CITY OF PARRAMATTA

Submission

To the Department of Planning, Industry and Environment

In response to the public exhibiti
of the 2020 revised draft mas
plan for the Carter Street
Precinct

Endorsed by Council

12.10.2020

CONTENTS

1. INTRODUCTION

The City of Parramatta Council (Council) welcomes the opportunity to provide a submission to the recently exhibited 2020 revised draft master plan for the Carter Street Precinct, otherwise known as the Carter Street Master Plan (CSMP). The CSMP was placed on public exhibition between 31 August till 28 September 2020. Council also welcomes the opportunity to comment on the State planning agreement at 15-21, 23-31 and 33-35 Carter Street, Lidcombe which was exhibited concurrently with the CSMP.

Council was granted an extension by the Department of Planning, Industry and Environment (DPIE) to allow this submission to be considered by Council at its meeting on 12 October 2020.

Council has reviewed the 2020 revised draft CSMP and its associated documents to prepare this submission. A number of issues and concerns relating to the Planning Proposal have been raised. A summary of the key issues raised include:

i. That Council does not support the additional dwelling capacity within the Precinct without provision for additional local community infrastructure
ii. Seeking clarification relating to the rationale used to justify 700 new dwellings based on the Sydney Metro station
iii. Seeking further clarification in relation to the proposed additional local provisions and their practical implementation
iv. Raising concerns that there is a lack of affordable rental housing in the Precinct
v. Seeking clarification on the mechanism to protect and deliver land around a potential stop for Parramatta Light Rail – Stage 2
vi. The need to clarify the transfer mechanism of public open space to guarantee its delivery to Council as part of the State planning agreement
vii. That the State government fully fund and deliver the road widening of Hill Road as a consequence of the potential westbound off-ramp from the M4
viii. The proposed reduction in the overall central open space compared to what was exhibited under the 2018 revised draft CSMP, despite the need for more open space to service a high density precinct.
ix. The need to include greater sustainability controls for the Precinct.

Accordingly, Council requests that these issues and concerns be addressed prior to any finalisation of the 2020 revised draft CSMP.

Furthermore, Council has previously made a submission to the 2018 revised draft CSMP which outlines concerns raised in relation to certain issues as part of that exhibition. Council acknowledges that under the 2020 revised draft CSMP, some issues have been addressed whilst others have not. Therefore, this submission needs to be read in conjunction with, and in addition to, Council's previous submission to ensure that all concerns raised are addressed in both the previous submission and this submission. Council's submission to the 2018 revised draft CSMP is at **Appendix A**.

This submission was endorsed at the meeting 12 October 2020. Subsequently, it has since been forwarded to the Department of Planning, Industry and Environment (DPIE) for consideration.

2. COMMENTARY ON THE 2020 REVISED DRAFT MASTER PLAN FOR THE CARTER STREET PRECINCT

This section provides an overview of the 2020 revised draft CSMP and commentary on certain issues that have arisen as part of Council's assessment.

Background and summary of the 2020 CSMP

The Carter Street Precinct (Precinct) is located in Council's local government area (LGA) to the west of the Sydney Olympic Park Authority (SOPA) area and to the east of Newington (**Figure 1**).

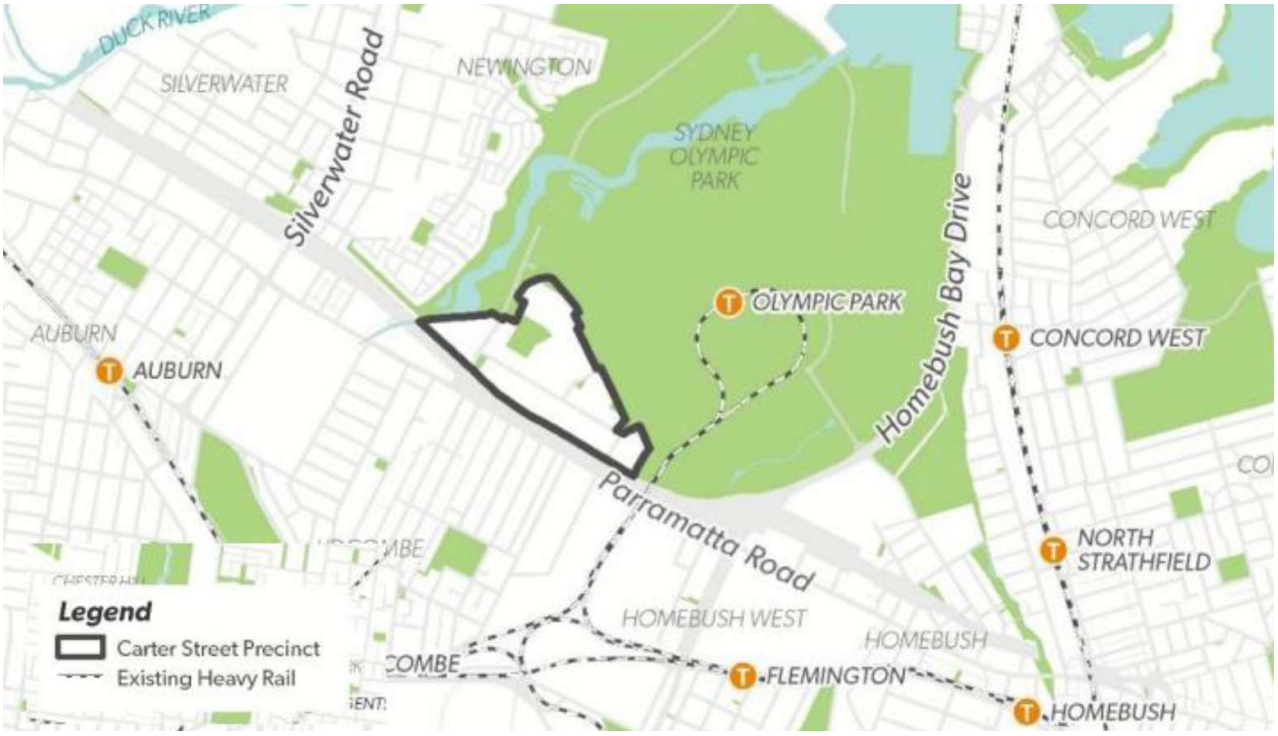


Figure 1 – Carter Street Precinct location

The Carter Street Precinct was rezoned in 2015 for up to 5,500 new dwellings, a new village centre, a site for a new primary school and new public open space.

In 2018, the DPIE undertook a review of the planning controls of the Precinct and publicly exhibited a 2018 revised draft CSMP. The 2018 CSMP factored in the following:

- A potential westbound off-ramp from the M4 to Hill Road
- A potential Parramatta Light Rail (PLR) Stage 2 stop and terminus at the Precinct town square
- Relocation of the future school site from the north to the centre of the Precinct
- Potential provision of increased open space and open space configuration
- Review of existing urban design and development controls

- No additional density proposed as part of the revised draft master plan

Accordingly, Council made a submission to the 2018 CSMP. Council raised a number of key concerns including:

- No additional density over and above the existing controls should be accommodated in the Precinct as part of this process
- Any upgrade to Hill Road as a consequence of the M4 westbound off-ramp must be fully funded by the State government
- Concerns relating to development near fuel/gas pipelines
- Concerns relating to additional proposed open space located within SOPA land

For full details of Council's submission to the 2018 revised draft CSMP, refer to **Appendix A**.

The 2020 revised draft CSMP seeks to finalise the 2018 exhibited draft CSMP planning controls and mapping (**Figure 2**). It proposes a number of changes in response to the previous exhibition and the confirmation of the future Sydney Metro located in Sydney Olympic Park. Of particular note is the proposed increase in dwelling capacity in the Precinct to accommodate an additional 700 new dwellings above the 5,500, as well as additional local provisions clauses which introduces reduced car parking rates for sites located in proximity to the proposed Sydney Metro station to achieve the proposed uplift.

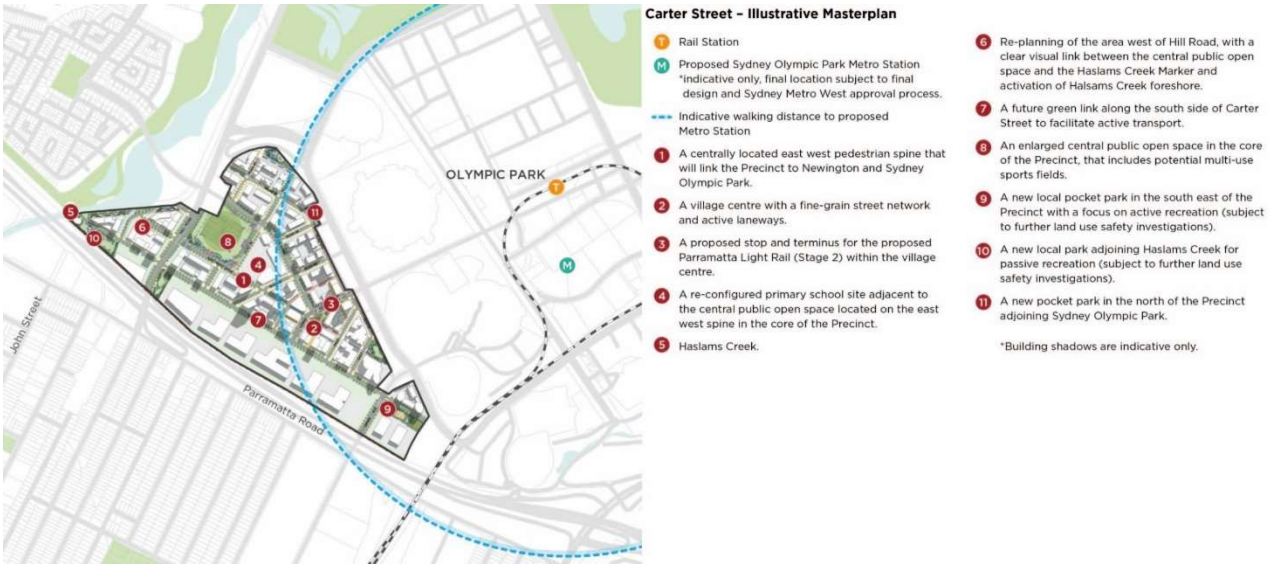


Figure 2 – 2020 revised draft Carter Street Master Plan – Structure Plan

As part of the exhibited package, there was no accompanying documentation to the *Explanation of Intended Effects*, *Development Framework*¸ or proposed Auburn Local Environmental Plan 2010 (ALEP 2010) maps. In particular, there was no updated master plan report or urban design report. Therefore, Council assumes that the version exhibited in 2018 remains unchanged apart from those highlighted as part of the 2020 CSMP exhibited package.

