



SECTION 3

PUBLIC DOMAIN

DESIGN

3.1	Public domain strategy	36
3.2	Public and publicly accessible open space	39
3.3	Streets, shared lanes, pedestrian links and arcades	41
3.4	Tree canopy, green cover and deep soil	52
3.5	Solar access to open space	55
3.6	Shade and the reduction of urban heat	57



3.1 Public domain strategy

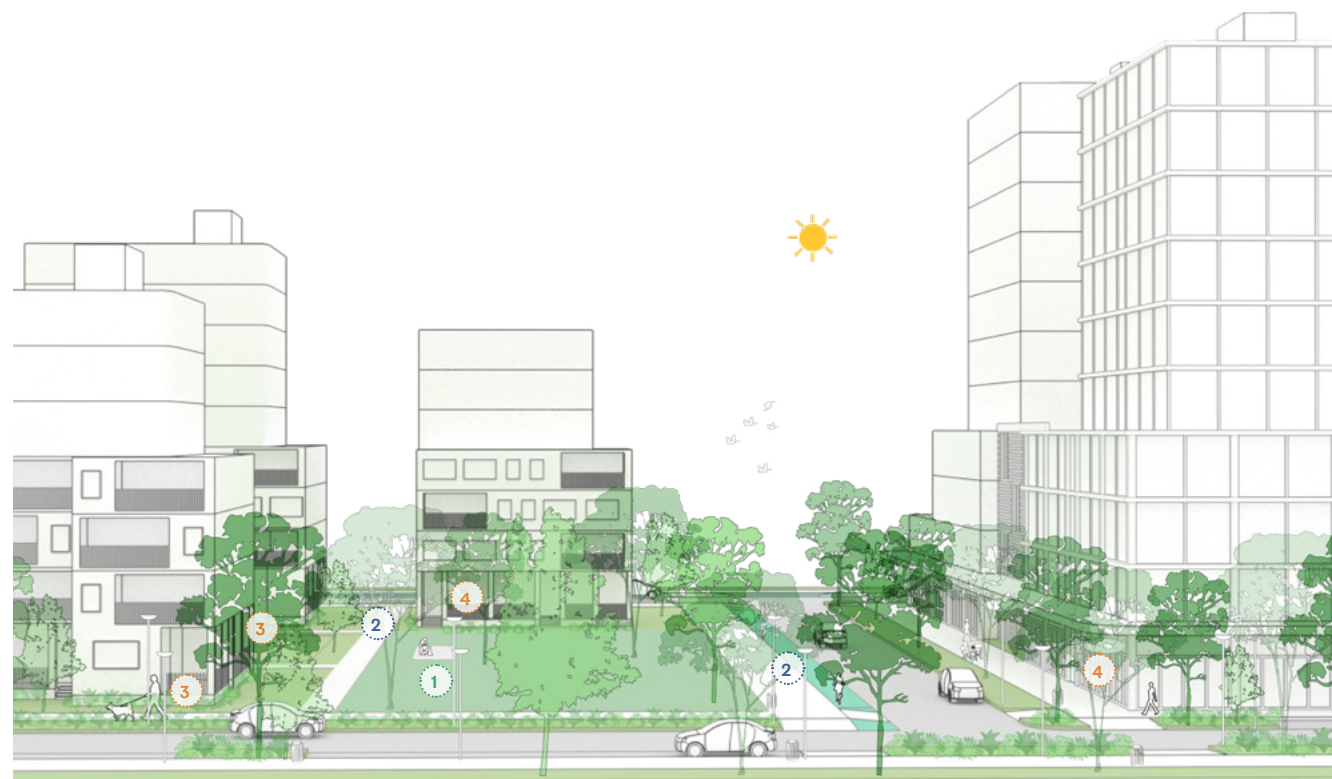
The public domain consists of streets, squares, parks, shared lanes and pedestrian links. These elements, in conjunction with the built form interface on private land, play a vital role in creating unique, vibrant and sustainable places that are attractive, inviting and inclusive for all.

The public domain strategy ensures housing growth is supported by the delivery of high-quality public spaces that encourage walking, cycling, community interaction, and engagement.

This section outlines key opportunities for enhancing the public domain in the Punchbowl and Wiley Park Precinct, as identified in Figure 21. Public Domain Strategy.

Objectives

- O1. To improve the quality, appearance and function of the public domain.
- O2. Provide a diverse range of quality public spaces to support residents, workers and visitors.
- O3. Ensure a high level of permeability and accessibility throughout Precinct.
- O4. Provide high quality, functional and attractive formal and informal spaces for community interaction.
- O5. To establish a vibrant and attractive Precinct where the network of streets, shared lanes and open spaces support the increase in population density, the increased pedestrian movement and footpath trading activities.



1 Variety of public spaces
to meet the needs of the community

2 Permeable connected network
that encourages walking, cycling and public transport use

3 Tree canopy and landscaping
for cool, attractive places that promote biodiversity

4 Solar access, shade, surveillance and activation of the public domain

Figure 20. Designing the public domain



Punchbowl and Wiley Park Public Domain Strategy

Legend

- Application of DCP
- Existing open space
- Upgraded open space
- Proposed new open space
- Potential community facility
- Metro station
- Major road
- High street improvements
- Priority streets for tree canopy
- Priority streets for cycleways
- Planned East-West cycle link (Sydney Metro)
- Proposed / enhanced pedestrian link (min. 4m)
- Proposed new shared lane (9m)



Figure 21. Public Domain Strategy



Principles

- P1. Development must contribute to the delivery of public domain improvements in line with the Public Domain Strategy at Figure 21, including:
- a) **Wiley Park Village will be focussed on Lakemba Street and Stanlea Parade** to encourage retail activity and high amenity spaces for people off busy King Georges Road. A 3m setback along these streets with slower traffic will provide for expanded footpaths, increased street tree planting and opportunities for outdoor dining.
 - b) **Development along King Georges Road will be encouraged to provide vehicle access via secondary frontages** along local streets to reduce the number of driveway crossings to King Georges Road. Generous landscaped setbacks with widened footpaths and a vegetated buffer will greatly improve the pedestrian environment.
 - c) **Key sites** are required to provide new public open spaces as they are in proximity to the highly accessible Punchbowl and Wiley Park Village character areas. [See Section 6 Key sites.](#)
 - d) **Development will contribute to new pedestrian links** and widen existing connections to improve access and permeability throughout the Precinct.
 - e) **Streetscape and public domain enhancements** will improve comfort to support active transport options and sustainability outcomes. Key streets including Arthur Street will be treelined to improve amenity and shading and provide a safer alternative for cycling away from streets with more traffic.
 - f) **The active transport network** will be expanded by the East-West Pedestrian and Cycle Link (Sydney Metro), and incorporate new cycle infrastructure within street upgrades as on Highclere Avenue, Broadway, Hillcrest Street, Ferguson Avenue, Viola Street and Alice Street South. These upgrades will work to encourage street life and use of the new Metro.
 - g) **Promote shared use arrangements** of open space including with school out of teaching hours. This includes the school grounds of Punchbowl Boys' High School, Punchbowl Public School, Wiley Park Girls High School and Lakemba Public School.

