



Ingleburn Concept Urban Design + Public Domain Strategy

Ingleburn CBD Planning Proposal



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July 2021

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job no: 21-018
date: 1 July 2021
version: A
purpose: Ingleburn Urban Design Strategy to Council



Ingleburn the town of the Eucalypt

Ingleburn town centre will retain its village atmosphere and provide a vibrant attractive destination for business, leisure and social engagement.

The town is easily accessible and safe with high pedestrian connectivity throughout from the railway station to the arts and community precinct, the shopping and service areas and car parking to the open space and adjoining residential precincts.

The open space and green links throughout the town provides recreational opportunities for its residents, workers and visitors. The green links bring nature back to the town based on the theme of where two rivers meet connecting Ingleburn town centre with the surrounding open space areas. The green links meet up in the town centre with the town parks providing opportunities for cycling, running, walking, sitting and play. The town parks provide a range of high quality activities for young and old.

2. Purpose of the strategy

Campbelltown City Council aspires for Ingleburn to grow as a vibrant, attractive and productive suburb with a flourishing centre. In support of this aspiration, Council is progressing a planning proposal to increase building heights, FSRs and residential densities in the CBD of Ingleburn.

This Urban Design and Public Domain Strategy is required to assist in achieving design excellence in future buildings and the public domain for Ingleburn. It has been prepared to assist in the preparation of development control plan provisions and to provide a basis for any required departures from the NSW Government's Ingleburn Precinct Plan.

This Strategy is not a public domain master plan. It provides a concept in support of the planning proposal and the design of public spaces will require future detailed design and community consultation.

Council's proposal for Ingleburn CBD is shown on Figure 1 and outlined in Table 1.

Council has identified the key public domain character zones to be addressed as identified in Figure 2.

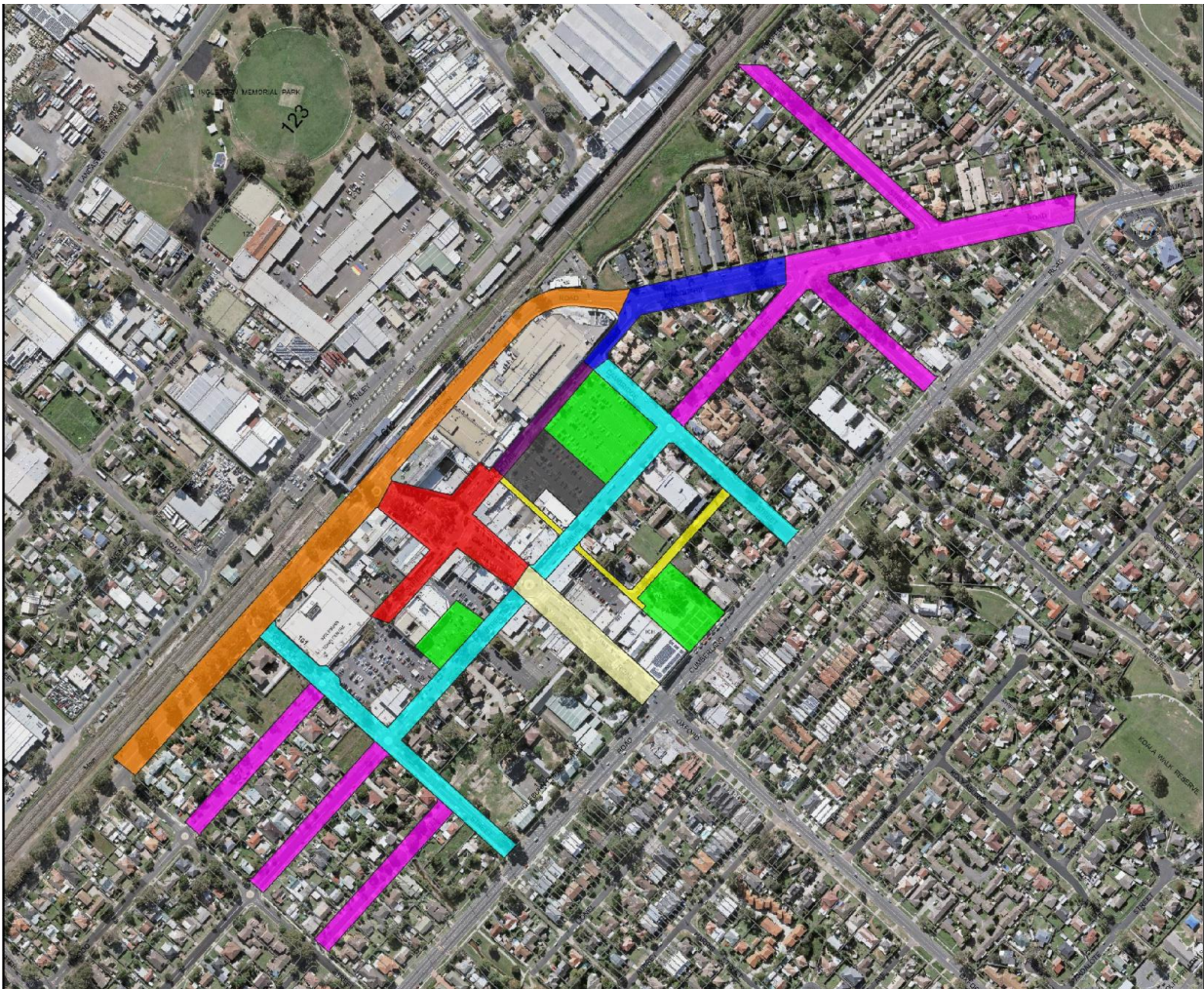
An analysis of the existing situation of the Ingleburn CBD, a review of available supporting documentation and Council's proposed development controls has been undertaken to inform this public domain strategy. Other investigations are being undertaken concurrently by Council including traffic, parking and retail/commercial floorspace. These specialist studies will need to be coordinated separately with the proposals for the public domain.



Figure 1 – Ingleburn CBD study area
Base: Google Earth Pro - Capture date April 2021

Table 1 - Proposed Development Controls

Proposed Control	Area A	Area B1	Area B2	Area B3
Maximum height	26 metres (eight storeys)	26 metres (eight storeys)	26 metres (eight storeys)	26 metres (eight storeys)
Setbacks	Setbacks Oxford Street - Ground – nil - First – 5m - Two and above – 10m			
Minimum Lot Area	1200m2 for mixed use development / shop top housing	Minimum Lot area – 2000m2 for residential apartment buildings	Minimum Lot area – 2000m2 for residential apartment buildings	Minimum Lot area – 2000m2 for residential apartment buildings
FSR	1.7:1 for commercial/ retail components (ground and first floor) 2.1 for the residential component – second floor and above Bonus floor space 0.5:1 if meeting sustainability measures but no increase in height	2.7:1 for residential apartment buildings Bonus floor space 0.5:1 if meeting sustainability measures but no increase in height Proposed iconic building – could depart from the height and FSR	FSR 2.7:1 for residential apartment buildings Bonus floor space 0.5:1 if meeting sustainability measures but no increase in height	FSR 2.7:1 for residential apartment buildings Bonus floor space 0.5:1 if meeting sustainability measures but no increase in height



- Public Domain Character Precincts
- COMMERCIAL
 - CARPARK
 - PARK
 - PEDESTRIAN PRIORITY
 - TRANSITION
 - LANE
 - RAILWAY
 - FLOOD
 - CORE
 - RESIDENTIAL

Figure 2 – Council Public domain character precincts
Source: Aerial and Cadastre - Campbelltown City Council 2021



3.1 Existing Character

Whilst Ingleburn has grown organically over time, its grid street system provides for a very walkable and connected CBD. The following identifies the key aspects of Ingleburn.

Strengths

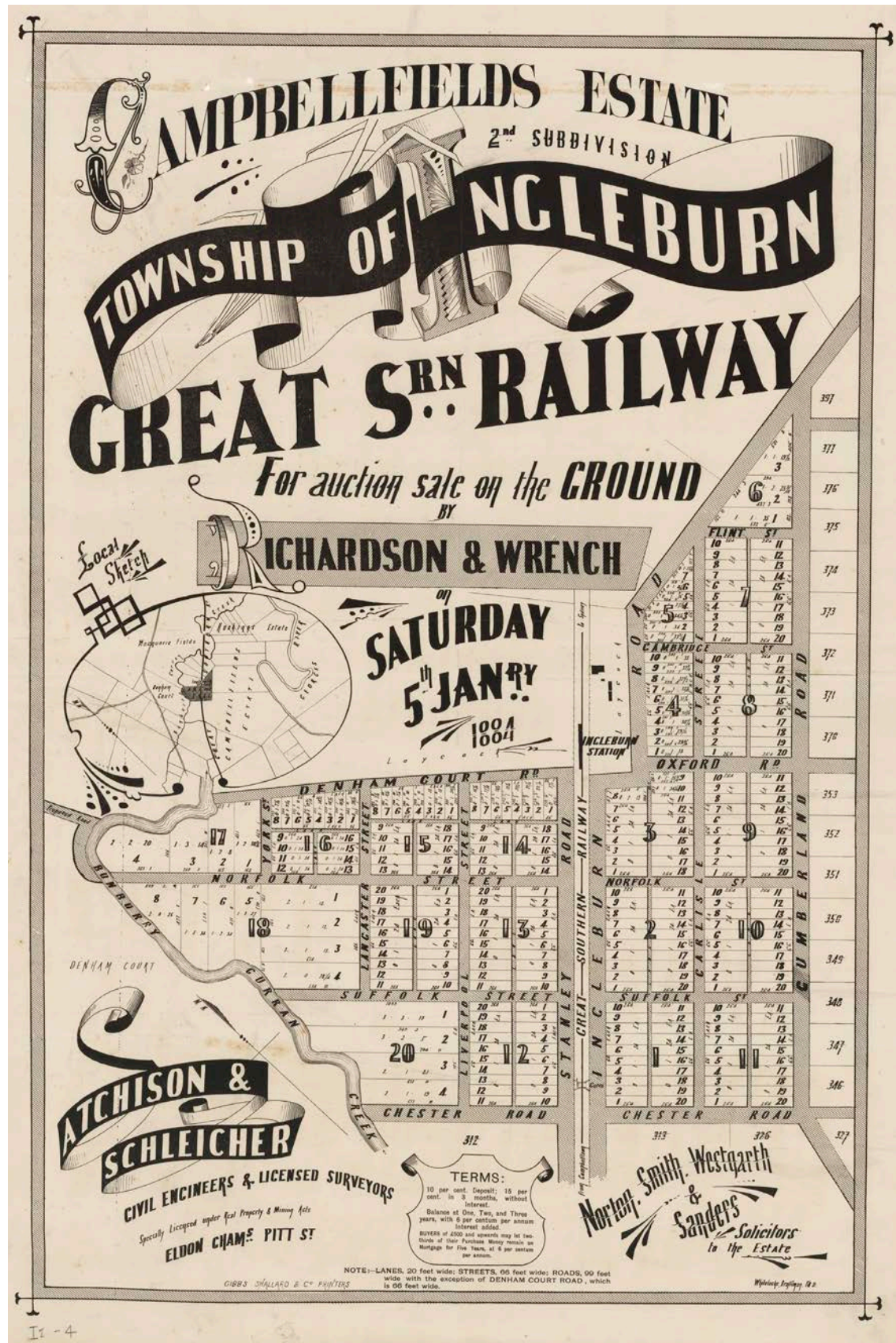
- Organic town centre - evolving over time.
- Awnings providing all weather protection.
- Mature Eucalypts throughout the city.
- Street grid pattern
- Accessibility / connectivity throughout the city.
- Walking distances between land uses, car parking and railway.
- Easy access between the CBD and the railway station
- No overhead services in various places.
- Large verges - opportunity for outdoor seating, landscape treatment, open space, connectivity.
- Wide streets
- Car parking
- Network of open space opportunities
- A range of community services.
- Ingleburn Alive street festival.





Weaknesses

- Flooding
- Climate - Summer heat and winter cold
- Lack of shade
- CBD interface with the railway station and railway line - no interaction
- Empty shops
- Uninteresting shop fronts
- Lack of activities
- Police container
- Limited new development / improvements
- Limited outdoor seating
- Lack of seating
- Visual clutter including various signs, differing finishes
- Signage coordination
- Placement of facilities impacting on accessibility
- Overhead services
- Way finding / gateway treatment
- Blank walls / blank spaces
- Back of house services
- Lack of open space
- Unused drainage network
- Various materials and surfaces
- Wide streets
- No cycleways



1884 Plan of Subdivision



Honour Roll



Bunya Pine
Ingleburn Station



The Horse Trough



Arts School building



Heritage Plaque

The land in the Ingleburn area was originally inhabited by the Tharawal people prior to the arrival of settlers from the First Fleet in 1788.

The first land grants in the area were made in 1809 to previous soldiers and therefore the area became known as "Soldier Flat".

Ingleburn Railway platform was established as early as 1869. The village of Ingleburn was established in 1885 when the land owned by a developer called FitzStubbs was subdivided.

There are many stories in how Ingleburn was named. One such story is that inge means "bend" and burn means "stream" in the Gaelic tongue. Georges River forms the eastern border of Ingleburn with a significant bend before continuing onto Long Point.

Other elements of heritage interest within Ingleburn include:

School of Arts building - Hall with Art Deco facade building c. 1920s.

The Horse trough. These horse troughs are located throughout NSW and Victoria and were donated by Annis and George Bills. From their estate, income was used for the provision of horse troughs to provide for horses.

Ingleburn public school - painted brick classroom built 1892.

1% AEP flood

Various parts of Ingleburn CBD flood as shown on Figure 3. These areas are to be considered as part of the Urban and landscape design for the town centre.

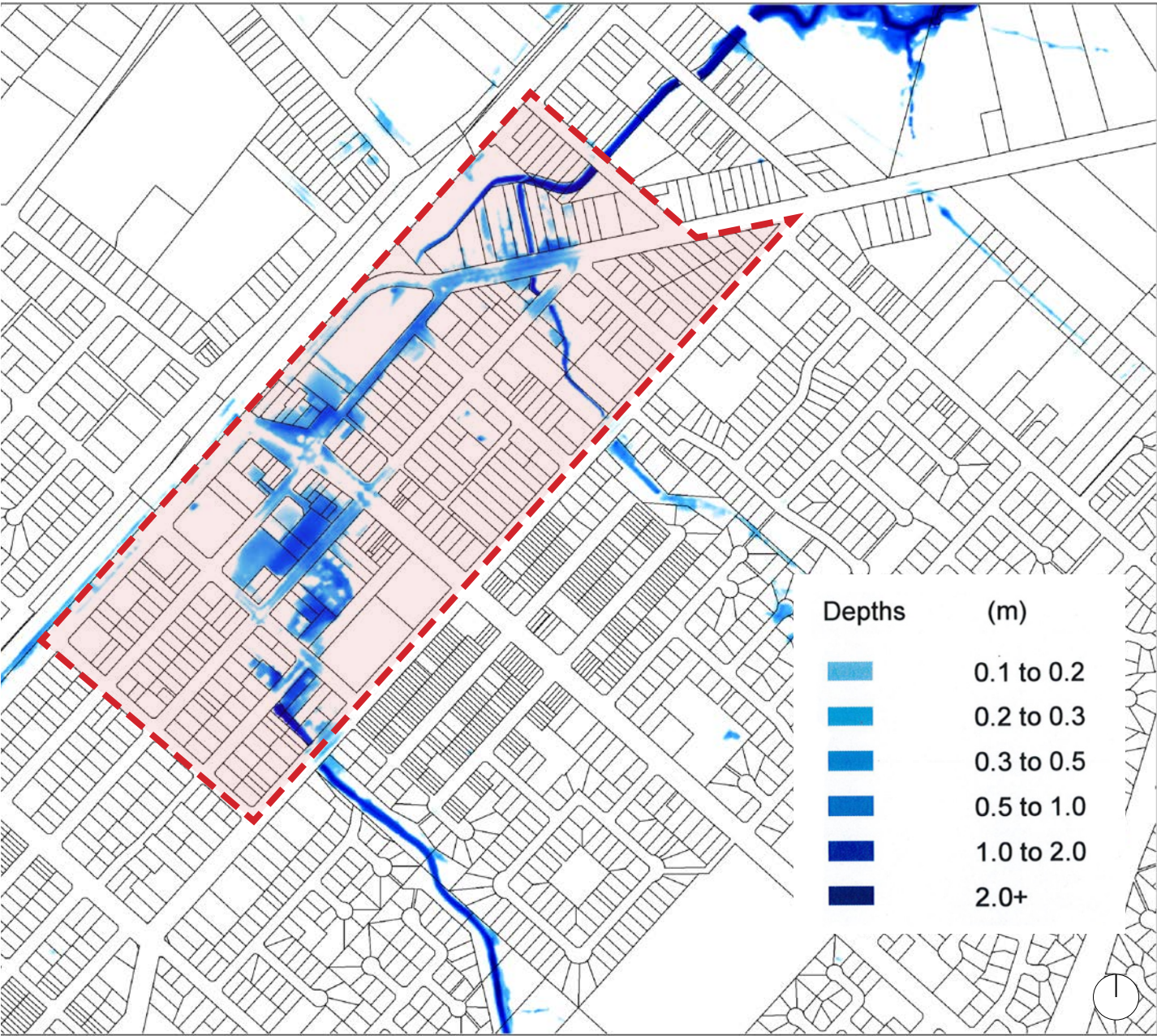


Figure 3 – Flood levels
Source: Campbelltown City Council 2021

Public Transport

There are various bus routes throughout the Ingleburn CBD as shown on Figure including Chester Street, Ingleburn Road, Oxford Street, Macquarie Road and Cumberland Road. Whilst the bus routes need to be considered in the urban and landscape design for the town centre in regards to accommodating buses and bus stop infrastructure, bus routes may need to alter due to the increase in the resident and worker population from the proposed changes to the development potential.

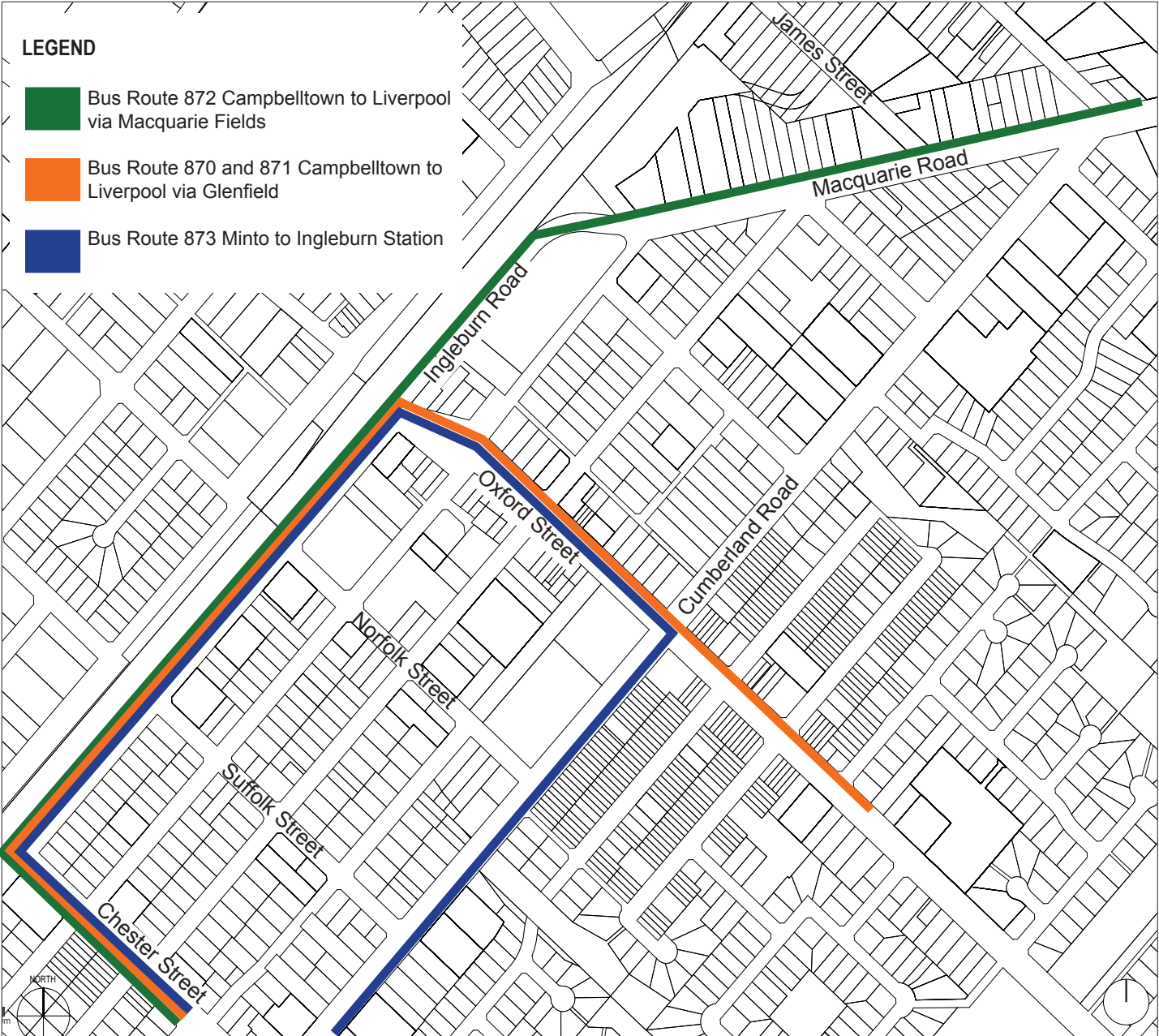


Figure 4 – Ingleburn Bus Routes
Source: Base plan Campbelltown City Council 2021

Open Space

The Department of Planning and Environment has mapped the open space connections of Ingleburn as shown on Figure 5. Key considerations for the urban design for Ingleburn is to increase the amount of open space for its new residents and workers and to improve open space linkages. This would be to connect Treelands Walk to the Ingleburn town centre through to Milton Park and then on Georges River at Ingleburn Reserve.

