## CONNECTIVITY TO PUBLIC TRANSPORT

MOST OF THE SITE IS WITHIN A 10 MINUTE WALK OF EITHER RYDALMERE OR DUNDAS STATION.

The diagrams below illustrate the actual pedestrian accessibility of local train stations in terms of walking times and distance. They illustrate the extent to which these actual distances differ from the theoretical 400m (5 minute walk) and 800m (10 minute walk) walking distances.

The primary factor affecting the existing efficiency of routes between the site and the train stations are the relatively convoluted paths of travel required, particularly from Rydalmere Station. Once within the site, the permeable street network ensures that much of the site is within a 10 minute walk of either train station.

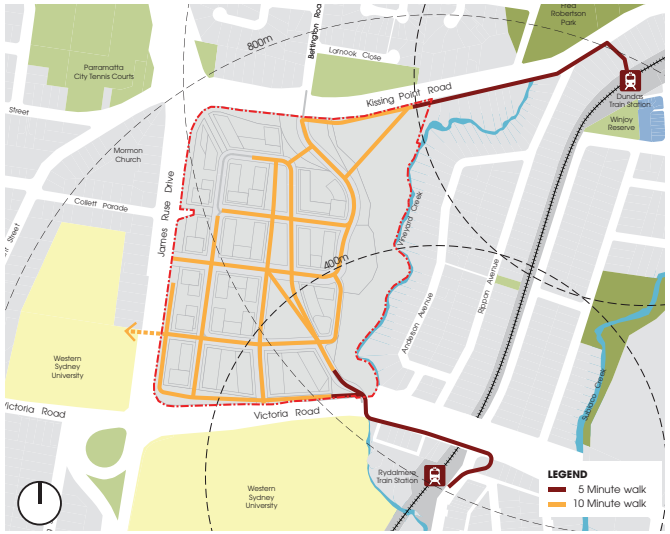



DIAGRAM 1: CONNECTIVITY TO EXISTING TRAIN STATIONS

**Diagram 1**: Under existing conditions, the majority of the site is within a 10 minute walk of either train station. Taller form in the Concept Plan has been located within a 5 to 10 minute walk from the stations to ensure good connectivity between these denser developments and the stations. The Mixed Use Commercial zone has been located to benefit from proximity to Rydalmere Station.

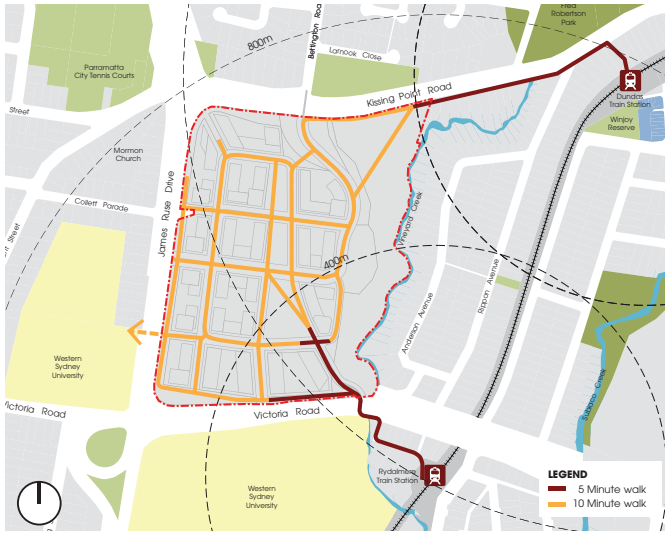



DIAGRAM 2: CONNECTIVITY TO PROPOSED LIGHT RAIL STOP LOCATION

**Diagram 2**: This shows the potential connectivity improvements possible should a Light Rail stop replace the Rydalmere train station. The new light rail stop would be accessible from the west, which enables all parts of the development to be within a 10 minute walk of either the Rydalmere or Dundas stops.

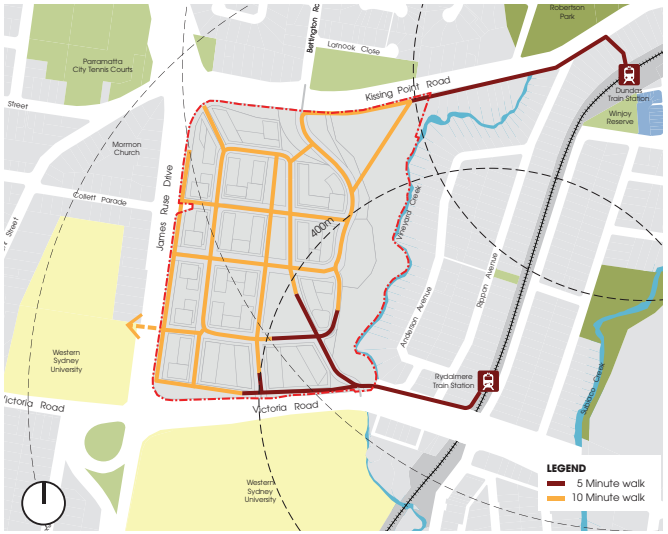



DIAGRAM 3: CONNECTIVITY TO ALTERNATIVE LIGHT RAIL STOP LOCATION

**Diagram 3**: This illustrates a potential alternative location for the Rydalmere light rail stop. Moving the stop to the north of Victoria Road improves connectivity between the site and the stop. Acquisition of private property by TfNSW is likely to be required for the stop to be established in this indicative location.

