



LEPPINGTON MASTERPLAN - LANDSCAPE REPORT

Landscape - Site B

August 1st 2023

Client
ALAND
Woods Bagot

Leppington Masterplan DA

Project Client: Woods Bagot
Project Name: Leppington Masterplan DA
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Contents

Acknowledgement of Country	5		
Context	6		
Site Masterplan	7		
I. Diagrams	8	III. Palettes	34
Car Circulation	8	Tree planting palette	35
Pedestrian- Bike Circulation	9	Shrubs planting palette	37
Retail Spaces	10	Perenial Planting pPalette	39
Civic Spaces	11	Streetscape - Level change	40
Open Spaces	12	Public-Private Domain	41
WSUD Strategy	13		
Streetscape Diagrams	14	IV. WSUD Strategy	42
Planting Strategy	16	WSUD Sections	43
II. Masterplan	18		
Masterplan	19		
Subprecinct B3 - Public Park	20		
School interface	22		
Subprecinct B4 - Neighborhood Park	23		
Civic Boulevard	25		
Subprecinct B2 - Urban plaza	26		
Subprecinct B2 - Nature Active Park	28		
Subprecinct B1 - Neighborhood Park	29		
Subprecinct B3 - Neighborhood Park	31		

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Acknowledgement of Country

We acknowledge the traditional custodians, the Tharawal peoples as the traditional owners of the lands on which our project is based. We pay respects to their Elders past, present and emerging.

We recognise the deep connection of the Tharawal peoples to country and value their care and commitment to the land on which we design.

In a pursuit of respect, we are committed to understand and recognise the traditional Aboriginal and Torres Strait Islander cultures, histories, knowledge and rights through cultural learning of the lands now and in the development of our project. We also acknowledge all First Peoples as the traditional custodians on the lands across Australia, that we respect the traditional owners in all aspects of our design and delivery of projects.

Context

The landscape strategy for the DA masterplan of Leppington Site B in NSW aims to support the Greater City Regional Plan and focus on the Central City District. The plan proposes investment in city-scale infrastructure, a new social framework, and improved transport connections to optimize Parramatta's centrality in Greater Sydney.

The strategy seeks to connect and enhance parks, bushland, playgrounds, and waterways to provide safe walking and cycling paths and natural amenities for residents. The goal is to encourage healthier and more sustainable travel choices while promoting biodiversity and community engagement.

Additionally, the strategy acknowledges the area's Indigenous origins, documenting interactions between Europeans and the Tharawal people, as well as its European settlement history. The future prospects of Leppington as a transport hub and the development of sustainable Camden are key considerations in the plan.



Masterplan Site B

To enhance and design around the remnant bushland corridor, overland flow channels, and semi-natural areas while achieving a well-integrated green network and civic domain.

The landscape strategy for Leppington Site B's DA masterplan in NSW aims to integrate urban elements with natural systems and cultural features. It involves enhancing and designing around the existing bushland corridor, overland flow channels, and semi-natural areas. The strategy defines the local character through green landscapes and active transport connections while incorporating water-sensitive urban design and habitat conservation.

To create a well-integrated green network and civic domain, the plan includes open green spaces, commercial frontages, civic yards, community gardens, and green links and corridors. Tailored programs for public precinct parks, semi-private pocket parks, and active linkages aim to foster local engagement and multifunctional activation.

The strategy emphasizes the importance of connectivity by incorporating active pedestrian and cycle links, habitat restoration, and green infrastructure. It also respects the cultural significance of the land to the Tharawal peoples. Ultimately, the landscape strategy seeks to establish a sustainable and culturally sensitive development in Leppington Site B.



I. Diagrams

I. Diagrams: Circulation

To Leppington Station
Heavy transport access
to Leppington Station

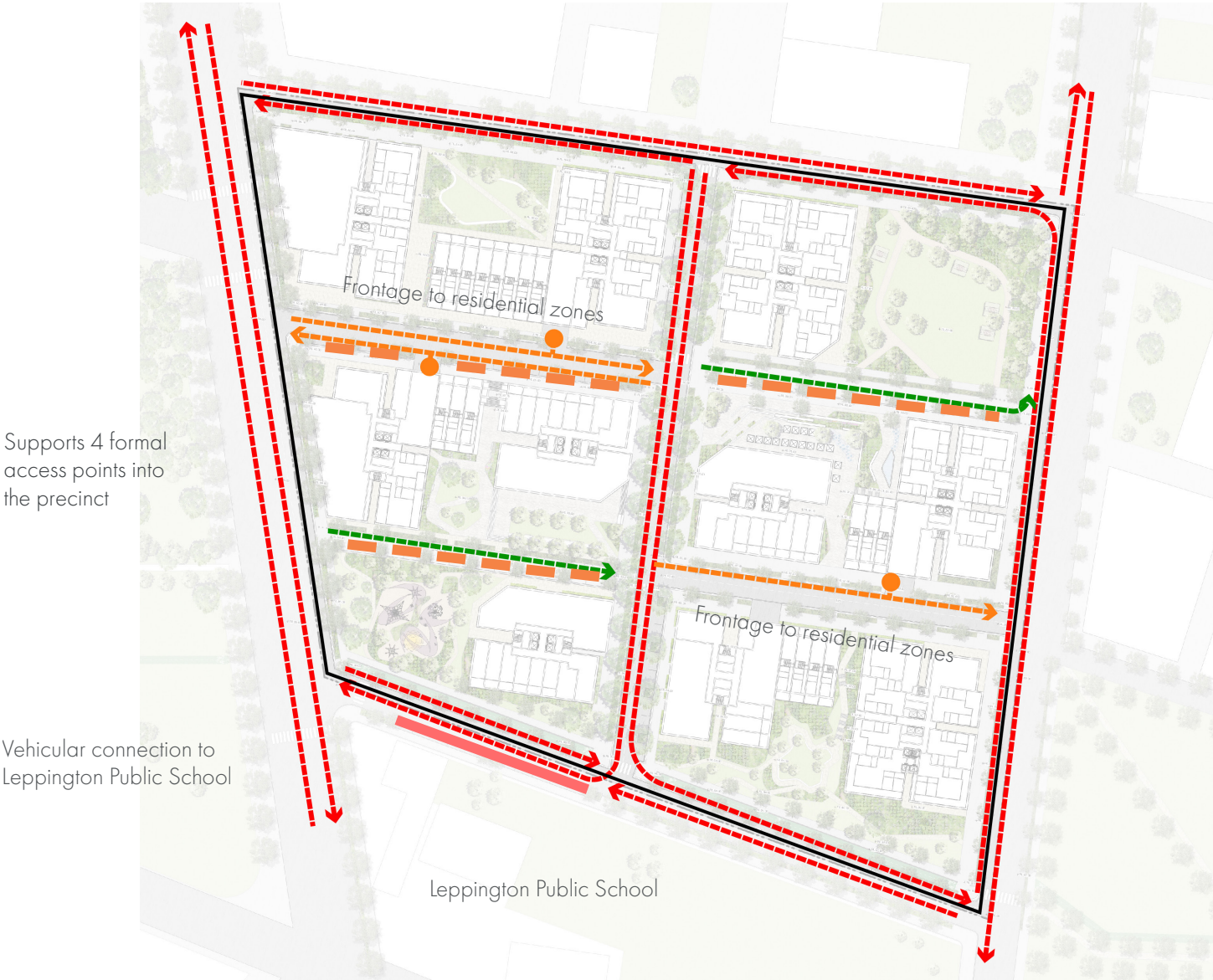


Fig 01: Car circulation

- > Main Street
- > Secondary Street
- > Shared Street
- > Carpark Entry
- > On-Street Parking
- > School Drop Off Zone



Fig 02: Pedestrian and Bike Circulation

- > Pedestrian Sidewalks
- > Pedestrian Secondary Paths - Internal network
- > Bike Lanes
- > Stairs Access

I. Diagrams: Sustainability



Fig 01:Retail Spaces

- Extension of commercial and hospitality spaces
- Activated by dining, gathering and markets
- Occupying shaded spaces between residential towers

Retail Commercial Area



Fig 02: Public Civic Assets [Retail overflow]

- Public spaces that facilitate a private moments and experiences
- Provide an immediate connection to the environment
- Foster place for users to dwell within the landscape

