



Carter Street Lidcombe Urban Activation Precinct Proposal

February 2014

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What is this document?

This document provides a concise explanation of the rezoning proposal for the Carter Street Urban Activation Precinct. It is targeted to people who want to understand the proposal but may not wish to review the more detailed Planning Report.

The Planning Report provides a comprehensive record of all work undertaken during the project and contains technical analysis, design concepts, detailed explanations and evidence-based justifications for each element of the proposal.

A fly through video is available on our website to help visualise the result of the rezoning proposal over the next 20 years:

www.planning.nsw.gov.au/carterst

Executive summary

The proposal will enable development of the Carter Street Urban Activation Precinct as a vibrant new urban community. This will be achieved by rezoning the precinct for high density residential, employment uses and parkland.

This document is a summary of the rezoning proposal for the Carter Street Urban Activation Precinct.

The Department of Planning and Infrastructure is proposing this change as part of tackling Sydney's housing challenges in an environmentally, economically and socially sustainable manner.

The renewal of the Carter Street precinct will support Sydney Olympic Park in its role as a Specialised Centre / Town Centre and provide a mix of housing, employment and retail services.

The proposal will deliver:

- ▶ a range of housing options from townhouses to apartments in buildings of 4-20 storeys
- ▶ employment lands along the M4 Motorway corridor
- ▶ new parks, a primary school and community facilities.

Being adjacent to Sydney Olympic Park and major regional parklands, Carter Street provides unique access to international sporting facilities, entertainment venues and regional recreational assets.

Future development will be supported by a range of transport initiatives including intersection upgrades and new bus services. Traffic and parking provisions will be managed as the precinct rejuvenates.

This proposal is the result of an evidence based planning process to facilitate high quality public parks and streets, diverse architecture and new community facilities. Key considerations included existing infrastructure, landform, contamination, odour, noise, economic viability and best practice urban design principles.

This is a long term project to be delivered over 20 years. Like any major renewal area, the project will evolve over time. Flexible planning controls are proposed to guide development throughout construction, with ongoing planning powers for the site remaining with Auburn City Council.



Precinct as existing



Key features of the precinct

① Hill Road park	⑤ Community facilities	⑧ Residential community
② Foreshore linear park	⑥ Uhrig Road local centre and village square	⑨ Employment land
③ Hill Road reserve	⑦ Primary school*	⑩ Mixed uses
④ Village park		

*exact location to be determined



Aerial view of precinct proposal

1. Urban Activation Precincts

Our aim for Sydney for the next 20 years is for 'A strong global city ... a liveable local city'. This is the key message of the *Draft Metropolitan Strategy for Sydney to 2031*. It outlines the challenges for Sydney and the way we can plan for balanced growth to develop a strong global city that is also a liveable local city.

The biggest challenge for Sydney is how to house and provide jobs for the extra 1.5 million residents predicted for Sydney by 2031. We'll need another 545,000 homes ... but where will they be built?

Some will be in areas on the edge of Sydney that have previously never been developed. But many need to be in existing urban areas so that people can live close to their jobs, public transport, services, friends and family. The Department of Planning and Infrastructure is planning for growth in some of these areas through its Urban Activation Precincts program.



Maroubra

Changing preferences and lifestyles

Sydney is changing all the time. As well as needing to house and provide jobs for an extra 1.5 million people by 2031, we also need to consider the changing preferences and lifestyles of Sydney's residents. Urban activation precincts plan for development over the medium to long term and therefore need to take into consideration these changes.

Desire to live near centres

People want to live near centres to make their lives simpler and more enjoyable. A centre is a focus area for shops, services and transport – it may be a large centre such as the Sydney CBD or Parramatta, or a smaller centre such as local suburban shops. By living close to a centre, people can walk or cycle to shops and services for their everyday needs. They can also easily access public transport so they spend less time travelling to work and more time with their friends and family. Urban activation precincts plan for higher-density residential at the core of a centre with medium-density residential close by.

Preference for apartments

Many Sydneysiders are choosing to live in apartments rather than houses. These include older people who are downsizing, younger people who want convenience, and families who enjoy more time together by being close to work places and public transport. Some people like the advantages of communal facilities (open space or a pool or gym) with reduced responsibility for maintenance. Urban activation precincts plan for apartments close to public transport, shops and services. An increased supply of apartments should also assist with affordability.

Convenient transport options

People want to live close to their workplace, shops and services. By locating apartments close to public transport, more people can use it. Increased use of public transport benefits the community through lower greenhouse emissions and reduced traffic congestion.

Rising costs of car ownership, traffic congestion and an awareness of the impacts of climate change, have lead some people to reconsider their need for a car. A car share scheme is becoming an increasingly attractive option. One car share vehicle replaces the need for 9-13 private cars. Many new apartment complexes now include car share parking spaces.

Fewer young people are getting their driver's licence and therefore fewer young people own a car. Many socialise using social media and shop online, so a car is not a priority for them.

Urban activation precincts encourage active transport (walking and cycling) by planning for apartments close to public transport, shops and services.

Ageing in place

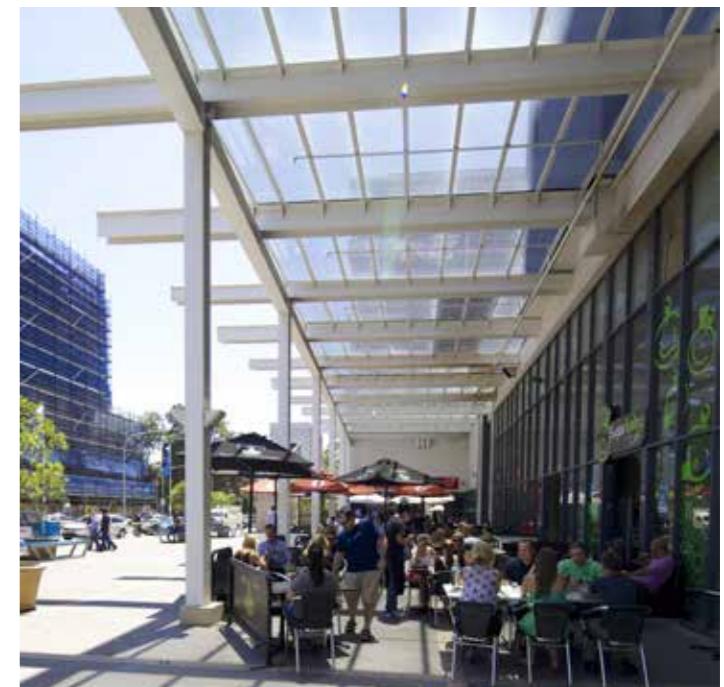
Our population is ageing. As people get older, many want to downsize from a large family home to one that is easier to maintain, but they want to remain in the same area close to friends and family. To enable people to grow older in their existing communities, new housing varieties need to be built. Urban activation precincts plan for housing choice – apartments and townhouses in addition to existing free standing houses.

How close is close?

Most urban activation precincts are based around a centre or multiple centres. A major consideration for the location of a precinct is walking distance to public transport, shops and services. A rule of thumb is that most people are comfortable with a ten-minute walk to public transport and shops and services. A ten-minute walk is approximately 800m.

Most urban activation precincts cover an area within an 800m radius of one or more centres. High-density residential will usually be located within a 400m radius or five-minute walk of a centre; medium-density apartments and townhouses within an 800m radius.

When people live close to shops, services and public transport, they choose active transport (walking or cycling) more often. As a result, the streets become activated with more people. Urban activation precincts benefit the community by planning for active lifestyles, active places and active transport.



Mascot



Evidence based planning

All urban activation precincts follow a similar process to determine the most appropriate development for the medium to long term.

First, a series of studies are undertaken to understand the existing constraints and opportunities within the precinct. The studies may look at existing planning controls, heritage, environment, land ownership (large landowners or many owners of small sites), strata and recent developments (areas unlikely to be redeveloped in the short or medium term), transport, public spaces, economic feasibility, flooding, connectivity and accessibility (how easy is it to get around), footpaths and cycleways.

The results of these studies are combined to provide the basis for where future development could be located within the precinct. The Department of Planning and Infrastructure works with experienced urban designers, local councils and the community to develop a proposal for the rezoning of areas within the precinct. Not all areas within each precinct will be rezoned.

Community consultation

Community consultation is important in developing plans for all urban activation precincts. Most precincts include a community forum or community reference group which meets regularly to:

- ▶ ensure the department is aware of the community's ideas and aspirations
- ▶ receive feedback from the community about planning options.

Draft plans such as the ones in this proposal are exhibited for community consultation before being finalised. Community information sessions are held during the exhibition period so that everyone can hear about the proposal, ask questions and have their concerns heard.

The department's website is regularly updated so the community can follow the progress of each urban activation precinct. Advertisements in local newspapers and letterbox drops also keep the community informed.



