



MANCHESTER ROAD PLANNING PROPOSAL URBAN DESIGN REPORT

Manchester Road, AUBURN. Prepared for: PAYCE 11.12.2017

PTW



THIS REPORT PRESENTS A DETAILED URBAN DESIGN ANALYSIS FOR THE MANCHESTER ROAD PLANNING PROPOSAL at Manchester Road, Auburn.

The Manchester Road masterplan offers an opportunity to create a new employment, residential and mixed-use community with a focus on improved public open spaces and community uses.



CONTENTS

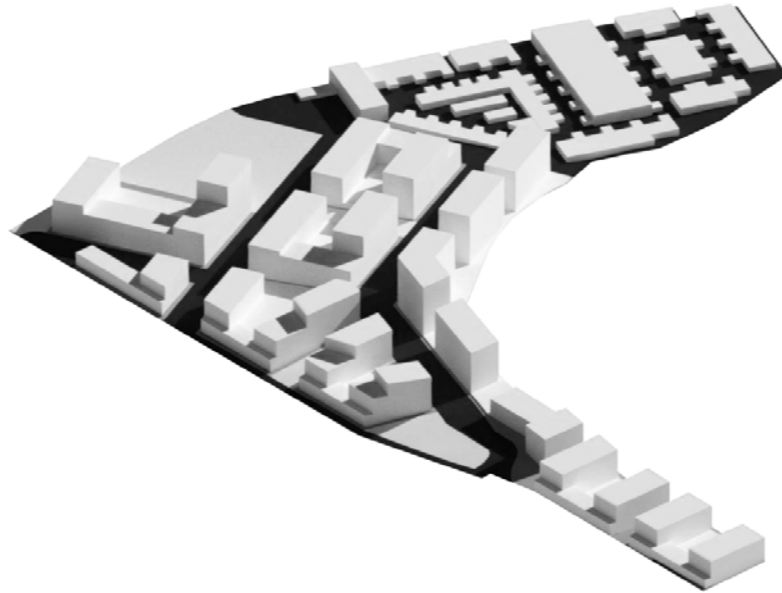
EXECUTIVE SUMMARY	04		
INTRODUCTION	05		
1.0 URBAN CONTEXT		4.0 LANDSCAPE STRATEGY	
1.1 Regional Urban Character	08	4.1 Urban Context	52
1.2 Local Urban Character	09	4.2 Duck River Rehabilitation	53
1.3 Topography	10	4.3 Public Domain Concept	54
1.4 Regional Access Pattern	11	4.4 Proposed Landscape Plan	55
1.5 Open Space Linkages	12	4.5 Sections	56
1.6 Existing Land Uses	13	4.6 Main Boulevard	57
1.7 The Site	14	4.7 The Duck River Riparian Park	58
1.8 Urban Structure of the Site	15	4.8 Linear Parks and Deep Soil	59
		4.9 Public-Private Delineation	60
2.0 SITE OPPORTUNITIES		4.10 Community Open Space and Deep Soil	61
2.1 Site Scale	18		
2.2 New Uses	20	5.0 AMENITY	
2.3 Delivering Significant Community Open Space	21	5.1 Setbacks and Alignments	64
2.4 New Pedestrian and Vehicle Linkages	22	5.2 Solar Access	65
2.5 View Opportunity and Built Form Strategy	23	5.3 Cross Ventilation	66
		5.4 Accessibility: Pedestrian and Bicycle Connection	67
3.0 MANCHESTER ROAD MASTERPLAN		5.5 Vehicle Parking	68
3.1 Vision	26	5.6 Views	69
3.2 Masterplan Principles	28		
3.3 Land Uses	30	APPENDICES	
3.4 Access Structure and Urban Framework - Residential Neighborhood	32	01 Residential Precinct - FSR, Unit Mix	72
3.5 Access Structure and Urban Framework - Employment Uses	34	02 Open Space	73
3.6 Landscape and Open Space	36	03 Employment Precinct - FSR, Units, Vehicle Spaces	74
3.7 Building Height and Proposed Built Form - Residential Neighborhood	38	04 Typical Floor Plans	76
3.8 Urban Address, Vehicle Entries and On-site Parking	40	05 Sections	88
3.9 Staging	42	06 Manchester Road Precinct Now & Future	90
3.10 Public Benefit	44		
3.11 Development Yield - Residential Precinct	46		
3.12 Development Yield - Employment Precinct	48		

EXECUTIVE SUMMARY

Informing this Urban Design Report in support for potential redevelopment at Manchester Road, Auburn is the analysis of the site and its surrounding urban context, both at the regional and local scales. Under this Report, supporting a Planning Proposal, consideration has been given to the likely changes to the area in regard to new employment and residential densities and the likely need for improved public open space amenity.

The proposed redevelopment of the subject site will address the following:

- Recognise the urban transformation of the area including a need for new types of employment;
- Accommodate a range of residential types, including affordable housing;
- Recognise the urban transformation of the area including a need for new types of employment;
- Acknowledge the local landscape character of the area, defined by Duck River to the west and heavy industrial rail uses to the east;
- Integrate new development with a new parkland structure as a community focus within an evolving mixed-use employment neighborhood;
- Provide new publicly accessible pedestrian pathways across the subject site;
- Consider a range of local uses that will activate the public domain;
- Introduce a modulated skyline, consisting low rise street edge aligned envelopes towards the southern edges of the site with taller built form envelopes towards the east; and
- Consider how passive surveillance and safety in design are an important component in the creation of an enhanced mixed-used community.



INTRODUCTION

This Urban Design Report supports the Planning Proposal for a site off Manchester Road, Auburn. Located to the east of Duck River on land with a previous heavy industrial land use, this site is within an area that is currently undergoing a process of urban transformation. Currently characterised by industrial employment uses to the north and adjoining low density residential uses to the south, the urban transformation of the area will see new types of employment in association with higher residential densities in the vicinity of existing railway stations.

The following Report considers the opportunity for rejuvenation of this large land holding and unique precinct. An understanding of this urban transformation is presented here in terms of an appreciation of the site and its surrounding urban context at a regional and local level.



PROPOSED MASTERPLAN
EMPLOYMENT, RESIDENTIAL AND PUBLIC SPACE AREAS
ARE COMBINED TO PROVIDE A MIXED USE NEIGHBORHOOD



1.0 URBAN CONTEXT

PROPOSED MASTERPLAN

VIEW FROM THE PARK TOWARDS THE TOWN CENTRE, A NEW ACTIVATED ZONE
ALONG THE REVAMPED DUCK RIVER ZONE



1.0 URBAN CONTEXT

This 14.12 hectare consolidated land holding provides an opportunity for redevelopment within an area undergoing urban transformation. The following analysis confirms the existing urban context, thus enabling an understanding of the future desired urban character of the precinct.

1.1 REGIONAL URBAN CHARACTER

The subject site is located within in close proximity to Clyde and Auburn Railway Stations. The site is currently edged by local residential streets to the south and heavy rail industrial uses to the north and east. With existing residential uses south of the site spatially defined by Manchester Road, the site is edged by Duck River to the west.

The existing urban context surrounding the subject site to the south and west is currently characterised by an open pattern of low rise free-standing dwellings. The street pattern to the south and west of the site has changed little since the late 1940s.

 SITE



Aerial, c. 1945



Aerial, c. 2017



1.0 URBAN CONTEXT

1.2 LOCAL URBAN CHARACTER



1.0 URBAN CONTEXT

1.3 TOPOGRAPHY

The immediate ground of the site and its adjoining landscapes are characterised by relatively flat ground. The street pattern of the adjoining urban landscape is dominated by a street grid system set out on gently undulating ground.

The masterplan accommodates a change in level across the site; with the highest section of the site located along the eastern boundary.

Due to the low lying nature of the area, parts of Duck River is impacted by potential flooding north of the subject site.

A Probable Maximum Flood (PMF) analysis, as prepared by Northrop Consulting Engineers, indicates that the site is a Low Flood Risk Precinct. With this in mind the masterplan provides flood evacuation measures on the extreme occurrence of flooding. This is demonstrated in the way the roadway structure, being elevated in section, can provide evacuation opportunity and/or become a safe haven.

 SITE



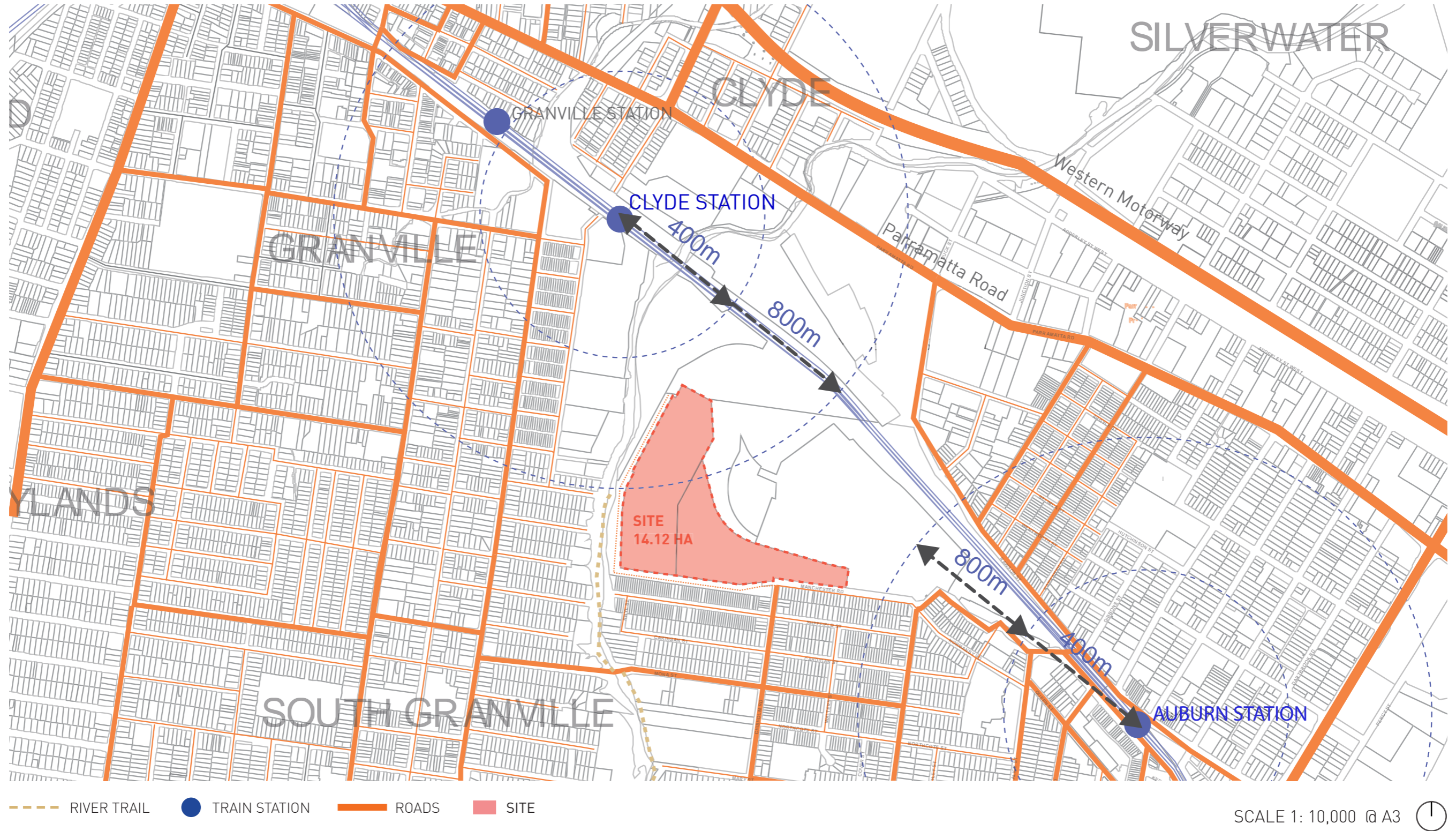
 PMF MAPPING EXTENT  FLOOD FRINGE  FLOOD STORAGE  FLOOD WAY



1.0 URBAN CONTEXT

1.4 REGIONAL ACCESS PATTERN

The access pattern of the area is currently dominated by a local east-west aligned roadway pattern. The primary address to the site is off Manchester Road. A private road, adjacent to this entry point, provides access to an existing employment area located north of the site. The significance of the site is demonstrated by its proximity to Auburn and Clyde Railway Stations.



1.0 URBAN CONTEXT

1.5 OPEN SPACE LINKAGES

The area has limited open space provision other than a mixture of pocket parks and a narrow and linear open space zone along Duck River. Interestingly Auburn Botanic Gardens is located south of the site to the immediate east of Duck River.



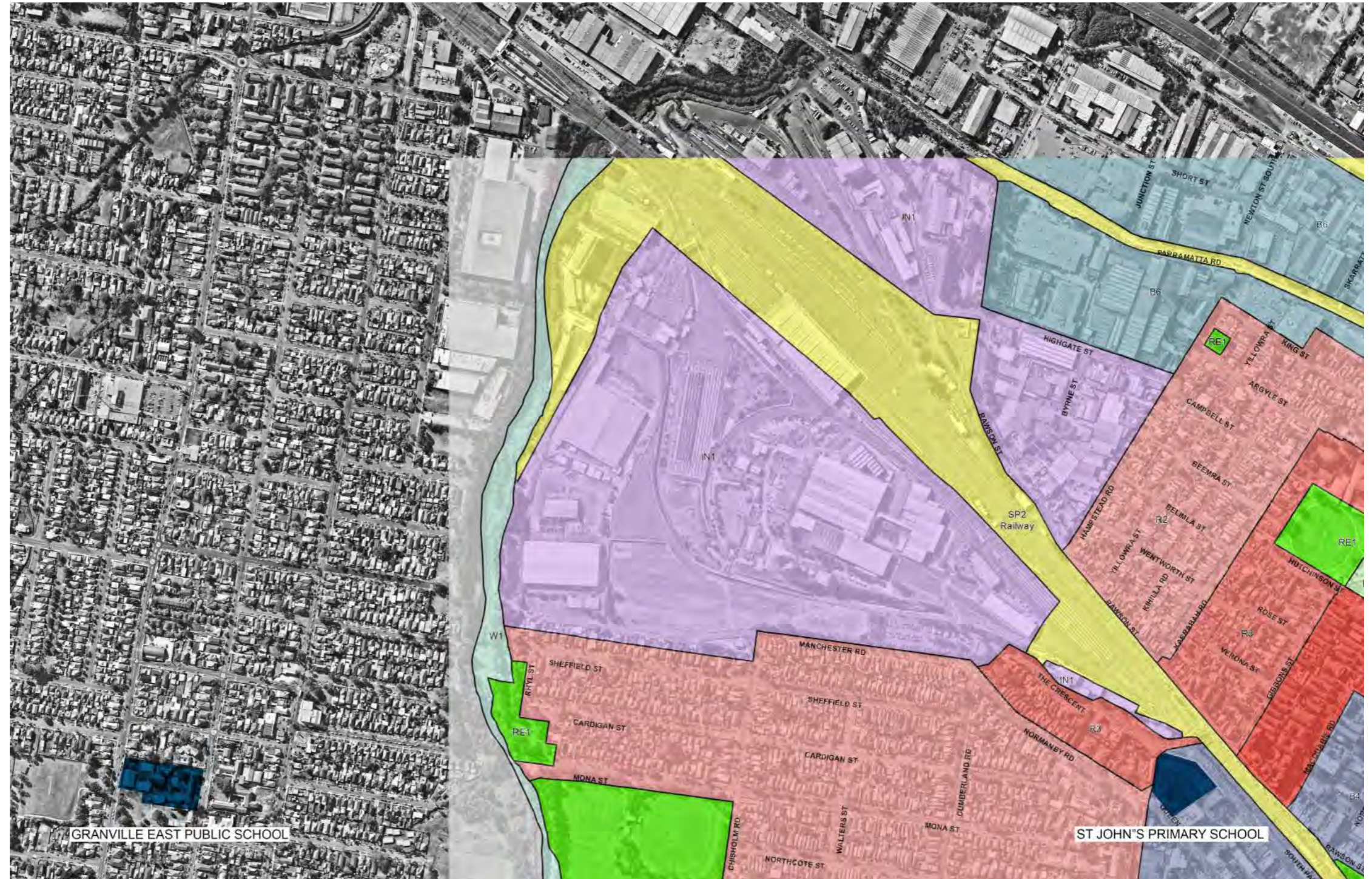
1.0 URBAN CONTEXT

1.6 EXISTING LAND USES

The existing land use pattern surrounding the site confirm a predominance of residential uses. The area parallel to the railway line predominately has employment uses. Auburn is the closest town centre and is located east of the site.

Zone

- B1 Neighbourhood Centre
- B2 Local Centre
- B4 Mixed Use
- B6 Enterprise Corridor
- B7 Business Park
- E2 Environmental Conservation
- IN1 General Industrial
- IN2 Light Industrial
- R2 Low Density Residential
- R3 Medium Density Residential
- R4 High Density Residential
- RE1 Public Recreation
- RE2 Private Recreation
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- DM Deferred Matter
- MD SEPP (Major Development) 2005



1.0 URBAN CONTEXT

1.7 THE SITE

The adjacent existing land uses and urban elements are noted as follows:

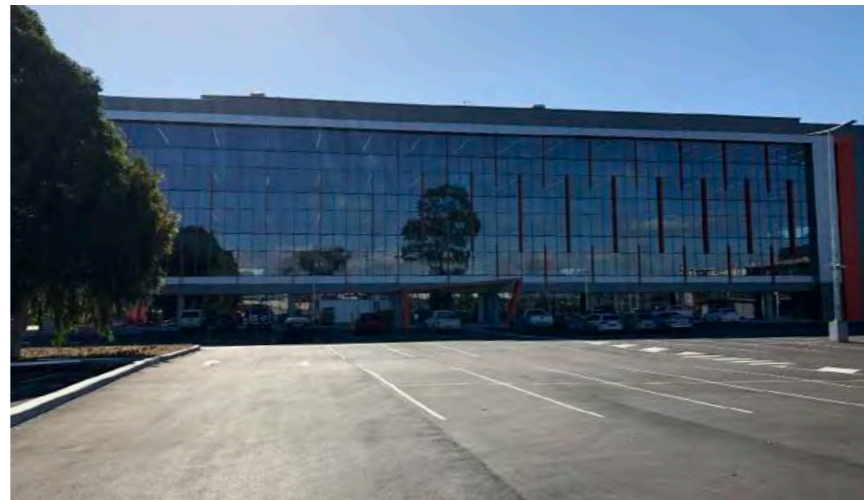
- 1 Adjacent industrial railway uses;
- 2 Noise wall separating the Site from adjacent heavy industrial railway uses;
- 3 The new Sydney Trains Hub building;
- 4 A landscape strip separating the Site from adjoining residential uses; and
- 5 A landscape buffer parallel to Duck Creek open space reserve.



1. VIEW OF THE CLYDE MARSHALLING YARDS



2. VIEW OF THE WALL CROSSING THE SITE



3. ADJACENT SYDNEY TRAINS "THE HUB"



4. MANCHESTER ROAD



5. DUCK RIVER FROM MANCHESTER ROAD

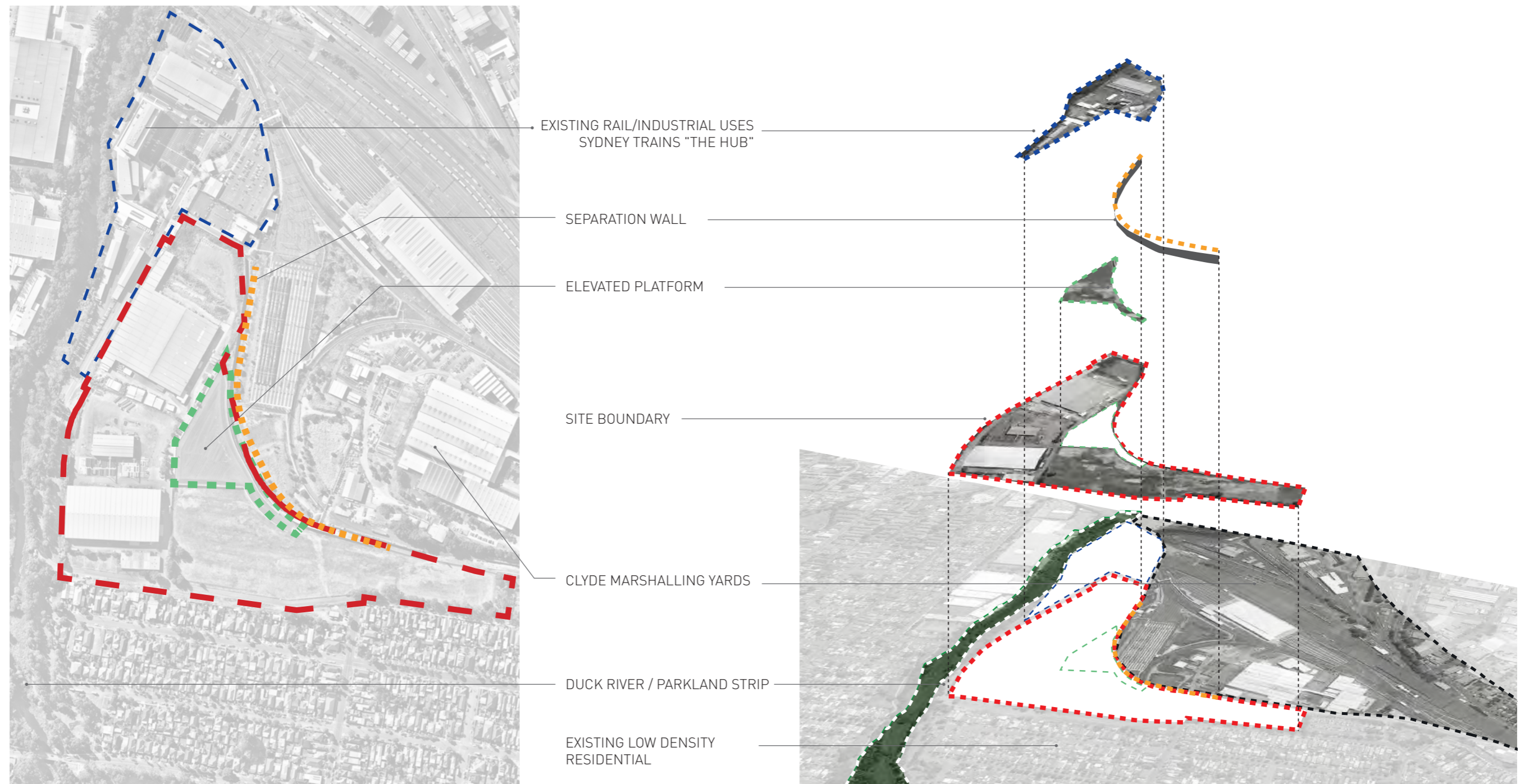


6. VIEW OF THE ELEVATED PLATFORM

1.0 URBAN CONTEXT

1.8 URBAN STRUCTURE OF THE SITE

The proposed Manchester Road Masterplan is created by the following key features:



2.0 SITE OPPORTUNITIES

PROPOSED MASTERPLAN

VIEW FROM THE PROPOSED BOULEVARD TOWARDS THE PARK AND EMPLOYMENT ZONE



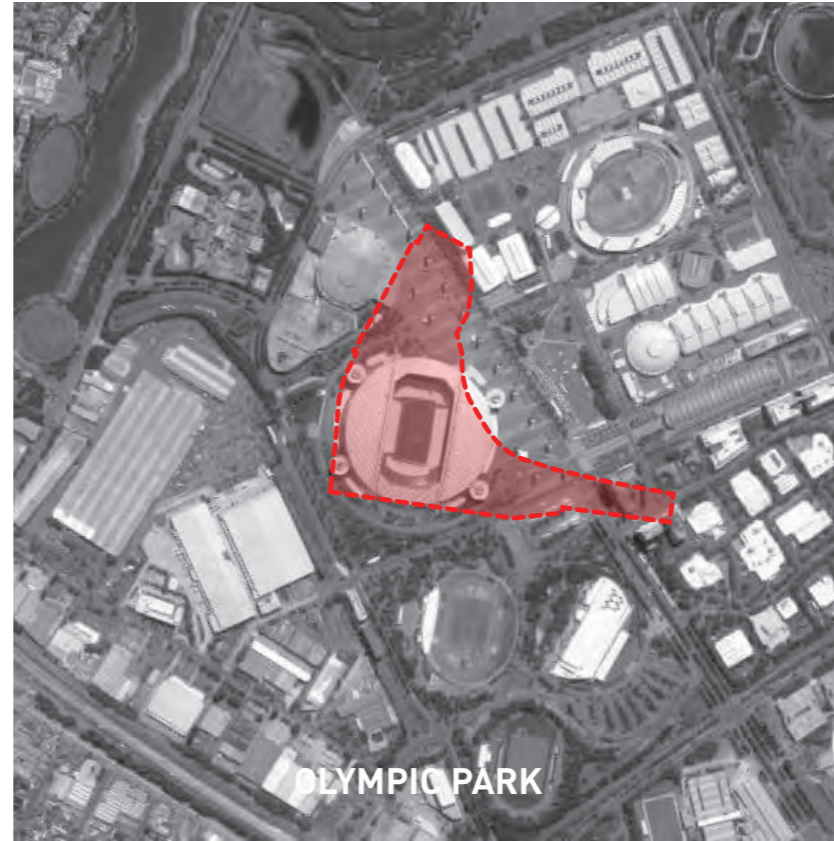
2.0 SITE OPPORTUNITIES

2.1 SITE SCALE

The adjacent diagrams confirm the scale of the site relative to a number of significant urban landscapes across Sydney.