Public Civic Space

Retail Fronage



Civic Spaces



I. Diagrams: Open Space Strategy

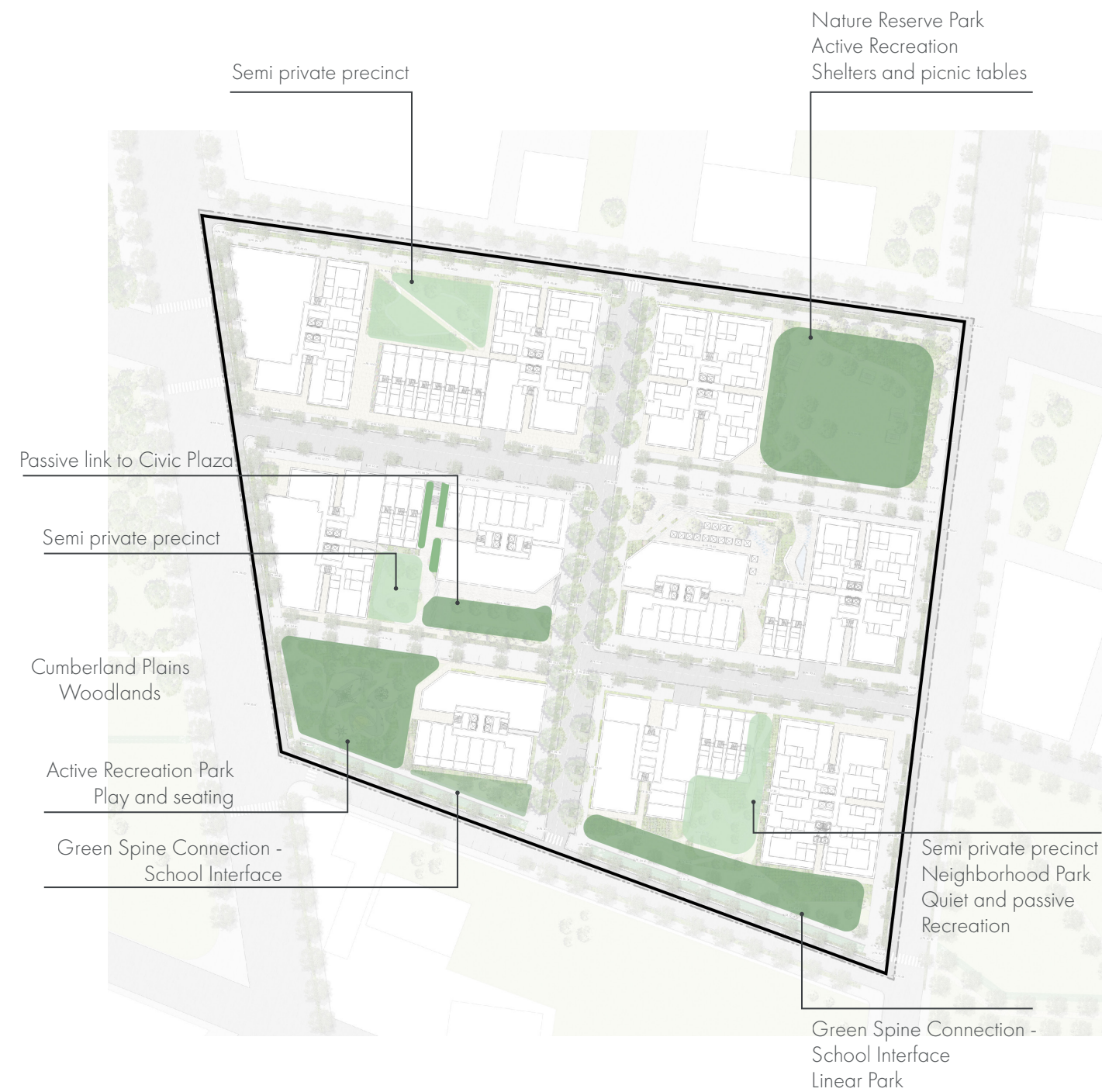


Fig 01: Open Spaces

- Lawn areas to cater for informal and unstructured play
- Spaces for large community events and gathering amongst the community
- Areas that additionally treat and hold stormwater from the nearby hardscapes

- Public Active Open Space
- Private- Public Quiet Open Space



Fig 02: WSUD Strategy [Vegetation corridors + Greenlinks]

- Highly effective water treatment devices integrated well into the urban fabric as planter boxes, garden beds and vegetated swales
- These systems can provide a more formal backset from private spaces to the public streetscape.

- WSUD

Open Spaces



Water Straetegy Urban Design



I. Diagrams: Streetscape



Fig 01: Civic Boulevard
Main link North-South within the site.
Two-way and on-street parking.



Fig 02: Secondary Streets
Main West-Est links within the site.
Two-way streets - no on-street parking.

I. Diagrams: Streetscape



Fig 01: Shared Streets

West-East circulation [one way] -on-street parking.
Low speed roads.



Fig 02: Pedestrian Connections

- Pedestrian Sidewalks
- - - Pedestrian Secondary Paths - Internal network
- Stairs Access [level differences]

