




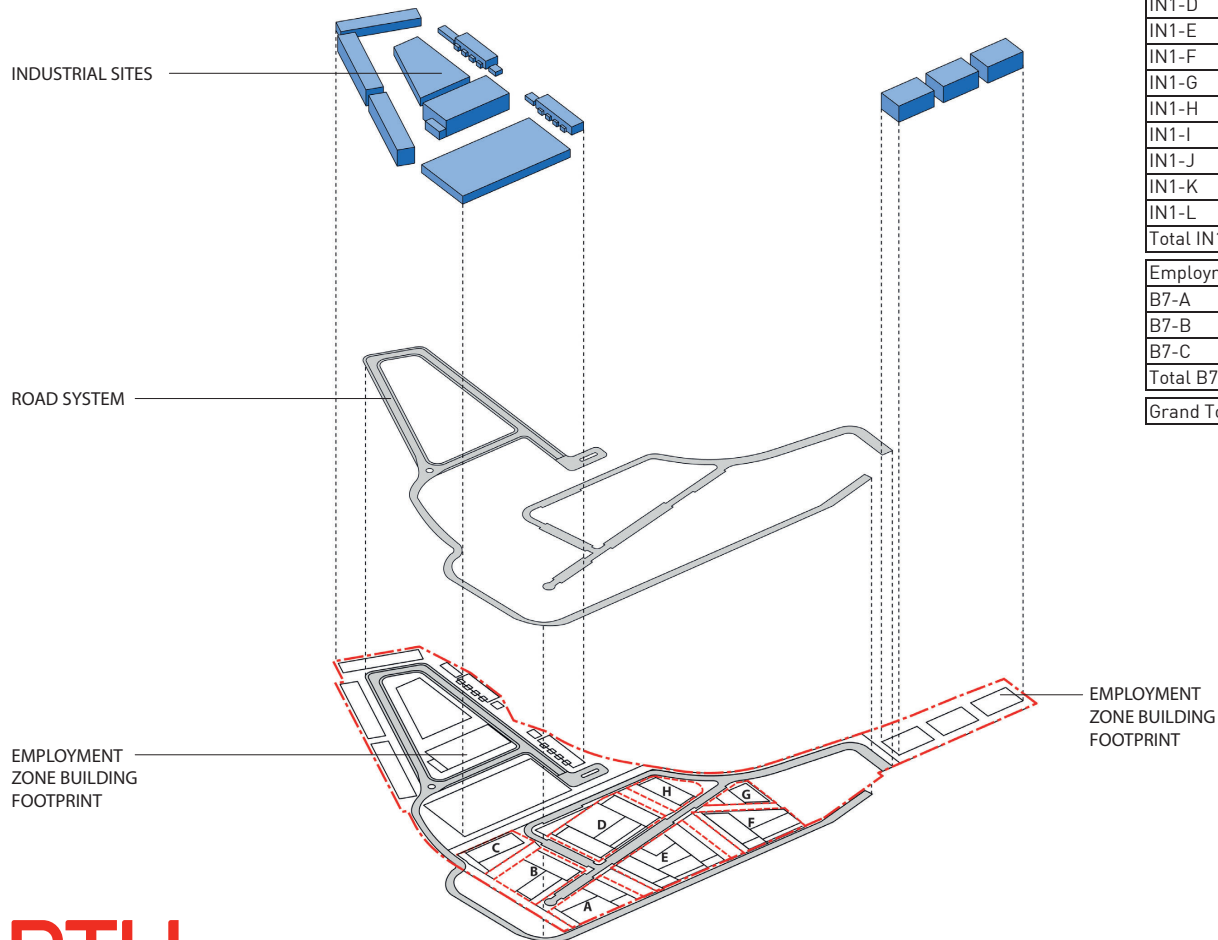
3.0 MANCHESTER ROAD MASTERPLAN



LEGEND:  1:1  1.5:1 

3.0 MANCHESTER ROAD MASTERPLAN

3.12 DEVELOPMENT YIELD: EMPLOYMENT PRECINCT

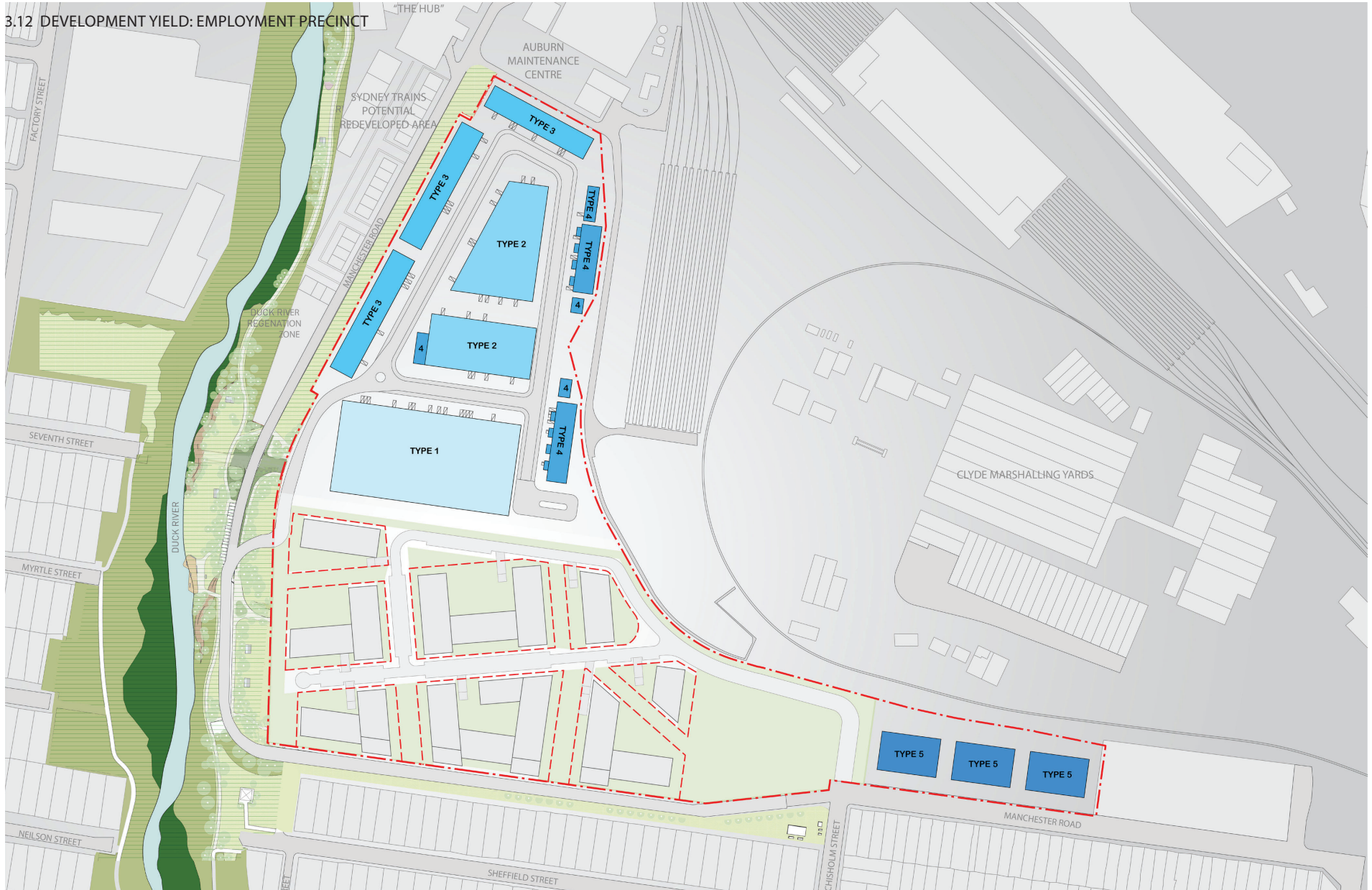


TOTAL FSR AREA			
	Site Area	GFA (90%GBA)	FSR
Employment Zone (West) IN1	59,508	59,508	1.00
Employment Zone (Est) B7	10,780	16,164	1.50
Grand Total	70,288	75,672	1.08

TOTAL FSR AREA			
	Site Area	GFA (100%GBA)	FSR
Employment Zone (West) IN1			
IN1-A	59,508	14,642	0.25
IN1-B	59,508	7,828	0.13
IN1-C	59,508	7,784	0.13
IN1-D	59,508	3,108	0.05
IN1-E	59,508	488	0.01
IN1-F	59,508	1,636	0.03
IN1-G	59,508	105	0.00
IN1-H	59,508	127	0.00
IN1-I	59,508	1,918	0.03
IN1-J	59,508	12,888	0.22
IN1-K	59,508	434	0.01
IN1-L	59,508	8,550	0.14
Total IN1	59,508	59,508	1.00
Employment Zone (Est) B7			
B7-A	10,780	5,388	0.50
B7-B	10,780	5,388	0.50
B7-C	10,780	5,388	0.50
Total B7	10,780	16,164	1.50
Grand Total	70,288	75,672	1.08

3.0 MANCHESTER ROAD MASTERPLAN

3.12 DEVELOPMENT YIELD: EMPLOYMENT PRECINCT



LEGEND:

INDUSTRIAL TYPE 1
2000-4000m²

INDUSTRIAL TYPE 2
400-800m²

INDUSTRIAL TYPE 3
200-400m²

INDUSTRIAL TYPE 4
100-200m²

INDUSTRIAL TYPE 5
100-1400m²



4.0 LANDSCAPE STRATEGY

PROPOSED MASTERPLAN
VIEW FROM THE DUCK RIVER CORRIDOR PARK TOWARDS THE DEVELOPMENT



4.0 LANDSCAPE STRATEGY

4.1 URBAN CONTEXT

The Duck River catchment flows to the Parramatta River covering an area of about 104 square kilometres. Duck River is tidal from its mouth at Parramatta River to the Clyde Weir near the Main Western Railway Line at Granville, and freshwater above the weir. The Upper Duck River (which includes the Manchester Road site) is surrounded by a majority of public land owned and managed by Cumberland Council and further upstream by the City of Canterbury Bankstown. Major landowners include State Rail Corporation, Australia Post, and others.

The Duck River wetlands are of regional conservation significance, providing home to three Endangered Ecological Communities and several threatened species, and are highly valued by the local community. The subject area provides opportunities for passive recreational activities, and is surrounded by numerous sporting facilities and playing fields. Overall, however, the corridor and its wetlands are in a degraded condition with numerous environmental and hydrological issues. The Duck River corridor is a priority project for the "Green Grid" and the work proposed will go a long way toward realising the vision for the corridor.