It is noted that a full summary of the key changes to the planning controls under the revised draft CSMP are contained in Table 3 of Appendix B of the 2020 revised draft CSMP's *Explanation of Intended Effects*.

A. Additional dwelling capacity within the Precinct

As discussed above, the Precinct was originally zoned in 2015 to be a precinct of 5,500 dwellings. In 2018, the revised draft CSMP that was exhibited made it clear that no additional density would be accommodated in the Precinct.

Under the 2020 revised draft CSMP, an additional dwelling capacity of 700 new dwellings above the 5,500 dwelling cap is proposed to be accommodated in the Precinct. The confirmation of the Sydney Metro station at Sydney Olympic Park has been identified as the key factor for enabling this additional dwelling capacity.

The additional 700 new dwellings are anticipated to be located within an 800m walking radius of the future Sydney Metro stop, therefore the additional uplift is only applicable to sites at the eastern portion of the Precinct, to the east of Hill Road, that borders SOPA land (see **Figure 2**).

The need for additional local community infrastructure

The additional 700 new dwellings that can be accommodated with the confirmation of the Sydney Metro station at Sydney Olympic Park would result in the overall dwelling capacity of the Precinct to increase to approximately 6,200 dwellings compared to the 5,500 dwellings achievable under the existing controls. Council has used the adopted DPIE occupancy rate for the Precinct to be 2.2 persons per dwelling to calculate an approximate future residential population of 13,640 under the 2020 revised draft CSMP. This results in an increase of 1,540 people from the previous dwelling cap of 5,500 dwellings under the original rezoning. This is a significant concern as this equates to a residential population more than the total forecast population of the Newington and Silverwater suburbs combined, on one seventh of the land.

Council is generally supportive of development located in proximity to public transport nodes to encourage public transport patronage, however, concerns are raised in relation to potentially increasing the dwelling capacity without provision of additional local infrastructure within the Precinct, other than the proposed Sydney Metro station. Whilst it is acknowledged that there is a State planning agreement that was exhibited concurrently with the CSMP to secure a number of public benefits, Council raises concerns that the 2020 revised draft CSMP does not nominate additional local infrastructure above the existing *Carter Street Precinct Development Contributions Plan 2016*. It should be noted that the local infrastructure items listed in the *Carter Street Precinct Development Contributions Plan 2016* are intended to service a precinct of 5,500 dwellings.

The proposed increase of 700 additional dwellings, or the additional 1,540 people, triggers an increased need for community infrastructure. In Council's submission to the 2018 revised draft CSMP (**Appendix A**), it was identified that community infrastructure provision was insufficient for a precinct of 5,500 dwellings and that there was an existing shortfall. This would be exacerbated by the proposed increase in density under the 2020 revised draft CSMP.

Whilst it is acknowledged that the CSMP considers relevant State Government planning documents, it does not consider the City of Parramatta's requirements for community infrastructure as set out in Council's *Community Infrastructure Strategy 2020* (CIS). The CSMP needs to have consideration of the CIS which identifies priorities for future community infrastructure within Council's LGA. **Table 1** identifies types of community infrastructure required within the Carter Street Precinct, with comparisons between the 2018 and 2020 proposed residential population.

Table 1 – Community infrastructure benchmarking calculations for forecast 2036 population of the Carter Street Precinct

			2018 CSMP	***2020 CSMP***	
		Residents	12,100 residents	13,640 residents	
		Dwellings	5,500 dwellings	6,200 dwellings	
		Year	2036	Unidentified	
		Occupancy rate	2.2	2.2	
Community infrastructure type	**Benchmark**	**Benchmark source**	**Calculated provision required (as recommended under the CIS)**		**Community infrastructure requirements**
Community centres/halls	*80m² per 1,000 people*	Elton's 'Parramatta Community Facilities Audit and Needs Study Report 2017' commissioned by City of Parramatta	968m²	1,091m²	An additional 123m² minimum is required however details of the proposed community facility are not provided in the draft CSMP.

Early childhood education and care	*Long Day Care (LDC): 1 place for every 2.48 children aged 0-4 years* *Out of Hours School Care (OOSH): one place for every 2.7 children ages 5-11 years*	Families At Work 'Early Education and Needs Analysis Report, 2015'	385 256	434 287	Child care needs are not addressed in either2018 and 2020 CSMP. Concerns are raised in relation to limited site opportunities for provision of LDC and OOSH care due to the gas and fuel pipeline, especially with the likely need for approximately 400-500 LDC and 200-300 OOSH care places to adequately service the Precinct.
Affordable rental housing	*No accepted benchmark provision standard*	5-10% of uplift value allocated to affordable housing in high growth areas - Greater Sydney Commission	NA	NA	Affordable Rental Housing is not provided despite the GSC's recommendation to attribute 5-10% of new development in high growth areas for affordable rental housing.
Play spaces	*1:2,000 people (including district and regional provision)*	Parks and Leisure Australia, 'Guidelines for Community Infrastructure, 2012'	6 play spaces	6-7 play spaces	An additional play space is needed to support the additional population.
Parks and open space	*2ha/1,000 people (1ha parks & 1ha natural areas and other open spaces)*	Parks and Leisure Australia, 'Guidelines for Community Infrastructure, 2012'	24.2ha (recommended under the CIS) (However, only 7.38ha are provided under the 2018 CSMP)	27.28ha (recommended under the CIS) (However, only 7.06ha are provided under the 2020 CSMP)	The open space provision required to adequately service a high density precinct as this, based on the CIS, indicates that the demand for natural areas and other open spaces has increased by 3.08ha yet overall provision of open space within the Precinct (under the 2020 CSMP) has decreased by 0.32ha since the 2018 revised draft CSMP. Council raises the concern that the overall open space provision has decreased by 0.32ha despite there being a need for more open

					space, especially for a high growth precinct.
Sportsgrounds	*1ha/1,000 people sporting open space*	Average LGA standard of seven metropolitan councils, 2017	12.1ha (recommended under the CIS)	13.64ha (recommended under the CIS)	The sportsground provision required to adequately service a high density precinct as this, based on the CIS, indicates that the demand for sportsgrounds has increased by 1.54ha yet overall provision of open space within the Precinct (under the 2020 CSMP) to enable sportsground provision has decreased by 0.32ha since the 2018 revised draft CSMP. The reduction in open space provision reduces the opportunity to provide for adequate sportsgrounds. Similar to 'parks and open space' discussed above, Council raises the concern that the overall open space provision to enable sportsground provision has decreased by 0.32ha despite there being a need for more open space, especially for a high growth precinct.
Indoor sports facilities	*Indoor courts 1 per 20,000 people* *Indoor sports centre 1 per 50,000-100,000 people*	Parks and Leisure Australia, 'Guidelines for Community Infrastructure, 2012'	Population numbers too low to trigger facility	Population numbers too low to trigger facility	NA
Community gardens	*No accepted benchmark provision standard*	NA	NA	NA	NA
Libraries	*District library for 20,000-35,000 people is 39m² per 1,000 people +*	State Library of New South Wales as well as the 'Guidelines, Standards and Outcome Measures for Australian Public	Population numbers too low to trigger facility	Population numbers too low to trigger facility	NA

	20% circulation space	Libraries' developed by the Australian Public Library Alliance and Information Association, 2016			
Aquatic facilities	*Regional Aquatic Facility for every 100,000 to 150,000 people*	'Aquatics Recreation Victoria, 2011' and Parks and Leisure Australia 'Guidelines for Community Infrastructure, 2012'	Population numbers too low to trigger facility	Population numbers too low to trigger facility	NA

As identified in **Table 1**, there are a number of community infrastructure requirements that need to be provided to satisfactorily service the future population at the Carter Street Precinct, especially if the potential for increased densities are implemented.

No significant new open space is proposed. Any increase of dwellings numbers should have a commensurate amount of additional open space. Given the finite nature of the precinct Council questions the extent of dwelling increase based on the lack of additional open space. Potential for open space may be compromised by land use pressures due to additional residents. Open space is discussed further in Part 2C.

It should also be noted that the school was committed to in the original 2015 rezoning, and that it was based on the density of 5,500 dwellings. The rationale that 700 additional dwellings would help secure the provision of the school is concerning. Additional school capacity for the increase of population should be included as a basis for any agreed increase.

It is in this regard, that unless additional community infrastructure is provided to support the additional residential density, Council does not support the increased dwelling capacity in the Precinct.

Rationale of additional dwelling capacity

There is no clear explanation of how the additional proposed 700 new dwellings can be attributed to the confirmation of the Sydney Metro station. Given the potential for the provision and/or improvement of three transport modes, being the potential PLR Stage 2, the future Sydney Metro station as well as rescheduling of the SOP timetable, there is improved transport capacity which has underpinned the proposed increase of density. It is unclear, however, as to how much of this additional density is apportioned to PLR Stage 2, Metro West and the Sydney Olympic Park Line improvements, respectively.

Given 5,500 dwellings were underpinned by the existing SOP station and timetable, more clarity is needed if the additional 700 dwellings are based on the provision of the Sydney Metro alone. Furthermore, concerns are raised that it may be proposed that if PLR Stage 2 proceeds to Carter Street, there may be suggestions of proposals for further increased density. Council reiterates that this is an already highly dense precinct and that no further density should be accommodated or justified without the adequate infrastructure provisions to service the future community.

It is therefore recommended that following exhibition, the CSMP considers the abovementioned community infrastructure as essential to be delivered in addition to the local infrastructure required for the Precinct under the current *Carter Street Development Contributions Plan 2016*. This will assist in addressing both the existing shortfall and to meet the anticipated pressure from the increased dwelling capacity from the 2020 revised draft CSMP. It is recommended that Council work with the DPIE in order to identify essential local infrastructure and to establish appropriate delivery mechanisms and a design response to achieve these items.

Affordable housing

Affordable housing remains an issue with the 2020 revised draft CSMP and is in contrast with the vision of the Precinct to deliver "a mix of housing". No details of affordable housing have been identified in the CSMP despite the

proposed increase in dwellings and since the announcement of the Sydney Metro West Station makes it entirely suitable given its proximity to future public transport.

Council's current policy context supports increasing the supply of affordable housing as outlined in:

- City of Parramatta's Affordable Rental Housing Policy 2019; and
- City of Parramatta's Socially Sustainable Parramatta Framework 2017 which identifies 'diverse affordable housing for everyone' as a goal.

The Affordable Rental Housing Policy 2019 seeks to increase supply of affordable housing for low to moderate income earners (usually keyworkers and students) who require affordable housing options close to their work and education facility. The Policy articulates City of Parramatta Council's position on the issue of housing affordability and how the City will act to encourage delivery of affordable rental housing in order to address it. It sets a target of **9,500 additional affordable housing dwellings by 2036** to meet the needs of households in housing stress.

