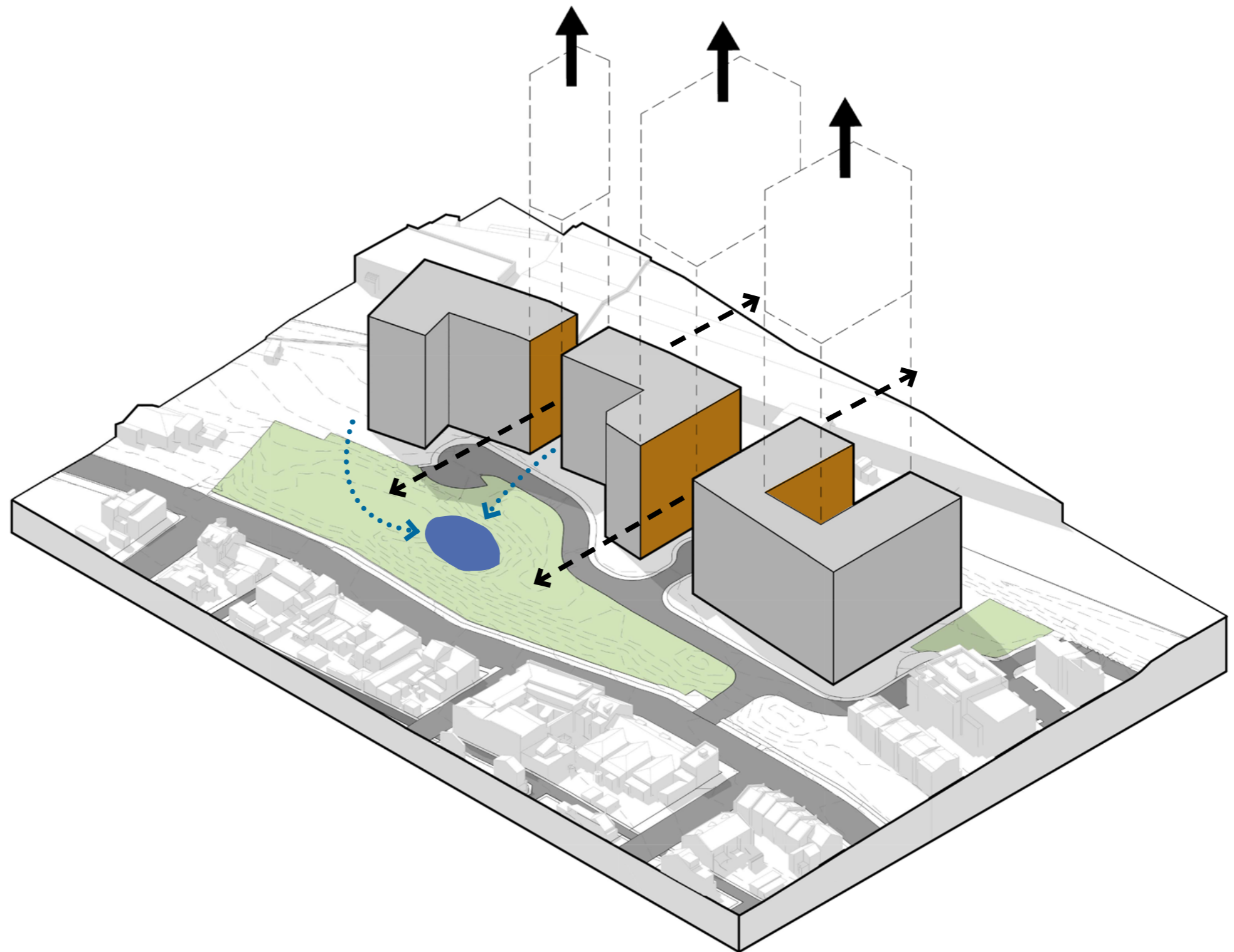
The breakup of these blocks prioritises permeability and facilitates better movement and access through and around the proposed forms. Breaking up the massing creates a more appropriate urban scale and holds potential to define different addresses for each building, creating a sense of place that aligns with a village or urban community.

STORM WATER

The site is prone to flooding during a 1% AEP storm event, with an overland flow path originating at the rail corridor to the north then flowing through to a detention basin within South Sydney Rotary Park. The building separation will assist with the runoff of storm water through a series of rain gardens.

STAGING

Splitting the mass offers opportunity for staging future development, allowing flexibility for delivery. Some shared basements have been included in this report as an efficient solution to accommodate car parking requirements.



KEY INFLUENCES

SOUTH SYDNEY ROTARY PARK

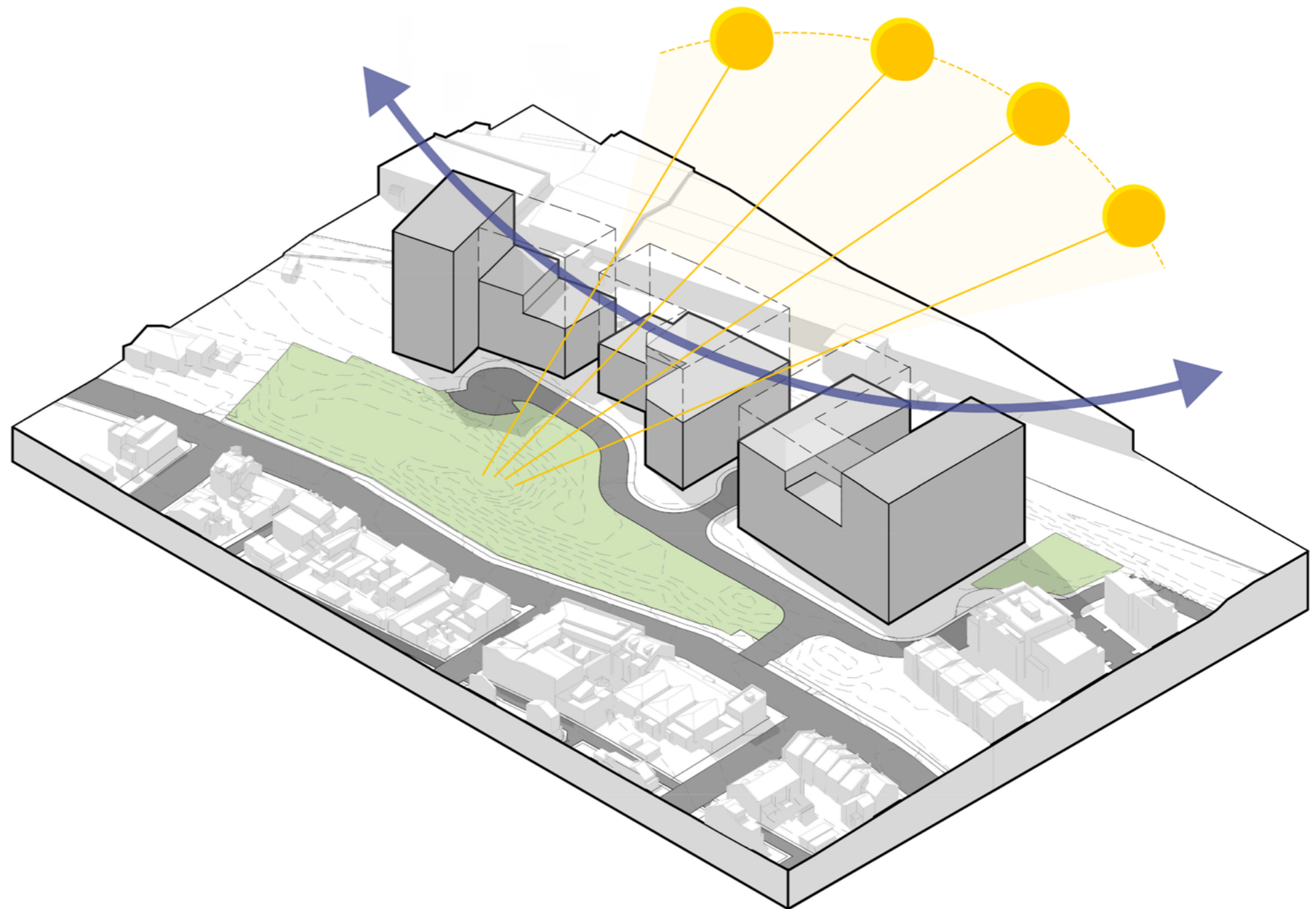
Rigorous testing was undertaken to determine the most appropriate building forms that minimise overshadowing of the South Sydney Rotary Park and the terrace houses across Henderson street. The South Sydney Rotary Park could achieve a minimum of 4 hours of direct sunlight to at least 55% of the park at the winter solstice.

The design proposal strategically positioned buildings and incorporated design features to minimize shade and maximize sunlight reaching the park, creating a sunlit and inviting open space for visitors to enjoy.

HENDERSON ROAD RESIDENTIAL

Further testing was dedicated to ensuring minimal solar loss for the southern residential buildings along Henderson Road. Detailed analysis of the sun's trajectory was conducted in 5-minute intervals to determine the optimal building envelope to ensure that the solar access to surrounding residents is not adversely impacted.

Future developments will need to ensure neighbouring units retain adequate sun access.



KEY INFLUENCES

NORTH VIEWPOINTS

Viewpoints towards Camperdown, providing scenic vistas of the University of Sydney and nearby parks such as Camperdown Memorial Rest Park, Hollis Park, Camperdown Park, and Victoria Park.

SOUTH VIEWPOINTS

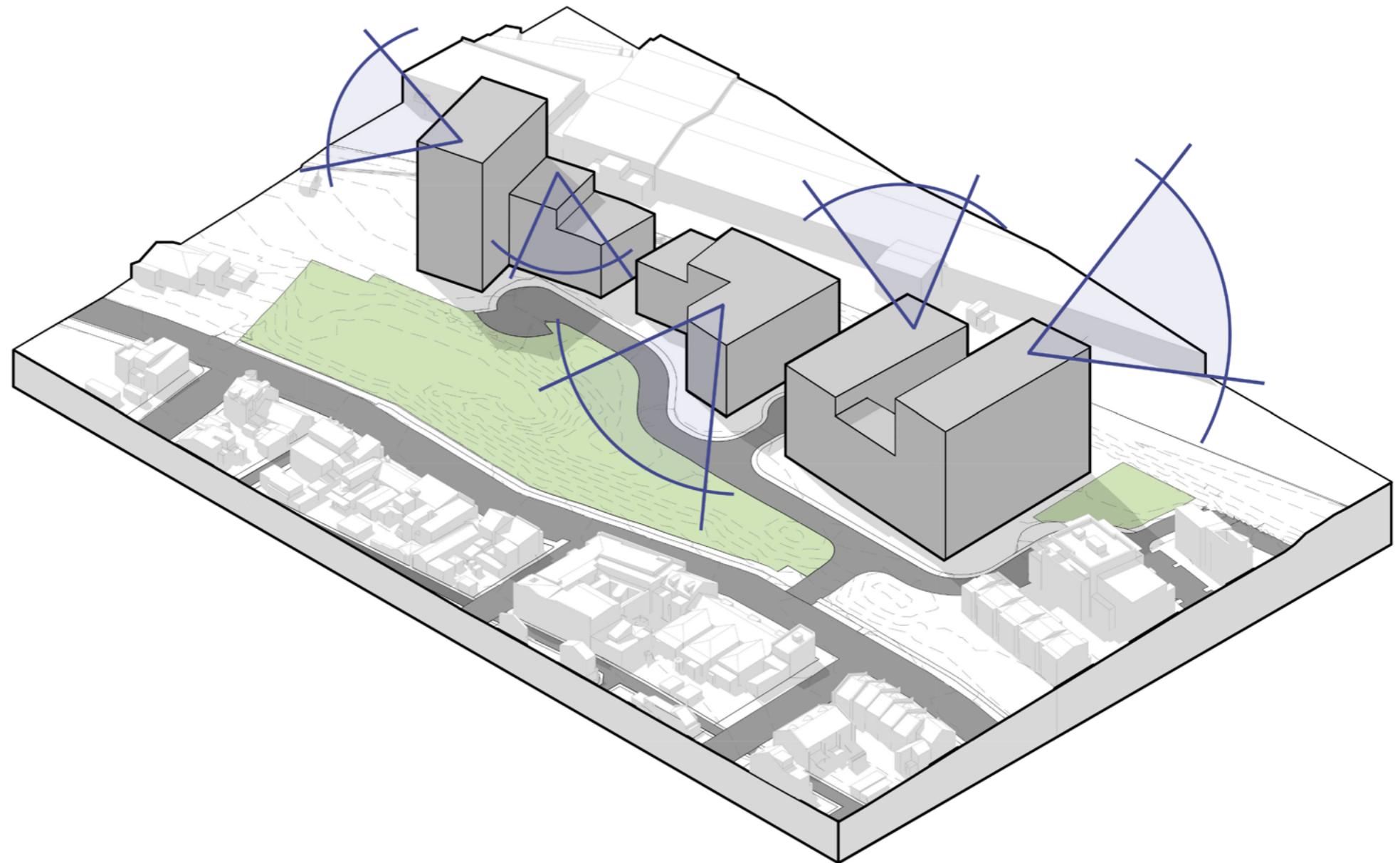
Expansive vistas that extend beyond South Sydney Rotary Park, encompassing the surrounding conservation area and various pocket parks scattered within it. Residents can enjoy the tranquil beauty of the natural surroundings while remaining connected to the vibrant urban fabric of the precinct.

EAST VIEWPOINTS

Sweeping vistas of the Sydney CBD, providing convenient access to its vibrant cultural, commercial, and recreational opportunities. Viewpoints also highlight the heritage listed locomotive halls.

WEST VIEWPOINTS

The site offers partial views towards Newtown despite the presence of the Eveleigh Rail Maintenance Centre. These views provide a unique blend of urban and industrial aesthetics, contributing to the character of the surrounding environment.



ARCHITECTURAL DESIGN STRATEGY

MOVEMENT & ACCESS

KEY INFLUENCES

HIERARCHY OF PATHWAYS

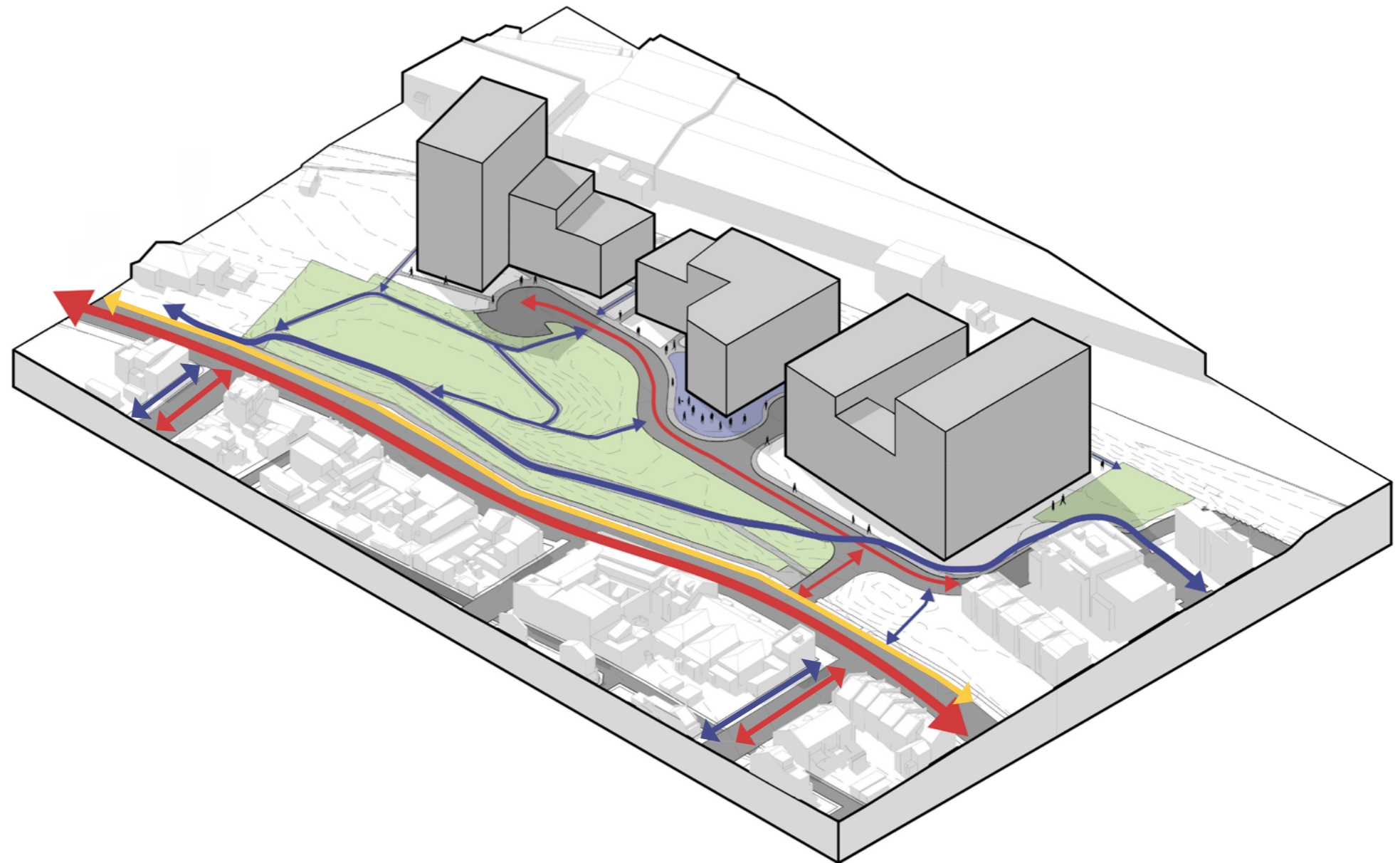
A well-defined hierarchy of pathways should be established to create a clear and intuitive circulation system. Pedestrian safety and accessibility could be emphasized, with wide sidewalks, dedicated pedestrian zones, and separate cycling paths where applicable.

DEFINED ARRIVAL POINTS




Distinctive arrival points for both the precinct and residential buildings could be incorporated in any future development. Architectural features, signage, and landscaping elements will guide visitors to the entrance areas, enhancing way finding and creating a strong sense of arrival.

COMPREHENSIVE PATH NETWORK

A thoughtfully designed path network could be developed, providing diverse routes for pedestrians to navigate the site. The network could prioritize efficient circulation, seamless integration with surrounding amenities, and convenient connections to public transportation hubs.



LEGEND

-  Bicycles
-  Pedestrians
-  Vehicles

KEY INFLUENCES

GREEN SPACE

A landscaped area around the ground floor of the proposed building is designed to enhance the interface between the street and the building. The landscaped area will provide a softer transition between the building and the street, creating a more inviting and pedestrian-friendly space. The plants and trees in the landscaped area will help to filter noise and pollution from the street, ultimately providing a more peaceful and relaxing environment for building occupants and visitors.