The Manchester Road proposal includes a detailed vegetation management action program for about 210m of the Duck River corridor opposite the Manchester Road residential development. High priority actions include:

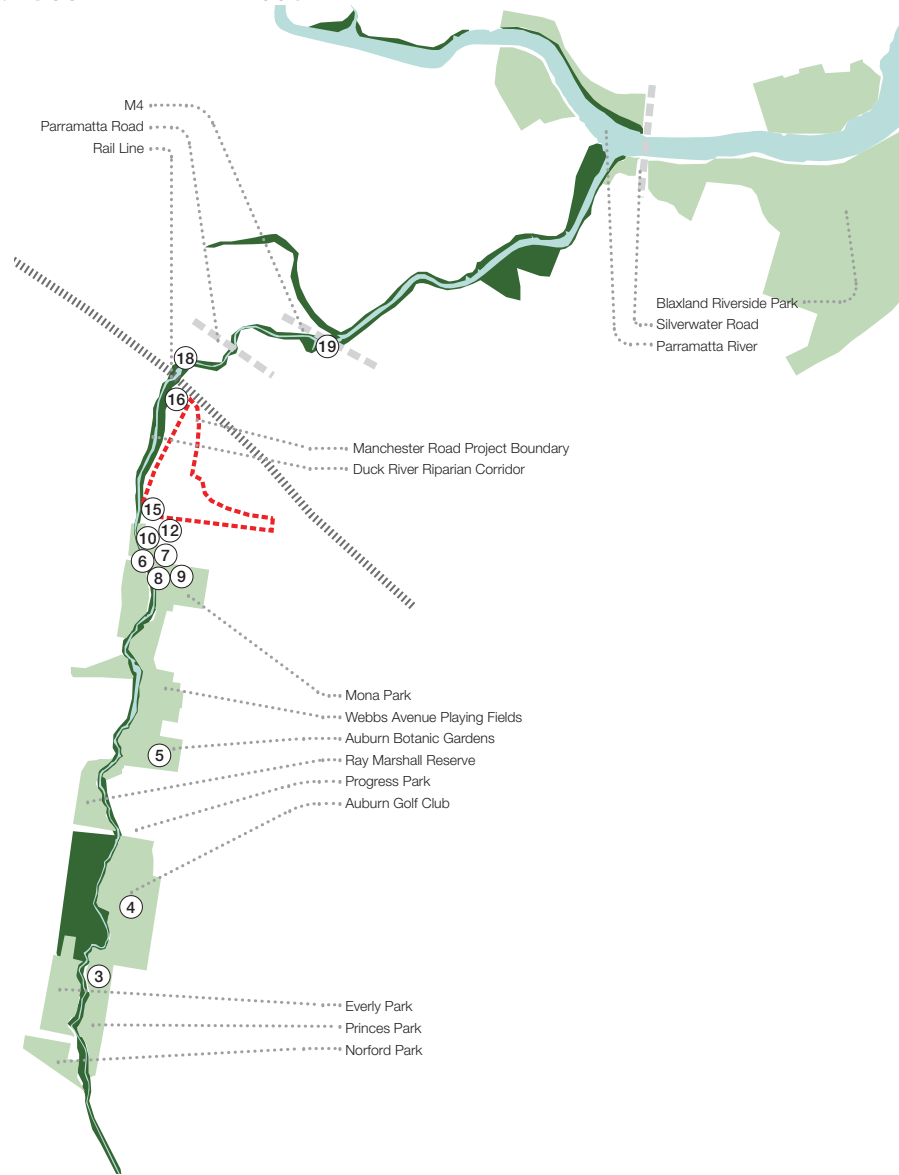
1. Provision of the "missing Link" of shared use footpath/cycleways along this section of River;
2. Controlling weeds with bushland regeneration techniques;
3. Re-vegetation planting;
4. Control of pollutants at the source;
5. New open space parkland;
6. Community education and interpretive signage;
7. Crime Prevention through Environmental Design

All works will be undertaken according to the recommendation provided in the Masterplan for the Duck River Catchment (prepared for Parramatta City Council by Applied Ecology June 2012).

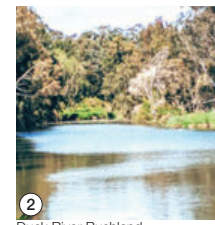


4.0 LANDSCAPE STRATEGY

4.2 DUCK RIVER WALK-THROUGH



1 Duck River Aerial



2 Duck River Bushland



3 Central Reserve opp. Auburn Golf Course



4 Auburn Golf Course



5 Auburn Botanic Gardens Reflection Pond



6 Duck River - Mona Street Bridge



7 Duck River - Mona Street Bridge



8 Mona Park Bike Path



9 George Parry Oval - Mona Park



10 Bangor Park, Auburn



10 Bangor Park, Auburn



12 Sheffield St, Cnr Payce Land



10 Bangor Park



14 37.5 metres South West



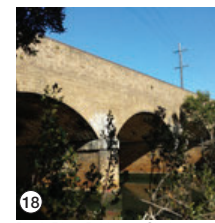
15 Duck River from Manchester Rd



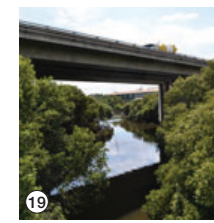
16 Flying Fox Colony



17 Duck River Bridge at Clyde - 1833-1836



18 Duck River Bridge at Clyde



19 M4 Western Motorway - Duck River, Clyde

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.

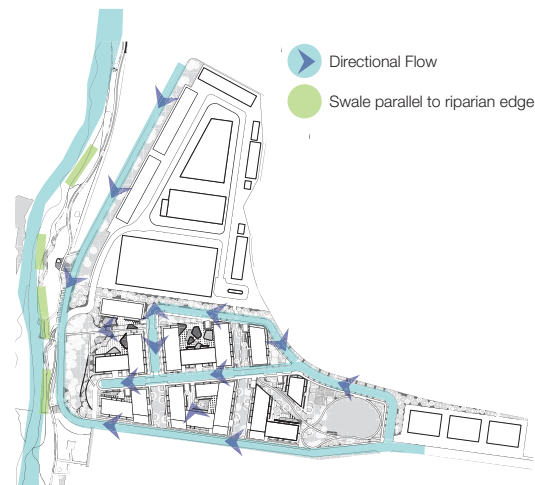
The following community improvements are noted:

- 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.