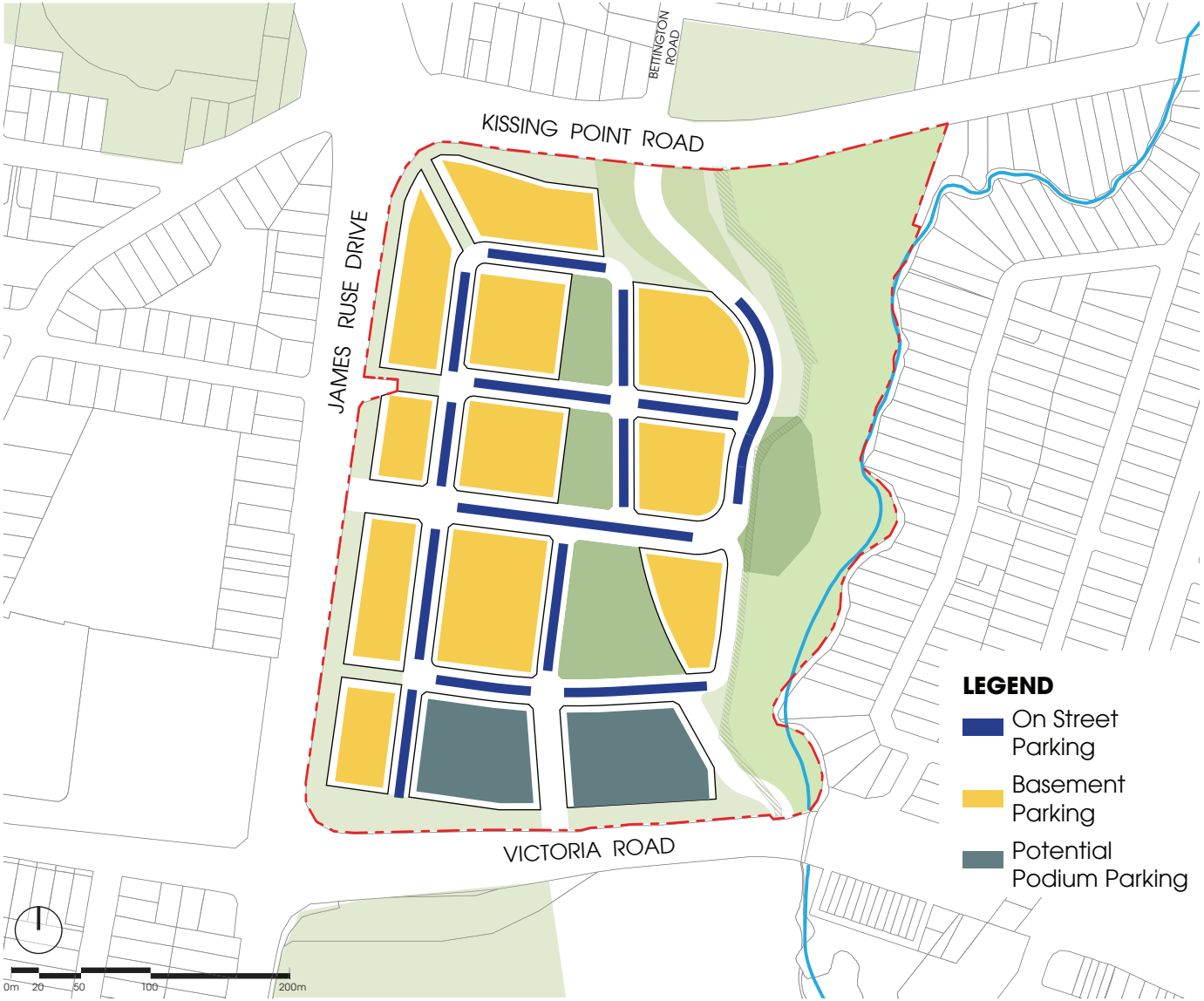
# 5.12 PARKING STRATEGY

Parking within the precinct will predominantly be provided through basement car parks. For commercial lots the proposed building envelopes allow parking in the podium as well. Podium parking should only be permitted if the parking areas are screened and sleeved with uses that activate the streetscape.

Access to parking and servicing areas will be from streets identified as local streets under the Street Hierarchy Plan wherever possible.

On-street parking is also proposed in the locations indicated on the adjacent diagram. It is proposed that use of these spaces should be time-limited. Residents within the precinct could apply for permits that allow unrestricted parking.

It is proposed to apply the parking rates stipulated in Parramatta DCP 2011. A preliminary analysis estimates that, on average (allowing for the required deep soil zones), the parking needs of most lots can be accommodated within 3 levels of basement parking. Lots with the highest FSR may require 4 levels of basement. These estimates are conservative and subject to subsequent detailed design of individual lots.




PARKING PLAN

# 5.13 SUSTAINABILITY PRINCIPLES

The Concept Plan is based on sustainable master planning principles.

**Transit-Oriented Mixed Use Development**: At a strategic level, the plan proposes high density development around transit nodes to maximise the number of people with good pedestrian access to public transport.

The co-location of retail, community and employment uses with residential development reduces the need for the future community to travel beyond the site to meet their day-to-day needs by private vehicles. Existing communities around the site also benefit from access to local services and employment opportunities, potentially reducing private vehicle use locally.

**Active Transport**: Pedestrian and bicycle routes are integral to the plan, promoting active transport choices and healthier lifestyles. The plan also allows for extension of these routes to the proposed active transport corridor under the future Light Rail scheme.

**Social Sustainability**: Parks are located in the heart of the precinct to create spaces for community interactions that build social capital. Their diversity allows for a variety of activities, creating inclusive spaces that cater to the needs of all.

**Precinct Greening + Biodiversity**: Extensive landscaping of the public domain is a key aspect of the Concept Plan (refer to Section 6, "Public Domain + Landscape Strategy"). The vegetation cover identified in the plan is intended to reduce the Urban Heat Island effect and absorb carbon & urban pollutants, which is particularly pertinent given the site's adjacency to arterial roads.

Water Sensitive Urban Design (WSUD) is proposed to be integrated into open space and streetscape design to control the flow and quality of stormwater run-off.

Rehabilitation of the riparian corridor enhances local biodiversity and supports the continuity of the Vineyard Creek Corridor ecosystem.

**Maximise Passive Solar Design Opportunities**: A key generator for the layout and massing of building envelopes has been to ensure that future building design can maximise their passive solar design opportunities. The envelopes seek to minimise the need for single aspect south-facing units.

## FUTURE OPPORTUNITIES

As the Concept Plan is developed in subsequent stages into a detailed master plan and building designs, the following aspects could be considered to continue and expand the sustainability focus of the Concept Plan:

PRIVATE CARS + PARKING

- Explore reduced parking rates reflecting the site's proximity to public transport, particularly in light of the Light Rail proposal
- Promote car share programs by providing carshare spots within residential development
- Provide charging bays for electrical vehicles
- The emergence of self-driving vehicles over the coming decades is anticipated to significantly reduce parking demand. Any proposals for reduced parking rates should take this into consideration to minimise excavation for underground parking that may not be necessary in the long term.
  The Concept Plan allows sleeved podium parking in the commercial mixed use zone. This allows future conversion of the parking area to other uses should the parking spaces no longer be required due to reduced parking demand.

POTABLE WATER USE

- Incorporate recycled water systems for use in buildings, open space and streetscapes
- Consider the integration of dual reticulation systems that allow the use of recycled water into new development

HIGH PERFORMANCE BUILDINGS

- Consider setting building design targets that exceed established BASIX and NABERS targets (possibly through incentives) to deliver reductions in:
  - Greenhouse gas emissions from lower electricity and gas consumption
  - Potable water consumption
  - Sewer load requirements
- Integrate sun-shading devices including louvres and screens to control solar gain, minimising heating and cooling demand in the winter and summer respectively
- Maximise natural cross-ventilation
- Consider the use of photovoltaic power generation, solar water heaters, rainwater harvesting tanks, low embodied energy materials and low energy light fittings and applications.

# 5.14 ALTERNATIVE SCENARIOS CONSIDERED

The Concept Plan is the product of an iterative design process informed by input from the consultant team and various stakeholders, including Parramatta City Council. Multiple options were developed at a range of scales, from numerous site planning options down to more detailed analyses such as interfaces at site boundaries and potential built form outcomes.