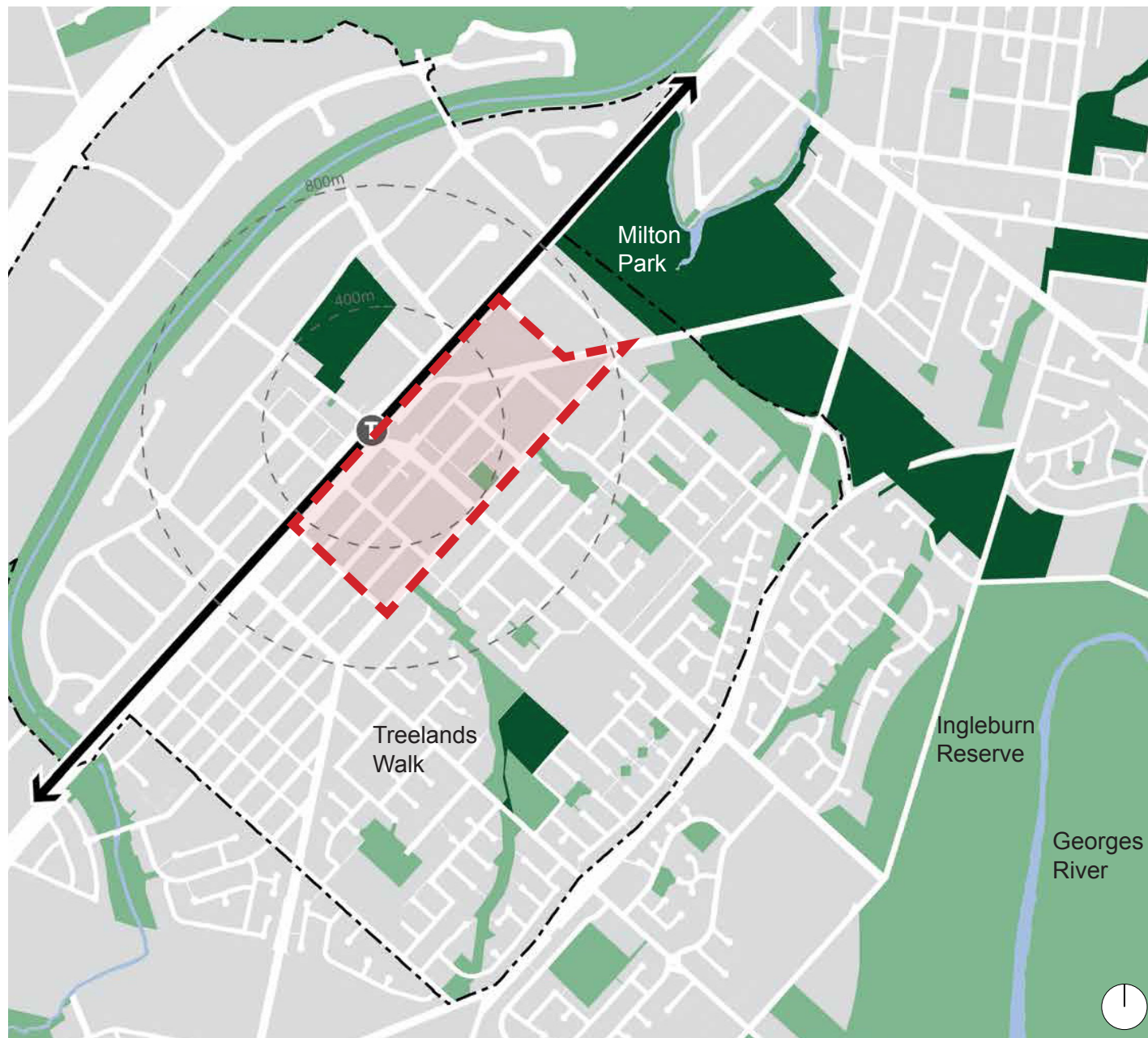


Figure 5 – Open Space Connections
Source: Department of Planning and Environment 2017

Overhead Services

Services need to be considered for the public domain works. All underground services will need to be determined as part of any detailed design for the proposals. The landscape treatment will need to consider the overhead services as shown on Figure 6.



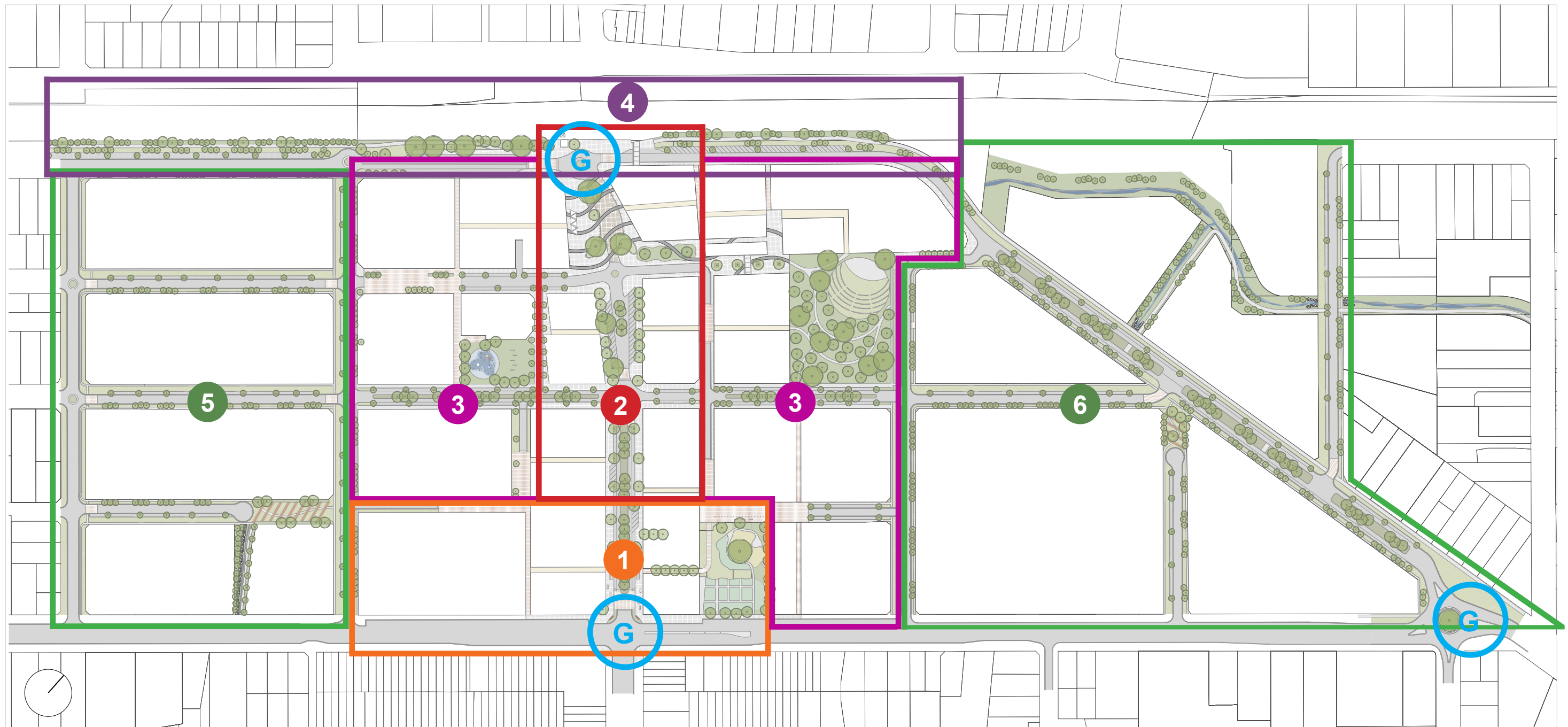
Figure 6 – Location of Overhead Services
Source: Base plan Campbelltown City Council 2021



4. Urban design + public domain strategy

Six precincts have been identified for the Ingleburn town centre:

- | | | | |
|---|---|---|---------------------------------------|
| 1 | The Gateway - Community + Arts Precinct | 4 | Ingleburn Station / Railway interface |
| 2 | Oxford Street Activity Hub | 5 | Suffolk Street Residential Precinct |
| 3 | Ingleburn CBD transition | 6 | James Street Residential Precinct |



The following principles and goals establish a framework to assist in delivering the vision for Ingleburn.

1. Ingleburn will be a vibrant hub for its residents, workers and visitors.

- Stimulate activity and a sense of vitality in public places.
- Ensure places are welcoming, safe and comfortable.
- Improve the visitor experience through improvements to existing infrastructure and providing an interesting and attractive built form.
- Create a lively centre with community and recreational facilities that are accessible to all and contributes to the destination.
- Ensure adequate space and infrastructure to support local festivals and events including 'Ingleburn Alive'.

2. Establish a high quality public domain and open space network.

- Create gateways introducing Ingleburn from various advantage points.
- Enhance the main city link between Oxford Street and the Ingleburn railway station.
- Creation of a green link through the CBD including pathways and cycleways to connect with surrounding points of interest including Georges River, Ingleburn Weir, Wood Park and Milton Park.
- Implement high quality and safe pedestrian and bicycle links as a priority within the city.
- Reduce visual clutter.
- Implement a well designed and cohesive wayfinding strategy for Ingleburn.
- Use every part of the street system to provide amenity and open space for residents and workers.

3. Improve sustainability in response to liveability and climate change.

- Increase the tree canopy to reduce temperatures and provide shade in Ingleburn.
- Incorporate awnings to provide all weather protection and to reduce heat load in ground floor uses.
- Incorporate other green and blue infrastructure such as green walls, green roofs and greening the existing concrete drainage corridors.
- Use stormwater for irrigation.
- Investigate the use of bioretention and swales and other improved facilities to reduce flooding from various storm events.
- All development to meet at a minimum its pre development stormwater runoff.
- Ensure sufficient deep soil areas to adequately contribute to tree canopy in private developments.
- Ensure private development contributes to the streetscape through adequate landscape treatment in the front and side setbacks.

4. Conservation of the natural environment and heritage of the area.

- Acknowledge and celebrate the original people of Ingleburn.
- Engage with the community to care and manage their town.
- Implement placemaking elements to establish a stronger connection to the heritage of the region.
- Reconnecting with the rivers that once flowed through Ingleburn.

The NSW Government's draft framework for Design and Place and framework for Greener Places has been considered in the urban design and public domain for Ingleburn CBD as identified.

The draft Design and Place SEPP is framed around five guiding principles. These principles aim to deliver healthy and prosperous places that support the wellbeing of people, communities and Country.

Greener Places: an urban green infrastructure framework design framework

Greener Places is a design framework for urban green infrastructure. It seeks to capture our collective aspiration and expectations in planning, designing and delivering green infrastructure in urban areas across NSW.

PRINCIPLE 1. Design places with beauty and character that people feel proud to belong to

Through a considered response to context, character, heritage, culture and Country, well-designed buildings and spaces create places people can engage and connect with. Attractive built environments are attractors, and powerful tools for economic growth.

PRINCIPLE 2. Design inviting public spaces to support engaged communities

High-quality public spaces are inviting, accessible, diverse and comfortable. They encourage a healthy public life for our communities, fostering active lifestyles and social connections.

PRINCIPLE 3. Design productive and connected places to enable thriving communities

Places with sufficient densities, and sustainable and active transport connections to a wider network of jobs, services and attractors, enhance local economies and communities, enabling them to thrive.

PRINCIPLE 4. Design sustainable and greener places for the wellbeing of people and the environment

Environmentally sustainable places reduce emissions; adopt water, energy and material efficiency; and integrate green infrastructure, including urban tree canopies, to support the health and wellbeing of present and future communities and natural systems, including habitat for biodiversity.

PRINCIPLE 5. Design resilient and diverse places for enduring communities

Resilient places are designed with adaptive capacity to respond to shocks, chronic stresses, and climate change. Diverse, compact neighbourhoods support inclusive, socially resilient communities and ageing in place.

PRINCIPLE 1. Integration

Combine green infrastructure with urban development and grey infrastructure.

There is a global transition away from single-purpose grey infrastructure to more multipurpose infrastructure that mimics nature, provides critical ecosystem services, and promotes healthy and active living. The principle of integration proposes to combine green space with urban development and grey infrastructure.

PRINCIPLE 2. Connectivity

Create an interconnected network of open space.

Greener Places promotes the creation of a network of high-quality open spaces that connect with town centres, public transport hubs, rivers, creeks, and employment and residential areas – creating a network of open space. The network includes physical and functional connections that benefit people and wildlife.

PRINCIPLE 3. Multifunctionality

Deliver multiple ecosystem services simultaneously.

Multifunctional green spaces should be high-quality and high-performing, producing, social, environmental, and economic benefits. Multifunctionality represents the ability of green infrastructure to deliver multiple ecosystem, environmental, and other services simultaneously.

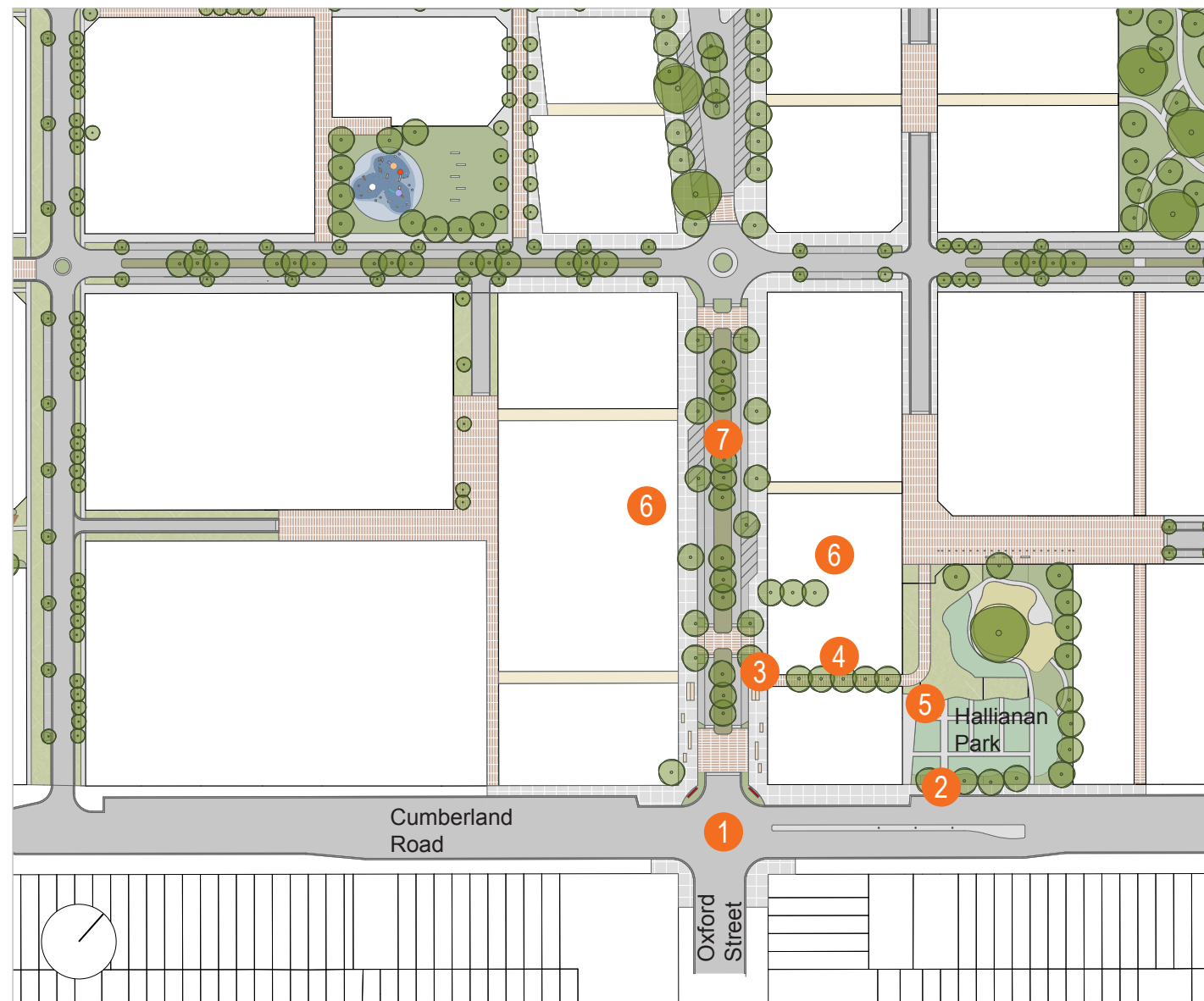
PRINCIPLE 4. Participation

Involve stakeholders in development and implementation.

Participation relates to a planning process that is open to all and incorporates the knowledge and needs of diverse parties. It involves stakeholders in the development and implementation of neighbourhood, local, district, and regional green infrastructure policies and actions.

The main gateway needs special attention. It is to exhibit that you have arrived, Ingleburn welcomes you and it wants you to celebrate its special town with. Please join in celebrating what Ingleburn means to its residents and workers.





Public Domain Interventions

- 1 Implement gateway treatment including a new road pavement treatment, formal paving on verges, seating areas, flag poles and public art. Extend gateway treatment onto Cumberland Road to create a prominent entry to Ingleburn. This could include paved verges, flagpoles in median and entry signage.
- 2 Possible location for gateway signage.
- 3 Relocate bus stop and integrate with civic space.
- 4 Reinforce linkages to Hallinan Park.
- 5 Incorporate active uses and outdoor seating. Open up the library and community centre to interact with Hallinan Park create a gathering place and improving surveillance.
- 6 Built form to interact and address the community and arts precinct. Building facades adjoining the precinct to be architecturally treated and not present as a blank wall.
- 7 WSUD and street tree planting.

Public Domain Principles

Reinforce as the main gateway to the Ingleburn CBD.

Establish an active community and arts precinct. Encourage complementary uses within the precinct.

Create civic space with formal paving, public art, seating areas/smart hubs incorporating the bus stops and formal tree planting on both sides of Oxford Street at the intersection with Cumberland Road.

Gateway treatment to incorporate public art and flag poles due to the limited available area and overhead services along Cumberland Road. Establish a different treatment to inform the visitor of their arrival to Ingleburn.

Extend formal paving on the Oxford Street frontage onto Cumberland Road to indicate the arrival point for Ingleburn as part of the gateway treatment.

Implement gateway signage (welcome to Ingleburn). Possible location on the Library and community building or within the Hallinan Park on the Cumberland Road frontage. Gateway signage to be coordinated at the Community + Arts Precinct, the Railway Station and Oxford Street Activity Hub.

Enhance access linkages from Oxford Street through to Hallinan Park. All development should interact with Hallinan Park. Create active land uses in and adjoining Hallinan Park.

Reduce visual clutter. Incorporate coordinated signage, street furniture and landscape treatments.

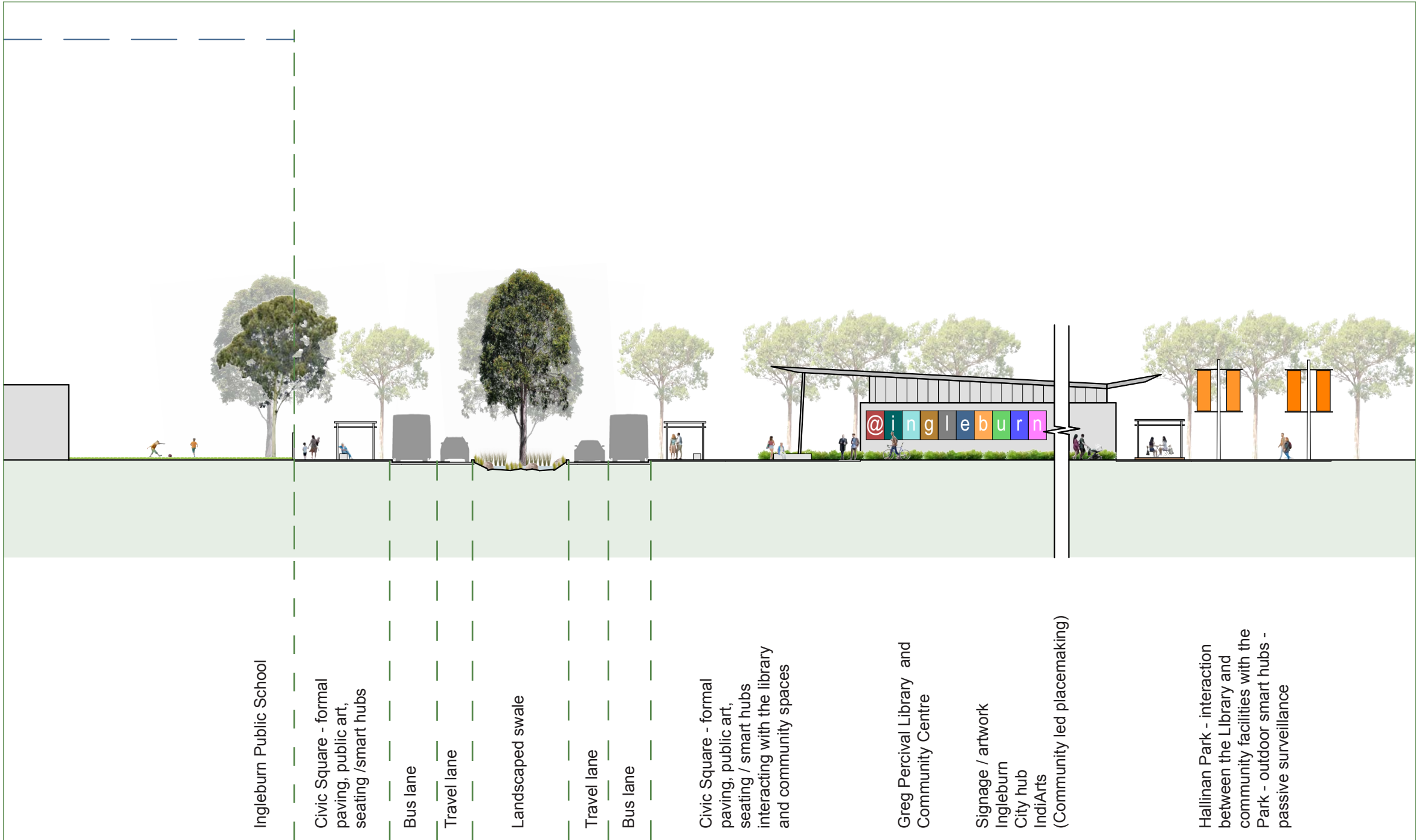
Create shaded seating areas.

Determine the future scenario of Ingleburn Public School. Any proposals for expansion, etc.

Implementation of Water Sensitive Urban Design to assist in passive irrigation for street trees and landscaped verges. Incorporate a planted swale within Oxford Street to continue the green link throughout the town centre.

Buildings within the precinct to be a maximum of two storeys. Buildings immediately to the west of the precinct to address the arts and community precinct as well as Oxford Street. This built form should be treated architecturally and not present as a blank wall

Buildings to interact with the street network and open space, e.g. no blank walls.

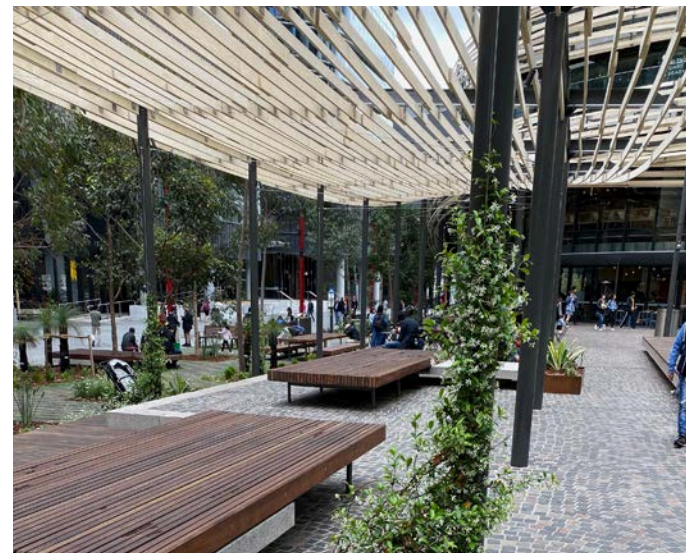


Cross Section - Community + Arts Precinct

Examples of public domain opportunities
(precedent images)



National Gallery Victoria (Melbourne) - Temporary outdoor pavilions Victorian Architecture Awards (Source: architecture.com.au). Opportunity adjoining the Library and Community Centre with Hallinan Park - creating active use integrated with all uses.