Zones of Use



Water Treatment



Connectivity



THE PROPOSAL

PTW



4.0 LANDSCAPE STRATEGY

4.4 PROPOSED LANDSCAPE PLAN

The landscape concept masterplan encapsulates the entire PAYCE site, including the Duck River Rehabilitation zone and adjacent streetscapes.

The Site incorporates six major landscape zones:

1. Duck River Riparian Corridor;
2. Employment Lands;
3. Central Park;
4. Residential Precincts;
5. Streetscapes; and
6. Pedestrian Laneways.

In broad terms, the landscape mimics the natural gradation of the planting types as it radiates away from the riverside with riverside species dominating the Central Park and streetscapes fronting the river. Further from the river, and as the topography rises, a greater diversity of species is used, including the introduction of deciduous exotics, such as Jacaranda and Crepe Myrtle to add color and allow winter sun to penetrate.



4.0 LANDSCAPE STRATEGY

4.5 DUCK RIVER REHABILITATION

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. 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 (EEC's). 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 ground cover 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.

RE-VEGETATION PLANTING

Where there is little or no native species present, additional re-vegetation planting of species selected from the EEC's will improve connectivity between adjoining areas of better bushland. Re-vegetation 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 re-vegetation 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. A "Lookout" 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.

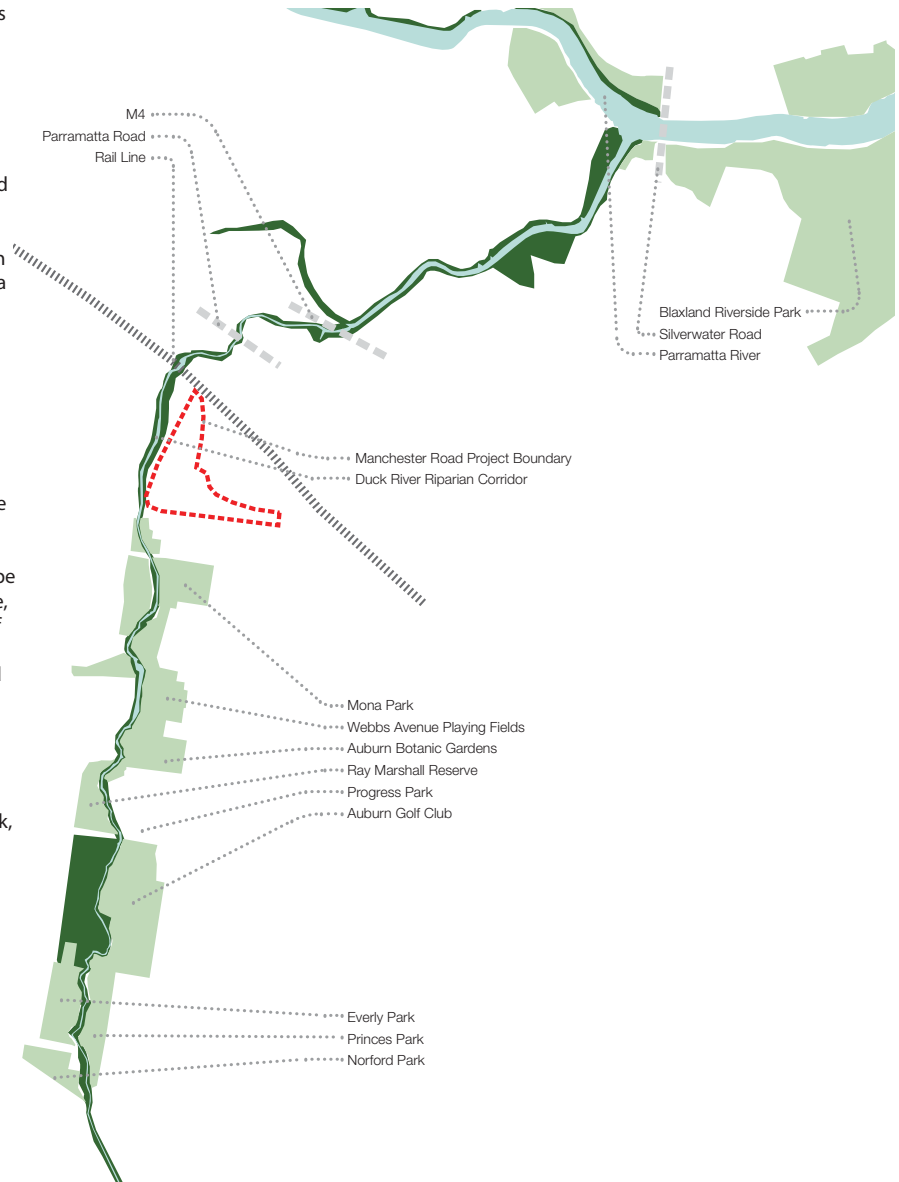
Interpretative signage will be installed to inform users of local features such as the Flying Fox Colony and the importance of the river's regeneration in the wider context of the Parramatta River Catchment and Sydney Harbour.

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 a strategic distance apart so that the shared path is also used as an Exercise Trail and will continue a circuit that begins from 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 in line with the northern edge of the residential development.

Pedestrians and cyclists will have access to an increased extent of the river. In the future, the path can be extended to provide access to Clyde station and the Olympic Peninsula.