The residential population of the Precinct will grow rapidly as the developments come online. More community and social services workers will be required to provide an adequate level of service and support, including emergency services like police and ambulance, as well as childcare staff.

Council therefore recommends that the draft revised CSMP and subsequent LEP amendment incorporates provision of future affordable rental housing in line with targets endorsed in the Central City District Plan by the Greater Sydney Commission.

B. Draft amendments to the Auburn LEP 2010

Additional local provisions

The CSMP proposes to include additional local provisions under the Auburn Local Environmental Plan 2010 (ALEP2010) to incentivise public transport patronage. The proposed incentive clauses seek to allow increases to the maximum height of buildings and maximum floor space ratio controls for certain sites within proximity to the future Sydney Metro station, subject to reduction in car parking rates (see **Figure 3** – the applicable sites are identified as "A", "B", "C" and "D").

Figure 3 – Additional local provisions map – subject sites

Under the CSMP, these specific sites have been identified to be able to achieve additional uplift, however it is dependent on their utilisation of reduced parking rates proposed in the CSMP. **Figure 4** identifies the particular sites which can achieve additional height and floor space.

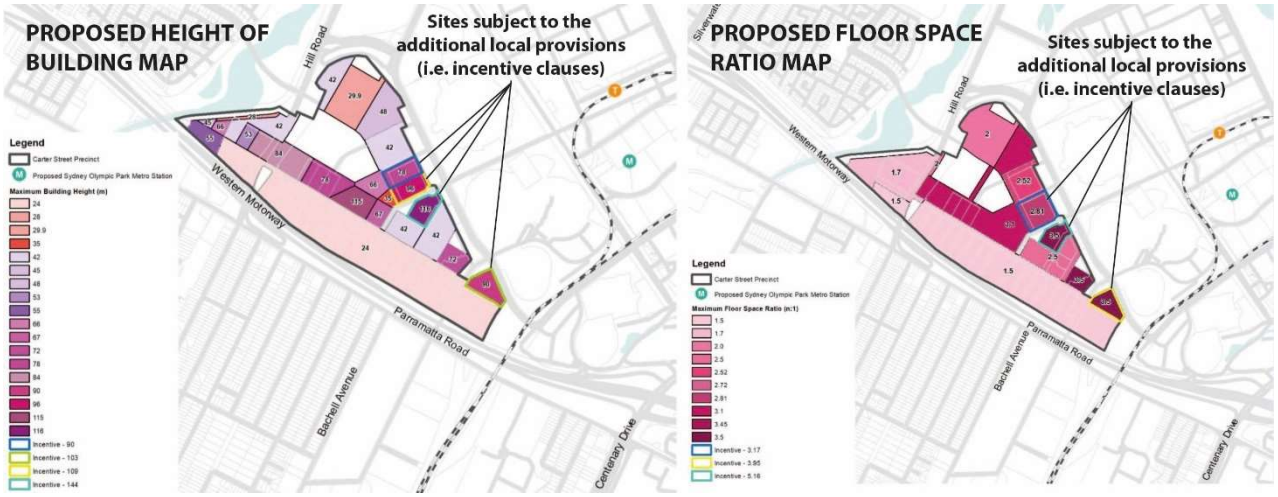


Figure 4 – Specific sites that are able to achieve additional height and floor space – proposed HOB and FSR maps

Council raises concerns relating to the proposed additional local provisions as the applicable sites identified have active development applications (DAs) currently under assessment. It is unclear whether these incentives are applicable to the whole of each identified site, or if they are applicable only to the portion that achieves an uplift by reducing car parking as per the proposed additional local provisions. It is acknowledged that under the CSMP's *Explanation of Intended Effects* it is stated that, "any development uplift will be subject to a reduction in car parking rates", however, it is not made clear how this ought to be implemented.

It is Council's understanding that the existing car parking rates under the Carter Street Development Control Plan 2016 (DCP) would be applicable to the base floor space ratio for the specific sites identified under the CSMP since these rates are intended for a Precinct of 5,500 dwellings. However, if these sites were to seek the additional uplift as part of the proposed incentive clauses, then the reduced parking rates as per the CSMP would be applied to this uplift. Whilst this is Council's interpretation of the implementation of the incentive clauses, it is not made clear in the exhibition package of how they ought to be practically implemented. The exhibited CSMP does not include any draft clauses of the proposed additional local provisions that would provide clarity around how these controls would be applied.

Council seeks clarification regarding the application of the incentive clauses. Under the CSMP, uplift incentives are only applicable to sites "B", "C" and "D", and not for site "A", as per **Table 2**. Council's understanding is that these sites (being "B", "C" and "D") can achieve additional uplift but only upon adoption of reduced car parking rates. Site "A", however, is required to adopt reduced car parking rates but with no incentives. Therefore, the applicable car parking rates would be in accordance with **Table 3**. However, the DPIE needs to make it clear that this is the case, as the *Explanation of Intended Effects* (under the section "Car parking on certain land within the Carter Street Precinct") refers to a site specific clause for site "A" as requiring reduced car parking "despite any uplift".

Table 2 – Proposed incentives to maximum height of buildings and floor space ratio for specific sites identified in the Additional Local Provisions map

	Site B 2020 Draft	***Site B Incentive***	***Site C 2020 Draft***	***Site C Incentive***	***Site D 2020 draft***	***Site D Incentive***
Height of Building	*AA5 – 77m* *AB6 -96m*	*Northern part -90m (additional 4st)* *Southern part 109m (additional 4st)*	*AC2 – 116m*	*144m (additional 9st)*	*AB5 – 90m*	*103m (additional 4st)*
Floor Space Ratio	*2.81:1*	*3.17:1*	*3.5:1*	*5.16:1*	*3.5:1*	*3.95:1*

Table 3 – Reduced car parking rates as per the proposed additional local provisions

Residential	*Existing rates*	*Site "A"*	*Sites "B" and "D"*	*Site "C"*
Studio	0.5	0	0.1	-
1 bedroom	1.0	0.6	0.3	0.6
2 bedroom	1.0	0.9	0.7	0.9
3+ bedroom	2.0	1.4	1	1.4
Visitor	0.2	1 (per every 5 dwellings)	0	0

The workings of this incentive scheme cannot be properly considered given the written clauses are not provided as part of the exhibited package. Furthermore, the *Explanation of Intended Effects* refers to the application of these incentive clauses to those sites shown on the Key Sites Map, however there are no Key Site Maps as part of the CSMP exhibition.

Council recommends that the DPIE provide draft clauses to Council prior to any finalisation of the CSMP and that Council be involved in the drafting process, and that further clarification be made regarding their application.

Impacts on the built form

The proposed additional local provisions would potentially allow increases in the height of buildings from Carter Street to the edge of the SOPA boundary. Given that there are two separate regimens of controls and management between Council's LGA and the SOPA land, Council raises concerns that this could result in lop-sided development guided primarily by a walking catchment of the proposed Sydney Metro station rather than design principles of the master plan to date. Furthermore, a circular walking catchment of 800m to inform density is considered to be poor planning practise as it does not recognise actual connections (isochrones) and place making attractors that skew desire lines.

Council seeks more information in relation to the impacts on the adjusted heights, including the cumulative impact of solar access on the public domain, distant views and skyline, and proximate views from the surrounding public domain and context.

Reduction of visitor parking

Council raises concerns relating to the reduction in visitor parking. The proposed reduction in visitor parking rates would create very poor arrangements for many residents. For example, for those individuals experiencing temporary injuries or illness, those with disabilities, young children and elderly residents it would be difficult for relatives, friends and support staff to visit, leading to social isolation and poor health outcomes. These would also be constrained for businesses or volunteer organisations that provide services to the home.

Lower or no visiting parking rates are generally associated with CBD locations with excellent access to a major public transport interchange and employment. However, the Precinct does not meet those criteria, and is generally located approximately 800m from the future Olympic Park Metro station.

Interrelationship between legislation

Council's proposal to harmonise its various LEPs is currently being exhibited. It is understood that should the CSMP be implemented prior to the finalisation of the harmonisation proposal, the amendments made to the ALEP 2010 under the proposed SEPP will prevail and will ultimately be included in the final consolidated LEP.

However, there is concern that under the *Explanation of Intended Effects*, there is a proposed new clause to be inserted into the ALEP 2010 requiring "the consent authority to have regard to the Carter Street Precinct *Development Framework* when assessing development applications for land in the Carter Street Precinct." Given that the *Development Framework* is not a DCP, and only has weight by virtue of being 'called up' by the LEP, Council raises concerns of whether there has been any consideration of whether a variation to the *Development Framework* would trigger clause 4.6 of the ALEP 2010. This matter needs to be clarified as it would have implications for future development and assessments within the Precinct.

Furthermore, the *Explanation of Intended Effects* outlines that the *Development Framework* will prevail over the DCP, therefore Council questions whether the *Carter Street Development Control Plan* will be repealed, and if so, when does this apply. If it is not repealed, inconsistencies will arise as the DCP would technically still be in force and would therefore be a matter for consideration under section 4.15 of the *Environmental Planning and Assessment Act 1979*.

Development Framework – General comments

Setbacks

Figure 25 – a 5m commercial setback adjoining RE1 Public Recreation zoned plaza (northern boundary of Meriton's Phase 4) has been introduced. However, it is not in the current DCP and is inconsistent with what has been approved at the site (zero setback adjoining pedestrian link). Since it has been approved it would be difficult to achieve what is set out under the CSMP. This needs to be rectified.

Towers

The *Development Framework* introduces a new floorplate maximum for buildings 9+ storeys: increased from 900sqm (building footprint) to 1,000sqm (GBA). The change from 'building footprint' to 'GBA' (acronym is undefined, but presumably means gross building area') needs to be clarified as it may have implications for its interpretation and practical application. The 100sqm increase is an example of the need for clarification of the terminology.

The *Development Framework* introduces a specified preference for towers to be without a podium – the built form currently proposed in the precinct may not necessarily be what is expected or intended by this control (e.g. proposed towers above podiums – see Meriton Phases 3 and 4). This requires further consideration and the expectation of this proposed control requires clarification.

Active frontages

Some of the active edges show in the active frontage map have already been delivered and are unlikely to change. Furthermore, not all identified active street frontages under the draft *Development Framework* has a street front (e.g. Meriton Phase 1). This needs to be amended to reflect the existing and approved built form. This is shown in **Figure 5** below.