This section illustrates one such example of the options considered as part of Concept Plan development. The example chosen relates to the site's interface with James Ruse Drive and Victoria Road. This is a key master planning issue as it determines how well development along arterial roads integrates with its context, and how the negative impacts of proximity to arterial roads are mitigated *(NOTE: The interface with Kissing Point Road has not been illustrated in this instance as the level change makes the relationship between the site and the road less direct).*

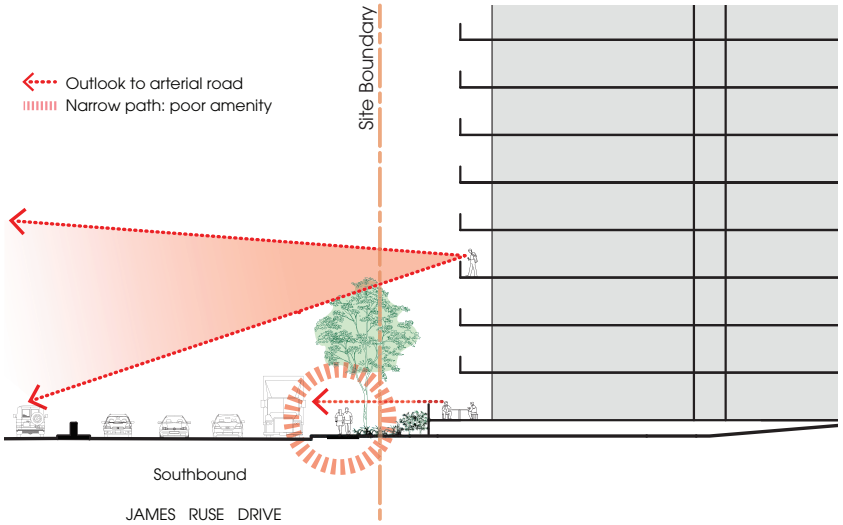
## (1) INTERFACE WITH JAMES RUSE DRIVE

**James Ruse Drive (JRD)** is a wide dual carriageway. The options analysed below and in the adjacent diagrams consider alternative approaches to the James Ruse Drive interface.

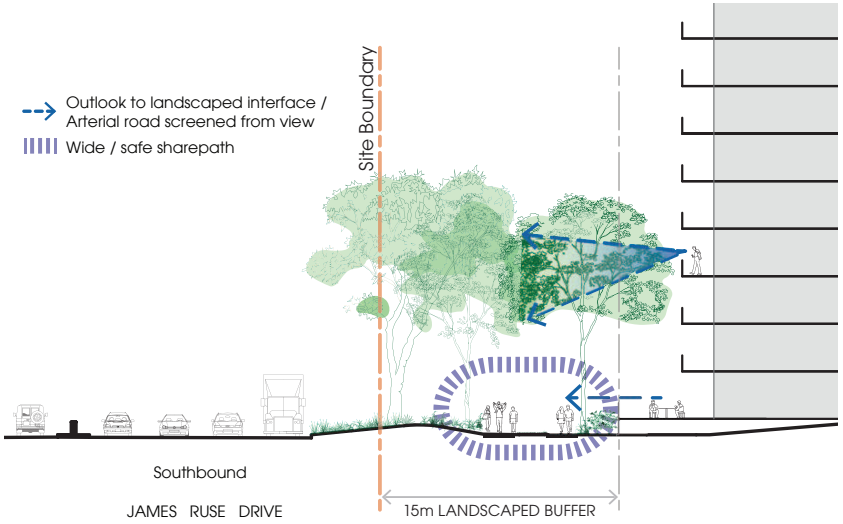
> **Option A** is based on a minimal setback to the road. This allows the developable area of the site to be maximised, but impacts resident amenity.

> **Option B** establishes a deeper setback to allow a landscape buffer to be provided between development and the road.

**The Concept Plan adopts Option B**, as it reduces the negative impact of living by an arterial road, provides a landscape buffer that becomes part of the recreational infrastructure for the site, and establishes a green streetscape along James Ruse Drive.



OPTION A - 5m BUILDING SETBACK ONLY



OPTION B (ADOPTED) - 15m LANDSCAPED BUFFER + MIN. 6m BUILDING SETBACK

### OPTION A - 5m BUILDING SETBACK TO JAMES RUSE DRIVE

Across from the site, an apartment building is under construction with minimal setback to JRD. Duplicating a similar design response, even allowing for a more generous 5m setback from the site boundary has the following implications:

> Poor outlook for residents, particularly from the lower floors of development

> Removal of existing trees, with limited opportunity for planting of significant new trees

> Balconies and apartments are likely to require acoustic treatments to reduce noise impacts

> The air quality along the road may require properties to be mechanically ventilated

> Retention of the existing narrow footpath along JRD, with little opportunity to improve the unpleasant pedestrian environment.

### OPTION B (ADOPTED IN THE CONCEPT PLAN) - 15m LANDSCAPE BUFFER + MIN. 6m BUILDING SETBACK

Establish a landscape buffer that retains the existing established trees where possible, and supplements trees where required. The width of the buffer allows for separate cycle and pedestrian paths under tree cover and away from the arterial road.

It also creates an opportunity for larger trees to be grown that can screen views of traffic from the lower levels of residential development and improve outlook for residents.

Additionally the trees can act as a buffer and filter for the pollution caused by the traffic, potentially mitigating the need for mechanical ventilation of apartments.

The Concept Plan sets back buildings along JRD a further 6m (minimum) from the buffer to increase the distance between residents and JRD.

## (2) INTERFACE WITH VICTORIA ROAD

**Victoria Road** is a wide dual carriageway with a bus priority lane along the westbound side. As with JRD, a footpath runs along outside the site boundary. It is narrow and close to the road carriageway, creating a poor pedestrian environment with limited passive surveillance from surrounding areas.

### OPTION A - 30m VEGETATED BUFFER (DCP)

The DCP identifies a 30m buffer along the northern edge of Victoria Road. The wide buffer provides the opportunity to re-establish the footpath away from immediately adjacent Victoria Road, and widen it to allow bicycles and pedestrians.