I. Diagrams: Planting Strategy

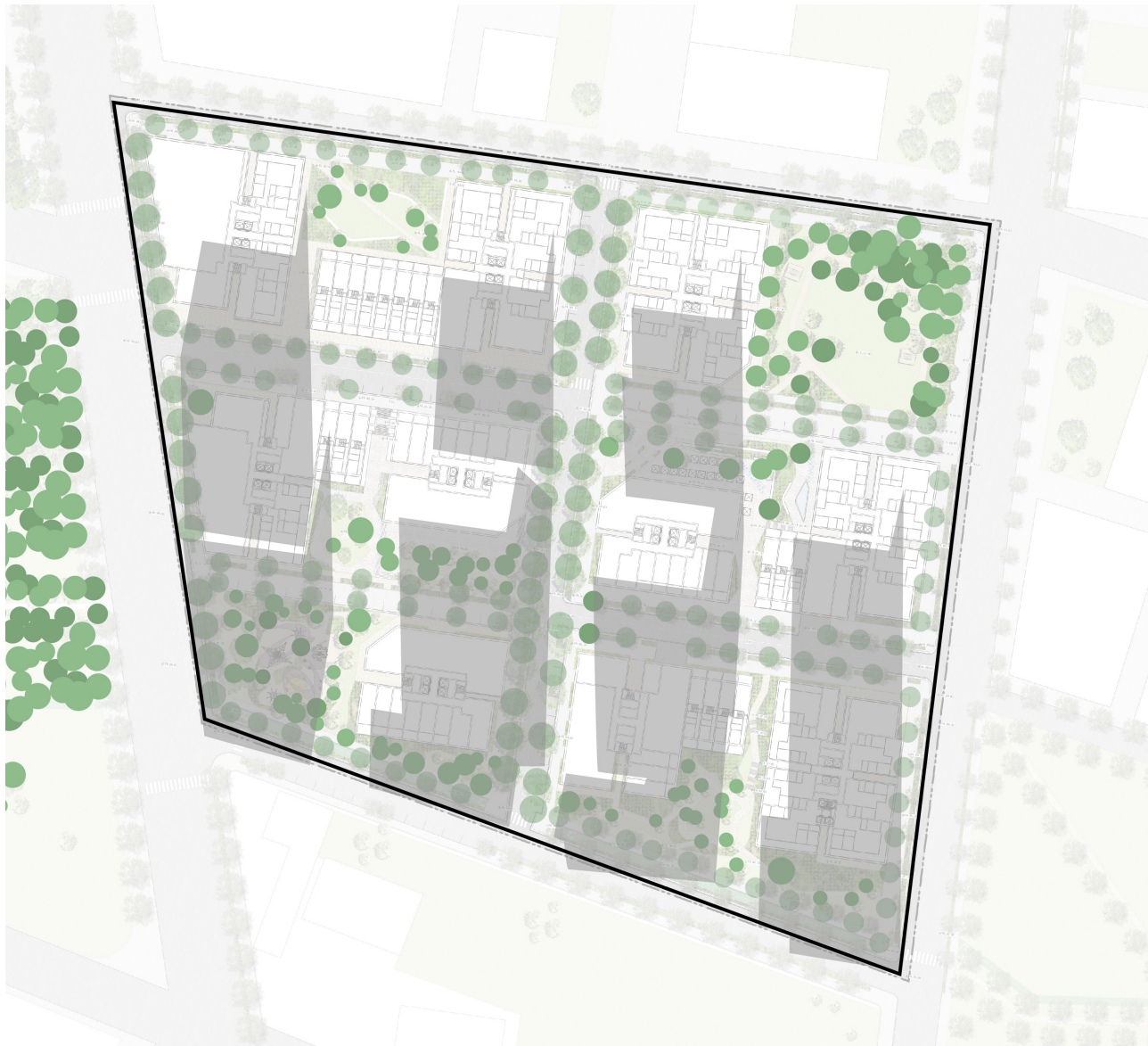


Fig 01: Shade Study, Winter - Noon

- Public Active Open Space
- Private- Public Quiet Open Space
- WSUD
- Trees

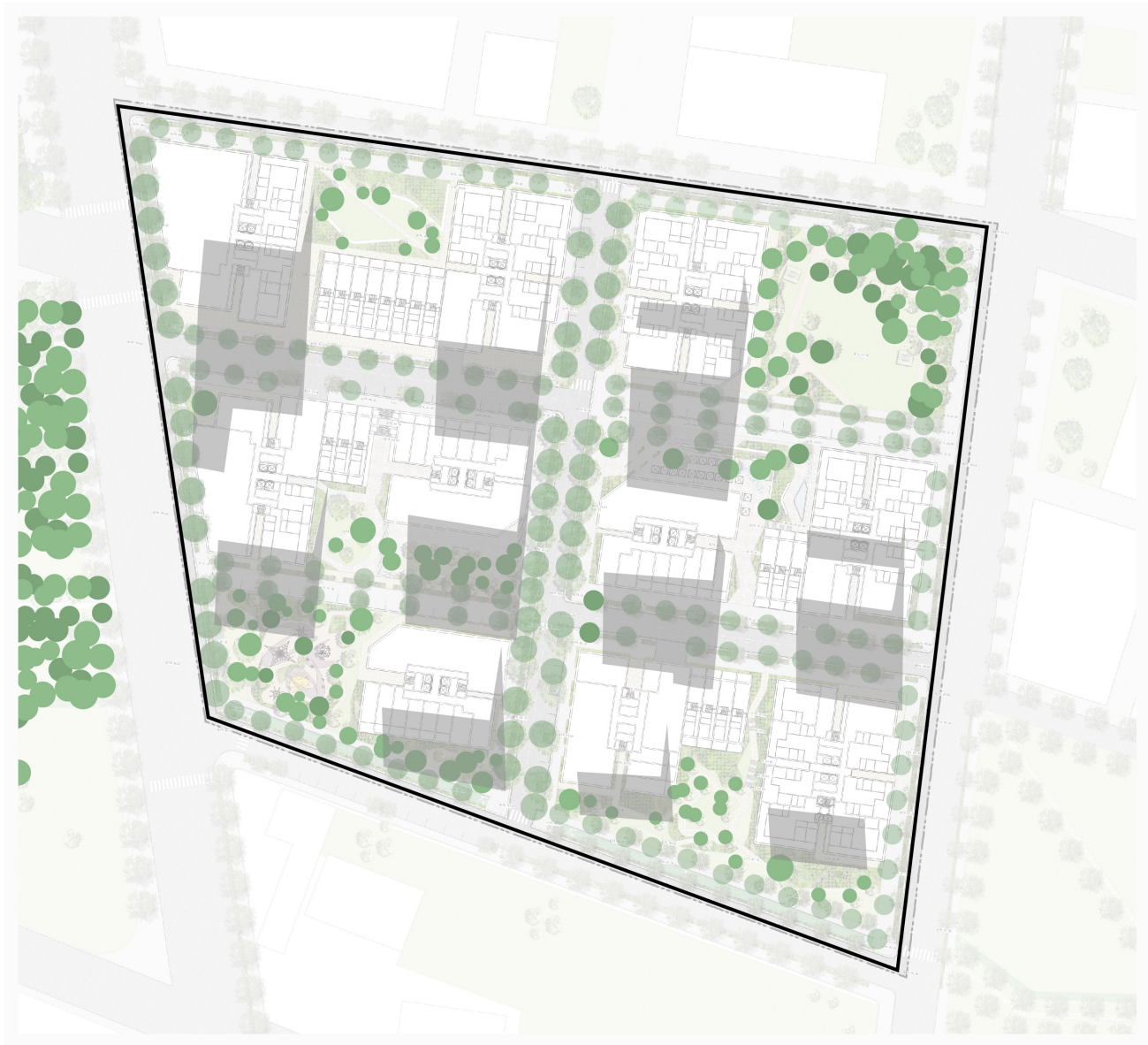


Fig 02: Shade Study, Summer - Noon

- Public Active Open Space
- Private- Public Quiet Open Space
- WSUD
- Trees

I. Diagrams: Planting Strategy



Fig 01: Tree Species

- Main Street Large Trees
- Secondary Street Trees
- Cumberland Plain Trees Clusters

Fig 01: Ecological Corridor

- Public Active Open Space
- Private- Public Quiet Open Space
- Green Ecological Corridor
- Trees

II. Masterplan

II. Masterplan

- 1. Rickard Road
- 2. Civic Boulevard
- 3. Neighborhood Streets
- 4. Shared Streets
- 5. Civic Plaza - Market Space
- 6. Leppington Public School
- 7. Neighborhood Semi-Private Courtyard
- 8. Active Park - Playground
- 9. Public Nature Park
- 10. Neighborhood Semi-Private Park
- 11. Linear Park - Green Spine
- 12. Green Corridor Park and retail spill with civic plaza
- 13. Cumberland Plain Existing Tree Clusters
- 14. Stair access to Neighborhood Semi-Private Park



NB: the crossing points, school drop off and bike lanes are indicative and will be subject to changes as per Council and infrastructure NSW recommendations. Those are early indicative.

II. Masterplan: Sub- Precinct B3 - Public Park Plan

- 1. Leppington Public School
- 2. Southern Road
- 3. Active Park - Playground
- 4. Neighborhood Shared Street and on-street parking
- 5. Rickard Rd
- 6. Residential Building
- 7. Bike lane West-East

Open Space Active Park:
1,300sqm

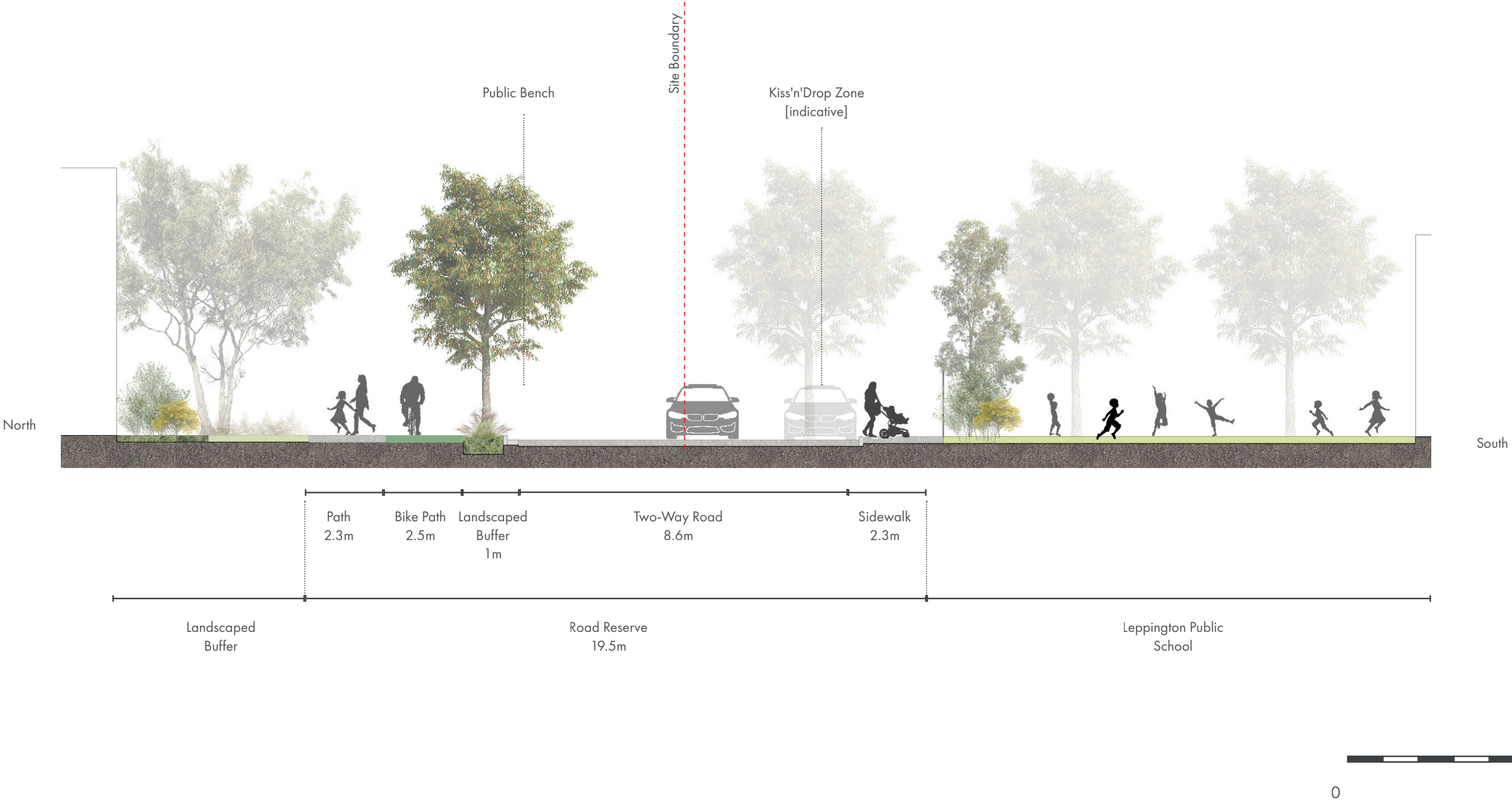
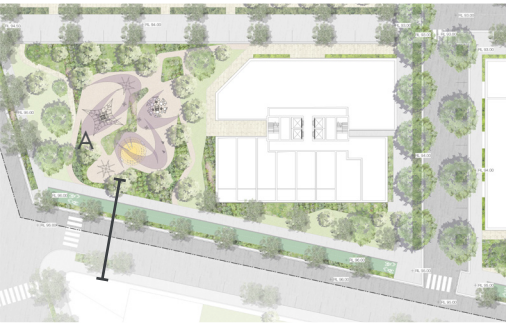


NB: the crossing points, school drop off and bike lanes are indicative and will be subject to changes as per Council and infrastructure NSW recommendations. Those are early indicative.

II. Masterplan: Sub- Precinct B3 - Public Park Section



II. Masterplan: School Interface Section

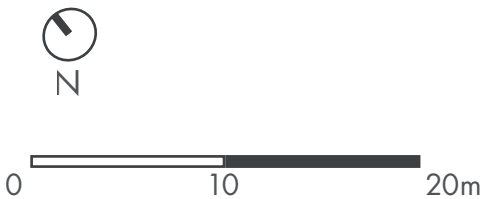


II. Masterplan: Sub- Precinct B4 - Neighborhood Park Plan

- 1. Leppington Public School
- 2. Southern Road
- 3. Bike Lane
- 4. Green Corridor West-East
- 5. Neighborhood Park Semi-Private
- 6. Semi-Private Pedestrian Link to Civic Plaza
- 7. Civic Boulevard
- 8. Residential Buildings