The adjacent comparison confirms that the site is of sufficient scale for a mixed use community for employment and residential uses, as noted by three different urban morphologies: Paddington, Bondi and The Rocks.

Being 14.12 ha the Site is of a sufficient scale to warrant an urban pattern of city blocks consistent with contemporary employment uses adjacent to higher residential density.





2.0 SITE OPPORTUNITIES

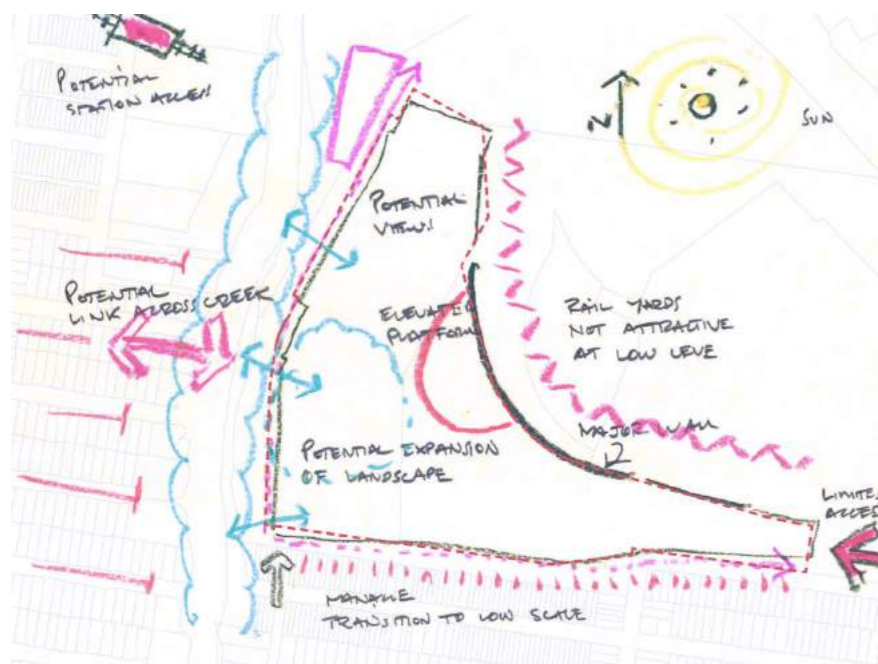
The Site has the potential for significant change, especially with regard to new land uses and new built form envelopes. This section defines the themes of urban redevelopment.

2.2 NEW USES

The Site has the potential to provide new employment uses together with new residential uses as a focal point for the neighborhood.

Opportunities were identified for new employment and residential uses; together with a greater mix of housing choice this masterplan is envisaged to create a new neighborhood with a diversity of local retail and community uses structured around new open spaces.

The Site is situated in close proximity to Auburn and Clyde Railway Stations. This confirms the importance of the subject site, being suitable for an increase in employment uses and residential density within an urban planning context. Further, the subject site recognises the need to accommodate a diversity of land uses.



2.0 SITE OPPORTUNITIES

2.3 DELIVERING SIGNIFICANT COMMUNITY OPEN SPACE

This Planning Proposal seeks to provide significant open space.

This strategy seeks to improve the connectivity and permeability of the area while confirming the importance of the site within an emerging and evolving community that will provide new employment and residential uses.

Open space Improvements across the site will include:

- Recreational and environmental improvement along the Riparian Duck River;
- Public open space parkland;
- Linear parkland links across the site; and
- The public domain of the streetscape.

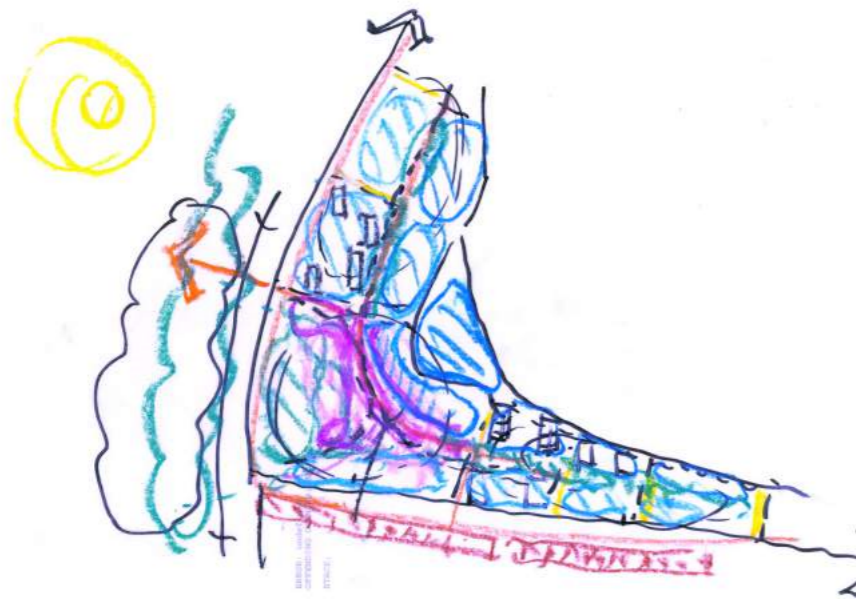


2.0 SITE OPPORTUNITIES

2.4 NEW PEDESTRIAN AND VEHICLE LINKAGES

The planning context for the Manchester Road Masterplan recognises the existing roadway pattern and the potential for pedestrian and/or vehicle linkages.

New pedestrian links are likely to connect the new employment area with Clyde Railway Station across Duck River.



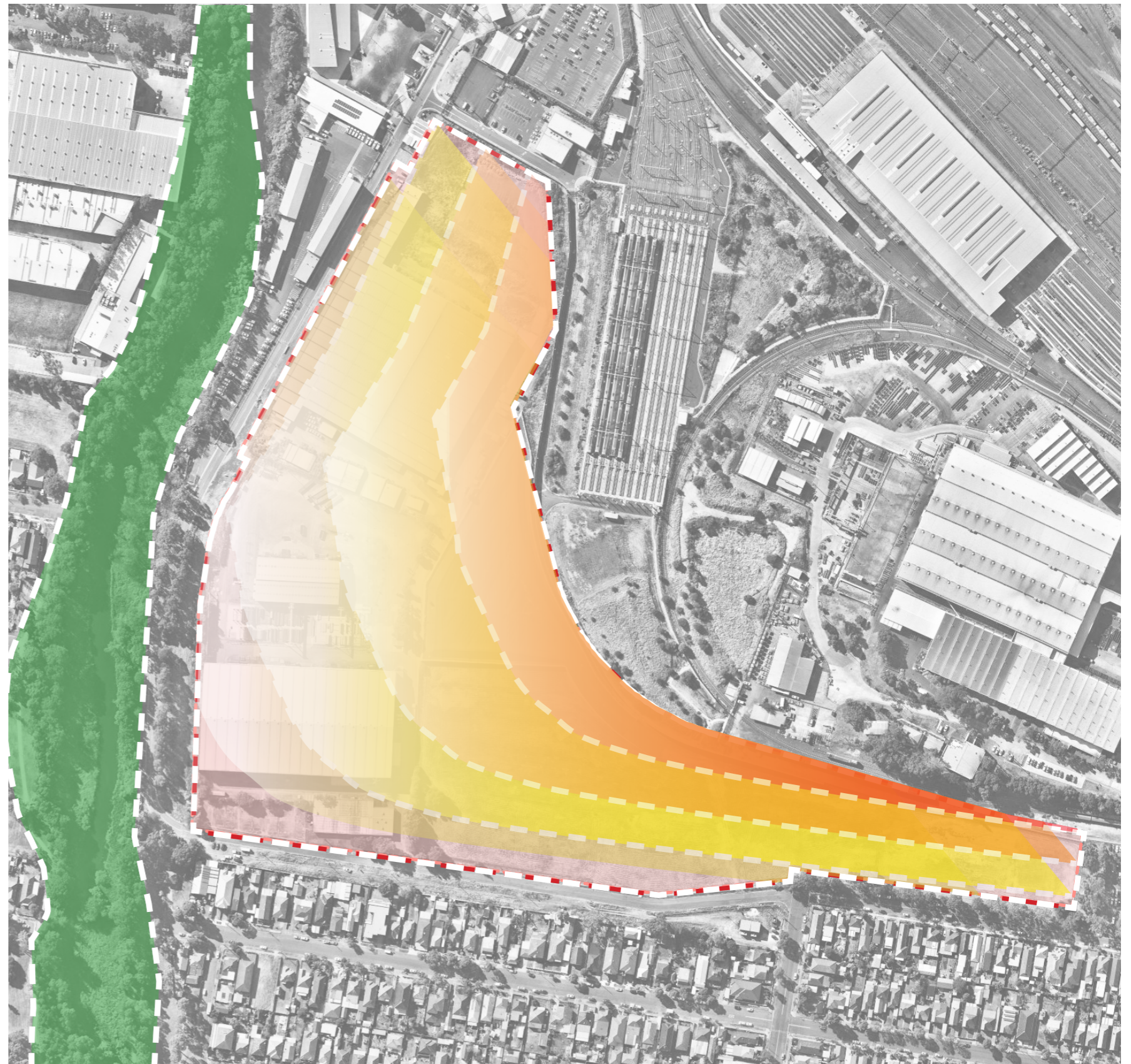
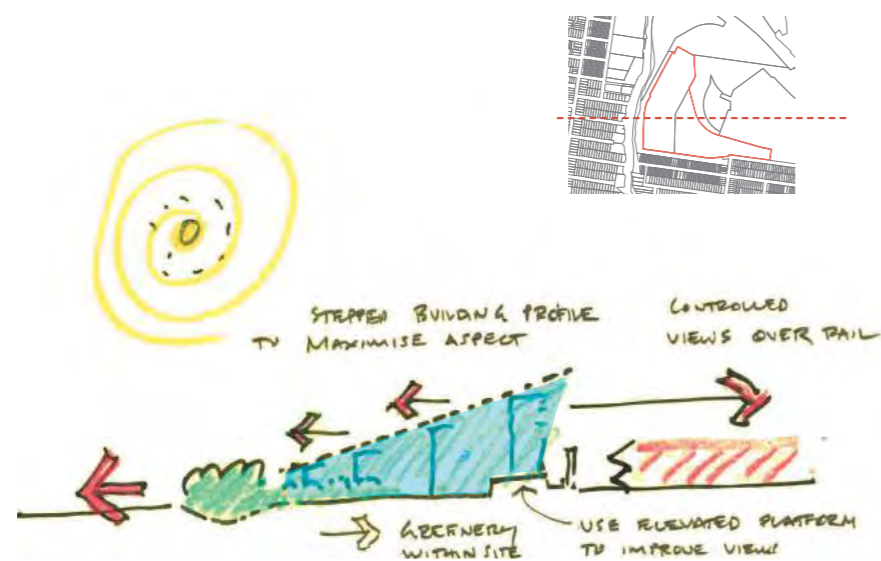
2.0 SITE OPPORTUNITIES

2.5 VIEW OPPORTUNITY AND BUILT FORM STRATEGY

This Planning Proposal recommends that new public open spaces be provided. New open space areas will consist of linear parks integrated with a large public park overlooking the reserve of Duck River. This structure will provide the opportunity for local views.

It is also envisaged that a graduation in building height from the east to the west will provide view sharing opportunity overlooking the linear park of Duck River, thus engaging in a positive way.

The planning context for this masterplan considers differences between the closed (and walled) eastern boundary edge and the open western boundary edge overlooking Duck River.



3.0 MANCHESTER ROAD MASTERPLAN

PROPOSED MASTERPLAN

VIEW FROM THE MAIN ENTRANCE TOWARDS THE SECONDARY STREET



3.0 MANCHESTER ROAD MASTERPLAN

3.1 VISION

The vision for the site is for a vibrant mixed use community within a public domain having a distinct and memorable urban character. The success of this development will act as a catalyst for new employment uses within the area. This large and amalgamated site has the potential for new employment uses with greater residential density. The total amalgamated area of the site is 14.12 ha.

This Planning Proposal adopts the following strategies:

- Provide new employment opportunities. This will predominately be located to the northern edges of the Site adjoining emerging employment types, other than employment for heavy industrial uses;
- Provide a range of housing type in close proximity to public transport, integrated with high quality open space areas that respond to an increase in population;
- Provide new built form to spatially define new pedestrian linkages and new public open space areas as an attractive urban precinct;
- Provide modulated built form that will accommodate differences in housing choice, reflecting changes in household size and lifestyle choices;
- Confirm the site's strategic location with linkages to adjoining existing urban pattern; and
- The contribution of this development site to the transition from a former large scale heavy industrial site to a finer grained, more densely populated and mixed use community.

Located east of Duck River within former railway lands, the Site is close in proximity to Auburn and Clyde Railway Stations. This Planning Proposal offers an opportunity to provide:

- High quality, functioning community open space;
- Variety of recreational facilities for public use;
- A permeable urban layout;
- An integrated and easily staged masterplan concept;
- A fully serviced contiguous site;
- 4 ha of employment uses;
- 10 ha of residential use;
- Development yield with an FSR up to 1.70:1 across 10 ha;
- A range of building heights;
- 1.78 ha of publicly accessible open space;
- A permeable network of streets and open spaces, designed to encourage pedestrian; and
- Accommodation of key community facilities and a variety of active and passive open space opportunities.

3.0 MANCHESTER ROAD MASTERPLAN

3.1 VISION



3.0 MANCHESTER ROAD MASTERPLAN

3.2 MASTERPLAN PRINCIPLES

LAND USES

The masterplan will comprise a mixture of new land uses within a new mixed use community.

ACCESS STRUCTURE AND URBAN FRAMEWORK

The masterplan sets out a clear hierarchy of internal streets which act as the primary corridors of movement and accessibility within the site. These link to the adjoining network of public parks, streets and community spaces.

LANDSCAPE AND PUBLIC OPEN SPACE

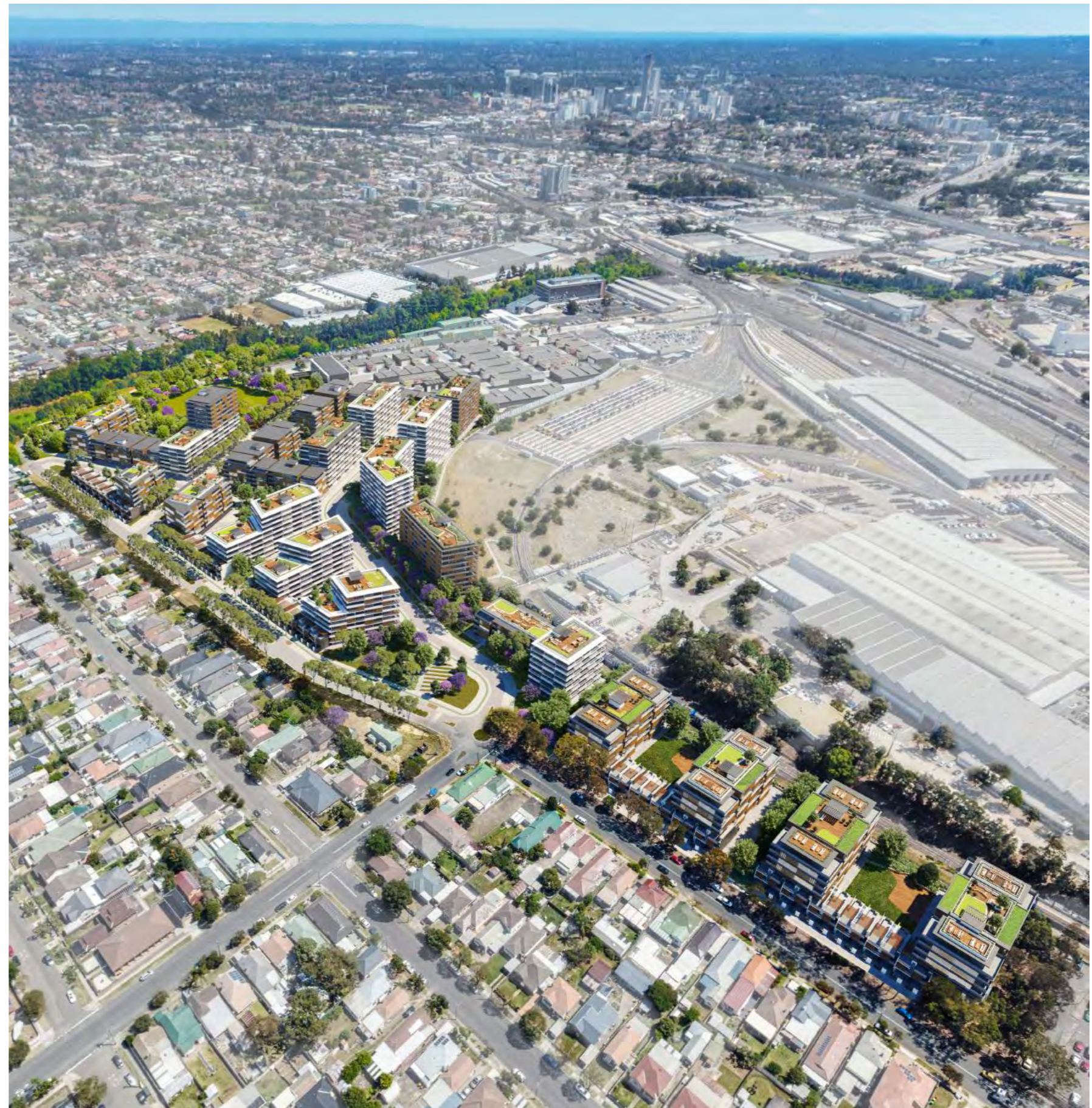
The masterplan will comprise a structure of public domain and open space areas. The public domain of new streets consider site address, building entries, together with new public open space areas to facilitate a mixed use community neighbourhood. A cohesive network of public parks and streets give expression and spatial character to the public domain, inviting a variety of formal and informal recreation activities. Street planting should respond to the street hierarchies of the site and provide a green and inviting setting.

BUILDING HEIGHT AND BUILT FORM

Built form controls will define the street edge and provide spatial enclosure and spatial framing. A gradation of building height will provide site orientation and view sharing towards Duck River. New built form is arranged to provide optimum solar orientation and building energy performance.

BUILT FORM TRANSITION

The masterplan considers limiting impacts on the adjoining and existing properties to the south. Here adjustment in the residential density and maximum building height of the urban block bounded by Manchester Road, Sheffield Street and Chisholm Road is proposed. This will not only reduce the impact but will provide an important urban transition. It is recommended that this existing city block have its residential use adjusted to R3 land use.



3.0 MANCHESTER ROAD MASTERPLAN



3.0 MANCHESTER ROAD MASTERPLAN

3.3 LAND USES

This large and amalgamated site has the potential for employment and residential uses.

Land uses will comprise open space, business, residential, community and retail. These are distributed across the site to maximise amenity for employees and residents.

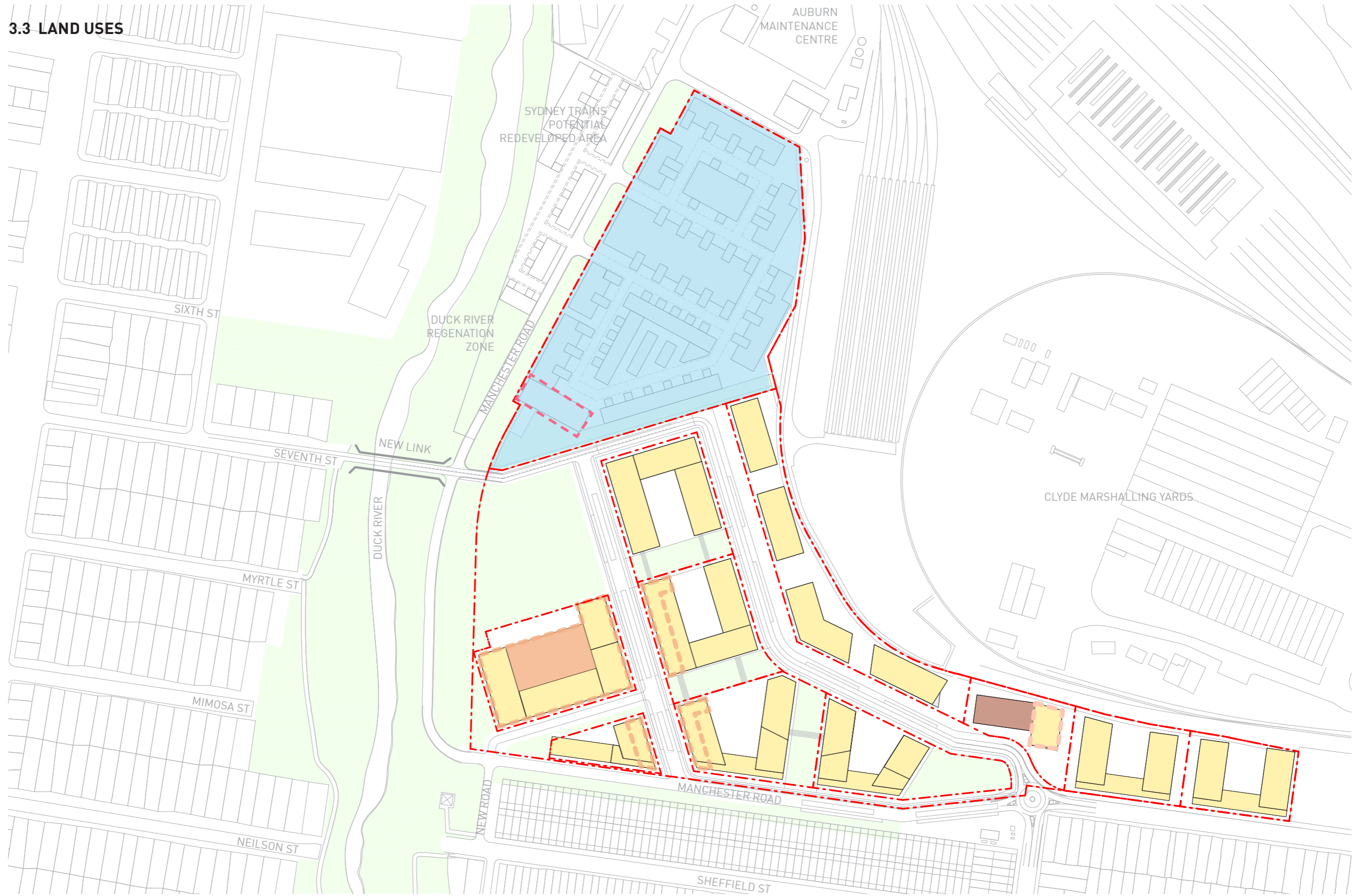
The distribution of land uses across the Site, in balance, recognise the existing adjoining land uses to the west and south.

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



3.0 MANCHESTER ROAD MASTERPLAN

3.3 LAND USES



- RESIDENTIAL
- RETAIL
- EMPLOYMENT
- COMMUNITY
- CHILDCARE
- PUBLIC OPEN SPACE



3.0 MANCHESTER ROAD MASTERPLAN

3.4 ACCESS STRUCTURE AND URBAN FRAMEWORK - RESIDENTIAL NEIGHBORHOOD

The access strategy for the masterplan is designed to facilitate a transit orientated community.

A clear hierarchy of roads is provided within the residential areas of the masterplan to differentiate primary access from local and more pedestrian focused movement.

Every street within the masterplan is a walking and cycle friendly street. Maximum permeability for pedestrians is encouraged thus promoting a worker friendly environment and livable residential neighborhood.

The proposed boulevard provides a safe and efficient access strategy through the site and this will link with the surrounding area, connecting with new employment uses to the northern sections of the site.