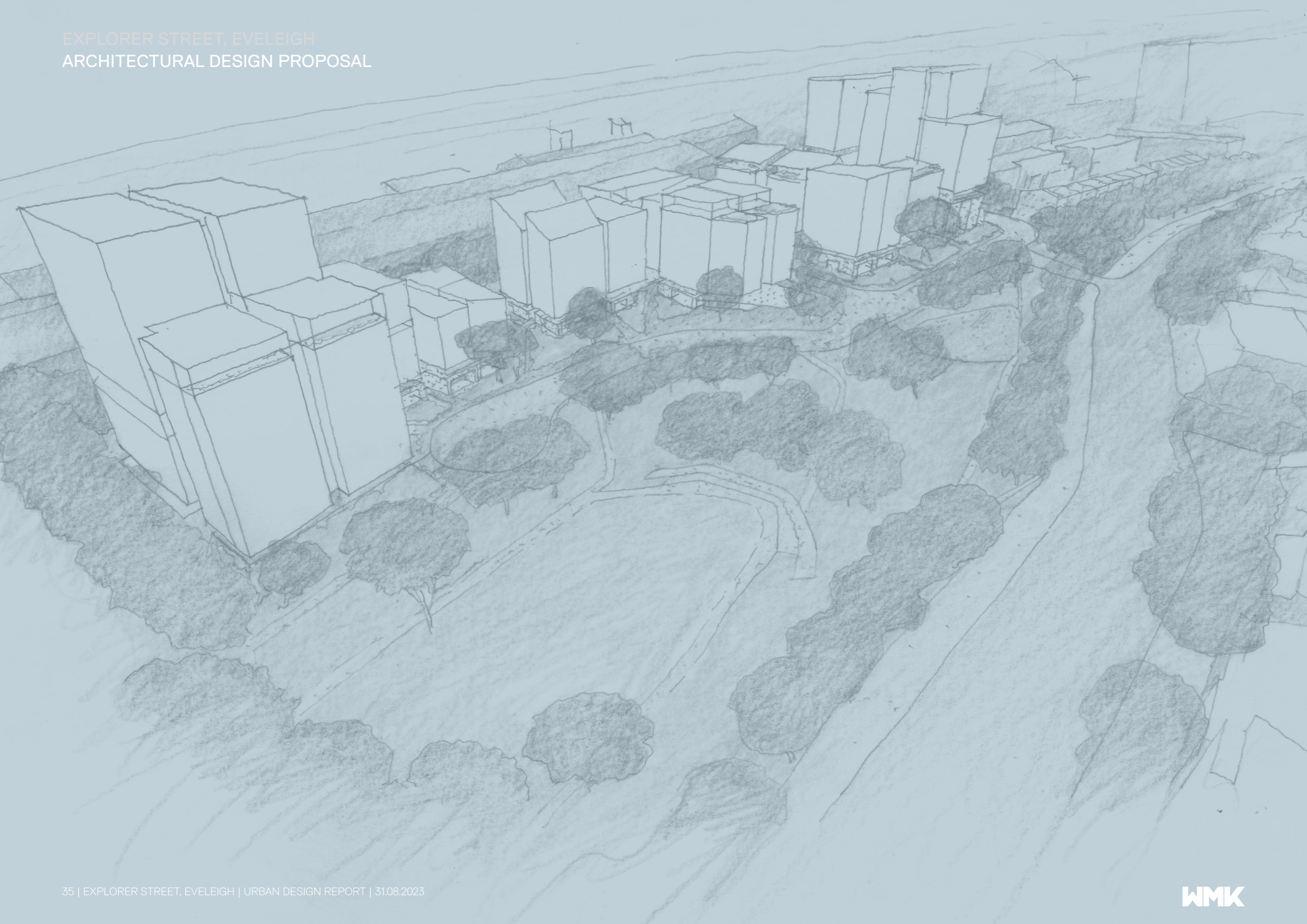
COMMUNITY GATHERING SPACES

The ground plane should incorporate strategically placed communal areas, fostering a sense of community and providing spaces for people to gather and share stories reflecting the rich cultural heritage of Country. These spaces should be thoughtfully designed to include seating areas, gathering places, or landscaped pockets.

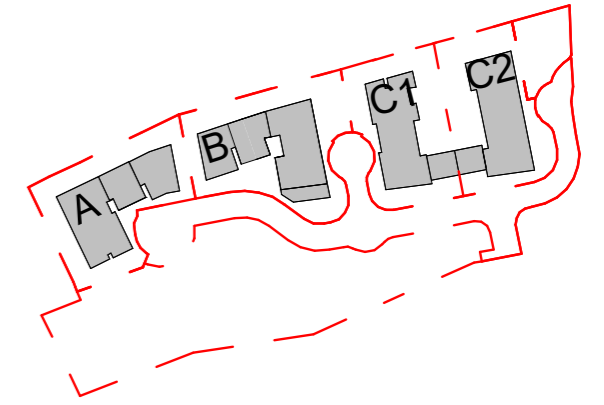
ENHANCED BIODIVERSITY

A Country-centric approach should be adopted in the design and implementation of the ground floor plane and public realms. A diverse and sustainable green space should be prioritised for the site with preservation of high-value existing trees, introduction of new native plantings, and create habitat for non human kin including small invertebrates, birds and reptiles.



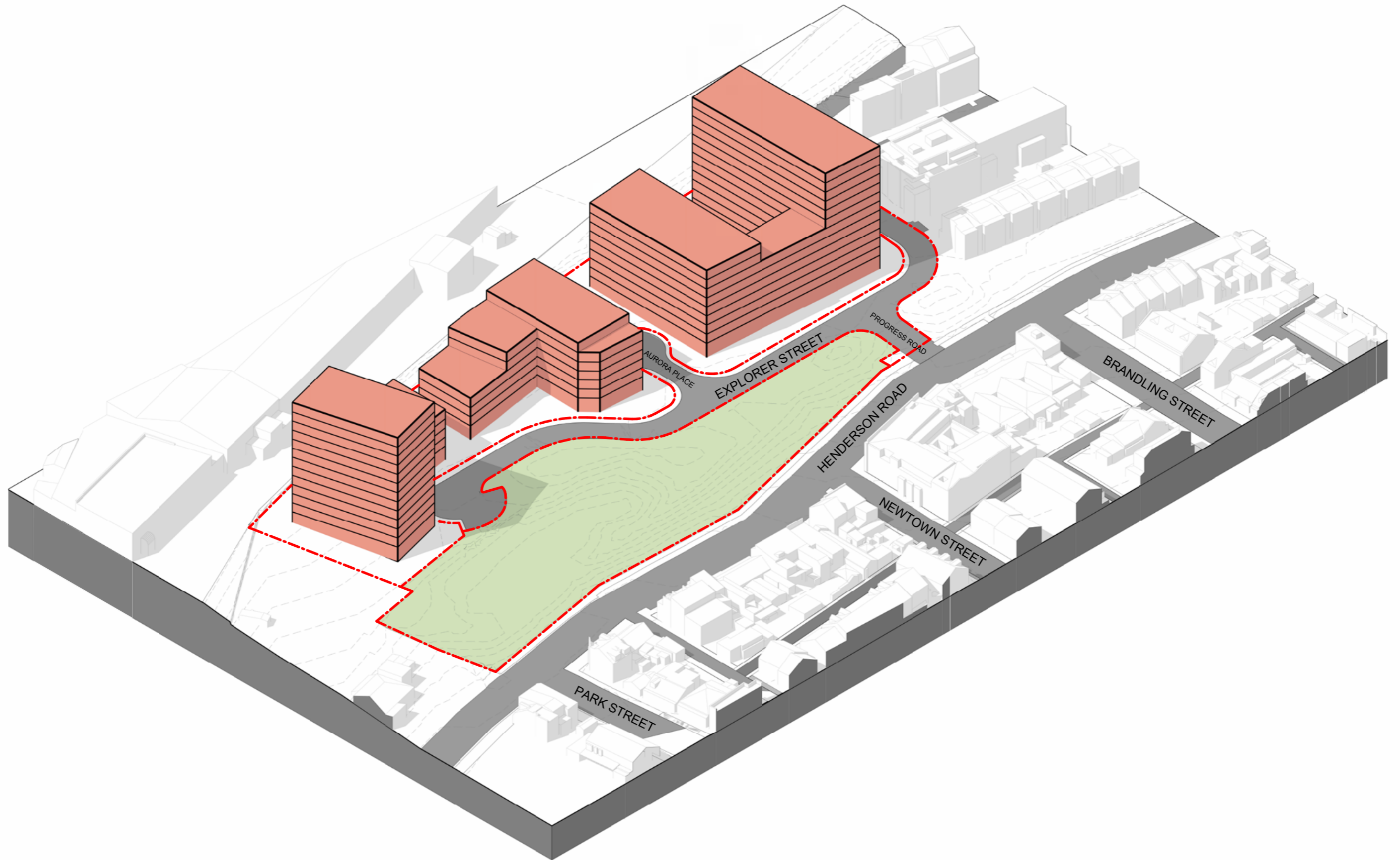


ARCHITECTURAL DESIGN PROPOSAL
DEVELOPMENT SUMMARY



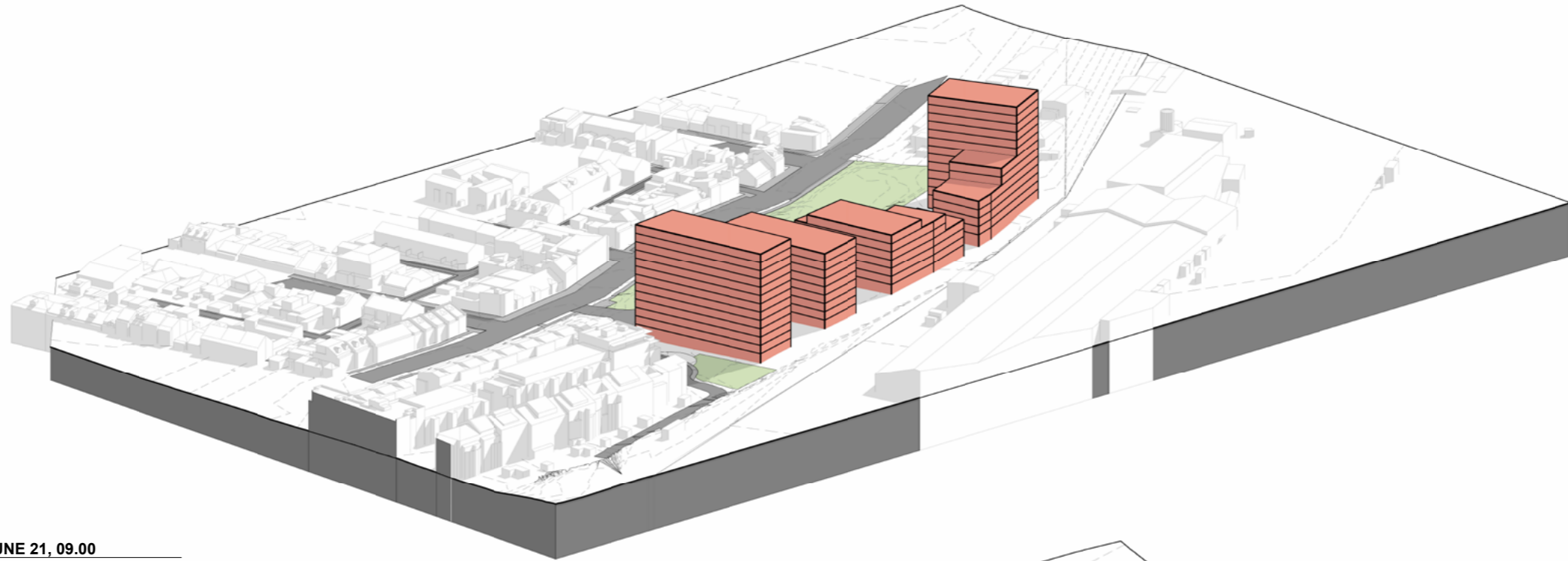
SITE	BLOCK C								TOTALS
	BLOCK A		BLOCK B		BLOCK C1		BLOCK C2		
SUMMARY									
GBA	11395 m ²		8194 m ²		8789 m ²		13218 m ²		41596 m ²
GFA	8998 m ²		6461 m ²		6761 m ²		10428 m ²		32648 m ²
SITE AREA	2795 m ²		3226 m ²		2530 m ²		2575 m ²		11126 m ²
FSR	3.2 : 1		2.0 : 1		2.7 : 1		4.0 : 1		3.0 : 1
HEIGHT	RL 60.7		RL 32.80		RL 48.25		RL 60.70		
APARTMENTS									
YIELD	COUNT	%	COUNT	%	COUNT	%	COUNT	%	GRAND TOTALS
1 BEDS	32	31%	23	29%	35	41%	39	45%	129
2 BEDS	45	43%	50	63%	44	51%	53	62%	192
3 BEDS	27	26%	6	8%	7	8%	32	37%	72
TOTAL	104	100%	79	100%	86		124		393
% WITHIN OVERALL DEVELOPMENT	26%		20%		22%		32%		100%
NSA	AREA	AVE	AREA	AVE	AREA	AVE	AREA	AVE	GRAND TOTALS
1 BEDS	1626 m ²	51 m ²	1345 m ²	58 m ²	1847 m ²	53 m ²	2114 m ²	54 m ²	6932 m ²
2 BEDS	3486 m ²	77 m ²	3906 m ²	78 m ²	3315 m ²	75 m ²	4069 m ²	77 m ²	14776 m ²
3 BEDS	2774 m ²	103 m ²	314 m ²	52 m ²	799 m ²	114 m ²	3037 m ²	95 m ²	6924 m ²
TOTAL	7886 m ²		5565 m ²		5961 m ²		9220 m ²		28632 m ²
ADG COMPLIANCE									AVERAGES
SOLAR (MIN 70%)	74	71%	68	86%	64	74%	115	93%	81%
CROSS-VENT (MIN 60%)	66	63%	49	62%	62	72%	96	77%	69%
DEEP SOIL (MIN 15%)	1027 m ²	37%	840 m ²	26%	1183 m ²	47%	545 m ²	21%	33%
COMMUNAL OPEN SPACE (MIN 25%)	800 m ²	29%	1006 m ²	31%	630 m ²	25%	714 m ²	28%	28%
PARKING									
VEHICLES (CATEGORY A MAXIMUM)									
1 BEDS	9.6		6.9		10.5		11.7		38.7
2 BEDS	31.5		35		30.8		37.1		134.4
3 BEDS	27		6		7		32		72
TOTAL	69		48		49		81		246
VEHICLES (CATEGORY B MAXIMUM)									
1 BEDS	12.8		9.2		14		15.6		51.6
2 BEDS	36		40		35.2		42.4		153.6
3 BEDS	29.7		6.6		7.7		35.2		79.2
ADDITIONAL (0.05 PER DWELLING)	5.2		3.95		4.3		6.2		19.65
TOTAL	84		60		62		100		305
BICYCLES									
RESIDENTS	104		79		86		124		393
VISITORS	11		8		9		13		41
TOTAL	115		87		95		137		434
MOTORCYCLES									
RESIDENTS	9		7		8		11		35