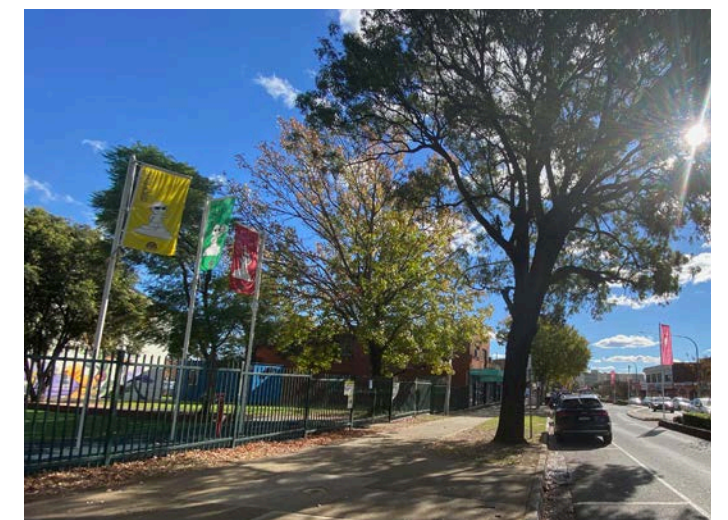


Various and continuous seating areas and shade structures. Darling Square Sydney.



Integrating community centres with the outdoors. George Brown Darwin Botanic Gardens Visitor and Event Centre NT 2021 Architectural Awards (Source: architecture.com.au)

Activate the spaces between the Library and Community Centre with Oxford Street and with Hallinan Park.



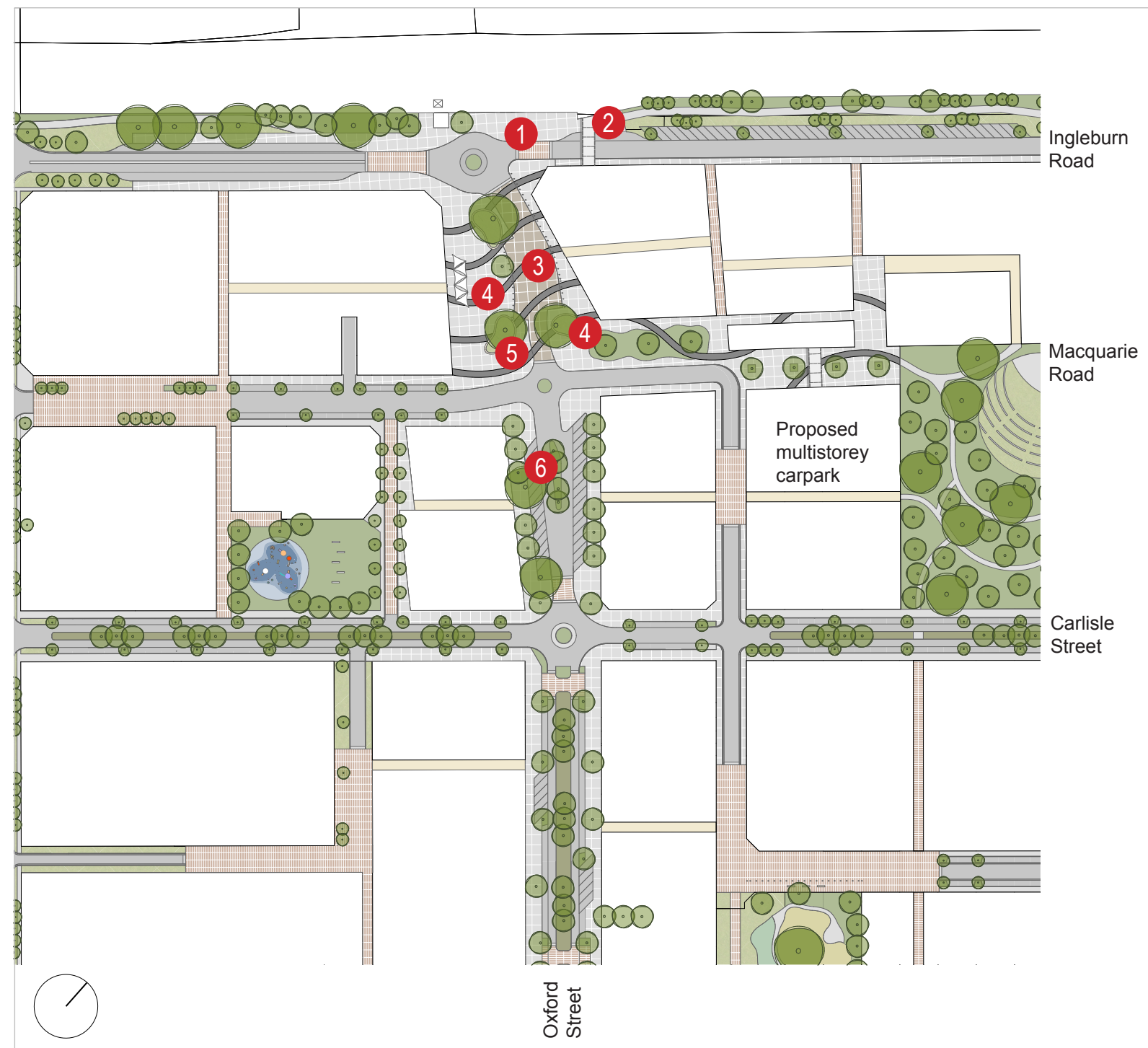
Opportunity to present the landmark buildings of Ingleburn and create a grand entry and civic space for the town. Formalise paving and integrate street furniture, landscape treatment and signage to create formal outdoor seating space.

4.4 Oxford Street Activity Hub

Oxford Street is the central spine of the Ingleburn CBD. It is a hive of activity with a range of restaurant, cafes, shops and services. Activity occurs not only on the ground floor but has an active second level. There are many places to sit and relax and enjoy the atmosphere.

Oxford Street connects the Community + Arts Precinct through to Ingleburn Railway Station. This is the central hub connecting all places within Ingleburn.





Oxford Street Activity Hub - Scheme 1

Public Domain Interventions

- 1 Prioritised pedestrian links with the Ingleburn railway station
- 2 Provision of an overhead pedestrian bridge linking to the railway station.
- 3 Implement two way vehicular access with some parking. Introduce a pavement treatment, bollards, street furniture and sculptures to reduce speed and maintain pedestrian priority.
- 4 Create areas for meeting, festivals, outdoor seating, outdoor eating to support the adjoining and surrounding businesses. Area widened on the south western side to maximise solar access in Winter.
- 5 Retain large Eucalyptus street trees within large planter beds with integrated seating. Retain and embellish Eucalyptus street trees along Oxford Street to create a point of difference with the remainder of the town centre.
- 6 Increase verges and maintain some parking. Creates additional outdoor seating / dining and ensuring accessibility.

Public Domain Principles

Reinforce Oxford Street as the main spine/heart of Ingleburn town centre. It will be the hub and main pedestrian connector of the overall town centre.

Accessibility is the key - create movement throughout the town for all.

Outdoor living - sitting, people watching, eating, outdoor activities are the priority. Allow businesses to interact in the open space whilst also achieving friendly safe movement throughout the centre.

Create shaded seating areas. No need to look for seating. Seating options are everywhere. Create outdoor rooms - seating coordinated with landscaped beds, individual seats, seating to complement retail/commercial uses.

Pedestrian movement is a priority. Permit vehicular movement and parking throughout Oxford Street, however reduced to enforce pedestrian priority. Vehicular movement and car parking is directed to the multi-storey carpark.

Support local business and ongoing festivals with increased accessibility and improved pedestrianisation.

Built form to address Oxford Street, open space areas and laneways.

The first two storeys along Oxford Street are proposed to create interest and interaction along Oxford Street.

Creation of a second level pedestrian thorough fare along buildings on Oxford Street and a connection with the railway station via an overhead pedestrian bridge.

Reduce visual clutter.

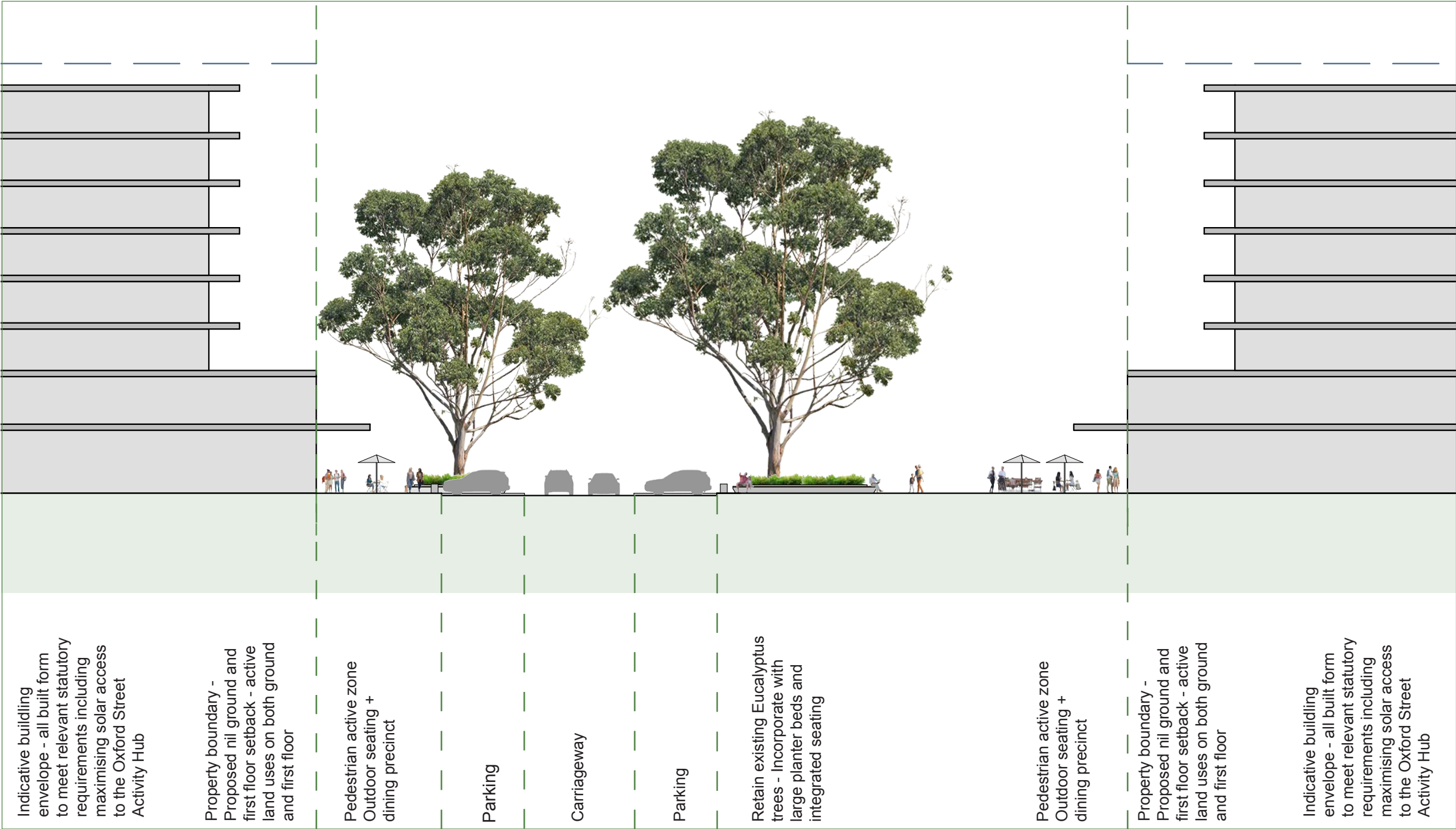


View of existing urban form
Oxford Street - View from Ingleburn Road looking south east

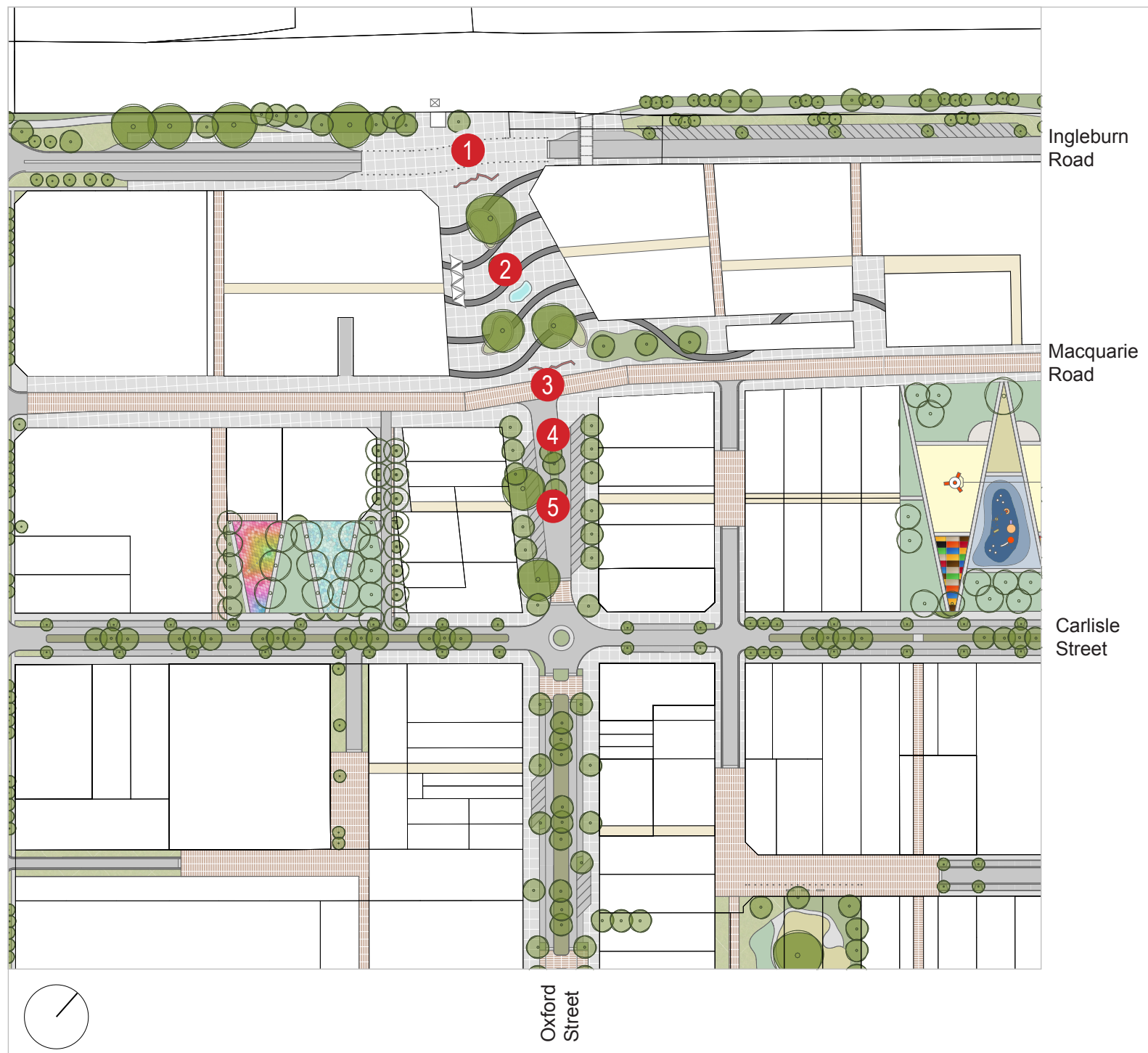


Illustration of the Oxford Street Activity Hub with partial road closure





Cross Section - Oxford Street Activity Hub - Scheme 1



Public Domain Interventions

- 1 Pedestrian link with the Ingleburn railway station and the Oxford Street mall. Shared pedestrian / vehicular zone.
- 2 Creation of a pedestrian only zone. Incorporate outdoor dining, activities to support adjoining retail ventures, and support local festivals. Creation of village green, local stage, various options to support the community.
- 3 Shared Pedestrian / vehicular linkages to the adjoining CBD land uses including multistorey carparking. Ensure carparking is linked to the greater CBD.
- 4 Increase verges and maintain limited parking. Creates additional outdoor seating / dining and some parking.
- 5 Large Eucalyptus street trees to create a point of difference with the remainder of the CBD.

Public Domain Principles

Reinforce Oxford Street as the main spine/heart of Ingleburn town centre. It will be the hub and main pedestrian connector of the overall town centre.

Accessibility is the key - create movement throughout the town for all.

Outdoor living - sitting, people watching, eating, outdoor activities are the priority. Allow businesses to interact in the open space whilst also achieving friendly safe movement throughout the centre.

Create a pedestrian only zone and connect with Ingleburn station at the western end of Oxford Street.

Create a meeting space for festivals, activities, meeting areas.

Permit vehicular movement and parking on part of Oxford Street, however reduced to enforce pedestrian priority. Ensure connections to multi-storey carpark.

Pedestrian movement is a priority. Vehicular movement and car parking is directed to the multi-storey carparks.

Create shaded seating areas. No need to look for seating. Seating options are everywhere. Create outdoor rooms - seating coordinated with landscaped beds, individual seats, seating to complement retail/commercial uses.

Reduce visual clutter.

Support local business and ongoing festivals with increased accessibility and improved pedestrianisation.

Built form to address Oxford Street, open space areas and laneways. Various setbacks are introduced to achieve this and solar access.

Two storeys along Oxford Street are proposed to create interest and interaction along Oxford Street.

Creation of a second level pedestrian thoroughfare along buildings on Oxford Street and a connection with the railway station via an overhead pedestrian bridge.

Oxford Street Activity Hub - Scheme 2

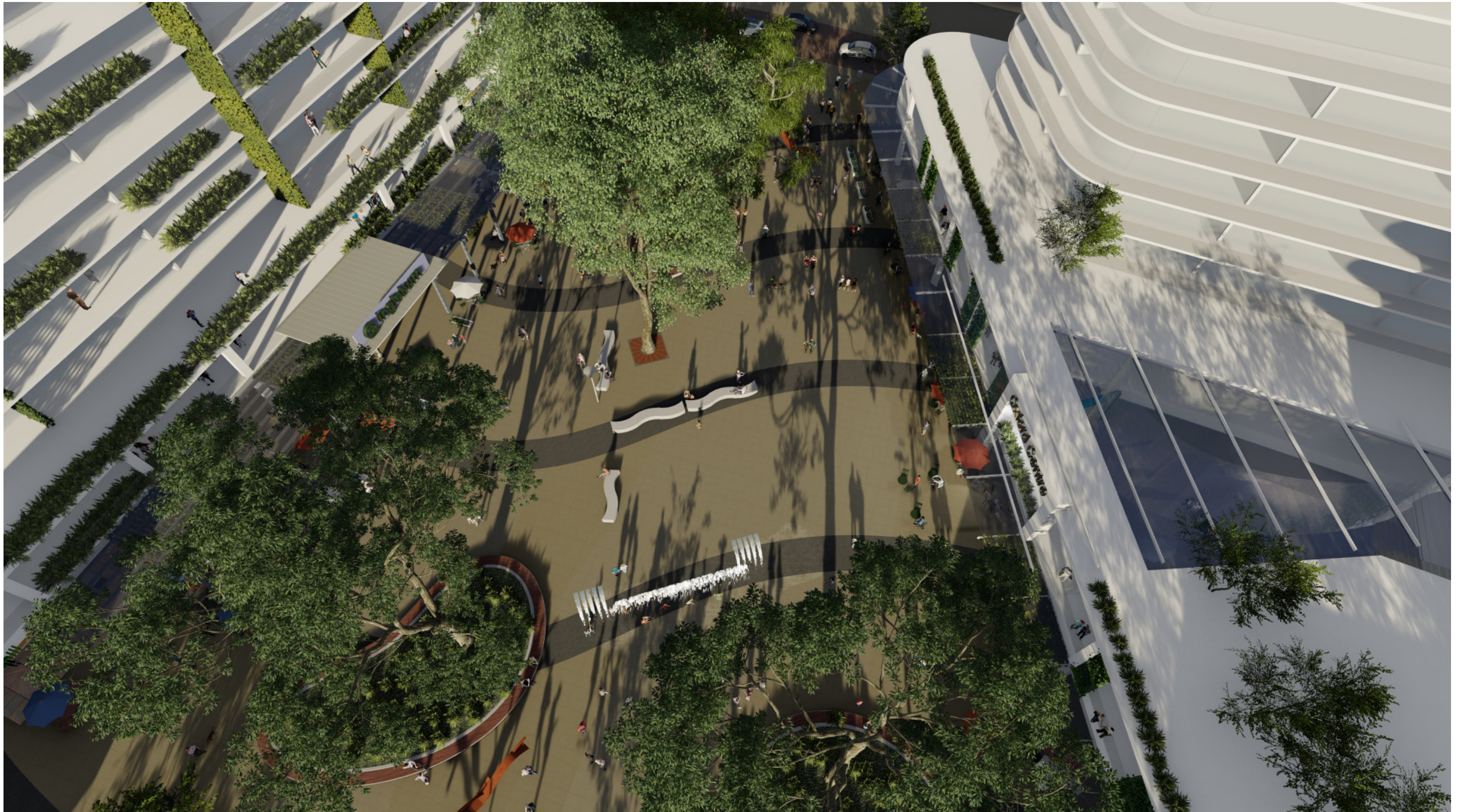


View of existing urban form
Oxford Street - View from Ingleburn Road |
looking south east



Illustration of the Oxford Street Activity Hub with full road closure







Cross Section - Oxford Street Activity Hub - Scheme 2

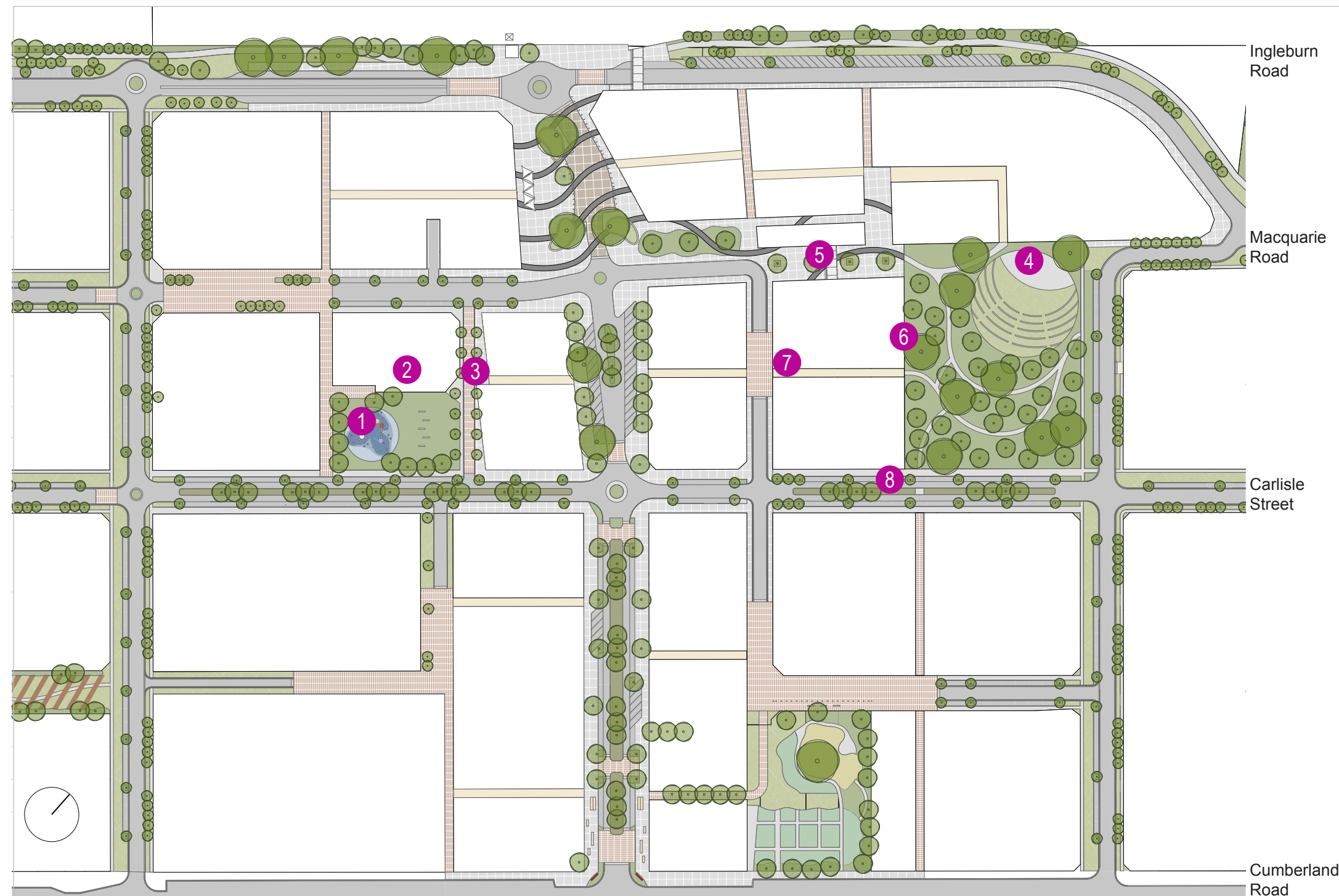
Oxford Street is the retail / commercial core of Ingleburn and it is supported by the adjoining areas to create an exciting vibrant town centre. It incorporates essential services, carparking facilities and interesting and varied open space and activities to support its residents, workers and visitors.