Image: Central green space and activated plaza, Edmondson Park, NSW (Source: Architectus)



3.2 Public open space and publicly accessible open space

Public open spaces are provided on public land whereas publicly accessible spaces are located on private land and can be accessed by the public. Both spaces comprise parks and plazas with green open space and/or hardscaped spaces and high quality landscaping.

Objectives

- O1. To ensure that the size, type, accessibility and program of open spaces accommodates the future number of residents, workers and visitors and their recreational and passive needs throughout the day and night.
- O2. To create new connections to open space to ensure easy, convenient access by walking and cycling to existing and proposed open space.
- O3. To provide new open space and publicly accessible open space in under-served areas and upgrade existing open space.
- O4. Ensure that any proposed privately owned publicly accessible space have a full public nature equivalent to the public domain.
- O5. To ensure development contributes to a diverse network of quality and attractive open spaces comprised of well-connected parks and squares, green streets and lanes.
- O6. To ensure open space has a high level of solar access and shade that is suitable to purpose.

Image - Bulleke-bek Park, adjacent to Nightingale ParkLife development, Brunswick, VIC (Source: Architectus)





Principles

- P1. Provide equitable access and a variety of amenity and recreational options to accommodate different community needs.
- P2. The design of new publicly accessible open space and public open space should use a palette of high quality and robust materials to maximise design lifespan and create beautiful places. Landscaping treatments and material selections must respond to the local character of each space and contribute to a cohesive and unified public domain throughout the Precinct.
- P3. Create and enhance natural ecologies within the urban fabric through the use of diverse native landscape species.
- P4. Paths of travel through public open space must respond to 'desire paths' and should be lit in the evening to improve safety and accessibility for users.
- P5. In high activity area where street space and footpaths are constrained, create a suitable environment for pedestrian movement and business activity by widening existing footpaths into private land.
 - f) A Country centred approach should be taken to the design of open space. [See Section 2.3 Connecting with Country.](#)
 - g) Consideration must be given to the reduction of urban heat and the provision of shade in the design of open space. [See Section 3.6 Shade and the reduction of urban heat.](#)

Controls

- C1. Where required by Council, new publicly accessible space and/or land dedication for new or expanded public open space must be provided in the locations identified in Figure 21 Public Domain Strategy.
- C2. Development fronting open space must engage with these publicly accessible spaces. This can be achieved by, but is not limited to, the following:
 - o Ground level active frontages and edges.
 - o Balconies addressing open space.
 - o Garden apartments with individual entries from the open space.
 - o Access from development sites and lanes to and from open space.
- C3. Buildings and building basements are not permitted to be located on, above or under any proposed new open space. Awnings can overhang open space.
- C4. Public art must be integrated into publicly accessible open spaces. This could include a Connection with Country approach. The design and placement of public art must contribute meaningfully to the character, identity and activation of the public domain.



Matron Ruby Grant Park, Zetland (Source: Architectus)



3.3 Streets, shared lanes, pedestrian links and arcades

Streets, shared lanes and pedestrian links are places of movement : to watch, to pass through and see the movement of people. This public framework provides for social and commercial exchange.

In urban areas, a well-designed network of shared lanes and pedestrian links are essential for improving permeability and connecting to main streets and open space, creating walkability and equity of access and enjoyment.

The street should be safe and inviting to pedestrians and cyclists while accommodating vehicles and traffic and be enhanced by tree canopies that promote amenity and sustainability.

Pedestrian links prioritise pedestrians and cyclists, featuring open skies and awnings, while shared lanes also accommodate service vehicles and driveway access.

Arcades serve as internal retail 'lanes' that enhance permeability and provide an engaging shopping experience. These narrow, intimate spaces encourage pedestrians to come and stay and facilitate connections through street blocks, reducing walking distances.

New development is essential for contributing to a high-quality, permeable, and connected movement network that is green, inviting and safe for everyone. This is achieved by thoughtfully designing how a development interfaces with streets, lanes and pedestrian links. Setbacks, public domain improvements and new connections should be considered.

Image - Visualisation of tree lined street with cycleway in Bankstown City Centre (Source: Canterbury-Bankstown)





Objectives

- O1. To improve connectivity for pedestrians and cyclists between key destination points.
- O2. To provide a high quality, safe, connected cycle network that enables the community to choose to ride to work, home or a destination.
- O3. To ensure shared lanes, pedestrian links and arcades are accessible, attractive, continuous, well-lit, safe and where appropriate, open to the sky.
- O4. To provide amenity and safety to existing and proposed shared lanes, pedestrian links and arcades and active uses to engage pedestrians, where appropriate.
- O5. To design shared lanes, pedestrian links and arcades that provide an intimate space to linger within a fine grain spatial network.
- O6. To provide for vehicular entries and servicing away from primary street frontages using shared lanes.

Principles

- P1. Large development sites and sites located in the middle of large blocks should provide pedestrian links to improve permeability.
- P2. Development must incorporate design measures that enhance pedestrian safety and comfort, including passive surveillance from habitable rooms and private open space, well-lit pathways and clear sightlines.
- P3. Development that interfaces with pedestrian links should consider providing an active edge, where possible.

Image - Pedestrian link with landscaping and garden apartments, Zetland (Source: Architectus)



Controls

- C1. Where required by Council, shared lanes, pedestrian links and arcades must be provided in the locations identified in Figure 21 Public Domain Strategy. These connections must be designed to ensure for permeability, safety and integration with the broader movement network.
- C2. Figures 22 to 28 illustrate cross-sections of Council's vision for specific streets, lanes and pedestrian links in the Punchbowl and Wiley Park Precinct. Development in these areas must demonstrate how the built form, setback treatments and any public domain improvements align with and contribute to delivering this vision.

Image - Activated pedestrian link, Surry Hills Village, Redfern (Source: Architectus)

- C3. Pedestrian links are to have a minimum width of 4m and cater for the movement of pedestrians and cyclists in both directions. Shared lanes are to have a minimum width of 9m. These key public domain assets are to be designed to:
 - a) Ensure that buildings or structures are not located over any proposed pedestrian link, other than awnings.
 - b) Provide lighting, paving, street furniture and tree planting to clearly indicate the priority of the pedestrian or cycling user, (to be provided in accordance with Council's specifications and design standards).
 - c) Development must demonstrate the provision of physical and visual connections with neighbouring sites, including any

necessary level adjustments. Detailed plans illustrating these connections are to be provided as part of the Development Application.

- d) Awnings should be provided for active frontages and active edges for weather protection, offering shade and shelter from sun and rain. Awnings are to be designed and delivered in accordance with the requirements specified in [Section 4.3.2 Active street frontages and edges](#).
- e) Stormwater management measures must be incorporated to minimise the flow of pollutants from shared lanes and pedestrian links. Treatments must be implemented in accordance with Section 3 – Stormwater Drainage Systems of the CBDP 2023.