ARCHITECTURAL DESIGN PROPOSAL
AXONOMETRIC VIEW - SOUTH EAST

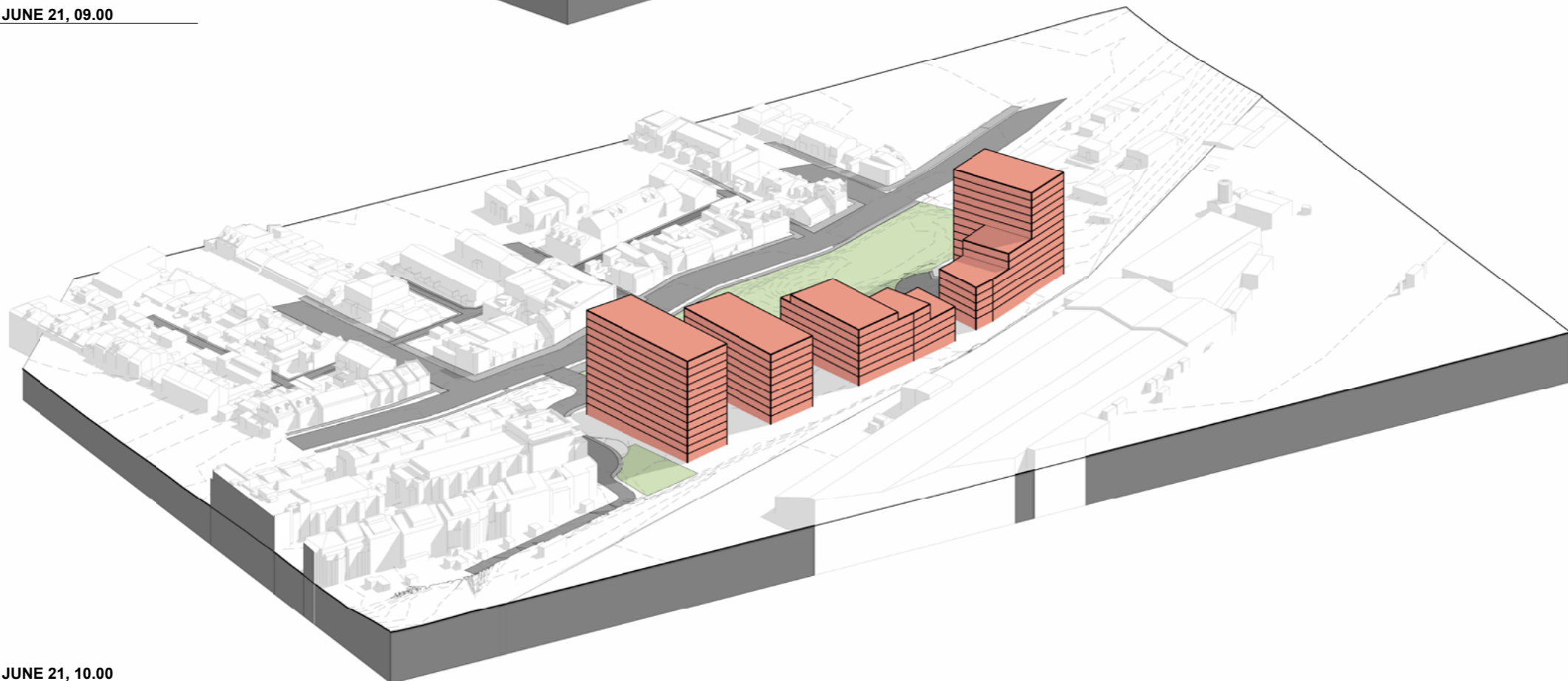


ARCHITECTURAL DESIGN PROPOSAL
AXONOMETRIC VIEW - SOUTH WEST



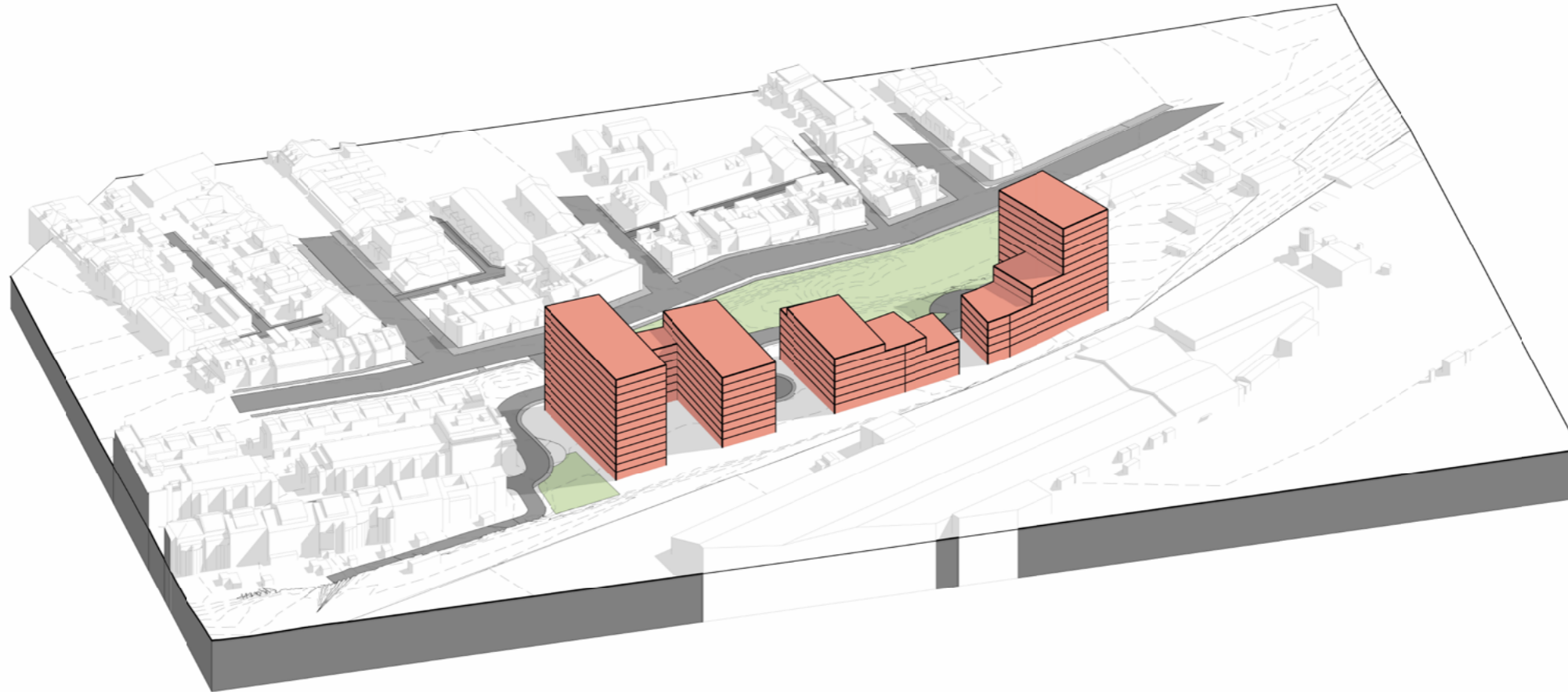


1 SUNEYE JUNE 21, 09.00



2 SUNEYE JUNE 21, 10.00

ARCHITECTURAL DESIGN PROPOSAL
SOLAR STUDY - SUN EYE VIEW

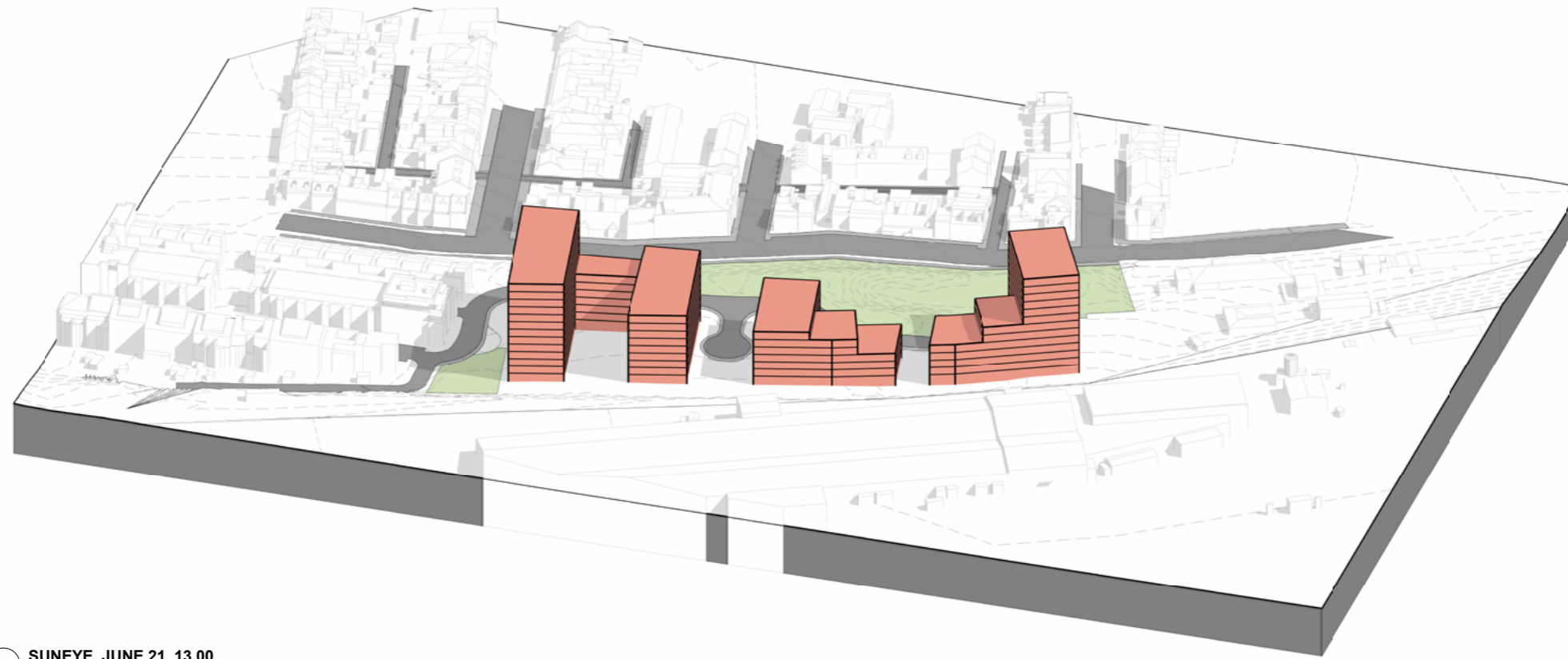


1 SUNEYE JUNE 21, 11.00



2 SUNEYE JUNE 21, 12.00

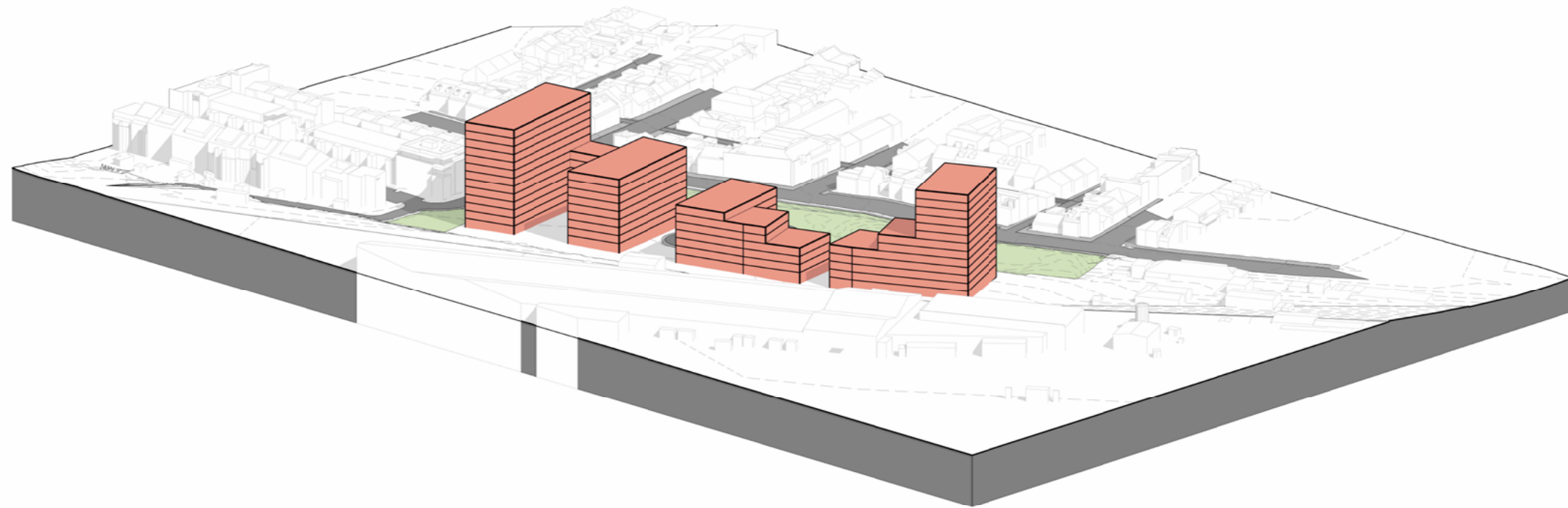
ARCHITECTURAL DESIGN PROPOSAL
SOLAR STUDY - SUN EYE VIEW



1 SUNEYE JUNE 21, 13.00



2 SUNEYE JUNE 21, 14.00

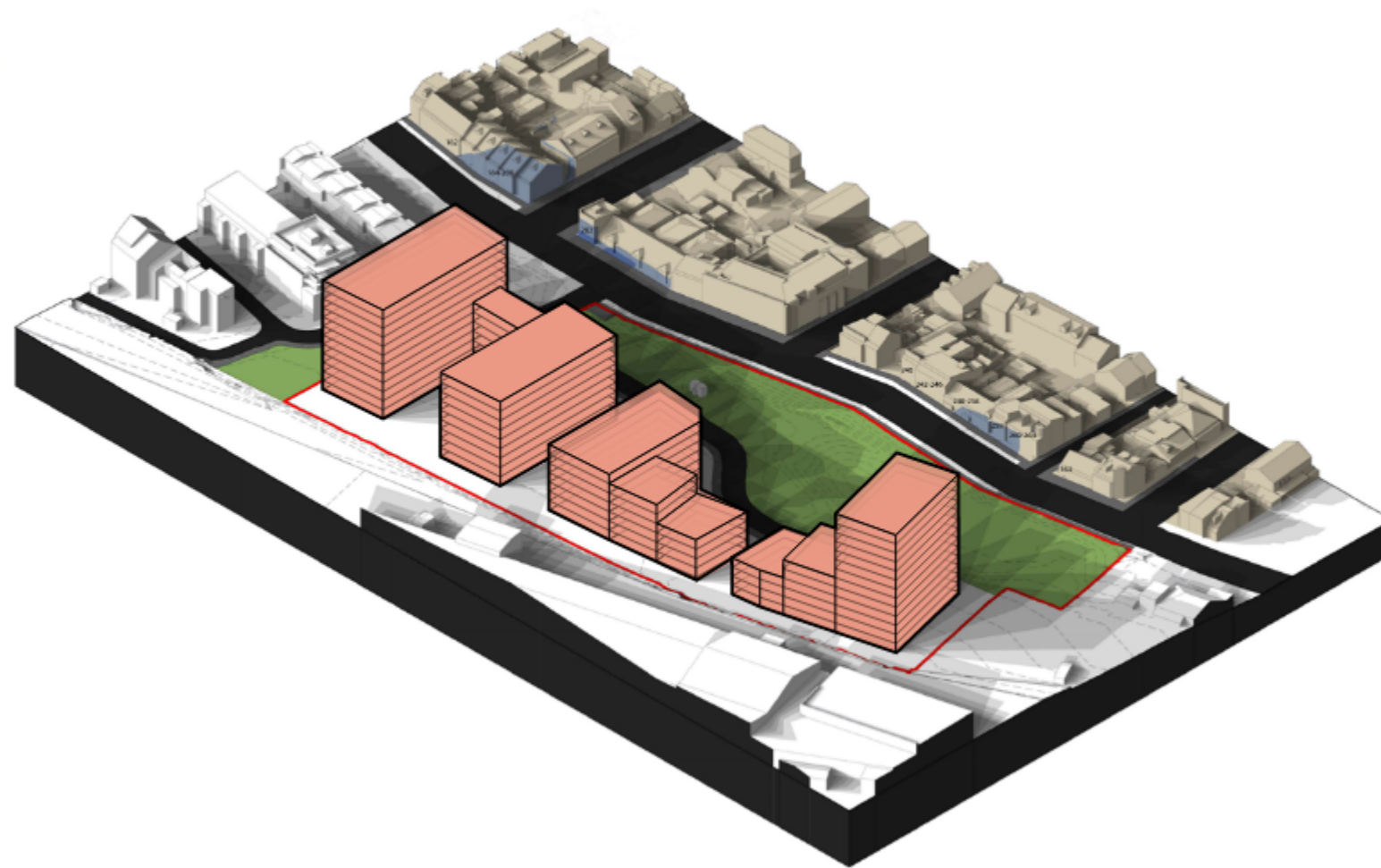


1 SUNEYE JUNE 21, 15.00

ARCHITECTURAL DESIGN PROPOSAL

SOLAR STUDY - METHODOLOGY

SHADOWS CAST AT 21/06/23 09:00 - 15:00



AVERAGE SUNLIGHT TO OPENINGS ON 21 JUNE FROM 9AM TO 3PM				
STREET #	CURRENT	PROPOSED	DIFFERENCE	%
163	3:57	3:04	0:52	22%
182	4:49	4:38	0:11	4%
184	5:11	4:50	0:20	7%
186	5:12	4:44	0:27	9%
188	5:12	4:35	0:36	12%
190	5:12	4:25	0:46	15%
192	5:05	4:06	0:58	19%
202	3:31	2:39	0:52	25%
204	3:20	2:17	1:02	31%
206	3:24	2:18	1:06	33%
208	3:25	2:11	1:13	36%
210	3:24	2:01	1:22	40%
212	3:25	2:00	1:25	42%
214	3:24	2:19	1:05	32%
240	4:34	4:33	0:01	0%
244	4:36	4:30	0:05	2%
246	4:52	4:43	0:09	3%
248	5:47	5:30	0:17	5%
250	5:02	4:34	0:27	9%
252	5:17	5:01	0:16	5%
254	5:30	5:00	0:30	9%
256	5:50	5:07	0:42	12%
258	4:02	3:25	0:37	16%
260	2:14	1:49	0:24	18%
262	2:27	1:58	0:29	20%
264	2:13	1:49	0:24	18%

THIS SCHEDULE QUANTIFIES THE IMPACT OF OVERSHADOWING TO NEIGHBOURING BUILDINGS ALONG HENDERSON ROAD. THIS IS ACHIEVED BY MEASURING THE AMOUNT OF SUNLIGHT THAT FALLS ON FACADE OPENINGS BOTH IN THE EXISTING STATE AND WITH THE PROPOSED MASSING. THE TIMES ARE EXPRESSED IN HOURS AND MINUTES (H:MM).

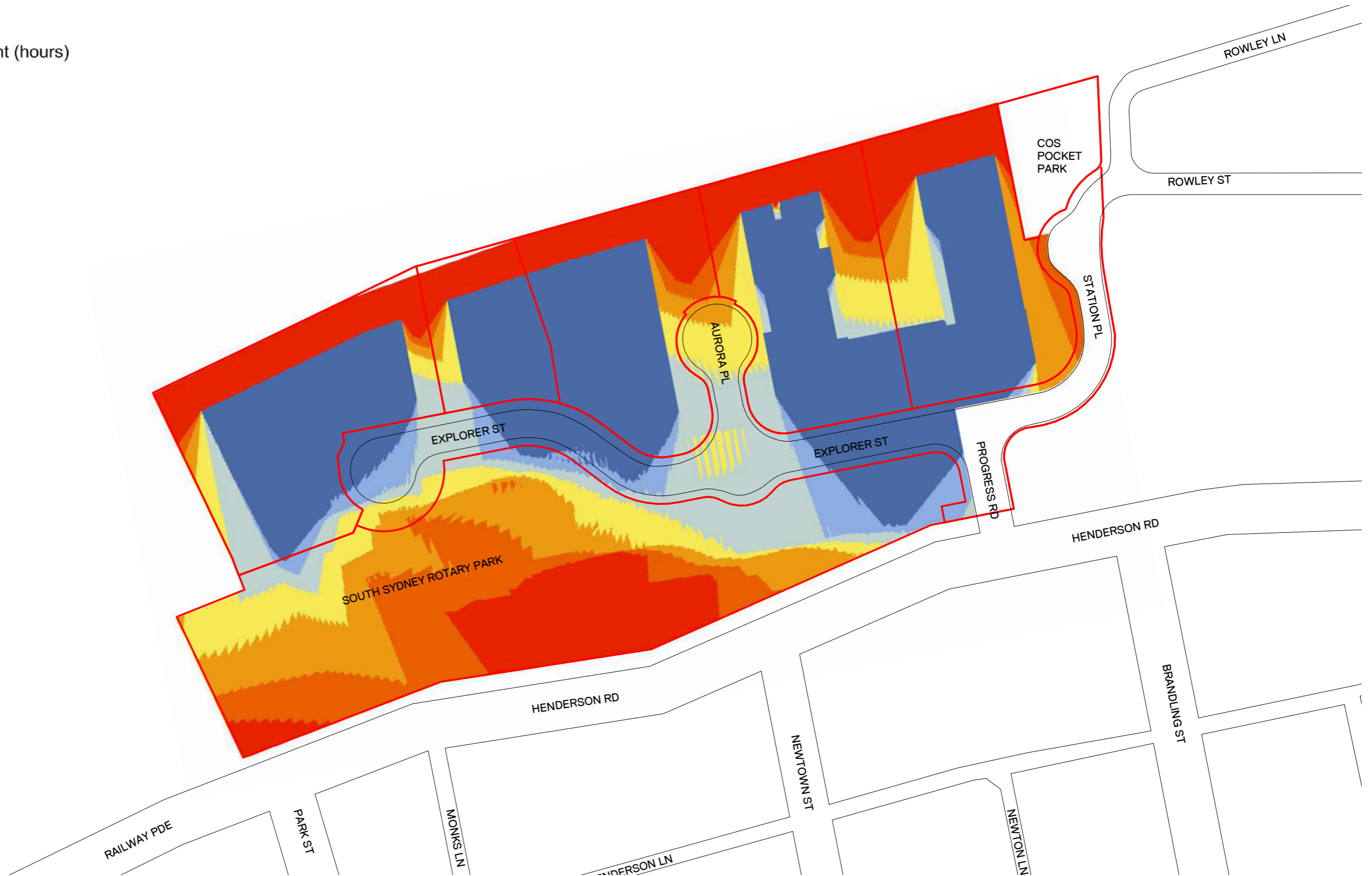
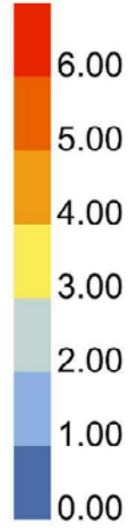
THE LOW SOLAR VALUES FOR LOTS 260, 262 & 263 ARE CAUSED BY SHADING DEVICES ON THE FACADES OF THE BUILDINGS.