There will be three parks being the existing Hallinan Park, the park on Cambridge Street (Cambridge Park) and the park on Carlisle Street (Carlisle Park). Names of parks for the purposes of this report only.

Design proposals have been considered for the two new proposed open space areas being Cambridge Park and Carlisle Park within the CBD area. This includes themes for the parks and the design proposals for the surrounding public domain. Schemes include:

1. The River Bend - bringing nature to town
2. Space Rocket @ Ingleburn
3. Board Games + more





Public Domain Interventions

- 1 Carlisle Park - provision of new open space with water play facilities
- 2 Built form surrounding Carlisle park to interact with the open space, e.g. cafe, community centre
- 3 Retain lane access from Nardoo Street to Carlisle Street adjoining the park. Encourage access through buildings at ground floor onto Oxford Street.
- 4 Cambridge Park - provision of new open space with facilities facilities based on nature play
- 5 Create pedestrian only link along Macquarie Road to Oxford Street.
- 6 Carpark to interact with the park, e.g. ground floor cafe, games room. Carpark wall facing the park to be designed to reflect the woodland forest theme.
- 7 Create pedestrian links through the carpark from the park to Boots Lane. Encourage additional pedestrian links through the ground floor from Boots Lane to Oxford Street
- 8 Vegetated swales and onstreet parking along Carlisle Street

The River Bend bringing nature to town - Design Principles

Bringing nature back to the city. Create a natural woodland forest along the banks of the river. Pathways reflect the bends and twists of the river and then reach the amphitheatre being the mouth of the river.

The river connects Carlisle Park through to the Oxford Street Activity Hub to Cambridge Park.

The landscape theme incorporates species from the Cumberland Plains Woodland. This creates a wonderland of a natural environment for the residents, workers and visitors. Incorporate local species and create a wonderland of play - natural playground, climbing towers with bird nests, foraging tunnels, suspension bridges, and shaded meeting places amongst the forest.

Incorporate an amphitheatre for festivals, outdoor movies and concerts. The amphitheatre could also incorporate a detention basin (bioretention) to assist with flooding.

Close Macquarie Road to extend the Oxford Street Plaza and improve pedestrian connection to Cambridge Park.

The proposed multi-storey carpark will be accessible from Oxford Street with entry and exit access available from Boots Lane and Carlisle Street.

Carlisle Park will be ancillary to the major park and include complementary park facilities. Carlisle Park will incorporate the river component through water play features and also incorporate the Cumberland Plains Woodland.

Carlisle Park could also incorporate a bioretention facility to assist in flooding.

As the parks are walkable from the James Street and Suffolk Street residential precincts, both parks should incorporate a range of facilities to meet the needs of the residents and are destinations in their own right.

New built form is to maximise solar access to all open space.

The landscape treatment of Carlisle Street includes a vegetated swale linking the two parks. Parking is retained on Carlisle Street.



Cross Section - Carlisle Park



Partial Cross Section through Cambridge Park - amphitheatre concept



Partial Cross Section through Cambridge Park - nature play



Public Domain Interventions

- 1 Carlisle Park providing a broad range of activities from water play, exercise equipment.
- 2 Built form surrounding Carlisle park to have activated spaces and interact with the park, e.g. cafe, community centre
- 3 Retain lane access from Nardoo Street to Carlisle Street adjoining the park. Encourage access through buildings at ground floor onto Oxford Street.
- 4 Closure of Oxford Street west
- 5 Shared pedestrian / vehicle zone between Oxford Street and the station
- 6 Shared pedestrian / vehicular link along Macquarie Road to Norfolk Street.
- 7 Carpark to interact with the park, active ground floor uses, eg cafe, games room. Carpark wall facing the park to be designed to integrate with the park, e.g. climbing wall, park motif, open air cinema.
- 8 Cambridge Park providing a range of activities from rocket ships, through to informal parklands.
- 9 Create pedestrian links through the carpark from the park to Boots Lane. Encourage additional pedestrian links through the ground floor from Boots Lane to Oxford Street
- 10 Vegetated swales and onstreet parking along Carlisle Street

Space Rocket @ Ingleburn - Design Principles

Play and function - creation of a series of games, events, areas for activities. Each module has a different activity, play mode to cater for a range of age groups.

Cambridge Park incorporates:

- Rocket ships, bridge and climbing structures
- Exercise park
- Water park
- Informal parkland
- Smart hubs (wifi and charging stations)
- * Formal seating areas

Carlisle Park incorporates:

- Water park
- Table tennis
- * Smart hubs
- Climbing walls
- Informal seating areas

The parks would offer similar and different activities to each other and would provide equipment complementary to Hallinan Park.

Macquarie Road is a shared pedestrian / vehicular road. Treatment of the road would incorporate a coloured permeable paver to differentiate it from other streets. Keeping Macquarie Road open for cars, provides an opportunity for Oxford Street to be closed at the western end. The Oxford Street Activity Hub could be a large plaza or alternatively the Town Centre green. It would be an area that could incorporate a grassed stage and seating or paved areas that can be used for festivals and concerts or just an area to meet up with friends.

The carpark is to be integrated with Cambridge Park. This could be through murals along the same theme, interactive lighting or alternatively play infrastructure such as wall climbing.

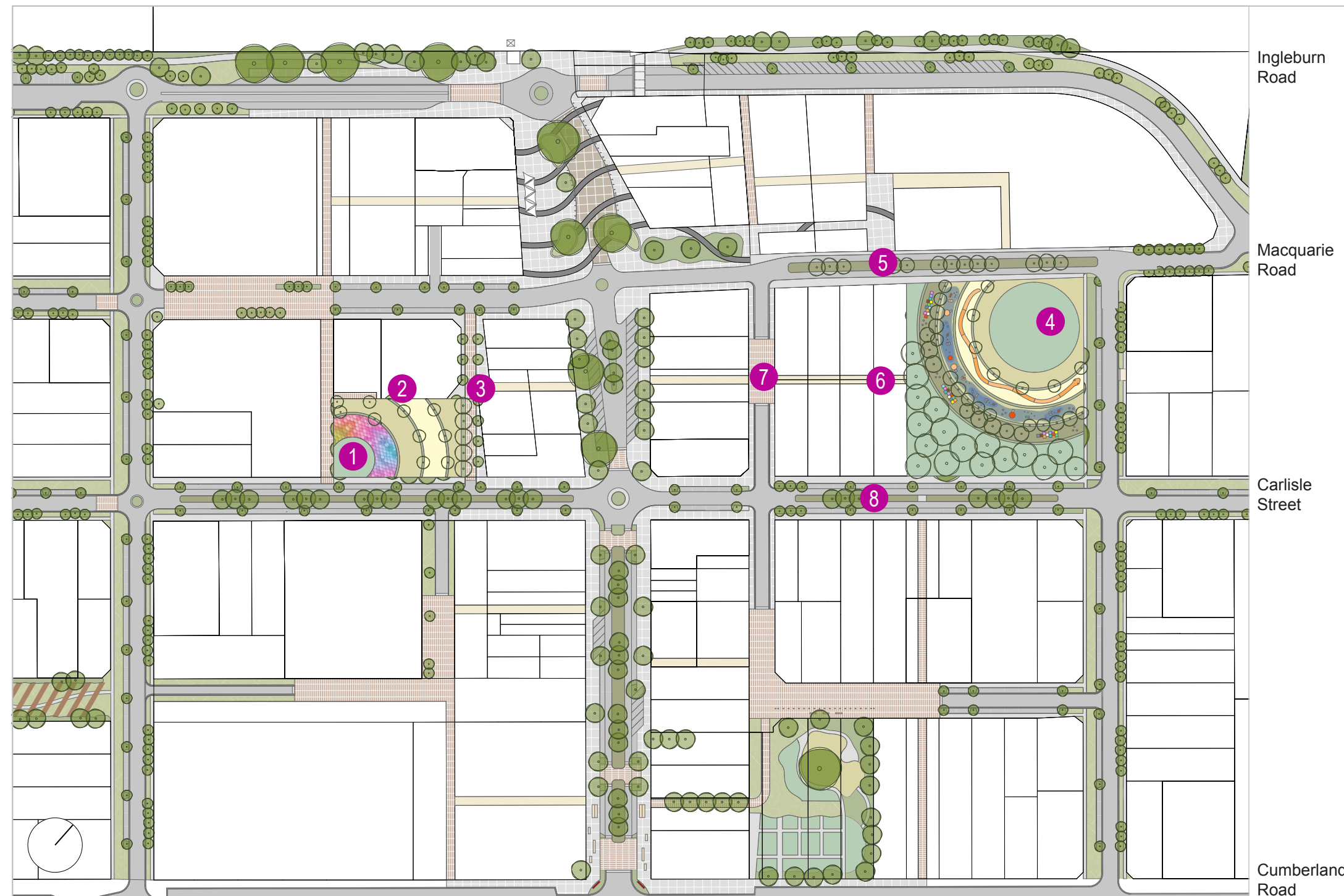
Bioretention to assist with flood levels could be implemented within part of the park adjoining Macquarie Road in the proposed informal grassed areas. Bioretention could also be implemented along Macquarie Road.

New built form is to maximise solar access to the parks.

The landscape treatment of Carlisle Street includes a vegetated swale through the precinct. Parking is retained on Carlisle Street.



Cross Section - Cambridge Street Park - Space Rocket @ Ingleburn



Public Domain Interventions

- 1 Carlisle Park provides a small amphitheatre/seating area with a range of board games
- 2 Built form surrounding Carlisle Park to incorporate active uses and interact with the park, e.g. cafe, community centre
- 3 Retain lane access from Nardoo Street to Carlisle Street adjoining the park. Encourage access through buildings at ground floor onto Oxford Street.
- 4 Cambridge Park - a large board game providing a series of activities that can be undertaken by one or many people.
- 5 Vegetated swales along Macquarie Road. No onstreet parking.
- 6 Carpark to interact with the park, e.g. ground floor cafe, games room. Carpark wall facing the park to be designed to interact with the park, e.g. interactive lighting, outdoor cinema.
- 7 Create pedestrian links through the carpark from the park to Boots Lane. Encourage additional pedestrian links through the ground floor from Boots Lane to Oxford Street
- 8 Improving green links through vegetated swales

The Board Game + more - Design Principles

The board game theme incorporates a range of activities that can be undertaken as individuals or as groups.

Cambridge Park incorporates the amphitheatre as the main circle being the focal point. Each ring then incorporates a game and a vegetated seating area alternately. Cambridge Park includes:

- An amphitheatre which could include bioretention.
- Hop scotch
- Follow the line
- Snakes + ladders
- Obstacle course
- Water play course

Carlisle Park is a similar concept but on a smaller scale and incorporates:

- Seating/viewing area
- Twister
- * Obstacle course
- Four hand

A vegetated swale is proposed along Macquarie Road creating a further green link. Onstreet parking within this vicinity would not be available. Providing vehicular access along Macquarie Road provides an opportunity for Oxford Street to be closed or remain open as per schemes 1 and 2 previously outlined.

The carpark is to be integrated with Cambridge Park. This could be through murals along the same theme, interactive lighting or alternatively play infrastructure such as wall climbing or outdoor cinema.

New built form is to maximise solar access to the parks.

The landscape treatment of Carlisle Street includes a vegetated swale through the precinct to continue the green links throughout the town centre. Parking is retained on Carlisle Street.

The Boardgame + more
(Playspace examples)



Springvale Community Precinct - a combination of colourful playspaces with varying activities
(Source: www.landscapaustralia.com)

Space Rocket @ Ingleburn
(Playspace examples)



Olivine, Gumnut Park and Adventure Playground (Source: www.AILAawardsplatform.com)

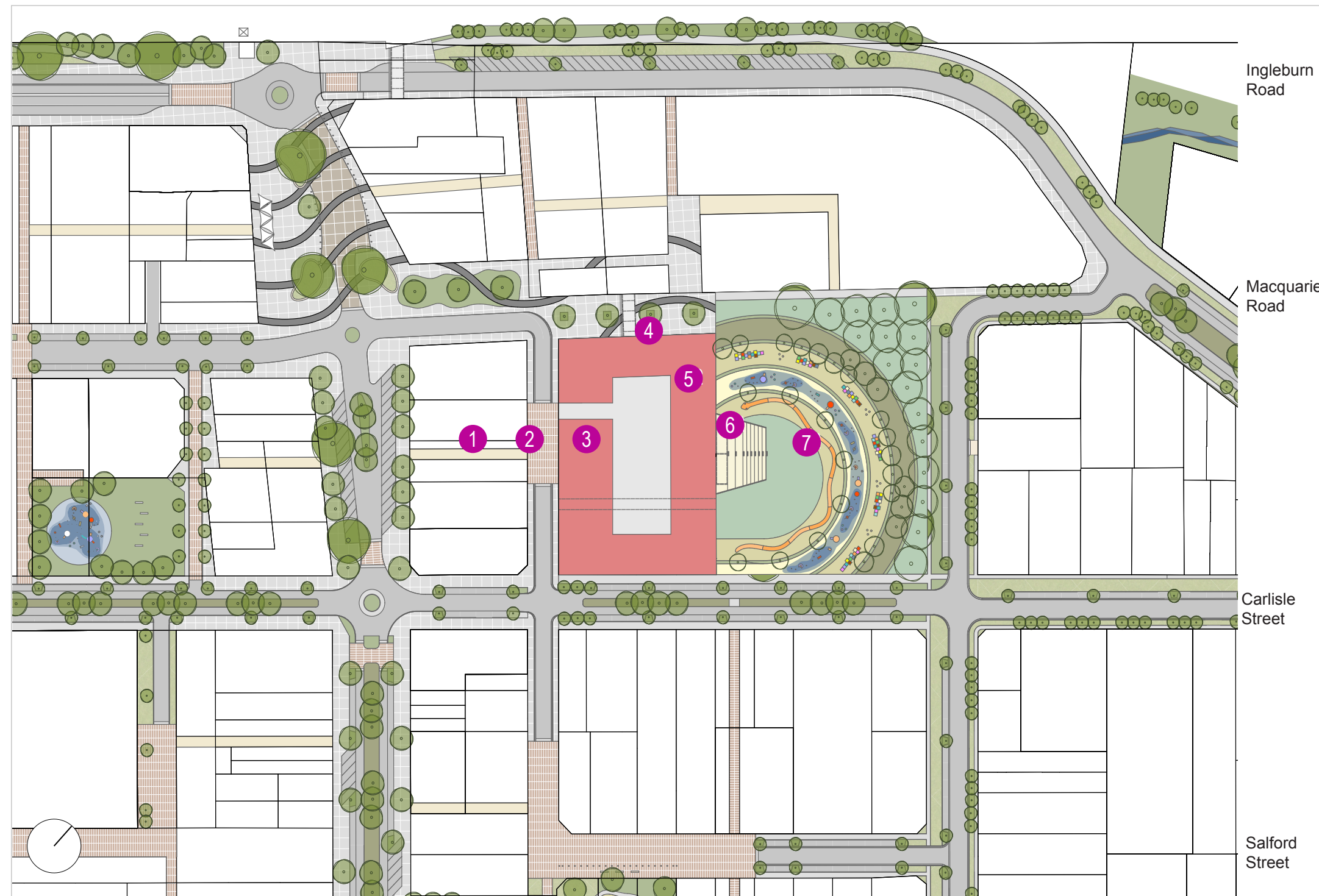


Leagues Club Park Gosford

The River Bend - Bringing nature to town
(Playspace examples)



The Ian Potter's Wild Play Garden - Centennial Gardens Sydney (Source: www.centennialparklands.com.au)



Public Domain Principles

Council's proposal is to provide a multi-storey carpark to replace the existing open air carpark to provide open space to meet the needs of the existing and future residents, workers and visitors.

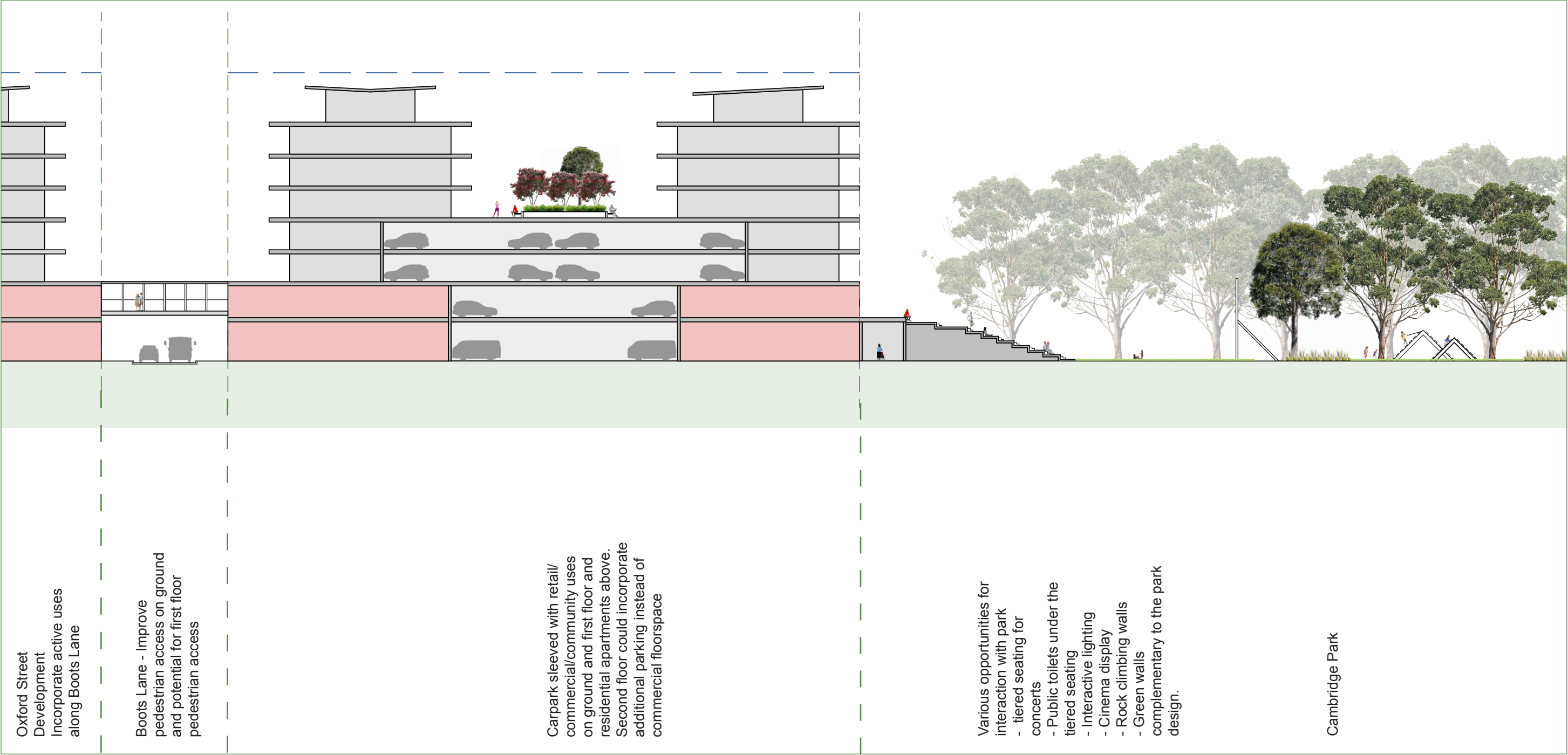
Whilst there is always demand for parking within town centres, there is an opportunity for this built form to be more than just a carpark. Integration with the proposed park and the surrounding development is essential to create a dynamic, interesting and active place. There is also an opportunity for the building to be a catalyst to demonstrate well designed, high quality integrated built form for future development in Ingleburn.

Key design requirements for the multi-storey carpark are:

- Creation of a multi-use development that integrates with the park and the surrounding land uses.
- Incorporate multi-sleeved parking with activated uses along the external edges of the building.
- Where any part of the multi-storey carpark is not able to be sleeved, incorporate a high quality facade treatment complementary to the design of the building.
- Activate ground and first level with retail, commercial and community uses.
- Activate higher levels with residential apartments.
- Provision of varied uses to allow for day and night activity.
- Incorporate Crime prevention through environmental design principles including natural surveillance through clear sight lines, a clear grid layout for the car park, circular traffic movement, lighting and clear pedestrian access/exit points.
- Inclusion of sustainability measures such as electric charging stations, green walls, green roofs, passive cooling and heating.

Public Domain Interventions

- 1 Creation of mid-block pedestrian connections with Oxford Street linking to the carpark and Cambridge Park.
- 2 Widening of Boots Lane to provide for two way vehicular access. Paved pedestrian/vehicular share zone to prioritise pedestrians to connect to Oxford Street.
- 3 Entry / Exit from Boots Lane or alternatively entry from Boots Lane and exit onto Carlisle Street. Also allow for pedestrian access through the carpark connecting the park and Boots Lane.
- 4 Opportunity to provide first floor overhead bridge access to buildings opposite on Macquarie Road and/or Boots Lane providing second level access.
- 5 Mixed-use development incorporating commercial and retail uses on ground and first floor and residential apartments above. First floor could comprise carparking only dependent on requirements for carparking and retail/commercial floorspace.
- 6 Activation of the built form at its interface with the park. Possibility for tiered seating for concerts and plays, activated lighting displays, playground equipment including climbing walls, cinema display.
- 7 Cambridge Park



Cross Section - Multi-use Development including public carpark



Copenhagen parking structure
The mixed use structure by JAJA Architects features a green facade and two large public stairs that bring visitors to a playground on the rooftop

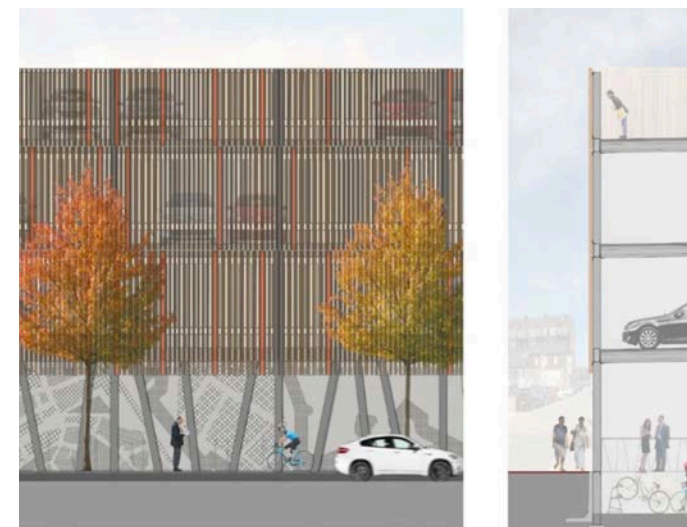
Source: Domus



Tiered seating platforms - interactive spaces
Times Square



Interactive lighting on buildings (Vivid Sydney) or use of lighting in openings with music



Parking building in Zutphen, Netherlands
The design of the carpark reflects the Town's previous industrial buildings.