1. Area 1 highlighted has already been built and presents a residential edge to the pocket park. This is unlikely to change.
2. Single sided active uses near a high pressure pipeline and industrial uses south of Carter Street setback from the street, is not supported.
3. The active frontages proposed are only supported along this edge if fronting onto an accessible park and open space, subject to size restrictions, fine grain and adaptable uses – not a high street of retail.
4. Some sites do not have public access. This is not supported unless easy and generous public access is guaranteed with views to Haslams Creek. Given a recent court resolution limiting access at the western end of the precinct, this active frontage is supported only if clear, uninterrupted/continuous and generous public access is available 24/7 along the foreshore.
5. The proposed active frontage along the future park is supported subject to size restrictions, fine grain and adaptable uses – not a high street of shops.

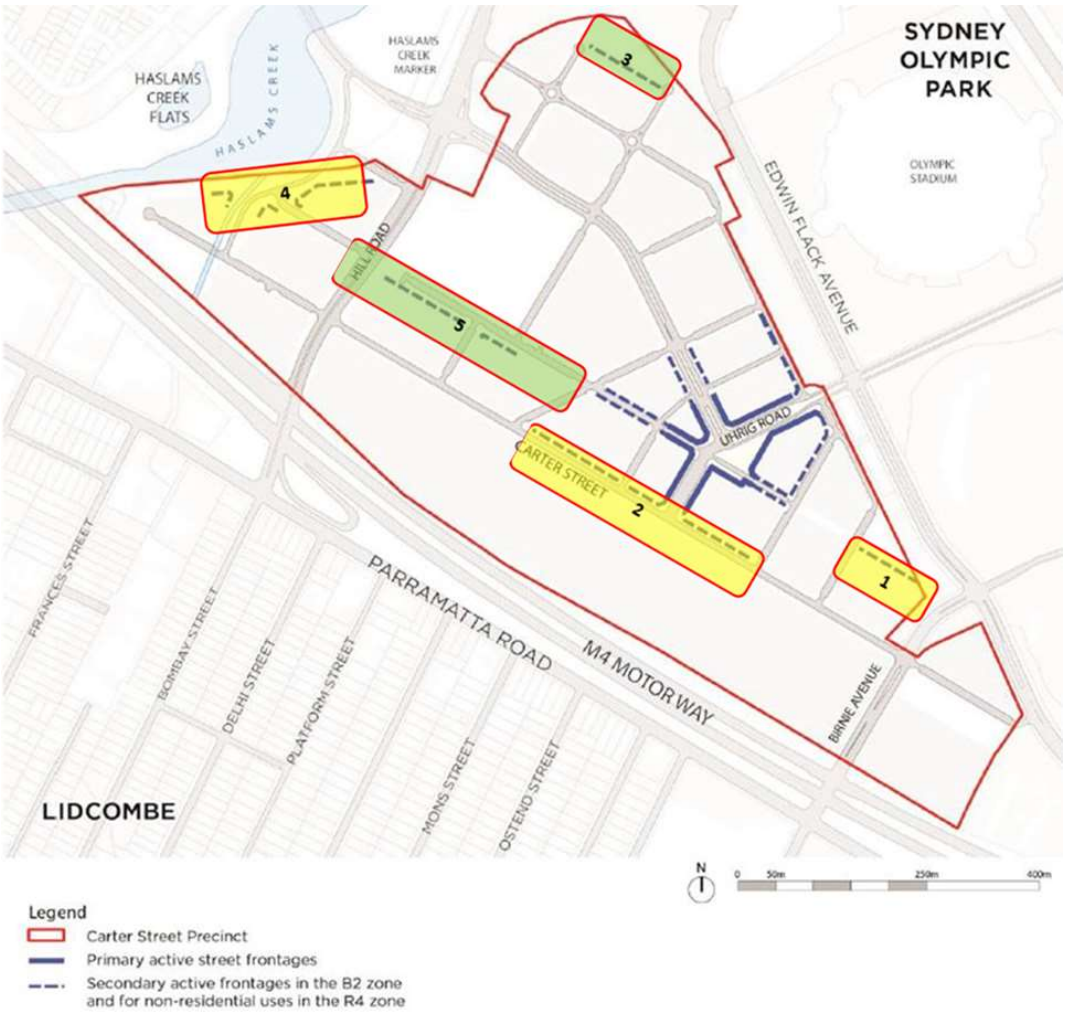


Figure 5 – Minimum active street frontages

For the town centre, the *Development Framework* does not require non-residential uses for the entirety of Meriton Phase 3 at ground floor (Figure 30 of the *Development Framework*), even though elsewhere in the *Development Framework* (Figure 32 of the *Development Framework*), it must provide "secondary active frontage". This potential inconsistency needs to be resolved.

The *Explanation of Intended Effects* introduces an active street frontages hierarchy of "primary" and "secondary" active frontages (Figure 13 of the *Explanation of Intended Effects*) as does *Development Framework* (Figure 32 of the *Development Framework*). However, this is inconsistent with the exhibited Active Street Frontages Map – Sheet ASF_006 which shows required active frontages being only the 'primary active frontages'. ASF_006 does not require secondary active frontages. This is inconsistent and should be rectified to provide clear direction of where frontages will be activated.

Wind mitigation

The *Development Framework* introduces wind maximums:

- 10m/s in retail streets
- 13m/s along pedestrian streets, parks, and public places
- 16m/s in all other streets

The Melbourne-derived method for wind acceptability criteria outlines that: 10m/s is required for comfortable outdoor dining; 13m/s is for comfortable standing/waiting; and 16m/s is comfortable walking. The *Development Framework* introduced maximums may be considered excessive and there may be difficulty in achieving these (for example, the 10m/s for retail streets is of concern; the pedestrian link between Meriton's phases 3 and 4 is expected

to experience winds of 8.0m/s – 15.5m/s; this would be above the threshold for pedestrian streets, parks, and public spaces in some locations).

Pipelines

The *Development Framework* introduces more specific pipeline controls, including that "development for…tourist and visitor accommodation must not be located in Hazard risk area 2". However, 11A and 13 Carter Street (Meriton Phase 4) is within Hazard risk area 2 and already has approval for part serviced apartments.

Public Open Space Network

Figure 23 of the *Development Framework* shows active public open space over 2B Hill Road and 12-14 Birnie Avenue. Council is not supportive of this land being identified as "active open space" due to the limitations associated with the pipelines. This open space should be identified as "passive open space" due to its location within the hazard risk area.

Design excellence

The CSMP's *Explanation of Intended Effects* outlines that the threshold for requiring design excellence/review by the design excellence panel will be any building 10m or higher. Council supports the CSMP in providing no bonuses as part of the design excellence process.

Under the 2018 CSMP planning report, it nominates design competitions for buildings greater than 42m and bonuses of 10% for height only. The 2020 CSMP needs to be clear that it prevails over details such as these from the previous 2018 version.

Parramatta Light Rail Corridor

The CSMP's *Explanation of Intended Effects* (p21) outlines that "an additional clause is proposed to provide for the acquisition and/or dedication of the PLR Stage 2 corridor … the application of this clause is shown under the Land Zoning Map". However, the proposed LZN_006 map does not show the PLR corridor nor is it identified under the proposed Land Reservation Acquisition map, LRA_006. It is shown on the Precinct Map – Sheet PRP_006, which identifies "Transport Investigation Area – refer to Clause XX", but there are no draft clauses provided, therefore it cannot be determined by what mechanism the corridor is transferred and protected.

Under the *Development Framework*, 7m is shown as being required for either side of Uhrig Road North, and 5m is required either side of Uhrig Road South. It does not outline the mechanism of how this will be secured. Clear direction regarding the mechanism of how this land is preserved is required and should take form of written clause under the LEP rather than relying on the development framework/DCP.

It should be noted that 2018 version of the CSMP had a draft clause requiring concurrence from TfNSW for any DA on any land affected by the Transport Investigation Area overlay. Council questions whether this remains the intended approach. If Council is required to ask developers to transfer this land at no cost, then a "concurrence provision" is required to give Council sufficient weight to receive such land. Furthermore, on page 21 of the *Explanation of Intended Effects* it states that *"…an additional clause is proposed to provide for the acquisition and/or dedication of the Parramatta Light Rail (Stage 2) corridor should an* ***investment decision*** *be made*." Council seeks clarification from the DPIE regarding what an 'investment decision' is, and how is that to be interpreted and applied. If it requires the State government to confirm whether or not to proceed with PLR Stage 2, then it needs to be confirmed sooner rather than later. This is due to Council having active DAs for sites within the proposed PLR 'reservation' corridor.

C. Open space provision

In high density living, communal open space, green infrastructure and recreational opportunities are of increased importance, to counter balance the limited private open space apartments provide. These opportunities include well

documented psychological, physical, mental and social benefits and are crucial for community wellbeing and cohesion.

While there is existing regional level community infrastructure in nearby Sydney Olympic Park, these facilities have limited availability for local use and are not located within a reasonable walking distance of the future high density residential community. This future community will be living in a large-scale, high density environment, with public spaces and recreational facilities to essentially function as their 'backyard' and 'living room' for gathering and recreation. New public open space and recreational facilities are therefore critical to the wellbeing of the future community and should be provided consistent with the requirements of Council's CIS. The CIS prescribes that **20% of land be dedicated as quality public open space to be within a 250m of all dwellings in high density neighbourhoods,** as well as the best-practice performance criteria in the draft *Greener Places Design Guide* to ensure high quality provision that meets the diverse needs and high demands of the future population.

The overall provision of public open space within the precinct is well below Councils best-practice 20% requirement for high density precincts. The Carter Street Precinct is 52ha, which would equate to approximately 10.4ha of open space required to be in accordance with Council's best practice. However, under the CSMP there is only provision for approximately 5ha. Therefore, the overall open space provision under the CSMP does not meet Council's best-practice 20% requirement. At the very least it is critical that all new and upgraded public open spaces within the precinct are of high quality and functionality to satisfactorily accommodate high levels of use as well as diverse community needs and preferences. The proposed development framework controls need to ensure all public open spaces are a **minimum size of 3,000m^2,** being the smallest viable size to provide for the diversity of recreation opportunities as required to cater for high levels of demand, and consistent with the best-practice performance criteria in the draft *Greener Places Design Guide.*

No significant new open space is proposed as part of the 2020 revised draft CSMP. Any increase of dwellings numbers should have a commensurate amount of additional open space. Given the finite nature of the precinct Council questions the extent of dwelling increase based on the lack of additional open space.

Council supports the provision of open space, however, raises the concern that the central open space under the 2018 revised draft CSMP was proposed to be 3.4ha, whereas under the 2020 revised draft CSMP, this has been reduced to 3.08ha (as identified under the proposed *Development Framework*). Council does not support the reduction in the central open space and recommends that there is an increase to accommodate the additional density proposed under the CSMP. However, at the very least, there should be no net loss of open space and that it be retained to be 3.4ha as per the 2018 revised draft CSMP.