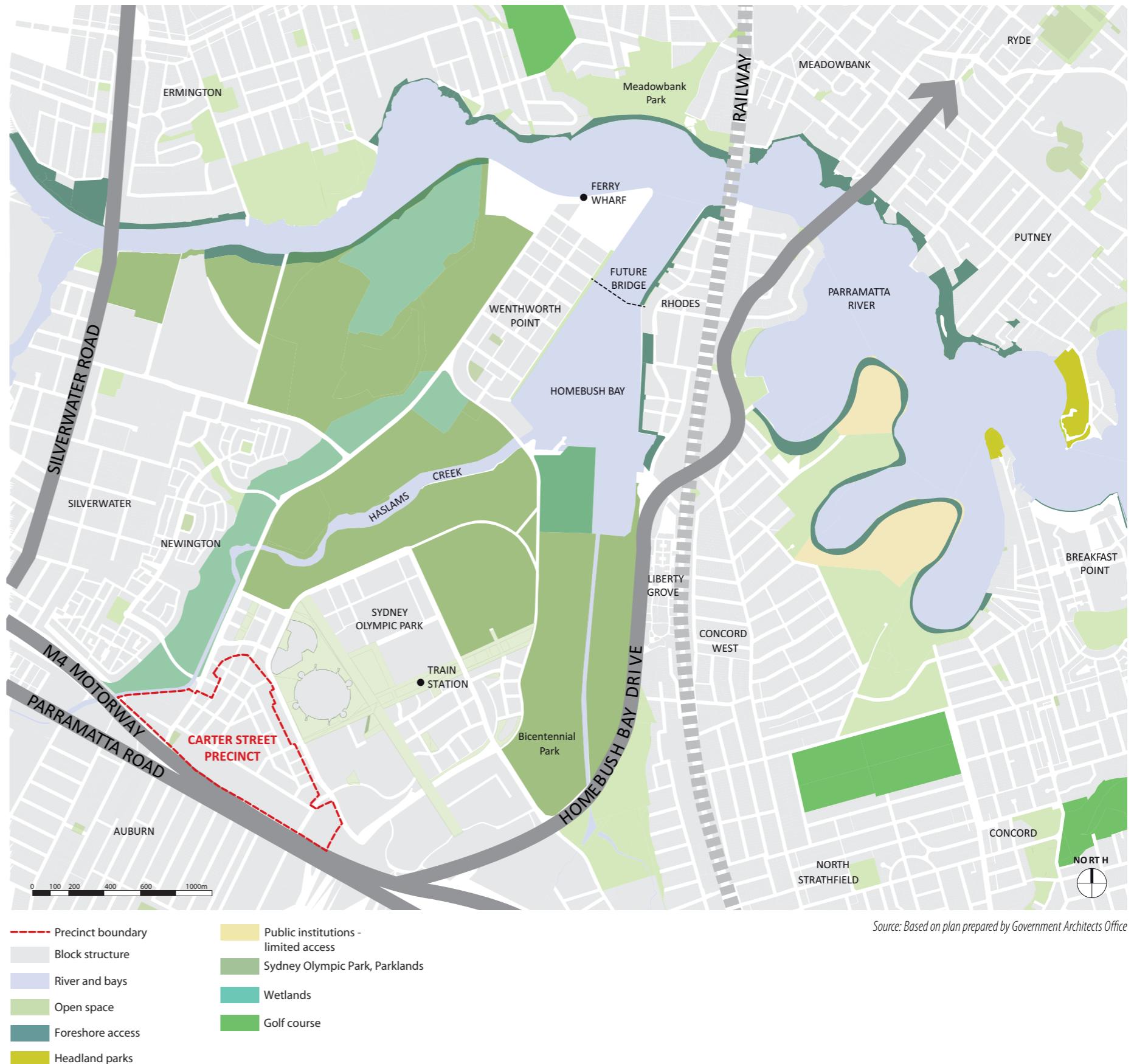
Macquarie Park

2. Carter Street proposal

The 52 ha Carter Street Urban Activation Precinct is located directly south west of Sydney Olympic Park, north of the M4 Motorway and east of Haslams Creek. Carter Street is the main east-west road through the precinct while Uhrig Road links with Sydney Olympic Park town centre and the train station to the north east. Entry to the precinct is from the M4 and Parramatta Road at Hill Road and Parramatta Road at Birnie Avenue.

The site was chosen as an Urban Activation Precinct to accommodate some of Sydney's growth because it:

- ▶ supports the broader Sydney Olympic Park Specialised Precinct which is designated to accommodate significant jobs and housing growth
- ▶ connects to Sydney Olympic Park and parklands, which offer a high level of amenity in a natural environment
- ▶ is adjacent to major sports, recreational and entertainment facilities
- ▶ optimises the significant government infrastructure investment in the transport network including the Olympic Park Train Station, existing bus services, M4 Motorway, Parramatta Road and the recently announced WestConnex
- ▶ responds to strong local market demand for additional employment and housing.



2.1 Vision

The urban renewal of the Carter Street precinct will support Sydney Olympic Park in its role as a Specialised Centre/ Town Centre and provide a mix of housing, employment and retail services with easy access to public transport, the regional road network and world class open space, entertainment and recreational facilities.



Residential

- ▶ High density urban community with about 5,500 dwellings.
- ▶ Private and communal open space for residents within urban blocks.
- ▶ Walkable neighbourhood to shops, parks and Olympic Park Train Station.

Employment

- ▶ 11.4 ha of highly accessible land for employment uses.
- ▶ Corporate offices, business and technology parks, retail and light industrial uses visible from the M4 Motorway.

Open space

- ▶ New 1.8 ha park at Hill Road for recreation and water sensitive urban design initiatives.
- ▶ New linear foreshore reserve along Haslams Creek south of John Ian Wing Parade.
- ▶ Village square integrated with main street shopping at Uhrig Road.
- ▶ Village park located at Carter Street / Uhrig Road as an urban landmark space.

Retail and community

- ▶ Retail centre along Uhrig Road with up to 12,000sqm of shops and services.
- ▶ Active street level uses adjacent to Hill Road park, village park and Uhrig Road.
- ▶ Community centre located adjacent to village park at Uhrig Road.
- ▶ New primary school.

Built form

- ▶ Building heights ranging from 4-20 storeys.
- ▶ Townhouses and 4-6 storey apartments generally on east-west streets for good solar access.
- ▶ Medium rise 6-8 storey apartments on main streets and parks.
- ▶ Taller 12-20 storey landmark buildings at key locations, entries and important corners.
- ▶ Varied building heights for visual interest and dynamic urban form.
- ▶ Innovative, quality architecture and ecologically sustainable design driven outcomes.

Movement network

- ▶ New streets to create a permeable movement network.
- ▶ Series of upgrades to intersections to improve traffic flow.
- ▶ Bus priority and new routes to train stations.
- ▶ Publicly accessible foreshore with pedestrian and cycle paths linked to existing network.

2.2 Land use

Consistent with its role of providing additional housing for Sydney's growing and changing population, much of the focus of the precinct is on the provision of higher density urban housing.

Residential development is proposed primarily north of Carter Street and to the west of Hill Road fronting Haslams Creek.

Employment uses are located south of Carter Street along the M4 corridor. The employment use zoning will provide land for higher density employment and new economic activities such as corporate offices, business parks, knowledge industry development and flexible commercial, bulky goods and community spaces.

Local retail and service uses are focused on the Uhrig Road activity spine.

Mixed uses are considered to be suitable as a barrier to the interface with Sydney Olympic Park along Edwin Flack Avenue.

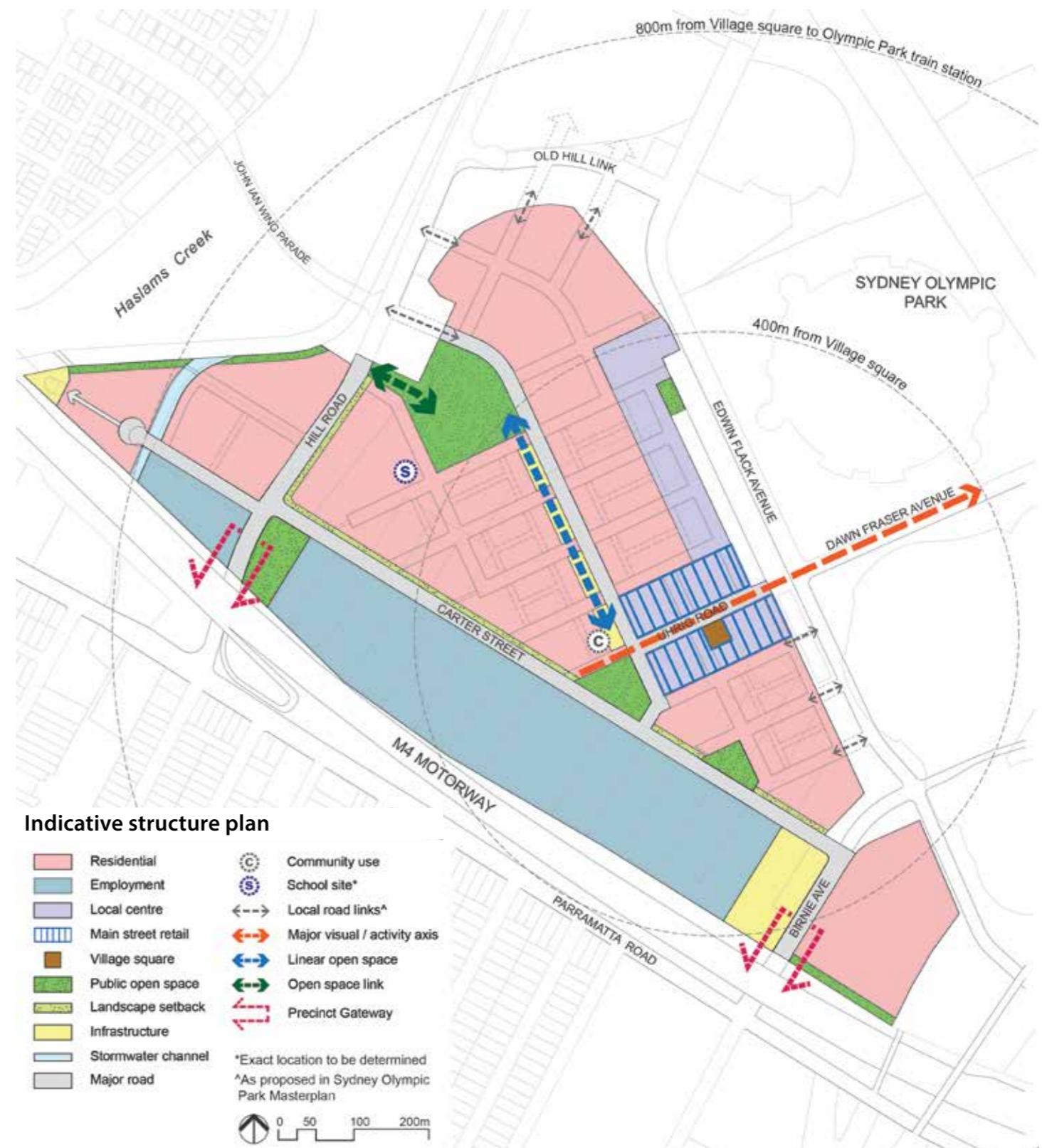


John Ian Wing Parade extension - Hill Road park and landmark residential tower

Non-residential uses to ground floor spaces are envisaged in buildings along major streets, such as Hill Road considered unsuitable for residential uses at street level. Non-residential uses may also be located along the proposed extension of John Ian Wing Parade to encourage active frontages to the proposed Hill Road park.