3.1.1 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 heterophyllus*
- 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*
- Breytia oblongifolia*
- Bursaria spinosa*
- Casuarina glauca*
- Jacksonia scoparia*
- Maytenus silvestris*
- 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

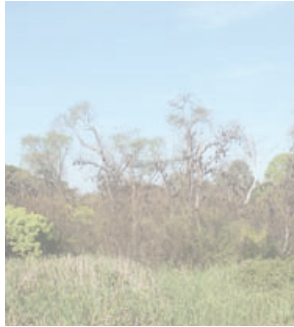
- ① Cumberland Swamp Oak Forest
- ② Cumberland Swamp Oak Forest
- ③ Cumberland Swamp Oak Forest
- ④ Cumberland Riverflat Forest & Cumberland Swamp Oak Forest
- ⑤ Cumberland Swamp Oak Forest

Open Space Parkland

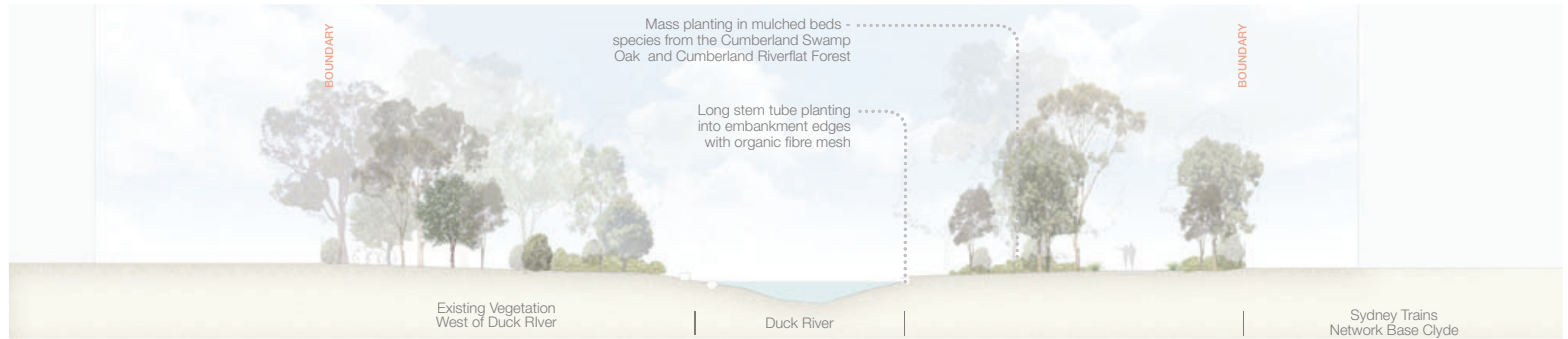
- ① Cumberland Swamp Oak Forest
- ② Cumberland Swamp Oak Forest
- ③ Cumberland Riverflat Forest & Cumberland Swamp Oak Forest
- ④ Cumberland Swamp Oak Forest
- ⑤ Cumberland Swamp Oak Forest
- ⑥ Cumberland Swamp Oak Forest
- ⑦ Cumberland Swamp Oak Forest
- ⑧ Cumberland Swamp Oak Forest
- ⑨ Cumberland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

4.0 LANDSCAPE STRATEGY

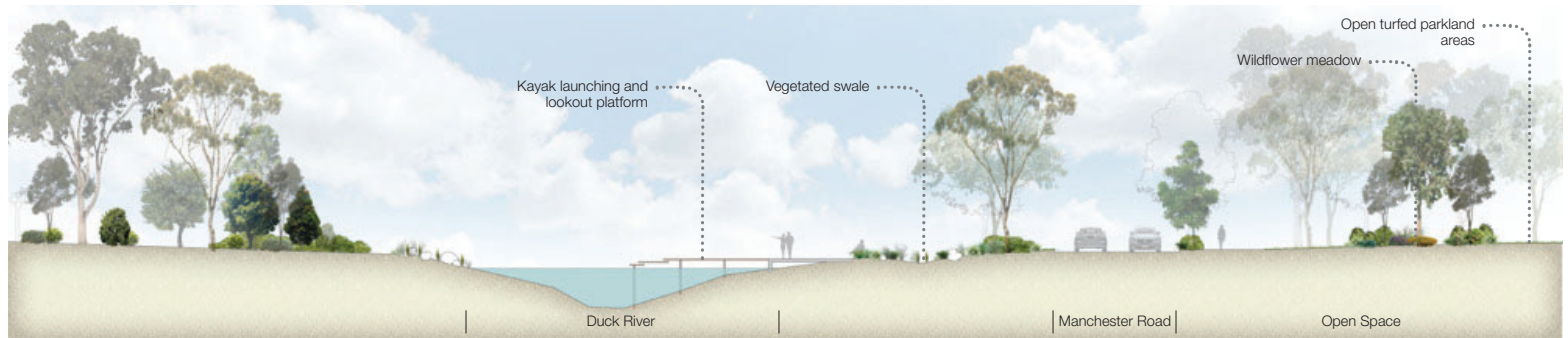
4.6 SECTIONS: DUCK RIVER



Section AA - Bushland Regeneration **NOTE: Area studied is unused in this Planning Proposal**



Section BB - Revegetation Planting **NOTE: Area studied is unused in this Planning Proposal**