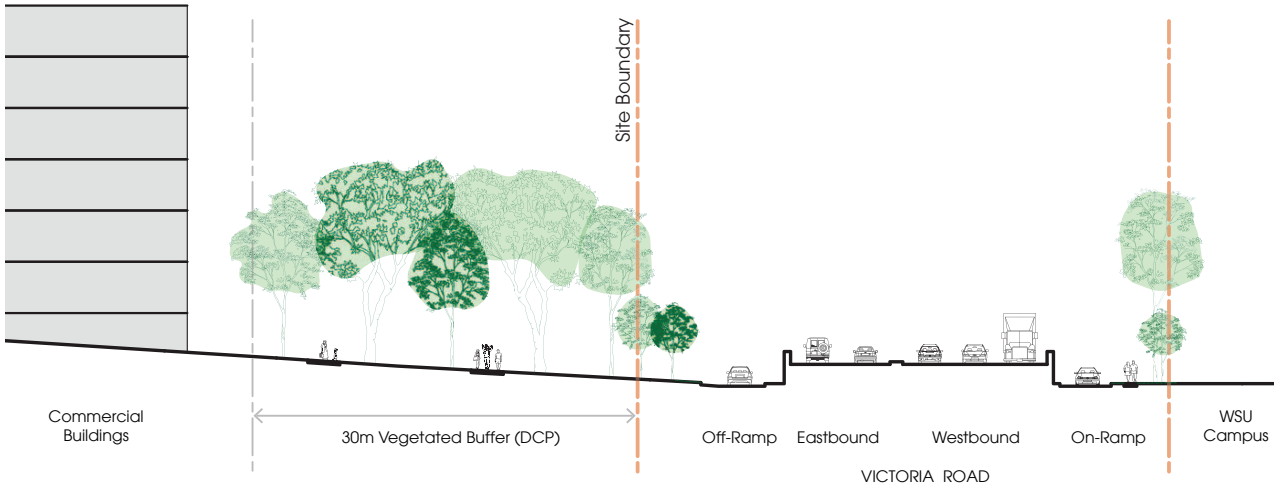
However, the 30m setback disengages the precinct from Victoria Road, reinforcing the sense of an isolated enclave and leaving a zone of under-utilised land with poor passive surveillance.

### OPTION B - 15m VEGETATED BUFFER (ADOPTED IN THE CONCEPT PLAN)

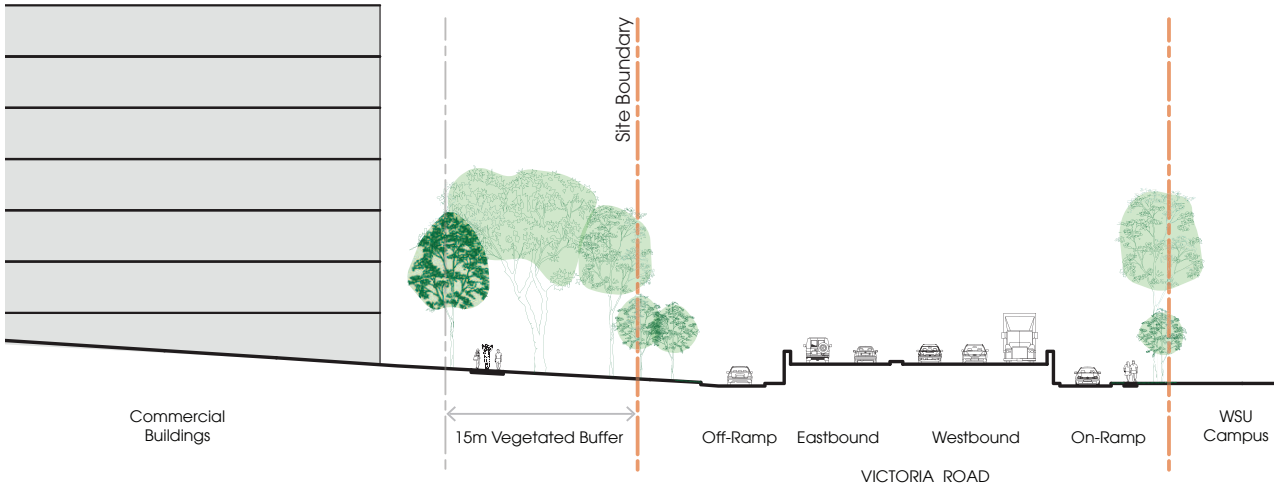
Discussions with Council indicated that the 30m buffer could be considered an anachronistic control. The SLR Biodiversity Assessment classifies the existing vegetation as being planted native and exotic vegetation, without any protected species.

The above creates the opportunity to reduce the buffer to 15m. This still allows a tree buffer to be established, as well as improved amenity for pedestrians and cyclists. It also allows the building edge to be brought closer to Victoria Road, projecting an address that can engage with the streetscape. The developable land area is also increased to ensure the most efficient use of the site.

VICTORIA ROAD - SUBJECT SITE ON LEFT




OPTION A - 30m VEGETATED BUFFER (DCP)




OPTION B (ADOPTED IN THE CONCEPT PLAN) - 15m VEGETATED BUFFER

# 6.0 PUBLIC DOMAIN + LANDSCAPE STRATEGY

06

PUBLIC

# 6.1 DESIGN APPROACH

## COMMUNITY IDENTITY WITH A STRONG IMAGE AND SENSE OF PLACE

The Landscape and Open Space will provide the 'frame' to the Concept Plan, providing its essential ambience and spirit of place. The intent is to establish a high quality, contemporary public domain that delivers the vision of a distinctive mixed use residential precinct in close proximity to Parramatta.

The Concept Plan is underpinned by a rectilinear urban design structure with clearly defined open space. The landscape strategy continues these principles to express a new natural landscape aesthetic through structured and patterned planting of vegetation.

The landscape 'frame' addresses the context, urban form, riparian corridor, topography, drainage, recreational activities and site vistas.

The key characteristics of the landscape and open space include:

- All residents within a 5-minute walk of accessible, quality open space
- Streets that prioritise the pedestrian and cyclist experience
- A logical hierarchy of open space with the central open space spine as the community focus
- A continuous green ring around the site
- Streets beginning or ending in a green space
- WSUD strategy to capture and cleanse water on-site
- Rehabilitation of the riparian corridor.

## OVERVIEW OF DESIGN APPROACH

The landscape approach creates a cohesive landscape narrative around streetscapes, parks / open space, circulation, WSUD, entrances and landscape materials. Each element will convey an identity that is distinctive and simple in form. Their design helps to define:

- How people move through the site
- A lasting visual impression
- Boundaries between private and public space
- Community identity

Landscape design can provide a sense of arrival and wayfinding through signature treatments, planting, interpretative signage and artworks.

## GUIDING PRINCIPLES

The public domain and landscape plan can be described in terms of three key principles:

- Aspiration
- Spirit of Place
- Sustainability

These are the touchstones that establish a baseline for the planning, design and management of the Concept Plan landscape and open space.

## ASPIRATION

- Residents, workers and visitors enjoy life in an aspirational, high quality public environment characterised by:
  - Open space as a major component in the site's sense of place, with a character that is inviting to the community
  - Day and night activation.
- Build communities by providing open space for activities such as community gardens, community activities, local fetes, barbecues and the like.

## SPIRIT OF PLACE

- Give shape to a sense of place that captures the distinct qualities of city living within an Australian milieu, one imbued with the landscape qualities of the Sydney region
- Facilitate community ownership and sense of pride through the definition of a sense of place that the community can identify with
- Foster a precinct identity through attractive street planting that establishes leafy canopies over the site that express distinctive themes.