A consultant study has determined the need for a multi-purpose community facility of some 578sqm located centrally within the precinct. A community use site has been identified adjacent to the village park on Uhrig Road.

A new primary school for the local area is shown adjacent to Hill Road park but its exact location is still to be determined.



2.3 Built form

It is proposed to encourage a variety of building heights and forms that offer a range of housing options creating a diverse and sustainable community.

A range of dwelling types is envisaged from townhouses to medium and high density apartments.

Taller buildings are to be located at key landmark sites at parks, Uhrig Road and defining entries to the precinct.

The 30 storey residential towers of Sydney Olympic Park town centre are to remain the dominant built form elements of the wider Carter Street / Sydney Olympic Park / Homebush Bay skyline.

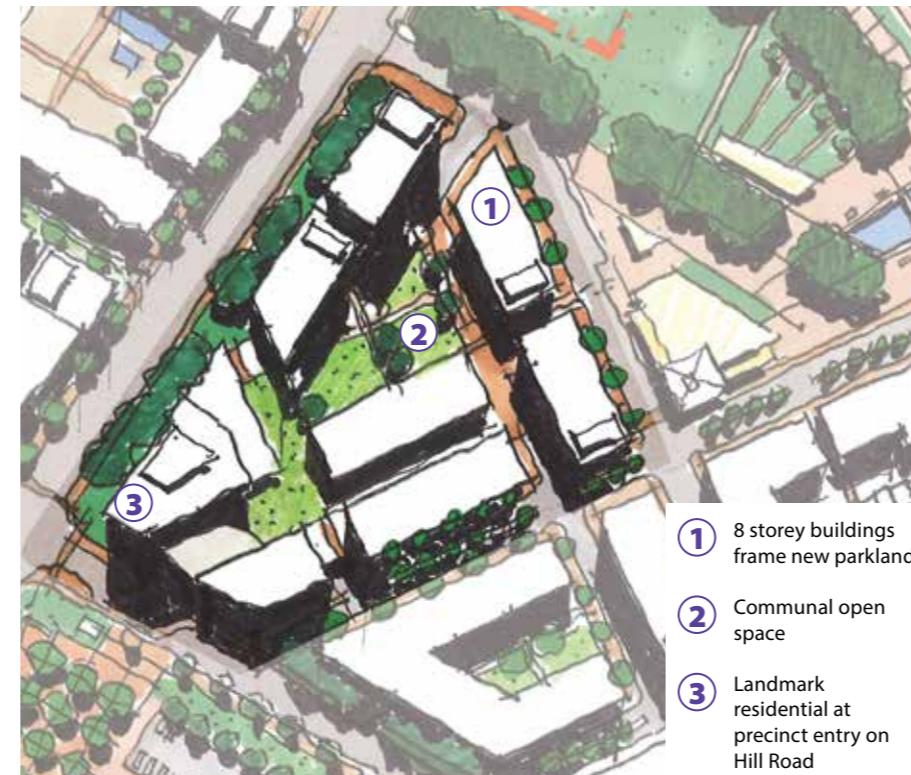
The development of low rise business use will complement the quality and character being attained at Sydney Olympic Park.

The amenity of residential uses in close proximity to employment uses is to be protected by appropriate siting of buildings, boundary treatments, setbacks and landscaping.

Key features of built form controls include:

- ▶ a building typology primarily comprising perimeter block forms enclosing internal courtyards and punctuated by a small number of slender apartment buildings up to 20 storeys
- ▶ the definition of a three-dimensional building envelope through controls such as building height, depth and length
- ▶ management of the interface between the public and private domains to ensure the private domain activates and engages with the public domain
- ▶ detailed design requirements for buildings including materials and finishes.

The NSW Government's SEPP 65 Residential Flat Design Code provides guidance on matters relating to residential amenity, including solar access and visual privacy.



Perimeter block high density residential - draft illustrative plan



High density residential - draft illustrative plan



Employment uses - draft illustrative plan



Low to medium rise employment and residential - draft illustrative plan

2.4 Access and movement

A key constraint to development is the capacity of the surrounding road and public transport networks to accommodate employment growth. The impact of Sydney Olympic Park commercial and residential expansion together with residential intensification at Wentworth Point places pressures on the road network and public transport provisions.

The proposal includes a new street network, to be implemented over time, which responds to the constraints of topography, existing development and subdivision patterns, and to the Sydney Olympic Park Master Plan road access proposals.

The new street network will provide convenient and direct connections to adjacent areas, particularly Sydney Olympic Park, Newington and Lidcombe.

The WestConnex upgrade of the M4 Motorway includes an eastbound ramp from Hill Road and additional lanes to the Motorway. Road intersection upgrades will be detailed in collaboration with the WestConnex team.

New public transport initiatives are planned to cater for proposed development growth.

Additional bus services will be examined including potentially a direct service to Parramatta and quicker services to Strathfield and Burwood.

Public transport solutions such as a light rail connection to Parramatta to serve the greater area are being examined by NSW Government and Parramatta Council.

The pedestrian and cycle network is to be enhanced with connections to existing networks and commuter cycle parking at destinations, such as Sydney Olympic Park Ferry Wharf together with a continuous pedestrian and cycle access to Haslams Creek foreshore.





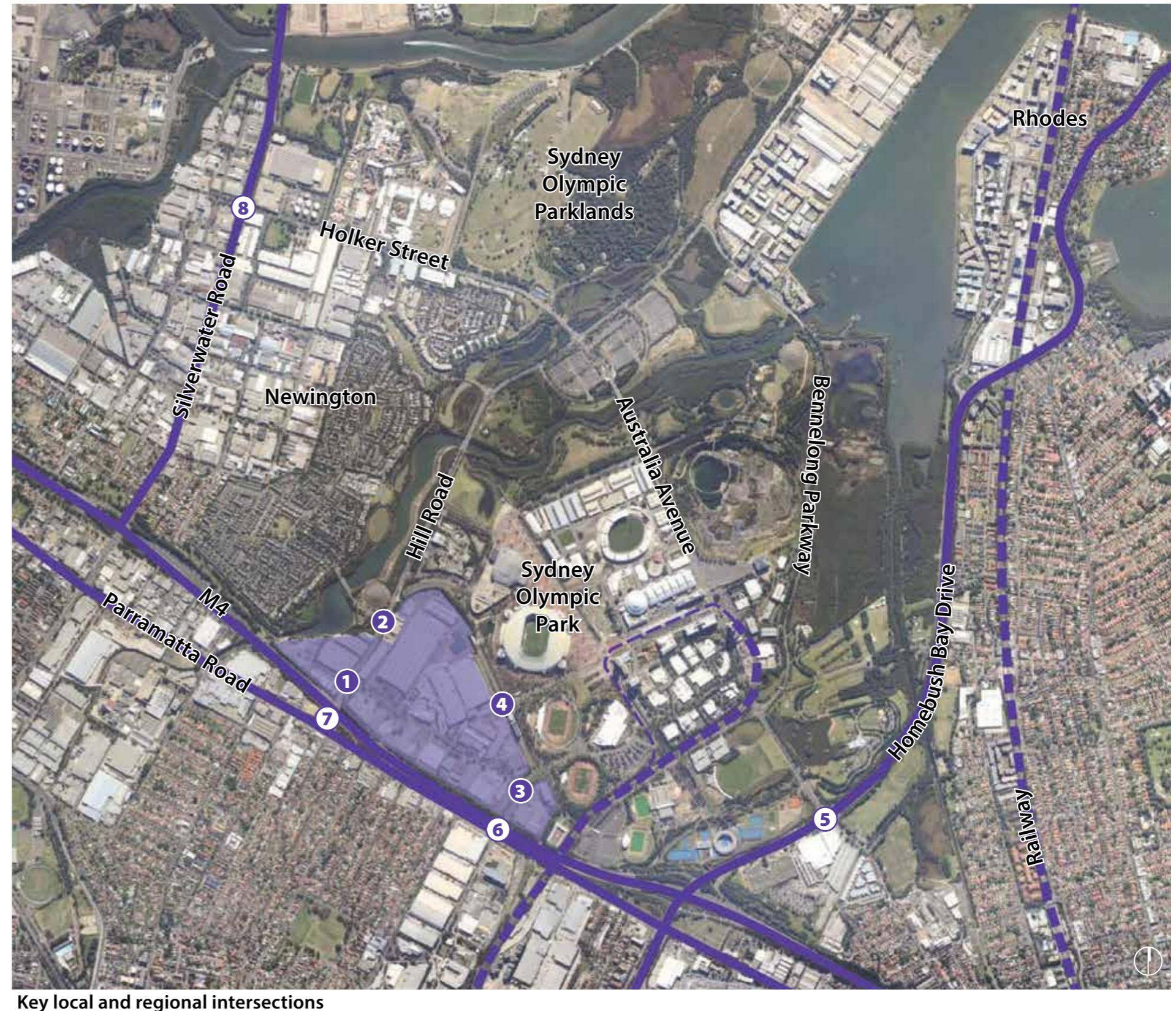
Local road improvements

- 1 Hill and Carter Streets
- 2 John Ian Wing Parade extension
- 3 Birnie Avenue / Carter Street
- 4 Uhrig Road / Edwin Flack Avenue

Regional roads for investigation

- 5 Homebush Bay Drive and Australia Avenue
- 6 Parramatta Road and Birnie Avenue
- 7 Hill Road and Parramatta Road / M4 Motorway*
- 8 Holker Street and Silverwater Road

* New eastbound ramp onto M4 proposed as part of WestConnex Project.