The proposed network of streets and access-ways provides site permeability and traffic capacity servicing a mixed use neighborhood, the public open spaces and adjoining residential uses.

The streets within the residential portion of the masterplan will provide the following:

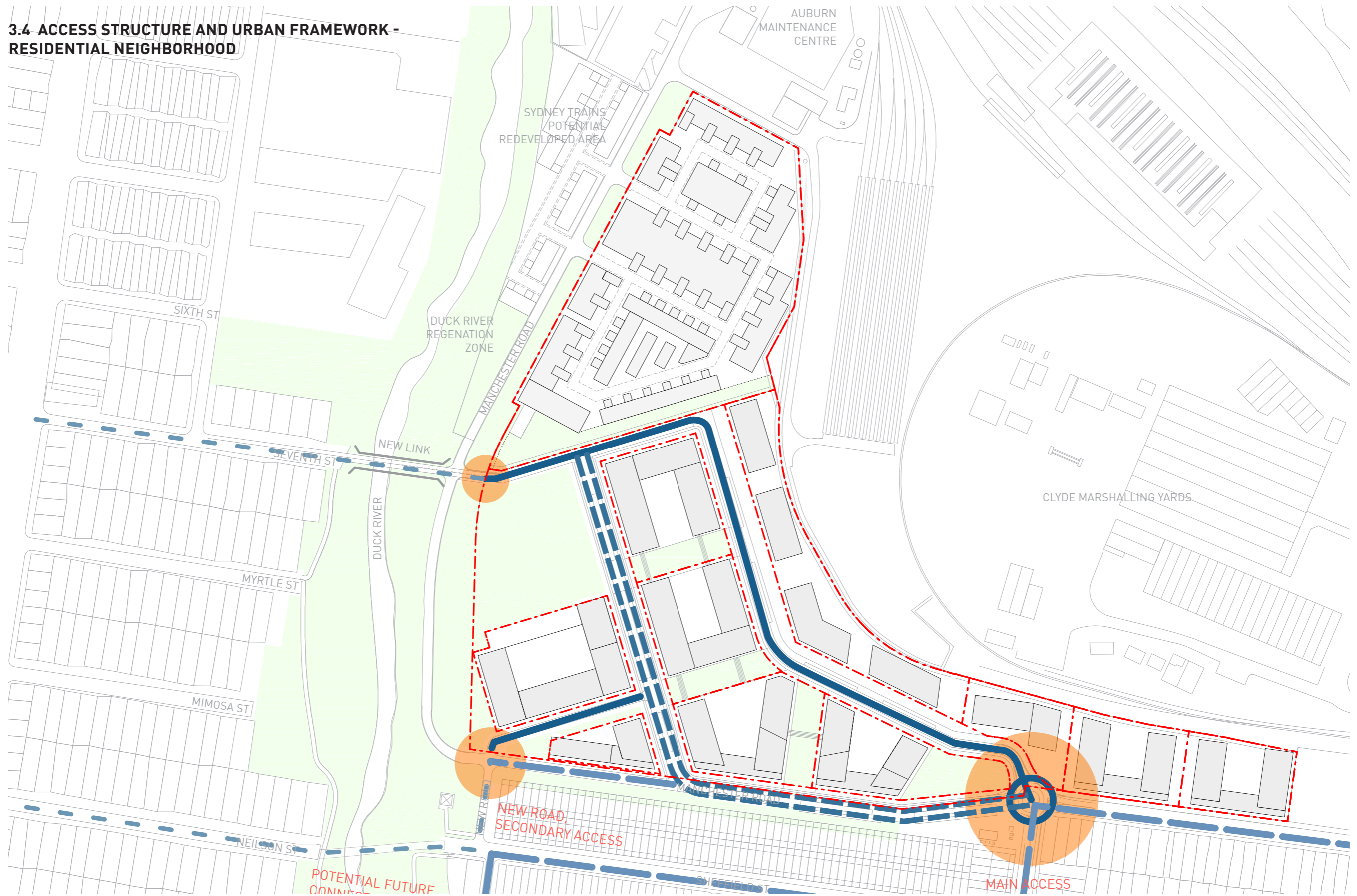
- Be a focus for the community;
- Define the urban character of the residential neighborhood;
- Incorporate a hierarchy of access-ways consisting of main boulevard, secondary road and existing access road;
- Allow urban connections to adjoining new employment uses and existing residential uses; and
- Be part of an integrated public domain network that will determine the urban structure and spatial framework for all residential and community built form elements across this section of the masterplan.



Main access view towards the Community Garden.

3.0 MANCHESTER ROAD MASTERPLAN

3.4 ACCESS STRUCTURE AND URBAN FRAMEWORK - RESIDENTIAL NEIGHBORHOOD



- BOULEVARD
- SECONDARY
- EXISTING ACCESS
- PROPOSED ACCESS
- ACCESS POINTS



3.0 MANCHESTER ROAD MASTERPLAN

3.5 ACCESS STRUCTURE AND URBAN FRAMEWORK - EMPLOYMENT USES

The access strategy for the employment land uses of the masterplan incorporate defined entry points into an area that will facilitate flexible development.

It is envisaged the employment precinct will accommodate a range of small scale industry and/or service uses. The following uses are considered:

- Service industry use;
- Creative industry use;
- Start-up / incubator use;
- Small scale wholesale use; and
- Small scale manufacturing use, for example, local foods and textile importers or clothing importers.

Vehicle access for the employment precinct will be made via an existing and dedicated service road. It is envisaged that additional pedestrian access will be made via pathways from Clyde Railway Station.

The residential uses and network of streets and access-ways within the residential precinct will not be impacted by the proposed uses within the employment precinct.

The arrangement of internal streets within the employment precinct will address the following:

- Have primary access from the west off an existing dedicated service road;
- Incorporate a hierarchy and open pattern of roadways;
- Allow pedestrian connections between the residential precinct to the south and to Clyde Railway Station to the north-west; and
- Have an urban interface that is well designed, especially when facing the residential precinct to the south.



Dexus industrial park



The enterprise centre, Artamon



Homebush business village, Homebush

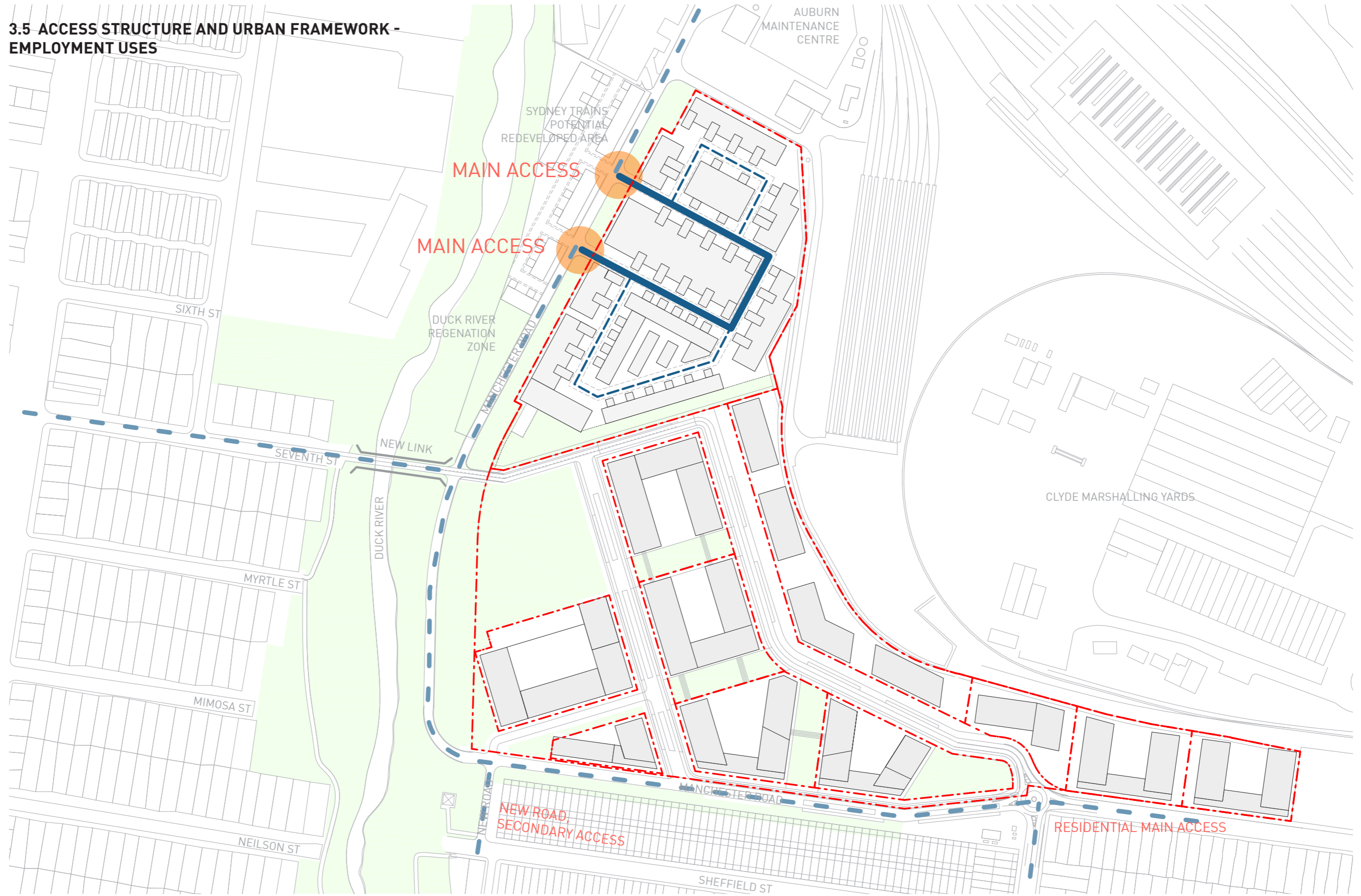


Cawara road, Caringbah

Industrial references

3.0 MANCHESTER ROAD MASTERPLAN

3.5 ACCESS STRUCTURE AND URBAN FRAMEWORK - EMPLOYMENT USES



3.0 MANCHESTER ROAD MASTERPLAN

3.6 LANDSCAPE AND PUBLIC OPEN SPACE

A range of distinctive and usable public open spaces and linear parks are provided for the enjoyment of workers and residents across the site. The configuration of these spaces will ensure that the new public open spaces are integrated with the existing Duck River Reserve.

The following open spaces and public domain elements are provided:

- Duck River Park, having an area of 10,638 SQM;
- A sequence of Linear Parks, with combined area of 4,990 SQM;
- Gateway Park, having an area of 2,188 SQM; and
- Roadway Public Domain (consisting of vegetated verges within new roadway reservations) has an area of 23,144 SQM.



Duck River Park view towards the Town Centre



3.0 MANCHESTER ROAD MASTERPLAN

3.6 LANDSCAPE AND OPEN SPACE



DUCK RIVER AREA PUBLIC OPEN SPACES



3.0 MANCHESTER ROAD MASTERPLAN

3.7 BUILDING HEIGHT AND PROPOSED BUILT FORM - RESIDENTIAL NEIGHBORHOOD

This masterplan considers the urban transformation of the area to accommodate higher residential densities.

Modulation in built form is proposed across the site from shorter elements along the southern edges of the Site to taller elements along the eastern edges. Through this modulation in built form a variety of housing types, some integrated with commercial retail and community uses, can be accommodated.

The following guidelines are noted:

Building heights are generally graded across the site from east to west;

- A range of housing types are to be provided, with row housing combined with street edge aligned apartment types;
- Integrate local commercial retail and community uses, and at selected locations, within the ground floor of taller residential buildings;
- Higher built form elements are located without impacting adjoining and existing residential uses;
- Transitional residential densities are considered for the urban block bounded by Manchester Road, Chisholm Road and Sheffield Street; and
- The proposed residential density of the masterplan is to respect the existing Town Centre hierarchy of the LGA.



Rocky point road, Kogarah



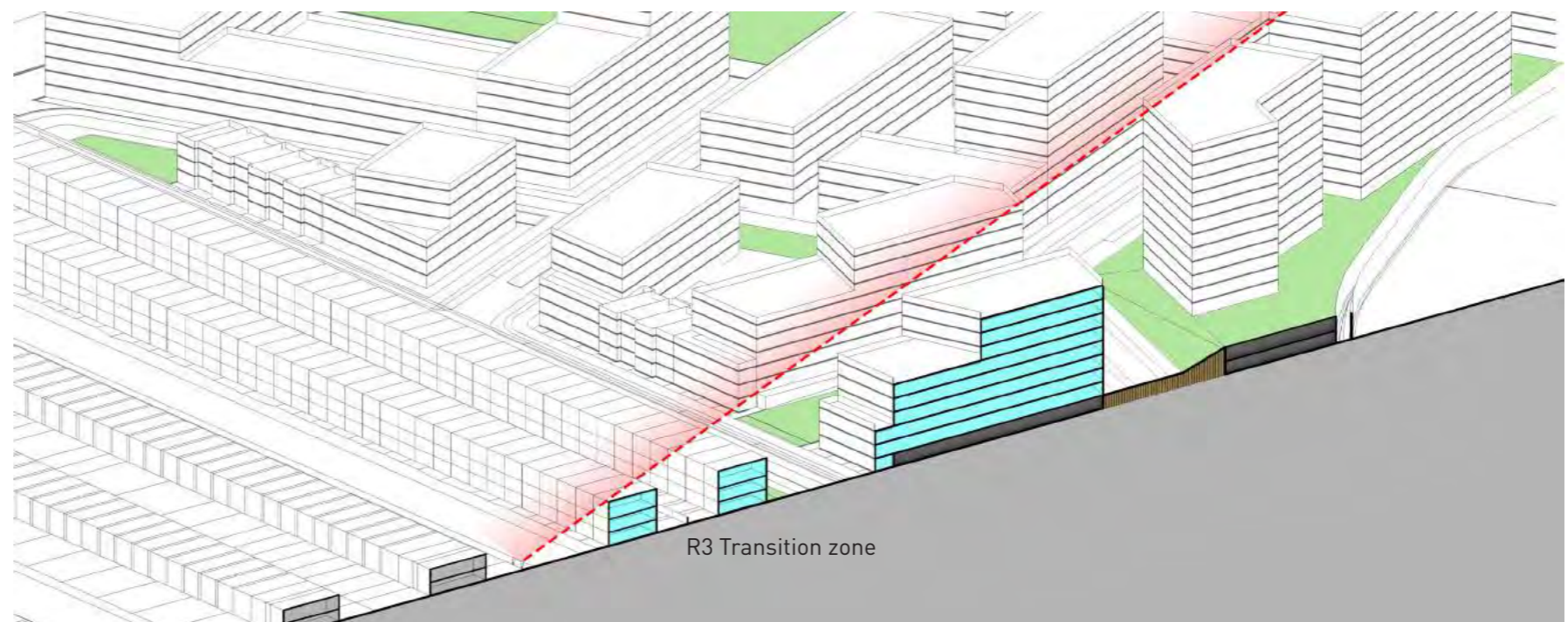
79 & Park, Stockholm



Trees covered street

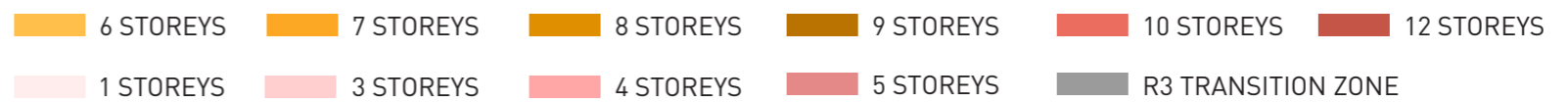
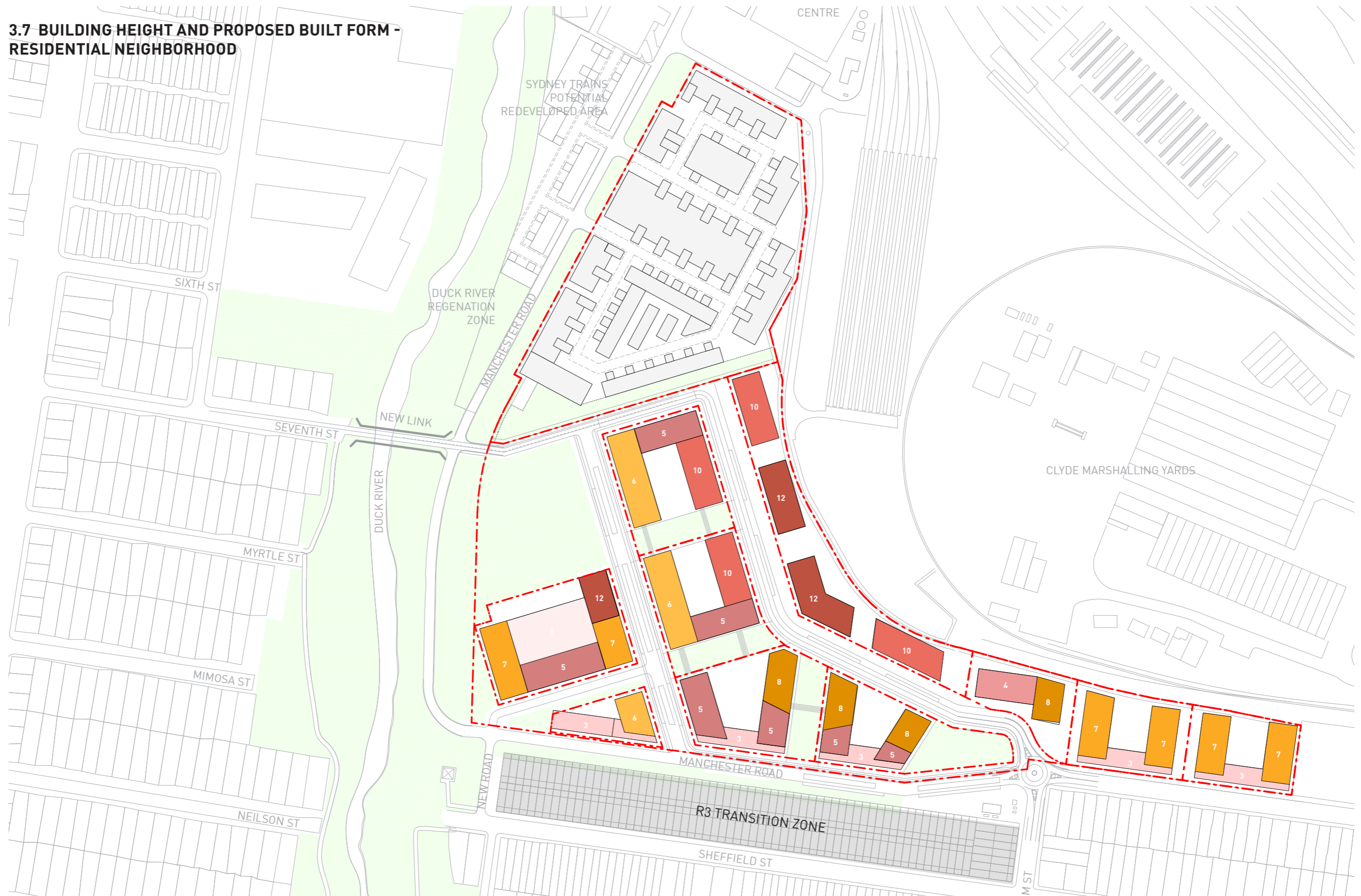


Rocky point road, Kogarah



3.0 MANCHESTER ROAD MASTERPLAN

3.7 BUILDING HEIGHT AND PROPOSED BUILT FORM - RESIDENTIAL NEIGHBORHOOD



3.0 MANCHESTER ROAD MASTERPLAN

3.8 URBAN ADDRESS, VEHICLE ENTRIES AND ON SITE PARKING

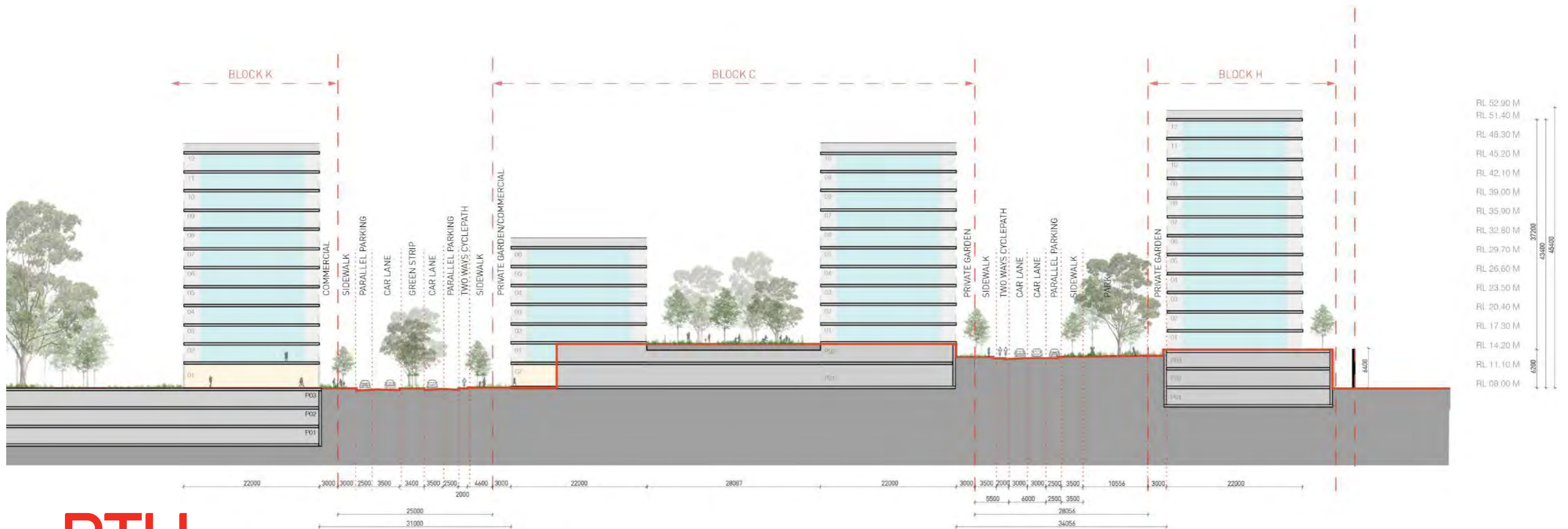
The built form strategy of the masterplan seeks to encourage well articulated buildings contributing to high quality public domain.

In particular the masterplan will provide uniform setbacks across the site and separate entry points to each ground floor apartment and/or row house.

On street parking is proposed across the site while allowing an environment which promotes safe pedestrian access and/or bicycle use. Basement parking is integrated with raised sections of public domain. Vehicle entry points into these parking areas will be located away from principle public domain elements.