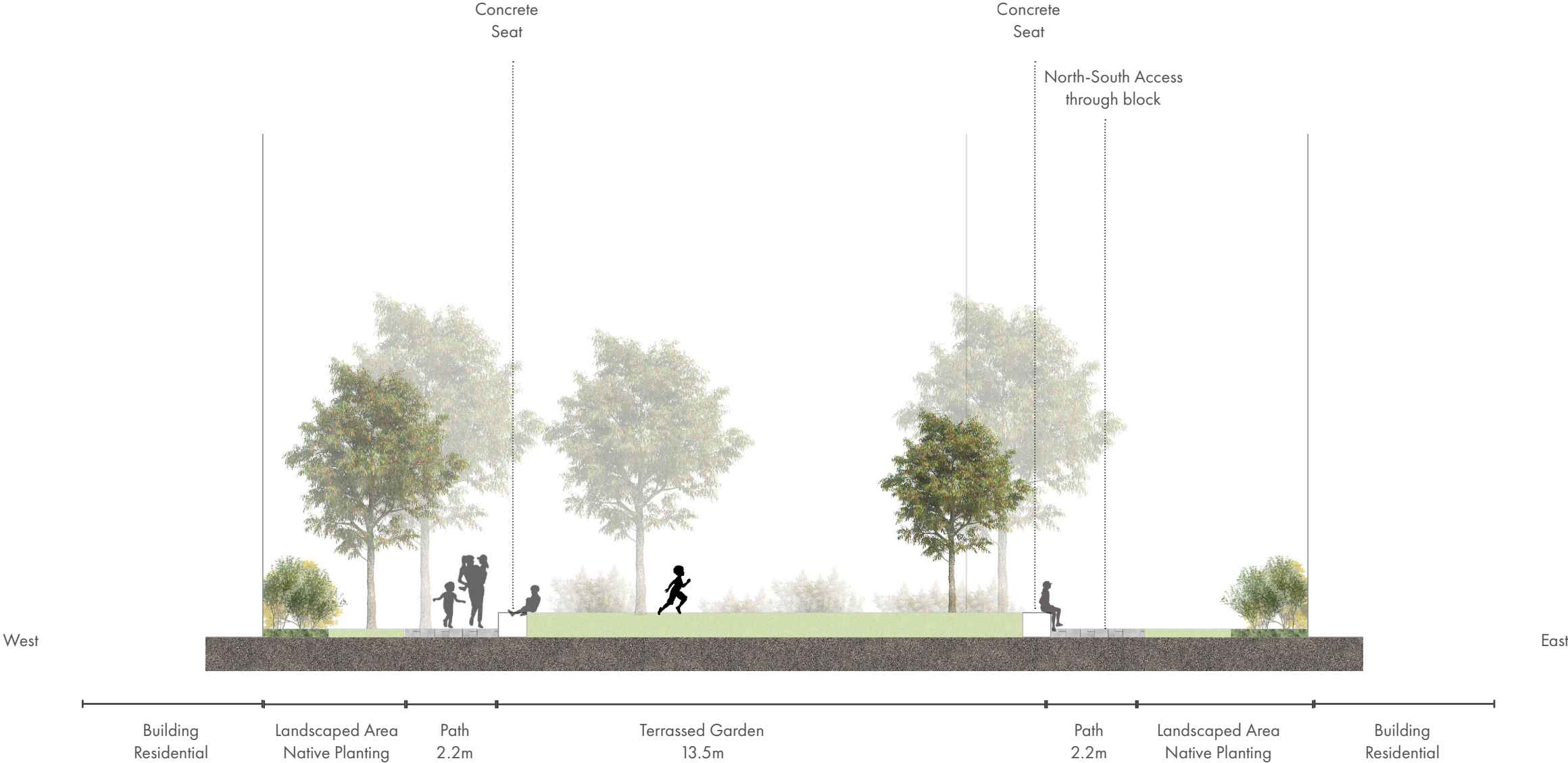
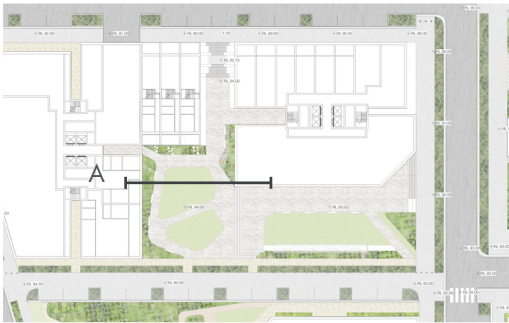
Open Space Neighborhood Park: 850qm

Green Corridor East-West: 225sqm



NB: the crossing points, school drop off and bike lanes are indicative and will be subject to changes as per Council and infrastructure NSW recommendations. Those are early indicative.

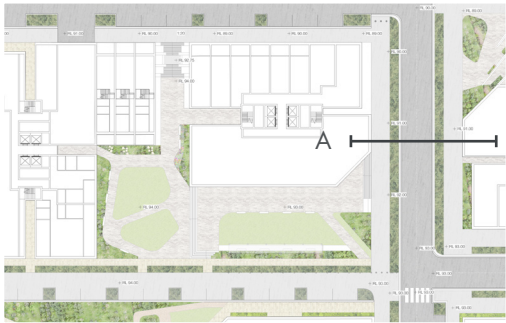
II. Masterplan: Sub- Precinct B4 - Neighborhood Park Section



0 5m

II. Masterplan: Civic Boulevard Section

- Provide space for future development of active transport connections between Leppington Station and Leppington Public School
- Reinstate Cumberland Plain Woodland vegetation where buffers are required between public and private space
- Provide an active civic and pedestrianised frontage to Rickard Road and Site A



II. Masterplan: Sub- Precinct B2 - Urban Plaza Plan

- 1. Civic Boulevard
- 2. Neighborhood Street
- 3. Retail-Residential Building
- 4. residential Building
- 5. Civic Plaza - Market Space
- 6. Neighborhood Semi-Private Courtyard
- 7. Water play
- 8. Shared Street
- 9. WSUD
- 10. Public Nature Park
- 11. Bike Lane

Open Space Civic Plaza:
550qm



II. Masterplan: Sub- Precinct B2 - Urban Plaza Section

- Explore an unbound overlay of pedestrian, cycle and vehicle zones
- Provide a semi-shared area activated by a mix of transport alternatives
- Supports streetscape activation by spill by vendors and resident programs

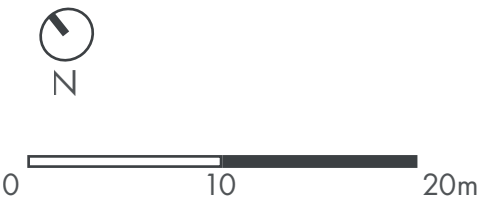


0 5m

II. Masterplan: Sub-Precinct B2 - Nature Active Park Plan

- 1. Shared Street
- 2. WSUD
- 3. Nature Active Park
- 4. Shelters & Picnic Tables
- 5. Open Space for Recreation Activities (sports, picnic, events...)
- 6. Remant Tree Cluster and Site's Lowest Point
- 7. Bike Lane
- 8. Residential Building
- 9. Civic Boulevard

Open Space: 850qm

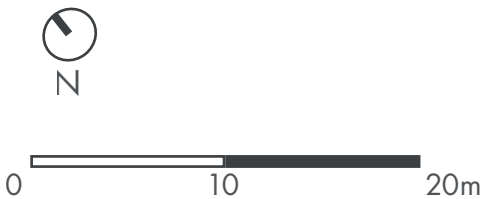
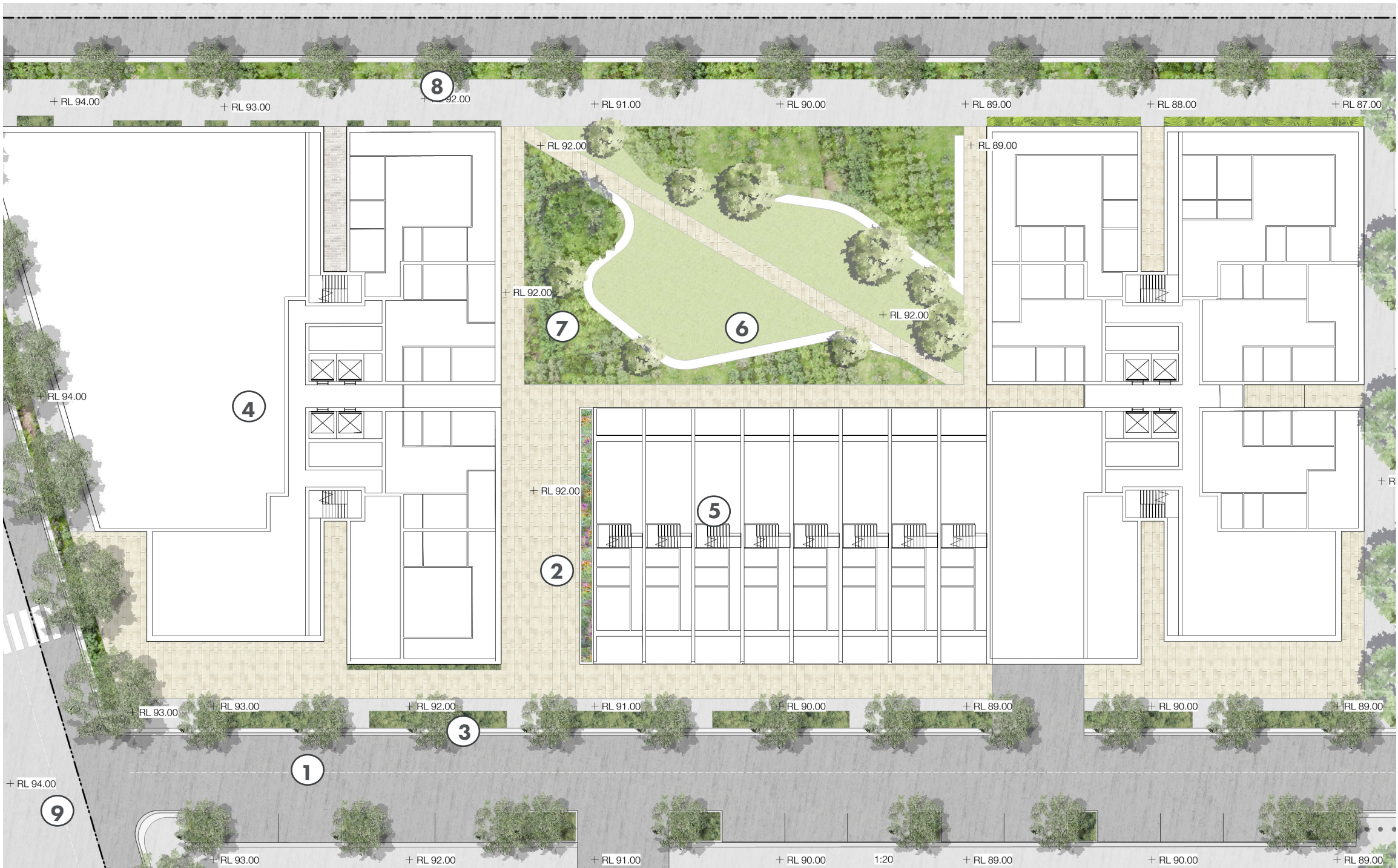
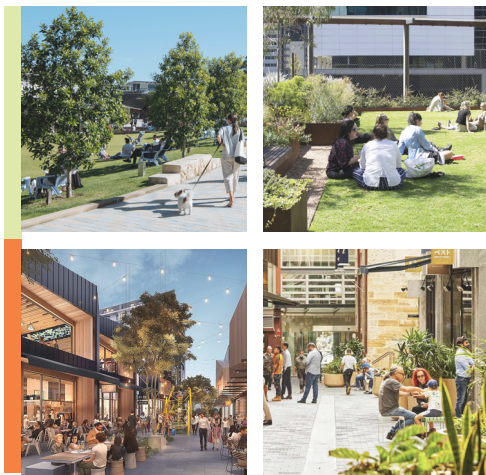