2.5 Public spaces

A range of new quality public spaces are proposed to encourage and support new residential and employment uses, including parks, civic squares and places for community gathering and events. They include:

- ▶ a substantial new park at Hill Road (1.8 ha) providing for a variety of experiences and recreational activities, stormwater detention functions and a green link to Haslams Creek corridor
- ▶ a village park at Uhrig Road and Carter Street as the termination of Dawn Fraser Avenue axis, incorporating artworks, water elements and multi-purpose spaces for relaxation, markets etc
- ▶ a village square as a central meeting place on the Uhrig Road retail street
- ▶ public access along Haslams Creek and the construction of a southern bank, south of John Ian Wing Parade
- ▶ a central bio-swale corridor along the John Ian Wing Parade extension.

The Hill Road park will be the focus of the new residential community and provide for water sensitive urban design initiatives, passive recreation, BBQ and picnic facilities.



Example of playground and artworks

All apartments will be located within 400m of public open space.

The public open space network will:

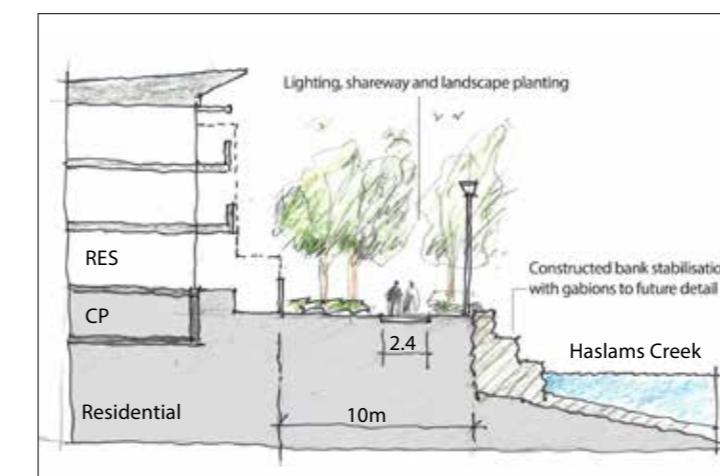
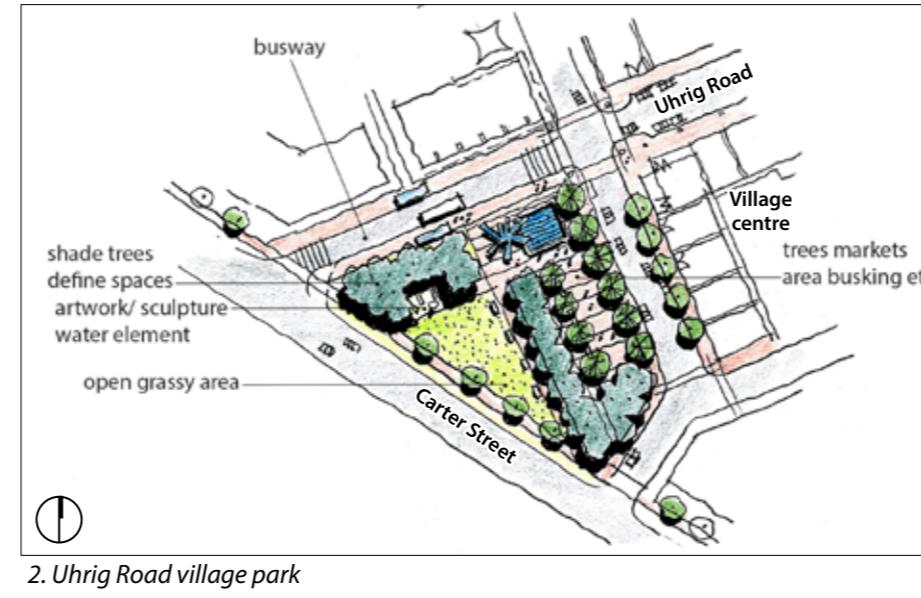
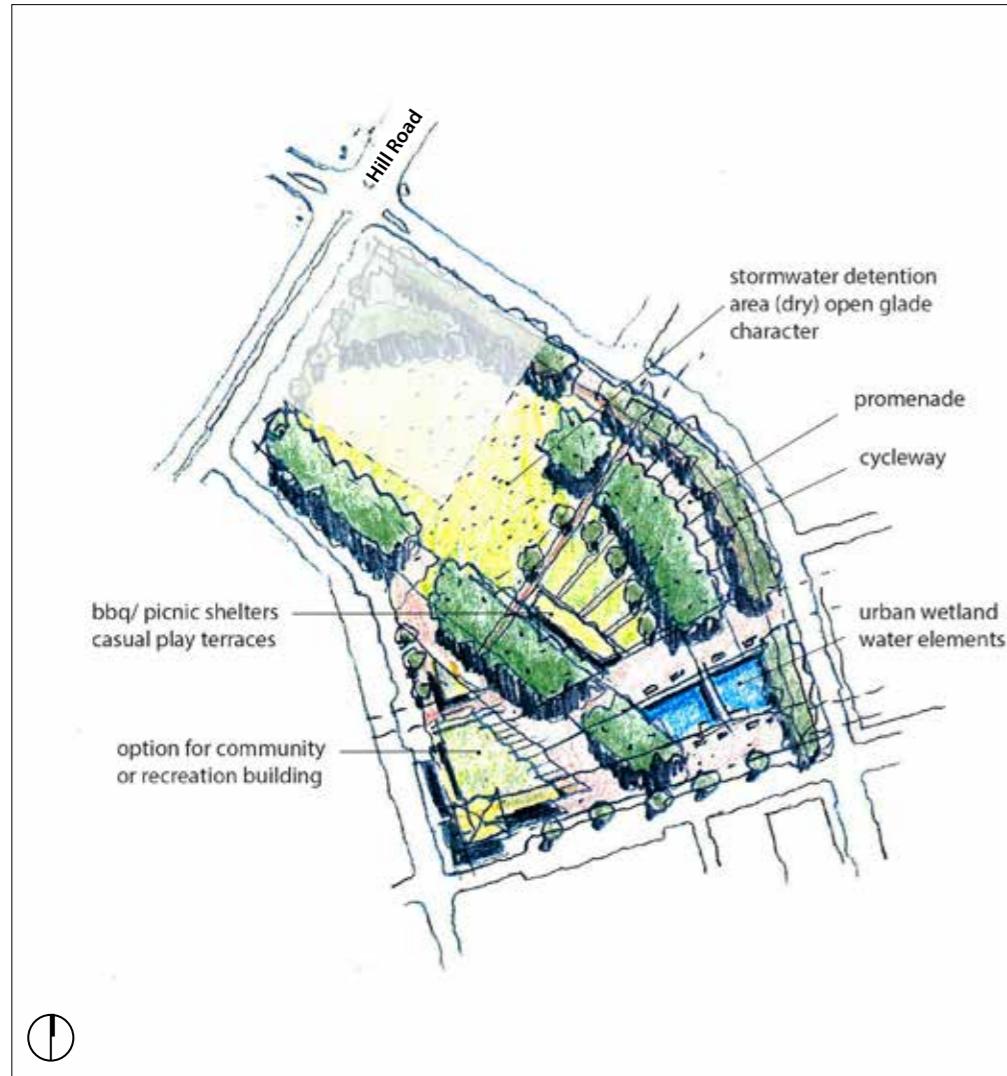
- ▶ integrate with the broader Sydney Olympic Park/ Newington open space network
- ▶ provide access to Haslams Creek
- ▶ provide for a diverse range of active and passive recreation uses.

Potential park facilities are indicated on the plan however detailed design will be guided by council and community input.



Example of local park with stormwater detention function

Key public spaces



2.6 Proposed planning controls

Zoning

The proposed land use zoning strategy focuses on providing a balance between optimising use of the precinct for the provision of new housing while providing employment land for new businesses along the Motorway.

The proposed zones are:

- ▶ R4 High Density Residential Zone for new housing in a range of densities and heights
- ▶ B2 Local Centre for Uhrig Road retail street and a range of compatible uses located in close proximity to Sydney Olympic Park
- ▶ B6 Enterprise Corridor for employment opportunities such as offices, business park, retail and light industrial uses
- ▶ RE1 Public Recreation Zone for public open spaces, parks and reserves.