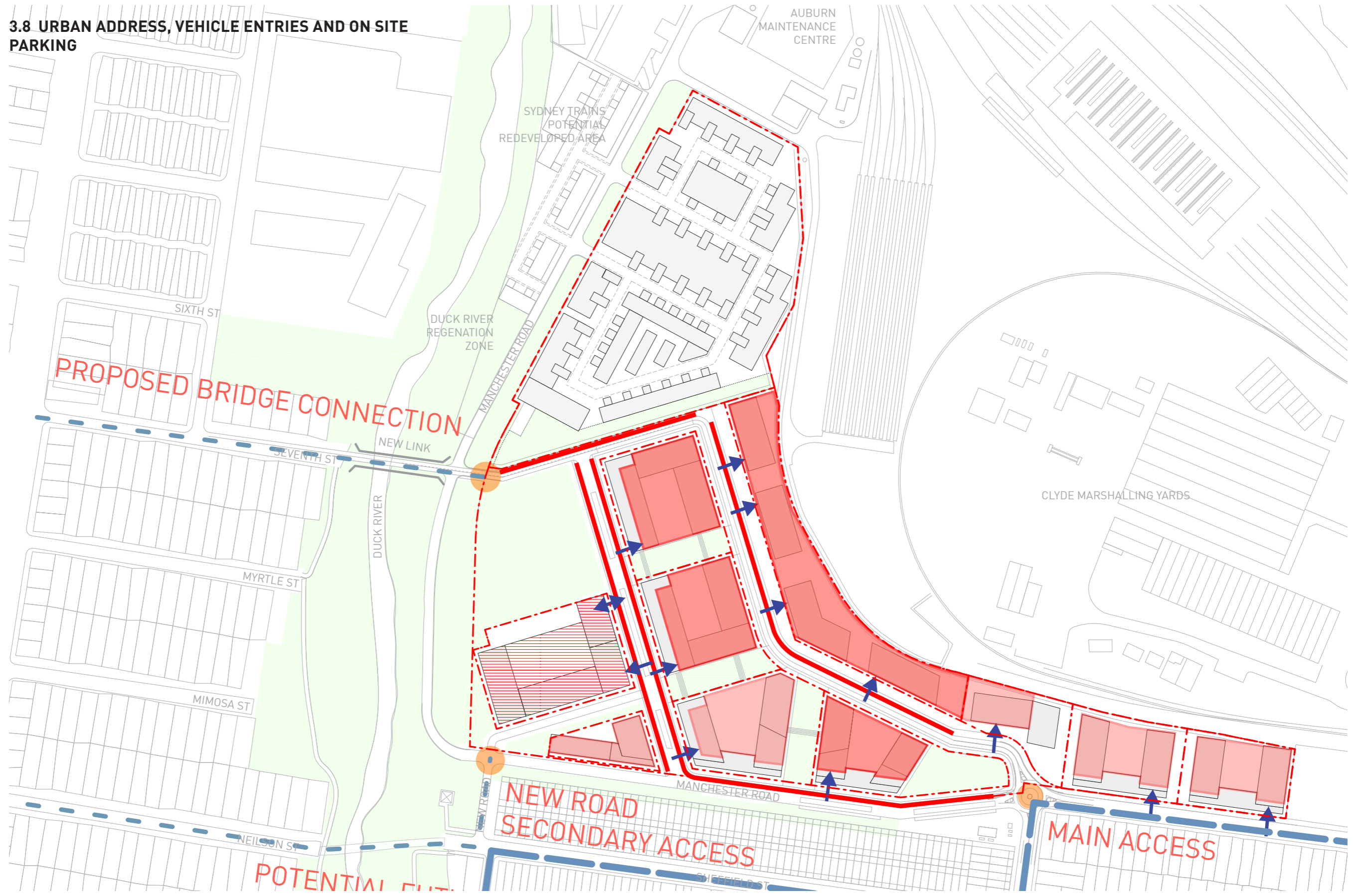
The following guidelines are noted:

- High quality public domain elements are to be integrated with on street parking areas for visitors;
- Locate vehicle cross-overs and vehicle entries to undercover and/or basement parking areas away from street intersections; and
- Locate new landscape strips, as raised deep soil areas, to conceal basement parking areas.



3.0 MANCHESTER ROAD MASTERPLAN

3.8 URBAN ADDRESS, VEHICLE ENTRIES AND ON SITE PARKING



PTW

- ||||| 3 STOREYS UNDERGROUND PARKING
- 2 STOREYS ABOVE GROUND PARKING
- 2 STOREY ABOVE GROUND PARKING + 1 PARTIAL UNDERGROUND STOREY
- ACCESS POINTS
- EXISTING ACCESS
- - - PROPOSED ACCESS
- ON STREET PARKING
- ➔ PARKING ENTRY



3.0 MANCHESTER ROAD MASTERPLAN

3.9 STAGING

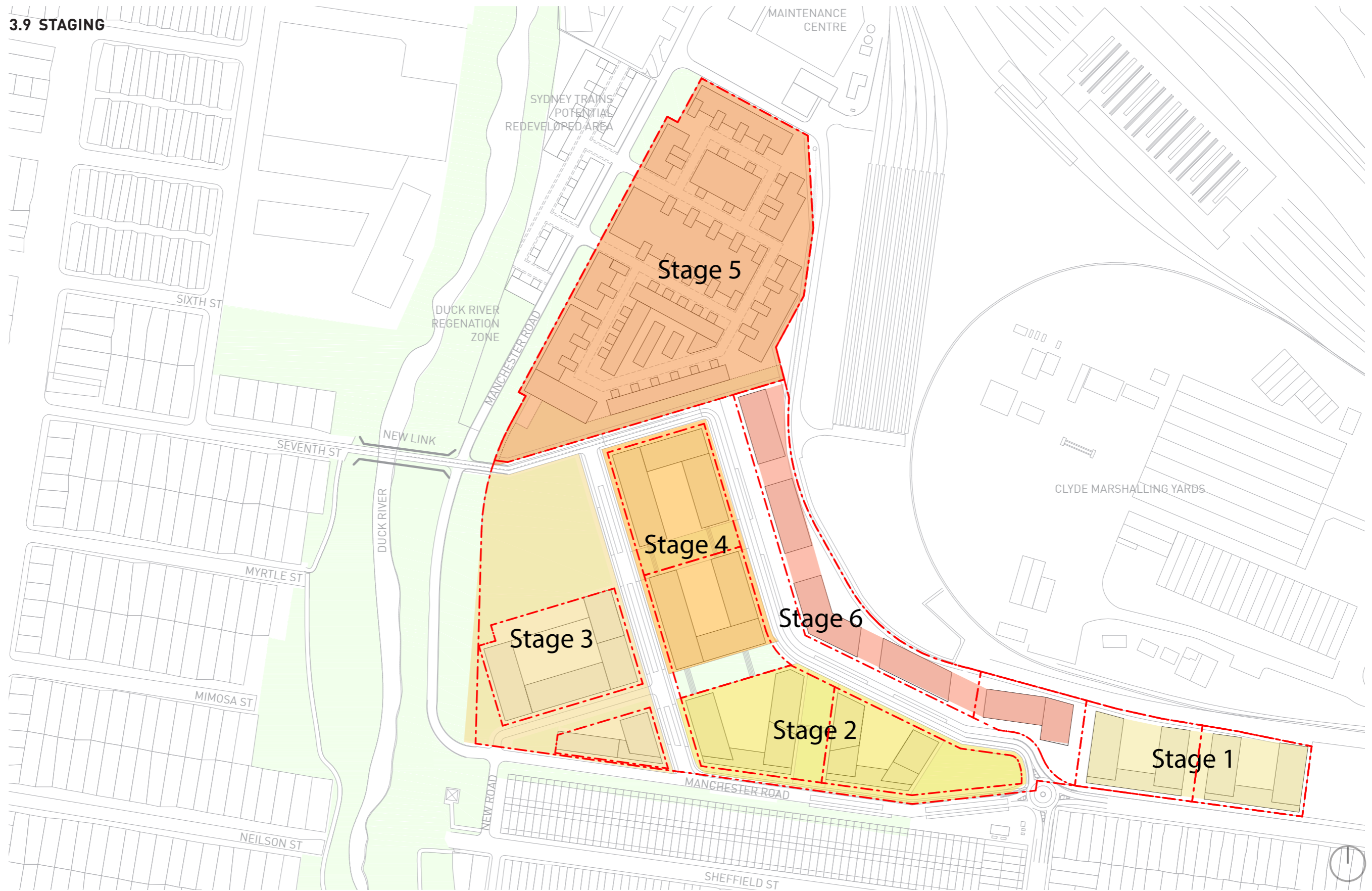
The masterplan allows for orderly and incremental development, generally progressing from the east to the west, as six distinct phases.

It is envisaged that public open spaces will be built progressively; relating to increases in demand and growth in population density.



3.0 MANCHESTER ROAD MASTERPLAN

3.9 STAGING



3.0 MANCHESTER ROAD MASTERPLAN

3.10 PUBLIC BENEFIT

Strategically located, this Planning Proposal envisages a range of new uses that emphasise employment within a mixed use community.

An important part of the masterplan is the delivery of much needed public open space and new land uses for new community uses.

Staged development that will limit impacts upon adjoining residential uses.



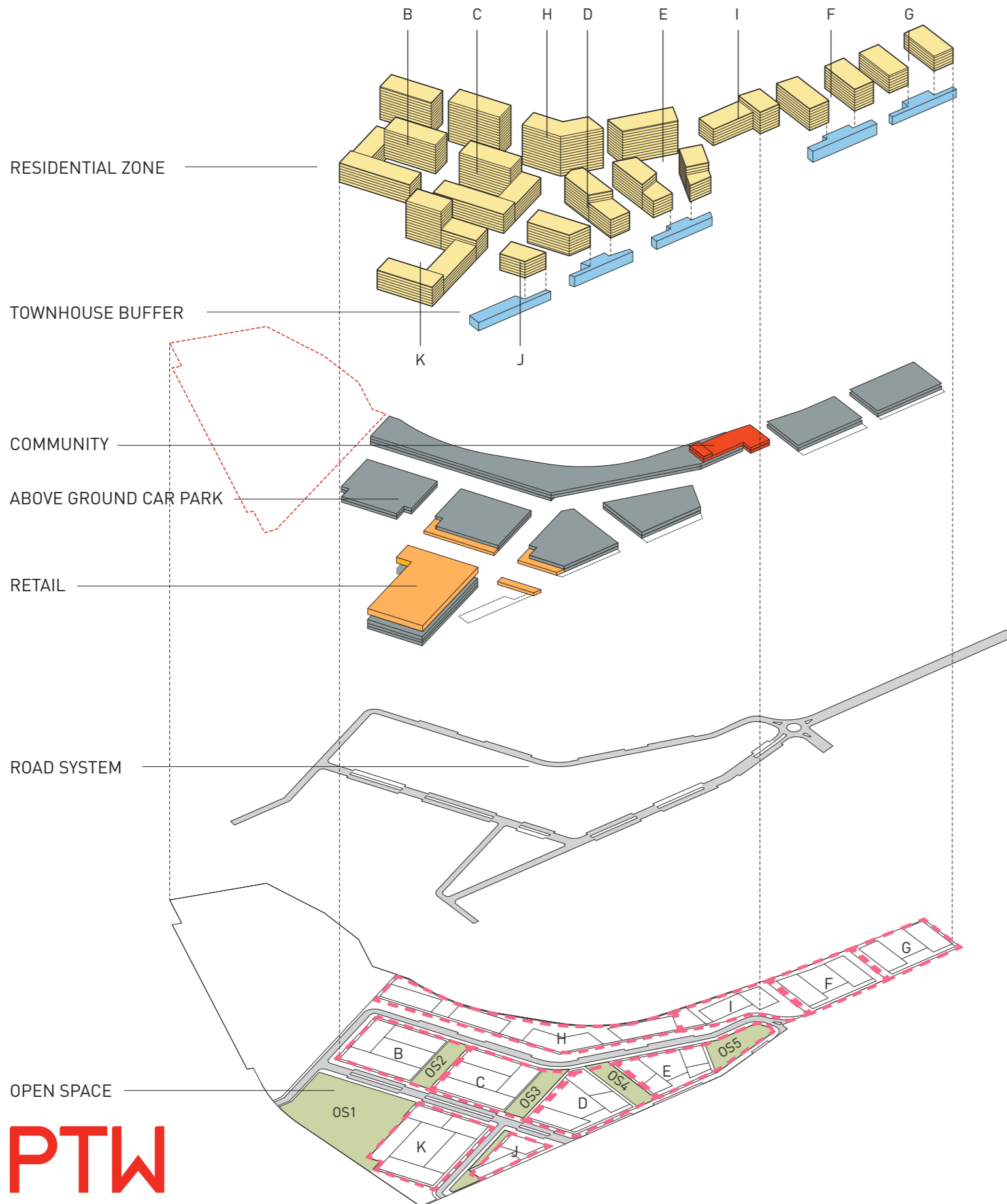
DUCK RIVER PARK, AN EXTENSION OF THE RIPARIAN PARK CONNECTED TO THE NEW EMPLOYMENT ZONE





3.0 MANCHESTER ROAD MASTERPLAN

3.11 DEVELOPMENT YIELD - RESIDENTIAL PRECINCT



TOTAL FSR AREA		
Usage	GFA (75%GBA)	FSR
COMMUNITY	2,000 m ²	0.02
RETAIL	6,027 m ²	0.06
RESIDENTIAL	164,307 m ²	1.62
Grand total	172,333 m²	1.70:1

OPEN SPACE AREA			
Name	AREA	TOTAL SITE	AREA %
OS1	10,638 m ²	101,230 m ²	10.51%
OS2	1,599 m ²	101,230 m ²	1.58%
OS3	1,707 m ²	101,230 m ²	1.69%
OS4	1,684 m ²	101,230 m ²	1.66%
OS5	2,188 m ²	101,230 m ²	2.16%
Grand total	17,816 m²		17.60%

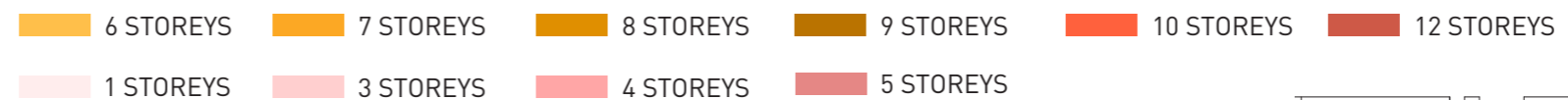
RESIDENTIAL GFA AREA				
SITE	GBA	GFA (75%GBA)	NSA (85%GFA)	YIELD (76.7m ² Apt. Average)
B	28,280 m ²	21,210 m ²	18,029 m ²	235
C	27,352 m ²	20,514 m ²	17,437 m ²	227
D	18,489 m ²	13,867 m ²	11,787 m ²	155
E	17,182 m ²	12,886 m ²	10,953 m ²	143
F	16,750 m ²	12,562 m ²	10,678 m ²	138
G	13,424 m ²	10,068 m ²	8,558 m ²	113
H	57,254 m ²	42,940 m ²	36,499 m ²	476
I	6,552 m ²	4,914 m ²	4,177 m ²	54
J	6,531 m ²	4,899 m ²	4,164 m ²	54
K	27,039 m ²	20,279 m ²	17,237 m ²	225
Grand total	219,076 m²	164,307 m²	139,661 m²	1,821

VEHICLE SPACES			
SITE	GBA	PARKING FLOORS	VEHICLE SPACES (35m ² Average)
B	9,578 m ²	3	274
C	9,230 m ²	2	264
D	6,300 m ²	2	180
E	5,798 m ²	2	166
F	5,608 m ²	2	160
G	4,624 m ²	2	132
H	19,320 m ²	3	552
I	2,223 m ²	2	64
J	2,204 m ²	2	63
K	19,449 m ²	3	556
Grand total	84,335 m²	-	2,410



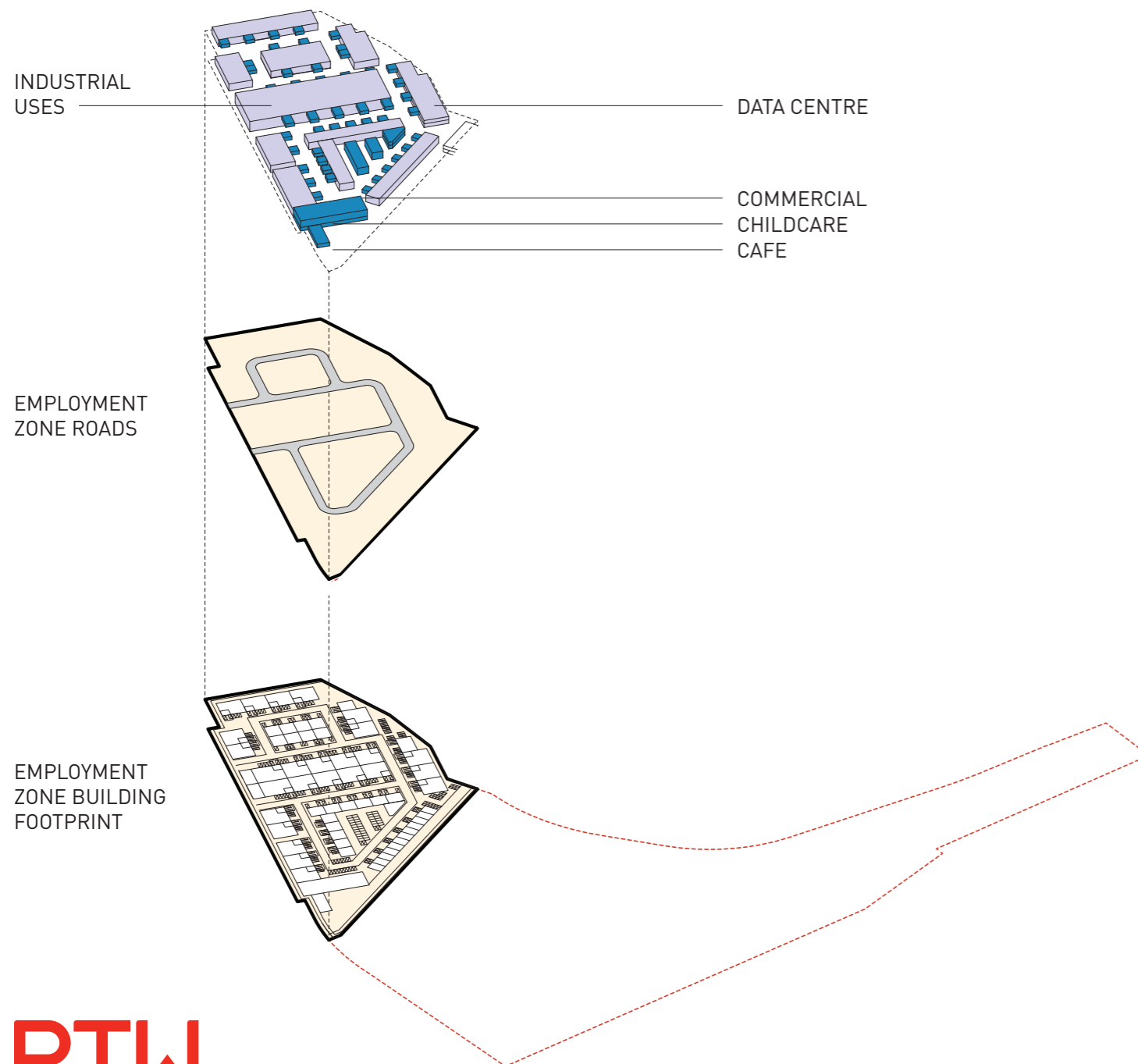
3.0 MANCHESTER ROAD MASTERPLAN

3.11 DEVELOPMENT YIELD - RESIDENTIAL PRECINCT



3.0 MANCHESTER ROAD MASTERPLAN

3.12 DEVELOPMENT YIELD - EMPLOYMENT PRECINCT



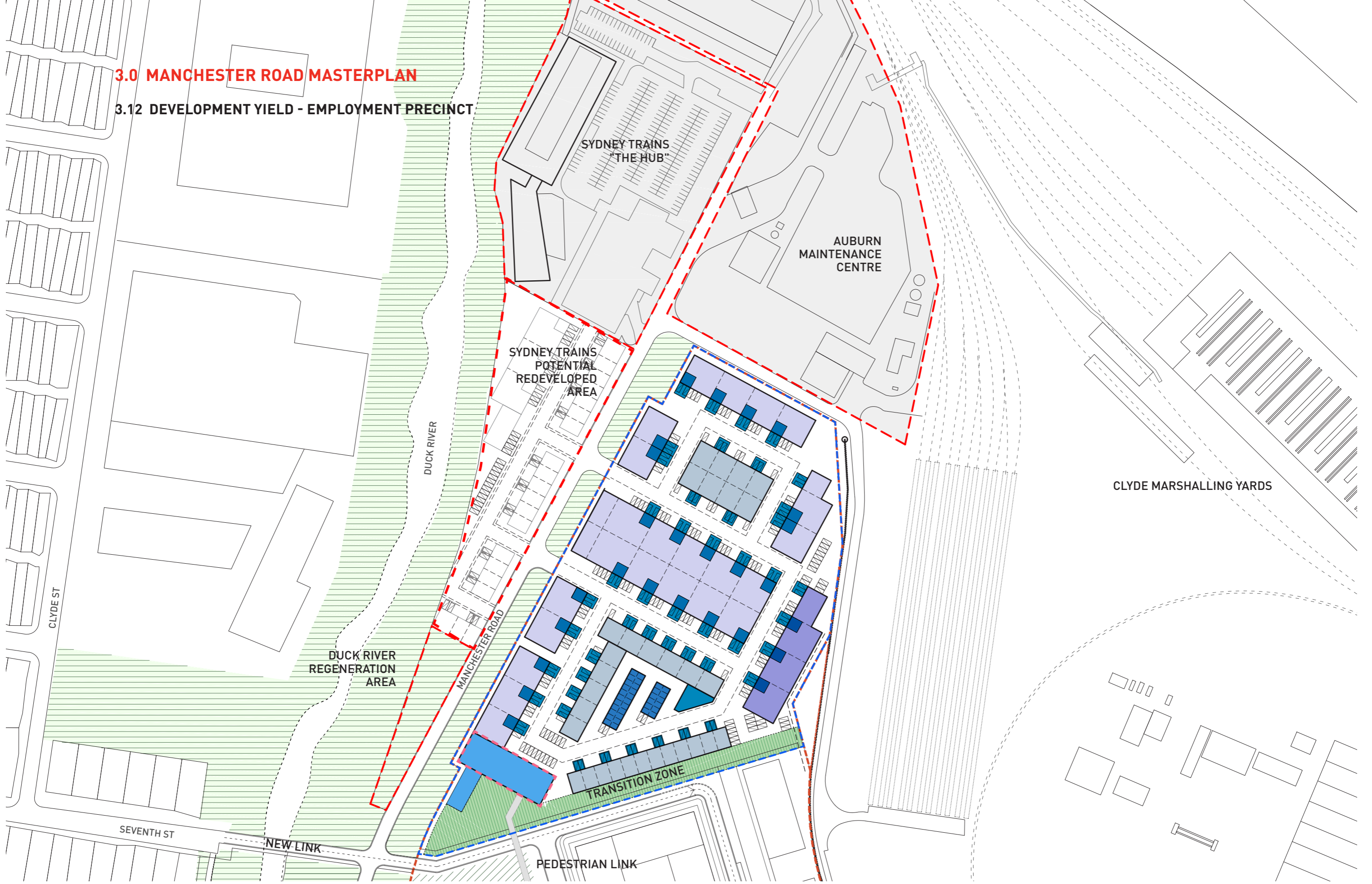
TOTAL FSR AREA		
Usage	GFA (100%GBA)	FSR
CHILDCARE	1,094 m ²	0.03
CAFE	250 m ²	0.01
COMMERCIAL	3,281 m ²	0.08
INDUSTRIAL ANCILLARY OFFICE	3,951 m ²	0.10
INDUSTRIAL TYPE 1 [100-200 m ²]	4,140 m ²	0.10
INDUSTRIAL TYPE 2 [300-400 m ²]	11,284 m ²	0.28
INDUSTRIAL TYPE 3 [15 m ²]	500 m ²	0.01
DATA CENTRE	2,708 m ²	0.07
	27,208 m ²	0.68:1

UNITS		
Usage	DESCRIPTION	COUNT
CAFE	RETAIL SPACE	-
COMMERCIAL	OFFICE BUILDING	-
INDUSTRIAL ANCILLARY OFFICE	MEZZANINE SPACE	-
INDUSTRIAL TYPE 1 [100-200 m ²]	SMALL UNITS	31
INDUSTRIAL TYPE 2 [300-400 m ²]	BIG UNITS	24
INDUSTRIAL TYPE 3 [15 m ²]	STORAGE UNITS	34
DATA CENTRE	COMPUTER FACILITY	04
		93

VEHICLE SPACES		
Usage	DESCRIPTION	COUNT
VEHICLE SPACES	-	230
		230

3.0 MANCHESTER ROAD MASTERPLAN

3.12 DEVELOPMENT YIELD - EMPLOYMENT PRECINCT



CHILDCARE

COMMERCIAL

INDUSTRIAL TYPE 1

INDUSTRIAL TYPE 2

INDUSTRIAL TYPE 3

ANCILLARY OFFICE

DATA CENTRE



4.0 LANDSCAPE STRATEGY

PROPOSED MASTERPLAN

VIEW FROM THE DUCK RIVER CORRIDOR PARK TOWARDS THE DEVELOPMENT



4.0 LANDSCAPE STRATEGY

4.1 URBAN CONTEXT

As an integral part of the Manchester Road development, Payce propose to rehabilitate the bushland and wetland zones of the Duck River, connect and complete the missing link of the Duck River corridor shared path for pedestrian and cyclists, and provide grassed parkland open space outside of the bushland management zones and adjacent to the shared path. A new shared path Bridge over the Duck River will also enable quick and direct access to the Clyde Railway Station. The rehabilitation process will have five components:

Bushland Regeneration

The remnant Coastal freshwater Wetland, Cumberland Riverflat and Cumberland Swamp Oak Forest vegetation communities are all listed as Endangered Ecological Communities (EECs). However they are severely degraded and remnant trees along the Duck River corridor to the west of the site are not regenerating due to the thick weed occurrence.