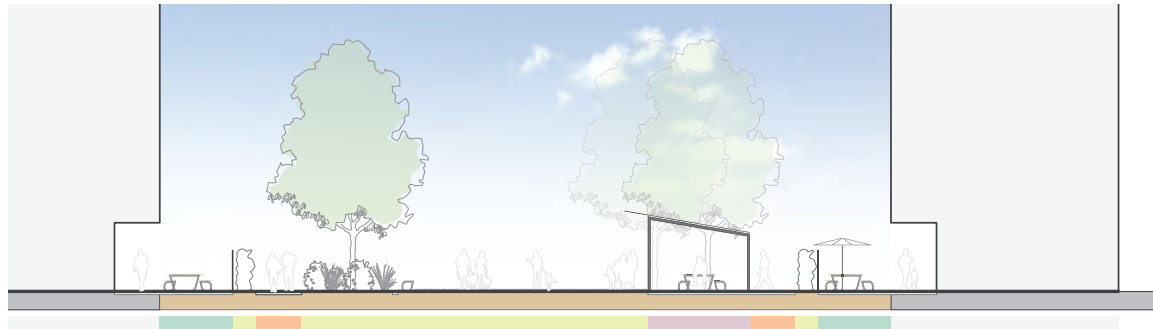
Section CC - Open Space Parkland

4.0 LANDSCAPE STRATEGY

4.7 SECTIONS: MAIN BOULEVARD

Section AA

Communal open space between buildings



Legend

- Building
- Private outdoor space
- Landscape area
- Pedestrian path
- Communal open space
- Roadway
- Deep soil
- Basement

Section BB

Main boulevard



Section CC

Green link and adjacent communal open space



4.0 LANDSCAPE STRATEGY

4.8 CENTRAL PARK

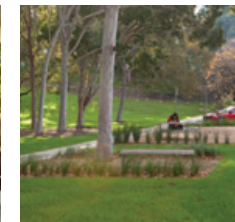
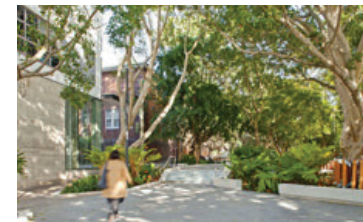
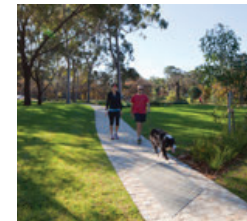
The Central Park provides the Site with ample public open space suitable for active recreation. The landscape for Central Park mediates between the riparian corridor's vegetation and the landscape deeper within the development by using shade tree species within the park will be selected from the local vegetation communities and include *Angophora floribunda* (Rough-barked Apple), *Eucalyptus amplifolia* (Cabbage Gum), *Eucalyptus baueriana* (Blue Box), and *Eucalyptus tereticornis* (Forest Red Gum). The Park creates pleasant views from the apartments to the east and provides a partial landscape buffer zone between the Clyde Marshalling Yards and residential zone. The park also acts as a sponge to store and slow storm water brought to it by the fringing water quality swale.

The park provides a venue for moonlight cinema, community Farmers' markets, community gardens and an outdoor gym.



Legend

- 01 500m running track
- 02 Outdoor Gym
- 03 Shade Trees
- 04 Open Active Turf Area
- 05 Secondary Breakout Space
- 06 Shelters
- 07 Community Gardens



4.0 LANDSCAPE STRATEGY

4.9 PLANTING SCHEDULE

Manchester Road Plant Schedule	
Botanical Name	Common Name
Native Trees	
<i>Melaleuca styphelioides</i>	Prickly Paperbark
<i>Acacia decurrens</i>	Green Wattle
<i>Angophora floribunda</i>	Rough barked Apple
<i>Casuarina glauca</i>	Swamp She Oak
<i>Eucalyptus amplifolia</i>	Cabbage Gum
<i>Eucalyptus baueriana</i>	Blue Gum
<i>Eucalyptus saligna</i>	Sydney Blue Gum
<i>Eucalyptus tereticornis</i>	Forest Red Gum
Exotic Trees	
<i>Jacaranda mimosifolia</i>	Jacaranda
<i>Lagerstromia 'Natchez'</i>	Crepe Myrtle
<i>Lagerstromia 'Tuscarora'</i>	Crepe Myrtle
<i>Magnolia grandiflora</i>	Bull Bay Magnolia
<i>Platanus x acerifolia</i>	Plane Tree
<i>Plumeria rubra</i>	Frangipani
<i>Tibouchina 'Astonville'</i>	Lasiandra
<i>Tristanopsis laurina</i>	Water Gum
<i>Ulmus parvifolia</i>	Chinese Elm
Native Wildflowers, Shrubs, Grasses and Sedges	
<i>Actinotus helianthii</i>	Flannel Flower
<i>Arthropodium milleflorum</i>	Vanilla Lily
<i>Carex appressa</i>	Tall Sedge
<i>Clematis glycioides</i>	headache Vine
<i>Coronidium scorpioides</i>	Button Everlasting
<i>Dianella caerulea</i>	Blue Flax Lily
<i>Dichelachne micrantha</i>	Short Hair Plume Grass
<i>Eragrostis leptostachya</i>	Paddock Love Grass
<i>Gonocarpus tetragynus</i>	Common Rasport
<i>Goodenia ovata</i>	Hop Goodenia
<i>Helichrysum cultivars</i>	Straw Flowers
<i>Isoplepis nodosa</i>	Knobby Club Rush
<i>Juncus usitatus</i>	Common Rush
<i>Lomandra longifolia</i>	Mat Rush
<i>Microlaena stipoides</i>	Wallaby Grass
<i>Syzygium 'Cascade'</i>	Powderpuff Lily Pilly
<i>Veronica plebeia</i>	Trailing Speedwell
<i>Wahlenbergia gracilis</i>	Native Bluebell
Pedestrian Laneways (Shaded Green Links)	
<i>Adiantum aethiopicum</i>	Maidenhair fern
<i>Alocasia macrorhiza</i>	Cunjevoi
<i>Aloxyllon flammum</i>	Tree Waratah
<i>Angiopteris evecta</i>	Gigantic Fern
<i>Anopterus macleayanus</i>	Macleay Laurel
<i>Blechnum brasiliense</i>	Water Fern
<i>Brachychiton bidwillii</i>	Little Kurrajong
<i>Cryptocarya laevigata</i>	Glossy Laurel
<i>Cyathea cooperi</i>	Cicatrice Tree fern
<i>Doodia aspera</i>	Rasp Fern
<i>Flindersia australis</i>	Crows Ash
<i>Gymnostachys anceps</i>	Settlers Flax
<i>Libertia paniculata</i>	Branching Grass-flag
<i>Ligularia reniformis</i>	Tractor-seat Plant
<i>Macrozamia communis</i>	Burrawang
<i>Neomarica gracilis</i>	Apostle Ins
<i>Pogonatherum paniceum</i>	Bamboo Grass
<i>Randia fitzalanii</i>	Native Gardenia
<i>Spathiphyllum cultivar</i>	"Petite"
<i>Stenocarpus sinuatus</i>	Firewheel Tree
<i>Trachelospermum jasminoides</i>	Star Jasmine
<i>zamioculcas zamiifolia</i>	Zanzibar Gem