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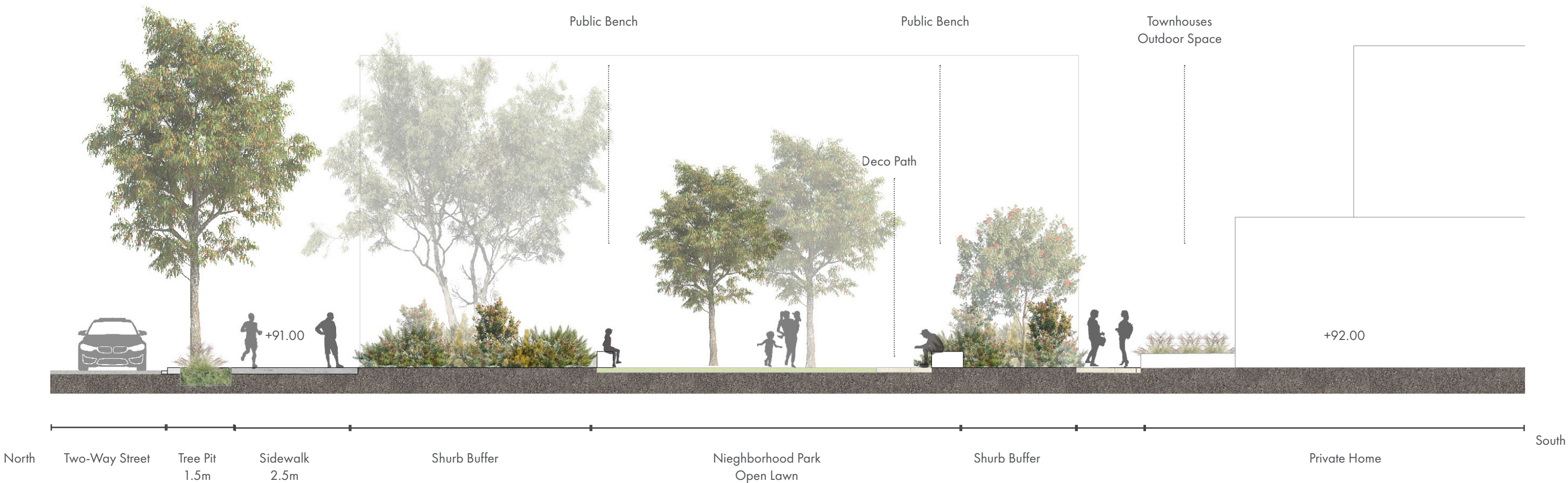
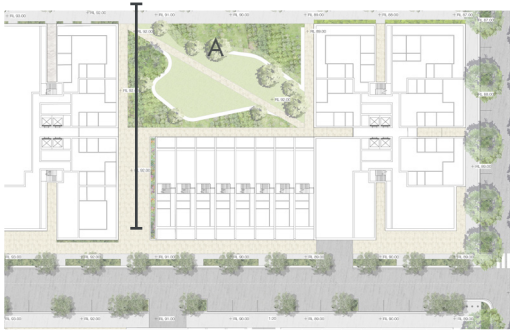
II. Masterplan: Sub-Precinct B1 - Neighborhood Park Plan

- 1. Neighborhood Street
- 2. Semi-Private Laneway
- 3. WSUD
- 4. Residential - Retail Building
- 5. Residential Building
- 6. Public Open Space - Internal Courtyard Garden
- 7. Native Planting
- 8. Bike Lane
- 9. Rickard Road

Open Space Neighborhood
Park: 860qm

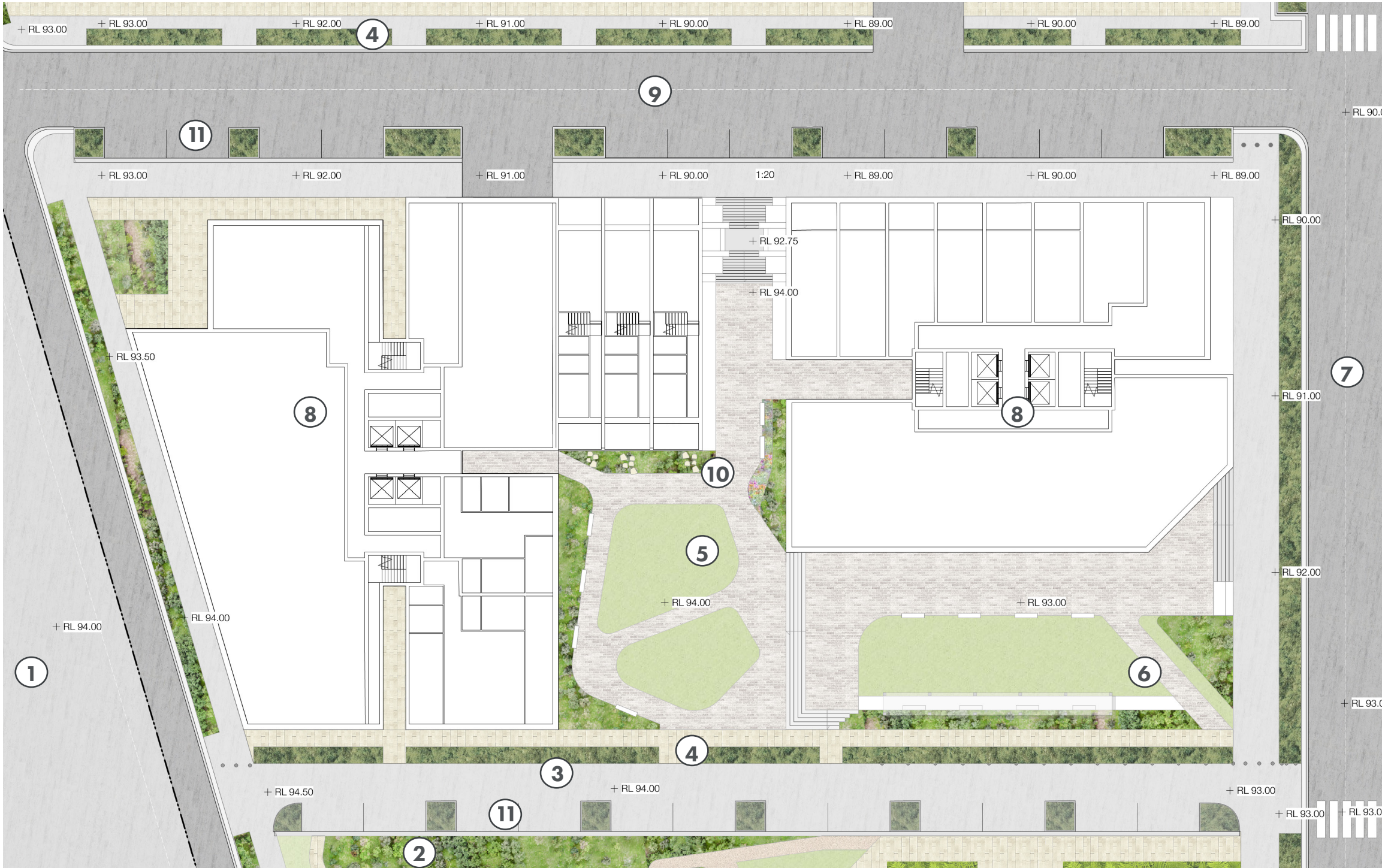
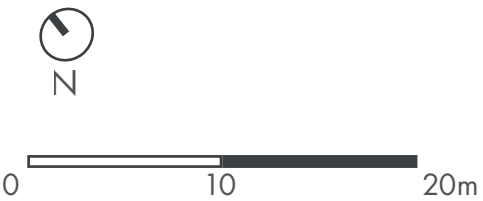
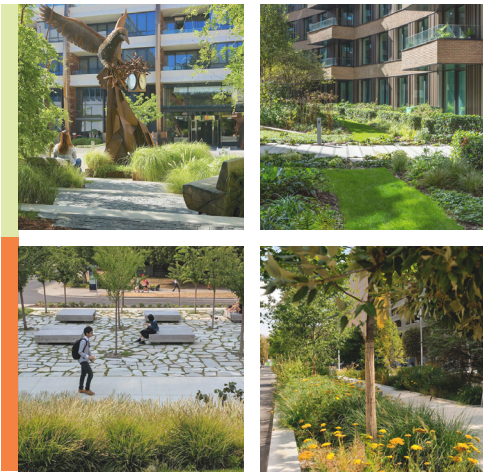