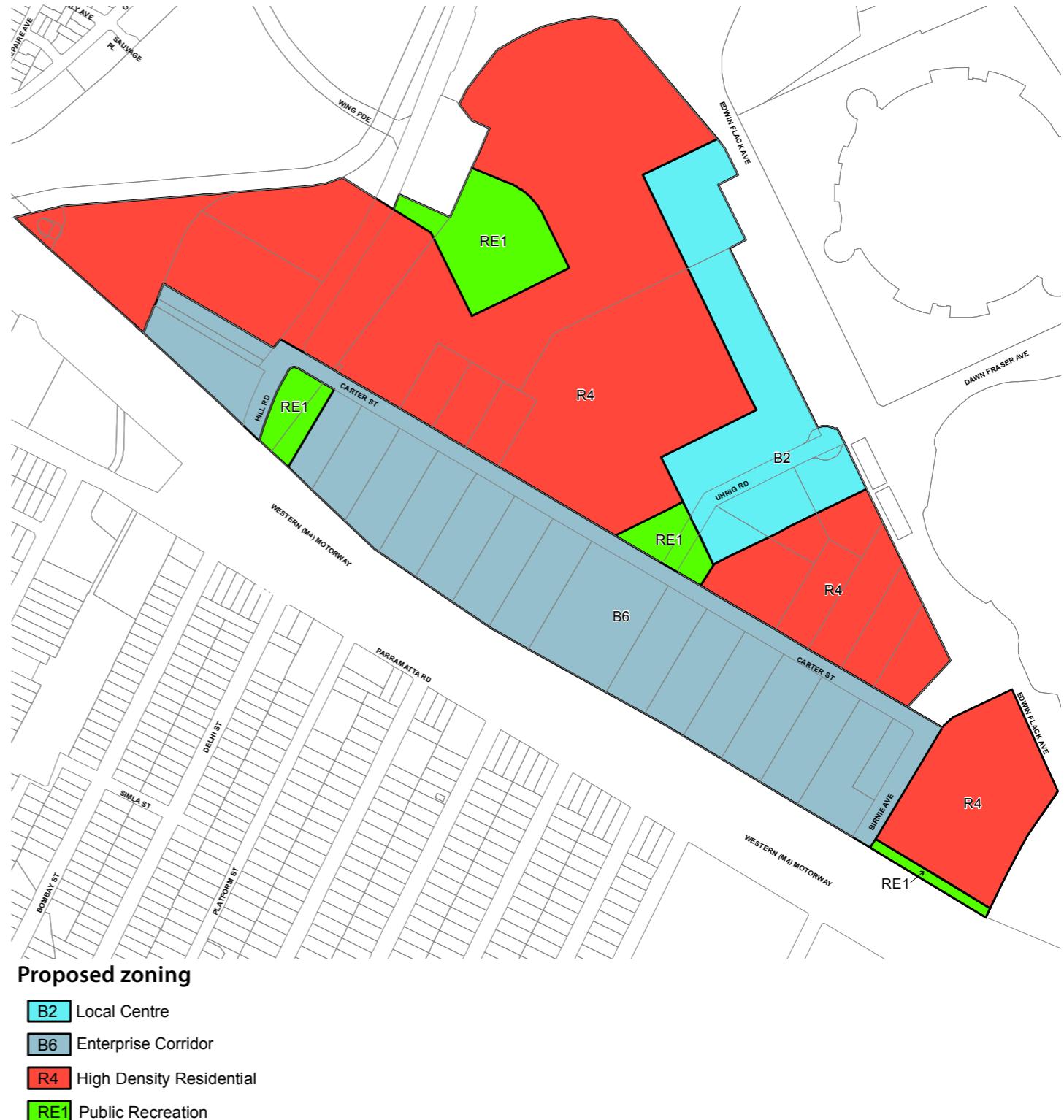
Residential apartments with active uses on street level



Example of residential streetscape



Example of business park



Floor space ratio

A range of densities are proposed for residential uses with a floor space ratio (FSR) from 1.5:1 to 2:1, stepping down towards Haslams Creek.

For employment lands along the Motorway, an FSR of 1.5:1 is proposed.

The FSR is generally consistent with that proposed for Wentworth Point and represents a balance between a high quality built form, the capacity of infrastructure, in particular roads, and financially viable development.



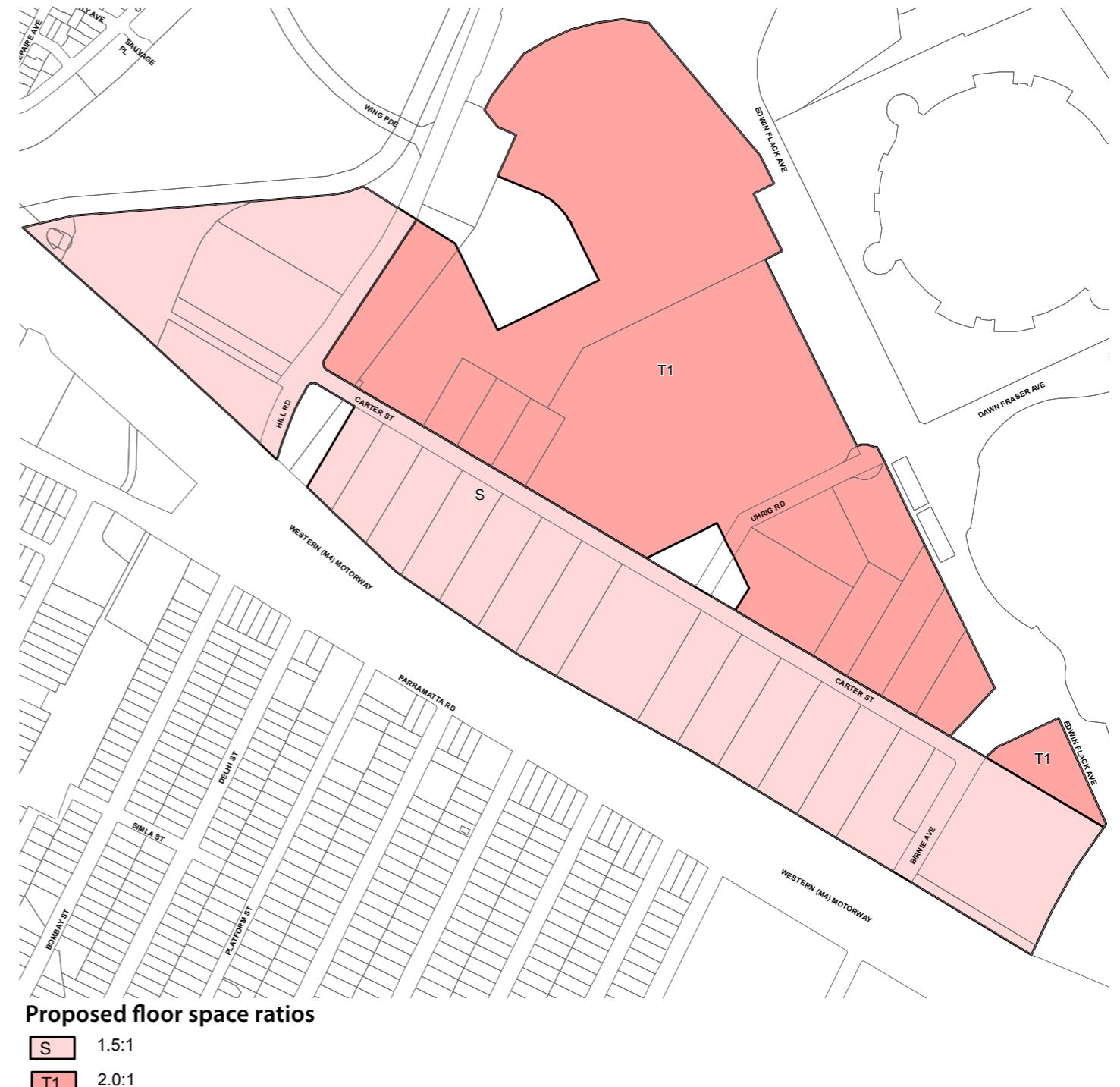
Employment land - Carter Street



Example of medium density apartments



Medium rise - high density apartments



Proposed floor space ratios

S	1.5:1
T1	2.0:1

Building heights

The proposal includes a range of building heights across the precinct and within the same street block to create variety and encourage different architectural styles.

Building form and scale will contribute to the physical definition of the existing and proposed street network and the hierarchy of public spaces.

Prominent street corners will be reinforced in a visual context through concentrating building height and built form.

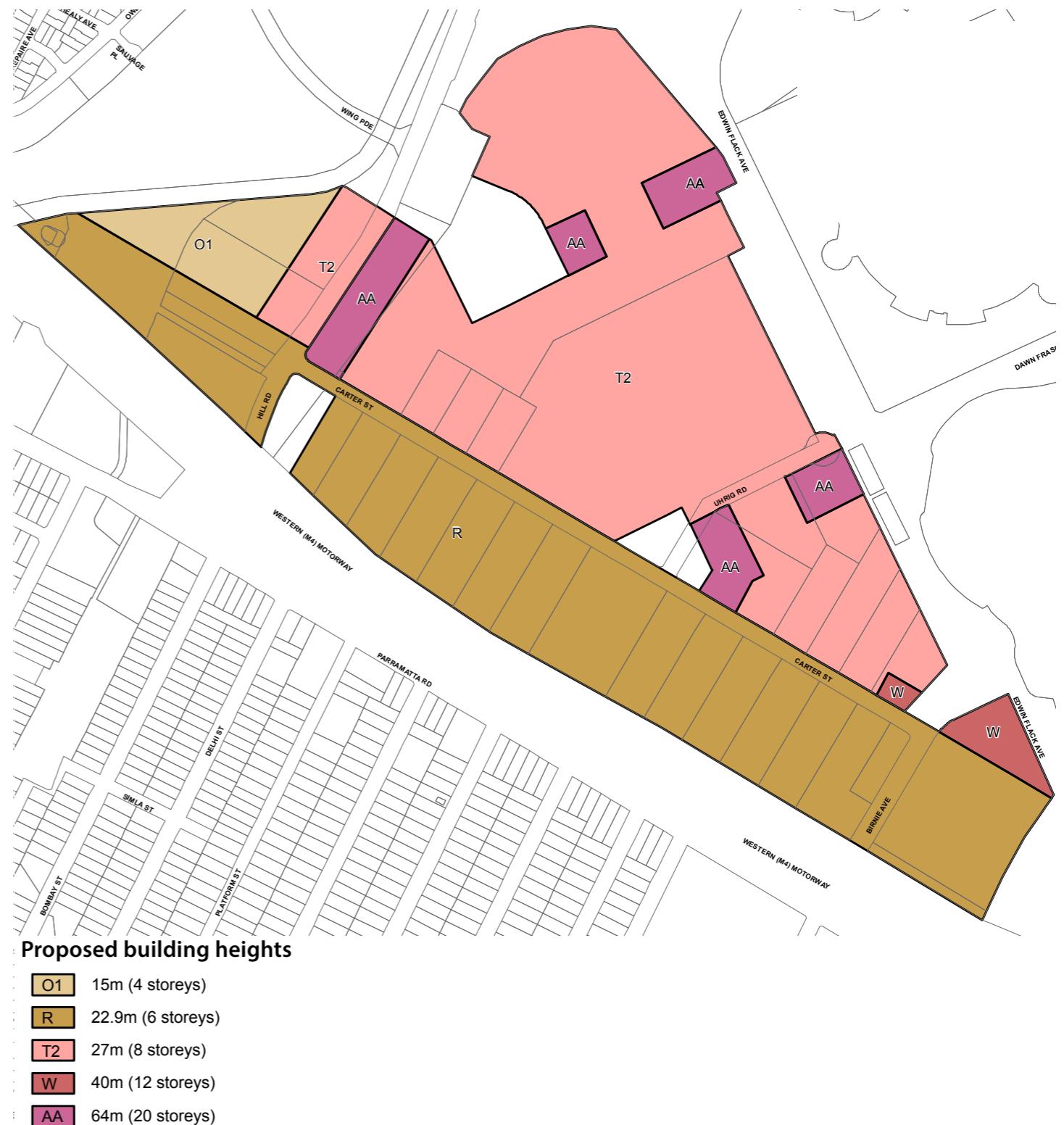
The principles of building heights are:

- ▶ low rise buildings of up to 4-6 storeys fronting east-west streets to reinforce the pedestrian



scale of these lower order, more local streets and to achieve good levels of solar access

- ▶ medium rise buildings of 7-8 storeys counter-balanced with lower buildings of 4-6 storeys
- ▶ decreasing height toward the Haslams Creek foreshore
- ▶ reinforcing gateways, key streets and open spaces with up to 20 storey buildings.



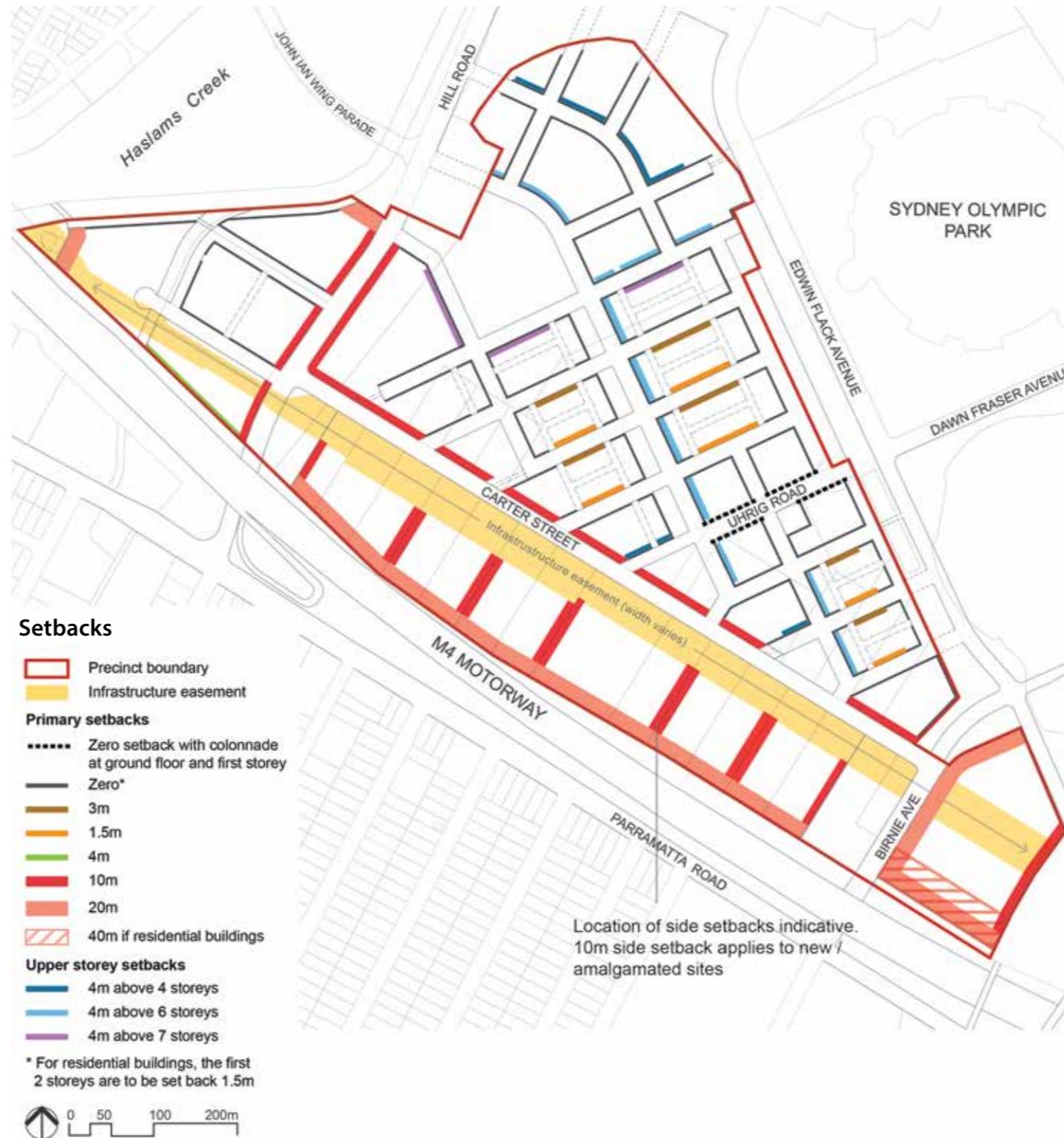
Setbacks

Setbacks vary in response to specific conditions and are designed to create high quality interfaces between buildings and the public domain, including streets and parks, appropriate to a vibrant, urban community.

The principles of building setbacks are:

- ▶ minimum 10m from Hill Road and Carter Street
- ▶ minimum 20m from M4 Motorway and east side of Birnie Avenue
- ▶ 1.5m at ground level north side John Ian Wing Parade extension for residential buildings
- ▶ 4m at top floor for north edge buildings and those facing Hill Road park

Primary and upper storey setbacks are identified in the setback diagram.



Car parking

Car parking in new development is to be underground, under-croft or semi-basement located generally within the footprint of the building above.

Where above ground parking cannot be avoided due to site conditions, it will need to be well integrated into the overall façade design to create satisfactory interface with the public domain.

	Type	Rate
Residential	1 bedroom	1 space / dwelling
	2 bedroom	1 space / dwelling
	3 bedroom	2 spaces / dwelling
	4 bedroom	2 spaces / dwelling
	Visitors	0.2 space / dwelling
Commercial	All	1 space / 80 m ²
Retail	Supermarkets Local retail	1 space / 25 m ² 1 space / 50 m ²

3. What we looked at

The Homebush Bay area formed part of the traditional lands of the Wanngal Clan when Europeans arrived and free settlers established farms along Parramatta Road. Thomas Laycock received an early land grant and named his farm Home Bush. In 1808 this was sold to D'arcy Wentworth and subsequently bequeathed to W.C. Wentworth who oversaw the development of the Australian Jockey Club on the land. The land was unsuccessfully subdivided in the 1880s and was resumed for the State Abattoirs in 1907. The abattoirs and its extensive stockyards operated through to the late 1980s but progressively sold off land for industrial uses, including land in the Carter Street precinct, from the 1960s.

Being a strategically located, large government land holding, the abattoirs became the major site for Sydney 2000 Olympic Games bid.

Today the Carter Street precinct is an established industrial area with mainly large warehouse facilities offering logistics services.

The warehouses north of Carter Street provide a mix of modern and dated facilities, with older warehouses located along the M4 south of Carter Street.

As there is a westward shift in Sydney industrial development, the existing uses do not effectively capitalise on the adjoining significant cultural, sporting, social and transport infrastructure of Sydney Olympic Park.



Aerial photograph of Carter Street Precinct c.1943

Image source: SIX Maps



Aerial photograph of Homebush Bay c.1969

Source: Trove (NLA)