## SUSTAINABILITY

- Drawing on the intrinsic values of the site and region, promote an environmentally sustainable landscape and open space
- Incorporate environmental best practice in the development of open space planning and management
- Promote effective water management based on the use of WSUD and plants with low watering regimes
- Design flexible, multi-functional spaces to allow for change in use over time, maximise utilisation of spaces, and cater to a broad spectrum of the community
- Careful tree selection that provides shade in summer and shelter in winter to establish a comfortable micro-climate for pedestrians and cyclists
- Incorporate low-landscape maintenance principles, with landscape treatments and plant selections that are responsive to local conditions
- Design for minimal maintenance requirements in accordance with Parramatta City Council practices.

WATER FEATURES THAT EVOKE A SENSE OF PLACE

LEAFY STREETS

TRAIL THROUGH THE RIPARIAN CORRIDOR

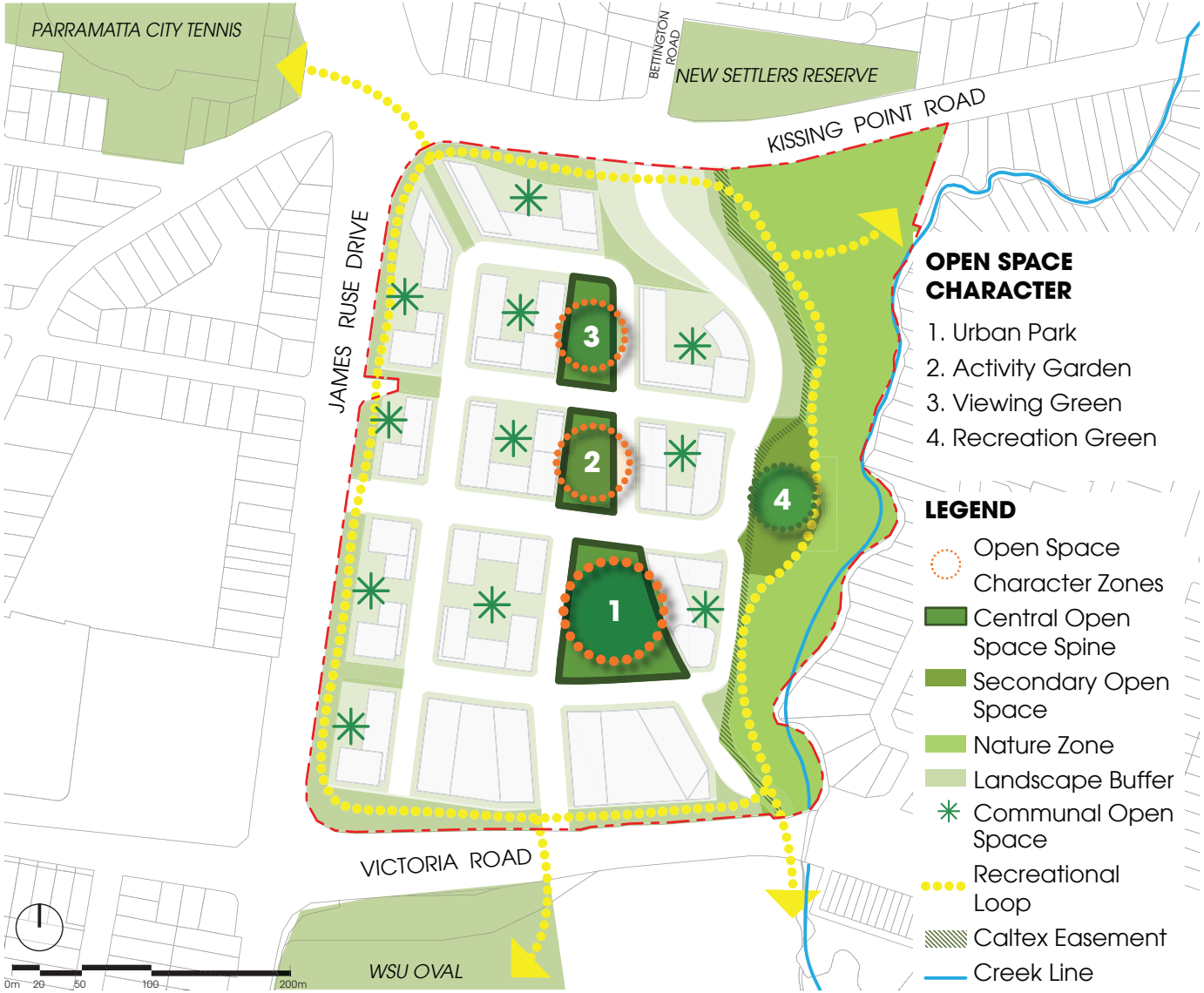
# 6.2 OPEN SPACE STRATEGY

## DIVERSITY OF LINKED OPEN SPACE.

The Concept Plan provides a network of open space characterised by a variety of proportions, forms and sizes. These form the basis of attractive neighbourhoods that encourage people to spend time outdoors. By meeting community needs, the open space network enhances the value and appeal of the development.

The key open space components include:

> The central open space spine, comprised of three sections:
  + The Urban Park. Visible from Victoria Road to draw people in and visually integrate the site with the road
  + Activity Garden. Located centrally for convenient access
  + Viewing Green. Located at the elevated end of the site
> Nature Zone, comprising the riparian corridor. Elevated walkways and cycleways, as well as picnic areas, can be integrated to form part of the recreational loop around the site
> Landscape buffer around the site. The buffer facing James Ruse Drive could incorporate mounding to reduce the visual and amenity impacts of the arterial road
> Recreation Green. Located to terminate the James Ruse Drive entry boulevard axis. The green provides a grassed clearing overlooking the riparian corridor for activities such as kickabouts and dog-walking.




OPEN SPACE STRATEGY

# 6.3 THE CENTRAL OPEN SPACE SPINE + THE NATURE ZONE

The central open space spine is designed to be the community park for the precinct. It is a place to variously meet, sit, go for a coffee and relax under a shady tree or shelter. The three sections of the spine each have a distinctive character and function, as described below, to define a finer, more diversified urban experience.

## THE URBAN PARK

> A significant activated space with a civic character serving residents and workers

> Characterised by a contemporary urban character and a formal emphasis to the layout, with the potential to integrate public art

> Features tree plantings, seating areas, open lawn, children's play facilities, pergola structures, water features and a plaza activated by ground level retail and community uses

> The park design has an address to the entry boulevard

> Integrates a detention basin for treatment of stormwater run-off that is both functional and aesthetic, providing a space for passive recreation.

## THE ACTIVITY GARDEN

> A play-focused space

> Features a multi-purpose court, informal and structured play areas, picnic and BBQ facilities, paths and paved areas, shelters, and seating under shade trees

> Character established by formal plantings of exotic / native trees and generous turfed areas. Opportunity to integrate public art.