The facade of car park been clad with wooden slats. The open nature of this surface provides the building of ample natural light and natural ventilation. The slats have been mounted at a variety of angles, and the longer facades have also been fitted with strips of red steel, which combine to create a dynamic and playful surface.

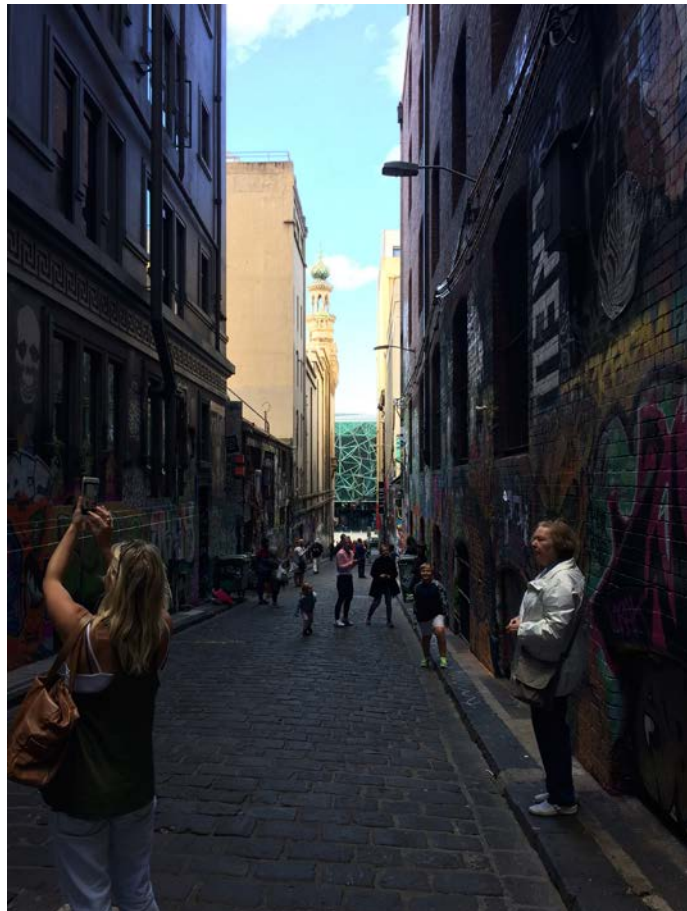
Source: Domus

Opportunity to reflect the proposed woodland theme of the adjoining park at Ingleburn.

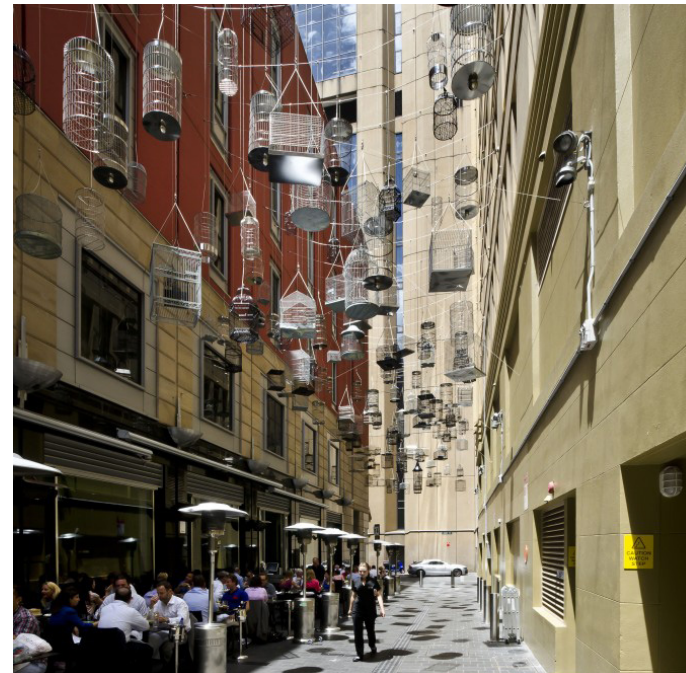


Manly Vale multistorey commuter carpark - rotating green wall infrastructure
Source: www.junglefy.com.au

The Laneways/Pedestrian Connections



The Melbourne laneways are a destination in its own right with its various graffiti artworks and connectivity throughout the city of Melbourne



Pedestrian Overbridge Marrickville Metro - use of transparent materials



Sydney City's initiatives include art in laneways and music festivals (Source: City of Sydney)



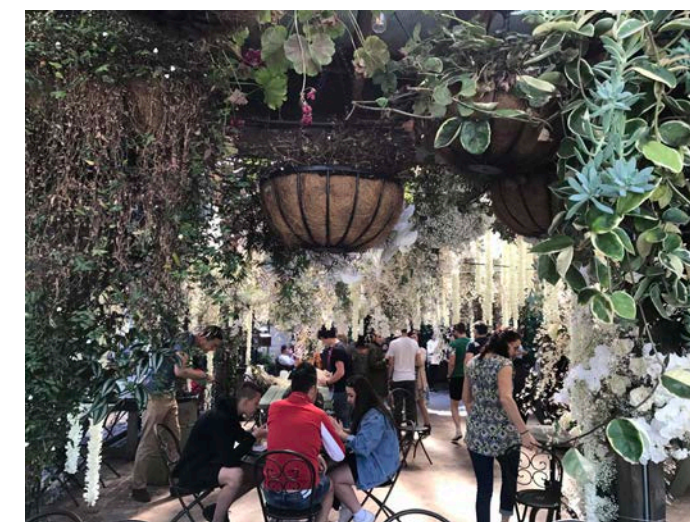
Live street theatre



Parramatta Lanes - dedicated festivals, website, instagram (Source: Parramatta Council)



Interesting building facades - no blank walls



Temporary installations and greening of laneways

Successful laneways throughout the world have not happened overnight. Laneways have evolved throughout time and continue to do so. Strategies and initiatives are put in place and updated and changed continuously to address and update laneways. Communities are consulted and involved in the creation and activation of laneways.

Laneways should be:

- Functional
- Safe
- Comprehensive and coherent
- Pedestrian friendly
- Lively and vibrant
- Unified and good looking
- Unique and interesting
- Sustainable
- Well lit.

Public Domain Principles:

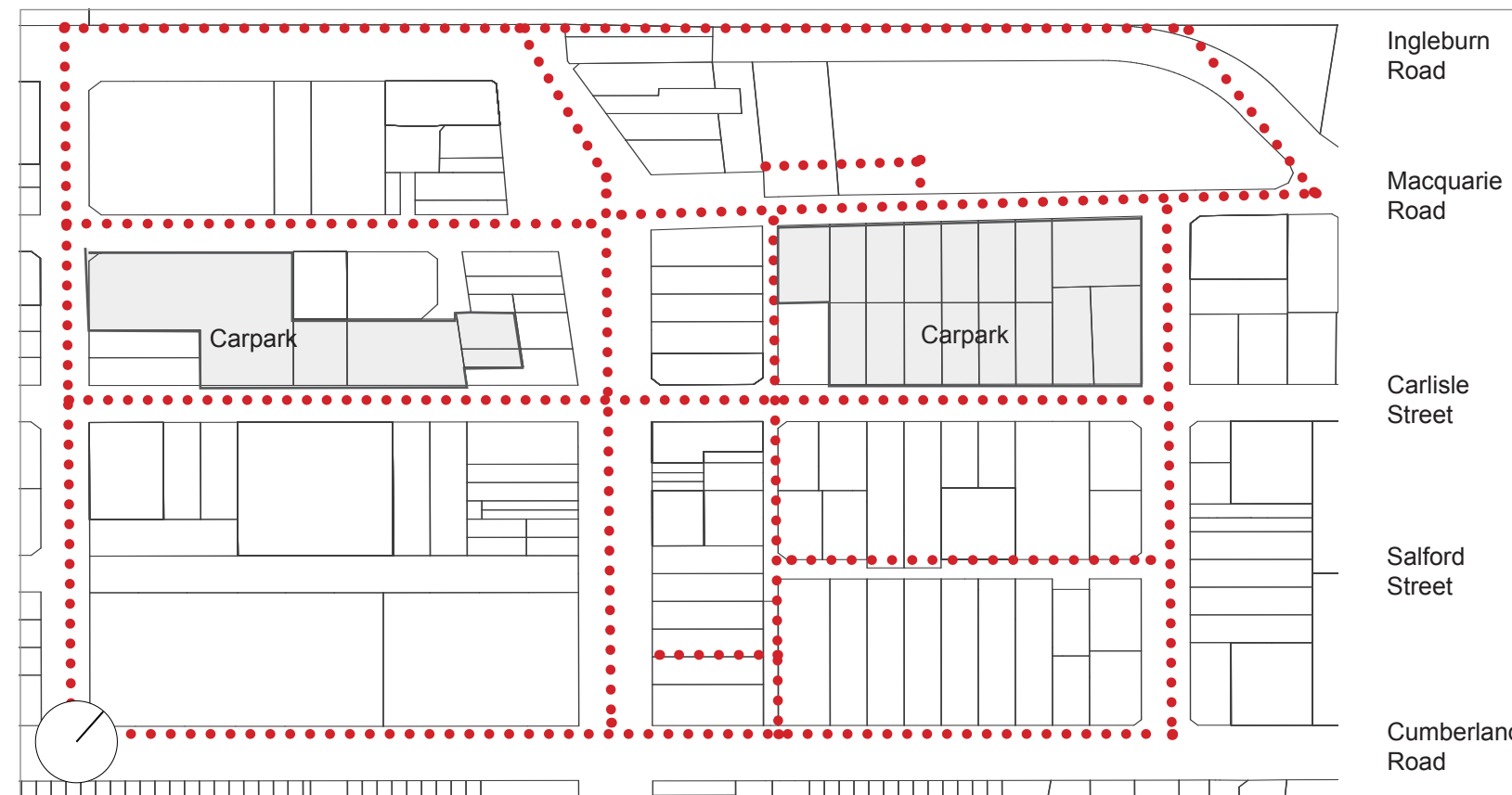
Short term interventions - creating opportunities to increase pedestrian activities through the laneways day and night.

Ideas for activation:

- include areas for sitting
- Public art
- Live theatre - use of rear doors, stairwells, blank walls
- Interactive light shows
- Pop up shops / small retail ventures
- Small events
- Laneway festivals
- Greening of laneways
- Identify a number of events to increase pedestrian activity throughout the year

Long term interventions - improving permeability and connectivity through the town centre

Create a pedestrian environment.
Ensure walkability and accessibility through direct and level routes without interruptions.
Creation of mid block access through to Oxford Street either through buildings or as laneways.
Laneways and pedestrian paths to be direct paths with adequate lighting.
Activate edges along laneways and pathways.
Incorporate nodes and/or interesting objects at the end of each laneway /pathway.
Built form to address and interact with laneways and pathways.
Overhead bridges to be transparent providing further surveillance over laneways.

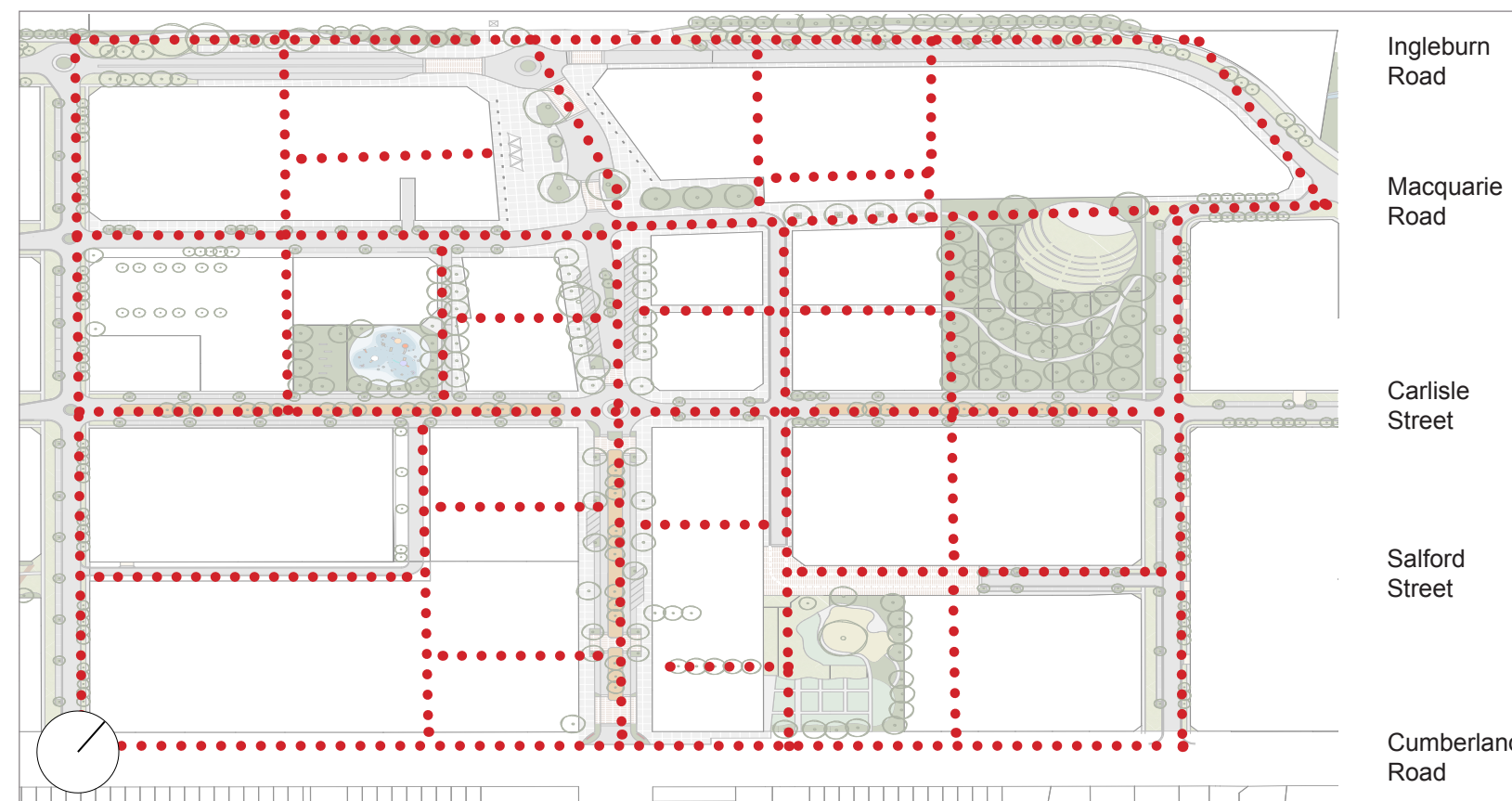


Existing connections

Existing pedestrian access is generally along the road connections. The only mid block connection is from Oxford Street through to Hallinan Park next to the Library. Whilst pedestrians can move through the carparks, there are no formal pedestrian pathways.

Ingleburn town centre currently has the one laneway being Boots Lane providing rear access to properties along Oxford Street. There are accessways within the carparks that also double up as laneways providing access to some buildings.

Additional land along Boots Lane and Salford Street is identified for future road widening. Boots Lane will continue to function as a laneway providing servicing requirements for the properties along Oxford Street.



Proposed connections

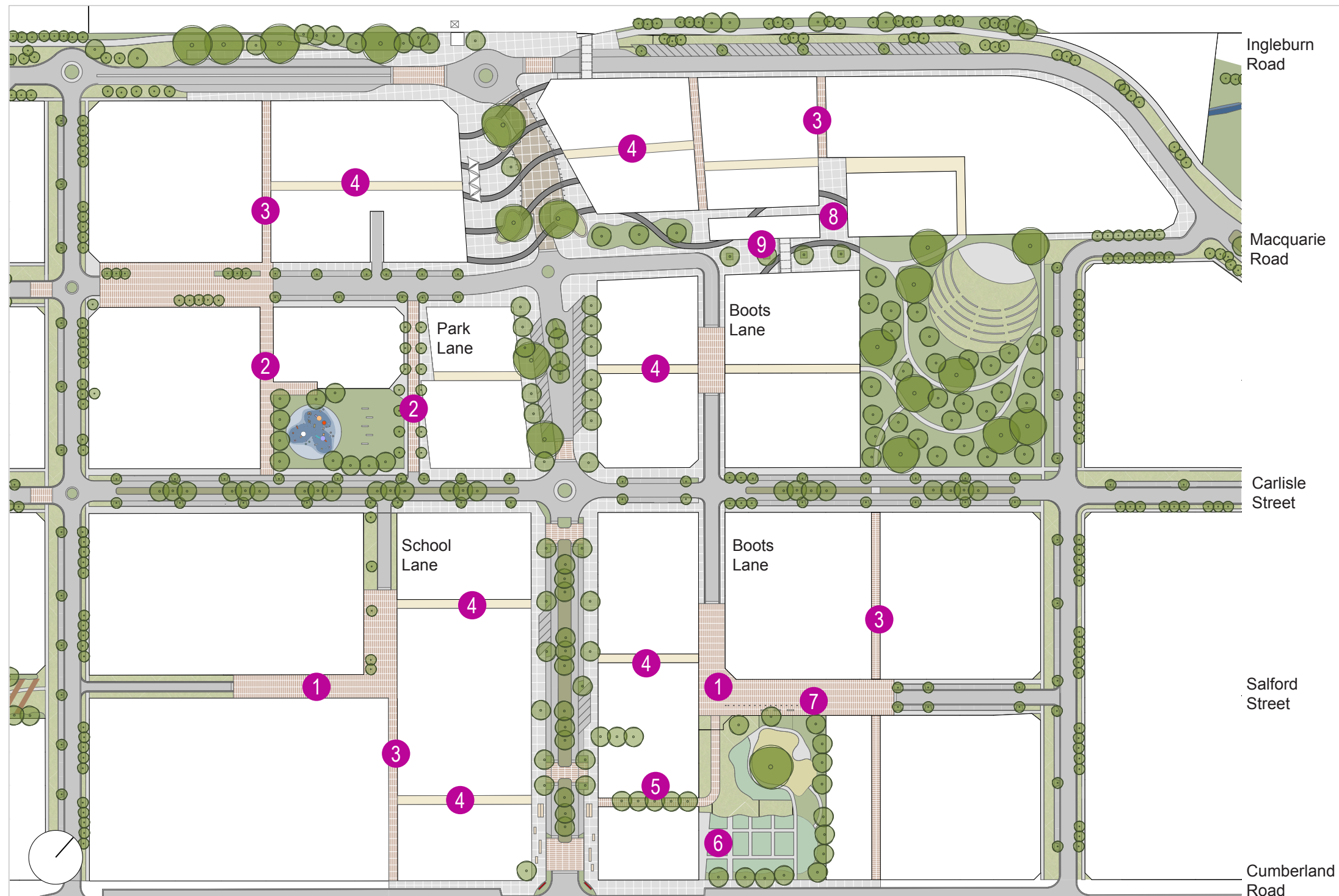
Provide for a network of activated laneways with pedestrian priority as well as pedestrian only connections. Providing a network ensures the town centre is permeable and accessible.

Pedestrian connections should be open air and adjoining development should address these connections.

Incorporate additional lanes to the west of Oxford Street to provide service requirements for development along Oxford Street. However, these laneways are to be shared zones assisting in the increased pedestrian movements arising from the additional development within Ingleburn.

Some connections will form part of the new built form. Midblock connections from Oxford Street through to the laneways will assist in activating the laneways. All connections should be direct with activated edges, points of interest, seating and appropriate lighting.

The Laneways/Pedestrian Connections



Public Domain Interventions

- 1 The existing and proposed laneways will continue to provide important servicing requirements for land uses particularly located on Oxford Street. With new development, the laneways will also become important connectors. The laneways are to be pedestrian/vehicular shared zones. Ensure pedestrian focus by using paving materials as per the public domain materials palette and lighting.
- 2 Retain lane access from Nardoo Street to Carlisle Street adjoining the park. Laneways to be pedestrian shared zones using paving materials and appropriate lighting.
- 3 New pedestrian pathways adjoining the laneways and street system to create a walkable town centre. Activate edges and built form to address these pathways.
- 4 Creation of midblock pedestrian connections from Oxford Street. These can be pathways or connectors through the built form
- 5 Reinforce connection with the Library through to Hallinan Park.
- 6 Activate the space adjoining the Library and Hallinan Park with outdoor activities and facing the library and community centre onto the park.
- 7 Open up Hallinan Park onto Boots Lane with the creating of a meeting node with a paved area and seating. Provides additional surveillance of the park and laneway.
- 8 Creation of open space nodes at junctions with connectors and include items of interest such as public art, seating.
- 9 Incorporate overhead bridges providing first floor access between buildings. Overhead bridges are to be constructed using transparent materials.



Figtree Pocket Newmarket Randwick - residential apartment building addressing the open space and street network (Source: newmarketrandwick.com.au)

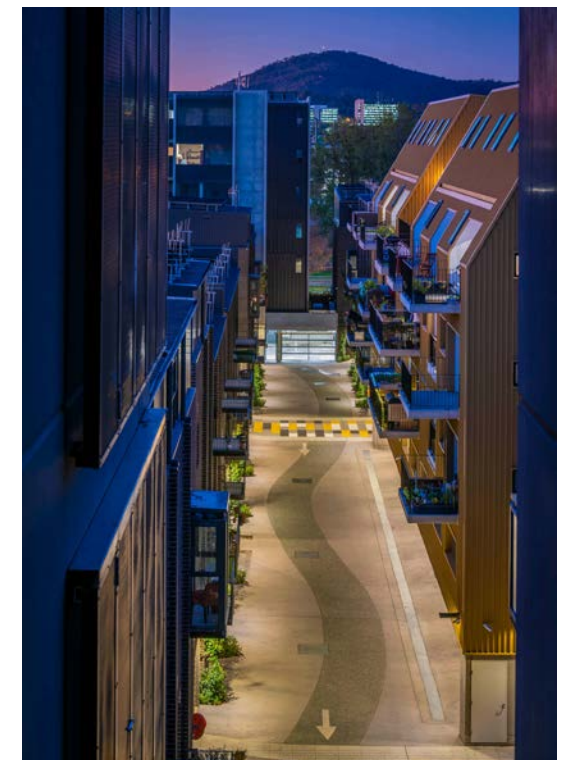


Example of laneway interaction whilst still retaining service requirements

Verity Lane Market ACT - reimagining redundant retail/commercial spaces - reconnecting Northbourne Avenue with Verity Lane (Source: Architecture.com.au).