- f) Shared lanes and pedestrian links should be clear of all obstructions, including stairs, escalators and columns and provide a clear line of sight from one end to the other for surveillance and accessibility.
 - g) Shared lanes and pedestrian links will be open 24 hours a day, well-lit and adhere to Crime Prevention Through Environmental Design (CPTED) principles.
 - h) Where a development has the potential to create a shared lane or pedestrian link by extending an existing or proposed lane within its site, the lane should be completed or extended within the development site. If a development can deliver part of a lane or initiate a new lane, it should make provision for it.
- C9. Pedestrian links and new shared lanes are to be registered as an easement on title or dedicated to Council prior to issue of an Occupation Certificate. Council reserves the right to not accept dedication. Any proposed dedication must be discussed at a pre-lodgement meeting.
- C10. The maintenance of the shared lane and pedestrian link in perpetuity including cleaning, repairing and replacing damaged or worn paving, furniture and the like and maintaining landscaping in a healthy condition is the responsibility of the land owner, not Council. A management plan must accompany any development involving the provision of a shared lane or pedestrian link. The plan is to demonstrate how ongoing
- access, maintenance, and functionality of the shared lane or pedestrian link will be ensured, including through any future changes in ownership.
- C11. Arcades within retail and commercial developments are to be designed to:
- a) Be two storeys in height or where proposed as a single storey at ground level, have a minimum floor to ceiling height of 5m.
 - b) Have widths of 4m – 6m where the links are provided within a two storey height, or 5m – 8m wide where provided at a single floor level.
 - c) Be located at ground level and lined with spaces to facilitate active uses.
 - d) Be designed to have access to natural light.
 - e) Be open at each end, or where air conditioned, provide entry doors that are glazed and comprise a minimum 70% of the width of the entrance.
 - f) Be publicly accessible from 6am to 10pm each day.

Image - Enhanced shared lane with street art, activation and bike parking, Rose Street, Fitzroy (Source: Architectus)



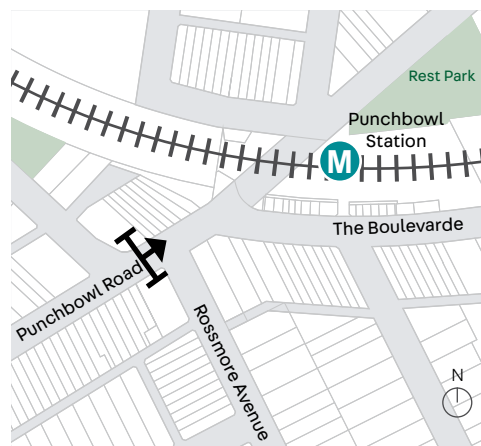


Punchbowl Road

The vision for Punchbowl Road is to enhance the amenity for pedestrians and retail frontages while maintaining the road's essential function as a key vehicular thoroughfare within the Precinct.

While interventions for improving amenity may be limited, there are valuable opportunities to introduce planter boxes filled with small plants and flowers. These planter boxes will help create a natural buffer between the road and pedestrian pathways, softening the streetscape and improving the overall visual appeal.

Furthermore, careful consideration will be given to the placement of seating areas and small gathering spots, allowing pedestrians to pause and enjoy the environment. This approach aims to balance the needs of vehicular traffic with the desire for a lively, pedestrian-friendly atmosphere along Punchbowl Road.



Location of Punchbowl Road street section and plan

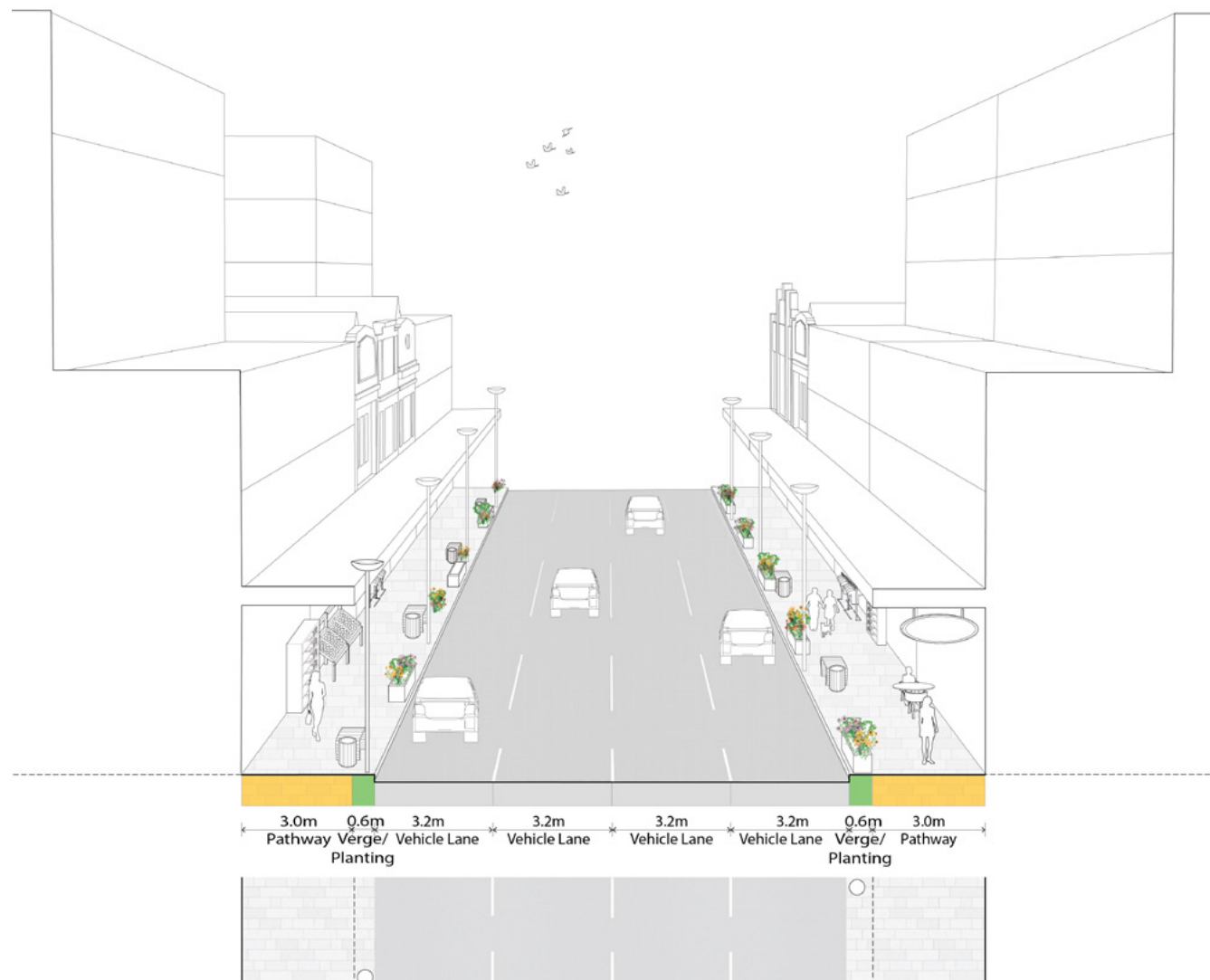


Figure 22. Perspective section and plan for Punchbowl Road



Lakemba Street

The vision for Lakemba Street is to establish a tree-lined corridor that enhances amenity, biodiversity, and activation around the Wiley Park Village Centre.

Mature trees will be strategically planted between parking bays, creating a natural buffer between the road and vehicular lanes.

To the north, new developments will feature front setbacks that incorporate high-quality landscaping, deep soil, and trees wherever possible. Additionally, balconies, terraces, and entries to garden apartments will enhance passive surveillance over the street, fostering a safer and more vibrant environment.