NATIVE TREES



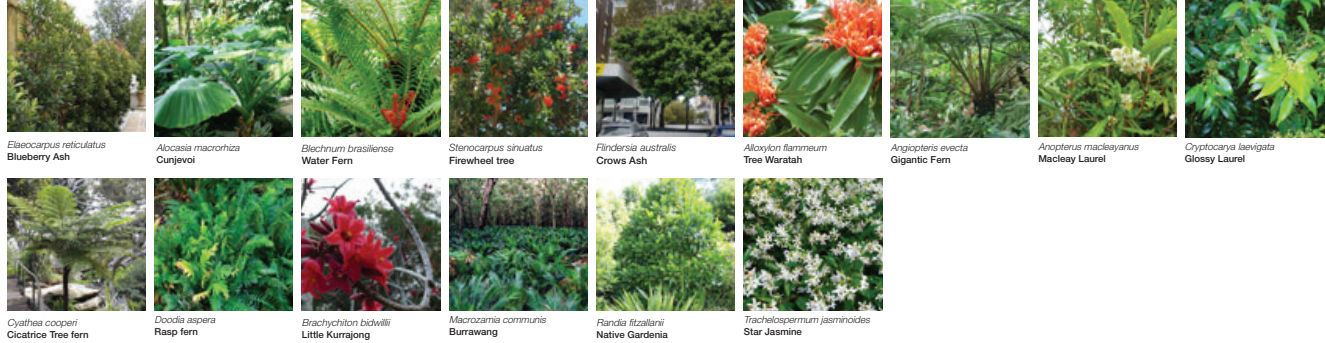
EXOTIC TREES



NATIVE WILDFLOWERS, SHRUBS, SEDGES + GRASSES



PEDESTRIAN LANEWAYS (SHADED GREEN LINKS)



4.0 LANDSCAPE STRATEGY

4.10 PEDESTRIAN LANEWAYS

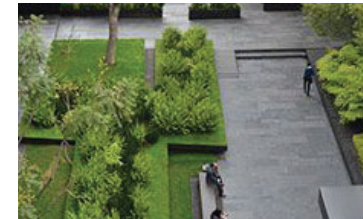
The wide pedestrian laneways between buildings that connect traffic streets have been designed to provide much of the public passive recreational open space for the community. The proximity to residential buildings provides a particular micro-climate suited to rainforest plantings. Plantings will include tree ferns, ground ferns, Cordylines, Gingers, Coachwoods, Blueberry Ash, Lemon-scented Myrtle and Firewheel Trees, creating cool restful spaces. Terraces on various levels connected with seating steps and timber platforms will provide ample opportunities for low-impact activities and places to linger.



Legend

- 01 Meditative Fitness area
- 02 Deep Soil Planting
- 03 Planting on Podium
- 04 Breakout spaces
- 05 Informal seating
- 06 Turf area
- 07 Pedestrian Crossings

SCALE 1:1000 @ A3



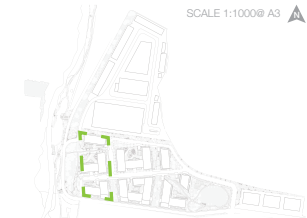
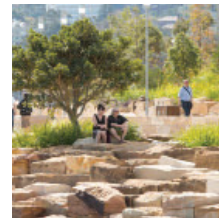
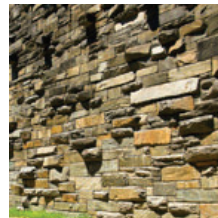
4.0 LANDSCAPE STRATEGY

4.11 RESIDENTIAL AREAS

Residential areas in the western zone will interface with the railway yards on the eastern side. The outdoor space will be defined by natural materials with the major element being the recycled sandstone blocks which will be used to retain garden and patio terraces for both private and public spaces.



- Legend**
- 01 Reused sandstone Elements
 - 02 Feature Planting at Apartment Entrances
 - 03 Shade Trees
 - 04 Open Lawn Area
 - 05 Feature Breakout Space
 - 06 BBQ Area
 - 07 Linking Path



SCALE 1:1000@ A3

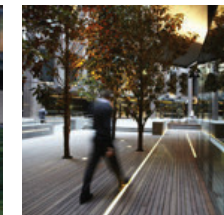
4.0 LANDSCAPE STRATEGY

4.12 EMPLOYMENT AREA

An employment zone to the north of about 6 hectares will have a landscape edge which would provide a visual buffer for the residential area. Significant linkages from the employment zone to the residential district have been included at key pedestrian links.



SCALE 1:750 @ A3



Legend

- 01 Buffer Landscape
- 02 Meeting node
- 03 Linking Paths to Residential Area

4.0 LANDSCAPE STRATEGY

4.13 EMPLOYMENT AREA - SOUTH

An employment area of about 1Ha is located to the east is set aside to provide space for offices and workshops. A pedestrian boulevard adjacent to Manchester Road and pedestrian linkages through Central Park will provide attractive accessways between the employment and residential areas, while maintaining distinct landscape characters and separation between the two.