II. Masterplan: Sub-Precinct B1 - Neighborhood Park Section



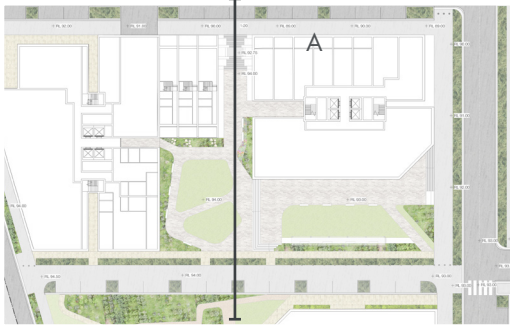
II. Masterplan: Sub-Precinct B3 - Neighborhood Park Plan

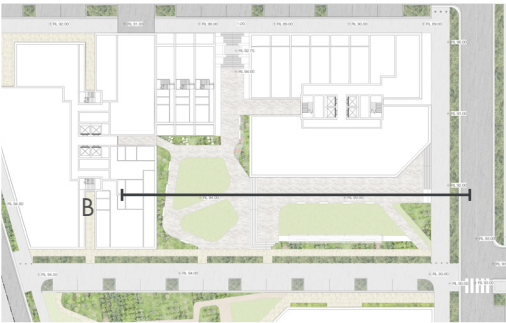
- 1. Rickard Road
- 2. Active Park - Playground
- 3. Shared Street
- 4. WSUD
- 5. Neighrhood Courtyard
- 6. Public Park - Green Corridor
- 7. Civic Boulevard
- 8. Retail-Residential Building
- 9. Neighborhood Street
- 10. Stairs and public elevator
- 11. On-street Parking



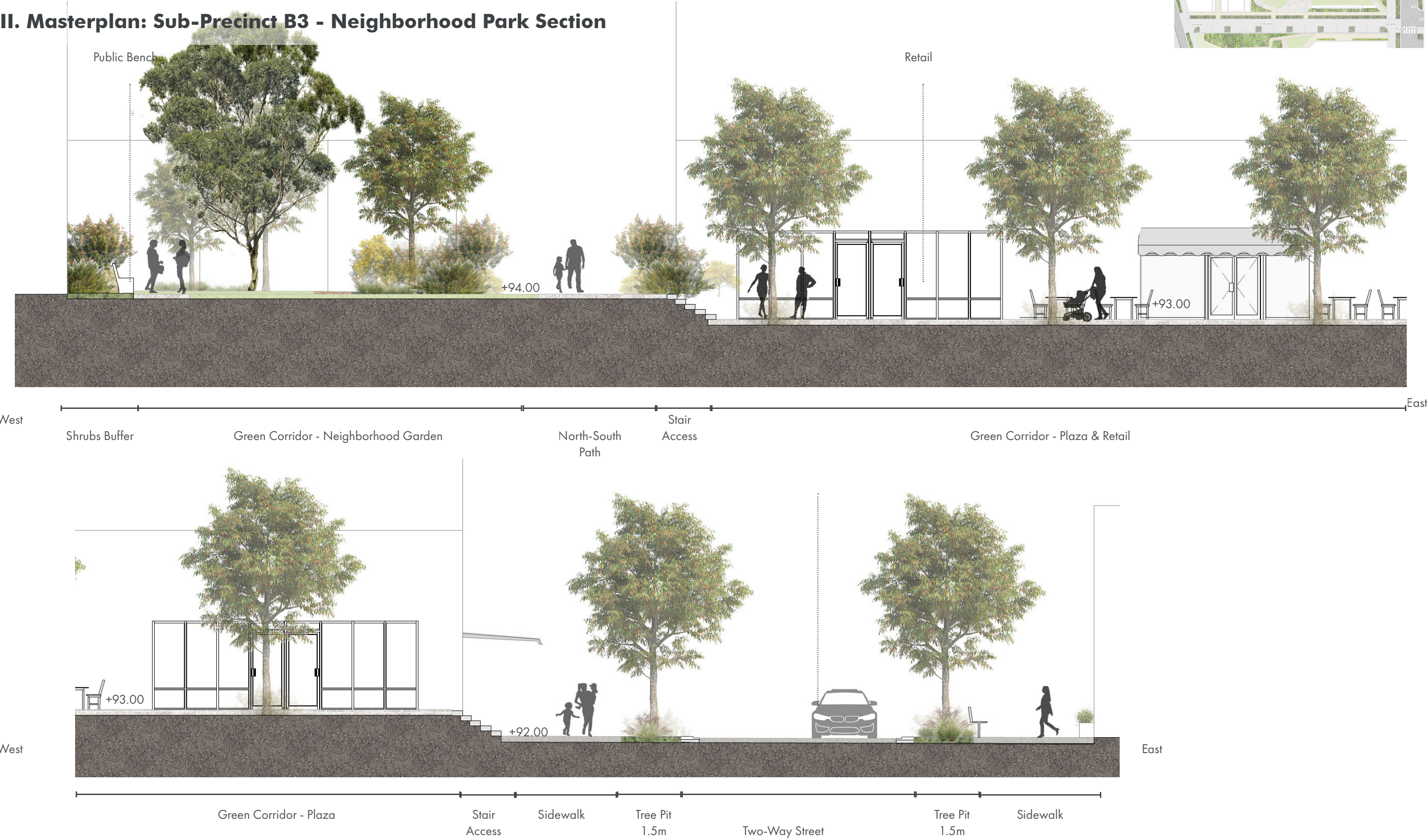
NB: the crossing points are indicative and will be subject to changes as per Council and infrastructure NSW recommendations. Those ar eonly indicative.

II. Masterplan: Sub-Precinct B3 - Neighborhood Park Section



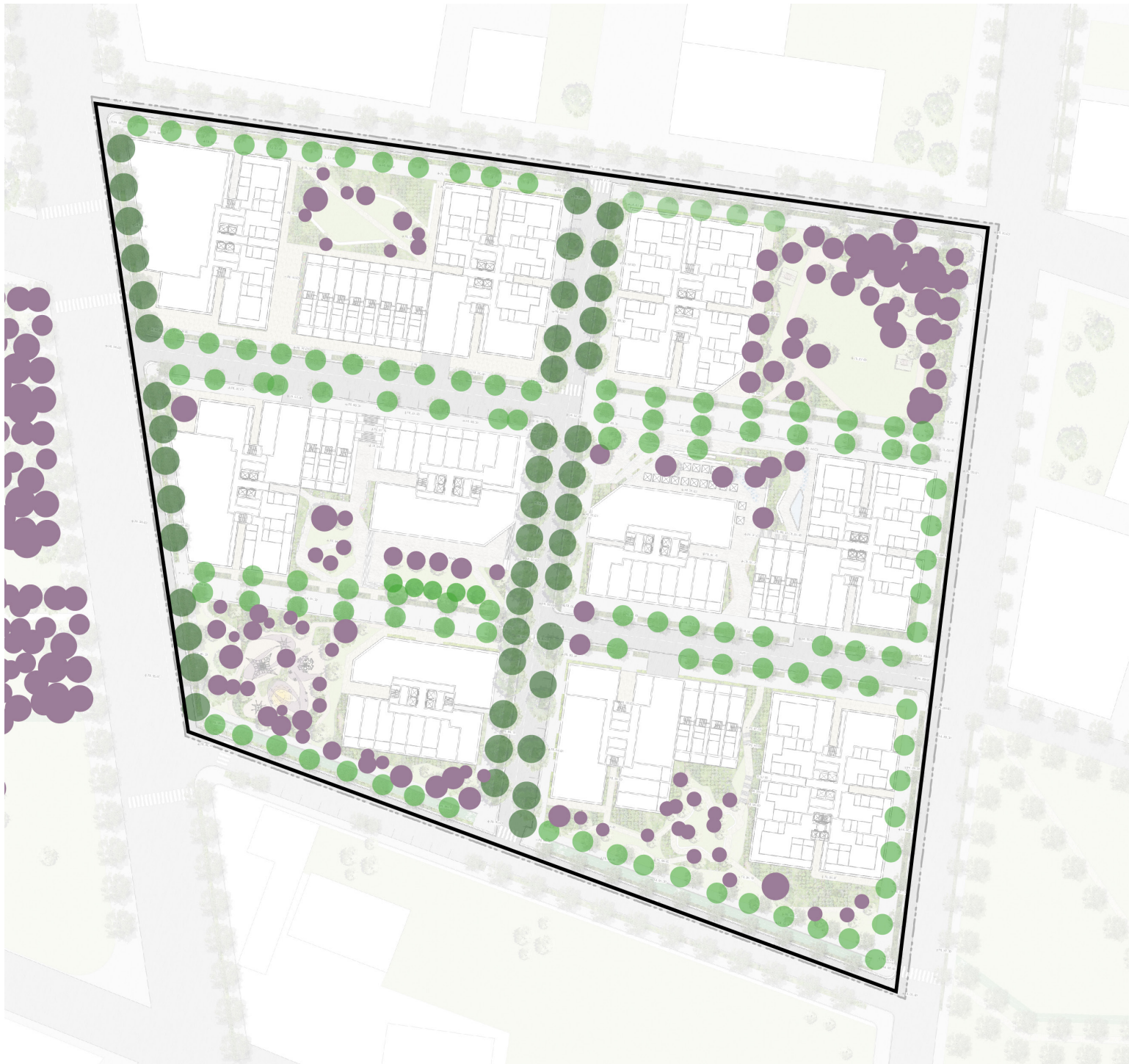


II. Masterplan: Sub-Precinct B3 - Neighborhood Park Section










III. Palettes

Planting Scheme: Tree Planting Palette



Cumberland Plain Trees Clusters

			Height	Width
●		Angophora subvelutina Broad Leaf Apple	18m	6m
●		Bursaria spinosa Sweet Bursaria	10m	8m
●		Corymbia (Eucalyptus) maculata Spotted gum	50m	10m
●		Eucalyptus fibrosa Broad leaf Red Iron Bark	30m	8m
●		Eucalyptus moluccana Grey Box	25-30m	10m
●		Eucalyptus tereticornis Forest Red Gum	40m	8m
●		Exocarpos cupressiformis Native Cherry	8m	5m