Ownership and Zoning

Council has significant concerns that portions of the proposed new 'Central Open Public Open Space' (Item 5), new northern pocket park (Item 11) and expanded northern local park are located outside the precinct boundaries within Sydney Olympic Park Authority (SOPA) land. Delivery of these new and expanded parks will therefore be crucially reliant upon the concurrent rezoning of SOPA land for public open space. This will require an amendment to SEPP (State Significant Precincts) 2005 and Sydney Olympic Master Plan 2030 likely resulting in a significant delay to achieving full functionality of these new public open spaces, particularly the critically important sporting fields located within the Central Open Public Open Space.

This multiple ownership will also create unnecessary ongoing maintenance and management complexities due to different legislation, planning controls and organisational policies / processes applying. As a minimum the development framework needs to include provisions that address multiple ownership and the delivery of public open space that is reliant upon securing SOPA managed land.

Central Public Open Space (Item 8)

The central public open space will effectively function as the 'district' level facility for the Carter Street Precinct and will need to accommodate a range of active and passive recreational opportunities that are unable to be provided in the smaller parks within the precinct. Whilst the size, location, shape and concept design are generally supported, the controls need to better reflect the following requirements to maximise capacity and flexibility:

- Sporting fields (full size standard Cricket field / 2 x standard Soccer fields overlay);

- Stormwater capture / reuse
- Public toilets / amenities
- District playground (shade and imaginative, sensory, natural, skill based elements to cater for diverse ages and abilities)
- Circuit pathway
- Picnic / BBQ facilities

Haslams Creek (Item 5) and South-West Park (Item 10)

This 20m wide foreshore park adjoins Haslams Creek that is mapped as a 'Coastal Environment Area' under SEPP (Coastal Management) 2018. The proposed highly urbanised design compromises the objectives of the adjoining 'Coastal Environment Area' under the *Coastal Management Act 2016* and does not fully realise a key opportunity to complete a contiguous vegetated corridor along Haslams Creek between Homebush Bay and WestConnex. The proposed narrow linear configuration offers limited functionality and amenity (other than access), with the useability of the proposed adjoining local park to the south likely impacted by restrictions associated with the gas pipeline/s that traverse underneath. As Haslam's Creek is a tidal estuarine waterway at this location it should accommodate a minimum of 40m setback (incorporating a vegetated riparian corridor) consistent with Department of Industry guidelines.

Local & Pocket Parks (Items 9,10,11)

The proposed new local and pocket parks currently retain an R4 (High Density Residential) zoning that (whilst permitted in the zone) is inconsistent with other public open space within the precinct. These should be zoned as RE1 (Public Recreation) to more appropriately reflect their intended 'public' purpose and ensure consistency throughout the precinct. To better reflect best-practice consistent with the draft Greener Places Design Guide, the proposed local / pocket parks should be increased in size to achieve a minimum size of 3000m2. This is typically considered to be the smallest viable size to provide for a diversity of recreation activities required to meet the diverse demands of the surrounding high density community. The amenity and useability of the proposed new eastern local park (Item, 9) is also likely impacted by restrictions associated with the gas pipeline/s that traverse under the park.

State Planning Agreement

The proposed State planning agreement provides for the dedication of the central open space (excluding SOPA portion) to the Minister (or Ministers nominee) and minimal embellishment, such as remediation, turfing and levels, as required to ensure that it is 'fit for purpose' upon transfer. Clarification is requested that it is intended for this land be transferred to Council (as Ministers nominee) and that the $3M identified in the existing Carter Street Precinct Development Contributions Plan (2016) is to be the funding mechanism for the higher level of embellishment required to achieve the intent of the master plan e.g. sporting fields. This will be discussed further in Part 2F.

D. Proposed connections

The following comments are made in reference to the proposed cycleways and pathways under the 2020 revised draft CSMP *Development Framework*:

1. The structure plan (Figure 3 under the *Development Framework*, p9) is missing the "indicative future pedestrian and cycle link" at Hill Road, over the M4 and Haslams Creek. This is inconsistent with Figure 19 under the *Development Framework* and needs to be rectified. Refer to **Figure 6** below for a side-by-side image which highlights the missing "indicative future pedestrian and cycle link".

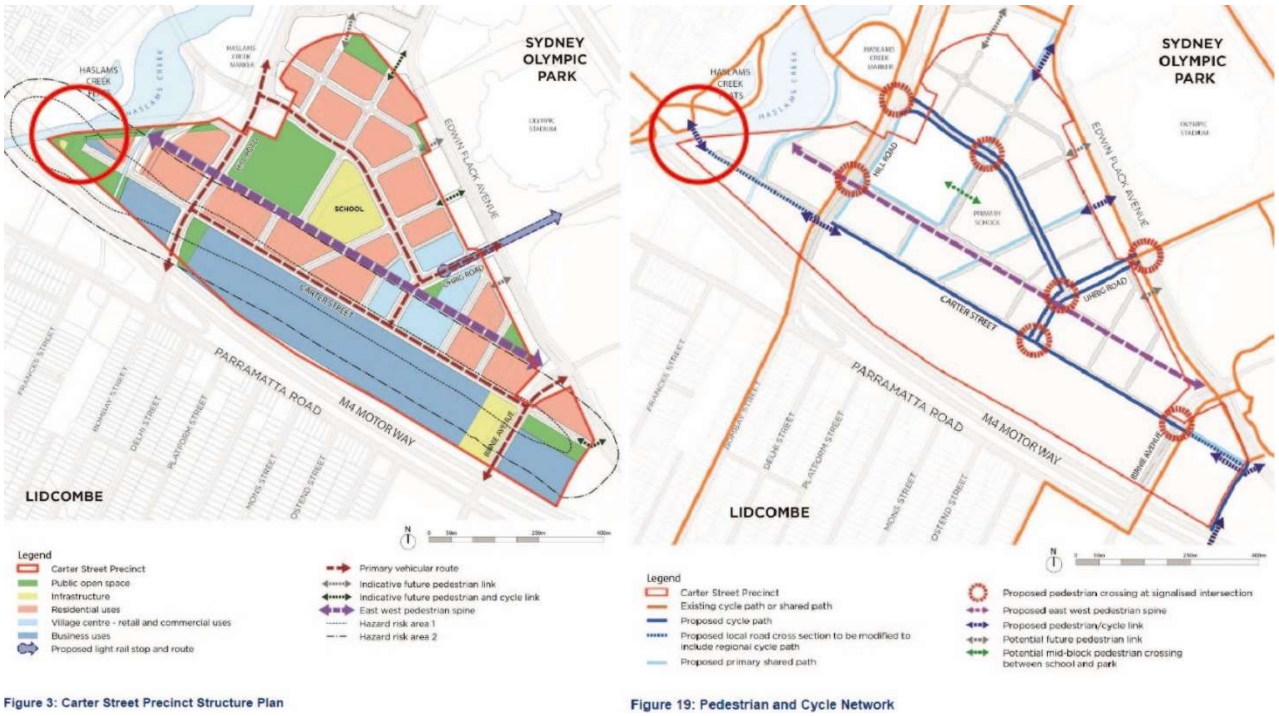


Figure 6 – Missing "indicative future pedestrian and cycle link" under the Structure Plan of the *Development Framework*

2. Figure 15 of the *Development Framework* (p34) indicates that parking will be on the southern side of Carter Street. Council requests that parking be moved to the northern side as there will be issues for large left turning vehicles eastbound and southbound.

3. Council agrees that the lane and parking widths under Figure 15 of the *Development Framework* (p34) can be supported. However, drainage is preferred to not be moved and therefore the light poles are requested to be between the bicycle path and footpath as per Council's cross section (see **Figure 7** below).

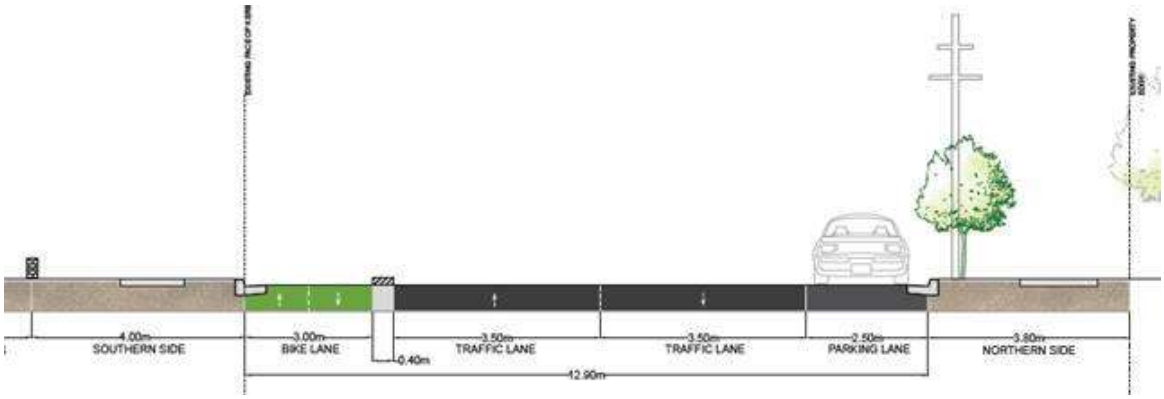


Figure 7 – City of Parramatta Council's preferred cross section in response to Figure 15 under the *Development Framework*

4. In Figure 17 of the *Development Framework* (p37) Council questions why there are bus stops proposed on the northern side of Carter Street if no buses will be going east on Carter Street (since there will be no right turn from Hill Road onto Carter Street). This needs to be clarified or removed.

5. Council requests that the bus stop on the southern side of Carter Street near Road #7 be removed (highlighted in red as per **Figure 8** below). This is due to the proposed stop being within 200m of bus stops in either direction. Furthermore, having a bus stop adjacent to the bike path will be difficult to fit spatially.

Figure 8 – Proposed bus top to be removed under Figure 17 of the *Development Framework*

Council requests that these changes be made to the *Development Framework* in accordance with the commentary above.