To the south, retail spaces will front the street, providing opportunities for active uses along the frontage, such as outdoor dining and engaging shop displays, contributing to a lively atmosphere.



Location of Lakemba Street section

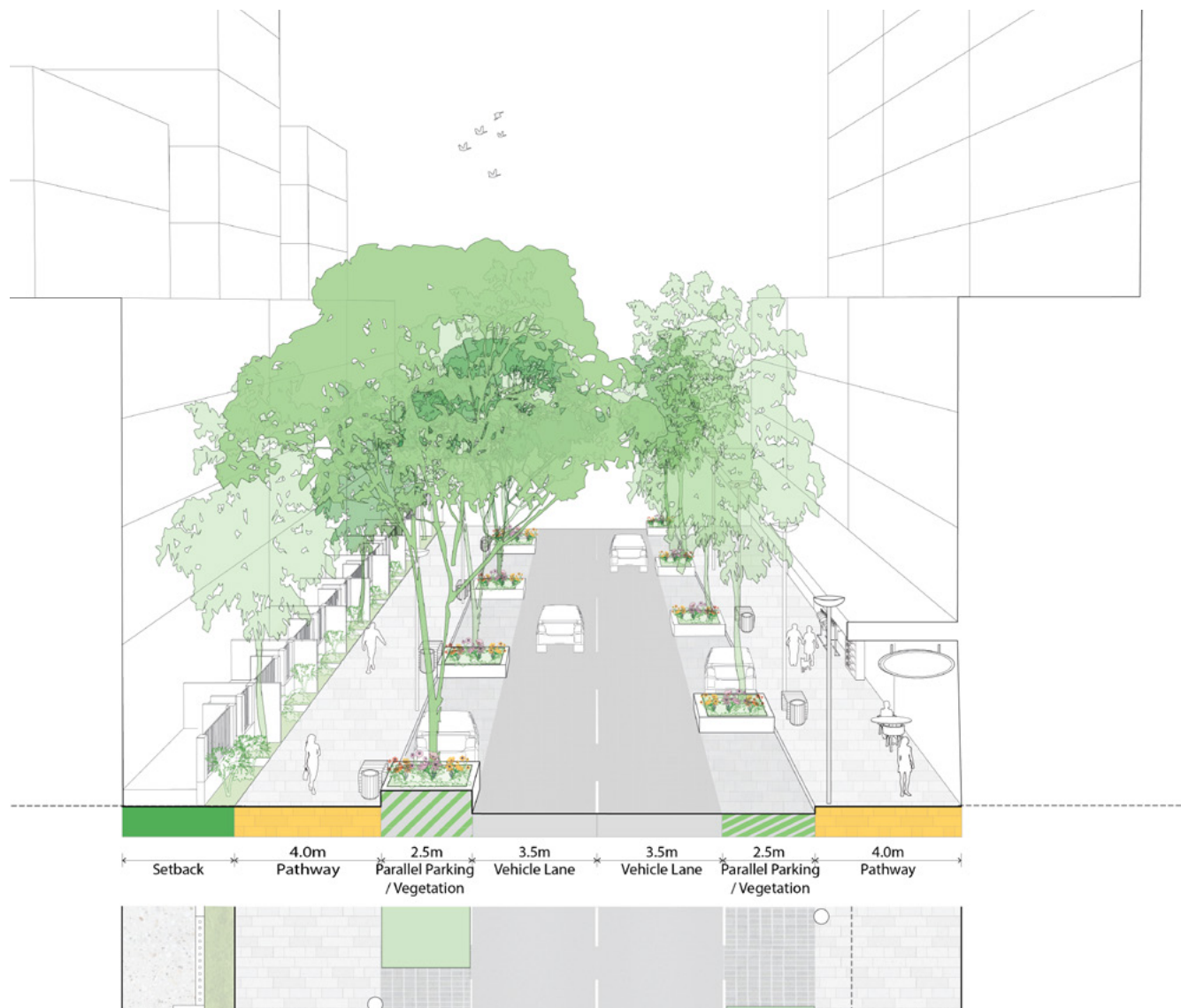


Figure 23. Perspective section and plan for Lakemba Street



King Georges Road

The vision for King Georges Road is to enhance the pedestrian experience and increase greening while recognising the road's vital role as a vehicular thoroughfare through the Wiley Park Village Centre.

There is a significant opportunity to transform the road into a green boulevard, featuring landscaping and tree canopies along the existing centre verge and at the western side. This transformation will enhance amenity, support biodiversity, and create a buffer between residential areas and the road.

On the western side, a landscaped edge with small shrubs and flowering plants will improve the interface with retail uses, creating a more inviting and vibrant atmosphere for both pedestrians and shoppers.

New residential development will include setbacks allowing for landscaping and potential for tree canopy to further improve the interface along this road.



Location of King Georges Road section



Figure 24. Street Section for King Georges Road



Tree lined street

The vision for tree lined streets in residential areas is to increase amenity and tree canopy through the provision of new trees and landscaping in the road reserve between parking lanes. In addition, a generous pedestrian pathway with high quality paving and opportunities for intermittent seating.

Within residential areas, new development will provide front setbacks that incorporate high quality landscaping, deep soil and trees as well as balconies, terraces and entries to garden apartments to provide passive surveillance over the street.

Tree lined streets are identified on Figure 21. Public Domain Strategy.



Snippet of Public Domain Strategy. For location of priority streets for tree canopy, see Figure 21. Public Domain Strategy