## THE VIEWING GREEN

> A landscaped place of repose with a passive recreational character

> Provides a local open space focus for development in the northern part of the site

> Located at the elevated end of the site so that it benefits from an expansive outlook over the central open space spine. The sense of expansiveness is exaggerated by the way the open space flares open to the south

> Glimpses of district views beyond the site add to the sense of openness.

## THE NATURE ZONE (RIPARIAN CORRIDOR)

The riparian corridor is fundamental to the open space network in terms of the precinct's sense of place, recreational amenity, connectivity, and biodiversity.

The project provides an impetus for rehabilitating the corridor through initiatives that could include:

> Stabilising the original landform

> Removal of weeds, pest plants and debris

> Protection of remnant vegetation.

An enhanced riparian corridor will provide food and habitat for terrestrial and aquatic organisms, as well as promoting wildlife movement.

Establishing the corridor as a Nature Zone forms part of the Concept Plan strategy of integrating the precinct with its context in a broad sense. Management and rehabilitation programs can serve as an educational resource and opportunity for community engagement through environmental projects. These can be supported by interpretive signage.

POTENTIAL CHARACTER OF PEDESTRIAN ROUTES THROUGH THE VIEWING GREEN

POTENTIAL URBAN PARK CHARACTER

THE EXISTING RIPARIAN CORRIDOR

# 6.4 PUBLIC DOMAIN + LANDSCAPE STRATEGY

## A VARIETY OF EXPERIENCES FRAMED BY LANDSCAPE.

- As the key access into the site, the major collector road (refer to the Street Hierarchy Plan in Section 5.5) has an enhanced entry boulevard treatment to establish a strong sense of arrival
- As part of this entry boulevard treatment, the entry points at James Ruse Drive and Kissing Point Road will feature planting transitions from clusters of native planting to formal tree planting
- The parks of the central open space spine are edged by public roads on three sides and public footpaths on the other to clearly delineate these as public space
- Taller trees are proposed along streets adjoining open space
- The street level frontages of the commercial / mixed use area and the residential / mixed use area are proposed to be activated. These activated frontages address the Urban Park and Victoria Road
- The network of pathways support and optimise the use of open space areas
- CPTED principles are to be incorporated to design safe places and a pedestrian-friendly public domain so that people feel secure and comfortable. Pedestrian paths and cycleways will generally be well illuminated and located along residential frontages, park edges and shops to both provide and benefit from passive surveillance.


PUBLIC DOMAIN + LANDSCAPE STRATEGY

# 6.5 STREETSCAPE

## STREETSCAPE CHARACTER AND LEGIBILITY

People often recall places because of the memories created by distinctive streetscapes, the agglomeration of which help to define the character of a neighbourhood. The view from and along streets are also major determinants of one's visual appreciation of an area.

Street tree species are primarily proposed to be indigenous. Deciduous trees will be restricted to locations where the provision of winter solar access to residences is desirable (eg east-west local streets) or to provide additional colour and character.

All internal streets will be planted with an avenue of trees. Tree species selection will correlate with:

> Street hierarchy and width: for example, local streets will feature smaller trees

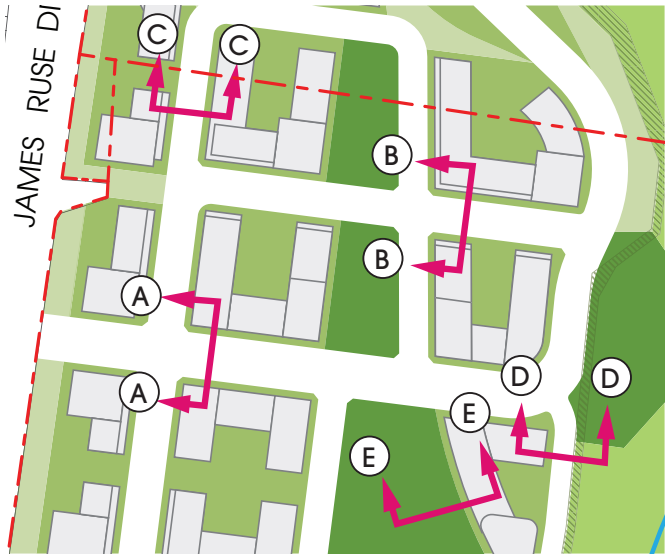
> Street orientation and location

> Adjacent building envelopes

Most streets will be limited to one tree species in order to achieve visual coherence along its length. Overall, an interesting and varied tree palette will provide visual cues that denote different character areas within the precinct.

The street hierarchy will be further articulated through streetscape treatments and path widths. Verges will include both turfing and mass planting.

On-street parking bays will be delineated by trees in the road.




KEY PLAN

SHOP TOP HOUSING WITH ACTIVATED GROUND LEVEL

## 6.5.1 MAJOR COLLECTOR (ENTRY BOULEVARD) - 25m

The street section features staggered double planting of large canopy native trees, with an understorey of smaller deciduous trees set within tree bays in the road. The trees are taller and impart visual interest and colour to the streetscape to differentiate it from the other precinct streets.

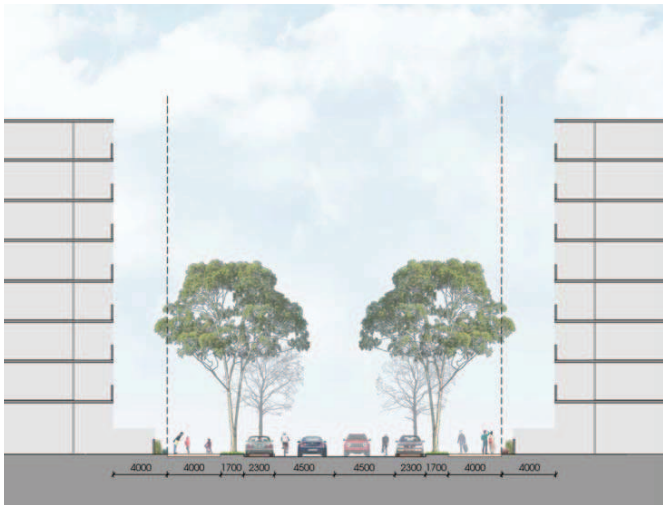
Wide footpaths create a pedestrian-friendly east-west axis in the centre that binds the precinct together, instead of a vehicle-dominated environment.

Street Dimensions:

> Road Reserve - 25m with carriageway width of 9m including 1m bike path on either side, plus 2.3m parking bays each side

> Verges - 5.7m either side

> Footpath 4.0m wide on both sides.




SECTION A - MAJOR COLLECTOR (ENTRY BOULEVARD) - 25m RESERVE

### 6.5.2 MINOR COLLECTOR - 20m

The Minor Collector distributes traffic off the Entry Boulevard.

The streets running north - south are to be leafy in character, with large trees in scale with the built form.