E. Sustainability

Council in its previous submission to the 2018 revised draft CSMP raised a number of sustainability concerns. Under the 2020 revised draft CSMP, some of these concerns have been addressed whilst some have not. **Table 4** below provides a summary of sustainability concerns raised from the 2018 submission with commentary on the issues that have yet to be addressed:

Table 4 – Council's sustainability comments

Proposed control	Submission to the 2018 revised draft CSMP (submitted on 29 October 2018)	2020 CSMP draft Development Framework	Comments
12.5 – C.1	That higher BASIX targets be mandated and specific in the DCP and that Council work with DPE to determine these specific targets	Residential development is to comply with or exceed the Building Sustainability Index (BASIX) targets	Request not addressed in Draft *Development Framework*. Recommend original request is restated.
12.5 – C.2	That the NABERS requirement should include executing a commitment agreement with the Office of Environmental and Heritage prior to development consent being granted. This will ensure adequate risk management of the design to	–	Request not addressed in Draft *Development Framework*. Recommend original request is restated

	deliver the NABERS commitment, which can only be fully demonstrated post occupancy		
12.5 – C.3	That commercial office buildings must meet a NABERS Energy 5 Star base building rating	Commercial office buildings are to meet or exceed a 5 star NABERS base building rating	Adopted under the 2020 revised draft CSMP. Recommend target be revised to 5.5 star to reflect change to NCC 2019 BCA and changing market practice
12.5 – C.4	That hotels must meet a NABERS Energy 4.5 Star whole building rating	Hotels are to meet or exceed a 4.5 star NABERS whole of building rating	Adopted under the 2020 revised draft CSMP. Target of 4.5 stars remains an appropriate benchmark
12.5 – C.5	That shopping centres must meet a NABERS Energy 4 Star rating	Shopping centres are to meet or exceed a 4 star NABERS rating	Adopted under the 2020 revised draft CSMP. Recommend target be revised to 4.5 star to reflect changing market practice
12.5 – C.7	That in relation to Control 6.1 C.4, require minimum 4-star energy efficient appliances, require installation of LED lighting and require appropriate shading and glazing in the design of the building. Further, that the DCP include installation or maximising onsite renewable energy generation strategies	To minimise energy use, buildings are to be designed to: • Use high levels of insulation as a simple means of reducing energy consumption; • Include appropriate sun shading and glazing; • Maximise opportunities for on-site renewable energy generation; • Include energy efficient appliances, light fittings and light sensors including a minimum 4 star energy efficient appliances and installation of LED lighting; • Apply green roof and green façade / green wall elements to reduce heat loads on internal spaces; and • Provide effective metering systems to monitor the energy performance of buildings, including individual dwellings and tenancies	Adopted under the 2020 revised draft CSMP.
12.5 – C.8	That Control 6.1 C.6 should be rewritten to: mandate the requirement for all buildings to be connected to the Water Reclamation and Management Scheme (WRAMS) and accordingly this would require the dual piping in buildings	The re-use of grey water and the provision of dual water reticulation systems is required	Intent adopted under the 2020 revised draft CSMP. However, wording is requested to be clearer to strengthen this control

12.5 – C.9	That the DCP provide controls that will create improvements in the built outcomes including car share and future proofing for electric vehicle technology. That the DCP include: o Provision of dedicated 15A power for each residential parking bay to allow future installation of EV charging to visitor and shared parking bays to be provided with 50% of spaces being provided with EV charging To car share spaces	Movement trends and technology advancement should be considered and incorporated, including provision of: • Car share spaces; • Dedicated 15A power for each residential car parking bay to allow for future installation of Electronic Vehicle (EV) charging; and • Some 50% of visitor and shared parking bays to be provided with charging bays to cater for EV charging	Adopted under the 2020 revised draft CSMP.
12.5 – C.15	That the DCP reintroduce bioswale requirements into 6.3 C.3. [note - this originally related to John Ian Wing Parade Extension]	General WSUD additions proposed by Council adopted	Adopted under the 2020 revised draft CSMP.
7.2 – C.5	That Control 4.5 C.9 is kept in the DCP. 'End of trip' facilities (such as showers and change rooms) are to be provided for all commercial uses	Development applications are to demonstrate how 'end of trip' facilities have been addressed as part of development proposals	Adopted under the 2020 revised draft CSMP.

Council requests that the DPIE consider the comments raised above and that the issues be addressed under the 2020 revised draft CSMP.

Furthermore, Council requests that additional controls be included in the *Development Framework* in relation to dual piping, electric vehicles, urban heat, bird friendly design, wintergardens, and green roofs and walls. The additional recommended controls can be seen in **Appendix B** of this submission.

F. State Planning Agreement

A State planning agreement has been exhibited concurrently with the 2020 revised draft CSMP. The relevant parties of the State planning agreement include the Minister and YMCI, with Council not being a party of the planning agreement. The State planning agreement is applicable to land at 15-21, 23-31 and 33-35 Carter Street, Lidcombe (**Figure 9**).

Figure 9 – Land subject to the State planning agreement

Under the State planning agreement, the following deliverables are proposed to be provided by YMCI to the Minister or the Minister's nominee:

- Monetary contributions payable to the Minister or the Minister's nominee - $109.41 per square metre of GFA that will result from carrying out the Development
- Transfer of Road Works Land to the Minister or the Minister's nominee
- Transfer of Education Land to the Minister or the Minister's nominee
- Transfer of Open Space Land to the Minister or the Minister's nominee

Of the abovementioned deliverables, the open space item is expected to be transferred to Council from the Minister or the Minister's nominee whilst the others are understood to be retained by the State.

The monetary contribution is to meet existing monetary contributions requirements to the State as per Clause 6.8 of the ALEP 2010. The transfer of road works land should be retained by the State as it is understood to be for the Hill Road widening, of which Council reiterates its position (as per **Appendix A**) The upgrade of Hill Road, because of the off ramp from the M4 to Hill Road, needs to be fully funded and delivered by the State. The education land is to be retained by the State for the purposes of the future school.

The open space item is identified as the central open space which is proposed to be located adjacent to the future school site (**Figure 10**). Under the CSMP, the open space is zoned as RE1 Public Recreation with Council being identified as the relevant acquisition authority under the Land Reservation Acquisition map.

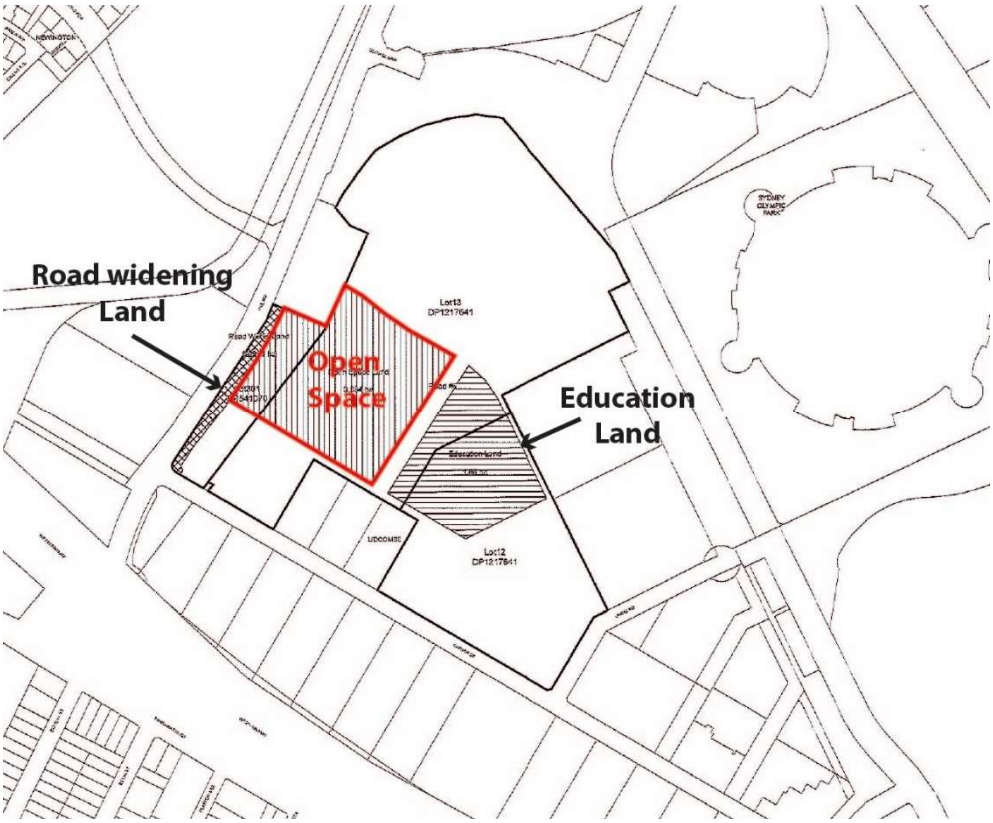


Figure 10 – Proposed open space to be delivered under the State planning agreement

Council is supportive of the transfer of the open space for public benefit under the State planning agreement. However, concerns are raised in relation to the transfer mechanism and its potential transfer to Council. Under the State planning agreement, this transfer of land is to be delivered from YMCI to the Minister or Minister's nominee without explicit mention of Council as the recipient. Further clarification of this matter is required to ensure that Council is secured as the recipient. **Appendix C** of this submission provides draft legal wording that can be included in the State planning agreement to ensure that Council is nominated as the recipient of the Open Space Land.

Under the State planning agreement, this land is to be delivered as 'fit for purpose' to a standard that is suitable for the proposed use as public open space. This includes remediation, turfing and levels, however, at minimal embellishment upon transfer. The State needs to ensure that prior to any transfer of this land to Council, should it be transferred, that it includes this work and is transferred at the standard set out in the planning agreement.

Therefore, should the land be transferred to Council, Council needs to be involved in determining whether the open space is indeed 'fit for purpose' and to a standard that is acceptable. As per Clause 5.2 of the planning agreement, this transfer of land needs to be completed by no later than 31 December 2023. Council should be involved in the inspection of this land prior to any transfer to determine whether the works items listed under clause 5.2(g) have been completed.

3. CONCLUSION

Council has reviewed the 2020 revised draft CSMP and have raised concerns relating to a number of issues. Some of the key concerns raised include the increased dwelling capacity within the Precinct without additional community infrastructure, the introduction of additional local provisions and their practical implementation and the implications to development within the Precinct, and the transfer of the central open space to Council.

It is reiterated that whilst the 2020 revised draft CSMP has addressed previous concerns raised in Council's submission to the 2018 revised draft CSMP, some of these concerns still need to be addressed. Therefore, this submission needs to be read in conjunction and in addition to the 2018 submission (**Appendix A**).

Council looks forward to working in collaboration with the DPIE to ensure that these concerns are addressed prior to any finalisation of the CSMP.

4. APPENDIX A

Council's submission to the 2018 revised draft CSMP (29 October 2018)

SUBMISSION TO

Draft Revised Carter Street Masterplan and associated Planning Controls

29 October 2018

CONTENTS

1. INTRODUCTION

The DPE has reviewed the Carter Street Masterplan and existing planning controls applying to the Carter Street Precinct in order to accommodate a new westbound off ramp from the M4 at Hill Road, the proposed Parramatta Light Rail (Stage 2) and to respond to the revised Sydney Olympic Park Master Plan 2030.