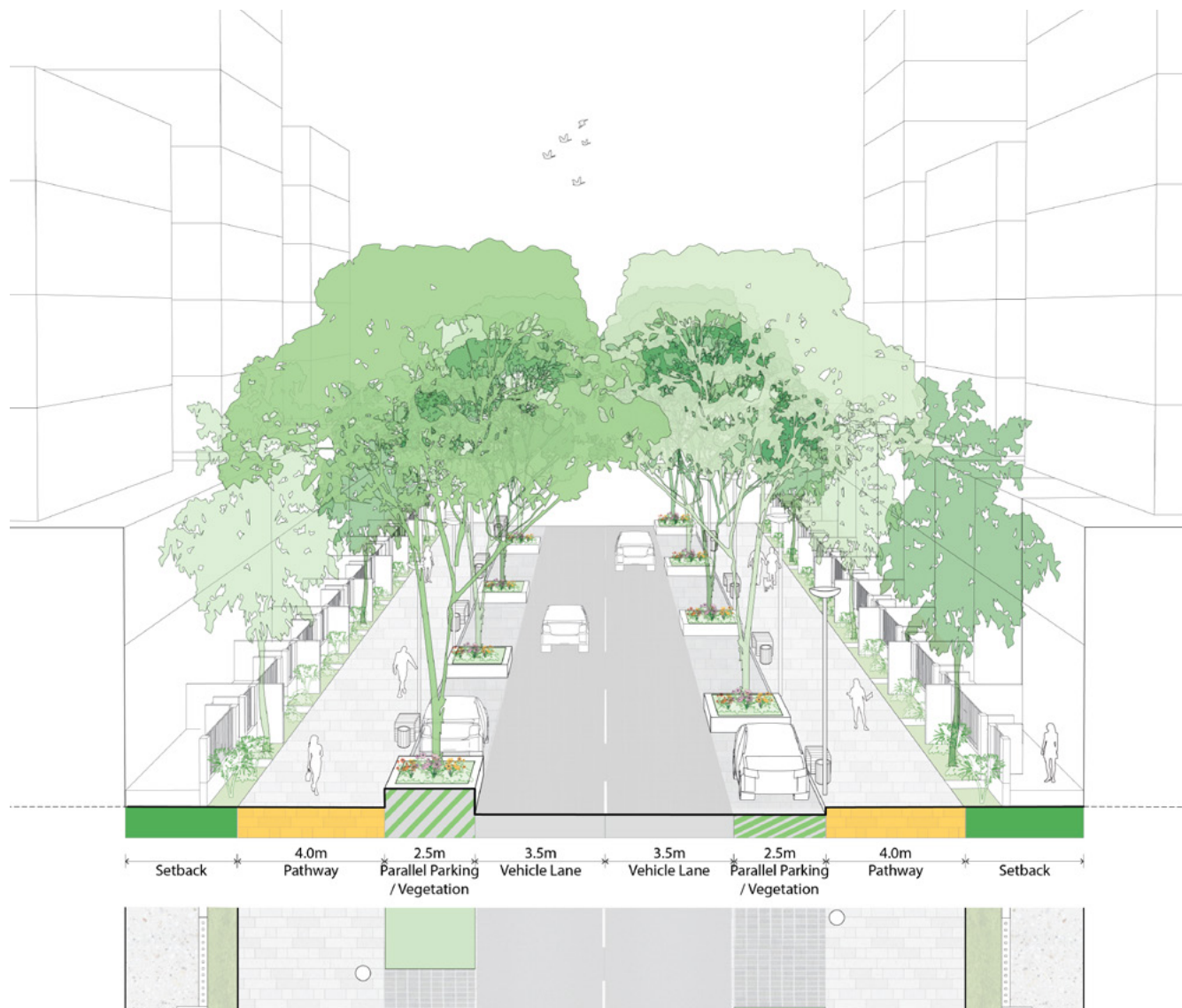


Figure 25. Perspective section and plan for residential tree lined street



Tree lined street with cycleway

The vision for tree lined streets with a cycleway in residential areas is to increase amenity, walking, cycling and tree canopy through the provision of a dedicated cycleway, new trees and landscaping in the road reserve between parking lanes and include a generous pedestrian pathway with high quality paving and opportunities for intermittent seating.

Within residential areas, new development will provide setbacks that incorporate high quality landscaping, deep soil and trees, as well as balconies, terraces and entries to apartments to provide passive surveillance over the street.

Tree lined streets are identified on Figure 21. Public Domain Strategy.



Snippet of Public Domain Strategy. For location of priority streets for tree canopy, see Figure 21. Public Domain Strategy

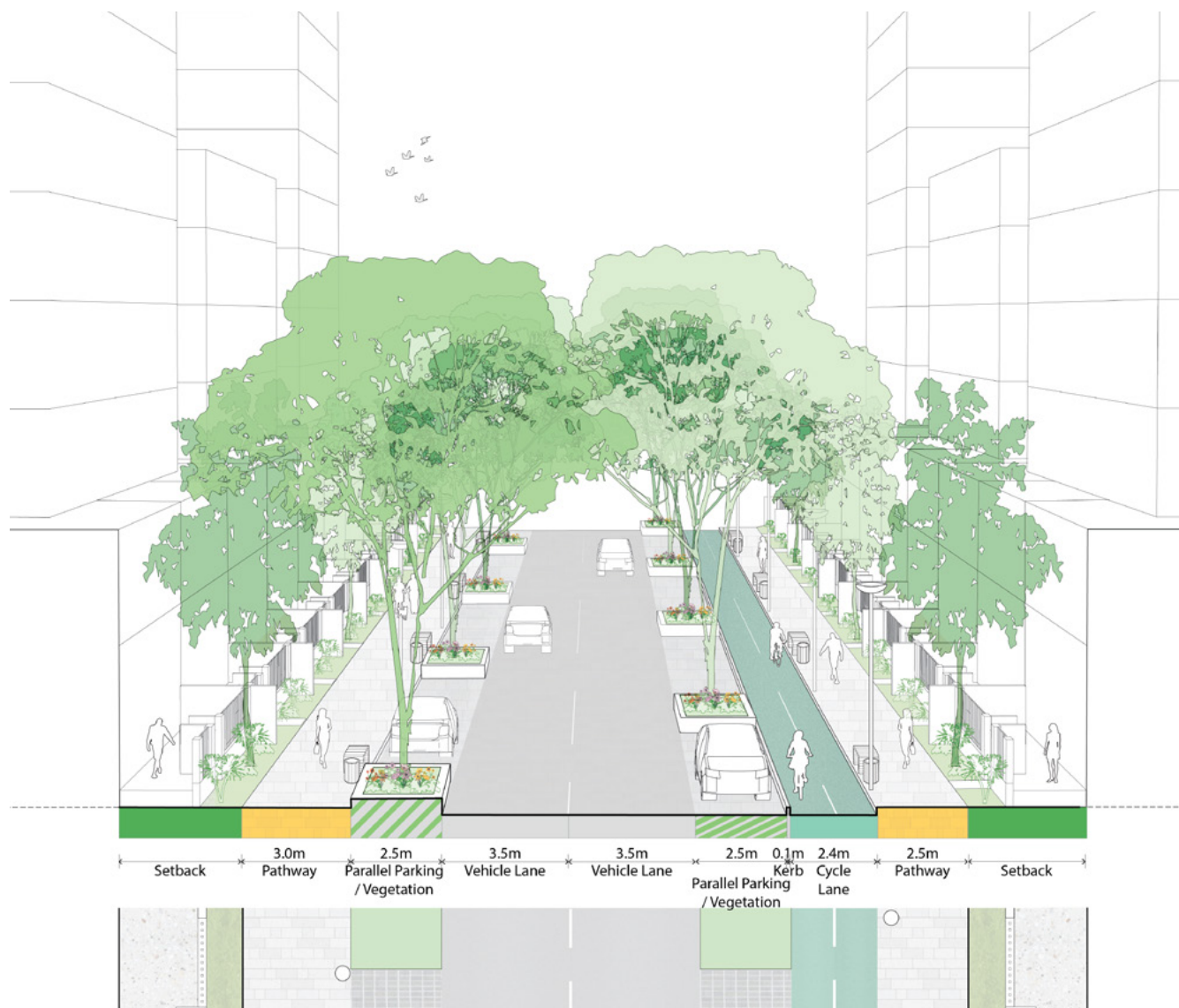


Figure 26. Perspective section and plan for residential tree lined street with an off-road cycleway



Stanlea Parade

The vision for Stanlea Parade is to transform the existing lane into a vibrant pedestrian link that incorporates a dedicated cycleway and pedestrian path as part of the East-West pedestrian/cycle link planned by Sydney Metro. This transformation will also feature landscaping, tree canopy and opportunities for activation.

To the north, the Wiley Park Village Centre West, Key Site 3, will interface with Stanlea Parade, featuring a retail setback that allows for outdoor dining and other active uses. This design will enhance amenity and activation at the heart of Wiley Park, creating a lively atmosphere adjacent to the Metro station and along the improved link.