Street Dimensions:

> Road Reserve - 20m with carriageway width of 7m, plus 2.3m parking bays each side
> Verges - 4.2m either side
> Footpath 2.5m wide on both sides.

### 6.5.3 LOCAL STREET - 16m

Within the parameters of the street corridor dimensions below, Local Streets are proposed to be subtly differentiated in their landscape treatment, depending on their location and what they relate to.

Street Dimensions:

> Road Reserve - 16m with carriageway width of 7m, plus 2.3m parking bays, defined by trees in paving
> Footpaths - 2.2m wide on both sides
> Footpaths on verges adjacent to open space may be incorporated into the open space/park.

### 6.5.4 ACCESS ROAD - 12.2m

This road is located between development and the riparian corridor. This narrower street type provides access to apartments on one side, with no allowance for on-street parking.

Street Dimensions:

> Road Reserve - 12.2m with carriageway width of 7m
> Footpath - 2.5m wide on western side
> Footpaths on the riparian corridor side of the road are incorporated into the open space, with the Caltex easement located between the road carriageway and footpath.

SECTION B - MINOR COLLECTOR - 20m RESERVE

SECTION C - LOCAL STREET - 16m RESERVE

SECTION D - ACCESS ROAD - 12.2m RESERVE

# 6.6 DRAINAGE

## 6.5.5 OPEN SPACE INTERFACE

The ground level of any development interfacing with open space should be designed to address the open space.

> Individual ground floor apartments should have yards fronting the open space that provide gated access to public pedestrian paths edging the open space. These apartments will provide passive surveillance of the open space.

> The ground level of the apartment buildings fronting the Urban Park should accommodate retail, cafe and community spaces that spill out onto the paved plaza space.

Drainage managed and utilised in a sustainable, environmentally responsive way provides an opportunity to create a pleasant visual environment.

Rain gardens and detention basins will be a significant design element in open space and streetscapes / verges. Their design is an opportunity to increase the range of potential plant species, and create habitats.

Bio-swales incorporated into road corridors can improve stormwater quality significantly to ameliorate the impacts of urbanisation on the local hydrology. They also have the benefit of adding to streetscape character and providing habitat.

The drainage function of bio-swales will be prioritised in their design, but this function will be provided in a natural landscape setting, where suitable.

INTERMITTENT CREEK BED DRAINAGE


SECTION E - MIXED USE INTERFACE WITH THE URBAN PARK

BIO-SWALE WITHIN ROAD VERGE

RAIN GARDEN

# 6.7 TREE RETENTION

Existing trees on site will be retained wherever practical.

The riparian corridor will be retained in its entirety and rehabilitated. A stand of tall mature trees by the exit road at the Victoria Road boundary will be retained to articulate this threshold.

Trees along the James Ruse Drive and Victoria Road site boundary have been identified for potential retention, dependent upon the final landscape design and grading of these zones. Where trees are removed, these are proposed to be replaced to establish a high quality landscape frontage to these arterial roads.

Some of the trees along Kissing Point Road will need to be removed to establish the new access road. It is proposed that this tree cover will be re-instated.

Most of the trees within the developable interior of the site will be removed. Existing trees whose locations coincide with the central open space spine may potentially be retained as features within these new public spaces, subject to detailed landscape design and finalised grading plans.


TREE RETENTION (TREE LOCATIONS INDICATIVE: OBTAINED FROM AERIAL IMAGERY)

# 7.0 KEY LOT CONTROLS

# 7.1 BUILDING ENVELOPES

## KEY BUILT FORM PRINCIPLES

- Establish consistent built edges to streets and open space to define the public domain
- Introduce entries off the street for ground floor units
- Break up building facades vertically and horizontally to establish fine urban grain and visual richness
- Provide a diversity of unit typologies to provide housing choice. For example, two storey ground floor units can address the street and establish a rhythm to the streetscape, as well as fostering passive surveillance
- Clearly delineate tower and podium forms
- Plan unit layouts to maximise outlook to local and long distance views, as well as solar access and cross-ventilation.

BUILDING HEIGHTS: COMMERCIAL

Building height envelopes for commercial developments have been defined based on the following assumptions for floor-to-floor heights:

- Ground floor: 6 metres (allows for supermarket)
- First floor: 4 metres
- Upper levels: 3.6m
- Roof top lift overrun / plant allowance: up to 2.5 metres.

These assumptions result in the following correlation between storey height and building envelopes:

| No. Storeys | Height in Metres |
|---|---|
| 7 | 30.5 |
| 8 | 34 |

BUILDING HEIGHTS: RESIDENTIAL / MIXED USE

Building height envelopes for residential developments have been defined based on the following assumptions for floor-to-floor heights:

- Ground floor: 4 metres
- Upper levels: 3.1 metres
- Roof top lift overrun / plant allowance: up to 2.5 metres.

These assumptions result in the following correlation between storey height and building envelopes:

| No. Storeys | Height in Metres |
|---|---|
| 3 | 11 |
| 4 | 16 |
| 6 | 22 |
| 8 | 28 |
| 12 | 40.5 |
| 14 | 46.5 |
| 16 | 53 |
| 18 | 59 |
| 20 | 65 |


PROPOSED BUILDING ENVELOPES PLAN (HEIGHTS IN METRES ARE ABOVE LOCAL GROUND LEVEL)

# 7.2 BUILT FORM PRECEDENTS

# 7.3 LOT SETBACKS

Setbacks have been carefully calibrated to promote a high amenity, pedestrian-friendly public domain.

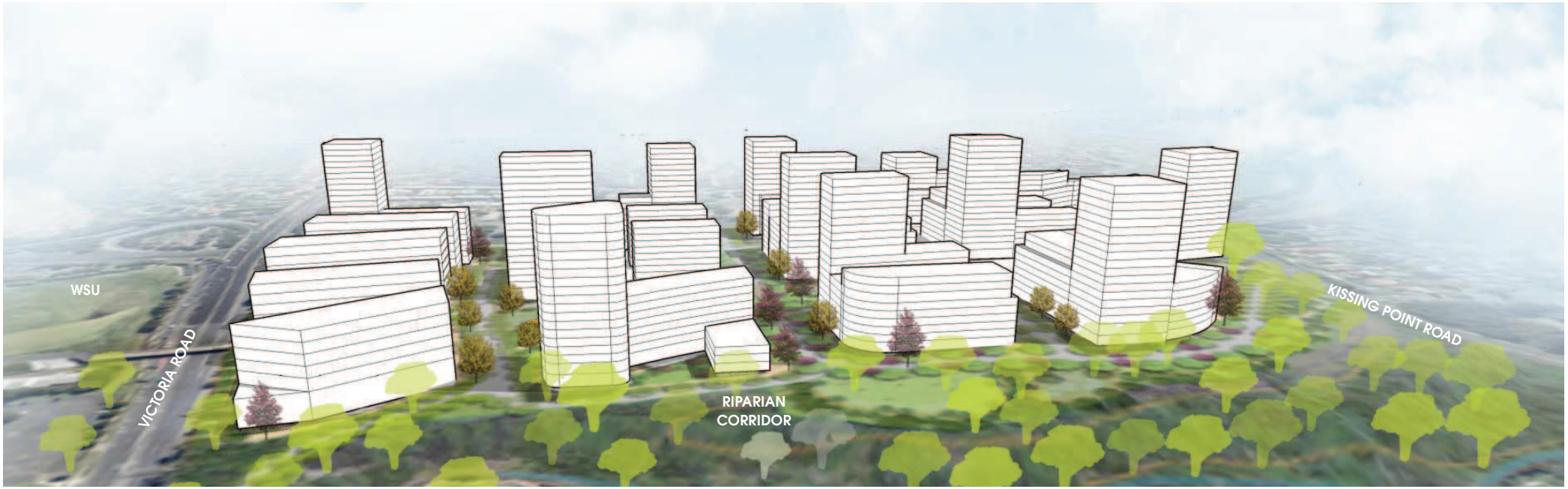
- Setbacks ensure minimum ADG building separation distances are achieved
- Upper level setbacks reduce the building scale presented to the streetscape and improve solar access to the public domain
- 4m setbacks from the street create opportunities for the incorporation of deep soil planting and private open space
- Built form along James Ruse Drive is setback a minimum of 6m in addition to the 15m public landscape buffer to further reduce the amenity impacts arising from proximity to an arterial road.