LEGEND

- Less than 1 Hour
- Less than 1.5 Hours
- Conservation Area

ARCHITECTURAL DESIGN PROPOSAL
GROUND PLANE SOLAR ACCESS

Direct Sun Light (hours)

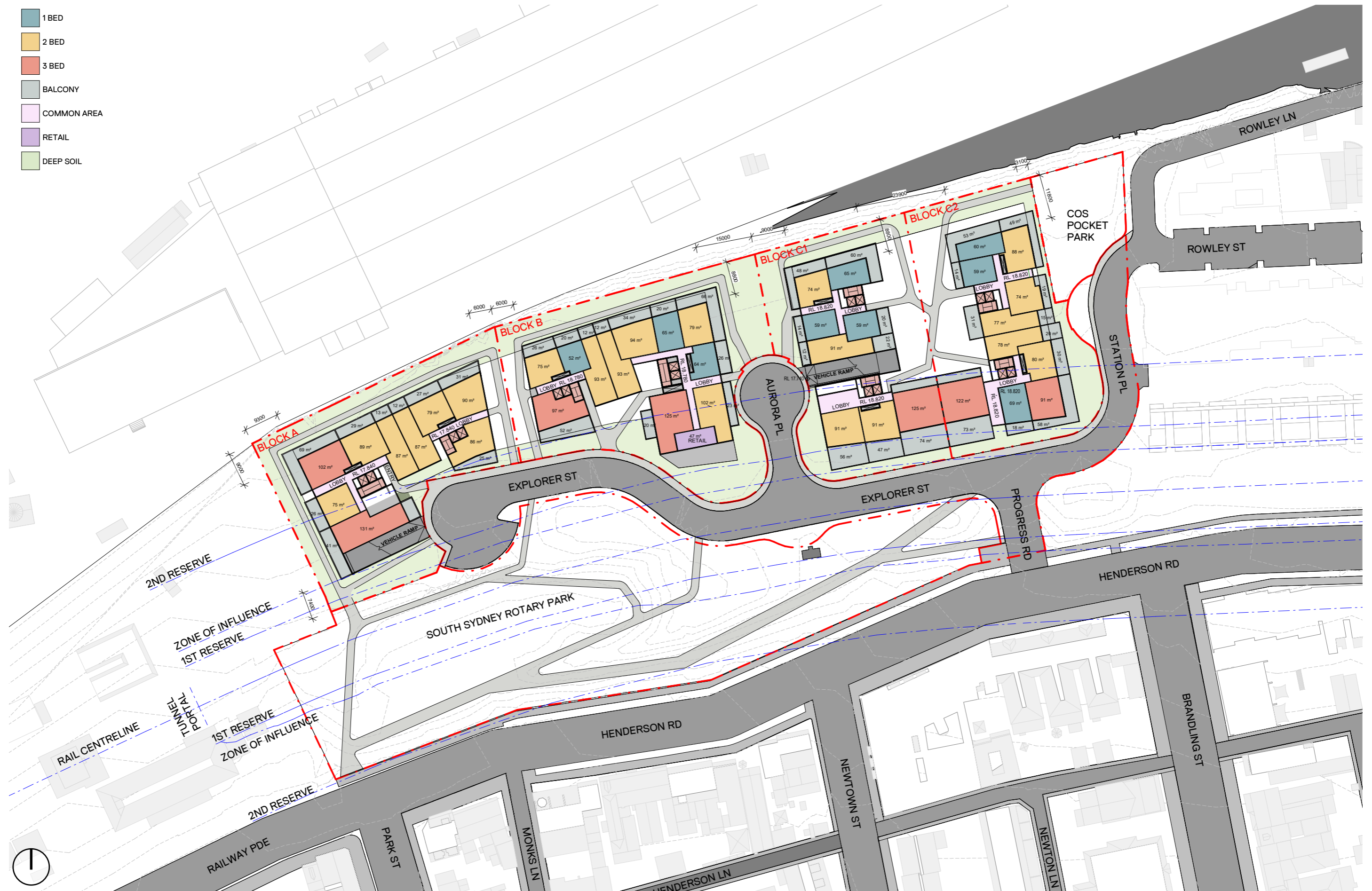


ARCHITECTURAL DESIGN PROPOSAL
SOLAR STUDY - PUBLIC OPEN SPACE



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - GROUND

- 1 BED
- 2 BED
- 3 BED
- BALCONY
- COMMON AREA
- RETAIL
- DEEP SOIL



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 1-3

- 1 BED
- 2 BED
- 3 BED
- BALCONY



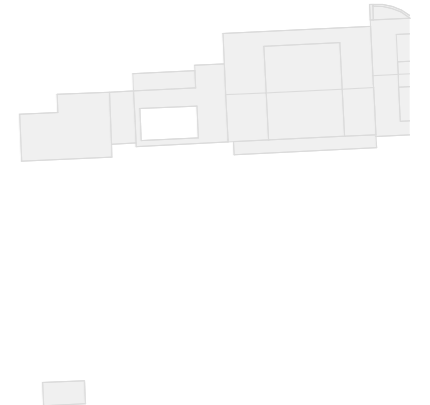
ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 4

- 1 BED
- 2 BED
- 3 BED
- BALCONY



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 5

- 1 BED
- 2 BED
- 3 BED
- BALCONY



ARCHITECTURAL DESIGN PROPOSAL
TYPICAL FLOOR PLAN - LEVEL 6

- 1 BED
- 2 BED
- 3 BED
- BALCONY



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 7

- 1 BED
- 2 BED
- 3 BED
- BALCONY



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 8

- 1 BED
- 2 BED
- 3 BED
- BALCONY



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 9

- 1 BED
- 2 BED
- 3 BED
- BALCONY



ARCHITECTURAL DESIGN PROPOSAL
 TYPICAL FLOOR PLAN - LEVEL 10-12

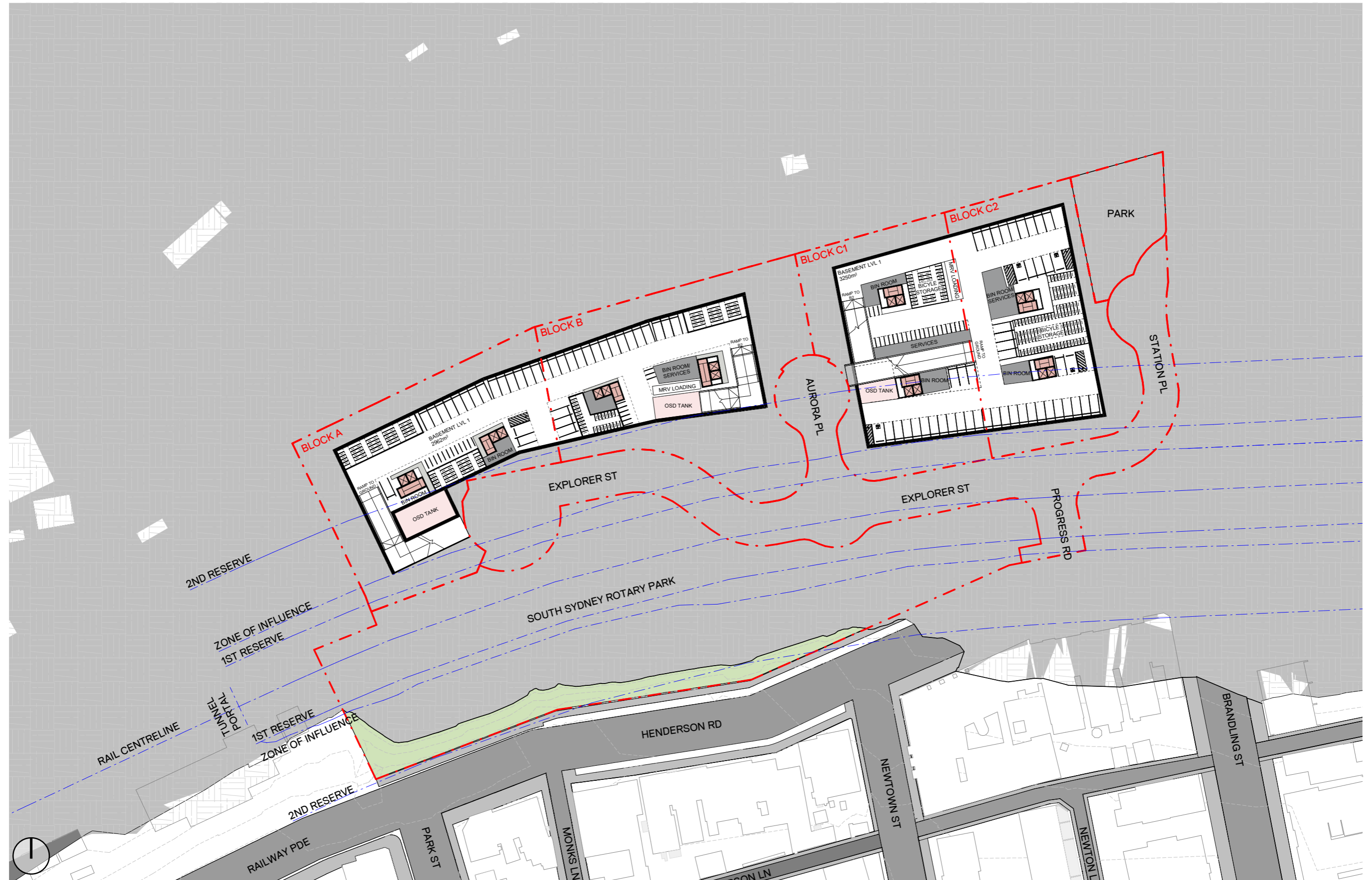
- 1 BED
- 2 BED
- 3 BED
- BALCONY



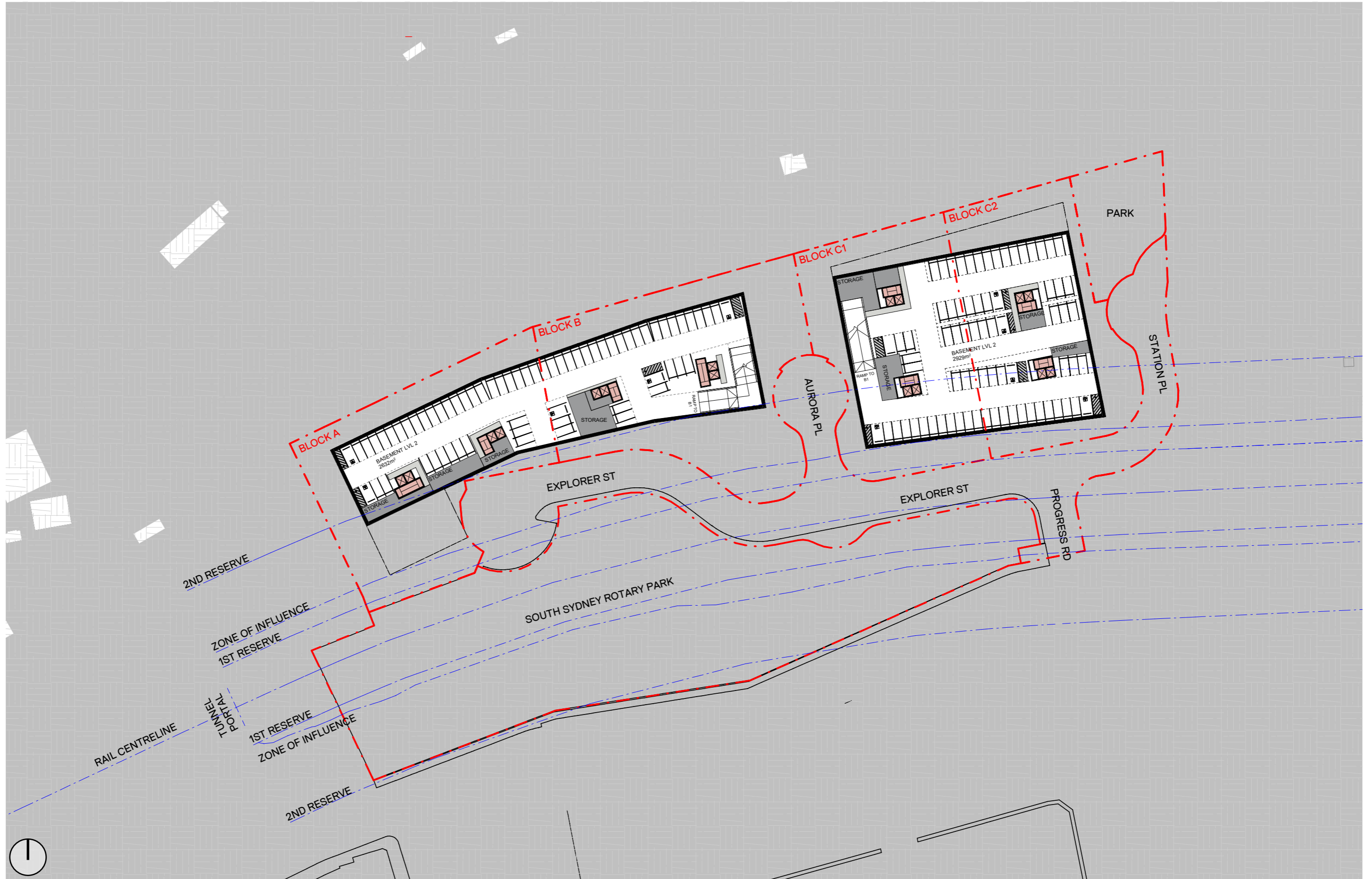
ARCHITECTURAL DESIGN PROPOSAL
TYPICAL FLOOR PLAN - ROOF



ARCHITECTURAL DESIGN PROPOSAL
BASEMENT PLAN - LEVEL 1

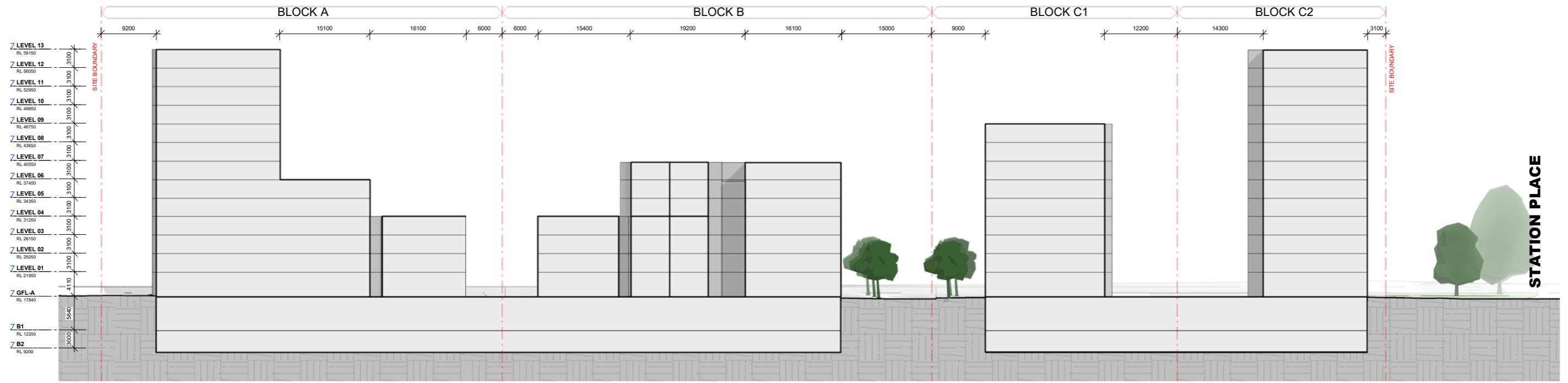
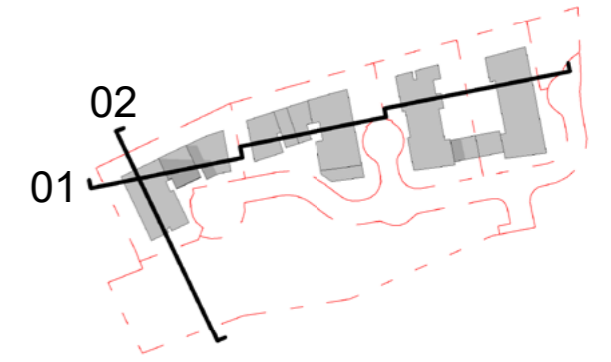


ARCHITECTURAL DESIGN PROPOSAL
BASEMENT PLAN - LEVEL 2

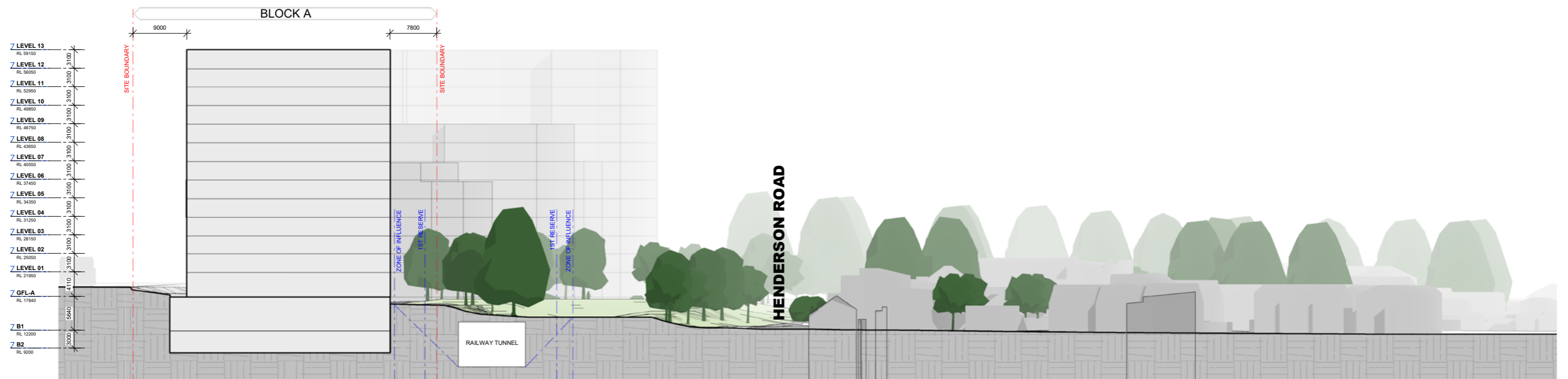


ARCHITECTURAL DESIGN PROPOSAL

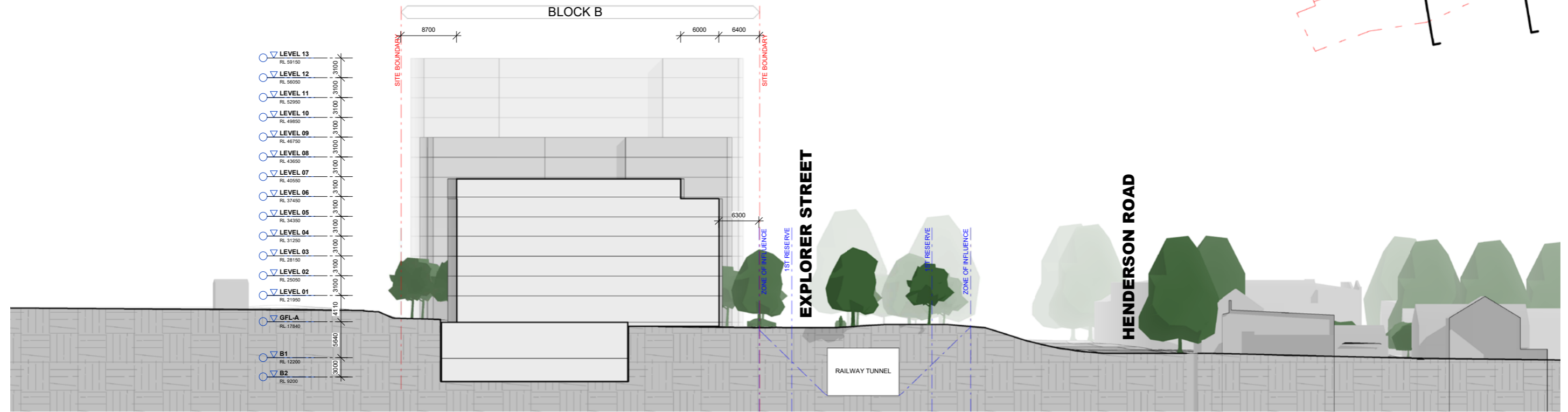
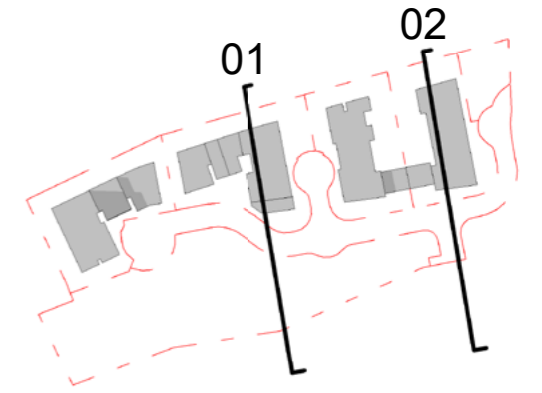
SITE SECTIONS