Location of Stanlea Parade section



Figure 27. Perspective section and plan for Stanlea Parade



Pedestrian link (min. 4m)

The vision for pedestrian links is to enhance pedestrian and cycle connectivity across long blocks in residential areas, facilitating better access and improved amenity in close proximity to the Village Centres and the Metro station.

These links will feature high-quality paving, uninterrupted sightlines, be free of obstructions and be complemented by adequate lighting for safety and surveillance, providing clear and accessible pathways.

Additionally, setbacks will allow for garden apartments that interface with the links, incorporating high-quality landscaping, tree canopies, and terraces and balconies that promote passive surveillance. An active edge along the links will create opportunities for corner shops or cafés, fostering convenience, amenity and a sense of community.

New links are required to be delivered through new development on land identified in Figure 21. Public Domain Strategy.



Snippet of Public Domain Strategy. For location of proposed pedestrian links see Figure 21. Public Domain Strategy

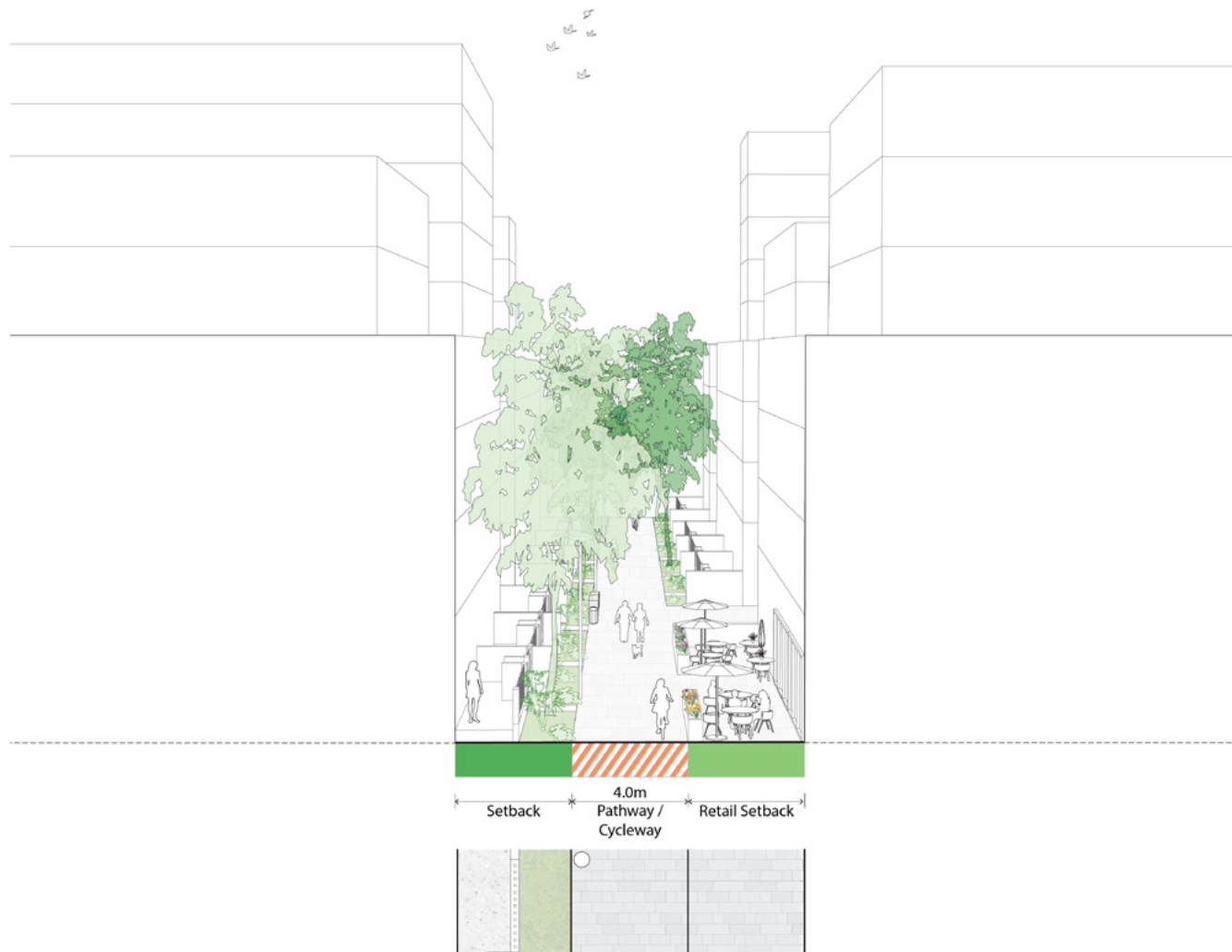


Figure 28. Perspective section and plan for pedestrian link



3.4 Tree canopy, green cover and deep soil

Trees are essential for their contribution to the amenity and character of the Precinct. When appropriately selected, located, planted and maintained, trees provide a multitude of benefits to the urban environment including reducing heat gain, providing shade and mitigating climate change.

One of the most effective solutions to mitigate urban heat gain is expanding tree canopy cover. Trees provide shade, cool the environment through transpiration and reduce surface temperature in densely built areas, where heat can become trapped by concrete and asphalt. Temperature differences between locations with canopy and without canopy gaps can be significant.

Greencover provides further greening and shade to buildings and to the site itself. This will protect buildings from radiant heat gain and provide a pleasing aesthetic to the public domain.

Deep soil is 'landscaped area'. These areas of soil are not covered by buildings or structures. Deep soil provides for the planting of canopy trees, increases water filtration and reduces stormwater runoff. It is beneficial to co-locate deep soil with communal open space to provide shade and amenity for those using these spaces.

Objectives

- O1. To provide tree canopy for shade to maximise amenity to public space during the periods of the day they are most used for recreation or repose.
- O2. To improve and enhance environmental biodiversity and mitigate heat at ground level.
- O3. To ensure for maximum tree canopy in development on private land and public land.
- O4. To create a continuous tree canopy, mitigate climate change and to improve the health and wellbeing of people and ecosystems.
- O5. To provide green cover to soften building form, create amenity for occupants and provide for a green aesthetic to the public domain.
- O6. To maximise canopy coverage by bundling or undergrounding aerial power cables.
- O7. To provide deep soil to increase tree canopy, landscape, water infiltration and the reduction of stormwater runoff.