There will be public seating available for casual gatherings. In addition, movable seating will allow the users to create space and make it their own and take positions in the shade of the deciduous trees or otherwise, extending the time that people will tend to linger on the boulevard.



Legend

- 01 Pedestrian Boulevard
- 02 Meeting/Seating nodes
- 03 Deciduous Trees



PTW



PTW

4.0 LANDSCAPE STRATEGY

4.14 COMMUNAL 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



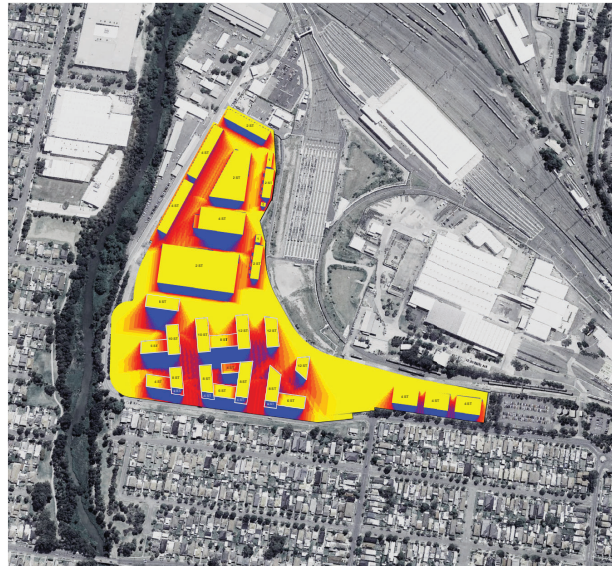
LEGEND:  SETBACKS



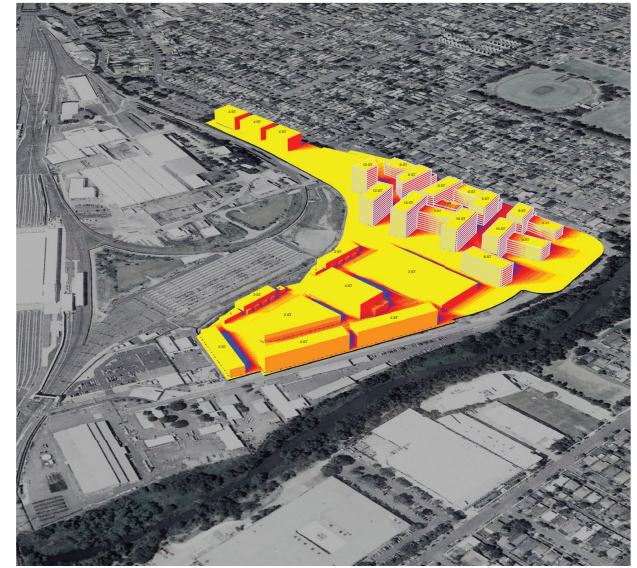
5.0 AMENITY

5.2 SOLAR ANALYSIS

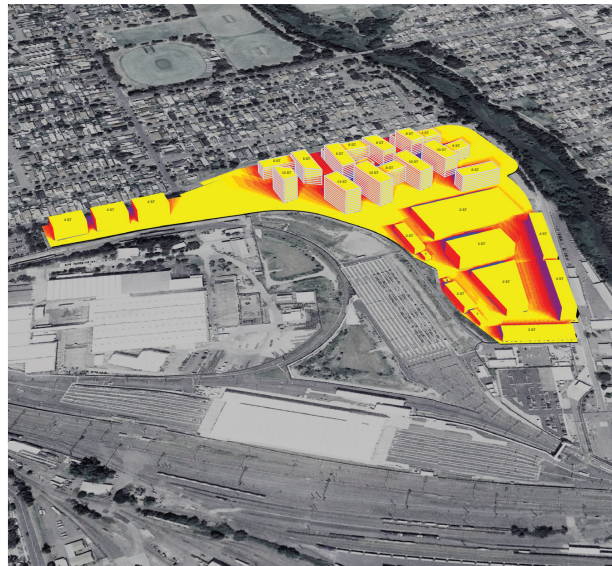
The following sequence of diagrams shows the extent of mid-winter solar access on all surfaces on the Site. The arrangement of massings on the Site allow for ADG requirements to be met, as shown by surfaces receiving two or more hours of solar access.



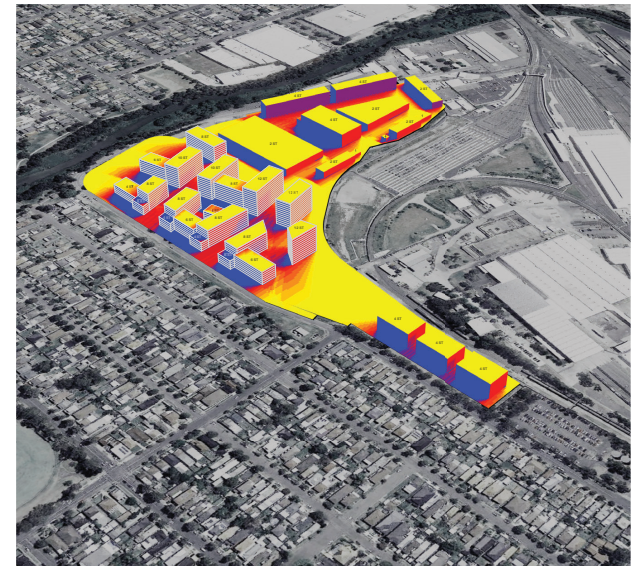
Plan view



View looking south-east



View looking south-west



View looking north-west

Legend