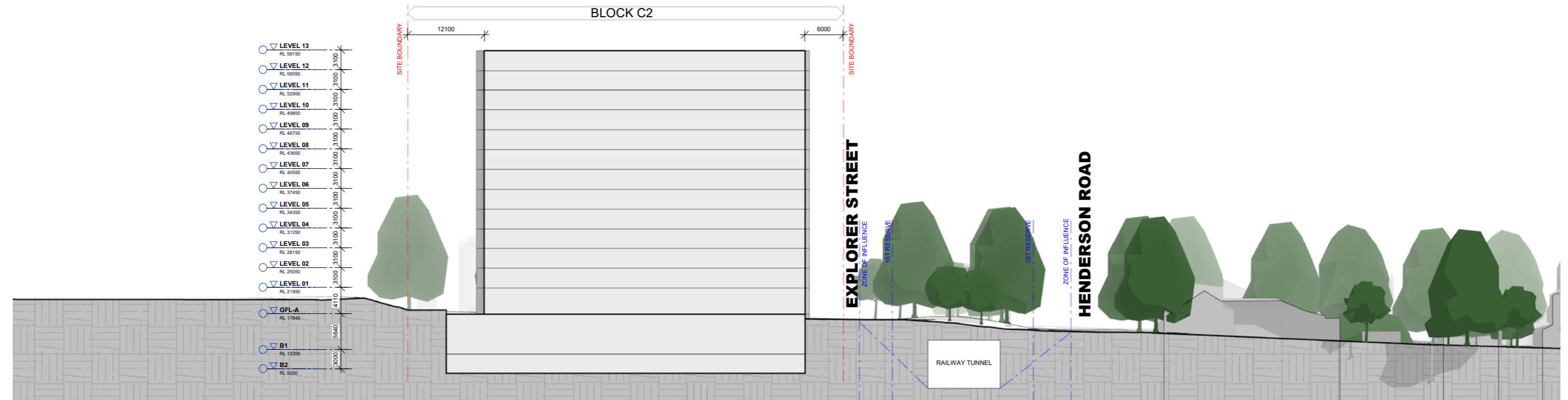
1 SITE SECTION 01



2 SITE SECTION 02



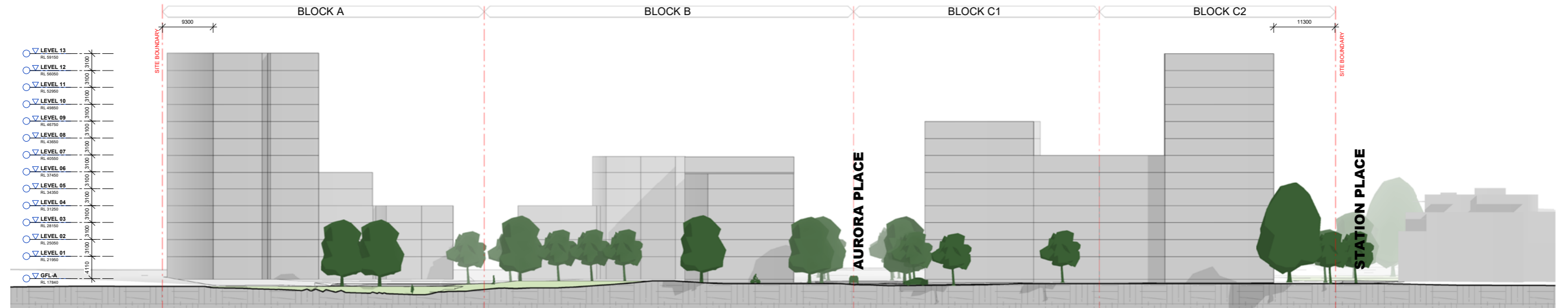
1 SITE SECTION 03



2 SITE SECTION 04

ARCHITECTURAL DESIGN PROPOSAL

SITE ELEVATIONS



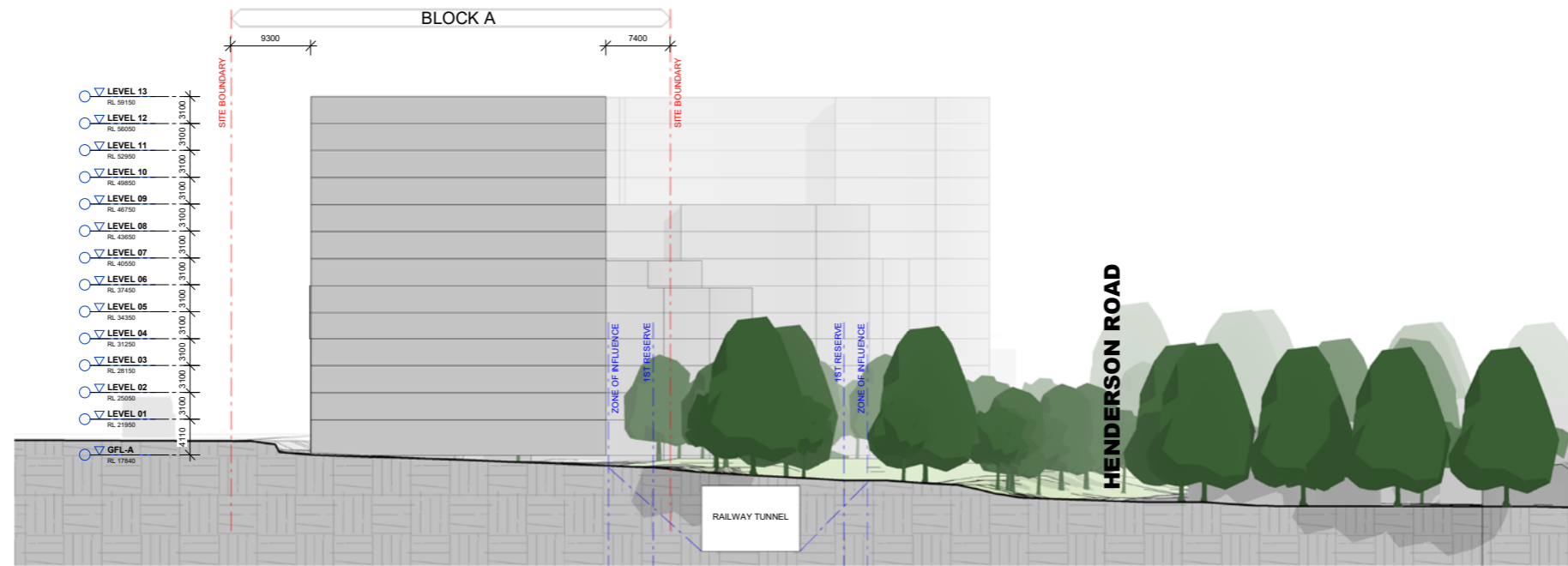
1 SOUTH ELEVATION
SCALE 1 : 350



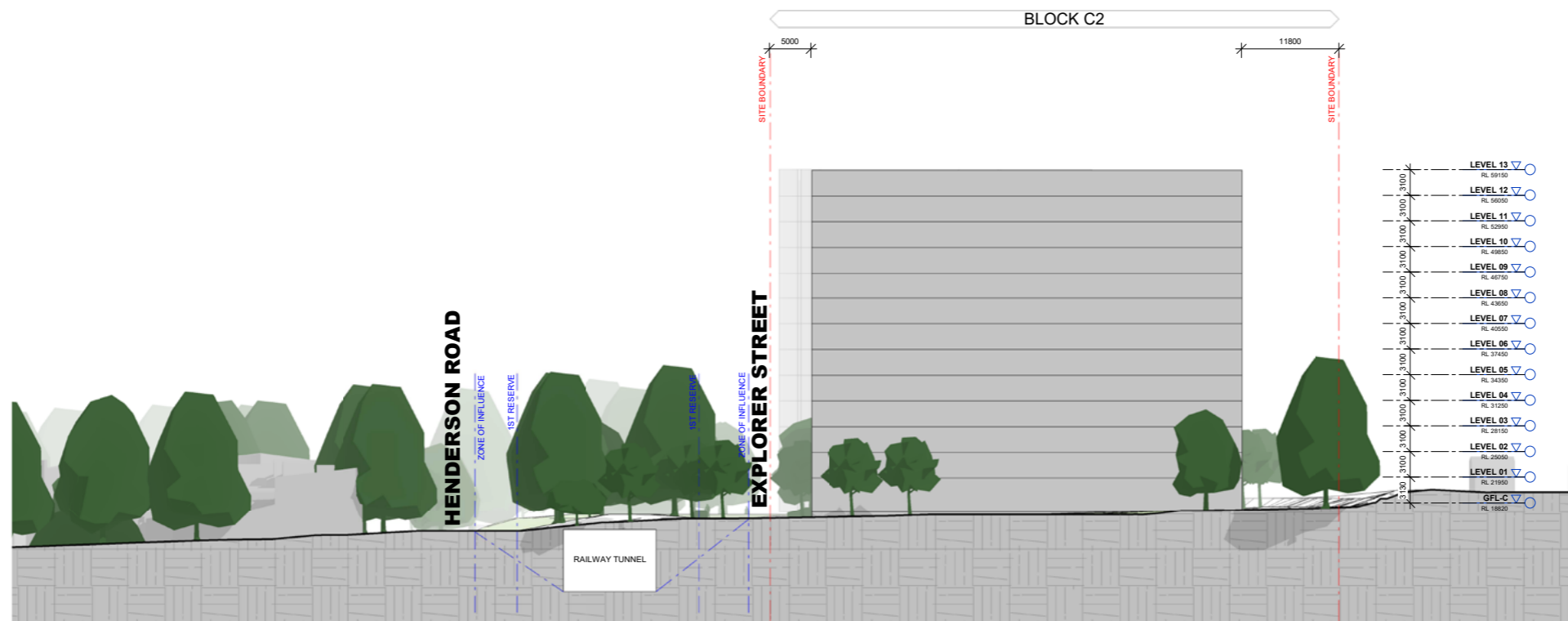
2 NORTH ELEVATION
SCALE 1 : 350

ARCHITECTURAL DESIGN PROPOSAL

SITE ELEVATIONS



1 EAST ELEVATION
SCALE 1 : 350



2 WEST ELEVATION
SCALE 1 : 350

ARCHITECTURAL DESIGN PROPOSAL

CROSS VENTILATION PLANS

- COMPLIANT CROSS VENTILATION
- NON-COMPLIANT CROSS VENTILATION



1 GFL - CROSS VENT



2 LEVEL 01 - CROSS VENT



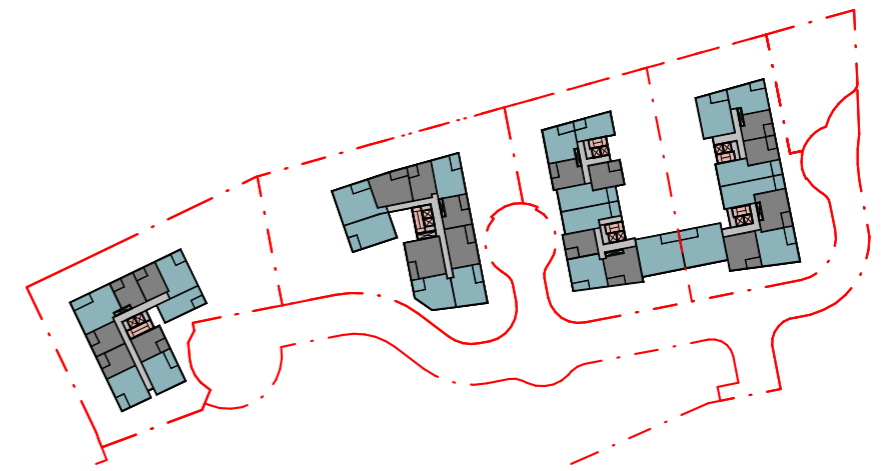
3 LEVEL 02 - CROSS VENT



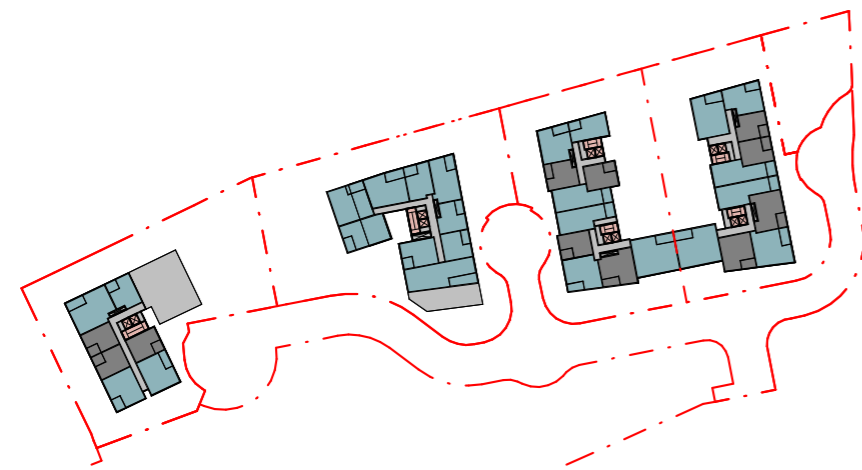
4 LEVEL 03 - CROSS VENT



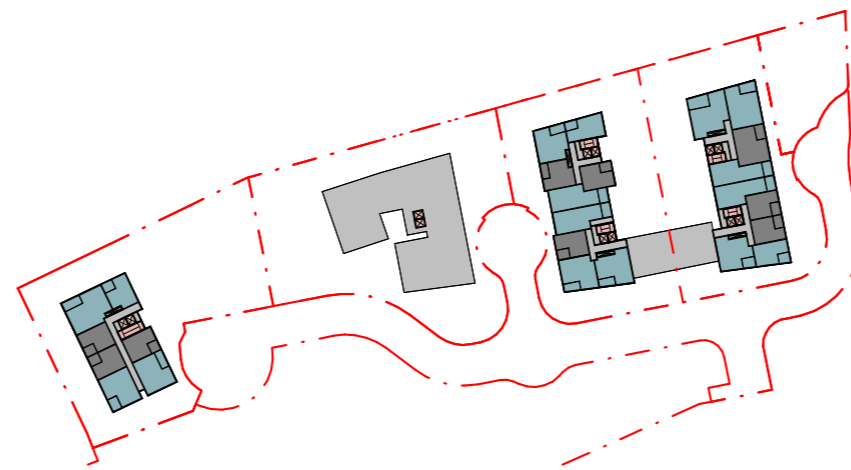
5 LEVEL 04 - CROSS VENT



6 LEVEL 05 - CROSS VENT



7 LEVEL 06 - CROSS VENT



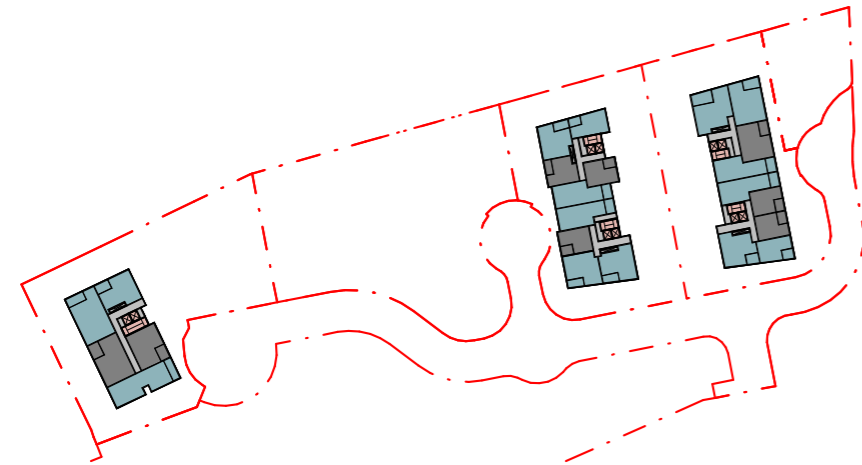
8 LEVEL 07 - CROSS VENT



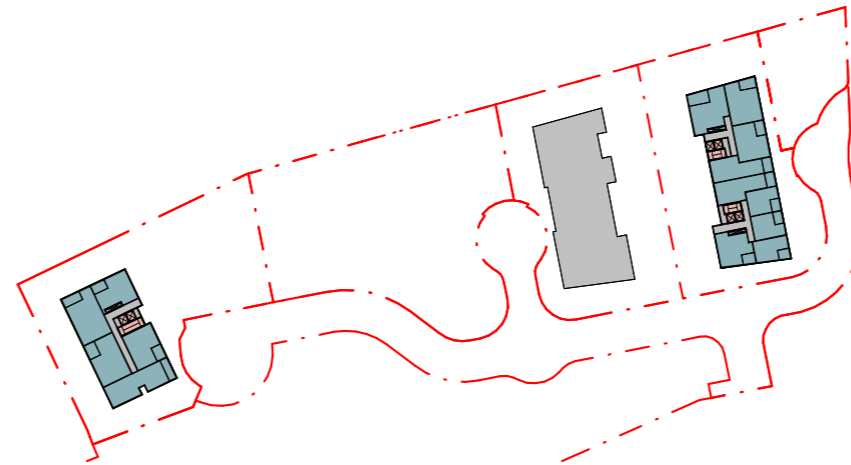
ARCHITECTURAL DESIGN PROPOSAL