Image - Markham Avenue, Ashburton, VIC, Architectus
(Source: Architectus)





Principles

- P1. Ensure existing trees are protected and that additional trees are planted in the public and private domains.
 - P2. Provide tree planting appropriate to the local climate.
 - P3. Provide for recreational equipment, seating, landscaping, absorptive ground treatments and an integrated consistent material palette for hard landscaped areas.
 - P4. Ensure for adequate deep soil depth and width for the growth of large trees, shrubs and vegetation generally.
 - P5. In new development ensure for articulated facades for green cover. In alterations to existing buildings, provide fixed planting and rooftop greenery.
- a) All frontages of the development site between the gutter and the building line, including the footpath, drainage, entries and other built objects.
 - b) Any existing trees, bus shelters, signage and other structures or services that may impede the planting of new street trees.
 - c) A qualified landscape architect shall prepare the PFP and specify the size in litres, the spacing and species in coordination with Council. The PFP must be prepared after test pits have been completed to ensure for services coordination
- C5. Trees will be spaced depending on their size: small - 5-7m, medium 7-10m and large 10-15m.
 - C6. Please refer to tree base treatments in the Appendices
 - C7. Minimum tree canopy cover is required on private land as per Table 2 and Figure 29.
 - C8. Tree canopy cover refers to the layer of leaves, branches, and stems of trees that cover the ground when viewed from above, expressed as proportion of the total site area, calculated in accordance with the following:
 - a) Canopy area is to include the expected mature size, (crown spread at maturity), of existing and proposed trees.
 - b) Only trees with a minimum crown spread of 3m in diameter are to be included. Trees with a crown spread less than 3m diameter
- are to be excluded from tree canopy cover calculations.
 - c) Any overlap in canopy area is to be counted once.
 - d) Canopy area extending outside of site boundaries is to be excluded.
 - e) Canopy area extending within a development site from trees planted in adjoining sites is to be excluded.
 - f) Trees located over structures, including podiums and rooftops, are to be included.
- C9. The design of the canopy trees should be laid out such that sufficient room is provided for the trees to achieve their desired mature size. Canopy overlap should not exceed 25%.
 - C10. New development within the E1 Local Centre zone, must deliver 50% of the site area as 'green cover' which can be any combination of the following:
 - o Deep soil zones;
 - o Green walls where orientation is appropriate;
 - o Layered planting on structure (including small and medium trees, as per the Apartment Design Guide);
 - o Green roofs and awnings; or
 - o Permanent planting on balconies and podiums, (including built-in planter boxes).

Controls

- C1. As part of a Development Application for residential, mixed use or non-residential development, street trees are to be provided to all public frontages to the satisfaction of Council.
- C2. New street trees must have a minimum pot size of 75 litres but no greater than 200 litres.
- C3. Street trees should be planted with clearances as set out in Table 1.
- C4. A Public Frontage Plan(PFP) shall be prepared prior to the issue of a Construction Certificate. This plan will identify:



Streetscape Element	Indicative Minimum Clearance
Street Intersection approach side	10m from intersection kerb line
Street Intersection non-approach side	7m from intersection kerb line
Traffic signals	>10m from signal pole on approach side
Bus stops	3m
Pedestrian crossings approach side	10m
Pedestrian crossings non-approach side	7m
Shared lanes	1m
Driveways approach side	3m
Driveways non-approach side	2m
Stormwater inlet/outlet	2m
Street light pole	3m
Underground service pit	1m
Cycleways	0.5m

Table 1. Street tree planting clearances

Zones	Type of development	Minimum canopy coverage*
Within E1 Local Centre Zone	Non residential	5%
	Mixed use including residential	5%
Within R2 Low Density Residential Zone, R3 Medium Density Residential Zone and R4 High Density Residential Zone	Residential development	20%

*Whether on structure or deep soil

Table 2. Minimum tree canopy cover for private land

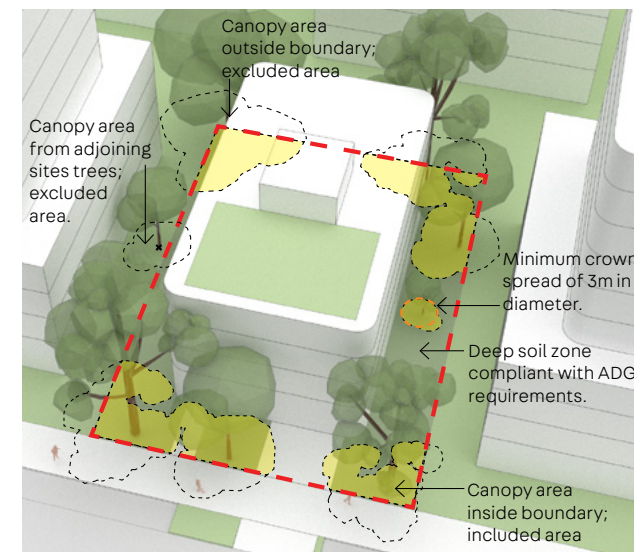
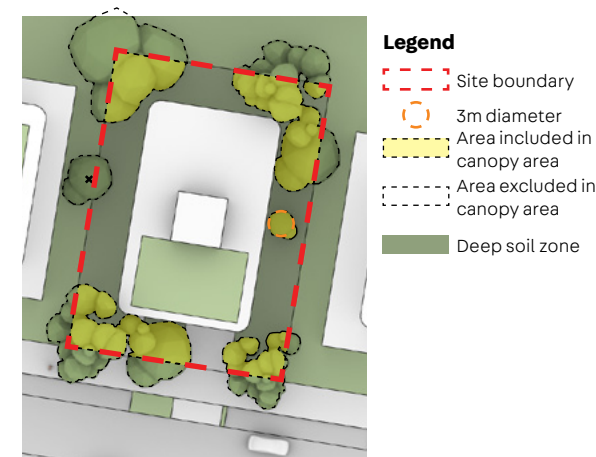


Figure 29. Key controls for tree canopy and deep soil for a residential development



3.5 Solar access to open space

Objectives

- O1. To ensure for solar access to parks and spaces for the enjoyment of residents and visitors.
- O2. To balance sunlight access to the principal useable parts of public open space with shaded areas to enable a range of activities and the planting of a variety of trees and vegetation.
- O3. To maintain or maximise solar access to public space during periods of the day when they are most used.
- O4. To ensure the successful growth and survival of trees and vegetation within parks and public spaces.

Principles

- P1. Provide high levels of solar access to ensure that trees and vegetation thrive and amenity is provided for the community.
- P2. Provide solar access on balance with shaded areas to ensure for amenity to all users all year around.
- P3. Ensure that access to winter sun is maximised.

Image - 1 Central Courtyard, Macquarie University, NSW (Source: Architectus)

Controls

- C1. Development Applications must demonstrate that the hours of solar access outlined in Figure 30 are maintained or preferably exceeded.
- C2. Where overshadowing of parks and spaces is likely, a statement with supporting solar access studies must be submitted by a registered architect demonstrating that the proposed development mitigates overshadowing to the affected open space or publicly accessible space.
- C3. Ancillary structures such as columns, pillars, spires, flag poles, public art, and architectural roof features including equipment for servicing the building, such as plant, lift motor rooms, fire stairs and the like, must not be excluded from any overshadowing analysis.





- Legend**
- Application of DCP
 - Minimum 3 hours of sun for 50% of the open space in the winter solstice
 - Minimum 5 hours of sun for 50% of the open space in the winter solstice
 - Potential open space locations at key site
 - Key sites minimum solar requirements in Section 6 - Key Sites



Figure 30. Solar access to public and publicly accessible open space



3.6 Shade and the reduction of urban heat

Punchbowl and Wiley Park face a significant urban heat island effect due to climate change and low tree canopy cover. The combination of roads, infrastructure and buildings with limited greenery leads to increased heat absorption, raising summer temperatures to over 30.5 degrees Celsius, and even reaching 45.9 degrees in the past. Australia has one of the highest rates of skin cancer globally.

Shade, provided by natural elements or structures, is essential for comfort, UV protection and to encouraging social activity. When combined with water features, permeable paving and appropriate materials, shade can effectively reduce heat gain. Together, shade and seating while balancing solar access foster healthy, vibrant, attractive communities.