Payce will engage professional bushland regenerators to undertake bushland regeneration of all bushland areas along the river's edge where there is existing native canopy

Using the 'Bradley method' of bush regeneration, sites along the riparian corridor with remnant trees will be methodically cleared in small patches so that the area can be initially re-colonised by the seed shed from existing trees. Strategic infill planting will introduce shrub and groundcover species that have been lost.

A staged removal of weeds is recommended, generally starting with woody weeds and shrubs, then ground layer weeds. Noxious weeds should be treated as the first priority. Follow up weed control during the recovery phase will be carried out and is essential to a Bushland Regeneration program.

Three main principles will guide the bushland regeneration;

- 1 secure the best areas first. They are the easiest to work with the best results. They are the core areas that can then be expanded.
- 2 minimise disturbance to the natural conditions (e.g. minimise soil disturbance and off-target damage).
- 3 don't over clear – let the regeneration of the bush set the pace of clearance.

Revegetation Planting

Where there is little or no native species present, additional revegetation planting of species selected from the EEC's will improve connectivity between adjoining areas of better bushland. Revegetation also applies to the wetland areas where a fringing buffer of native vegetation will be the best approach in managing the protection of the wetlands. If stabilisation is required on any of the steep banks, organic fibre mesh will be used in conjunction with the revegetation planting. In other areas, wood waste mulch will be used to aid establishment and control weeds.

Open Space Parkland

Where there is no existing bushland or only tree weeds present, Payce will create a clear delineation between the Bushland Management Zones and introduce grassed open space parkland with indigenous shade trees for community benefit. These areas will be mostly adjacent to the shared path, but where appropriate, will extend to allow public access to the river's edge. "Lookouts" will be constructed near the water's edge where residents will be able to picnic and relax, and shelters will provide protection from sun and rain. Park seating will be installed throughout the park in strategic locations.

Interpretative signage will be installed to inform users of local features such as the Flying Fox Colony and the importance of the river's regeneration in the wider context of the Parramatta River Catchment and Sydney Harbour.

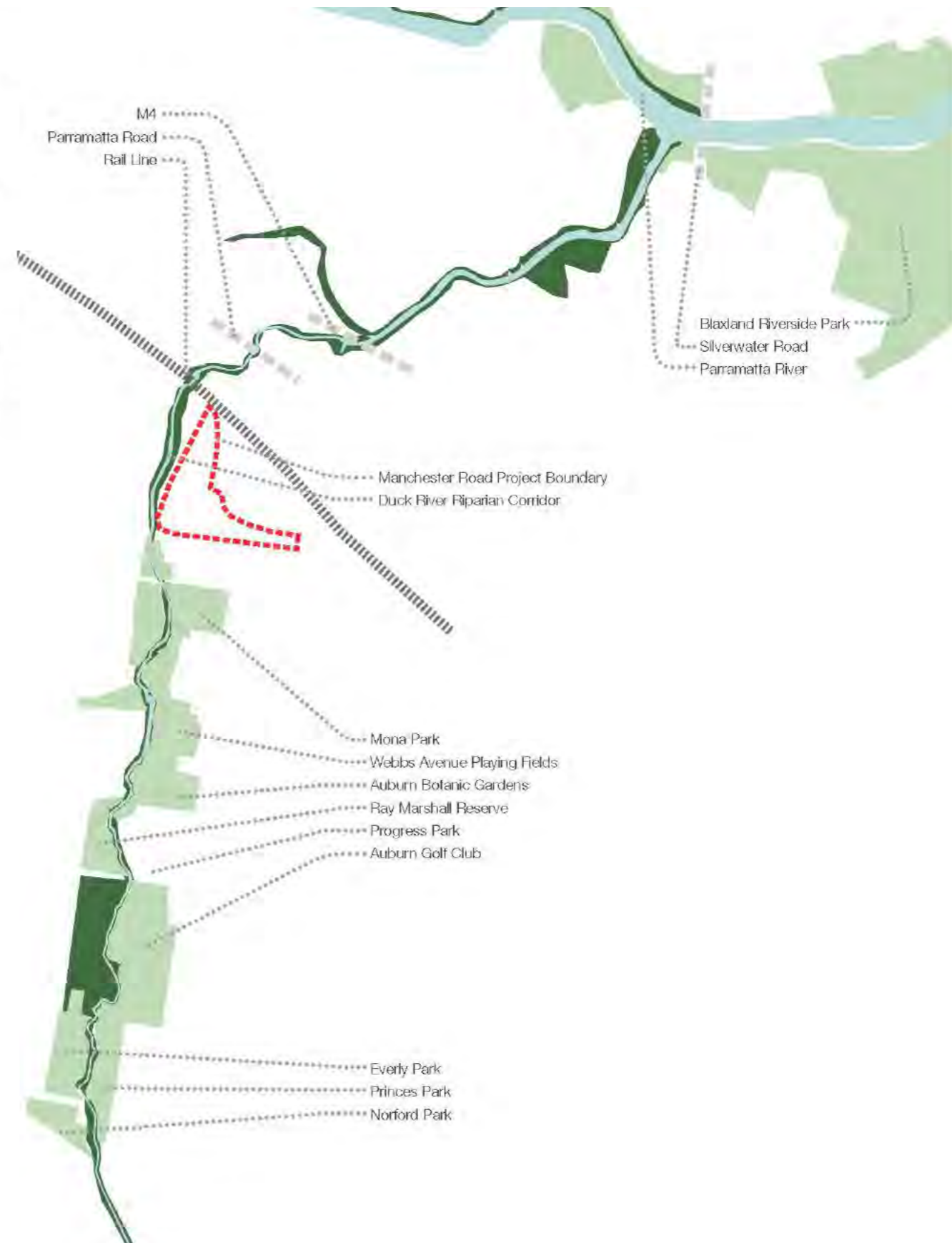
A series of high quality Exercise Stations with clear instructions on how to use it will be installed in close proximity to the shared path at strategic distances apart so that the shared path is also used as an Exercise Trail and will continue a circuit that begins from the Central Green within the residential development. Outdoor Lighting will be integrated within the park, the bridge, shared path and the riverside edge of Manchester Road to ensure passive surveillance at night-time and extend the use of the park into the evenings.

Shared Path

A new 3.0m wide shared path will be installed between the existing shared path where it terminates at Mona Park, and the bridge crossing at the western rail line. Pedestrians and cyclists will have access to an increased extent of the river and will have a choice of route to Clyde station either using the existing rail bridge or the proposed new shared path bridge connecting to Seventh Street.

Duck River Shared Path Bridge

The new bridge will enable quick and direct access to the Clyde Railway Station along an established cycle network and connect pedestrian and cyclists to the existing shared path which follows the western bank of the River. The bridge will be an iconic addition to the River as well as a functional one. In order to have the bridge up and functioning in the shortest space of time, the bridge will be fabricated off-site and craned into place.



4.0 LANDSCAPE STRATEGY

4.2 DUCK RIVER REHABILITATION



Local provenance species will be used for replanting where possible. The species list will include the following indicative species:

Cumberland Riverflat Forest

- Trees and Shrubs**
- Acacia decurrens*
 - Angophora floribunda*
 - Bursaria spinosa*
 - Eucalyptus amplifolia*
 - Eucalyptus baueriana*
 - Eucalyptus saligna*
 - Eucalyptus tereticornis*
 - Hibiscus heterophyllum*
 - Leucopogon juniperinus*
 - Ozothamnus diosmifolius*
 - Persoonia linearis*

Vines and Groundcovers

- Clematis glycinoides*
- Cyperus laevis*
- Desmodium varians*
- Dianella longifolia*
- Dichondra repens*
- Echinopogon caespitosus*
- Echinopogon ovatus*
- Einadia hastata*
- Einadia trigonos*
- Entolasia marginata*
- Eragrostis leptostachya*
- Lomandra longifolia*
- Microlaena stipoides*
- Brunoniella australis*
- Veronica plebeia*
- Wahlenbergia gracilis*

Cumberland Swamp Oak Riparian Forest

- Trees and Shrubs**
- Acacia decurrens*
 - Eucalyptus crebra*
 - Melaleuca styphelioides*
 - Angophora floribunda*
 - Breynia oblongifolia*
 - Bursaria spinosa*
 - Casuarina glauca*
 - Jacksonia scoparia*
 - Maytenus sivestris*
 - Melaleuca decora*
 - Melaleuca nodosa*
 - Ozothamnus diosmifolius*
 - Polyscias sambucifolia*

Vines and Groundcovers

- Arthropodium milleflorum*
- Billardiera scandens*
- Carex appressa*
- Dianella longifolia*
- Alternanthera denticulata*
- Clematis glycinoides*
- Dianella revoluta*
- Dichelachne micrantha*
- Echinopogon ovatus*
- Eclipta platyglossa*
- Einadia hastata*
- Eleocharis cylindrostachys*
- Eragrostis leptostachya*
- Gonocarpus tetragynus*
- Goodenia ovata*

Legend

- Revegetation Planting
- Bushland Regeneration
- Open Space Parkland
- Duck River

Revegetation Planting

- 1 Cumberland Swamp Oak Forest
- 2 Cumberland Riverflat Forest & Cumberland Swamp Oak Forest
- 3 Cumberland Riverflat Forest & Cumberland Swamp Oak Forest
- 4 Cumberland Swamp Oak Forest
- 5 Cumberland Swamp Oak Forest
- 6 Cumberland Swamp Oak Forest
- 7 Cumberland Swamp Oak Forest

Bushland Regeneration

- 1 Cumberland Swamp Oak Forest
- 2 Cumberland Swamp Oak Forest
- 3 Cumberland Swamp Oak Forest
- 4 Cumberland Riverflat Forest & Cumberland Swamp Oak Forest
- 5 Cumberland Swamp Oak Forest

Open Space Parkland

- 1 Cumberland Swamp Oak Forest
- 2 Cumberland Swamp Oak Forest
- 3 Cumberland Riverflat Forest & Cumberland Swamp Oak Forest
- 4 Cumberland Swamp Oak Forest
- 5 Cumberland Swamp Oak Forest
- 6 Cumberland Swamp Oak Forest
- 7 Cumberland Swamp Oak Forest
- 8 Cumberland Swamp Oak Forest
- 9 Cumberland Swamp Oak Forest

4.0 LANDSCAPE STRATEGY

4.3 PUBLIC DOMAIN CONCEPT

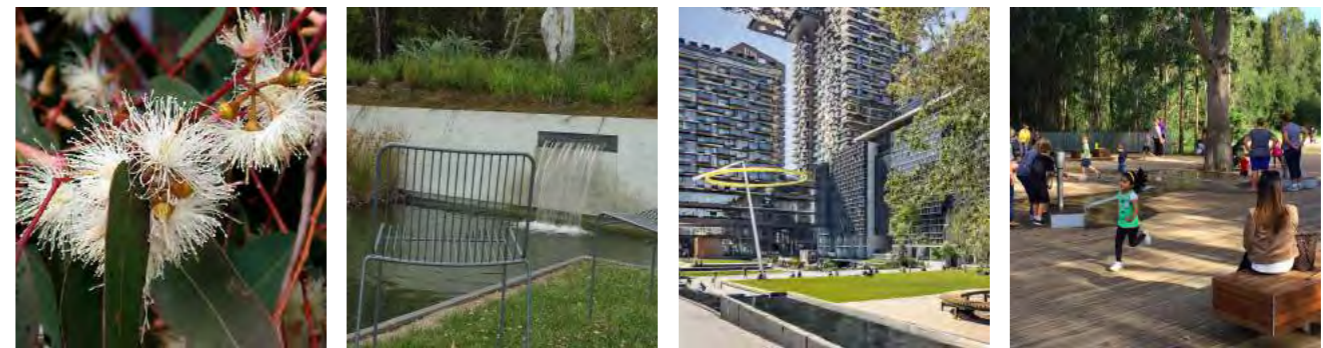
The masterplan allows for a high quality landscape strategy incorporating new public open spaces, a vegetated streetscape and an improved Riparian zone. It is envisaged that access to the new public open space areas will be associated with a range of new community uses and facilities.

As an integral part of the masterplan, rehabilitation of the bushland and wetland zones associated with Duck River will be undertaken. In particular new public open spaces, with shared pedestrian ways along Duck River and adjacent to the site, will complete the missing link in the Duck River recreation corridor. Also, a new shared bridge over Duck River will also enable improved access to the Clyde Railway Station.

The following community improvements are noted:

- Rejuvenation of bushland adjacent to the Duck River Riparian zone;
- Rejuvenation of the Duck River Riparian zone in the vicinity of the Site and incorporating a shared pedestrian pathway;
- New open space parkland across the site;
- New linear parks integrated with residential communal open spaces;
- A landscape buffer separating the residential precinct from the employment precinct;
- An easily staged open space strategy, with open spaces incorporated in each major redevelopment phase and sized to match residential population; and
- The use of indigenous species and low in maintenance.

2.0 Landscape Design Generators



THE PROPOSAL

PTW



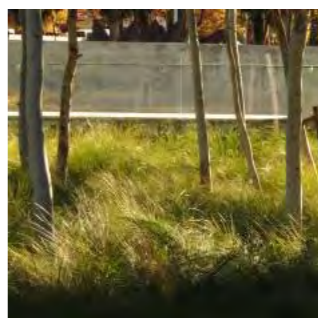
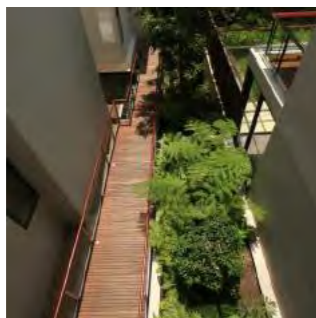
4.0 LANDSCAPE STRATEGY

4.4 PROPOSED LANDSCAPE PLAN

The concept landscape plan incorporates a sequence of unified landscape spaces across the site with connection to the Duck River Riparian zone.

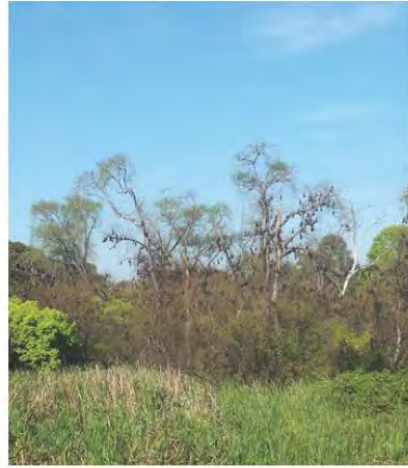
The site incorporates seven major landscape zones:

1. Duck River Riparian;
2. Duck River Park;
3. Gateway Park
4. Linear Parks;
5. Residential Precincts (with communal spaces); and
6. Employment Precinct; and
7. Pedestrian Laneways.

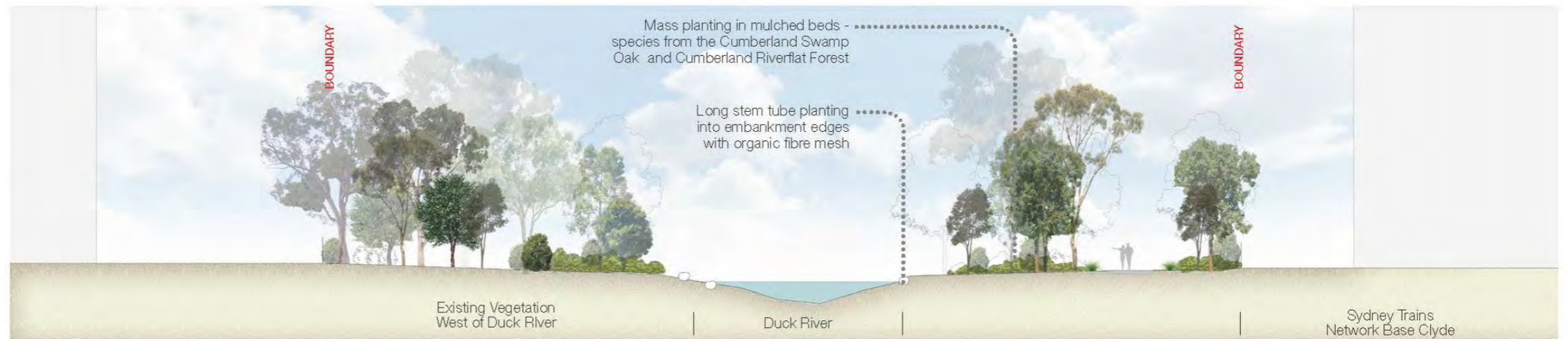


4.0 LANDSCAPE STRATEGY

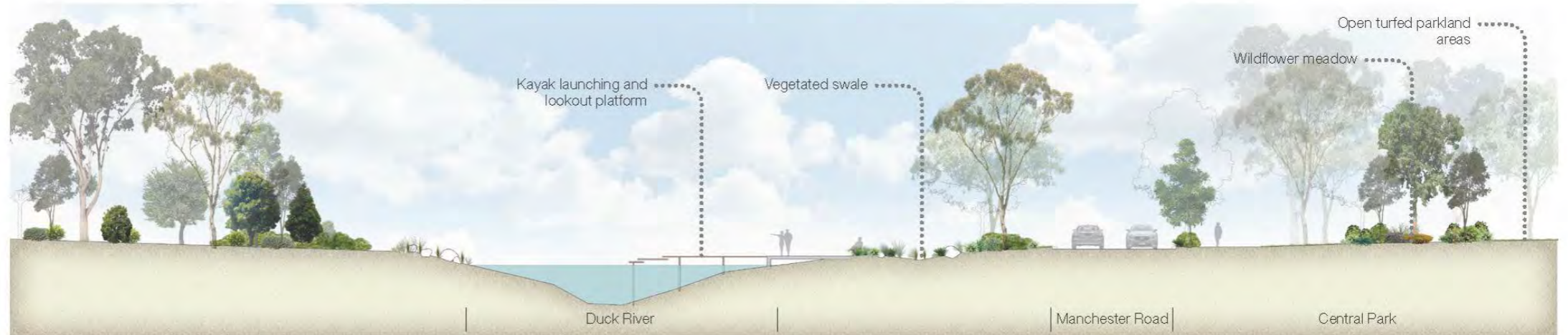
4.5 SECTIONS



Section AA - Bushland Regeneration



Section BB - Revegetation Planting



Section CC - Open Space Parkland

4.0 LANDSCAPE STRATEGY

4.6 SECTIONS



Section BB
Proposed Option 1 - Central Median (Used in Concept Masterplan)



Section BB
Proposed Option 2 - Split landscape buffer



4.0 LANDSCAPE STRATEGY

4.7 THE DUCK RIVER RIPARIAN PARK

The Duck River Riparian is a park that will provide an integrated connection between the masterplan and the water's edge of Duck River.

The park will also be the final stage in site wide stormwater treatment before entering the river. Consequently, the park is a priority precinct in the proposed green grid for Sydney. The Manchester Road section will open up this section of the Duck River corridor as it had been a pinch point for pedestrian connection. Public amenity is to be added incrementally along the alignment of the river to allow for new views and rest areas.

Local provenance species will be used for replanting where possible.



- Legend**
- 01 Water Quality Swales
 - 02 Vehicle + Pedestrian Bridge
 - 03 Car Park
 - 04 Kayak Launching Jetty
 - 05 Revegetation Planting
 - 06 Outdoor Exercise Equipment
 - 07 Shared Path/Cycleway



4.0 LANDSCAPE STRATEGY

4.8 PUBLIC-PRIVATE DELINEATION

The Duck River Park provides the site with ample public open space. This park will provide pleasant views from the apartments to the east and create a landscape buffer between Duck River and the formal public domain of the boulevard.

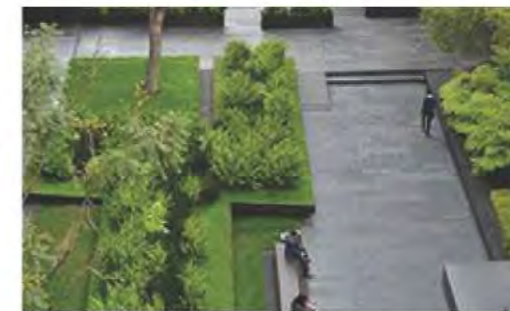


- Legend**
- 01 Playground
 - 02 Landscaped Turf Swale
 - 03 Shade Trees
 - 04 Open Active Turf Area
 - 05 Secondary Breakout Space
 - 06 Shelters
 - 07 Retail Plaza
 - 08 Community Gardens