CROSS VENTILATION PLANS

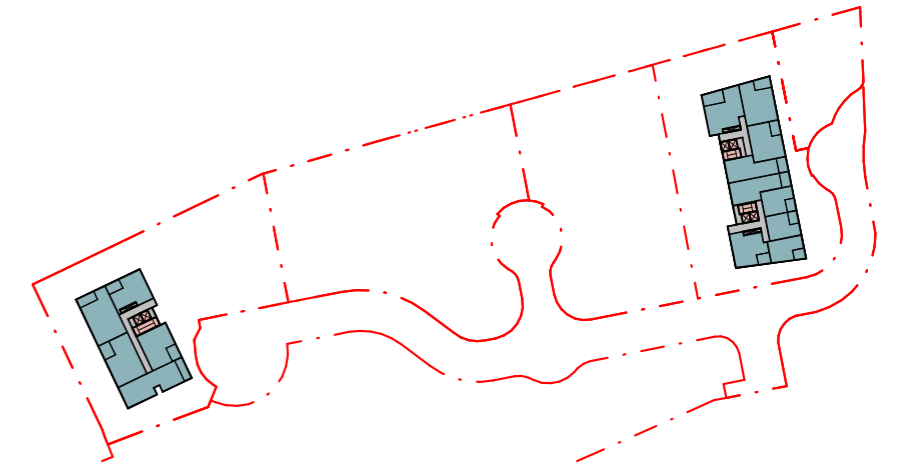
- COMPLIANT CROSS VENTILATION
- NON-COMPLIANT CROSS VENTILATION



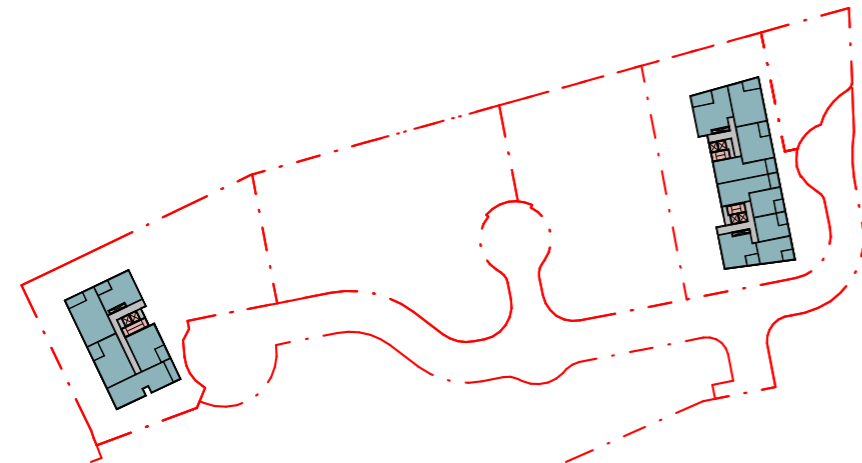
5 LEVEL 08 - CROSS VENT



1 LEVEL 09 - CROSS VENT
In accordance with the ADG cross ventilation is only counted in the first 9 levels.



2 LEVEL 10 - CROSS VENT



3 LEVEL 11 - CROSS VENT





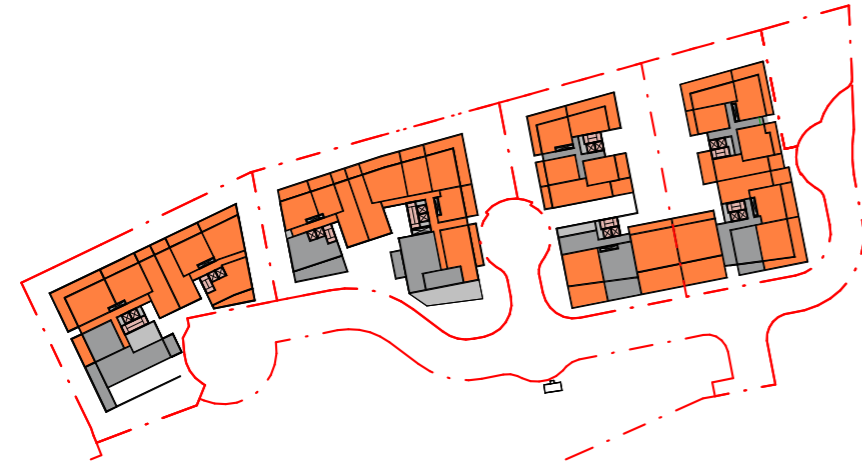
4 LEVEL 12 - CROSS VENT



ARCHITECTURAL DESIGN PROPOSAL

SOLAR ACCESS PLANS

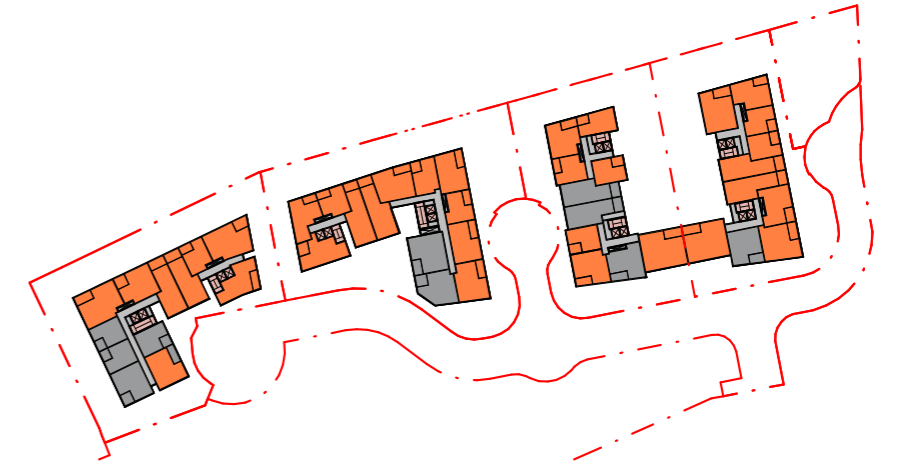
-  COMPLIANT SOLAR ACCESS
-  NON-COMPLIANT SOLAR ACCESS



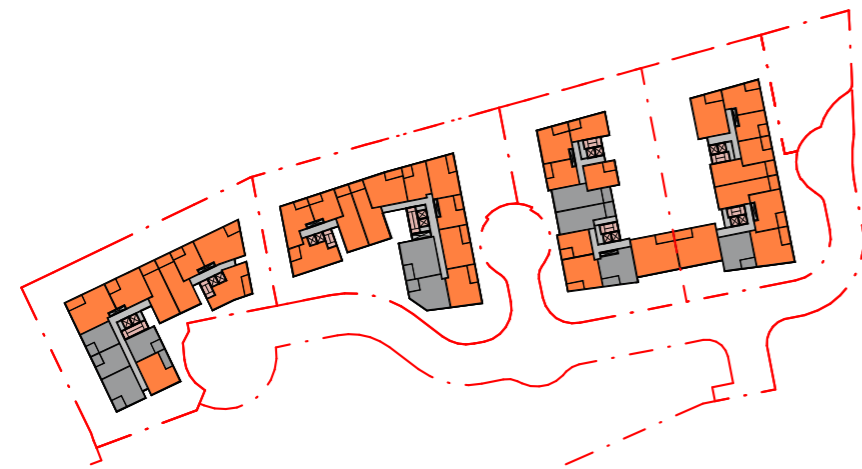
1 GFL - SOLAR PLAN



2 LEVEL 01 - SOLAR PLAN



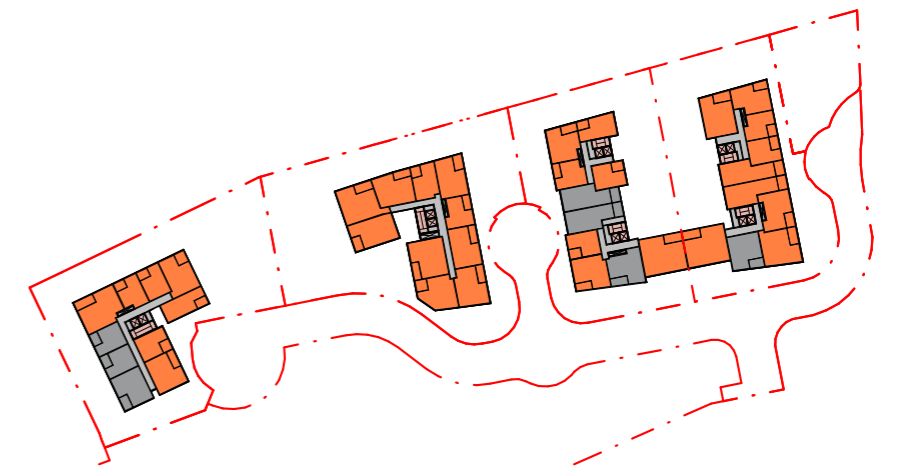
3 LEVEL 02 - SOLAR PLAN



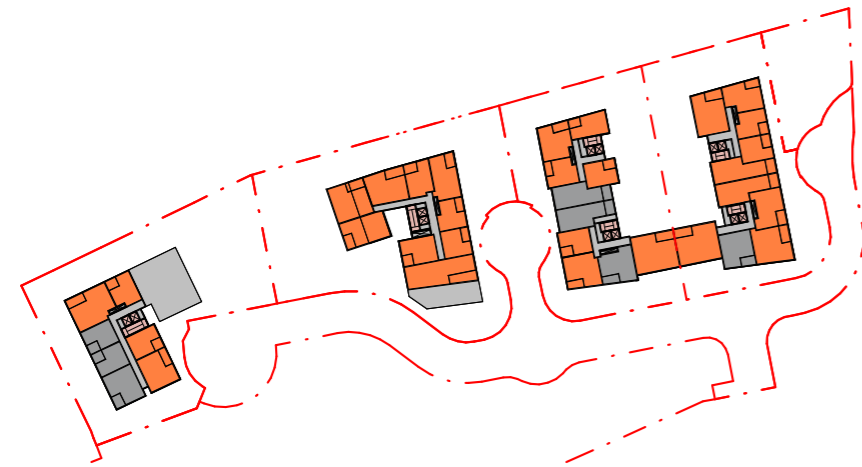
4 LEVEL 03 - SOLAR PLAN



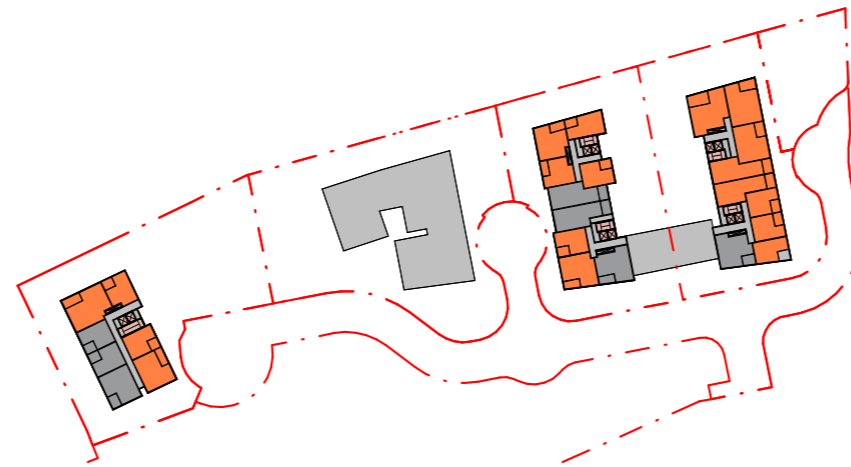
5 LEVEL 04 - SOLAR PLAN



6 LEVEL 05 - SOLAR PLAN



7 LEVEL 06 - SOLAR PLAN





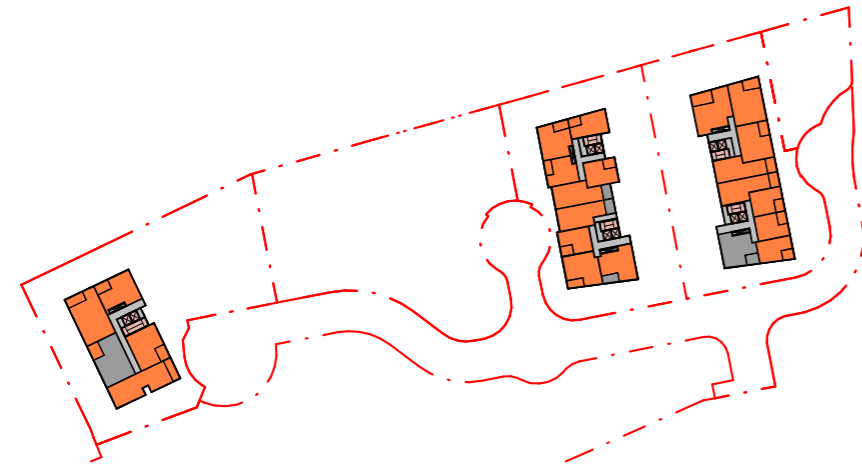
8 LEVEL 07 - SOLAR PLAN



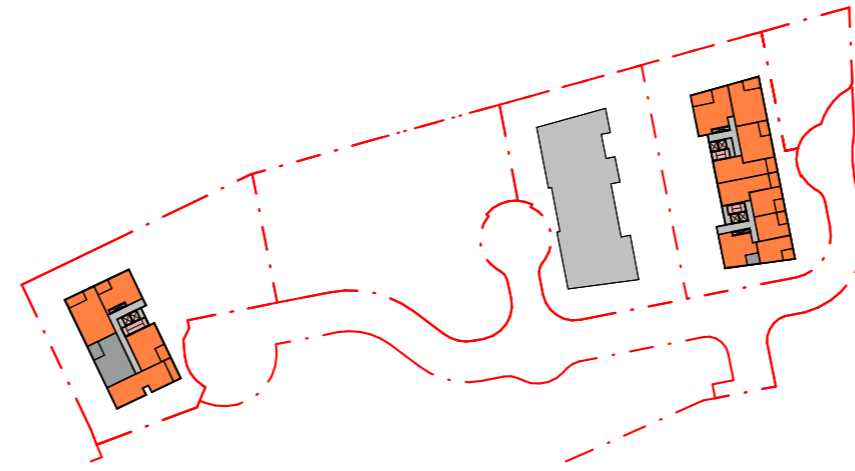