Objectives

- O1. To ensure for refuge from hot summer sun in public and publicly accessible open space.
- O2. To create imaginative responses for shade that integrate with playgrounds, water features and areas for the community to congregate in.
- O3. To ensure for high amenity public and private spaces that are pleasurable to use.
- O4. To reduce the contribution of new development to the urban heat island effect by retaining and providing design elements that store water, minimising impermeable surfaces to increase rainwater infiltration and allow for the improved cooling effects of evaporation.
- O5. To ensure the location of tree planting and vegetation has considered the location of where people sit and children play to provide shade and reduce radiant heat.
- O6. To improve user comfort in public domain and space accessible to the public.

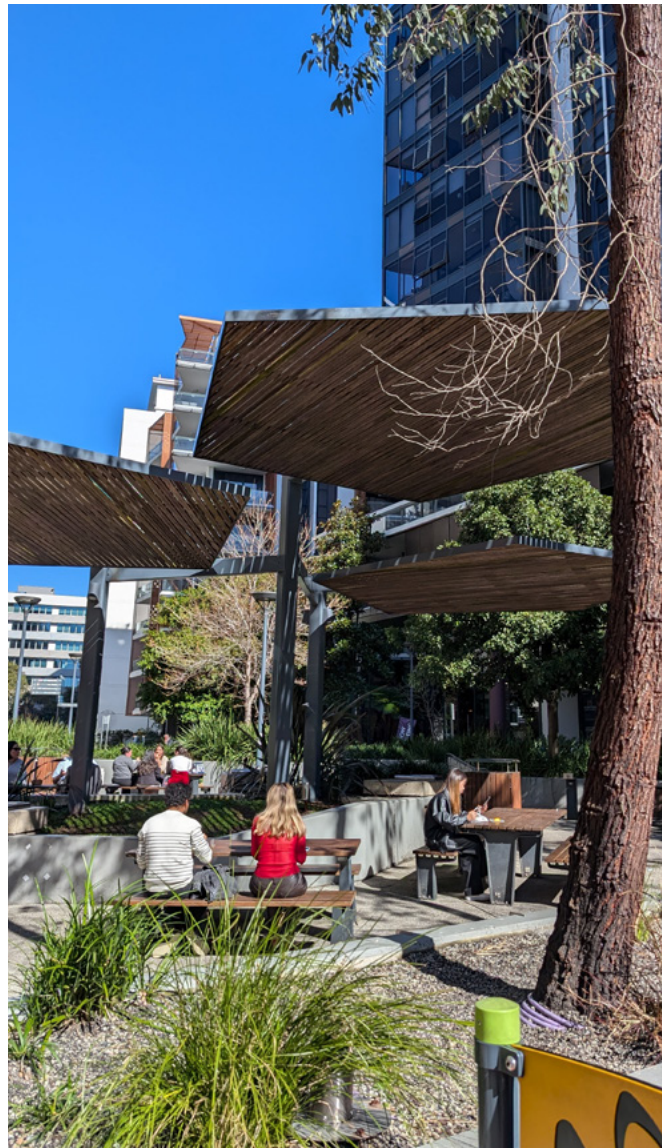
Image - Umbrellas and trees provide shading of playground at North Rosebery Park, Rosebery, NSW (Source: Architectus)





Principles

- P1. Create shade linkages through implementing shade structures, awnings to shop fronts and planting trees.
- P2. Integrate water features such as misting, sprays and water fountains and the like where shade is provided in public and publicly accessible open space.
- P3. Consider the location of trees and structures and the resultant shadow that will be created. Locate seating and areas where people can rest in these shaded areas.
- P4. Maximise greenery throughout the Precinct to reduce urban heat.
- P5. Shade paved surfaces and walls where possible but also consider solar access in winter months.



Dr Darragh Park, Mascot, NSW (Source: Architectus)

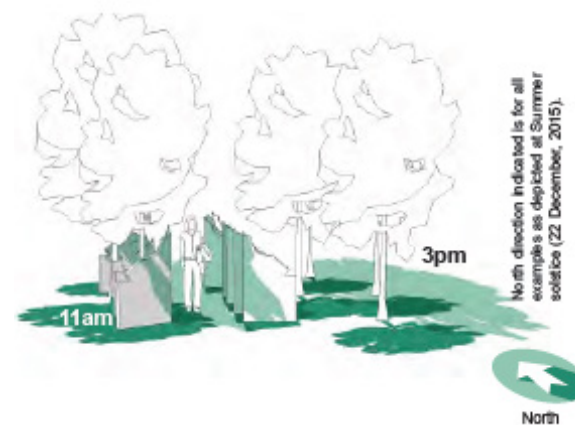


Darling Square, Haymarket, NSW (Source: Architectus)

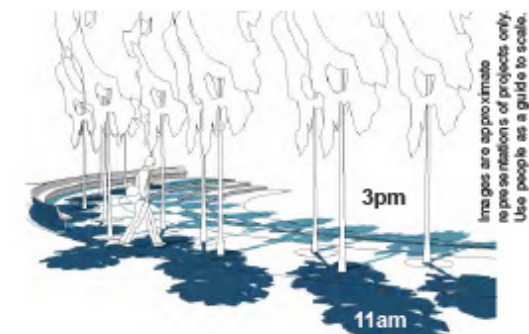


Controls

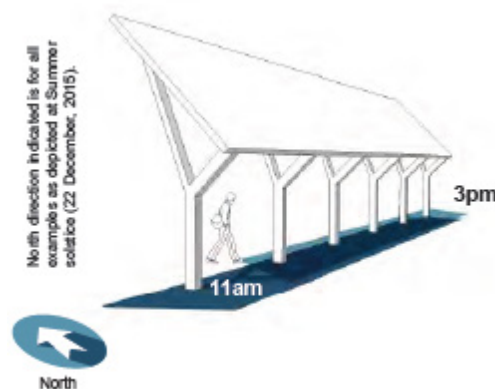
- C1. Retain existing trees to maintain shade.
- C2. Use deciduous trees in public open spaces to provide shade in summer and sun in winter.
- C3. Improve cooling by locating trees to provide shade to exposed building walls, hard surfaces and pedestrian walkways.
- C4. Use trees and shade structures in combination with water features to reduce temperatures in public open space and publicly accessible spaces.
- C5. Store water in the landscape using fountains and water play features and the like.
- C6. If a dark roof is used, green cover must cover the roof form. Consider reflectivity in the choice of roof material and the colour.
- C7. Minimise the reflection of solar heat from facades by selecting appropriate materials.
- C8. Ensure that play equipment is shaded to increase useability.



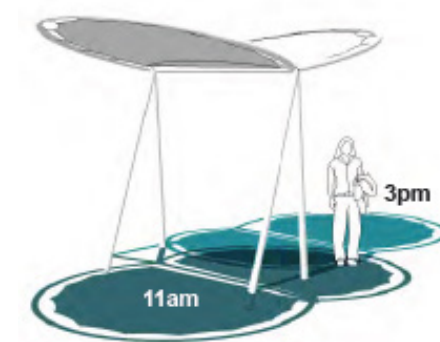
Incidental shade



Planting and water misting



Sheltered linkages



Incidental shade considering 3pm shade to seating

Figure 31. Design elements in the built environment to minimise urban heat