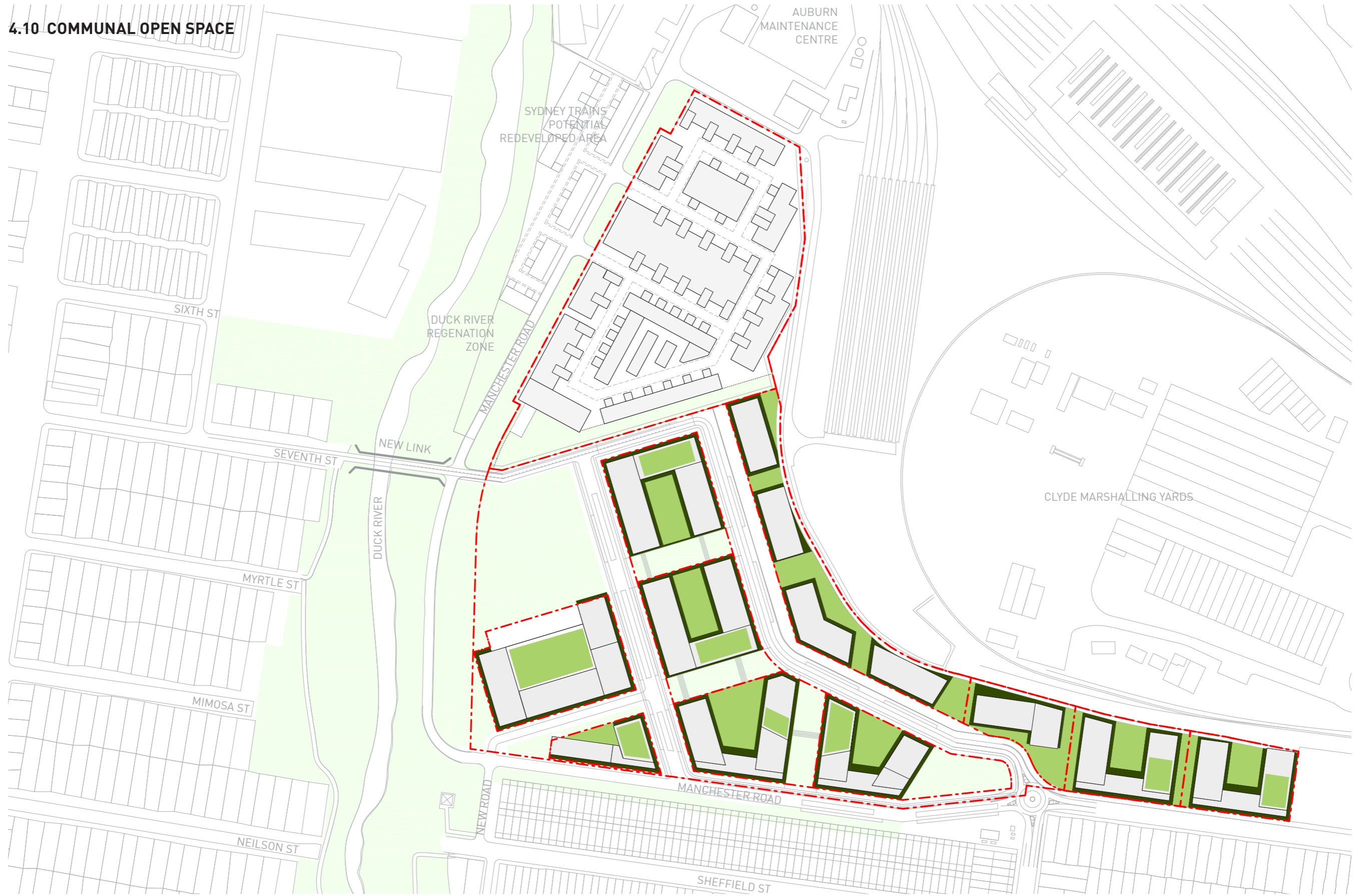
4.0 LANDSCAPE STRATEGY

4.9 LINEAR PARKS AND DEEP SOIL



4.0 LANDSCAPE STRATEGY

4.10 COMMUNAL OPEN SPACE



COMMUNAL OPEN SPACE

GROUND FLOOR OPEN SPACE



5.0 AMENITY

PROPOSED MASTERPLAN
AERIAL VIEW FROM SOUTH TOWARDS NORTH



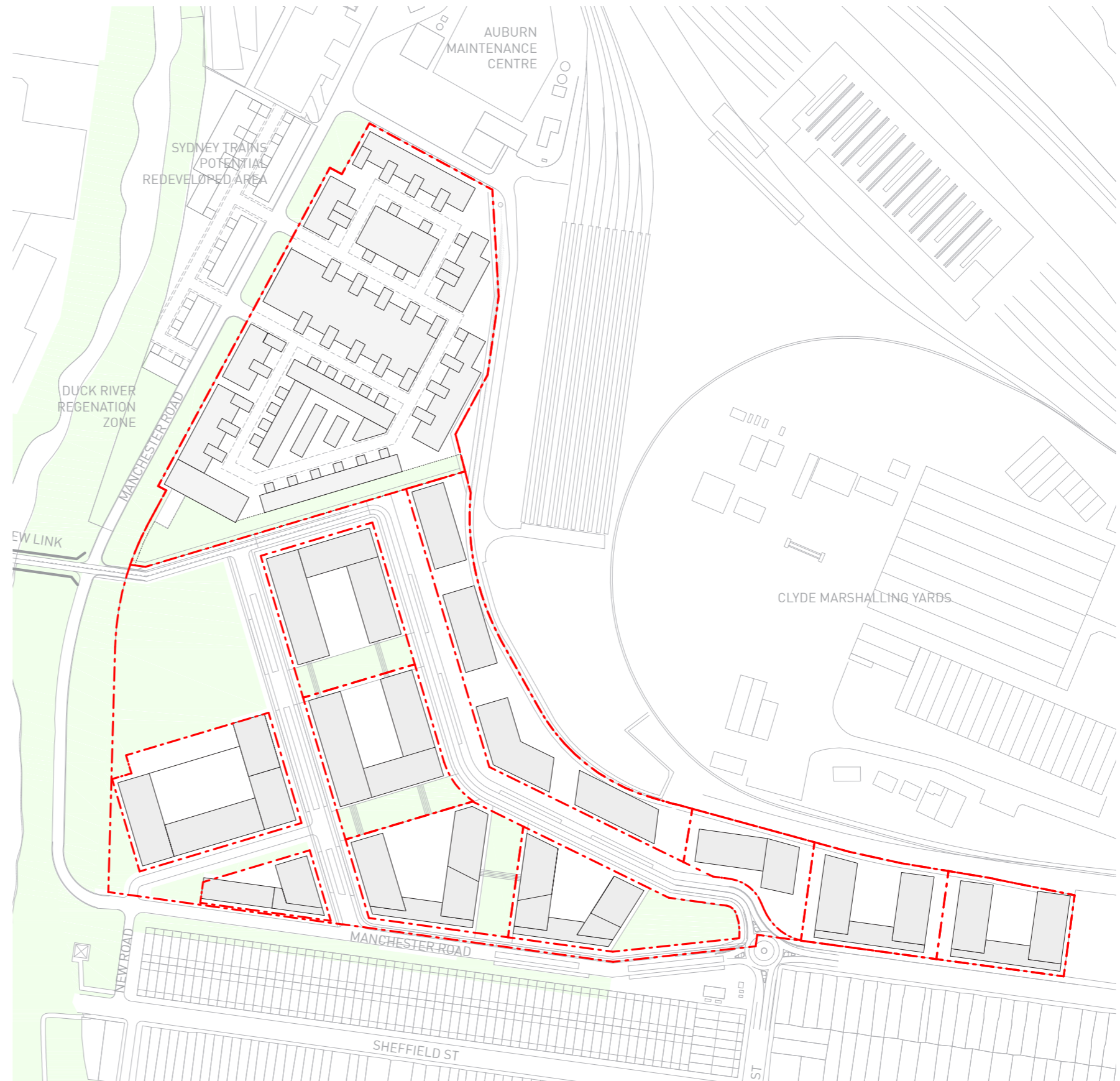
5.0 AMENITY

5.1 SETBACKS AND ALIGNMENTS

The following sequence of diagrams confirm the extent of the proposed setbacks.

SETBACKS / BUILDING SEPARATION - RESIDENTIAL ZONE	
BCA	
SITE BOUNDARY TO INDUSTRIAL ZONE	> 3M
ADG	
9 AND ABOVE STORIES	24M
5-8 STORIES	18M
UP TO 4 STORIES	12M

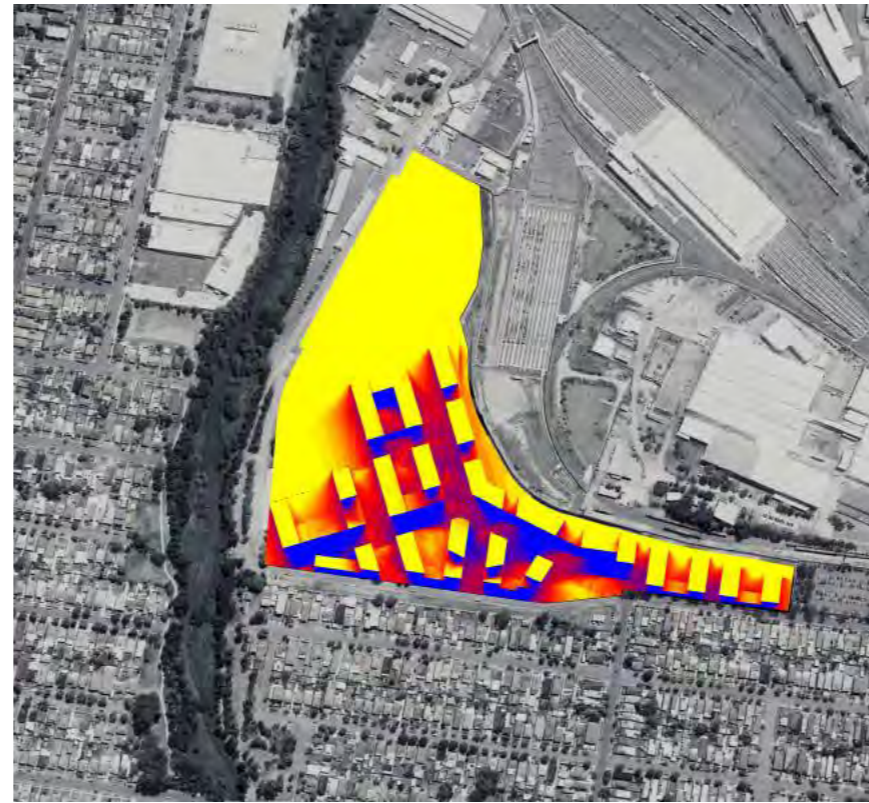
SETBACKS / BUILDING SEPARATION - INDUSTRIAL ZONE	
BCA	
SITE BOUNDARY TO INDUSTRIAL ZONE	> 3M
AUBURN DEVELOPMENT CONTROL PLAN	
FROM OTHER ROADS	4.5M
SIDE AND SETBACKS	4.5M



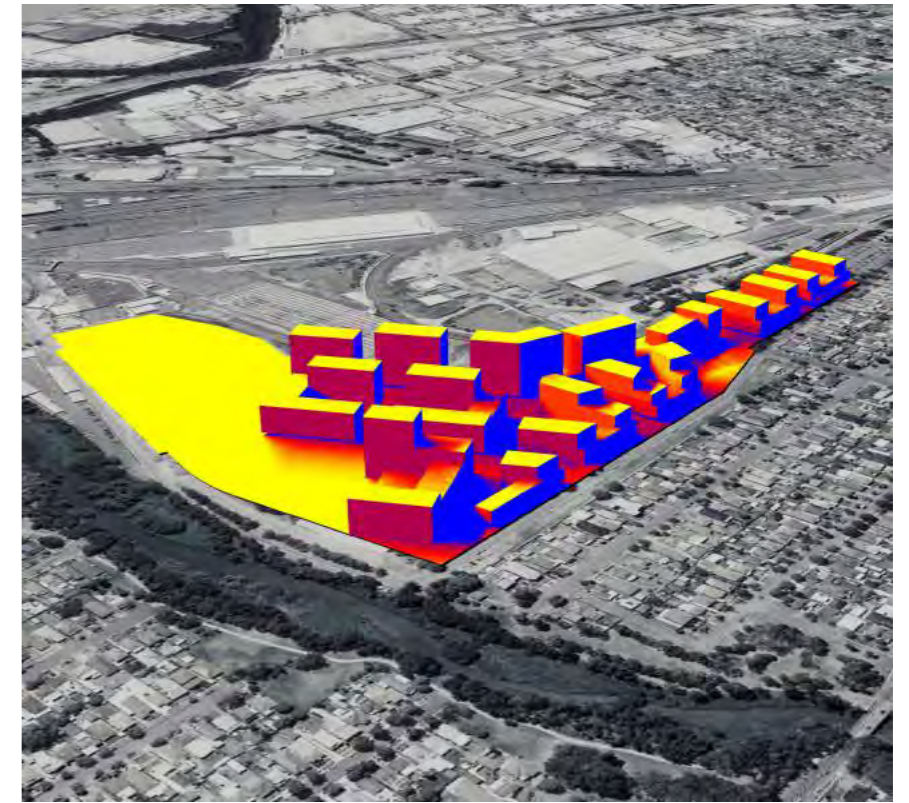
5.0 AMENITY

5.2 SOLAR ANALYSIS

The following sequence of diagrams confirm the extent of solar access across the site for residential and open space uses during mid-winter; thus meeting ADG requirements.



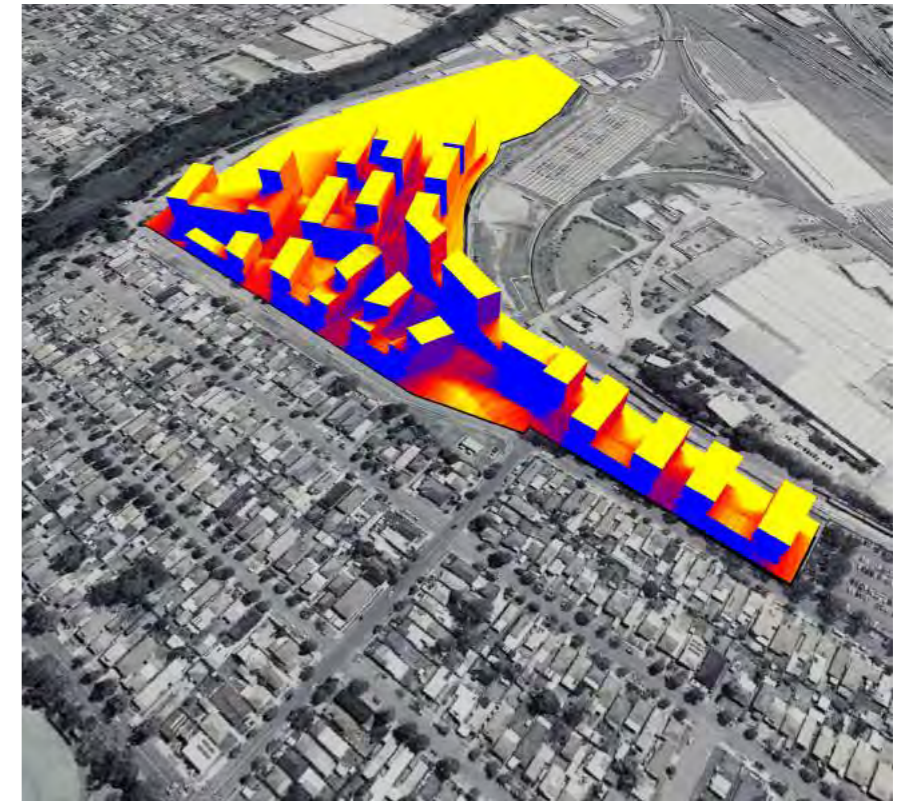
Plan view



View looking north-east

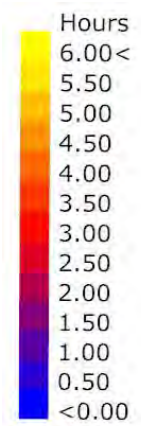


View looking south-east



View looking north-west

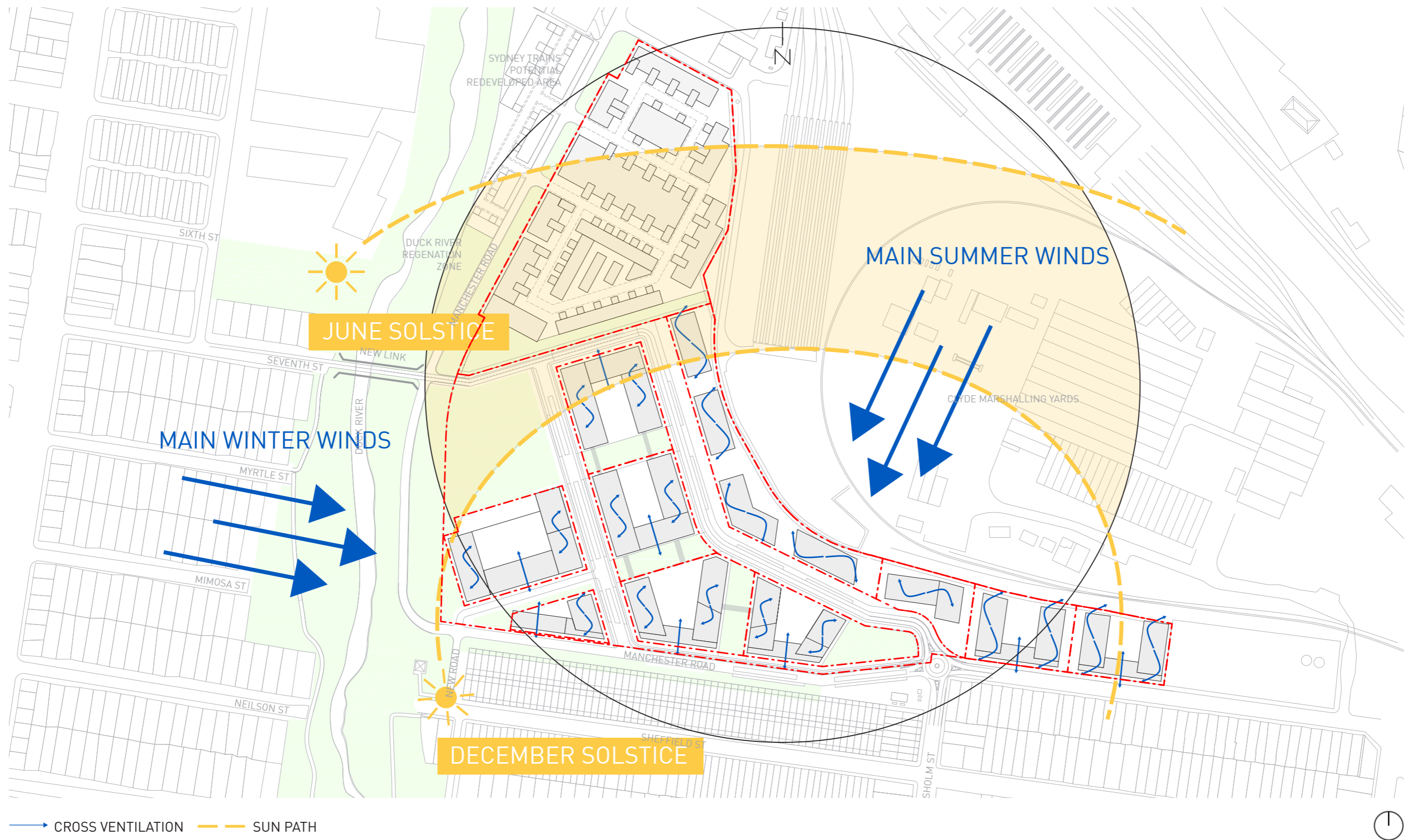
Legend



5.0 AMENITY

5.3 CROSS VENTILATION AND SOLAR ACCESS

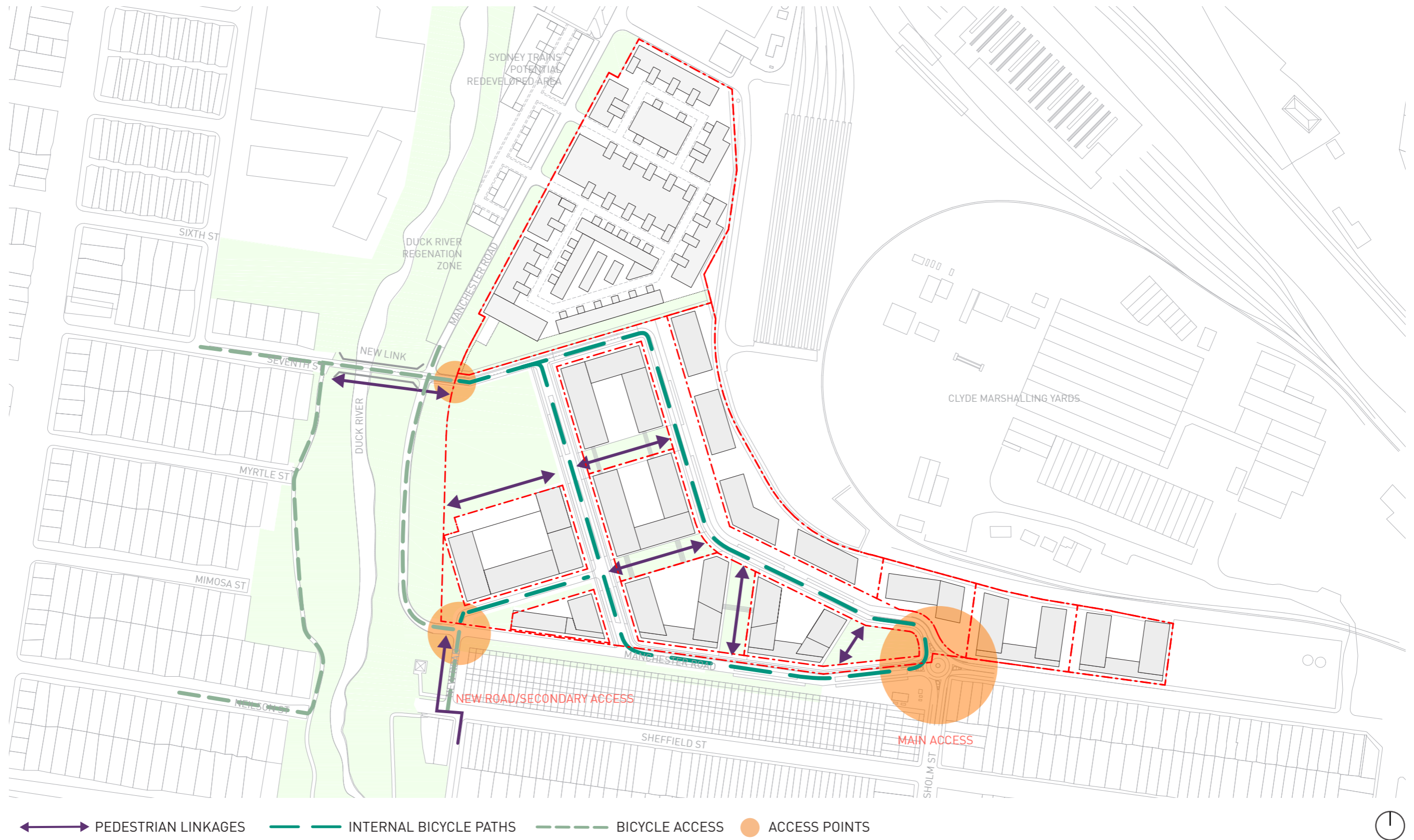
The following diagram identifies, at the master plan scale, how cross ventilation opportunity is provided.



5.0 AMENITY

5.4 ACCESSIBILITY: PEDESTRIAN AND BICYCLE CONNECTION

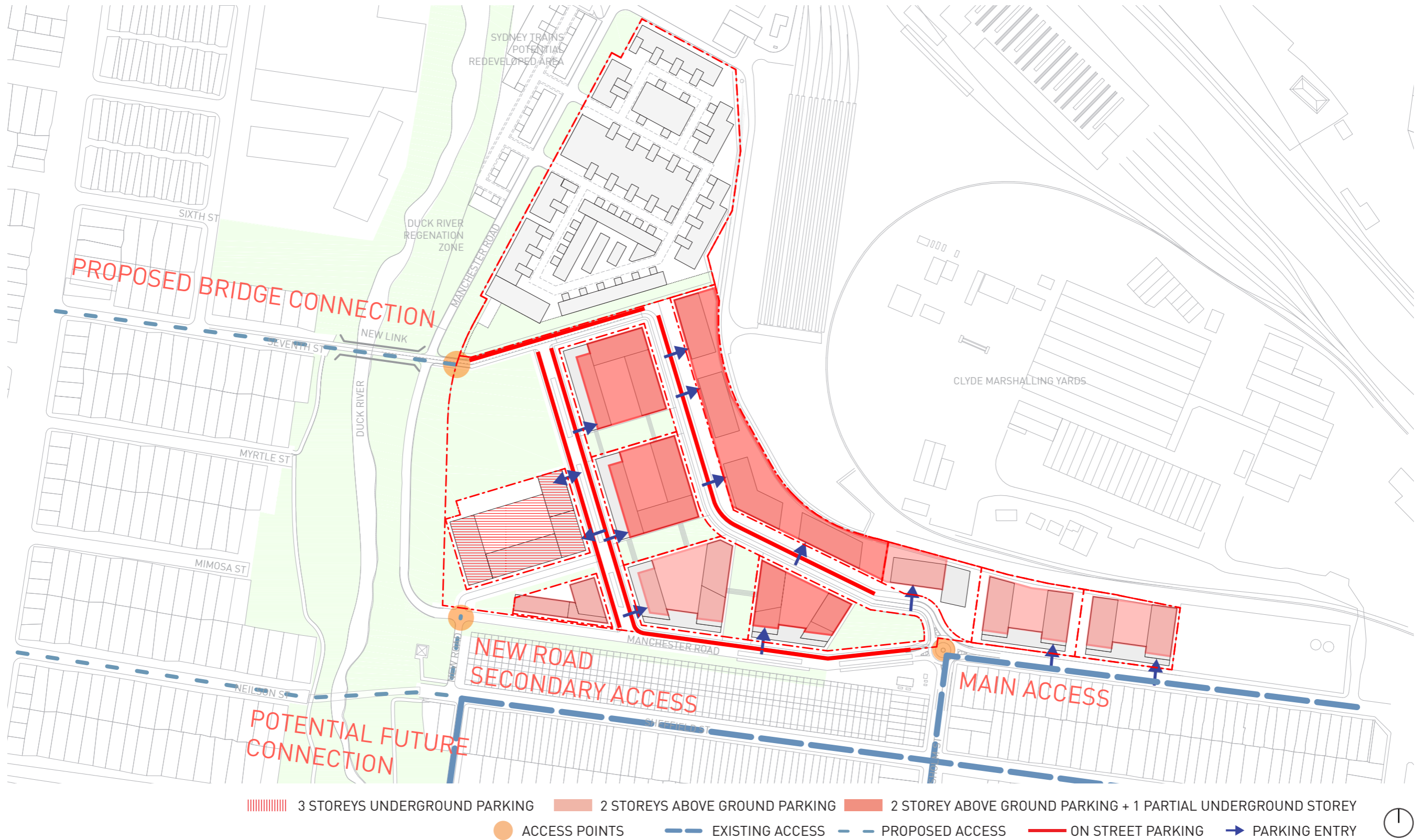
The following diagram identifies, at the master plan scale, how urban address and passive surveillance opportunity is provided; thus meeting ADG requirements.



5.0 AMENITY

5.5 VEHICLE PARKING

The following diagram identifies, at the master plan scale, the entry points for basement vehicle parking. These vehicle cross-over points are located away from corners and important public open space areas.



5.0 AMENITY

5.6 VIEWS

The following diagram identifies the alignments of public domain view-lines across the site from the buildings. This is an important feature of the development as it connects the residents with the surrounding landscape.