ARCHITECTURAL DESIGN PROPOSAL

SOLAR ACCESS PLANS

-  COMPLIANT SOLAR ACCESS
-  NON-COMPLIANT SOLAR ACCESS



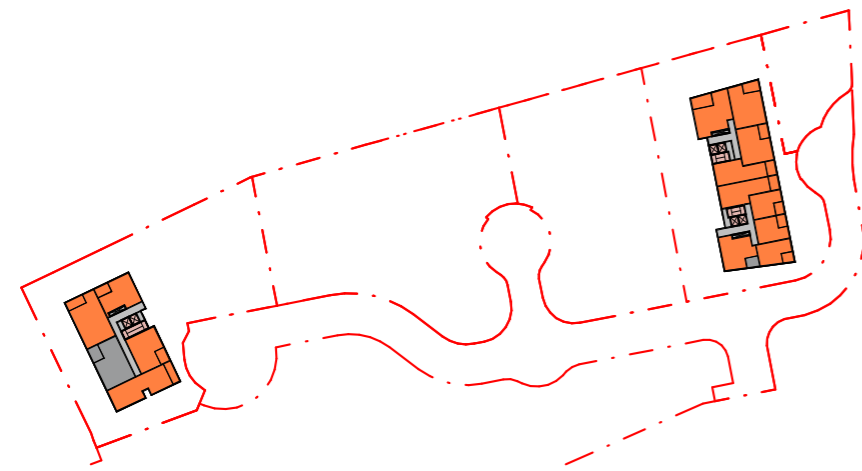
5 LEVEL 08 - SOLAR PLAN



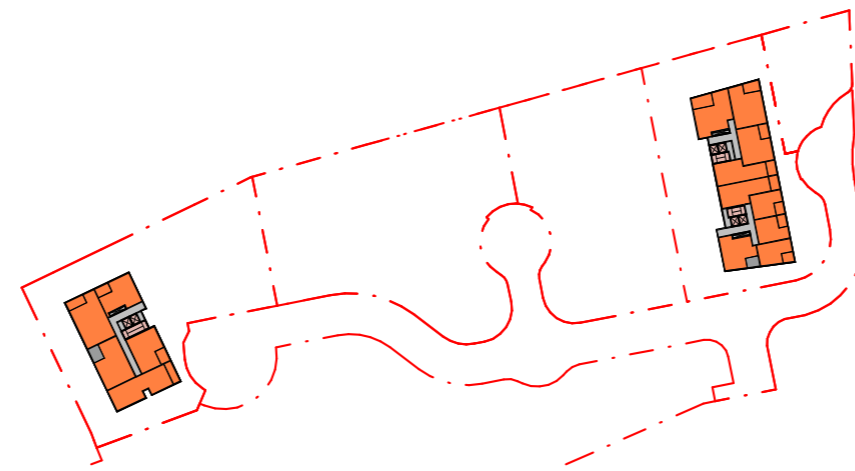
1 LEVEL 09 - SOLAR PLAN



2 LEVEL 10 - SOLAR PLAN



3 LEVEL 11 - SOLAR PLAN



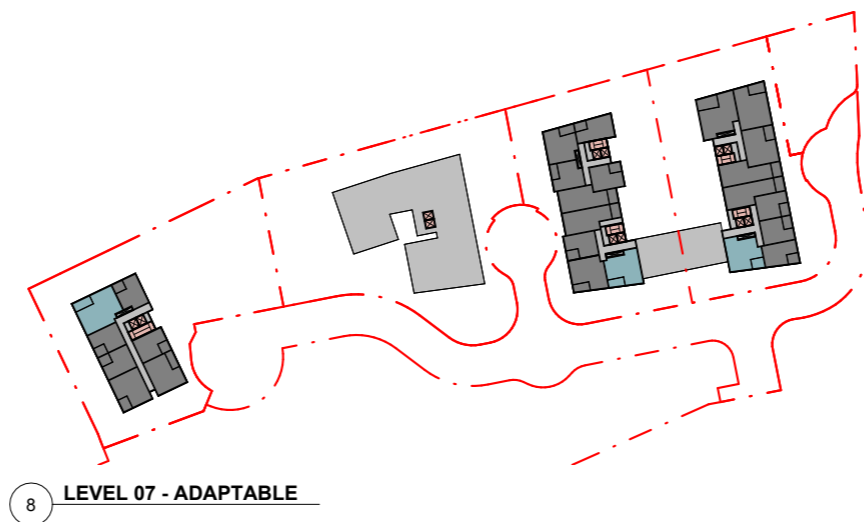
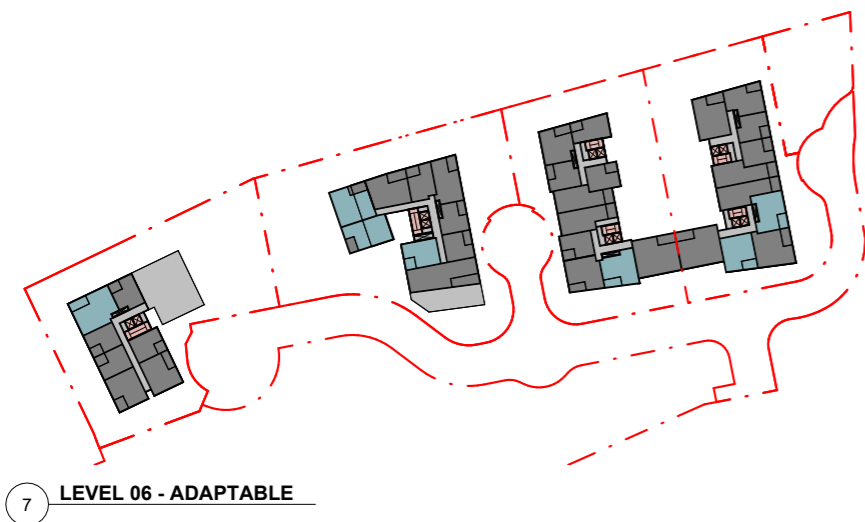
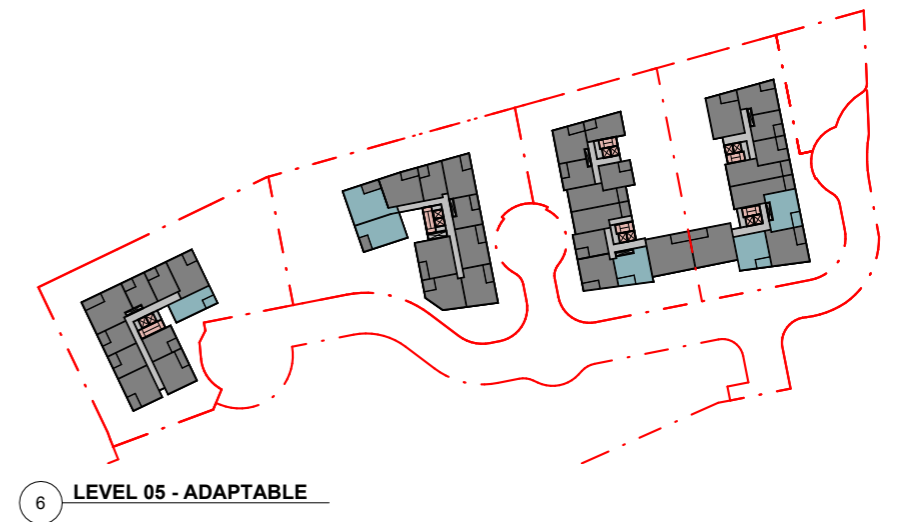
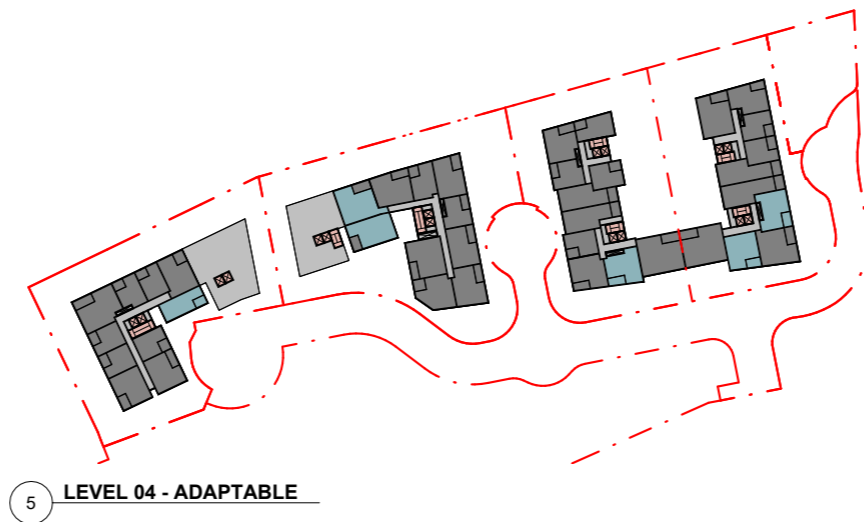
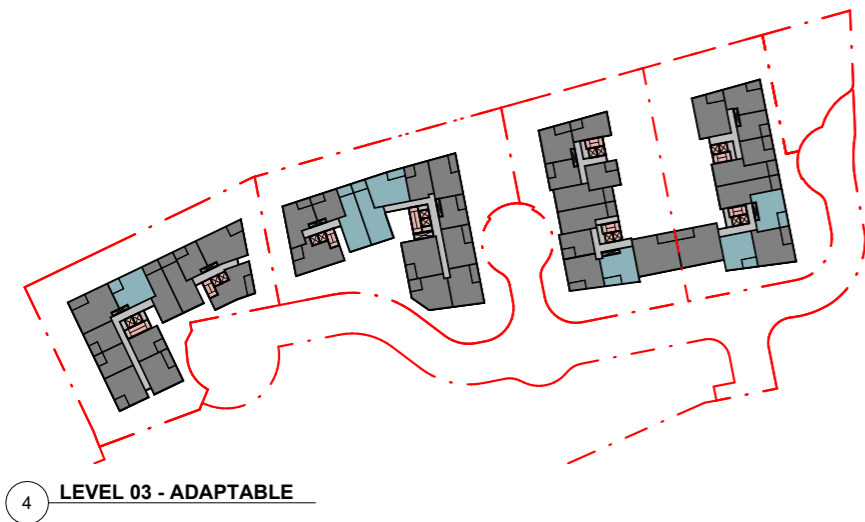
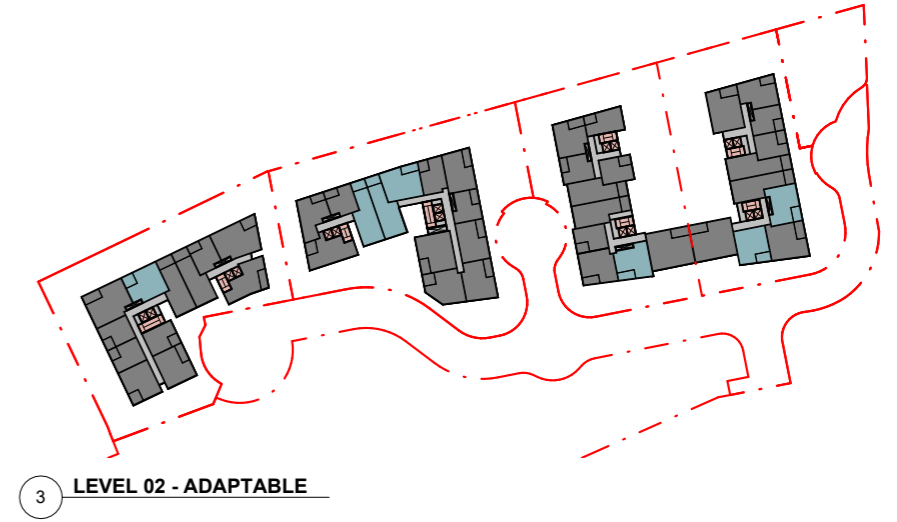
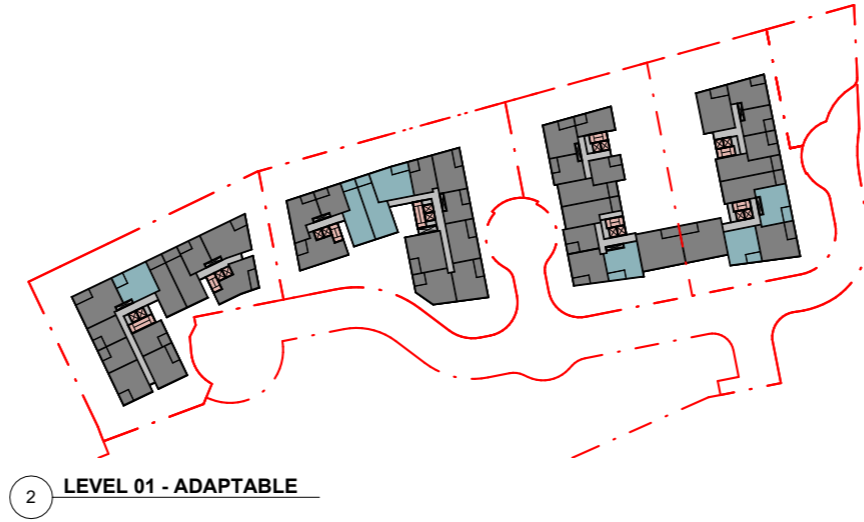
4 LEVEL 12 - SOLAR PLAN



ARCHITECTURAL DESIGN PROPOSAL

ADAPTABLE UNIT PLANS

- ADAPTABLE UNITS
- NON-ADAPTABLE UNITS



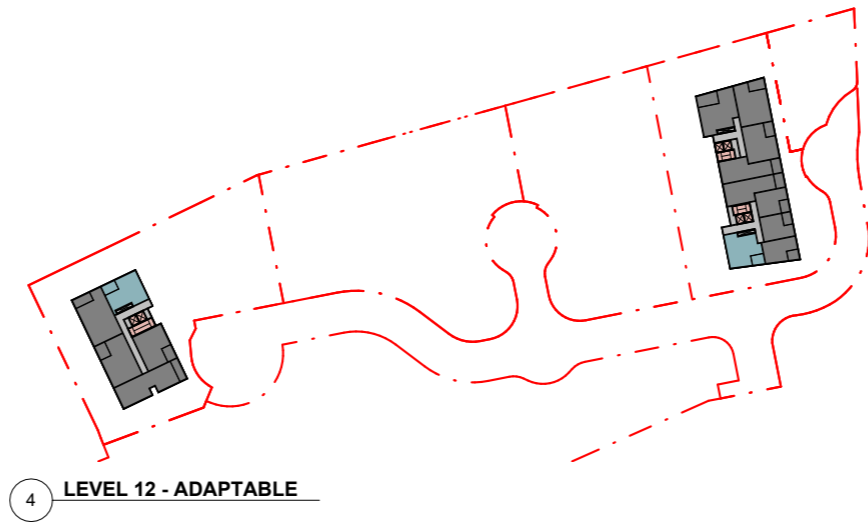
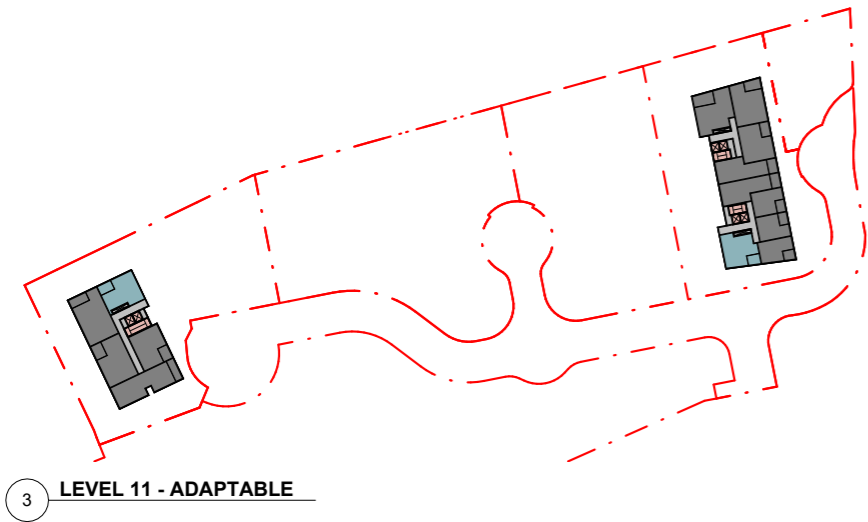
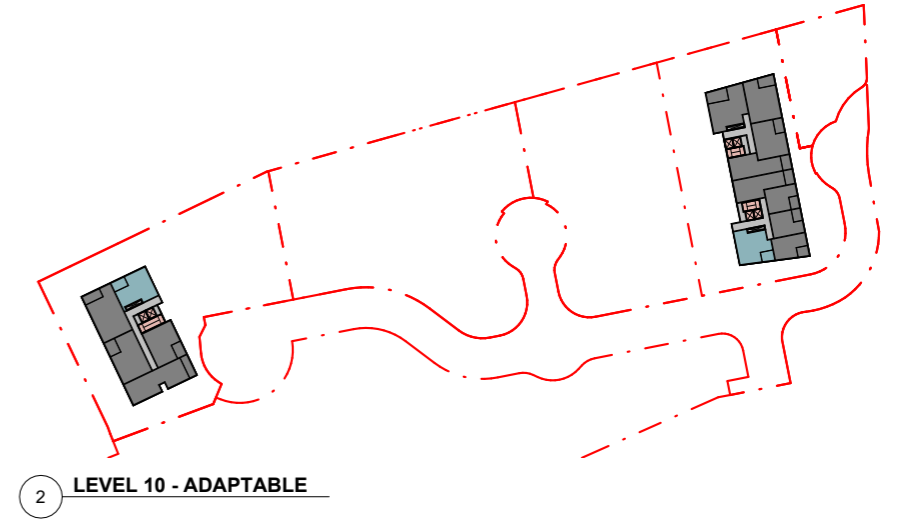
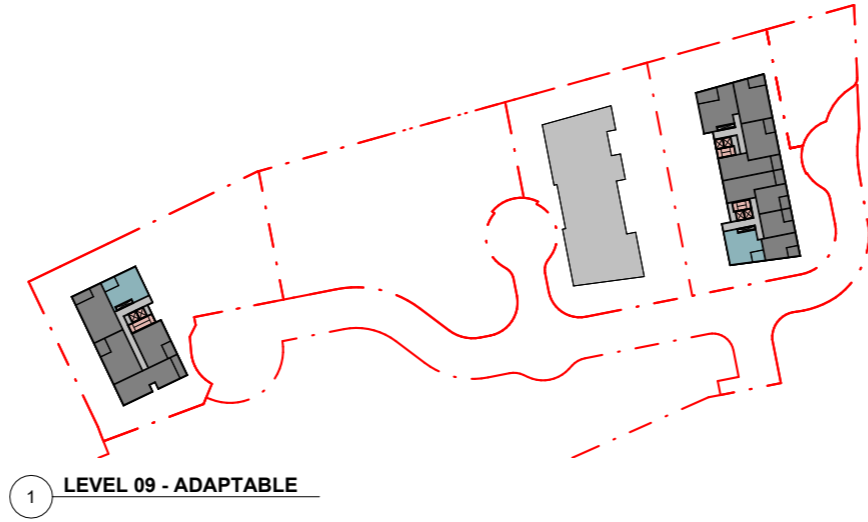
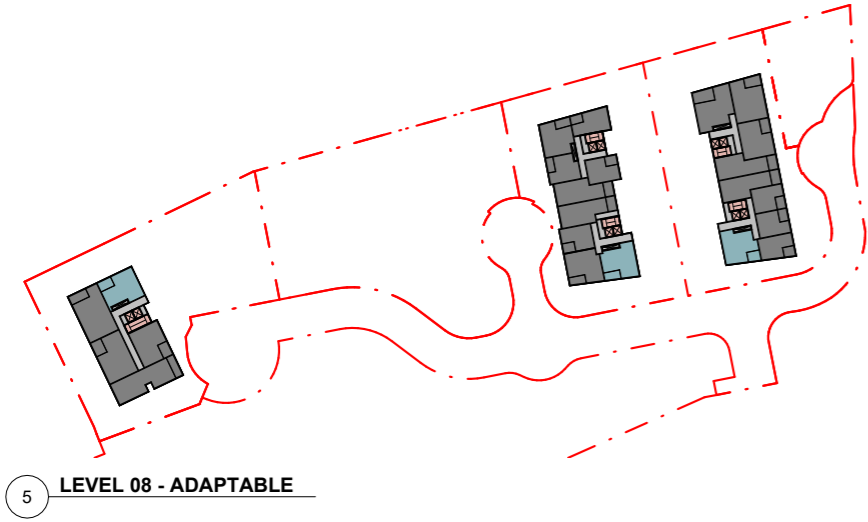
ADG ADAPTABLE		
BLOCK	YIELD	ADAPTABLE
BLOCK A	104	14
BLOCK B	79	20
BLOCK C1	86	10
BLOCK C2	124	19
TOTAL	393	63