Residential apartment buildings at Waterloo overlooking green open space and links (Source: AILA.awardplatform.com)



Example of integrated interaction with pedestrian pathways - Kingsborough Village - "This dense residential precinct allows people and their occupation of its central spine and public square to be the focus of the place. A fine layering of scaled landscape and built elements humanise the space while the variety in viewpoints makes for excellent 'people watching'. 2021 Commendations for Urban Design ACT Architectural Awards. (Source: Architecture.com.au).

Pedestrian Connections



Cross Section - Colonnade treatment on Oxford Street

Council proposes second level public access to be provided in the mixed use buildings through part of the Ingleburn town centre. The objective is to provide an activated first storey with pedestrian connectivity from some buildings through to the railway station, to assist in movement of people during flood events. Key design principles to be considered include:

- A colonnade treatment could be implemented to provide covered second level pedestrian access.
- The colonnade treatment should be integrated in the building design.
- The second level access should be a minimum of 3.5m wide to allow for accessibility. Additional area would be required for seating etc if proposed.
- Awnings if proposed are to be transparent.
- Stairs and lift providing access to the second level are to be integrated with the building design and clearly defined from the street network.
- First floor premises are to be active uses.
- Treatment of second level access to allow interaction between this level and the street network and/or open space, e.g. open verandah style or glass.
- Second level access to be illuminated appropriately to cater for day and night time.
- Second level access should be direct, adjoin the public areas such as the street network and open space. It should also be open and not fully enclosed. There should not be any protrudements etc that may create hiding places.
- Appropriate materials to be used to cater for the climate.

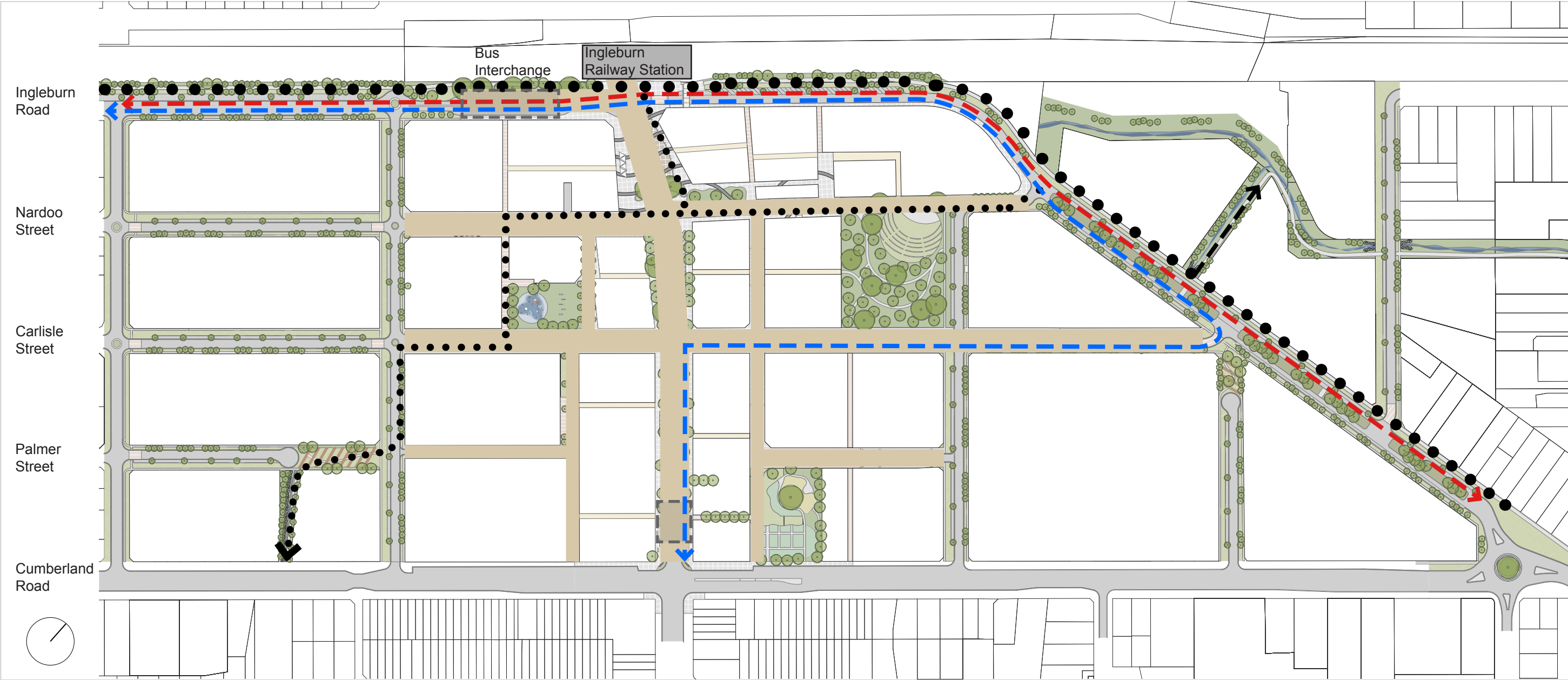
Pedestrian, Cycle and Bus Connectivity

- LEGEND
- Primary Pedestrian Network
- Regional Cycle Network
- Local Cycle Network
- Bus Route 872 Campbelltown to Liverpool via Macquarie Fields
- Bus Route 870 and 871 Campbelltown to Liverpool via Glenfield, and Bus Route 873 Minto to Ingleburn Station

The primary pedestrian routes are the direct links of Oxford Street, Nardoo/Macquarie Streets, Carlisle Street and the laneways. These connections along with the mid block pedestrian connections will provide direct routes through the town centre linking the Ingleburn Railway Station, Bus interchange, the three parks with the adjoining residential precincts.

The regional cycleway runs along the railway interface connecting with the adjoining suburbs. It is proposed that the cycleway also with the town centre travelling to the local open space and linking with the adjoining residential areas. The residential local streets will cater for cyclists.

Bus Routes 870, 871 and 873 will need to be adjusted with the closure of the western part of Oxford Street as shown on the figure. There will be no change to Bus Route 872. It is likely that the bus routes and bus stop locations will need to be amended anyway due to the proposed increase in mixed use and residential development in Ingleburn to cater for the existing and future workers, visitors and residents.



Ingleburn railway station is a hive of activity with commuters and visitors to and from Ingleburn. As well as the residents and visitors using the cycleway path with all of its artwork. The interface between Ingleburn town centre and the railway is a gateway and provides an insight into the exciting activities and visual pleasure that Ingleburn has to offer. It provides a reminder to come back and visit for a traveller not intending to stop that particular day.



Public Domain Interventions

Scheme 1 with Oxford Street west partial closure

- 1 Implement a shared pathway/cycleway linking to the regional route. Create points of interest along the route incorporating public artworks/sculptures, lighting and rest areas.
- 2 Adjust the commuter carparking to allow more space for the shared pathway and incorporate a boulevard landscape theme providing shade for the pathway and commuter carparking. The boulevard of trees will improve the visual amenity along Ingleburn Road and the interface with the railway line.
- 3 Redefine bus interchange to reduce conflict with shared pathway, pedestrians and cyclists. Locate on both sides of Ingleburn Road.
- 4 Incorporate coordinated shelters at the bus interchange on both sides of Ingleburn Road. The bus infrastructure on the eastern side to be integrated with the built form, ie. use of the awnings and coordinated street furniture.
- 5 Introduce/integrate gateway treatment including a map of the cycling/walking routes of Ingleburn, the Bunya Pine, the Honour Wall, the Horse Trough and the heritage plaques. This would be incorporated along the cycling/walking route.
- 6 Expand and declutter promenade in front of railway station entry to create a direct visual and pedestrian link with Oxford Street.
- 7 Increase the pedestrian crossing/thresholds and integrate with the Oxford Plaza treatment.
- 8 Provide routes for cyclists through the town centre linking back to the regional route. The route would incorporate Oxford Street and along Macquarie Road with bike racks located throughout to allow for cyclists to stop.
- 9 Provision of second level access from the mixed use development in the town centre to the railway station
- 10 Adjust the commuter car park to allow more space for the shared pathway.
- 11 Continue shared pathway / cycleway with a boulevard landscape treatment to join up with the Macquarie Road shared pathway and the open space area
- 12 Built form to address Ingleburn Road and the railway line to improve natural surveillance contributing to a safe environment and providing visual interest through architectural features.

Public Domain Principles

Reinforce as a gateway to the Ingleburn town centre. This gateway will be for pedestrians and cyclists that use the railway or regional pathway/cycleway. Need to create interest to make the visitor/resident/commuter stop and then want to investigate Ingleburn further.

Develop a continuous, safe, regional commuter and recreational cycle route adjacent to the railway corridor as outlined in the Glenfield to Macarthur Urban Renewal Strategy.

Create points of interest along Ingleburn Road to attract train users and users of the shared pathway/cycleway. This could include artwork and/or sculptures. Use of double sided billboards as sculptures and artwork along the recreational cycling route providing interest to both. Ensure adequate facilities such as seating and water stations are provided in appropriate areas.

Create shade through a boulevard landscape treatment along the recreational shared pathway.

Buildings to interact with Ingleburn Road through sleeving any carparking/servicing requirements, articulation of the building and creating opportunities for interaction. There are to be no blank walls.

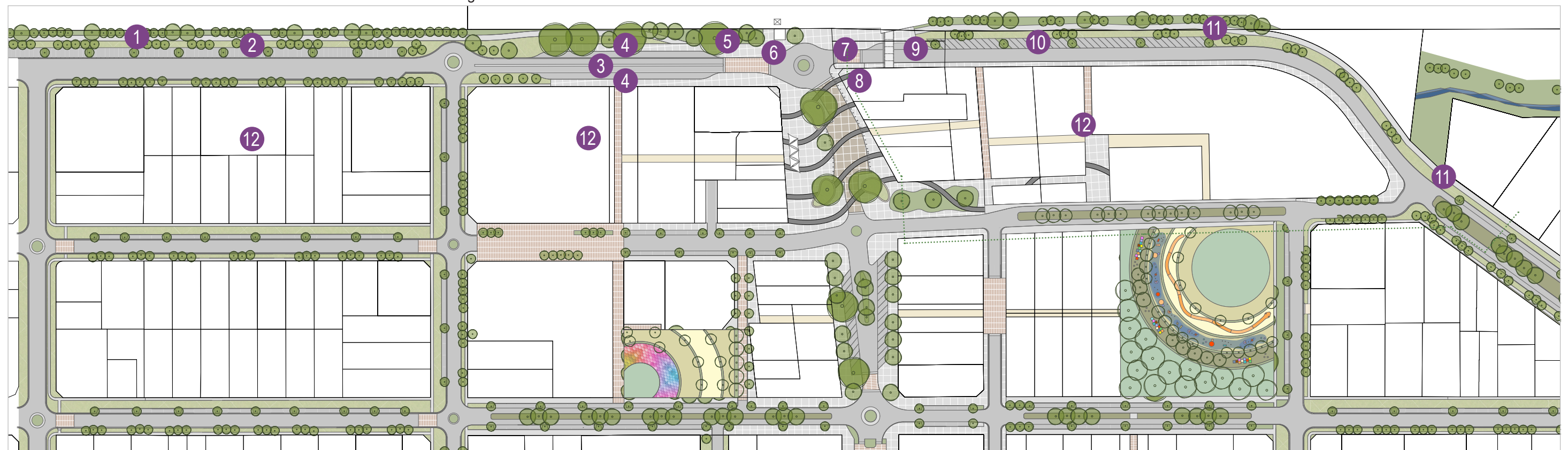
Provide a safe and enticing meeting/gathering/waiting place for users of public transport and the regional cycleway/pathway. This would include a plaza, which could incorporate appropriate signage (map of the area showing the linkages and open space), art works, heritage items of interest to stop the visitor. The plaza would be in view of Oxford Street to further entice a visit to Ingleburn town centre as part of the adventure.

Create safe and easy pedestrian and cyclist linkages between the railway station and the Ingleburn town centre. Extension of the Oxford Street activity hub to the station with priority to pedestrians and cyclists.

Rearrange public bus interchange to enable safe and easy access for pedestrians and cyclists. Public transport routes would need to be adjusted to take into consideration the proposed redevelopment of Ingleburn and the increase in population.

Location for public toilets - an architectural item of interest. Possible location within the park. Directional signage to the park and the public toilets.

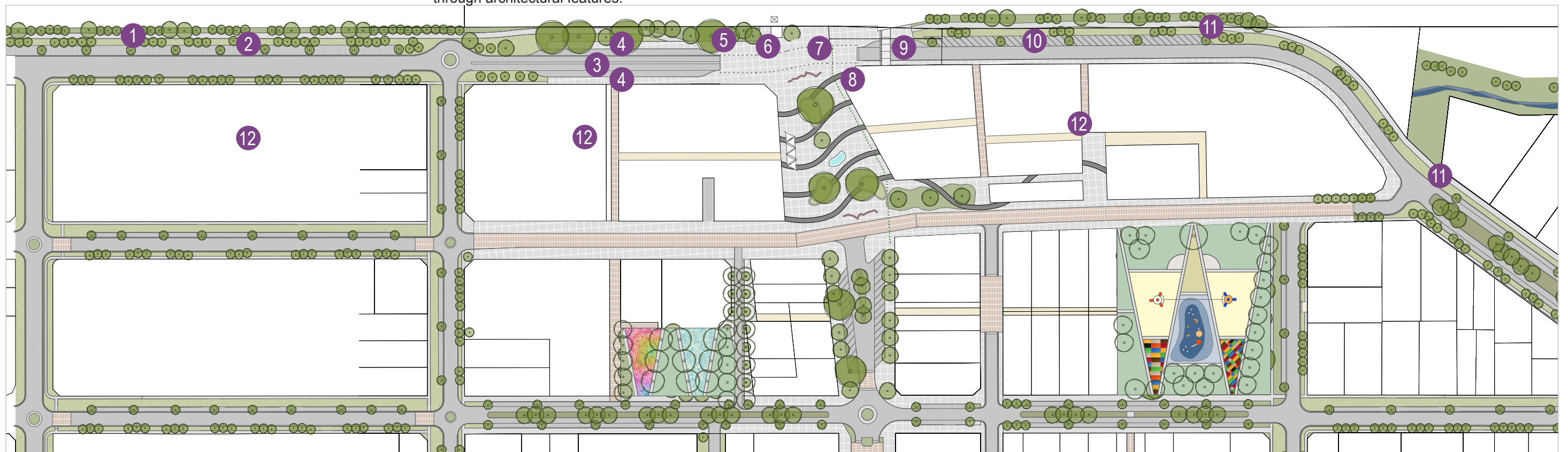
Implement Water Sensitive Urban Design to assist in passive irrigation for street trees.

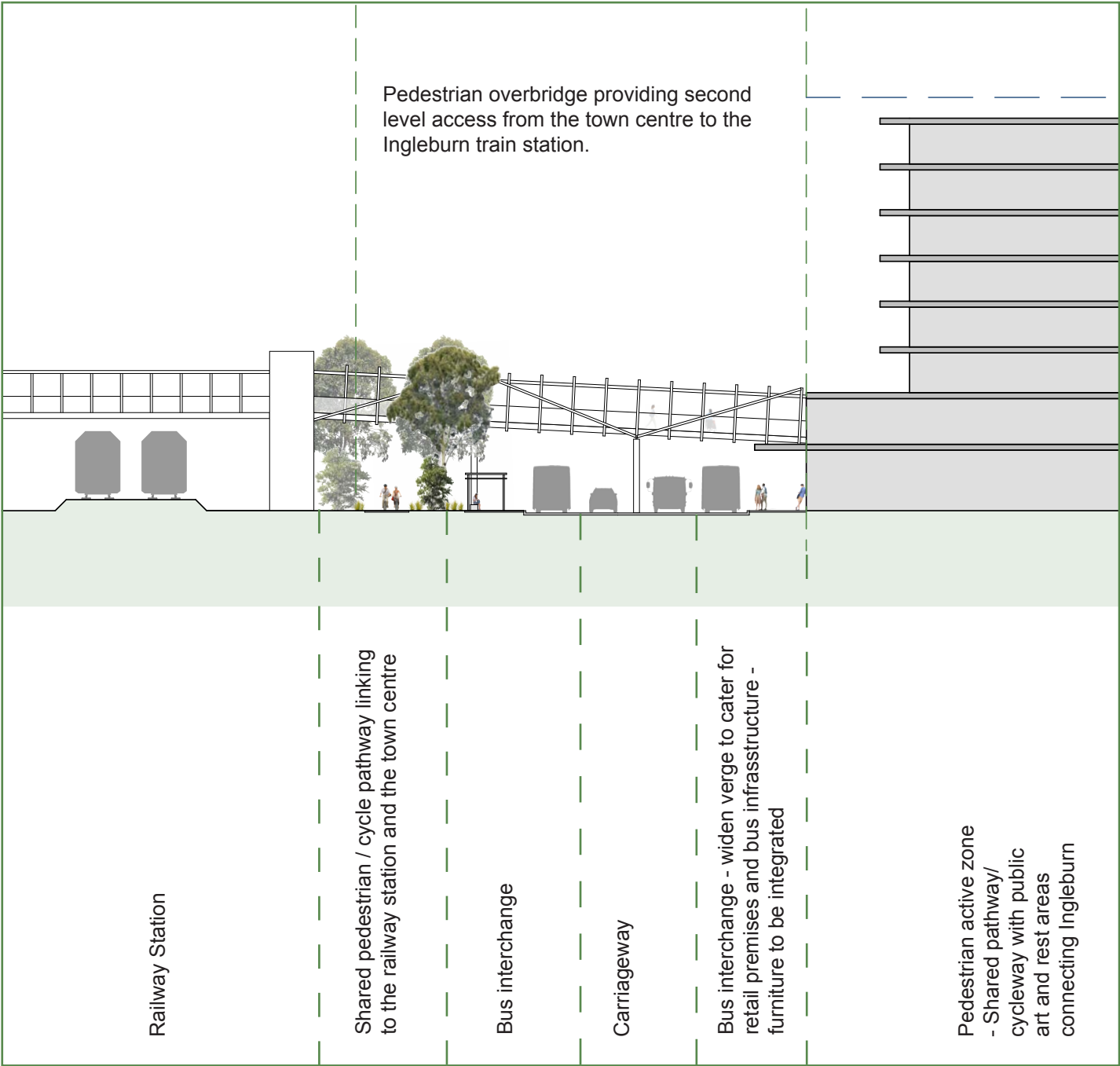


Public Domain Interventions

Scheme 2 with Oxford Street west full closure

- 1 Implement a shared pathway/cycleway linking to the regional route. Create points of interest along the route incorporating public artworks/sculptures, lighting and rest areas.
- 2 Adjust the commuter carparking to allow more space for the shared pathway and incorporate a boulevard landscape theme providing shade for the pathway and commuter carparking. The boulevard of trees will improve the visual amenity along Ingleburn Road and the interface with the railway line.
- 3 Redefine bus interchange to reduce conflict with shared pathway, pedestrians and cyclists. Locate on both sides of Ingleburn Road.
- 4 Incorporate coordinated shelters at the bus interchange on both sides of Ingleburn Road. The bus infrastructure on the eastern side to be integrated with the built form, ie. use of the awnings and coordinated street furniture.
- 5 Introduce/integrate gateway treatment including a map of the cycling/walking routes of Ingleburn, the Bunya Pine, the Honour Wall, the Horse Trough and the heritage plaques. This would be incorporated along the cycling/walking route.
- 6 Expand and declutter promenade in front of railway station entry to create a direct visual and pedestrian link with Oxford Street.
- 7 Remove the roundabout. Replace with a shared pedestrian/vehicular zone connecting to the Oxford Street activity hub. Use of simple materials complementary to the Oxford Street activity hub.
- 8 Provide routes for cyclists through the town centre linking back to the regional route. The route would incorporate Oxford Street and along Macquarie Road with bike racks located throughout to allow for cyclists to stop.
- 9 Provision of second level access from the mixed use development in the town centre to the railway station
- 10 Adjust the commuter car park to allow more space for the shared pathway.
- 11 Continue shared pathway / cycleway with a boulevard landscape treatment to join up with the Macquarie Road shared pathway and the open space area
- 12 Built form to address Ingleburn Road and the railway line to improve natural surveillance contributing to a safe environment and providing visual interest through architectural features.