Plant Palette: Tree Planting Palette

" All new street trees planted within Camden LGA are confined to the following list of tree species [Appendix A].
Application: Street tree selection is contingent upon potential site constraints."
Camden Council Appendix A "Tree and Landscape

Main Street Large Trees

			Height	Width
		Lophostemon confertus* Brush Box	15m	10m
		Melaleuca styphelioides* Prickly Paperbark	8m	5m
		Syzygium paniculatum* Brush Cherry	8m	6m
		Tristaniopsis laurina* Luscious Water Gum	9m	7m

Secondary Street Trees

			Height	Width
		Brachychiton populneus x acerifolius 'Jerilderie Red' * Jerilderie Red	6m	6m
		Ceretopetalum gummiferum* NSW Christmas Bush	8m	5m
		Cupaniopsis anarcardiodes Gum* Tuckeroo	8m	6m
		Glochidion ferdinandi* Cheese Tree	8m	6m
		Hymenosporum flavum* Native Frangipani	8m	5m
		Melaleuca decora* White Cloud Tree	6m	3m
		Waterhousea floribunda 'Green Avenue'* Waterhousea 'Green Avenue'	10m	8m

* Camden Council Appendix A "Tree and Landscape"
NB: Some tree species might be subject to changeto another tree list approved by Camden Council if in a street with powerlines.

Planting Scheme: Shrubs Planting Palette



-  <20 Remnant Vegetation
-  Cumberland Plain Woodland
-  Cumberland Plain Understorey
-  Woodland Groundcover
-  Productive Native gardens
-  Consistent shade coverage

Plant Palette: Perennial Planting Palette



Corymbia Maculata
Spotted Gum



Pimelia Spicata
Spiked Rice-flower



Callistemon Salignus
Willow Bottlebrush



Eucalyptus Tereticornis
Forest Red Gum



Banksia Integrifolia
Coastal Banksia



Themeda Triandra
Kangaroo Grass



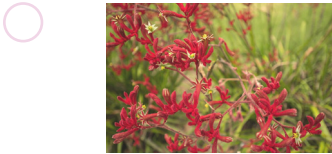
Cynanchum Elegans
White-flowered Wax



Microlaena Stipoides
Weeping Grass



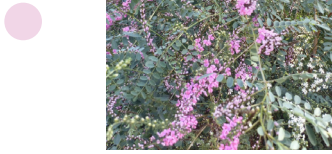
Pomaderris Brunnea
Brown Pomaderris



Anigozanthos
Kangaroo Paw



Kunzea Ambigua
Tick Bush



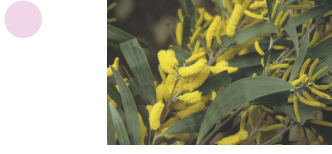
Indigofera australis
Native Indigo



Bursaria Spinosa
Blackthorn



Stipa Tenuissima
Mexican Feather Grass






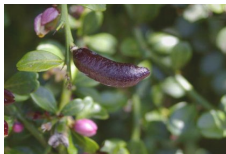


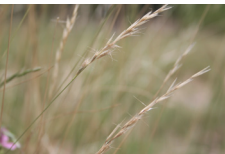




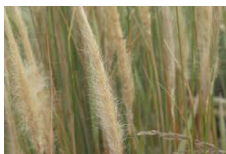




Acacia Binervia
Coast Myall



Dillwynia Cinerascens
Grey Parrot-Pea

Plant Palette: Perennial Planting Palette

●		Dichondra Repens Kidney Weed	●		Eucalyptus Piperita Sydney Peppermint
●		Pultenaea Spinosa Bush Pea	●		Grevillea Laurifolia Laurel-leaf Grevillea
○		Miscanthus Sinensis Chinese Silver Grass	●		Citrus Australasica Australian Finger Lime
●		Arthropodium Strictum Chocolate Lily	●		Prostanthera Rotundifolia Native Oregano
●		Austrodanthonia Racemosa Small-Flower Wallaby Grass	●		Olearia Axillaris Wild Rosemary
●		Dianella Revoluta Blue Flax Lily	●		Xerochrysum Viscosum Sticky Everlasting Daisy
●		Austrostipa Ramosissima Stout Bamboo Grass	●		Dichelachne Crinita Longhair Plume Grass
●		Chrysocephalum Apiculatum Yellow Buttons	●		Alpinia Caerulea Native Ginger

STREETSCAPE - Responding to level changes

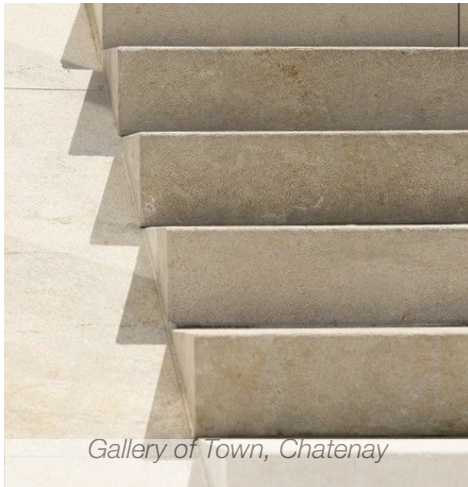
Design systems that assist in responding to and developing in graded landscape and potentially steep streetscape moments.
Case studies and precedents for Leppington Site B.



ADA compliance & upgrades



Clock tower beach



Gallery of Town, Chatenay



Ballast Point Park



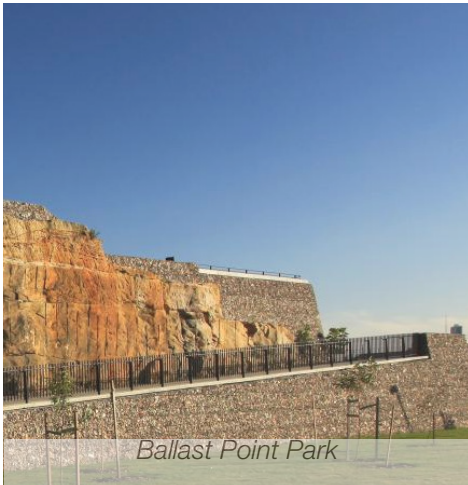
Yokohama International Terminal



Bell Street, Seattle



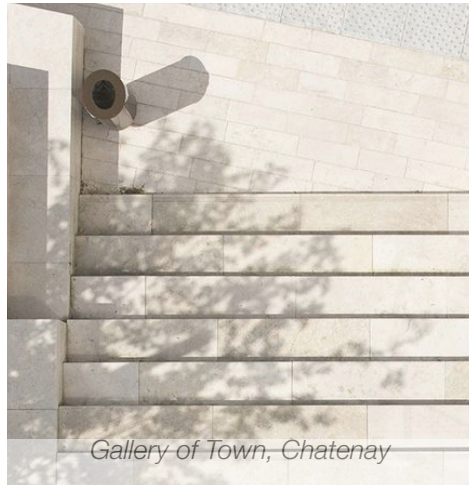
Gallery of Tagungshotel



Ballast Point Park



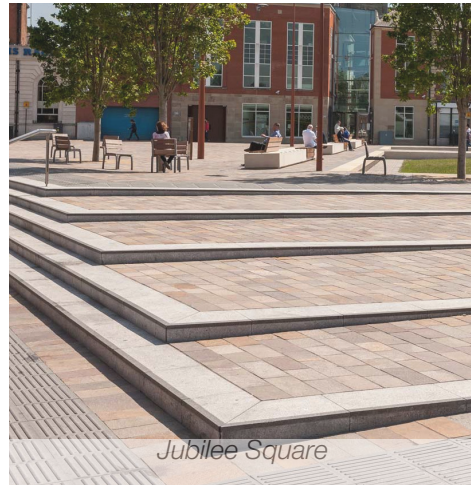
Esplanade, Netherlands



Gallery of Town, Chatenay



Gallery of the State Museum, Egypt



Jubilee Square

Ramp

For accessibility ramp access would provide the most inclusive means of access throughout the site however gradient studies would be required to ensure 'ramps' are compliant and include necessary landings and slopes.

Stairs

Could be integrated into the natural systems with water and raw natural materials to draw a subtle nod to the exiting site. The could create an interesting play element but also create an effective means of access for able bodies users.

Terrace

Successful for responding to graded streets and integrating WSUD potentially steep moments in the site. This will provide space to treat water and simultaneously support planting and people along topographic changes. through the site.

PUBLIC DOMAIN - Private and Public Interface

Furniture and design systems that assist in the mediation between private residencies and public spaces.
Case studies and precedents for Leppington Site B.



Fencing
Harold Park, Mirvac

A fencing study could help for residents on the groundplain. Angled slat fences could be a good alternative to right angled fence arrangement to limit direct view from the public realm into private spaces.

Planting
Arkadia Apartments, Oculus

Through a series of courtyard gardens, edible planting, terraces and a public park, the use of screening plants is successful in integrating spaces together into the natural landscape while still providing an informal separation between private and public areas.