Toll Facility, north of Carter Street - contemporary built form



Swire Cold Storage warehouse, Birnie Avenue - traditional built form

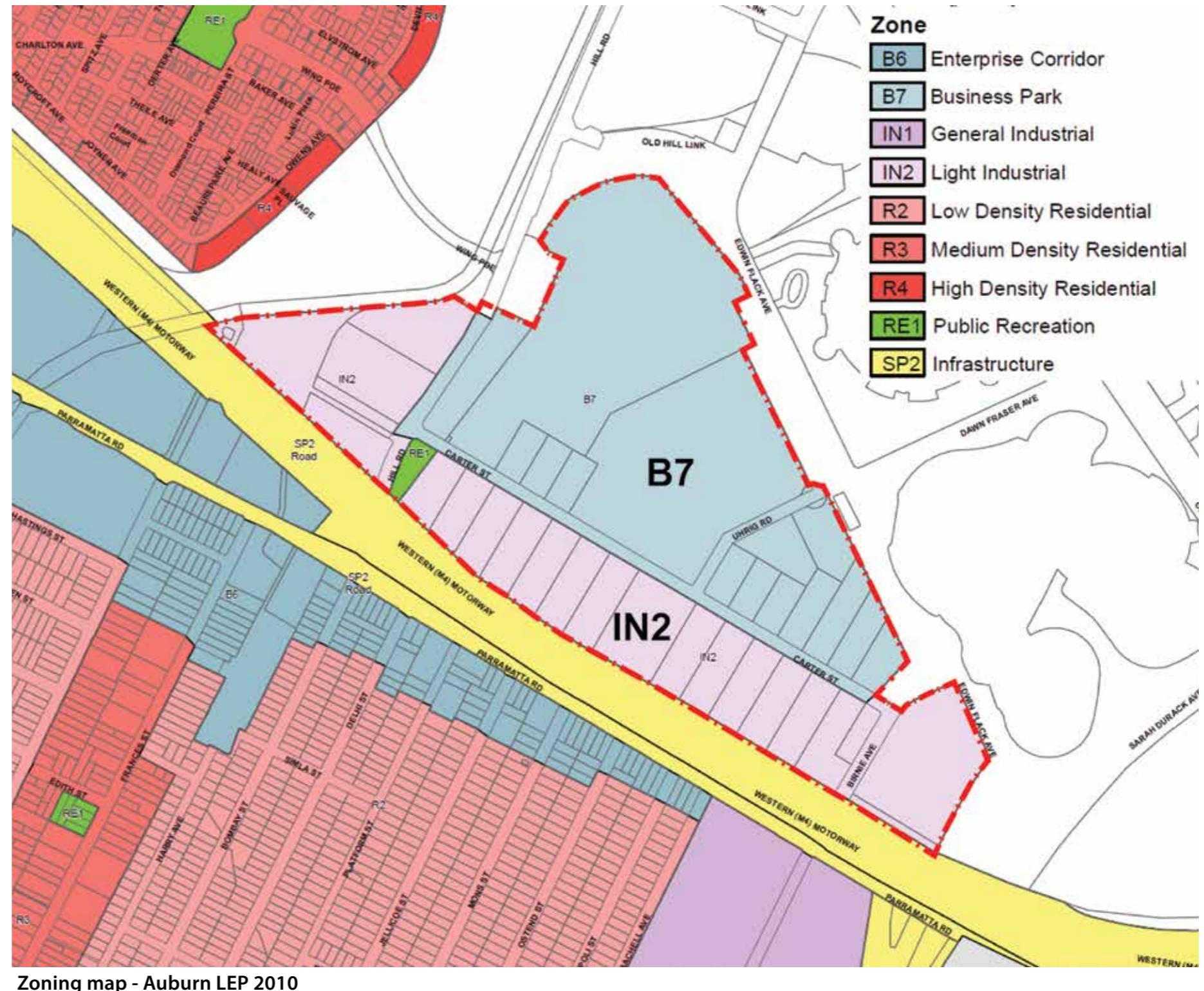
3.1 Existing planning controls

The precinct is currently zoned:

- ▶ B7 Business Park – a range of office and light industrial uses and other land uses that provide facilities or services to meet the day to day needs of workers in the area (FSR 1.5:1)
- ▶ IN2 Light Industrial – a wide range of light industrial, warehouse, educational establishments and related land uses and to encourage employment activities (FSR 1.5:1)
- ▶ RE1 Public Recreation – land used for public open space or recreational purposes.

Economic analysis indicates that there is a declining demand for industrial uses in this area. Conversely there is a demonstrated demand for housing.

Consequently new planning controls are proposed to activate the precinct with high density housing and additional open space while encouraging new jobs. This will stimulate urban renewal and support the development of Sydney Olympic Park as a town centre.



3.2 Surrounding development

The precinct is somewhat isolated by Haslams Creek to the north west and the M4 Motorway / Parramatta Road corridors to the south. However it has an immediate relationship to the world class amenities and facilities of Sydney Olympic Park and its associated parklands, waterways and emerging town centre focussed around Olympic Park Train Station.

Recently there has been significant development at Rhodes Peninsula and Wentworth Point. Wentworth Point Urban Activation Precinct proposes a further 2,300 dwellings.

The Sydney Olympic Park Master Plan 2030, anticipates that the park will not only continue to host major events but also develop as a town centre, with higher density housing and employment as a focus. This is currently being implemented with recent approvals for commercial developments near the train station and high rise apartment buildings along Australia Avenue.

Over the next decades it can be expected that the whole of Sydney Olympic Park including Carter Street precinct, will change and evolve into a higher density residential, employment and mixed use area.



Aerial photograph of Sydney Olympic Park with Carter Street precinct beyond



Wentworth Point Urban Activation Precinct, north of Sydney Olympic Park

3.3 Contamination

Preliminary contamination investigations have been carried out for both sides of Carter Street. The study for the north side of Carter Street ascertained that the area is suitable for multi-level residential development with basement car parking.

The study for the south side of Carter Street, including Hill Road and Birnie Avenue, concluded that further soil and groundwater investigations will be required to clarify the presence of contaminants of potential concern associated with current and historic activities for certain properties. The extent of these investigations will vary dependent on the proposed future land use.

Future development applications will need to be in accordance with relevant Environment Protection Authority remediation regulations set out in State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55) and the Managing Land Contamination Planning Guidelines 1998.



Sydney Water site, north west of Carter Street Precinct

3.4 Flooding

The Carter Street precinct is relatively free of flooding. Preliminary studies and advice from Sydney Water indicate the need to widen the Arthur Street branch channel prior to its discharge into Haslams Creek to alleviate upstream flooding on the southern side of the Motorway. The finished ground levels for buildings should be above RL4.0 to avoid flooding impacts.



Haslams Creek channel

3.5 Existing infrastructure

The precinct is relatively well serviced by infrastructure for new development having high quality electrical and communication services established for the Sydney 2000 Olympic Games.

The existing infrastructure includes the Ausgrid Flemington Zone Substation on Birnie Avenue and the Sydney Water Sewer Pumping Station in the north western corner at Haslams Creek, both of which will remain within the precinct.

Major oil and gas pipelines and electrical services located in a 30m wide easement on the south side of Carter Street will need to be respected in new development.



Ausgrid Flemington Zone Substation, corner of Carter Street and Birnie Avenue

3.6 Odour

The existing Homebush Bay Liquid Waste Treatment Plant and the Auburn Resource Recovery Centre are located north of the Carter Street precinct within Sydney Olympic Park.

An odour assessment report has examined the existing and proposed odorous impacts associated with the liquid waste facility on the proposed Carter Street precinct. Local land use, terrain and meteorology have been used in dispersion modelling.

Four scenarios were modelled to capture the different operational scenarios at the facility. The odour levels at private receptors are predicted to comply with the NSW Environment Protection Authority assessment criterion of 2 odour units (2ou) when the odour control furnace is operating under normal conditions.

The modelling shows that with appropriate planning, the Carter Street precinct can progressively develop from the south east, mitigating the potential for adverse odour impacts predicted to occur in the north western area.

In the longer term, relocation of the waste facility will be examined. This will require a whole of government approach as this a major waste facility serving the Sydney metropolitan area as well as NSW.

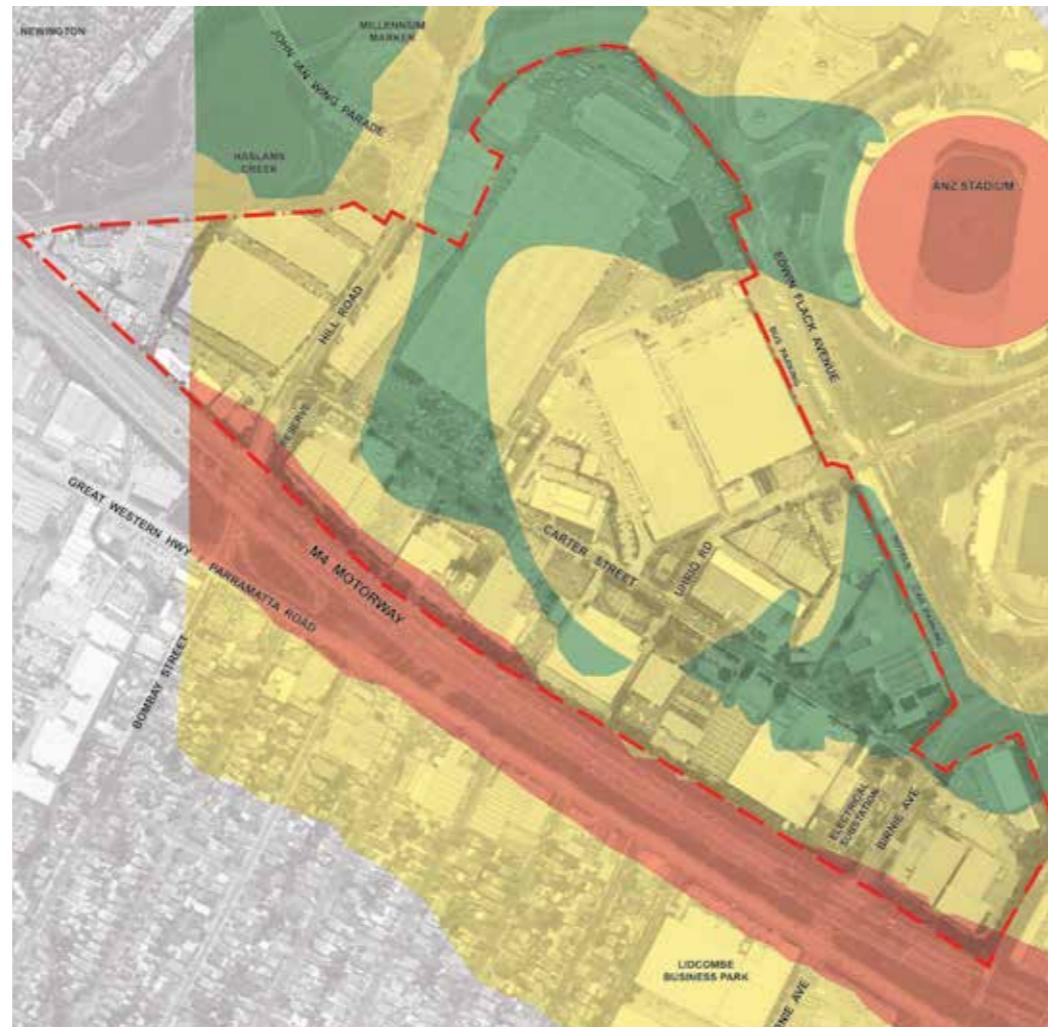
3.7 Noise

New development will need to acknowledge that the Carter Street precinct is located adjacent to Sydney Olympic Park, a major sport and entertainment precinct, which has intermittent high noise level events. There are also noise impacts from the M4 Motorway and existing industrial operations.