LOT SETBACKS PLAN

## OVERVIEW OF PROPOSED BUILDING ENVELOPES


MASSING OVERVIEW FROM NORTH


MASSING OVERVIEW FROM SOUTH




MASSING OVERVIEW FROM EAST

# 7.4 FSR PLAN

| LOTS | Proposed Controls | | |
|---|---|---|---|
| Residential | Proposed FSR | Max. Permitted GFA | Total Units |
| R-01 | 2.20 | 21,522 | 253 |
| R-02 | 2.20 | 15,822 | 186 |
| R-03 | 2.50 | 21,831 | 257 |
| R-04 | 1.70 | 25,677 | 302 |
| R-05 | 3.50 | 13,294 | 156 |
| R-06 | 2.80 | 23,259 | 274 |
| R-07 | 2.10 | 21,828 | 257 |
| R-08 | 2.70 | 21,844 | 257 |
| R-09 | 3.50 | 29,771 | 350 |
| R-10 | 1.50 | 17,288 | 203 |
| R-11 | 2.70 | 17,010 | 200 |
| **SUBTOTAL** | | 229,146 | 2,696 |
| **Commercial** | | | |
| C-01 | 2.00 | 19,353 | |
| C-02 | 2.00 | 20,704 | |
| **SUBTOTAL** | | 40,057 | |


FLOOR SPACE RATIO PLAN

## KEY ASSUMPTIONS

- GFA / GBA Building Efficiency for Residential = 75% (as per Council direction)
- GFA / GBA Building Efficiency for Commercial = 80% (as per Council direction)
- Average Unit Size = 85 sqm (this allows for an apartment mix consistent with Parramatta DCP 2011: 10-20% 1-bed, 60-75% 2-bed, 10-20% 3-bed)

# 7.5 DEEP SOIL ZONES

The adjacent diagram identifies the potential deep soil zones within each lot. The footprints of the proposed envelopes provide the opportunity to comply with the parameters listed below. Determining the actual provision of deep soil zones is subject to the detailed design of a given lot.

> ADG: 7% (min.) to 15% (desirable) of site area, with a 6m minimum dimension

> Parramatta DCP 2011: 30% of site area, with a 4m minimum dimension

| LOTS | | |
|---|---|---|
| Residential | Lot Area m² | Potential Deep Soil Coverage |
| R-01 | 6,149 | 38% |
| R-02 | 5,860 | 45% |
| R-03 | 5,745 | 33% |
| R-04 | 6,757 | 32% |
| R-05 | 2,890 | 45% |
| R-06 | 5,673 | 33% |
| R-07 | 4,961 | 35% |
| R-08 | 5,080 | 43% |
| R-09 | 8,506 | 30% |
| R-10 | 4,322 | 37% |
| R-11 | 3,780 | 38% |
| SUBTOTAL | 59,723 | |


POTENTIAL DEEP SOIL ZONES WITHIN LOTS

# 8.0 CONCLUSION

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# 8.1 CONCLUSION

The Concept Plan demonstrates the feasibility of developing the projected yield of approximately 2,700 dwellings on the site. The urban design strategies detailed in this report are a carefully calibrated response to the existing context and site conditions. Critically, the plan is designed to unlock benefits not just for the precinct itself, but for the context within which it sits.

The proposed density and land use mix is a direct result of this holistic response, and represents the best use of the site for the following reasons:

> Establishes a plan for a mix of uses that addresses housing demand and creates employment opportunities in a location that benefits from:
  + Proximity to the Parramatta CBD
  + Proximity to employment and education areas
  + Good access to public transport (existing and future)
  + Proximity to major open space and recreational assets
> A place-driven approach to site planning with an emphasis on the pedestrian-scale experience through the:
  + Introduction of consolidated open space and landscape to establish a high quality public domain
  + Integration of the riparian corridor to form a key aspect in the character of the new precinct
  + Definition of a pedestrian-friendly street scale; typically featuring 6 storey street edges with upper levels setback
> Breaks up the existing super-block into a permeable plan that integrates with the surrounding urban structure. The new movement pathways made possible by the plan starts to stitch together the various enclaves around the site that are currently fragmented by the road system, topography, and landscape (as analysed in Section 4.10, "Local Character")
> Takes the challenging arterial road interface and turns it into a positive by proposing a landscape buffer that improves the streetscape, has an integral recreational function, and mitigates amenity impacts on residents
> A site access strategy supported by a traffic assessment which demonstrates that the traffic generated by the proposed density can be accommodated
> Building envelopes that can deliver a high amenity environment as evidenced by the following:
  + Exceeds solar access requirements to public open space
  + Exceeds solar access requirements to private communal open space
  + Practically no overshadowing impacts on existing development around the site
  + Should enable solar access to be achieved for at least 70% of units as per the ADG
  + Has the potential to incorporate significant deep soil zones
  + Opens up panoramic long distance views for units above 8 storeys, and local / district views at lower levels, capitalising upon the opportunity presented by the existing terraced landform.

Taller forms are proposed to enable the sustainable density for the site to be achieved without unnecessarily expanding the built-up footprint of the site. This enables the provision of open space and landscape buffer to the extent shown. The openness of the plan creates the space for the taller form, and also references a key place characteristic of the existing site, which currently has a sense of openness engendered by the terraced landform that provides glimpses of long distance views.

As a final and no less important point, the Concept Plan is a flexible plan that leaves the site open to future opportunities and enhancements to the context, such as the introduction of Light Rail and new connections to surrounding residential areas.

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