Specifically, the DPE are proposing to amend the Auburn LEP 2010 and Carter Street DCP 2016 in order to implement the revised Carter Street Masterplan and are seeking Council's and the community feedback during its public exhibition.

City of Parramatta has since reviewed the Carter Street public exhibition package and raises the following issues and key recommendations to be considered by the DPE prior to finalising the proposed changes to planning controls within the Carter Street Precinct.

2. BACKGROUND AND CONTEXT

1. In 2013, the NSW Government identified Carter Street as an Urban Activation Precinct to be revitalised for a new community adjacent to Sydney Olympic Park. The Department of Planning and Environment (DPE), together with the former Auburn City Council and relevant State agencies, prepared the original rezoning proposal.

2. In 2015, the NSW Government rezoned the Carter Street Precinct to accommodate 5,500 new dwellings, a new village centre and a new primary school.

3. When the Precinct was rezoned in 2015, it was located in the Auburn local government area (LGA). Due to recent local government boundary changes, the Precinct is now wholly within the City of Parramatta LGA.

4. In 2017, the Department of Planning and Environment (DPE) released a Greater Parramatta Interim Land Use and Infrastructure Implementation Plan (LUIIP) for the Greater Parramatta Growth Area which identifies various infrastructure initiatives for the Olympic Park and Carter Street Precinct to accommodate future growth. This includes a new westbound off ramp from the M4 motorway at Hill Road and extension of the Parramatta Light Rail (Stage 2). The proposed infrastructure changes identified in the LUIIP for the Precinct and recent release of the Sydney Olympic Park Masterplan 2030 have led to the review of the master plan and existing planning controls.

5. Subsequently, in September 2018, the DPE released the revised draft Carter Street Master Plan (CSMP) including proposed changes to planning controls which is currently on public exhibition from 10 September to 26 October 2018.

3. REVISED DRAFT CARTER STREET MASTER PLAN

6. The Revised Draft Carter Street Master Plan (CSMP) follows on from the rezoning of the Carter Street Precinct in November 2015 as part of the DPE's Priority Precinct planning process and proposes a number of key changes to existing planning controls under the Auburn LEP 2010.

Figure 1 – The Carter Street Precinct

Key Features of the Draft Revised Master Plan

Figure 1 highlights some of the key design features of the draft revised Master Plan which are listed below.

1	A centrally located east west pedestrian spine that will link the Precinct to Newington and Sydney Olympic Park.
2	A village centre with a fine-grain street network and active lane-ways.
3	A proposed stop and terminus for the proposed Parramatta Light Rail (Stage 2) within the village centre
4	A re-configured primary school site adjacent to the central public open space located on the east west spine in the core of the Precinct.
5	Opportunities for new pedestrian and cycle bridge over Haslams Creek.
6	Re-planning of the area west of Hill Road, with a clear visual link between the central public open space and the Haslams Creek Marker.
7	A future green link along the south side of Carter Street to facilitate active transport.
8	An enlarged central public open space in the core of the Precinct, that includes potential multi-use sports fields.
9	A new local pocket park in the south east of the Precinct with a focus on active recreation (Subject to further land use safety investigations).
10	A new local park adjoining Haslams Creek for passive recreation (Subject to further land use safety investigations).
11	A new pocket park in the north of the Precinct adjoining Sydney Olympic Park.

7. The key changes under the revised draft CSMP include:

- Expansion of the central public open space from 2.98 hectares to 3.4 hectares;
- Relocation of the proposed school site from the northern side of the planned central public open space to its eastern side;
- Amendments to the layout and design of various roads and laneways;
- Amendments to the building height and setback controls in the Carter Street Precinct DCP;
- Incorporation of design excellence provisions in the Auburn LEP 2010 for development over 42 metres in height. A bonus of up to 10% additional height, but not floor space, may be provided;
- Amendments to the Land Zoning Map and Land Reservation Acquisition Map in Auburn LEP 2010;
- Incorporation of a transport corridor along Uhrig Road to allow for the proposed Parramatta Light Rail (Stage 2) extension into the precinct;
- Amendments to the Carter Street Precinct DCP to incorporate land use safety provisions.

8. It is noted that the revised CSMP and associated changes to planning controls is not intended to increase total number of dwellings (5,500) accommodated under the previous rezoning of Carter Street in November 2015. The revised CSMP does not seek to increase total GFA within the precinct rather it seeks to redistribute how this GFA is

achieved across the precinct within higher building forms within certain areas whilst reducing height in others. The revised Masterplan will therefore result in changes heights and FSRs within the Auburn LEP 2010 and updated development controls contained in the Carter Street DCP 2016 to reflect the revised CSMP.

9. The revised CSMP also identifies additional local infrastructure such as the proposed future Hill Road mid-block signalised crossing (at the east –west spine) and embellishment of the expanded central public open space to be funded from the Carter Street S94A Plan where the DPE are proposing that Council amend its S94A plan to incorporate these items.

10. The CSMP is on exhibition until 26 October 2018, however, the DPE has given Council an extension to allow Council to formally consider its submission to the revised draft Master Plan at its meeting on 29 October 2018.

11. The following section details the key issues arising from Council's assessment of the revised draft CSMP and key recommended actions.

Glossary:

CoP	City of Parramatta Council
CSMP	Carter Street Master Plan
DCP	Development Control Plan
DPE	Department of Planning and Environment
LEP	Local Environmental Plan
SOPA	Sydney Olympic Park Authority
UDR	Urban Design Report

4. ISSUES

A. LAND USE, URBAN DESIGN AND PUBLIC DOMAIN

12. The master planning work has been undertaken by the DPE in consultation with the CoP and SOPA. Consequently, it is acknowledged that the Masterplan addresses many of the public domain and built form outcomes sought by Council for the precinct.

13. Features of the master plan supported by CoP include the following:

- Centrally located, regularly shaped, generous open space area (approx. 3.4ha)
- Public street frontage to the park on all four sides
- Location of the park adjacent to the proposed public school which has (almost) 2ha site area.
- Additional small park play spaces and linear green links.
- Minimum local road reservation 20m.
- Publicly owned streets throughout.
- 5m building setback from the street property boundary for built form with ground floor residential use.
- 10m setback and green link on Carter Street preserved.
- Pedestrian crossing over Hill Road connecting to West Carter Street.
- Comprehensive pedestrian and bike path connections
- The general organisation of the precinct and street and block network
- A strong built form street wall lining all streets
- The location of towers along Carter Street
- The perimeter block typology and use of podium tower rather than stand-alone towers. However, Council may accept extra height at podium level around major open space (i.e. central public open space and linear green link along Carter Street) in order to accommodate the targeted density in a more appropriate way.
- Proposed design excellence provisions requiring architectural design competition to be held for buildings above 42m or a capital value of more than $100M to allow up to 10% increase to the maximum height of building, but no FSR bonus

14. However, there are also a number of concerns that Council has with regards to the draft CSMP and associated changes to planning controls. This includes:

- The densities/FSRs identified within the precinct are strictly adhered to as they are already considered too high to achieve reasonable amenity.
- The lack of surety/mechanisms in ensuring that the street and block pattern (identified in the draft CSMP) will be implemented
- The lack of connectivity to SOP and the Olympic Park rail station. Direct connecting steps and pathways are required in the initial development to facilitate better connections. This may include maximising vehicular connections into the site from the SOP lands (These could be bollarded during events)
- Inconsistent zoning regime for land within the land use safety risk area of the fuel and gas pipeline (discussed in more detail below)

<u>Development on or Near Fuel and Gas Pipelines</u>

15. Council generally agrees with the proposed planning regime in order to manage future development near fuel/gas pipelines within Carter Street. Along the length of Carter Street, 10m setbacks on the northern side of Carter Street will ensure development is located outside of the high risk buffer while existing employment uses on the southern side have significant setbacks resulting in all the existing building located well away from this high risk buffer zone.

16. However, Council has significant concerns over the site (2 Hill Road) at the western corner of the precinct bound by the M4, Haslams Creek and Hill Road. This site currently zoned R4 High Density Residential and is proposed under the CSMP to be retained as R4 despite the Land Use and Safety Study (supporting the revised CSMP) identifying a significant portion of the site as being within the high risk buffer zone which is identified as not being suitable for sensitive land uses (e.g. childcare centres) and residential development due to the adverse risk profile. The northern portion of the site can accommodate residential development, but not sensitive land uses (see **Figure 2** below).