WSUD Systems
Warrick Lane, McGregor Coxall

Highly effective water treatment devices integrated well into the urban fabric as planter boxes, garden beds and vegetated swales, these systems can provide a more formal backset from private spaces to the public streetscape.

IV. WSUD Strategy

WSUD - Water Sensitive Urban Design

Key note: for the total area of developed hardscape, 1% is required to meet water quality objectives
1% of total area equal to total area of bioretention; filtration media.



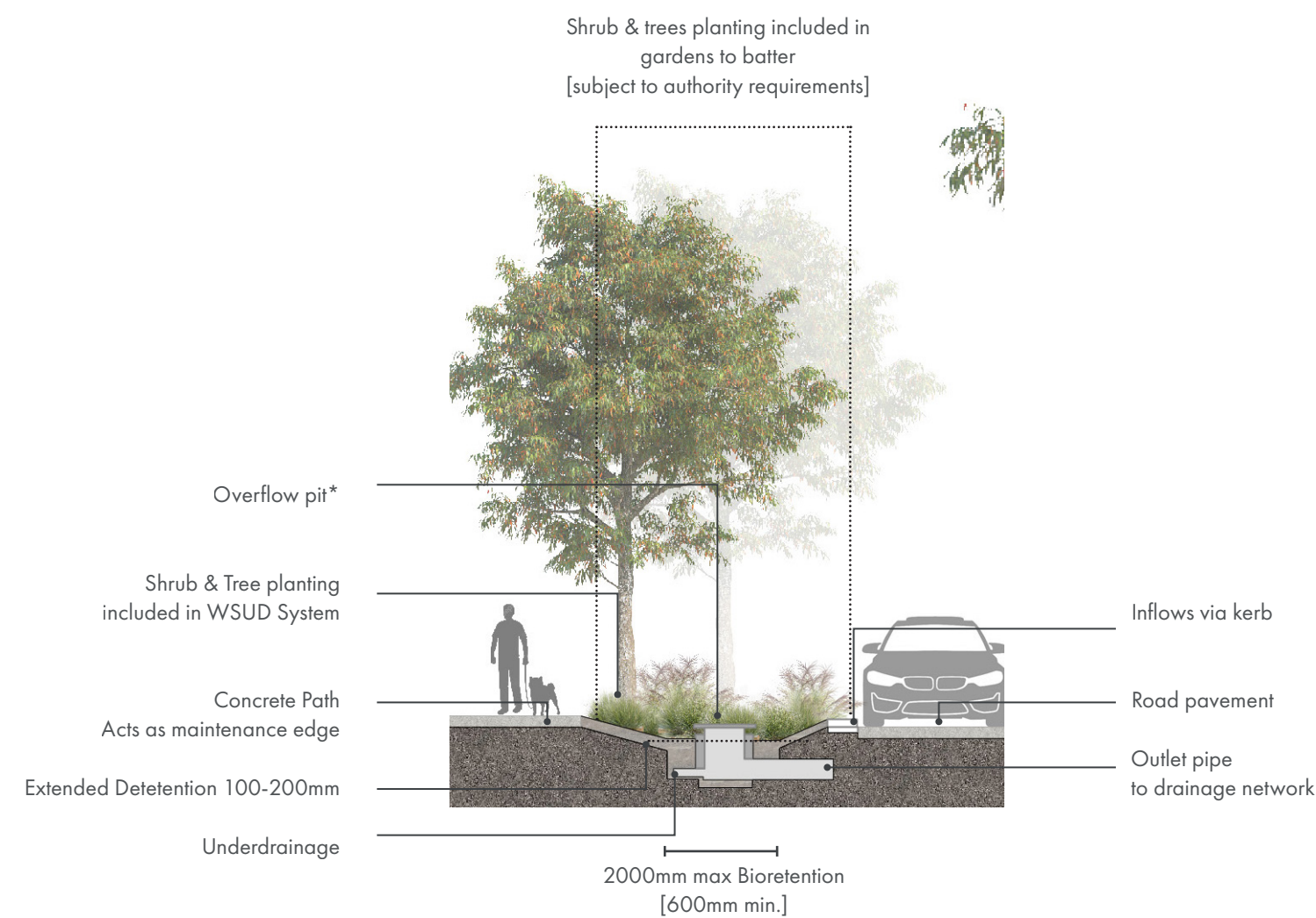
- Bioretention system
- Street tree pit
- Street tree
- Drainage flow direction

Note: total area required for treatment (1% of total developable area - buildings and roads) is dependent on the total area of hardscape development proposed. The drawing is indicative of where water draining from buildings or roadways could flow at grade. WSUD systems drawn assume connection to the underground stormwater network at the end of each treatment intervention.

WSUD - Water Sensitive Urban Design

Standard environmental details for water sensitive urban design.
To be detailed according to site parameters and council water quality objectives.

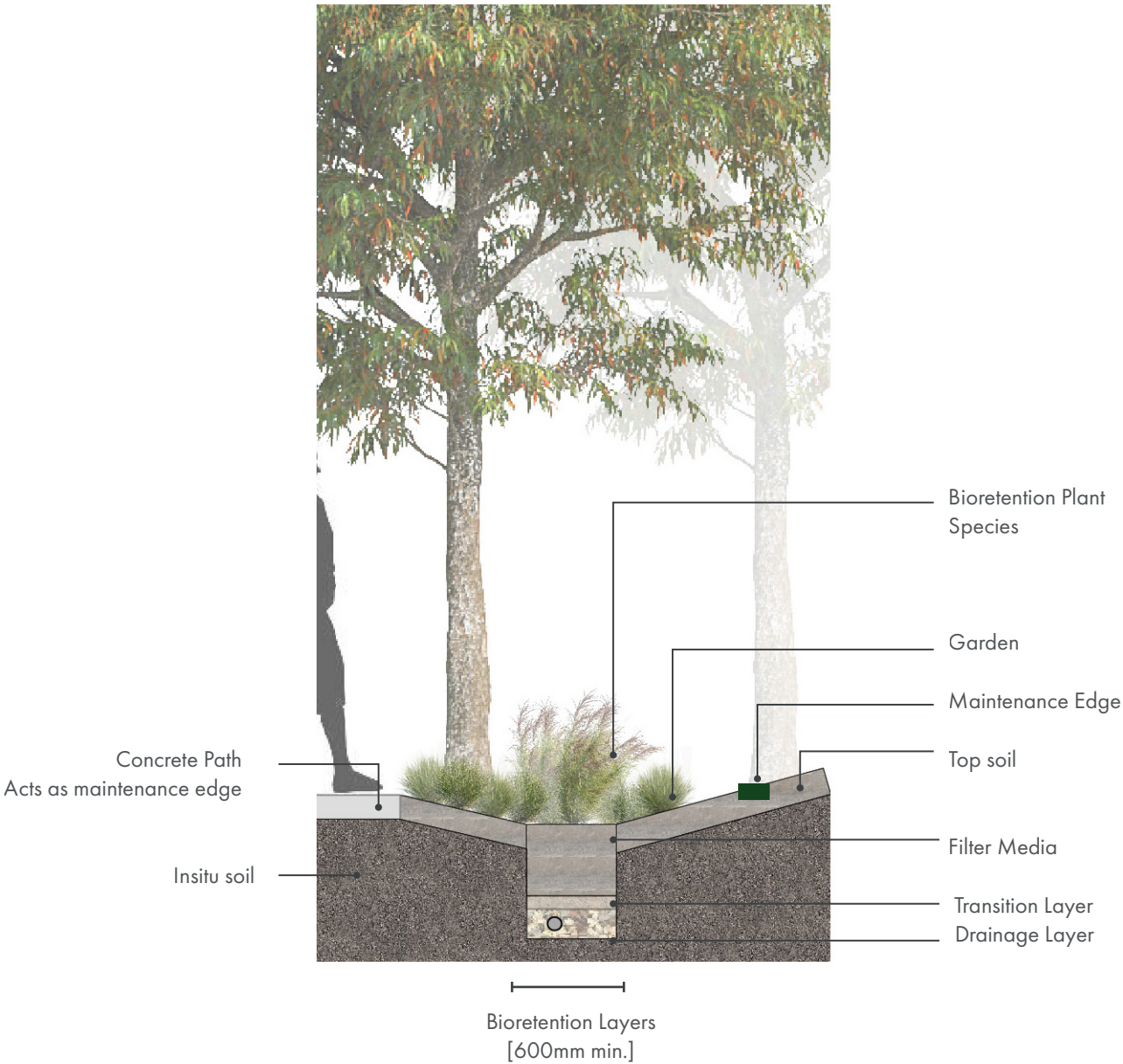
Details supplied by Healthy Land and Water Bioretention Design Guidelines



Bioretention Pit
[Drainage pit, street tree pit]

Biofilter systems fitted with filter media and underdrainage that direct water to root zones and the stormwater network where pollutants are removed.

*Alternatively, a standard side entry pit in adjacent kerb and channel may be used to accept overflows.



Bioretention System
[planter boxes, garden bed, swale]

Engineered garden beds that filter flow, nitrogen, phosphorous and sediment in stormwater through a vegetated filtration media.

WSUD - Water Sensitive Urban Design

Development precedents incoorporating bioretention water drainage and treatment systems into the design.

Projects supplied by McGregor Coxall.



Terraced Bioretention Basins
Spring Cove

Successful for Integrating WSUD (water sensitive urban design) into graded or potentially steep sites similarly to bioretention basins.

Wetland
Little Bay Cove

Wetlands provide additional benefits to bioretention systems through the creation of ecosystems for native fauna and flora that can assist in the uptake of pollutants.

Bioretention Basins
Warrick Lane

Highly effective water treatment devices integrated well into the urban fabric as planter boxes, garden beds and vegetated swales.