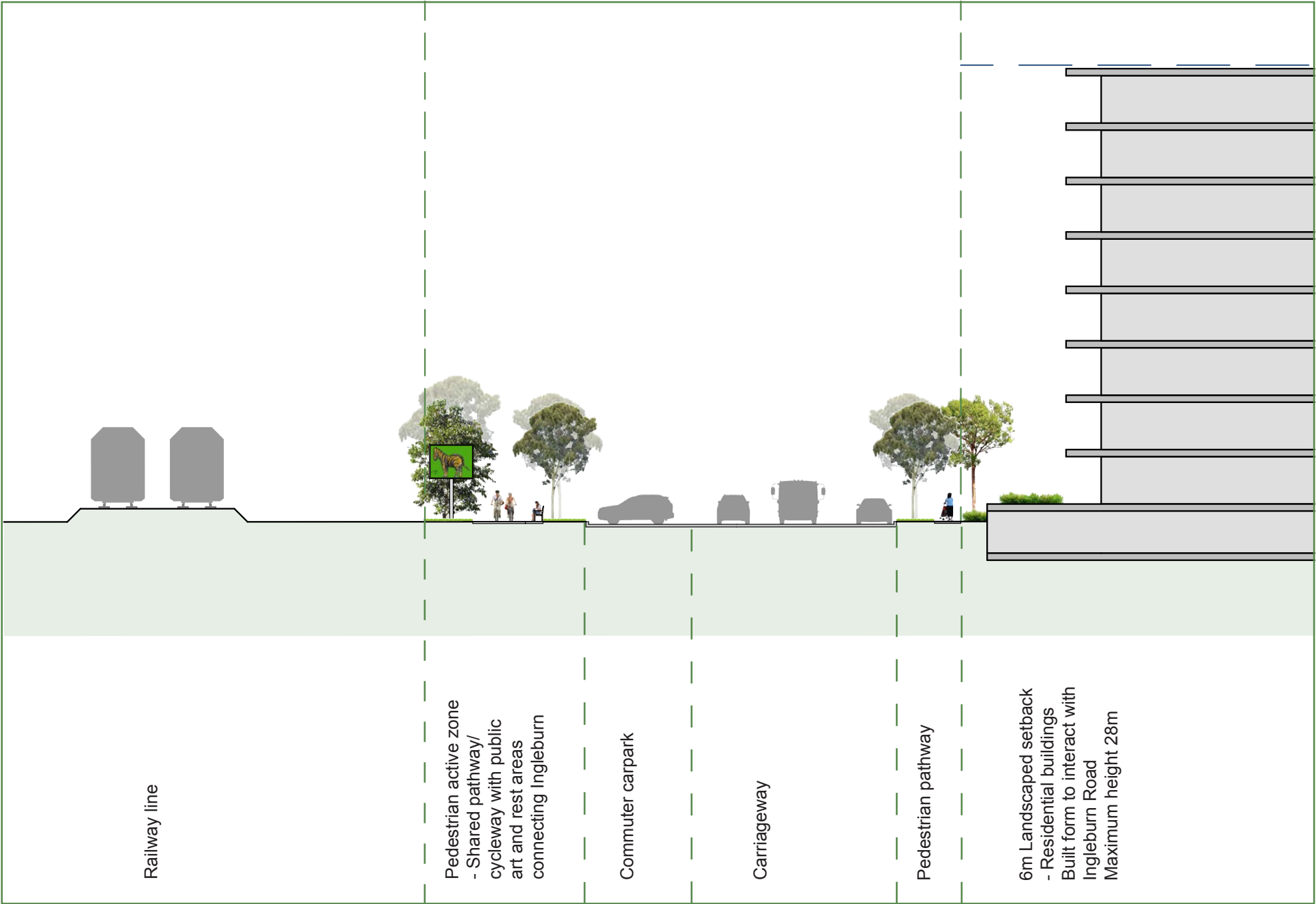




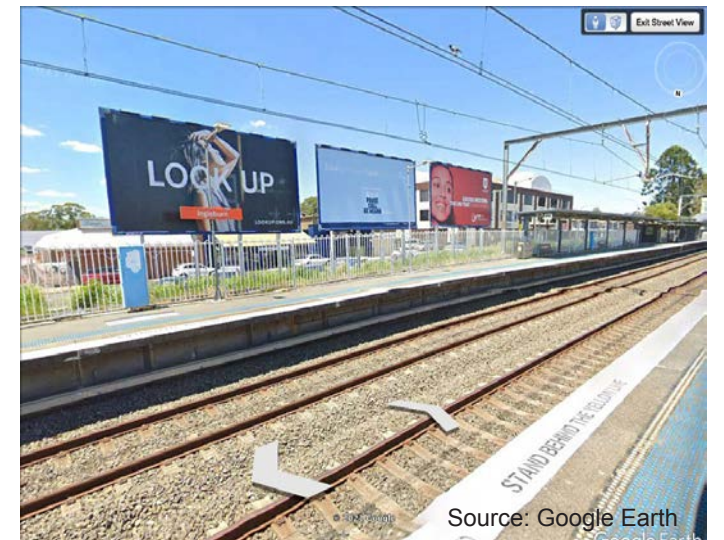
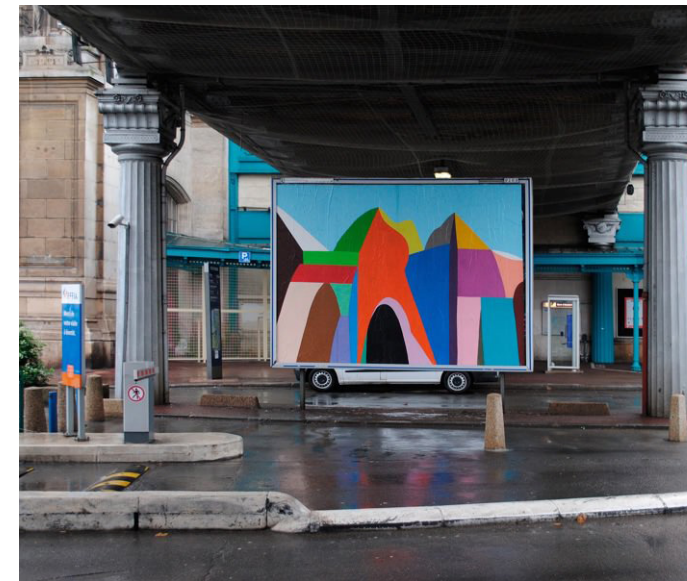
Cross Section - Ingleburn Road Bus Interchange

Key design principles for connectivity between the railway station and the town centre

- Creation of clear sight lines and pathways between the railway station and Oxford Street.
- Implement pedestrian priority share zone.
- Bus interchange located on either side of Ingleburn Road to cater for the different bus routes and to integrate with the town centre.
- Bus infrastructure - seating, shade structures to be coordinated as part of the Oxford Street Activity Hub.
- Pedestrian overbridge to be provided between development within the town centre to the railway station. Location will be dependent on the location of lifts and stairs at the station or future development of the railway station.
- Integrate pedestrian overbridge with proposed second level access requirements of development.
- Pedestrian overbridge should use transparent materials providing surveillance from and to the overbridge..



Cross Section - Ingleburn Road Shared pathway/cycleway



Creation of a gateway
Maps (cycle/walking routes of Ingleburn, stories on walls - allow for easy reading, whilst sitting or under shade, integration with the Horse trough, Bunya Pine and Honour Wall at the railway station in coordination with the cycle route. Regional cycle / pathway



Existing billboards at Ingleburn railway station. Billboards interact with users of the railway but are blank canvases on the Ingleburn town centre side. Opportunity for the use of billboards as public art.

Creation of a series of art works along the cycleway route to create interest incorporating the billboards showcasing Ingleburn. The billboards could be double sided to provide interest to train users and the users of the cycleway.

Examples are of French artist Ox who transforms billboards into impressive artworks with geometric abstraction or dreamy surreality, but always interacting with their surroundings. Source: popucity.net

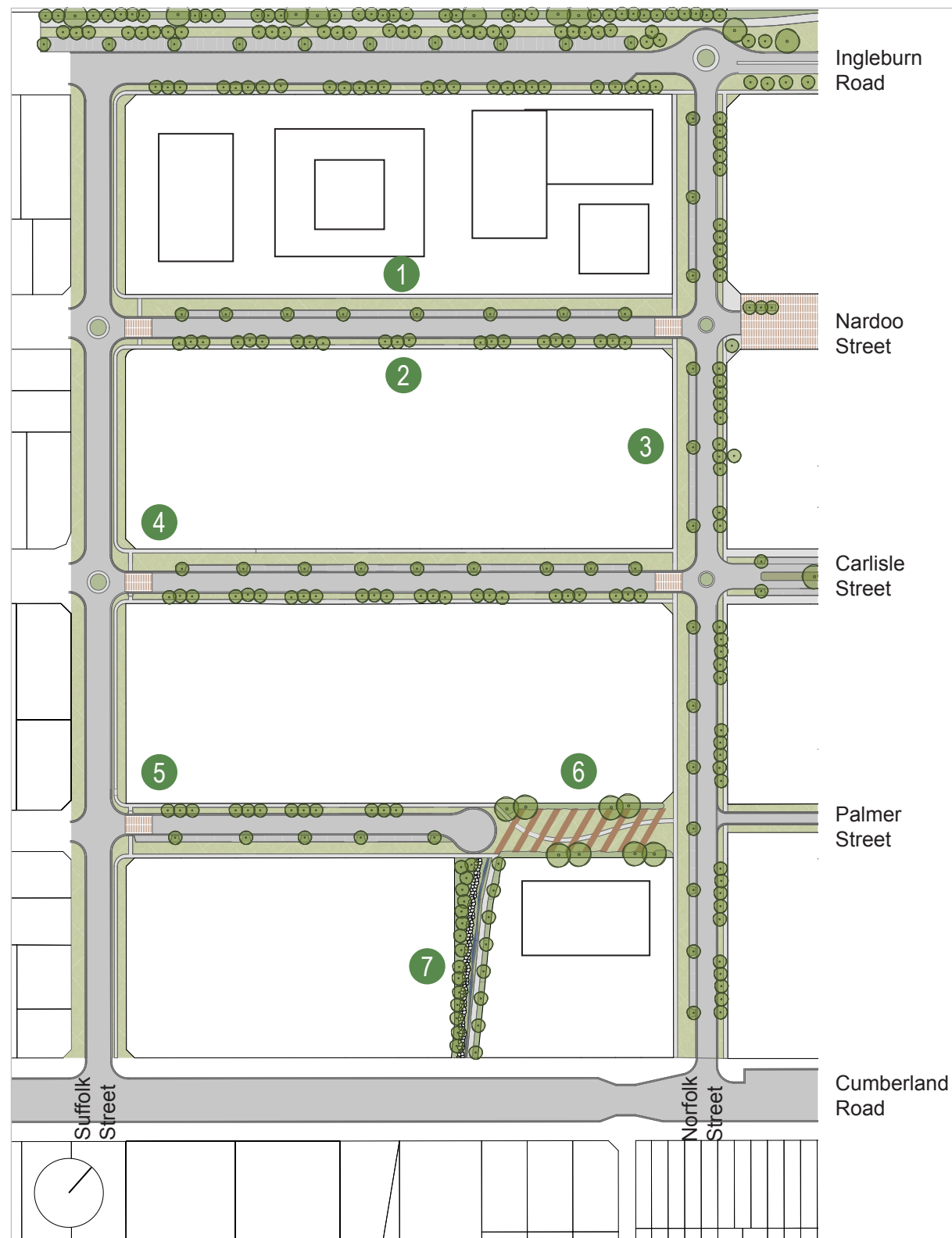
4.7 Suffolk Street Residential Precinct

The Suffolk Street Precinct is a walkable, leafy suburb of Ingleburn providing a range of housing to meet the needs of young professionals, families and retirees. The vibrant and happening Ingleburn CBD is only a short direct walk under the gum trees providing access to the local parks, many exciting restaurants, services and activities.

The north south streets of the precinct are low key and allow the streets to be an extension of the open space providing informal meeting places, spaces for play and community gardens.

A shared path/cycleway links the precinct with other areas of open space, the station and the regional cycleway providing recreational opportunities without using the car.





Public Domain Interventions

- 1 Extend verge under services to allow street tree planting. Grade streets to drain towards street trees and planter beds. Parking between planter beds. Refer cross section.
- 2 Street tree planting on verge
- 3 Ensure safe and suitable crossings to link to the town centre
- 4 Thresholds at each road entry to reduce speed
- 5 Encourage ingress and egress to residential apartments from Suffolk Street and Norfolk Street. Opportunity to shorten Palmer Street and increase the open space. Opportunity to close Nardoo Street to create additional open space.
- 6 Enhance open space area. Opportunities for meeting area and community gardens for residents
- 7 Green the existing concrete drainage channel. Incorporate as part of the open space system with shared pathway, seating and landscape treatment. Dedication of land from adjoining properties with incentives e.g. reduced front setbacks.

Public Domain Principles

Creation of pedestrian focussed streets along Nardoo, Carlisle and Palmer Streets connecting to the town centre.

Pedestrian right of way, reduced carriageway and lower speed limits to allow residents use of the streets for meeting and play.

Retention of the cul-de-sac on Palmer Street. Use of land as a small parklet for the residents, e.g. community garden.

Creation of green links. Greening of the drainage channel and incorporation of a shared pathway to provide links between open space areas and the town centre.

Implementation of Water Sensitive Urban Design to assist in flood levels and passive irrigation for street trees and landscaped verges.

Creation of larger landscaped verges to allow people to meet and interact.

Location and type of street trees to consider overhead services. Parking bays and street trees interspersed along road side where overhead services are located.

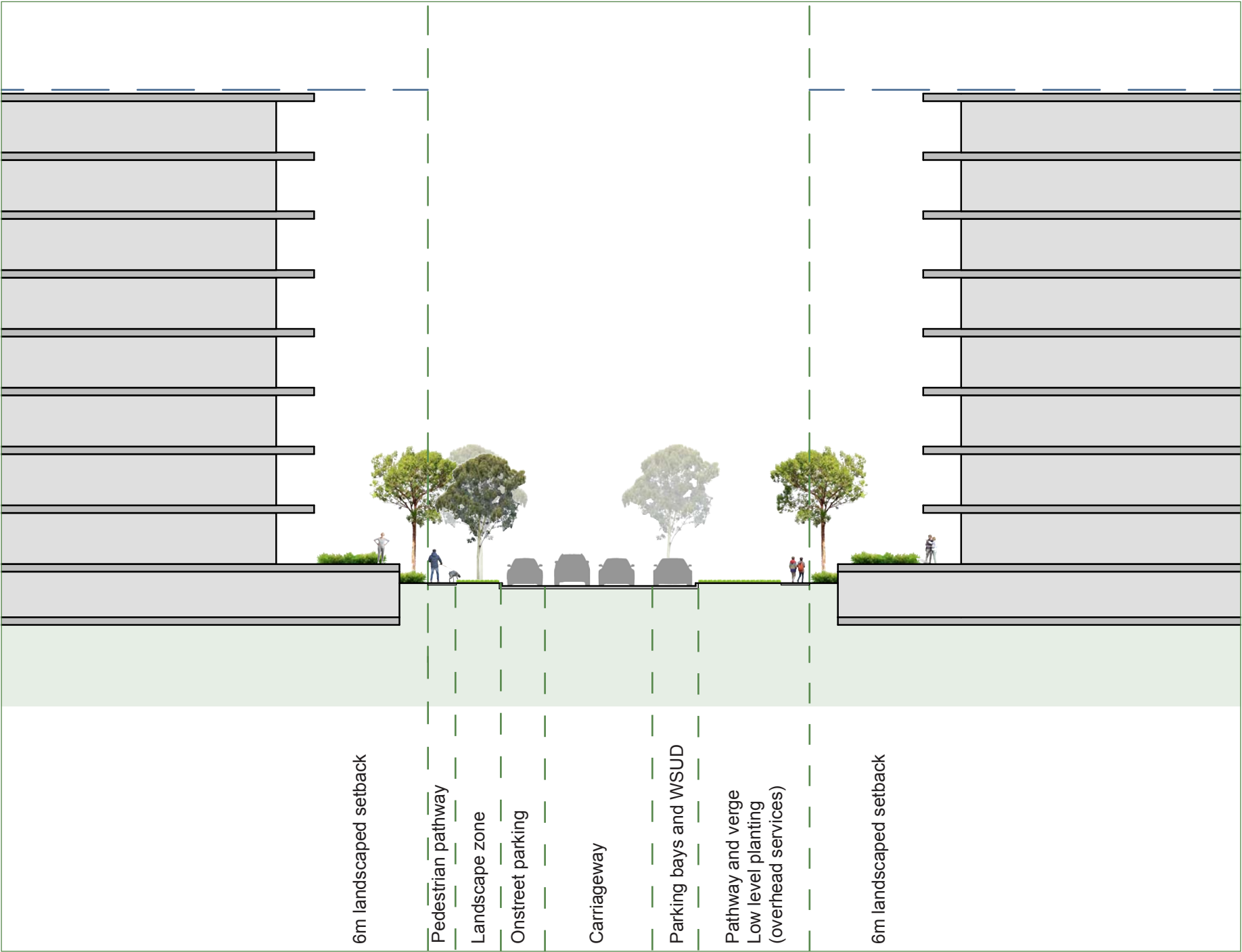
Residential development to be setback from the street network and incorporate a landscaped setback contributing to the overall streetscape.

Pedestrian entries to residential buildings to interact with the streetscape, e.g. prominent entries with architectural features, integration with the landscape.

Services, electrical boxes, etc to be visually screened from the streetscape to improve visual amenity.

Where possible, vehicular ingress and egress should be from Suffolk Street or Norfolk Street.

Residential buildings to interact with the street network and open space, e.g. no blank walls, maximise balconies, windows and architectural features.



Typical Cross Section - Local Residential Street

Macquarie Road is a major focal point within the James Street Residential Precinct. It provides a perfect link between the town centre and the various walking and cycling tracks and open space. It is a pleasure to walk and cycle along with its lush landscaped swale, street trees and shared pathway.

James Street Precinct adjoins the vibrant Ingleburn CBD. The residential streets are pedestrian friendly and also link to the cycling and walking trails and open space areas. These streets and Macquarie Road make the town centre very accessible.





Public Domain Interventions

- 1 Extend verge under services to allow street tree planting. Grade streets to drain towards street trees and planter beds. Parking between planter beds. Refer cross section.
- 2 Street tree planting on verge
- 3 Thresholds at each road entry to reduce speed and indicate residential precinct
- 4 Enhance open space area. Opportunities for meeting area and community gardens for residents
- 5 Opportunity to shorten Flint Street subject to future development and increase the open space.
- 6 Creation of a boulevard along Macquarie Road incorporating a swale (bioretention) to assist in reducing flood levels. Macquarie Road retained as a bus route. Refer cross section.
- 7 Ensure safe and suitable crossings to link to the town centre
- 8 Green the existing concrete drainage channel. Incorporate as part of the open space system with shared pathway, seating and landscape treatment. Dedication of land from adjoining properties with incentives e.g. reduced front setbacks.
- 9 Ensure connectivity across the swales along Macquarie Road
- 10 Gateway treatment. Landscape and signage

Public Domain Principles

Creation of pedestrian focussed streets along Cambridge, Carlisle, Flint and James Streets.

Creation of a grand boulevard along Macquarie Road incorporating a large landscaped swale to assist in flood levels. Incorporation of various crossing points linking open space and pathways.

Pedestrian right of way, reduced carriageway and lower speed limits to allow residents use of the streets for meeting and play.

Retention of the cul-de-sac on Flint Street. Use of land as a small parklet for the residents, e.g. community garden.

Creation of green links. Greening of the drainage channel and incorporation of a shared pathway to provide links between open space areas and the town centre.

Implementation of Water Sensitive Urban Design to assist in flood levels and passive irrigation for street trees and landscaped verges.

Creation of larger landscaped verges to allow people to meet and interact.

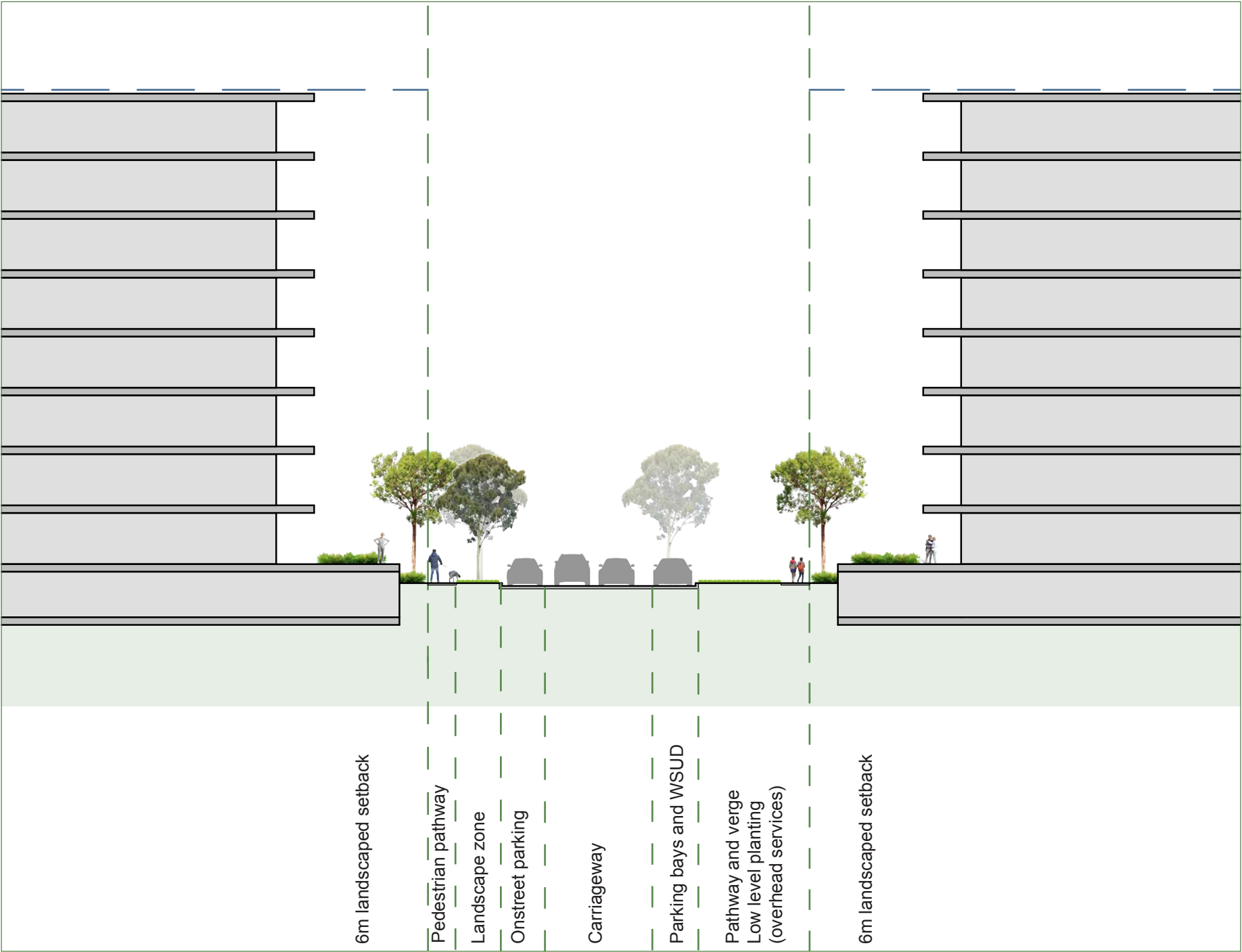
Location and type of street trees to consider overhead services. Parking bays and street trees interspersed along road side where overhead services are located.

Residential development to be setback from the street network and incorporate a landscaped setback contributing to the overall streetscape.

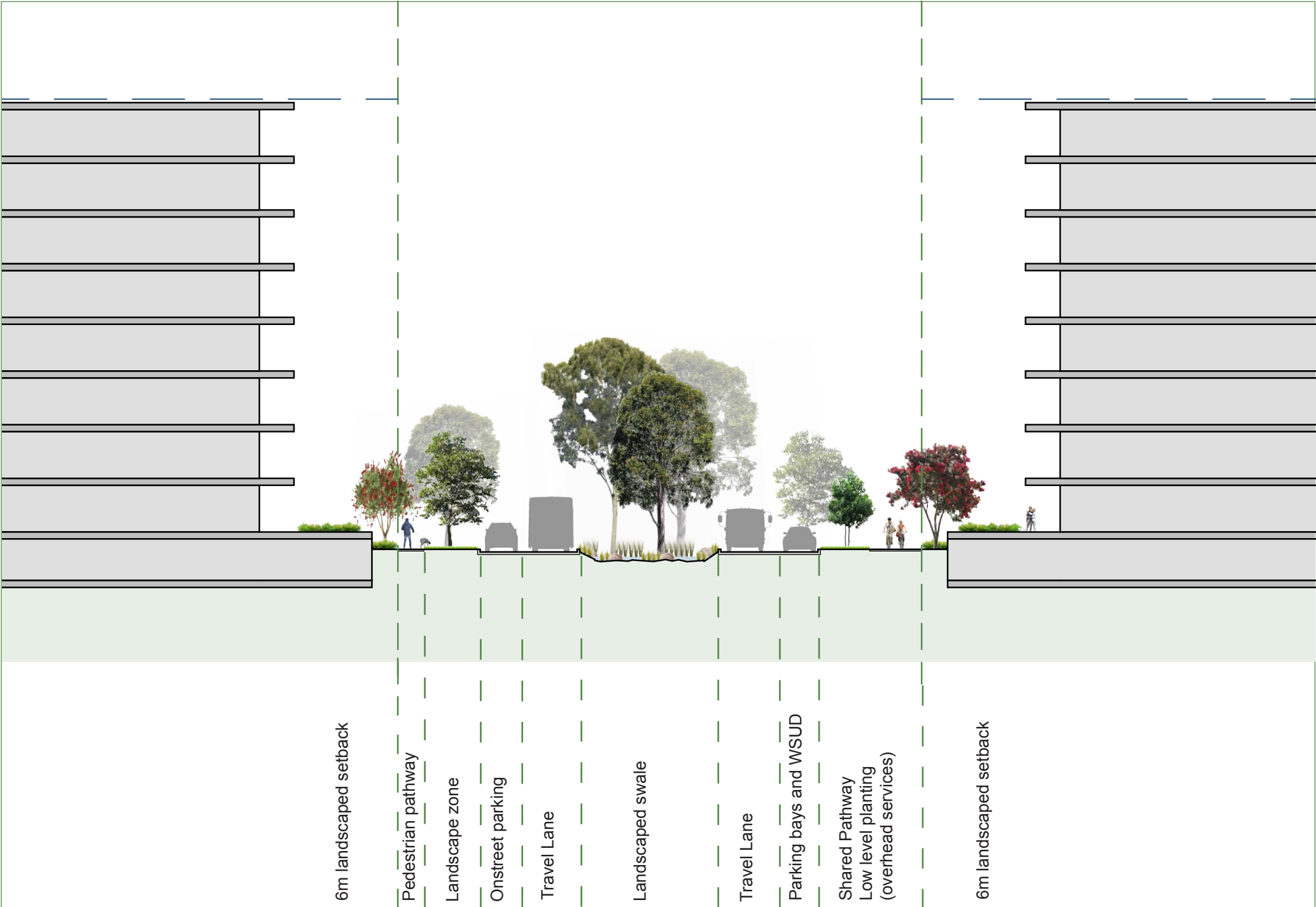
Pedestrian entries to residential buildings to interact with the streetscape, e.g. prominent entries with architectural features, integration with the landscape.