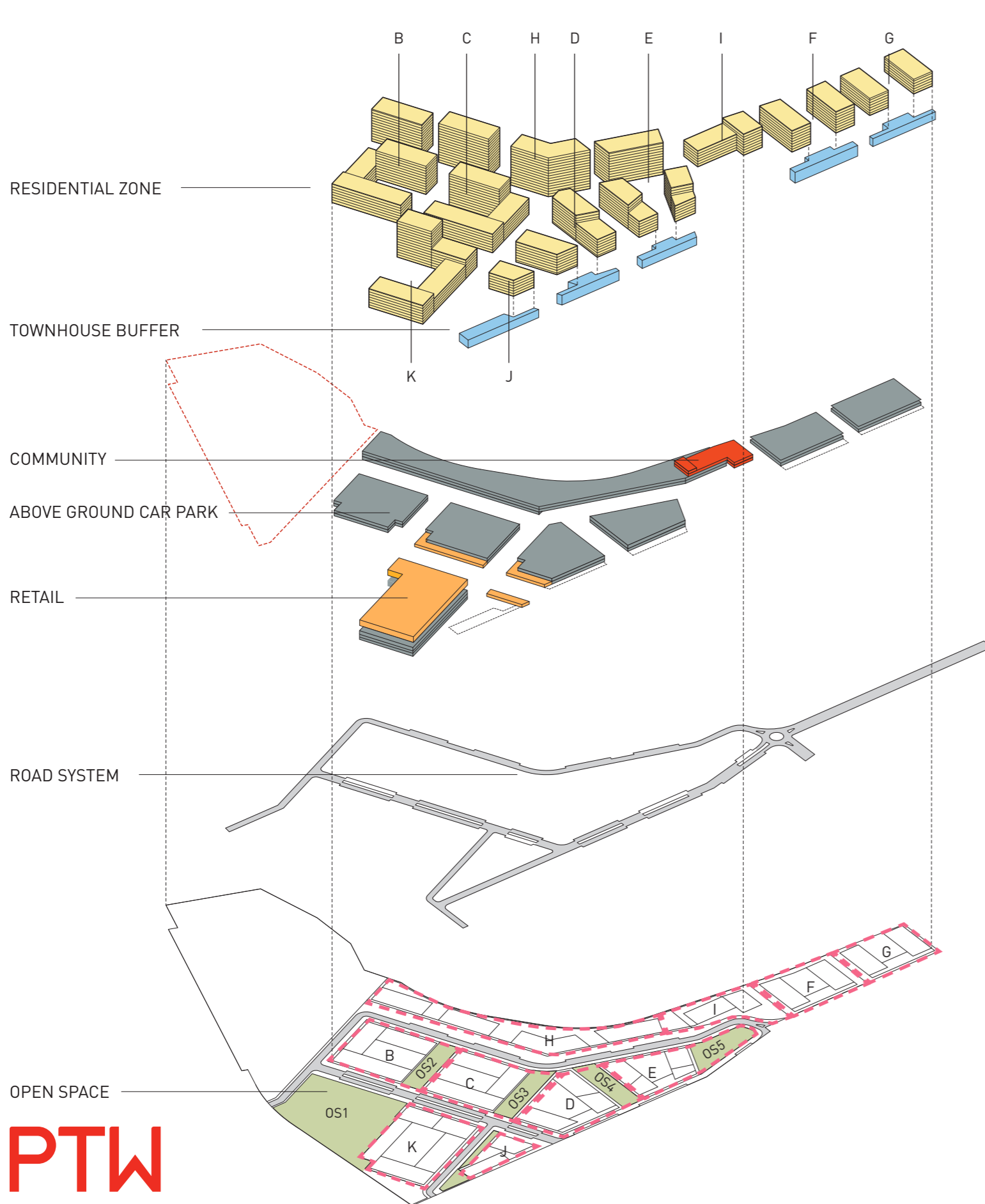
APPENDICES

PROPOSED MASTERPLAN

AERIAL VIEW FROM THE SOUTHWEST TOWARDS NORTHEAST



RESIDENTIAL PRECINCT - FSR, UNIT MIX



TOTAL FSR AREA		
Usage	GFA (75%GBA)	FSR
COMMUNITY	2,000 m ²	0.02
RETAIL	6,027 m ²	0.06
RESIDENTIAL	164,307 m ²	1.62
Grand total	172,333 m²	1.70:1

OPEN SPACE AREA			
Name	AREA	TOTAL SITE	AREA %
OS1	10,638 m ²	101,230 m ²	10.51%
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OS4	1,684 m ²	101,230 m ²	1.66%
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Grand total	17,816 m²		17.60%

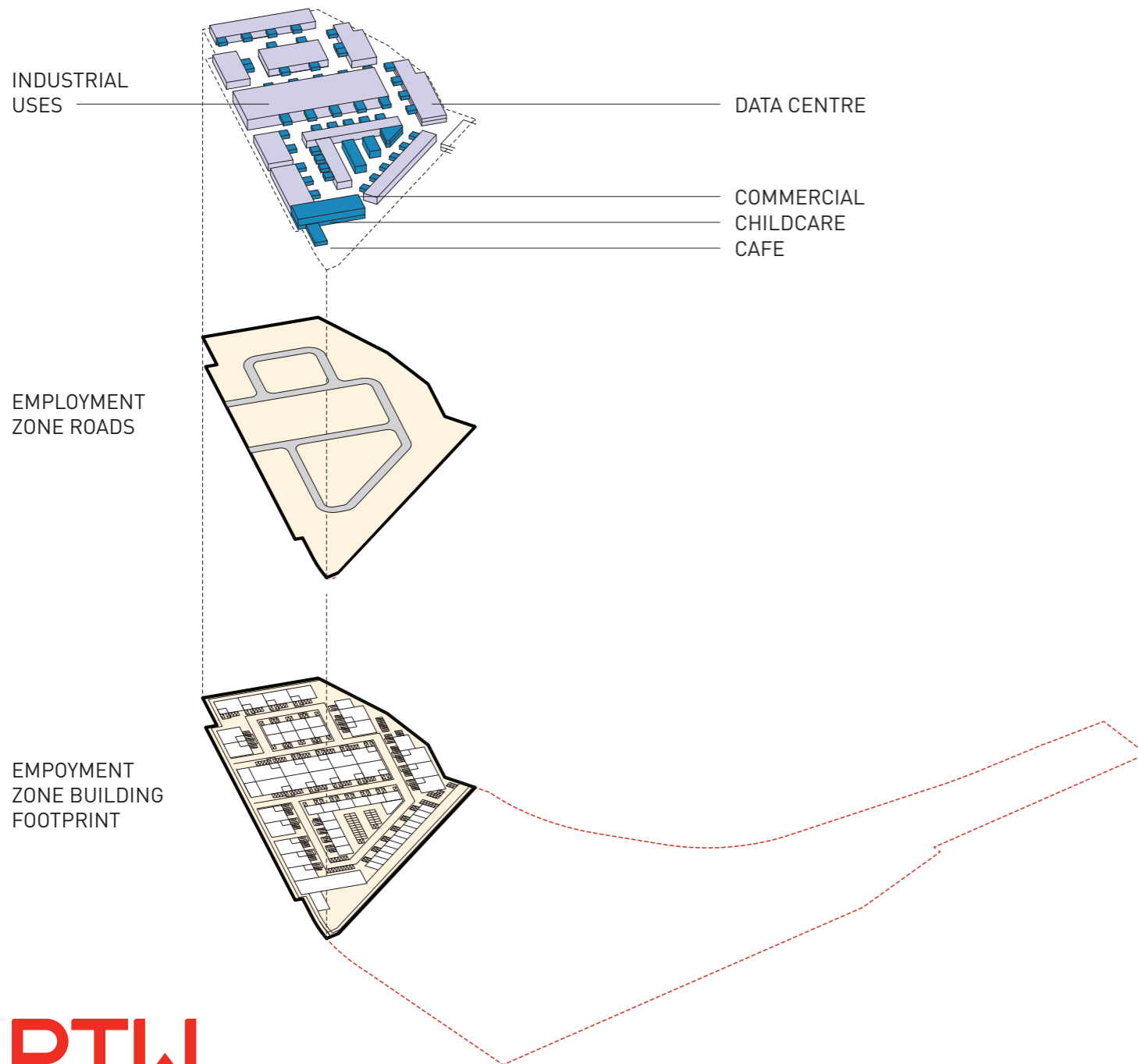
PRODUCT	1 Bedroom	2 Bedroom	3 Bedroom	Studio	Terrace
SQM (NSA)	55.34	80.34	100.34	42.34	115.34
%	25.00%	65.00%	5.00%	2.00%	3.00%
NSA	18,462	101,373	12,173	863	9,655
APT	334	1,262	121	20	84
	TOTAL: 1,821				



OPEN SPACE



EMPLOYMENT PRECINCT - FSR, UNITS, VEHICLE SPACES



TOTAL FSR AREA		
Usage	GFA (100%GBA)	FSR
CHILDCARE	1,094 m ²	0.03
CAFE	250 m ²	0.01
COMMERCIAL	3,281 m ²	0.08
INDUSTRIAL ANCILLARY OFFICE	3,951 m ²	0.10
INDUSTRIAL TYPE 1 [100-200 m ²]	4,140 m ²	0.10
INDUSTRIAL TYPE 2 [300-400 m ²]	11,284 m ²	0.28
INDUSTRIAL TYPE 3 [15 m ²]	500 m ²	0.01
DATA CENTRE	2,708 m ²	0.07
	27,208 m ²	0.68:1

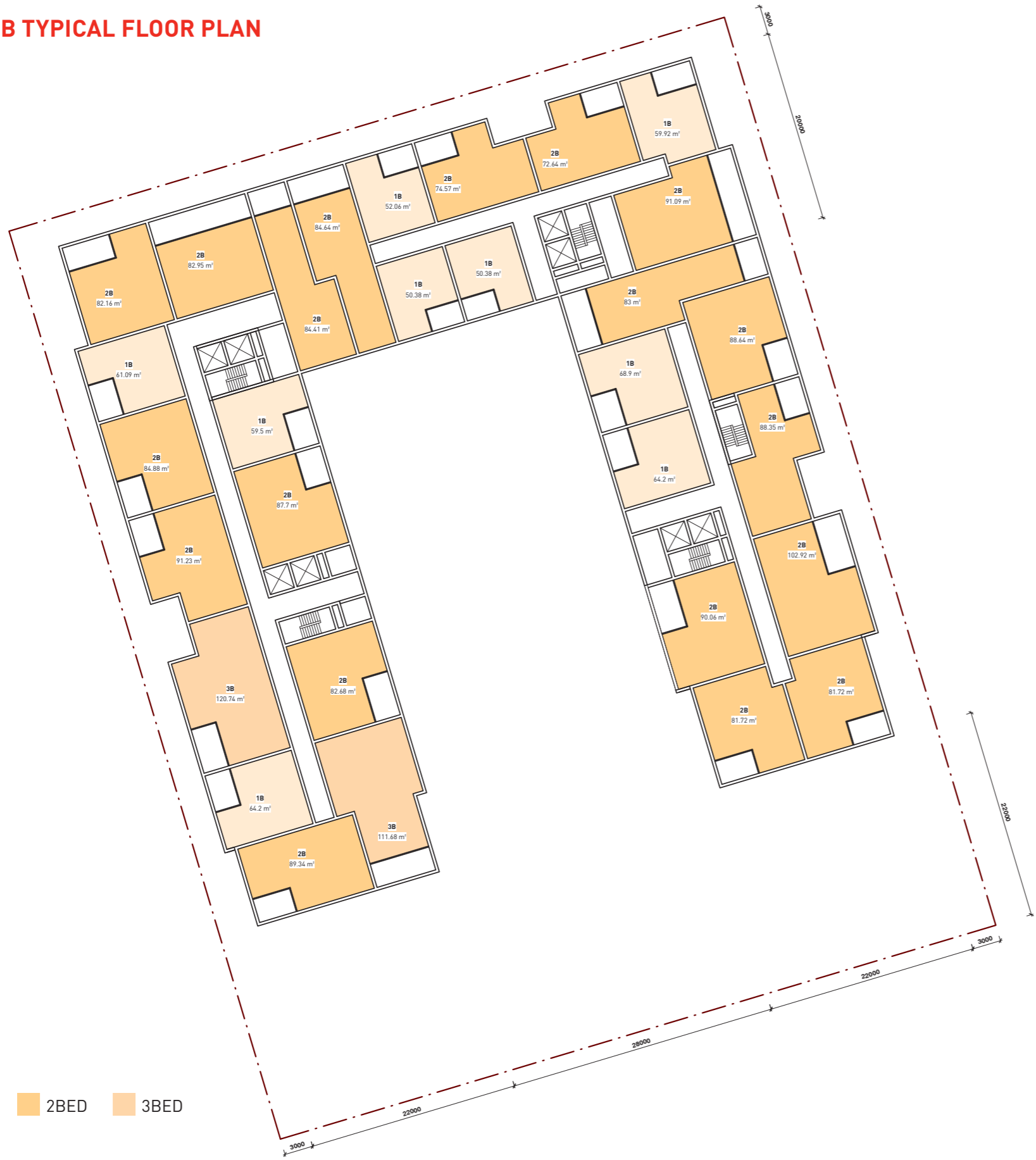
UNITS		
Usage	DESCRIPTION	COUNT
CAFE	RETAIL SPACE	-
COMMERCIAL	OFFICE BUILDING	-
INDUSTRIAL ANCILLARY OFFICE	MEZZANINE SPACE	-
INDUSTRIAL TYPE 1 [100-200 m ²]	SMALL UNITS	31
INDUSTRIAL TYPE 2 [300-400 m ²]	BIG UNITS	24
INDUSTRIAL TYPE 3 [15 m ²]	STORAGE UNITS	34
DATA CENTRE	COMPUTER FACILITY	04
		93

VEHICLE SPACES		
Usage	DESCRIPTION	COUNT
VEHICLE SPACES	-	230
		230

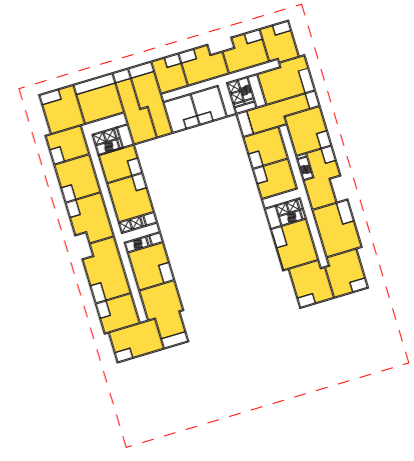
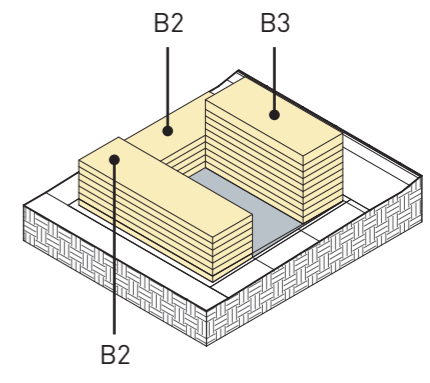


PTW

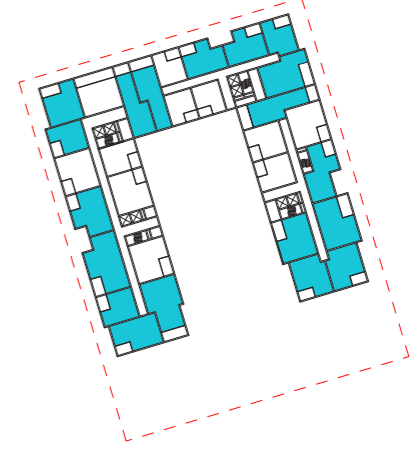
BLOCK B TYPICAL FLOOR PLAN



1BED 2BED 3BED



Solar Access can comply with ADG



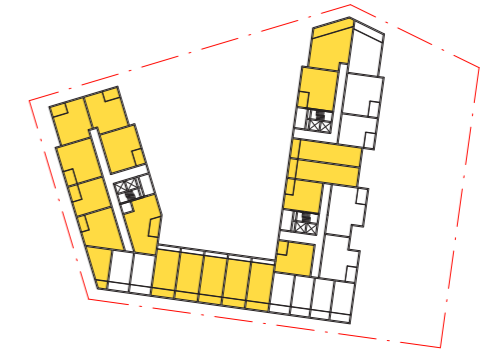
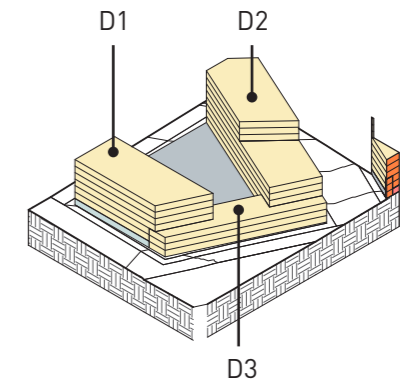
Cross Ventilation can comply with ADG



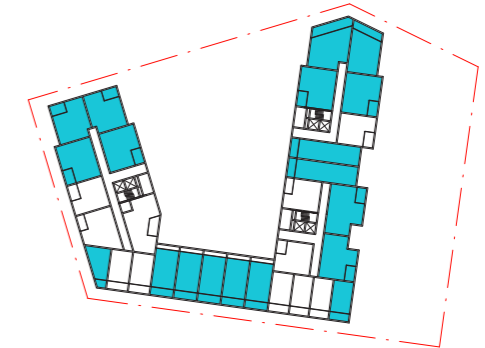
BLOCK D TYPICAL FLOOR PLAN



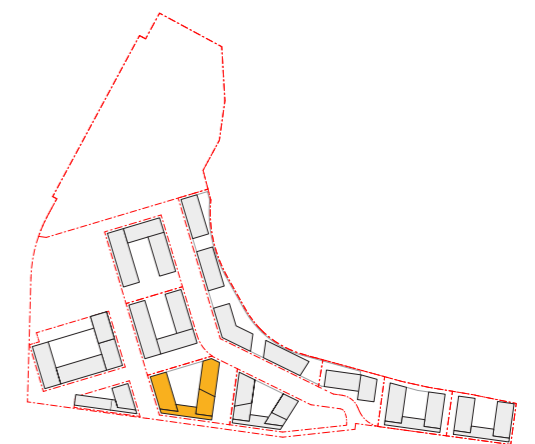
1BED 2BED 3BED DUPLEX TOWNHOUSE



Solar Access can comply with ADG



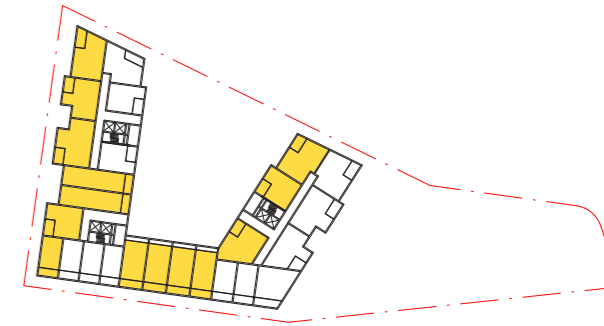
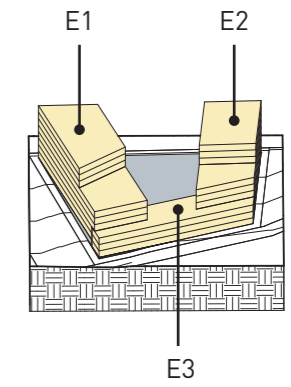
Cross Ventilation can comply with ADG



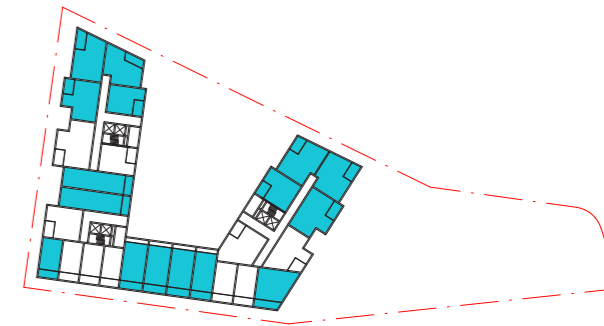
BLOCK E TYPICAL FLOOR PLAN



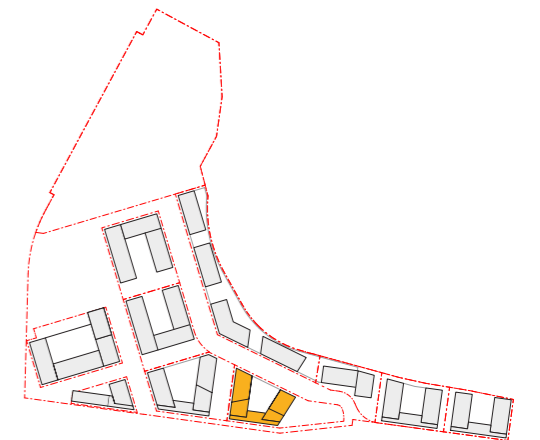
1BED 2BED 3BED DUPLEX TOWNHOUSE



Solar Access can comply with ADG



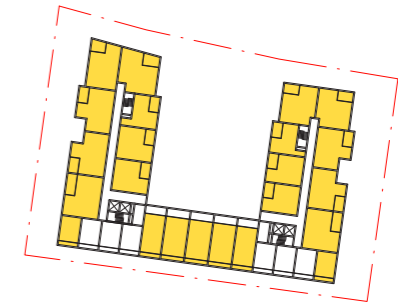
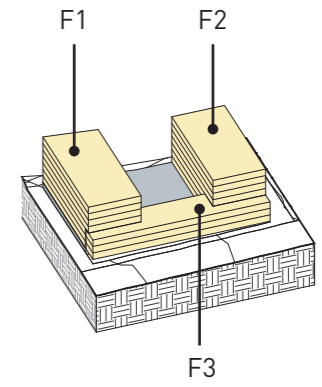
Cross Ventilation can comply with ADG



BLOCK F TYPICAL FLOOR PLAN



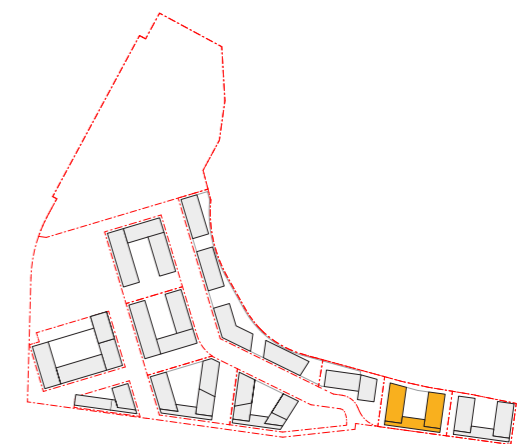
1BED 2BED 3BED DUPLEX TOWNHOUSE



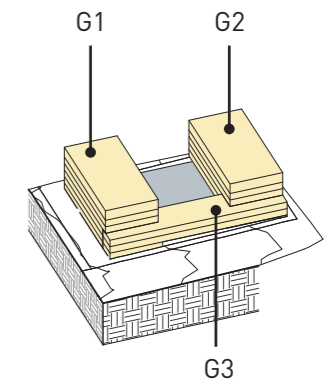
Solar Access can comply with ADG



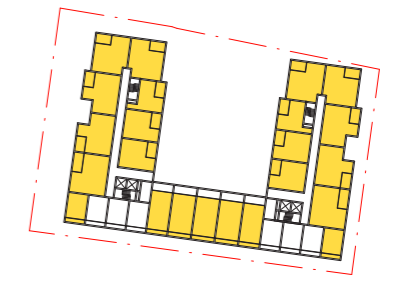
Cross Ventilation can comply with ADG



BLOCK G TYPICAL FLOOR PLAN



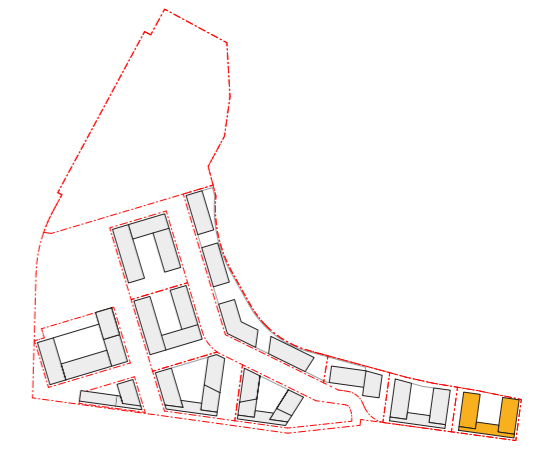
- 1BED
- 2BED
- 3BED
- DUPLEX
- TOWNHOUSE