ARCHITECTURAL DESIGN PROPOSAL

ADAPTABLE UNIT PLANS

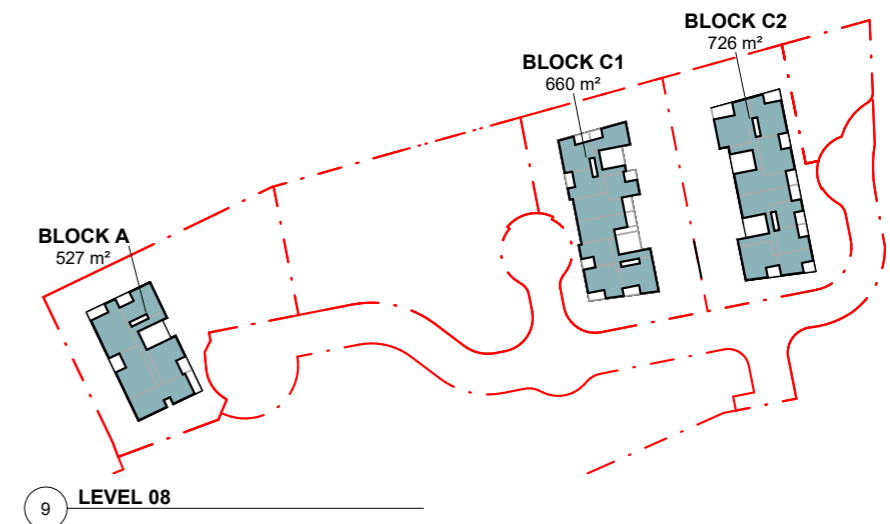
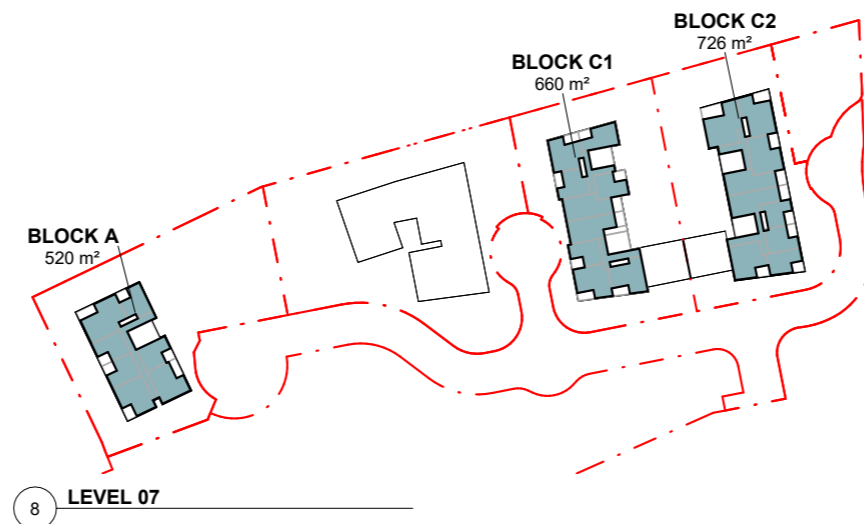
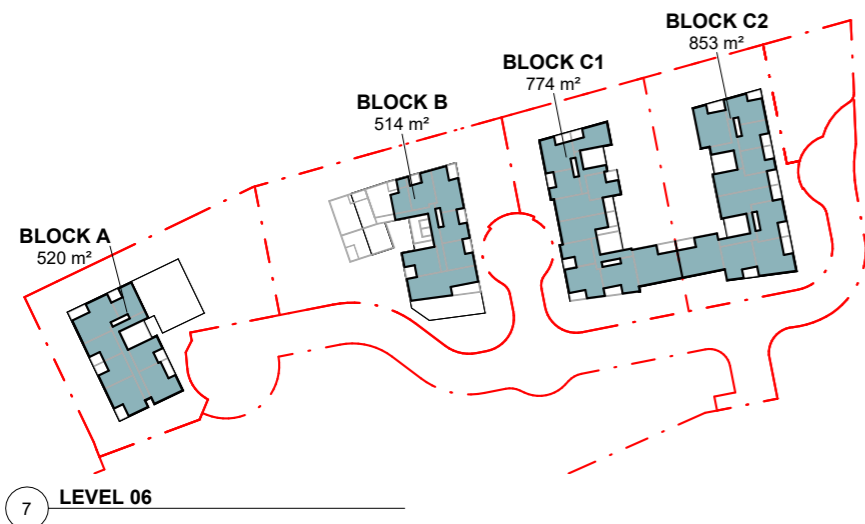
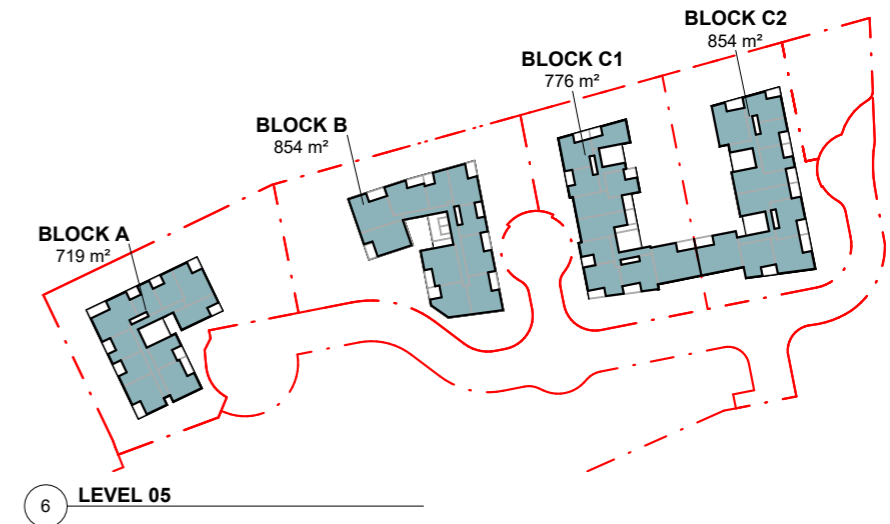
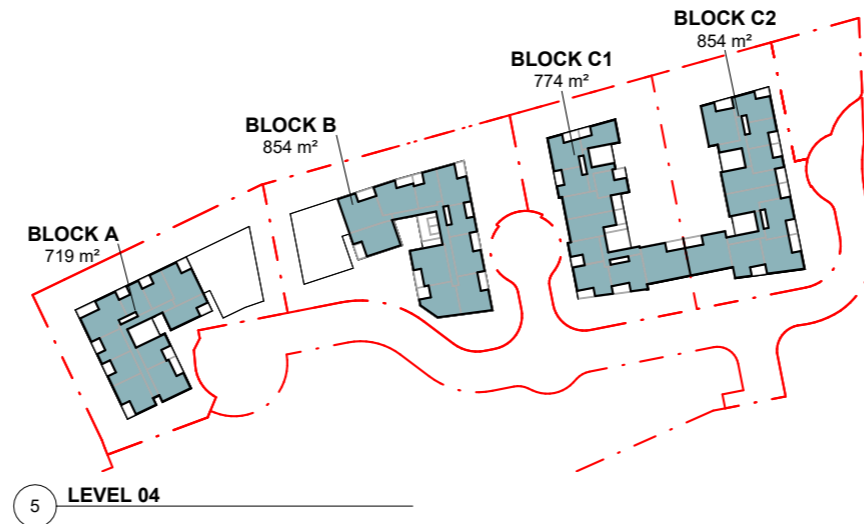
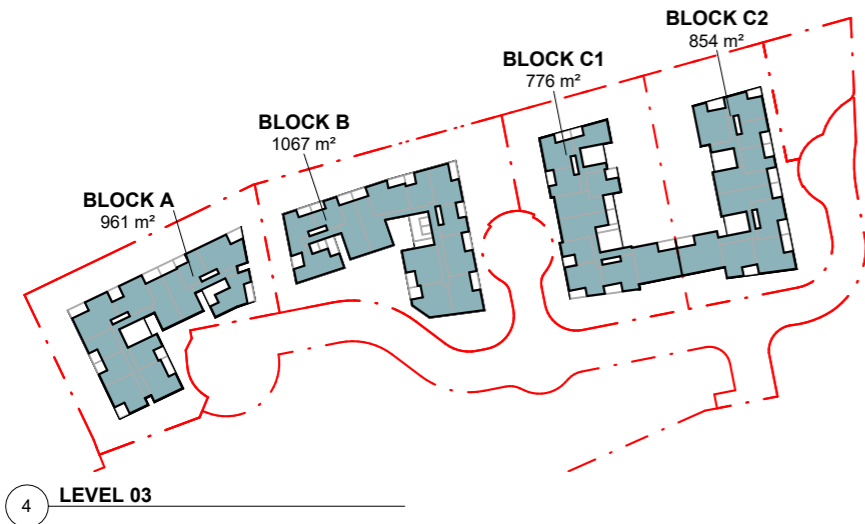
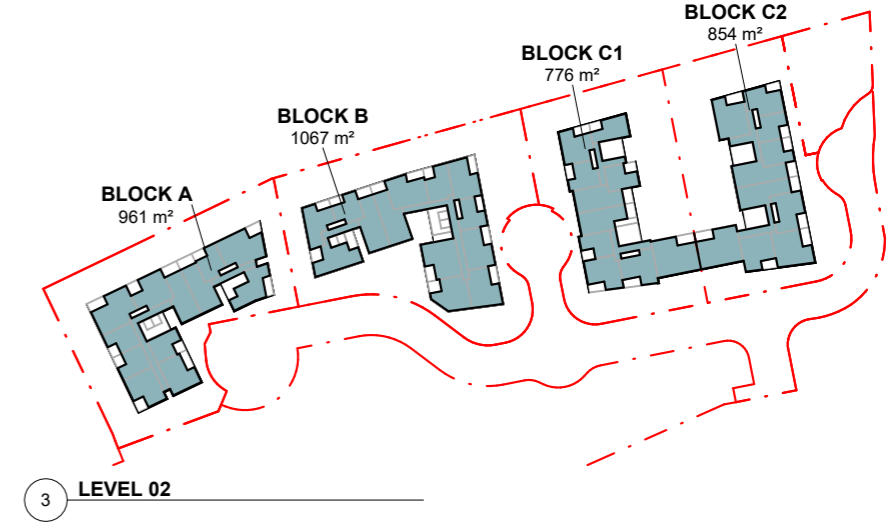
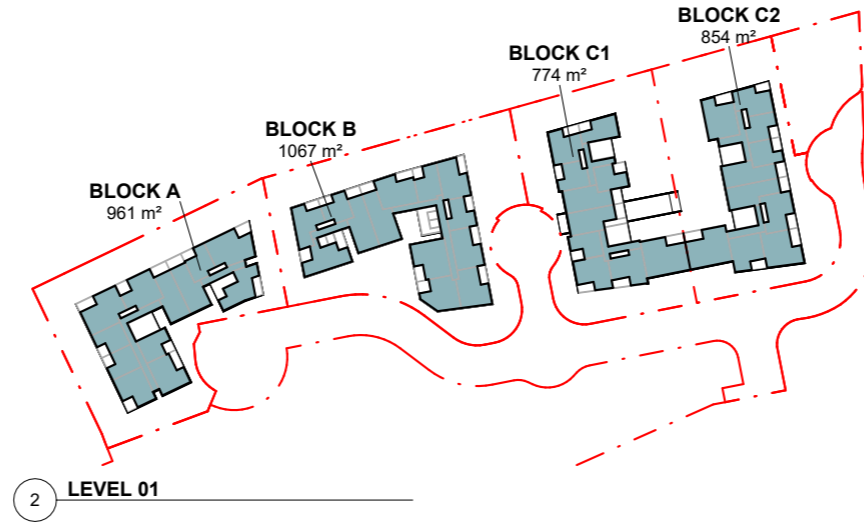
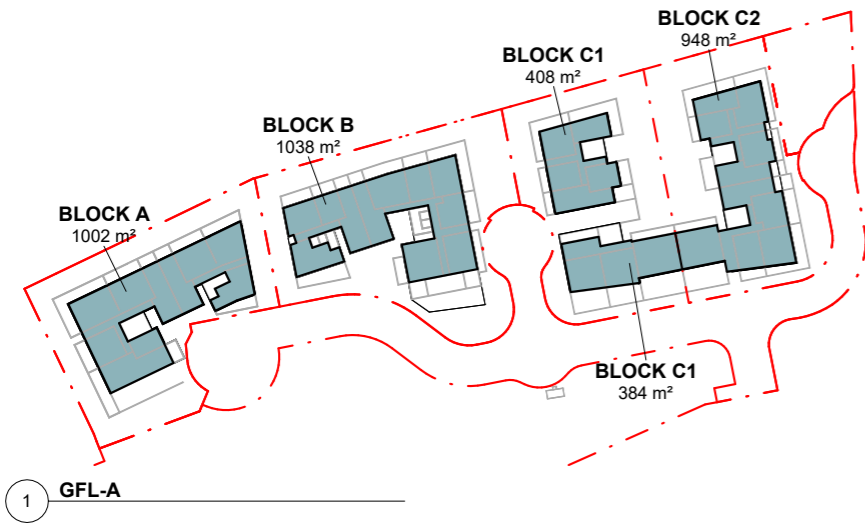
- ADAPTABLE UNITS
- NON-ADAPTABLE UNITS



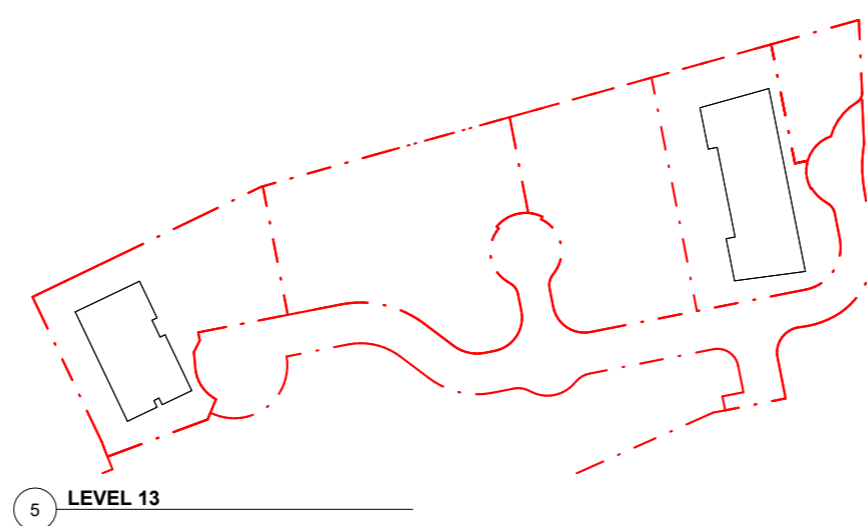
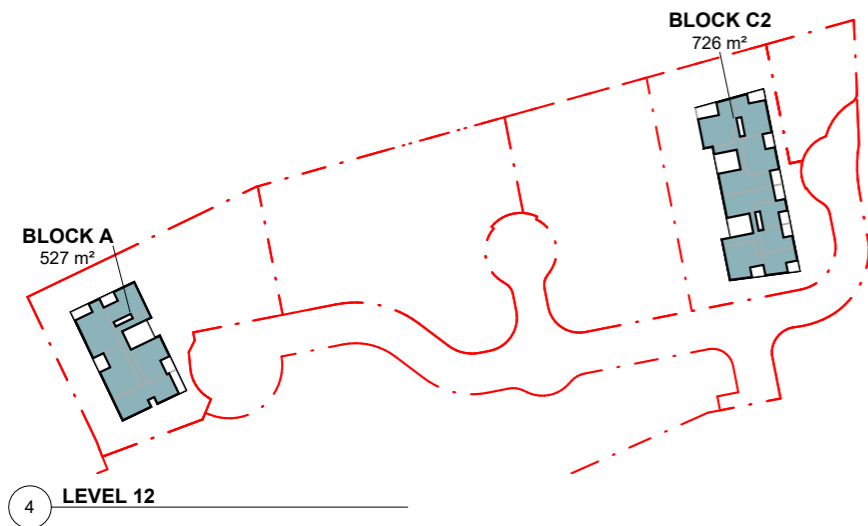
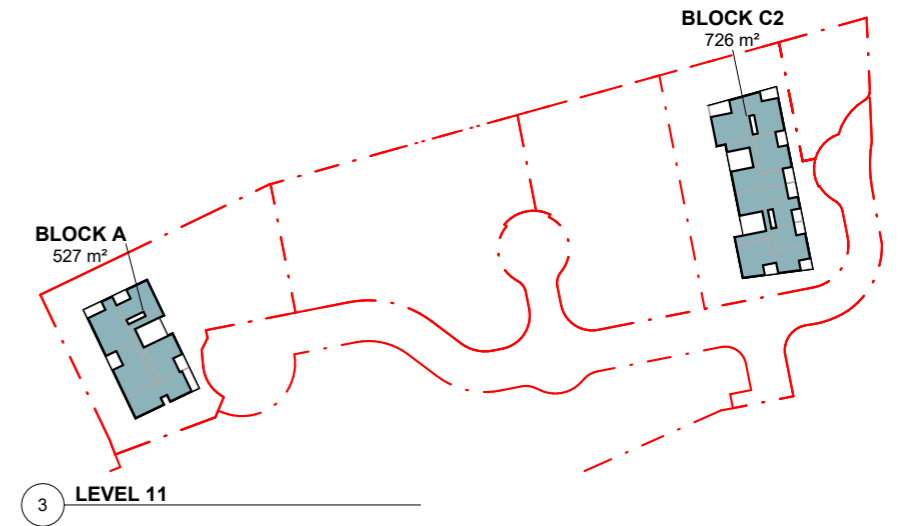
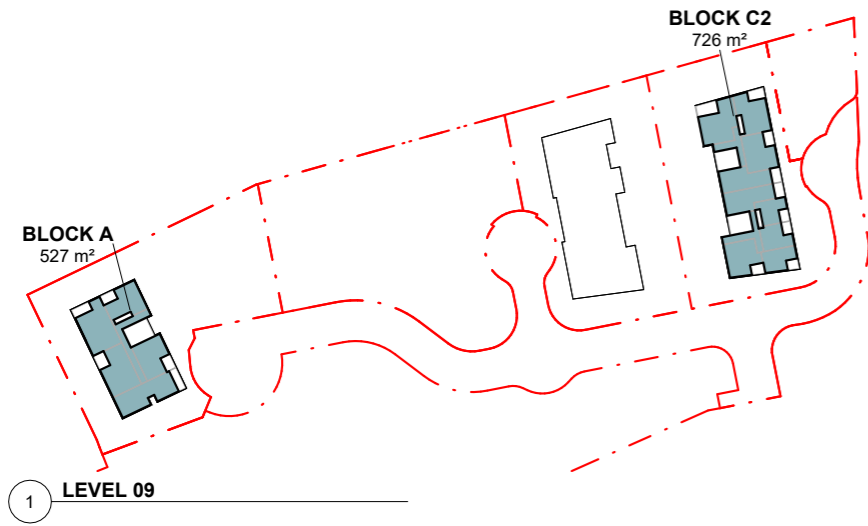
ADG ADAPTABLE		
BLOCK	YIELD	ADAPTABLE
BLOCK A	104	14
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BLOCK C2	124	19
TOTAL	393	63



ARCHITECTURAL DESIGN PROPOSAL
GFA PLANS



ARCHITECTURAL DESIGN PROPOSAL
GFA PLANS



AREA SCHEFULE (GFA)	
NAME	AREA
BLOCK A	8998.14 m ²
BLOCK B	6462.50 m ²
BLOCK C1	6761.15 m ²
BLOCK C2	10428.80 m ²
TOTAL	32650.58 m ²





Block B Split

This appendix outlines the process and motivation for a design change to the architectural reference scheme included herein.

The architectural reference scheme underwent several changes over the course of its design and development resulting in a total of seven different options. These options were driven by comments and recommendations from a series of sources including but not limited to consultants from the design team, the NSW Department of Planning, the Land and House Corporation and representatives from the City of Sydney. All seven of the options mentioned above intended for the site to be split into 3 blocks, namely blocks A,B and C.

Prior to Workshop 3, the blocks were requested to be split in order to provide flexibility of scale and yield distribution for future developments on the site. Block B was split into Blocks B1, B2 while Block C was split into Blocks C1 and C2.

Subsequent testing revealed that the split created a non-compliance for block B2, which could not achieve the minimum required cross-ventilation percentage called for by the ADG. The ADG requires a minimum of 60% whereas block B2 only achieved 51%. The retention of block b in its single form, achieved 63% cross-ventilation in the reference scheme. 3% Above the minimum requirement of the ADG.

Block B is also the smallest of the 3 blocks and if split, will result in an approximate yield of 16 apartments for B1 and 61 for B2, totalling 77 apartments. The amalgamated total yield will be 79 as the apartment layouts are no longer confined by the additional internal boundary that divided the block.

It is therefore recommended that Block B is maintained as a singular unit.

wmkarchitecture.com

WMK Architecture Pty Limited
ABN 25 082 956 929

The Atrium 9 Castlereagh Street
Sydney NSW 2000
Telephone 02 9299 0401

L3 95 Queen Street
Melbourne VIC 3000
Telephone 03 9999 1610

L4 168 Edward Street
Brisbane QLD 4000
Telephone 07 3177 1067