A noise impact assessment considered noise from entertainment events held in Sydney Olympic Park and traffic on nearby arterial roads (M4 Motorway, Parramatta Road, Hill Road). The report concludes that noise from all traffic and Sydney Olympic Park sources can suitably be mitigated by means of acoustic glazing.

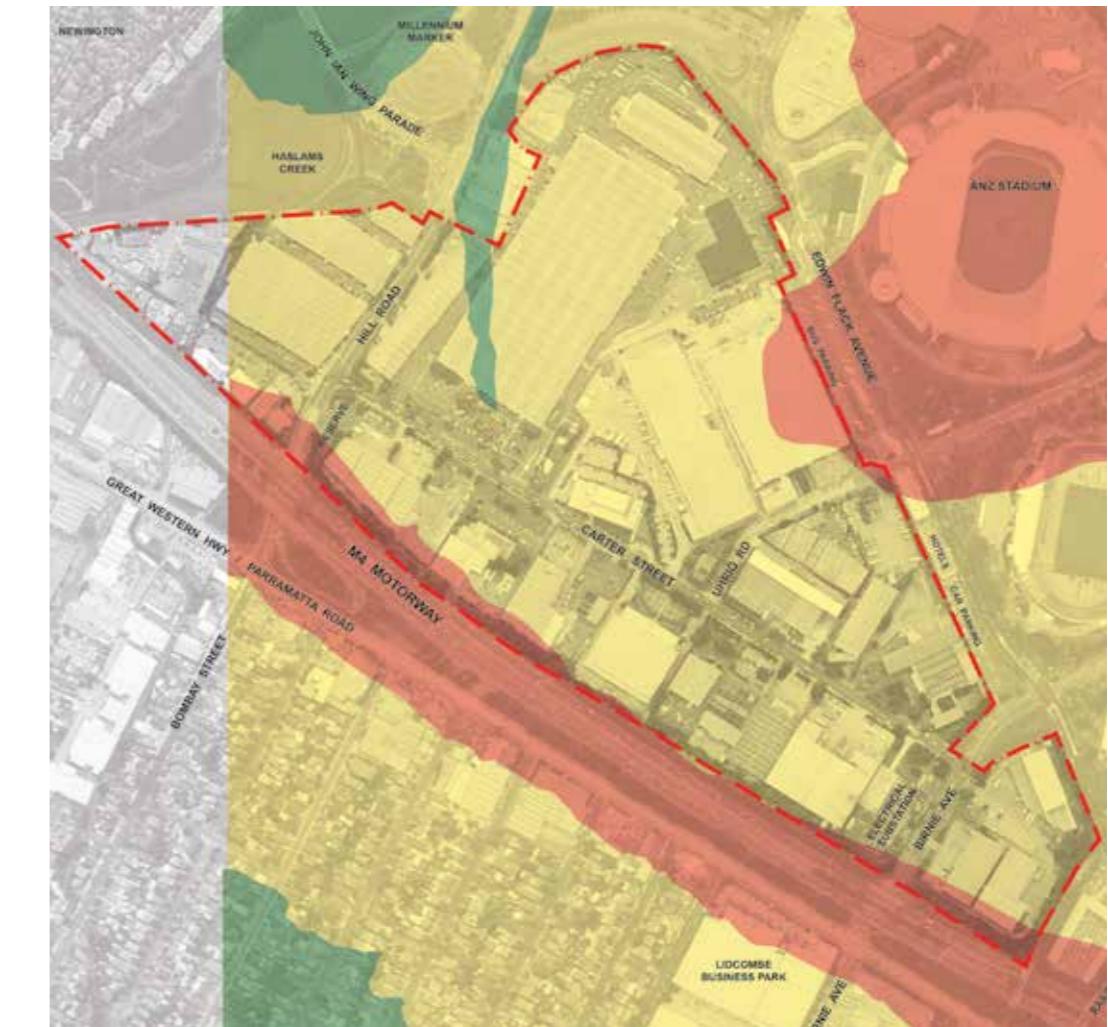
Residential developments will need to be sited, orientated and treated to mitigate noise while maximising natural ventilation and minimising the use of air conditioning. Relevant controls are set out in the Draft Development Control Plan.

New development will need to comply with maximum internal noise criteria standards to enable coexistence with the prevailing noise environment.



Noise plan - long term - buildings under 25m high (8 storeys)
(Sydney Olympic Park Master Plan)

- Residential uses not permitted
- Substantial noise mitigation required
- Some noise mitigation required
- Precinct boundary



Noise plan - long term - buildings above 25m high (8 storeys)
(Sydney Olympic Park Master Plan)



ANZ Stadium, Sydney Olympic Park

3.8 Sustainability

The 2000 Sydney Olympic Games transformed land at Homebush from degraded landscapes into world class environmentally responsible venues, facilities and urban parklands, winning many prestigious international and national environmental awards.

The high standards of sustainability subsequently set for new residential and commercial development within Sydney Olympic Park will be emulated in the Carter Street precinct.

The extension of Sydney Olympic Park's recycled water system (Water Reclamation and Management Scheme), which currently serves Sydney Olympic Park and Newington, will be examined as a major ecologically sustainable development initiative for the Carter Street precinct.

Urban stormwater will be required to be collected, detained and cleaned within a system of bio-swale streets draining to Hill Road park and hence to Haslams Creek to protect downstream waterways.

To ensure a high standard of residential amenity and sustainable design practice, the SEPP 65 Residential Flat Design Code principles are to be applied to all residential and mixed use developments.

Building design will be encouraged to express a strong commitment to ecologically sustainable development (ESD) principles, including passive solar design, optimal orientation, effective sun shading, cross ventilation and open plan living.



John Ian Wing Parade extension - bio-swale corridor



Example of bio-swale with native species planting



Example of detention park



3.9 Summary of key constraints and opportunities

Key constraints

Land use and infrastructure

- ▶ M4 Motorway creates acoustic and air quality issues.
- ▶ Acoustic, lighting and operational issues associated with Sydney Olympic Park activities.
- ▶ Long-term leases or commitments by owners and/or recent investment in quality buildings may restrain the process of revitalising the precinct.
- ▶ Need to retain major infrastructure elements - Sydney Water Sewer Pumping Station, Ausgrid Flemington Zone Substation and Carter Street oil and gas pipeline easements.



NSW Rural Fire Service Headquarters



Existing access and condition of Carter Street



View over Carter Street precinct from Millennium marker, Hill Road

Open space

- ▶ Lack of useable open space within the precinct.

Key opportunities

Land use and infrastructure

- ▶ Significant opportunities for high density residential development and new employment given progressive relocation of industrial / logistics uses to Western Sydney.
- ▶ Support Sydney Olympic Park as a Specialised Precinct / Town Centre for Sydney's growth.
- ▶ Residential uses can capitalise on the unique cultural, sporting, social and recreational assets of Sydney Olympic Park.
- ▶ New retail, service and community facilities for additional residents and workers.
- ▶ Existing services infrastructure provisions can accommodate rejuvenation of the precinct.

Access and transport

- ▶ Improve local intersections and regional road connections at an early stage in the development process.
- ▶ Increase bus service connections to other public transport.
- ▶ Encourage walking and cycling to public transport including Olympic Park Train Station, ferry wharf and Lidcombe Train Station.
- ▶ Create fine grain street network to improve connectivity to adjacent precincts and to Sydney Olympic Park for pedestrians and cyclists.
- ▶ Support the medium and long term implementation of light rail connections to Parramatta and Strathfield.

Open space

- ▶ Provide a range of new quality public open spaces to meet the needs of residents and workers including a major new park at Hill Road and connections to Haslams Creek corridor.
- ▶ Include a village park as the termination of the Dawn Fraser Avenue / Uhrig Road activity axis.
- ▶ Add new public foreshore pedestrian and cycle access to, along and across Haslams Creek.



Olympic Park Ferry Wharf



View towards Carter Street precinct, across Haslams Creek from John Ian Wing Parade



Haslams Creek foreshore reserve

3.10 Overshadowing

Potential overshadowing impacts of the indicative built form of the proposal have been assessed for mid-winter (21 June) and the autumn/spring equinox (21 March/21 September) at 9:00am, 12noon and 3.00pm. Mid-winter is the day with the longest shadows.

Concentrating building height at prominent street corners and nodal points that reinforce the visual context and placing parks and squares to the east and south of streets ensures that public open spaces such as parks and the village square can achieve good solar access.

The analysis indicates that the Hill Road park will not be in shadow from late morning in mid-winter and at the equinoxes, while the Haslams Creek waterfront will not be in shadow at all. The main residential streets and pocket parks will have good solar access during the middle of the day.

Surrounding development adjacent to the precinct south of Parramatta Road will also be completely free of overshadowing.

The site specific Development Control Plan requires that individual buildings be designed in accordance with the solar access provisions of the Residential Flat Design Code, which seeks acceptable levels of solar access to dwellings and private open space.



9am - 21 March



12pm - 21 March



3pm - 21 March



9am - 21 June



12pm - 21 June



3pm - 21 June

4. Have your say

Let us know your ideas about the Carter Street Urban Activation Precinct proposal by making a submission via:

mail Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

website www.planning.nsw.gov.au/carterst