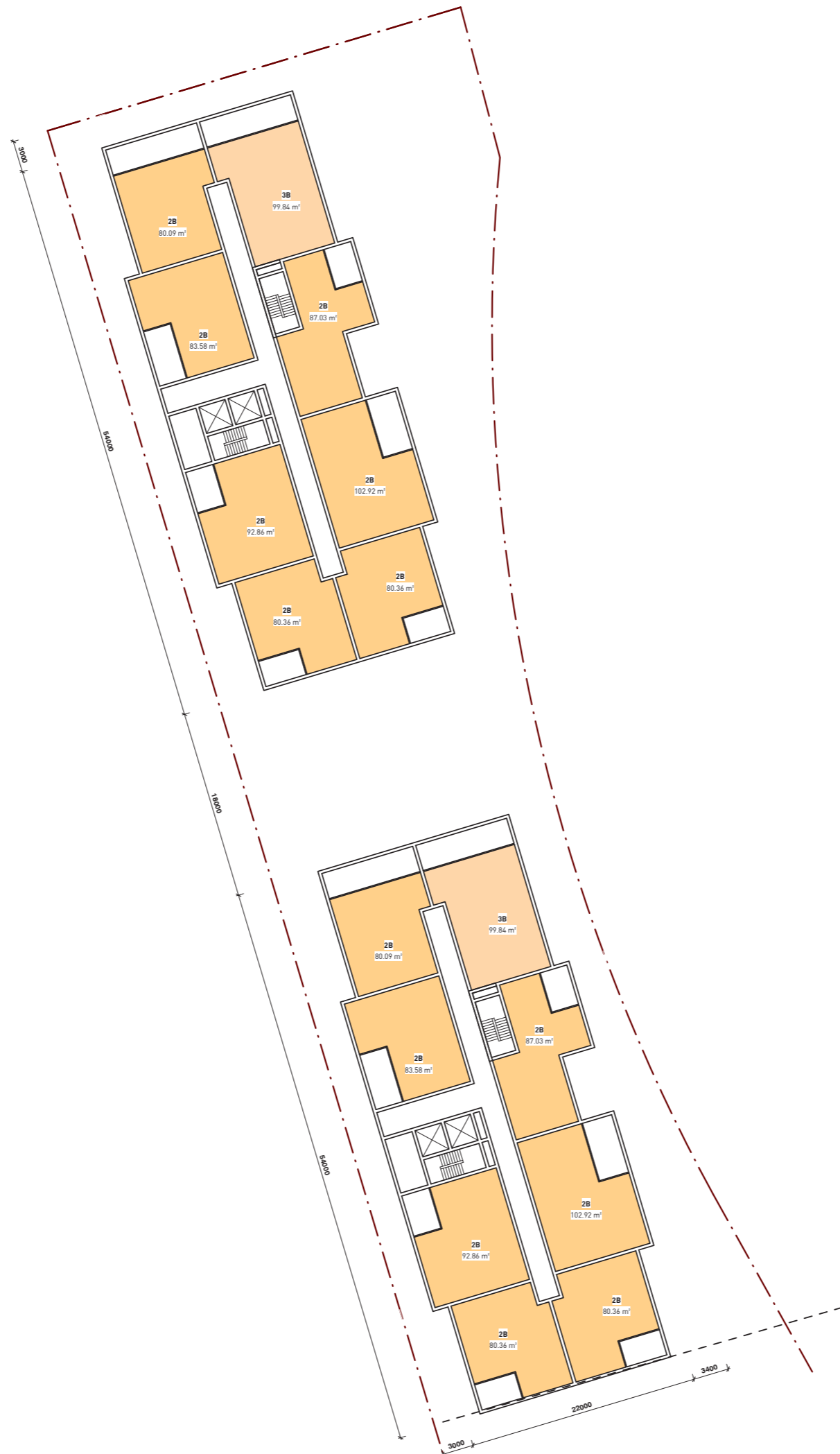
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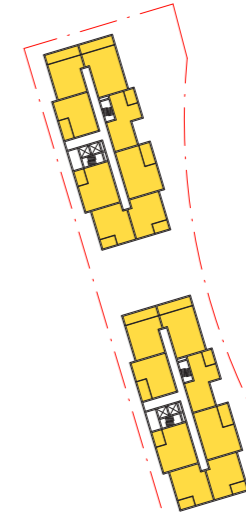
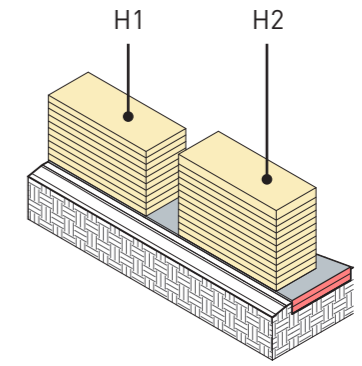
Cross Ventilation can comply with ADG



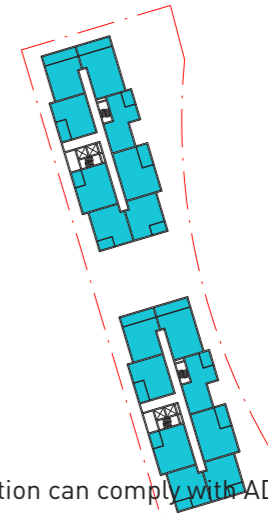
BLOCK H TYPICAL FLOOR PLAN



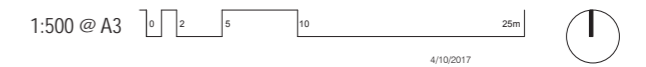
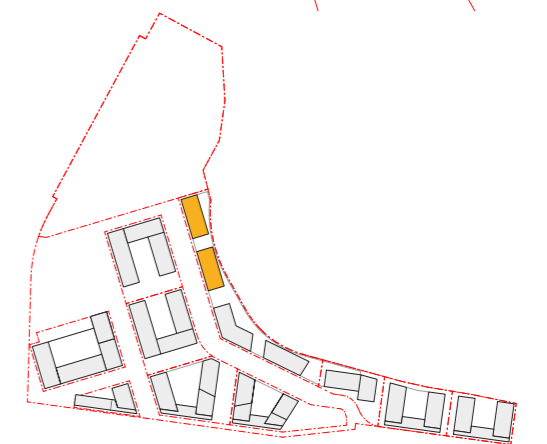
1BED 2BED 3BED



Solar Access can comply with ADG



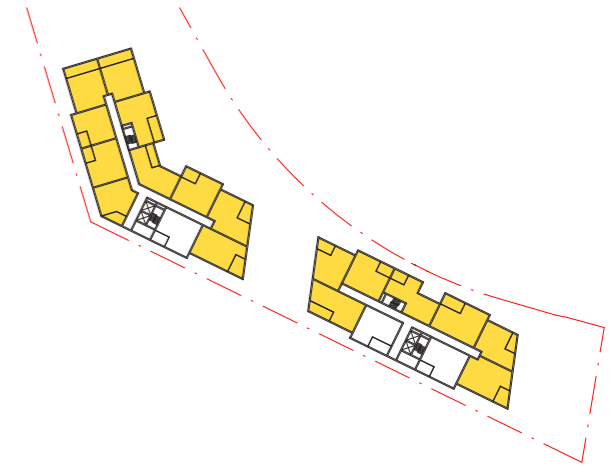
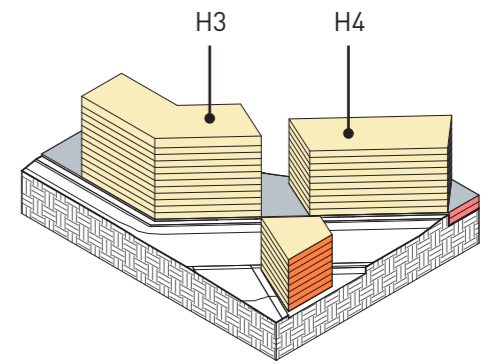
Cross Ventilation can comply with ADG



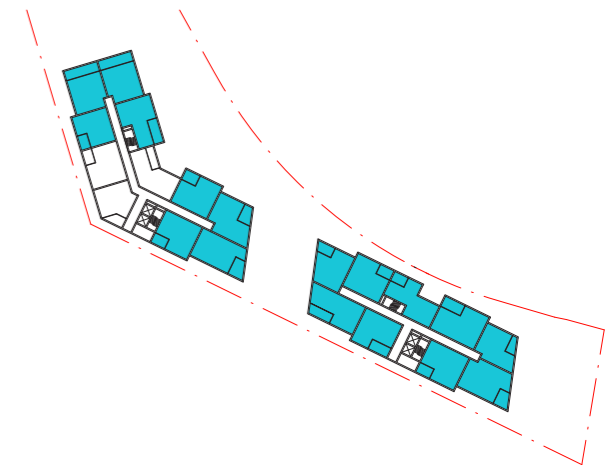
BLOCK H TYPICAL FLOOR PLAN



1BED 2BED 3BED



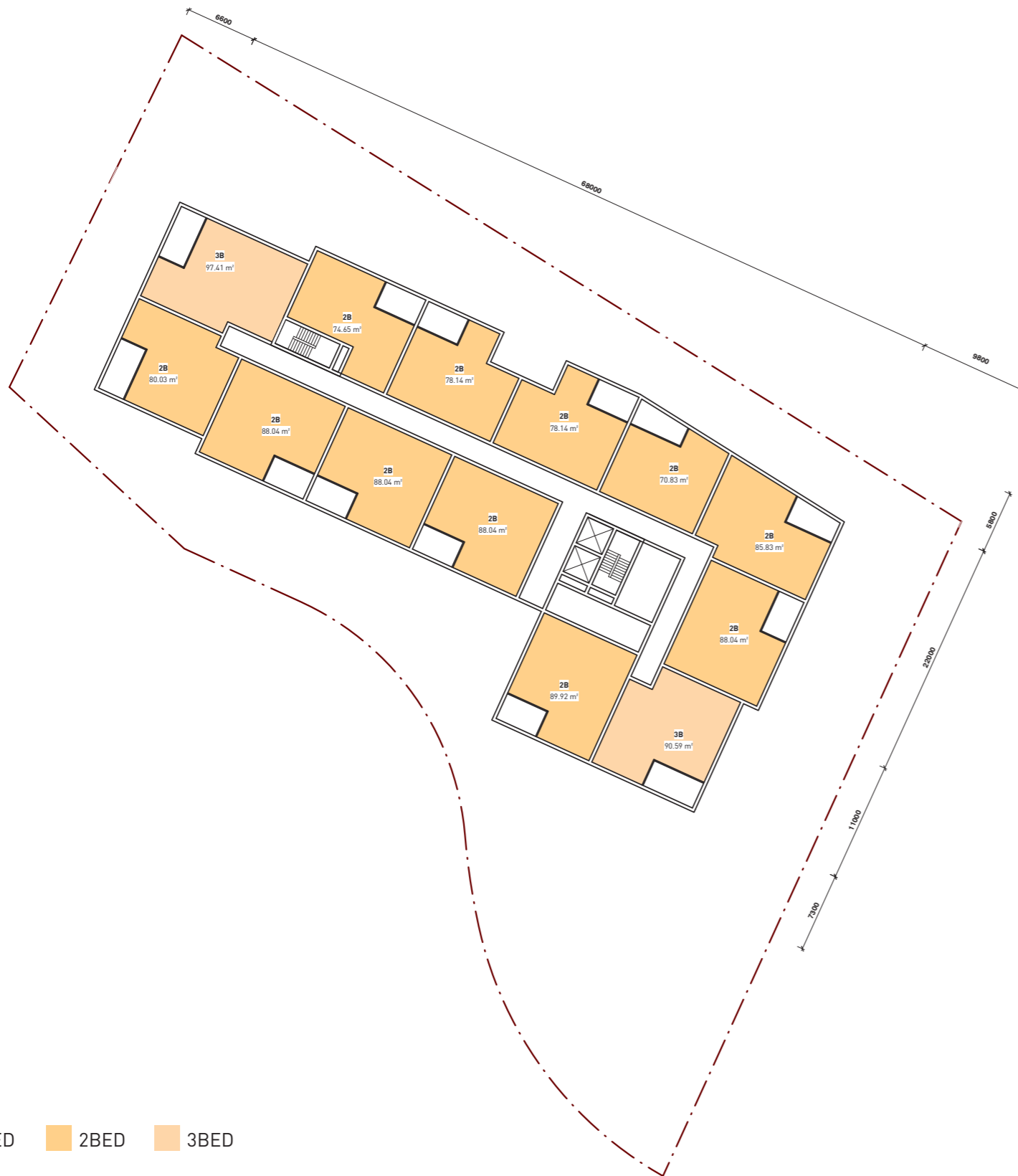
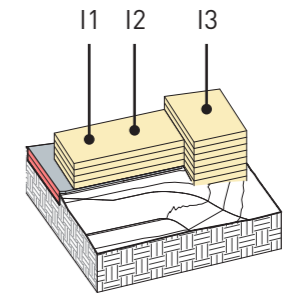
Solar Access can comply with ADG



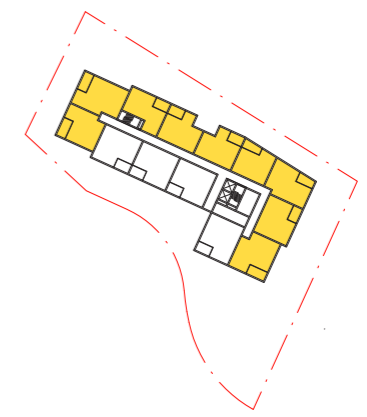
Cross Ventilation can comply with ADG



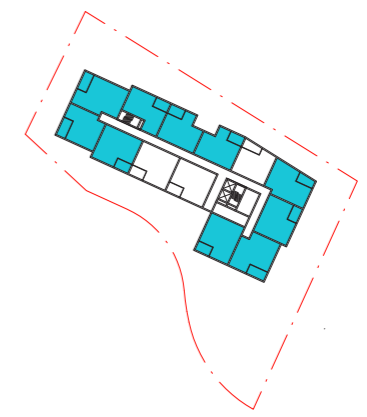
BLOCK I TYPICAL FLOOR PLAN



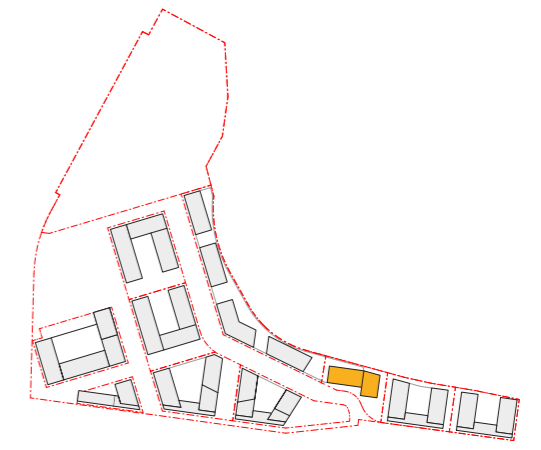
1BED 2BED 3BED



Solar Access can comply with ADG



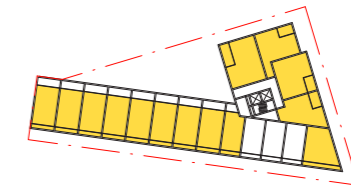
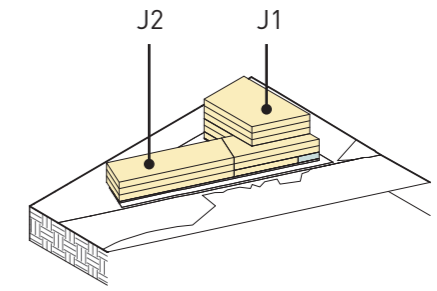
Cross Ventilation can comply with ADG



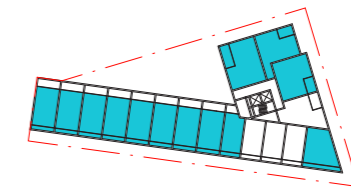
BLOCK J TYPICAL FLOOR PLAN



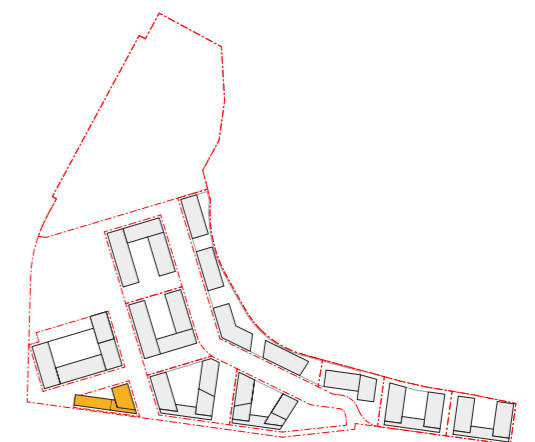
- 1BED
- 2BED
- 3BED
- DUPLEX
- TOWNHOUSE



Solar Access can comply with ADG



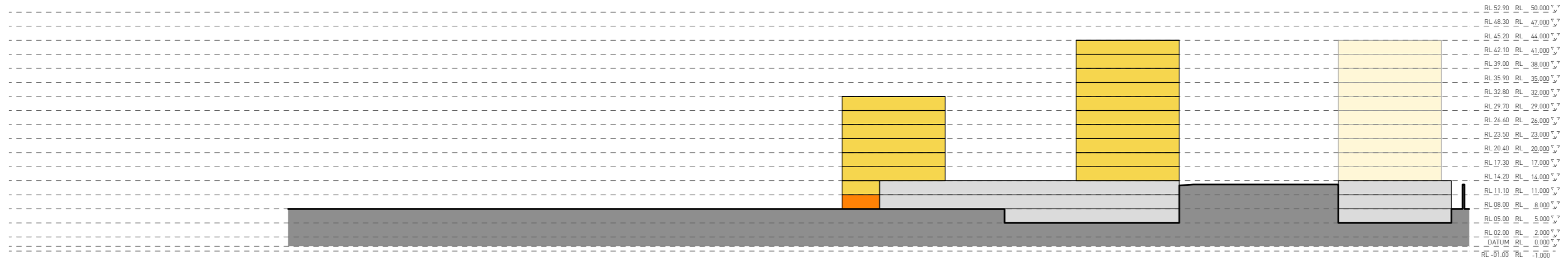
Cross Ventilation can comply with ADG



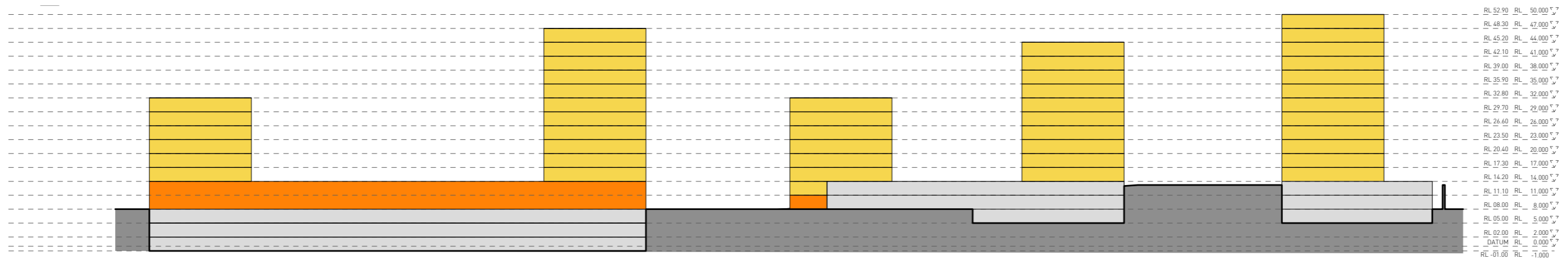


VIEW OF THE NEW MANCHESTER ROAD

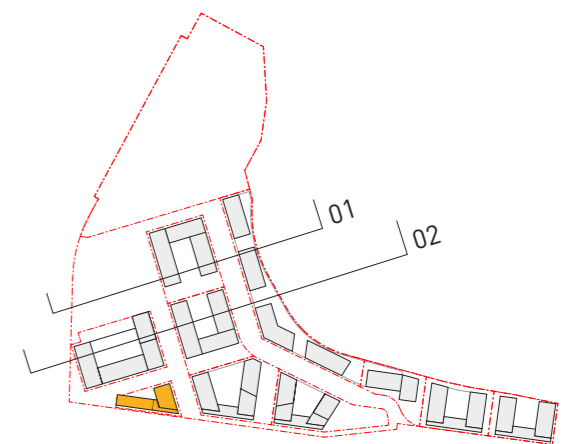
SECTIONS



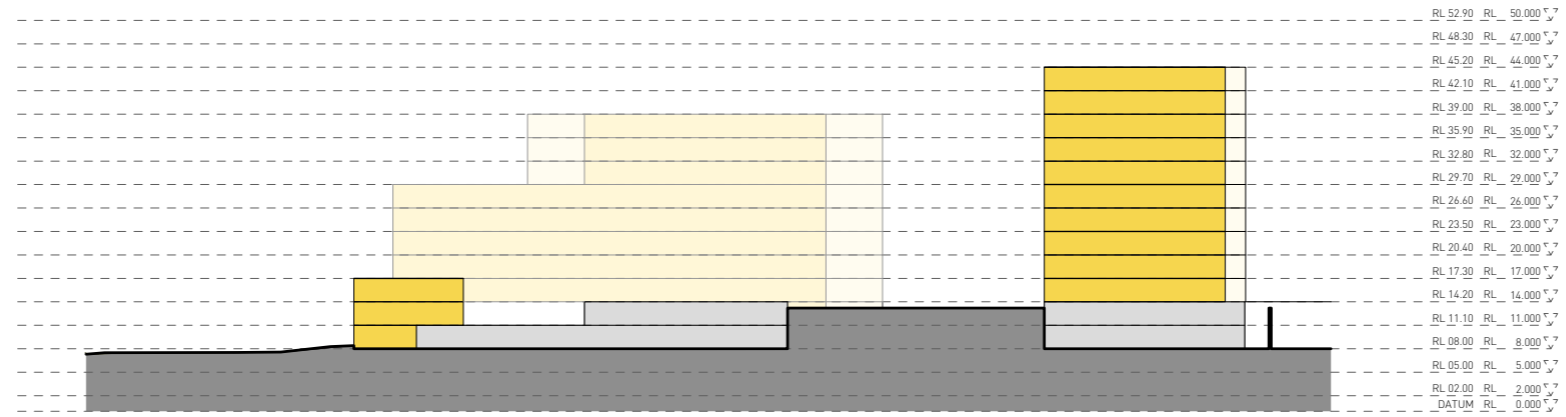
1 Section_1
1 : 500



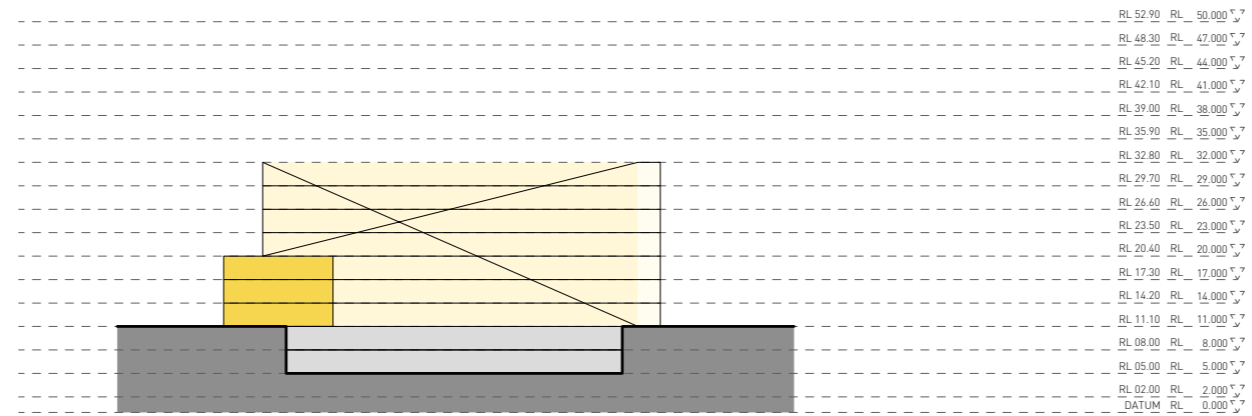
3 Section_2
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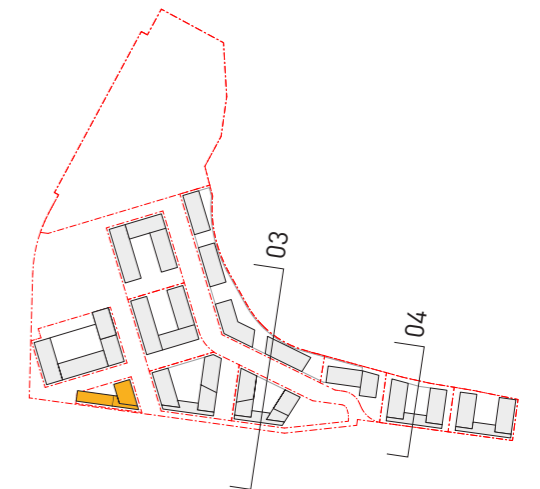
SECTIONS



4 Section_3
1 : 500



5 Section_4
1 : 500



MANCHESTER ROAD PRECINCT NOW



MANCHESTER ROAD PRECINCT TRANSFORMED



MANCHESTER ROAD PRECINCT NOW



MANCHESTER ROAD PRECINCT TRANSFORMED



MANCHESTER ROAD PRECINCT NOW



MANCHESTER ROAD PRECINCT TRANSFORMED



PTW