Services, electrical boxes, etc to be visually screened from the streetscape to improve visual amenity.

Residential buildings to interact with the street network and open space, e.g. no blank walls, maximise balconies, windows and architectural features.



Typical Cross Section - Local Residential Street



Typical Cross Section - Macquarie Road

Colours and materials have been selected to reflect the natural environment of Ingleburn particularly the Ingleburn Weir on the Georges River. Colours incorporating the greys, rust, gold and yellows of the stone and the greens of the Georges River and there are also the greens and greys of the Eucalyptus trees. The intention is to provide a colour and materials palette that is simple, reflective, clean, fresh and assists in wayfinding.

The following images are indicative only.



Source: www.macarthur.com.au



Source: www.campbelltown-library.blogspot.com



Seating - benches, seats, bollards, informal, formal, integrated with the landscape- seating everywhere no need to look for seating, able to sit anywhere



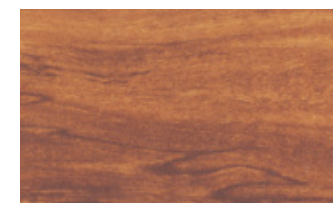
Paving - Community + Arts Precinct
Principal paving texture

Accent texture



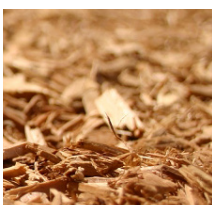
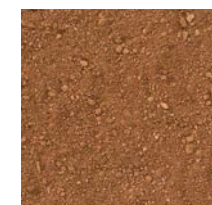
Paving - Oxford Street Activity Hub
Principal paving texture

Accent texture



Street furniture
Spotted Gum timber

Pale Eucalypt Green


















Gravel/Play Sand/Mulch

Greening Ingleburn will assist in improving the natural environment and the liveability of the town for its residents, workers and visitors.

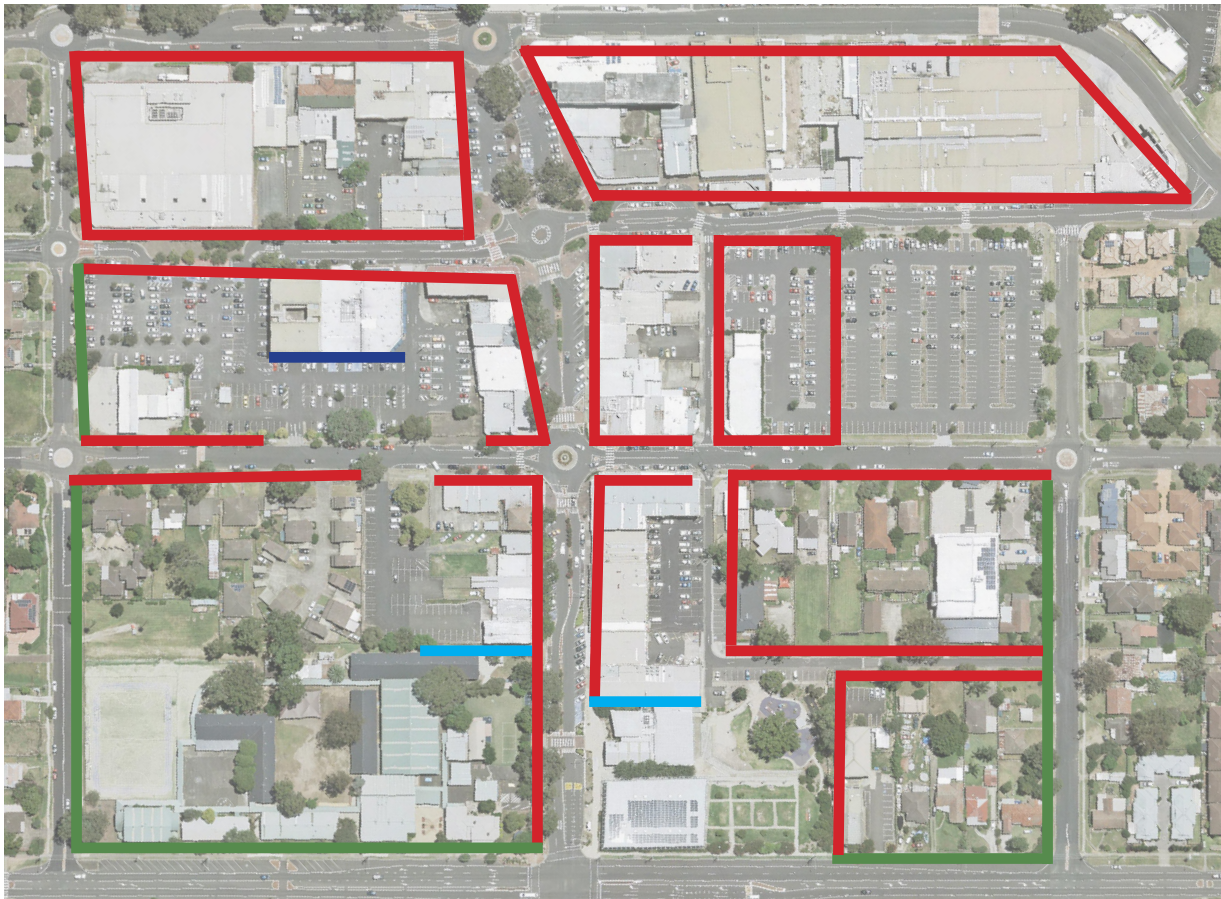
The species selected complement the existing street trees in Ingleburn and are native to the area.

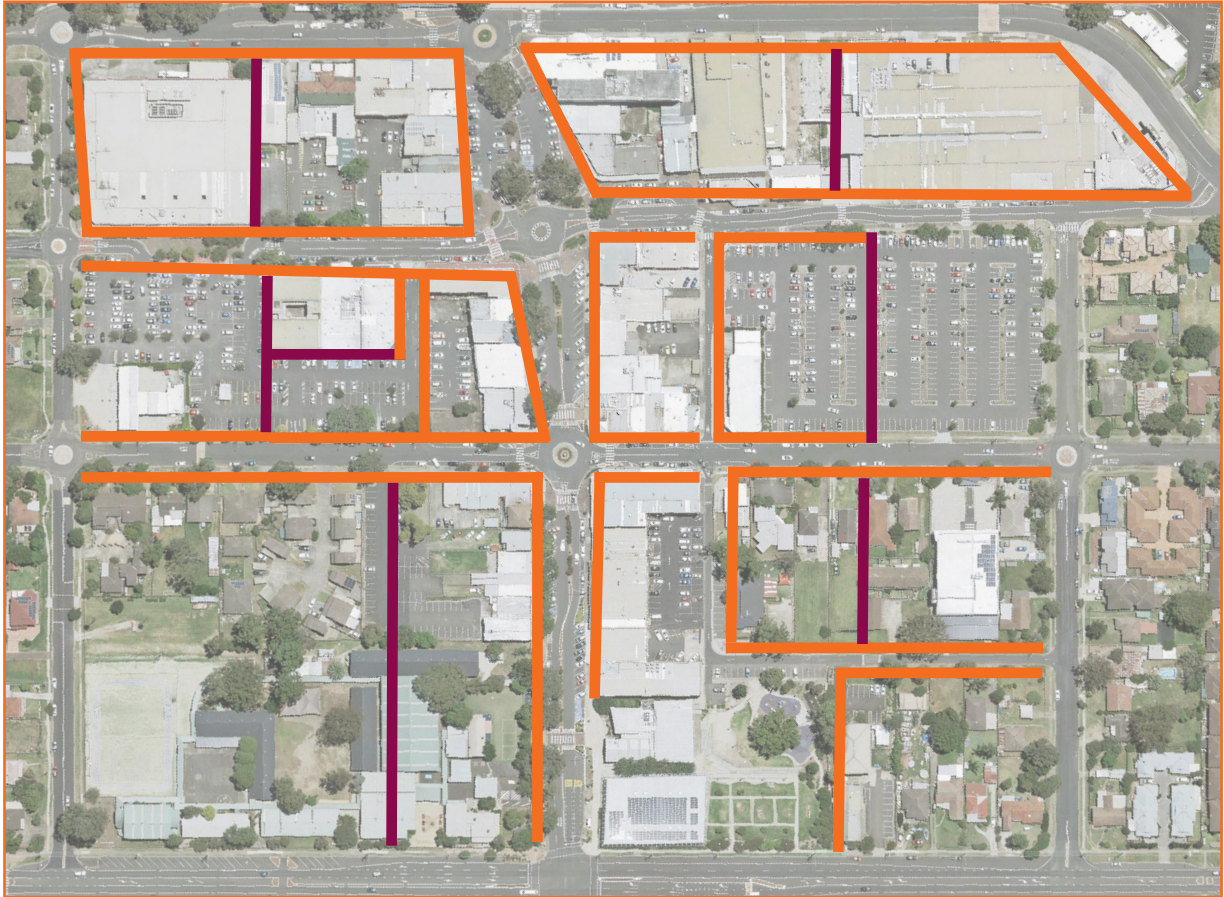
Greening Ingleburn will continue from work done by many others including Alderman Greg Percival, who aimed to create a “green belt” between Macquarie Fields and Ingleburn and Mayor William Harris (1913-16), an early conservationist who planted many of the trees that can be found in the suburb today.

Precinct / Street / Road	Species	Notes	
The Gateway - Community + Arts Precinct	Native, ornamental trees, shrubs, grasses and ground covers including	Incorporate the feature tree Forest Red Gum along Oxford Street.	
	<div><div><i>Eucalyptus tereticornis</i></div><div><i>Callistemon citrinus</i></div><div><i>Ceratopetalum gummiferum</i></div><div><i>Eucalyptus crebra</i></div><div><i>Banksia spinulos</i></div><div><i>Callistemon 'Little John'</i></div><div><i>Lomandra long. 'Tanika'</i></div><div><i>Eriostemon myop. 'Profusion'</i></div><div><i>Westringia 'Jervis Gem'</i></div></div> <div><div>Forest Red Gum</div><div>Crimson Bottlebrush</div><div>NSW Christmas Bush</div><div>Narrow-leaved Ironbark</div><div>Dwarf Hairpin Banksia</div><div>Dwarf Bottlebrush</div><div>Dwarf Lomandra</div><div>Long-leaved Waxflower</div><div>Dwarf Westringia</div></div>		<div><div>Forest Red Gum</div><div>Crimson Bottlebrush</div><div>Narrow-leaved Ironbark</div></div>
Oxford Street Activity Hub + Ingleburn CBD Transition Precinct	Feature Tree <i>Eucalyptus tereticornis</i> Forest Red Gum	Forest Red Gum typically grows to a height of 20–50 m. The trunk is straight, usually unbranched for more than half of the total height of the tree. Thereafter, limbs are unusually steeply inclined. The bark is shed in irregular sheets, resulting in a smooth trunk surface coloured in patches of white, grey and blue at different times.	 <div>Spotted Gum</div>
Ingleburn Station / Railway interface	<i>Corymbia maculata</i> Spotted Gum	Medium to tall tree growing 15 to 22 metres tall. Easily recognised by its smooth mottled bark. Flowers May to September.	
	<i>Eucalyptus sideroxylon</i> Mugga Ironbark	Medium size tree to 25 metres. Easily recognised by its blue-grey foliage, often covered with a fine protective dust or bloom. Flowers April to October	 <div>NSW Christmas Bush</div>  <div>Dwarf Bottlebrush</div>
Suffolk Street and James Street Residential Precincts (Type of tree/shrub subject to location of services)	<i>Ceratopetalum gummiferum</i> – Christmas Bush	Shrub growing 2 to 4 metres tall, with small, white flowers and pink sepals October to November	
	<i>Callistemon salignus</i> Willow Bottlebrush	Tall shrub, 3 to 4 metres tall with cream flowers September to October. Likes moist soil.	 <div>Dwarf Hairpin Banksia</div>
	<i>Elaeocarpus reticulatus</i> Blueberry Ash	Straight tree usually 4 to 10 metres. Fantastic in summer with masses of white flowers like fringed lampshades appearing October to December. Has blue berries and leaves which turn red before falling.	 <div>Long-leaved Waxflower</div>  <div>Dwarf Lomandra</div>
The Parks	Generally a selection of species from the Cumberland Plains Woodland dependent on the design of the park. These species would be complementary to the overall landscape theme.		
Bioswale planting	Trees/Shrubs: <i>Melaleuca ericifolia</i> Swamp Paperbark Grasses: <i>Carex appressa</i> , <i>Ficinia nodosa</i> , <i>Juncus amabilis</i> , <i>Juncus flavidus</i> , Lomandra, Dianella	Mix of low, native grasses within the road verge or swale. Bioswale plantings to help concentrate or remove silt and pollution out of surface runoff water. Larger swales incorporate tree species.	 <div>Mix of low, native grasses</div>   

Item	Proposed Controls	Relevant Precinct	Discussion/Reason	
Height Mixed Use Buildings	Maximum building height - 28m Maximum of 8 storeys	All	Built form generally in accordance with the Apartment Design Guide. Note: Also refer to solar access.	 <p>28m maximum height (8 storeys)</p> <p>Residential levels - floor to ceiling height 2.7m (approximate floor to floor 3.1m)</p> <p>First Floor - floor to ceiling height of 3.5m for commercial</p> <p>Ground Floor - floor to ceiling height of 4.1 to 4.4m on the ground floor to cater for retail/cafe/restaurants</p>
Height Residential Apartment Buildings	Maximum building height - 26m Maximum of 8 storeys	All	Residential apartment buildings do not require the larger floor to ceiling heights as outlined above unless flexibility required for the future. Built form generally in accordance with the Apartment Design Guide. Note that an eight storey building will generally rely on Clause 5.6 Architectural roof features of the Campbelltown Local Environmental Plan 2015 as shown in the example image. Council may want to increase the height for residential apartment buildings. Note: Also refer to solar access.	 <p>26m maximum height (8 storeys)</p> <p>Residential levels - floor to ceiling height 2.7m (approximate floor to floor 3.1m)</p> <p>Roof of podium on basement car park level - allowance approximate 1m above ground</p>

Item	Proposed Controls	Relevant Precinct	Discussion/Reason	
FSR Mixed Use Buildings	Mixed Use component 1.7:1 Residential component 2:1	Oxford Street Activity Hub + Ingleburn CBD Transition	<p>A review of Council's scenarios for FSR has been undertaken and based on the proposed controls outlined in this report and using the side and rear setbacks and separation requirements under the Apartment Design Guide as per example shown.</p> <p>The FSR for the retail and commercial floor ranges from 1.6:1 to 1.7:1 dependent on using the 80% or 85% as outlined in the Apartment Design Guide.</p> <p>FSR for residential component is 2.1:1.</p> <p>The FSR proposed by Council is reasonable and should be adopted for most instances.</p>	<p>Diagram illustrating the FSR for Mixed Use Buildings. The site area is 59,552 units wide and 35,680 units deep. The building footprint is 3,359 m². The residential component is 1,671 m². The diagram shows setbacks and separation requirements.</p> <p>SITE AREA LEVELS 1 - 2 BUILDING ENVELOPE NIL SETBACK GFA (80-85%) 2 STORIES FSR LEVELS 3 - 8 BUILDING ENVELOPE INCLUDING BALCONIES GFA (70%) 6 STORIES FSR</p>
FSR Residential Apartment Buildings	Residential Apartment buildings 2.7:1	Suffolk Street Precinct and James Street Precinct	<p>A review of Council's scenarios for FSR has been undertaken and based on the proposed controls outlined in this report and using the side and rear setbacks and separation requirements under the Apartment Design Guide as per example shown.</p> <p>The FSR for this scenario is 2.5:1. The 2.7:1 is only slightly higher and will allow for developments that do not require the separation distances etc.</p> <p>The FSR proposed by Council is reasonable and should be adopted for most instances.</p>	<p>Diagram illustrating the FSR for Residential Apartment Buildings. The site area is 48,957 units wide and 21,728 units deep. The building footprint is 2,239 m². The diagram shows setbacks and separation requirements.</p> <p>SITE AREA 2,239m² LEVELS 1 - 4 BUILDING ENVELOPE INCLUDING BALCONIES 1,064m² GFA (70%) 745m² 4 STORIES 2,980m² LEVELS 5 - 8 BUILDING ENVELOPE INCLUDING BALCONIES 933m² GFA (70%) 653m² 4 STORIES 2,612m² TOTAL GFA 5,592m² FSR 2.5:1</p>

Item	Proposed Controls	Relevant Precinct	Discussion	
Setbacks Mixed Use Buildings	<div>Ground Floor and First Floor - nil setback Second Floor and above - 5 m setback</div> <div>Ground Floor and First Floor - 4 m setback Second Floor and above -10 m setback</div> <div>Ground Floor and First Floor - nil setback where it is an active frontage Second Floor and above - 10 m setback</div> <div>Ground Floor and First Floor - nil setback Second Floor and above on street frontage - 5 m setback Built form adjoining the Community + Arts Precinct to be treated architecturally and not present as a blank wall</div>	Oxford Street Activity Hub + Ingleburn CBD Transition	<p>The street network is generally wide throughout the town centre. Solar access has been tested and a 5m setback on the upper floors will generally provide solar access on the southern side of the streets subject to the design of the built form.</p> <p>A nil setback and 5m setback will improve site development opportunities as some sites are too shallow to be developed with a 10 m setback. The nil setback and 5m setback will also allow informal surveillance over the public street network.</p> <p>Larger sites, e.g. the Coles site will need to ensure the site is appropriately developed</p> <p>Larger setbacks proposed along Norfolk Street and Cambridge Street due to the interface with the residential zone.</p> <p>Larger setback on buildings adjoining Carlisle Park due to maximising solar access.</p> <p>Setbacks also to meet the Apartment Design Guide. It is assumed that half of the building separation is on each side of the property boundary.</p> <p>Also refer to solar access.</p>	
Setbacks Residential Apartment Buildings	Front setback - 6m Other setbacks - to be in accordance with the Apartment Design Guide	Suffolk Street Precinct and James Street Precinct	Note: Also refer to solar access.	

Item	Proposed Controls	Relevant Precinct	Discussion	
Active Frontages	<div>Active Street frontage</div> <div></div> <div>Active Pedestrian frontage</div> <div></div>	Oxford Street Activity Hub + Ingleburn CBD Transition	<p>Noting Campbelltown Council's LEP requirements for active street frontage as follows:</p> <p>4) Despite subclause (3), an active street frontage is not required for any part of a building that is used for any of the following—</p> <ul style="list-style-type: none">(a) entrances and lobbies (including as part of mixed use development),(b) access for fire services,(c) vehicular access. <p>(5) In this clause—</p> <p>active street frontage, of a building, means that all premises on the ground floor of the building facing the street are used for the purposes of business premises or retail premises.</p> <p>Additional clauses should be stated as well:</p> <p>Built form onto pedestrian pathways as shown are to be activated. Activated has a similar meaning as to active street frontage, i.e. the ground floor of the building facing the pedestrian pathway and/or open space are used for the purposes of business premises or retail premises. Further, storeys above the ground floor should also address the pedestrian pathway and/or open space.</p> <p>Should the School site become available for development, a set of guidelines should be developed in regards to setbacks and active street frontages.</p>	

Item	Proposed Controls	Relevant Precinct	Discussion	
Solar Access Height, building setback.	<p>All development is to maximise solar access to existing and proposed open space. Development must take into account the cumulative development surrounding the open space and not just its own site.</p> <p>Open space must receive a minimum of two hours of solar access to a minimum of 50% of the open space on 21 June.</p>	All precincts	<p>The intent is to maximise solar access to the open space areas and the Oxford Street activity hub and Oxford Street generally. Due to the orientation of the street grid of Ingleburn town centre, maximising solar access along Oxford Street is proposed on the south western boundary of Oxford Street.</p> <p>The shadow diagrams show the solar access to the open space areas and Oxford Street based on a 26 m and 28 m height plane for the relevant development scenarios..</p> <p>Based on the above heights and as shown on the shadow diagrams:</p> <ul style="list-style-type: none">• Cambridge Park should receive a minimum of 2 hours solar access and therefore no changes to height or setback required.• Hallinan Park should receive a minimum of 2 hours solar access and therefore no changes to height or setback required.• Carlisle Park is unlikely to receive the required solar access. Therefore additional setbacks are proposed to the buildings adjoining the park.• Oxford Street Activity Hub - built form on the north eastern boundary of the hub is to maximise solar access to the Activity Hub. The site should incorporate setbacks and height restrictions to allow a tall slender building or setback from Oxford Street to assist in achieving maximum solar access to the Activity Hub.• Oxford Street - Development is to maximise solar access to Oxford Street.	<div><div>9.00am 21 June</div></div> <div><div>12.00pm 21 June</div></div> <div><div>3.00pm 21 June</div><div><div>Cambridge Park</div><div>Oxford Street Activity Hub</div><div>Carlisle Park</div><div>Hallinan Park</div></div></div>
<div><div>9.00am 21 June</div></div> <div><div>12.00pm 21 June</div></div> <div><div>3.00pm 21 June</div></div> <div>Shadow diagrams - indicative built form on Oxford Street</div>				

Item	Proposed Controls	Relevant Precinct	Discussion/Reason	
Awnings	All built form should have awnings on Ground floor accommodation along the street network and be continuous. Excludes laneways	Oxford Street Activity Hub + Ingleburn CBD Transition	Requirement would exclude development on Cumberland Road as the main retail / commercial sector would not be along Cumberland Road.	
Second storey access	Continuous second storey pedestrian access identified by Council as outlined on the plan.	Oxford Street Activity Hub + Ingleburn CBD Transition	<p>The second storey pedestrian access will require development to occur across numerous sites for it to be implemented. Further, development would need to occur simultaneously to create the pedestrian connections and particularly if overbridges are required. Second level access proposed as shown on map. Bridge access generally shown on map in red.</p> <p>_____</p> <p>An opportunity may existing for pedestrian overbridges to be constructed within the Council carpark. This may be able to be negotiated with development that occurs opposite on Macquarie Road or opposite on Boots Lane.</p> <p>Second level access on Ingleburn Road subject to location of railway station, lifts and stairs.</p> <p>_____</p> <p>Second level access should be:</p> <ul style="list-style-type: none">• A minimum width of 3.5m.• Be a continuous and direct route with good sight line.• Provide for lighting day and night.• Use of light weight and transparent materials to improve surveillance to and from street level.	