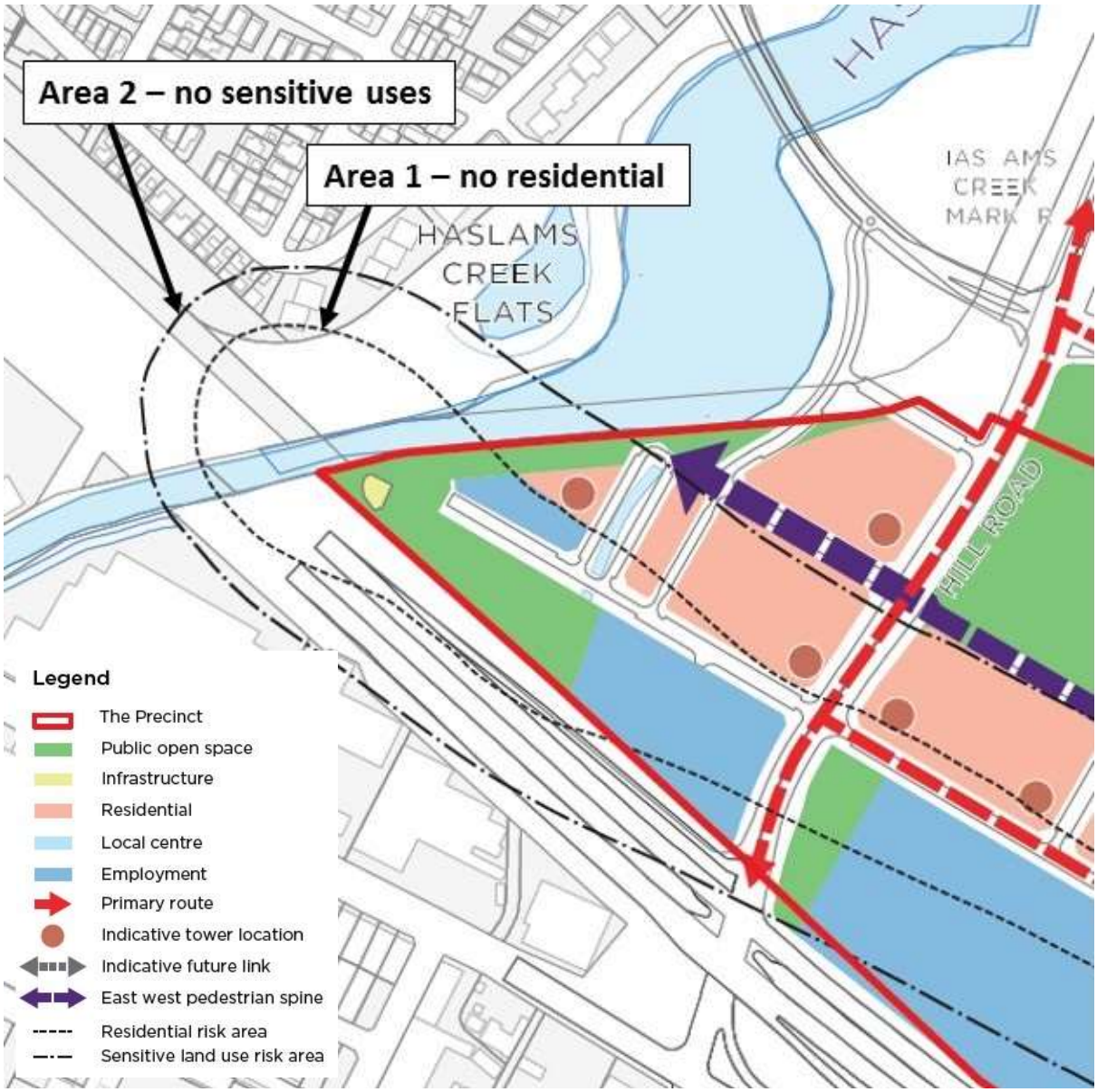


Figure 2 – Western Corner of the Precinct (2 Hill Road) developable area and risk buffer zones

17. Given the additional information provided as part of the draft CSMP through the Land Use and Safety Study, it is recommended that the LEP be amended accordingly to reflect the true development outcome envisaged for the site i.e. part employment/business zone, part high density residential as opposed to retaining the whole site as R4 (with an additional permitted use to allow business/employment uses). It is acknowledged the draft DCP attempts to manage this issue by identifying the southern portion of the site for employment uses while a residential tower is located

along Haslams Creek however, the DCP is a guideline only and the LEP is the key document that should govern land use.

18. Furthermore, Council also notes that the impact of the hazard buffer is likely to result in a tower of approximately 20 storeys on Haslams Creek in order to allow residential floor space to be transferred away from the land use safety risk area. It is acknowledged that this is likely to result in a change in character and outlook for residents living on the western side of Haslams Creek) where under current planning controls future residential buildings could be located away from the foreshore.

19. Given the constraints of this site which includes the foreshore setback (noting that Council recommends a 40m setback consistent with the Office of Water Guidelines discussed below while the revised CSMP recommends a 20m setback) and the impacts of the land use and safety study, the developable area is significantly constrained. Accordingly, further work should be carried out by the DPE to revise the sites development potential in light of the revised information rather than retaining the existing development potential by transferring all the floor space into a small portion of the site. This may include reducing residential densities on the site or should this not be practical, that an open space zoning could be considered to expand the foreshore park given the significance of the environmental constraints where the DPE will need to consider how this would be funded by State Government given this issue stems from the previous State Government rezoning process.

20. In short, the future built form envisaged at the site should be reflected in the LEP controls and not just in the DCP.

<u>Design Excellence</u>

21. The revised CSMP includes proposed design excellence provisions requiring an architectural design competition to be held for buildings above 42m or a capital value of more than $100M to allow up to a 10% increase to the maximum height of building, but no FSR bonus.

22. Council is supportive of the proposed provisions that encourage a competitive design process for large buildings (i.e. above 42 storeys/approx. 13 storeys). The design competition provisions should have been included in the LEP as part of the previous rezoning and uplift. Council acknowledges that the proposed inclusion of new design competition provisions by the DPE seeks to correct this issue moving forward.

23. Accordingly, to ensure that the proposed design competition provisions are workable it is critical that there is a clear hierarchy for managing building height is set out clearly in the LEP (see below Key Recommended Actions).

Key Recommended Actions:

A1. Density

- **Due to the significant residential densities already being accommodated within the Carter Street Precinct (noting that the revised scheme does not seek to increase yields rather redistributes the density to better respond to the changing context), Council requests that Clause 4.6 Exceptions to Development Standards under the Auburn LEP 2010 not apply to the Carter Street Precinct for FSR only. This will ensure that developers will not be able to seek incremental increases to FSR across a precinct that is already significantly constrained by traffic and transport infrastructure.**

- **Alternatively, should the Clause 4.6 exemption for FSR not be pursued that an alternative approach could be to introduce dwellings per ha controls on a site by site basis to ensure that additional FSR is not sought at the DA stage.**
- **That the following approach to managing building height is proposed:**
    - **For any building, clause 4.6 only to be used for height variations up to a maximum of 5%. This will give some flexibility to address minor variations. An example where this has been implemented is the Parramatta City Centre where clause 4.6 is restricted to maximum of 5% variation for height or FSR (see PLEP 2011 cl 4.6(ca))**
    - **Design comp needed for any height variation of more than 5% - and up to maximum of 10% - for any building (no clause 4.6)**
    - **Design competition needed for all buildings 42m+, with 10% bonus height (no clause 4.6)**
    - **Provision to clearly state that clause 4.6 variation and any design comp bonus is not cumulative – it is one or the other.**

A2. Street Layout and Development Parcels

- **Street Layout and associated development parcels contained in the Carter Street DCP is referred to in the LEP to add further weight to what would otherwise only be a DCP control.**
- **Specific provisions (relating to variations to street layouts and development parcels) should also be included in the LEP should changes be required at the DA stage to ensure that any amendments made are for operational reasons or will result in a better outcome but still manages to be consistent with the objectives of the CSMP in providing a generous public domain.**
- **Work with SOPA to investigate and develop additional connections both vehicular (could be closed/restricted during Events) or pedestrian from the Carter Street Precinct to the Olympic Park Train Station.**

A3. Development Near Fuel/Gas Pipelines

- **That the zoning of the site at the western corner of the Carter Street Precinct (2 Hill Road) be amended to reflect the proposed future development outcomes envisaged for the site (i.e. part employment/business zone, part high density residential)**
- **Council acknowledges that 2 Hill Road has been rezoned previously to allow a significant amount of residential development, however, the proposed built form should be reassessed to ensure the built form outcome responds appropriately to the risks identified in the Land Use and Safety Study released as part of the revised CSMP. This may result in a decrease in residential FSR and buildings height given that a smaller portion of the site is capable of accommodating residential development**

A4. Podium, Street Wall Heights and Setbacks

- **Introduce the following podium and street wall heights and setbacks into the DCP:**
    - **The perimeter blocks height should be maximum 6 storeys plus 2 additional floors setback minimum 3m from the streets;**
    - **In the tower typology the podium should be 4 storeys high with the tower setback 6m from the streets;**
    - **The towers should be focused on wide streets and large green open space.**

Public Domain

A number of public domain issues have been identified in the Urban Design Report and associated Carter Street DCP with regards to minimum footway widths, street connections, street tree planting zones, through site links, cycleways and ground level setbacks.

Detailed comments on the public domain are contained in **Appendix 1**.

A marked up copy of the Draft Carter Street DCP is contained in **Appendix 2** and details Council's comments.

B. SOCIAL INFRASTRUCTURE

24. The revised draft CSMP reconfirms (i.e. consistent with the original CSMP) that the Carter Street Precinct will provide 5,500 new residential dwellings which will accommodate up to 12,100 people based on an average occupancy rate of 2.2 persons per dwelling. There is currently no existing population (except for development currently occurring at the eastern end of the precinct) given that the existing area is primarily used for employment purposes.

25. It is acknowledged that the CSMP considers relevant State Government planning documents, however it does not consider the City of Parramatta's requirements for social infrastructure as set out in Council's draft Social Infrastructure Strategy.

26. The following table identifies types of social infrastructure and provides comment on the adequacy of the CSMP's provision of each type:

FACILITY	COMMENTS	COUNCIL'S POSITION
Library	Council officers identify that the CSMP does not include provision for a library, noting that the closest library to the Carter Street Precinct within the City of Parramatta LGA is the expected libraries located at Wentworth Point and Sydney Olympic Park. Furthermore, a library service is also offered at Newington.	Whilst no library is to be provided in the Carter Street Precinct as part of the CSMP, Council officers consider that there will be adequate services within proximity to the Precinct.
Community Facilities/Hub	The provision of a Community centre (1,000m2) within Uhrig Road is identified within the current Carter Street DCP and is being retained in the revised CSMP.	Council officers supports the retention of a 1,000m2 facility within the Carter Street Precinct at Uhrig Road.
Proposed primary school	The revised CSMP identifies a new primary school to be relocated to the eastern side of the central public open space. The design of the primary school should be informed by policy directives within the Department of Education and Greater Sydney Commission to ensure that space and facilities within schools can be used outside of the school hours for the benefit of the broader community. This should include classrooms, library facilities, open space and indoor recreation facilities located within the school.	Council officers supports the relocation of the school site.
Play spaces	Council officers identify that the CSMP does not include provision of play spaces for children, noting that the closest play spaces are located within Newington. However, it is acknowledged that more detailed plans will be developed by Council's open space team identifying play spaces within identified parks.	Council officers recommends that at least six play areas be identified in the Master Plan on planned public open space.
Outdoor recreation (parks, outdoor	The revised CSMP proposes to increase the size of the central public open space from 2.98 hectares to 3.4 hectares and further	Council officers support the increase in size of the central open space area

recreations and sports fields)	indicates on plans that it has the capacity to contain two multiuse sports fields. Details of measurements and configuration should be provided to confirm this capacity.	adjacent to the relocated primary school.
Indoor recreation – Aquatics	There are no planned aquatic facilities in the revised CSMP, however, it is acknowledged that aquatic facilities are available within the Sydney Olympic Park recreation precinct.	No update needed to the revised CSMP relating to this matter.
Indoor recreation – Multi-use Courts	It is acknowledged that the closest indoor recreation facilities to the Carter Street Precinct are located within the Sydney Olympic Park Sports Centre. That said, the revised CSMP nominally indicates the potential for indoor recreation to be included on a site that is located within the fuel/gas pipeline corridor setback area. This is not supported. Council support incorporating indoor recreation facilities into the design of the proposed primary school on the condition that public access is built into the agreement with the school.	Council officers recommend the revised CSMP to include an indoor recreation provision. Further, that it is ideal that indoor recreation facilities be incorporated into the primary school with conditions that guarantee their access to the public outside of school hours.
Childcare	It is identified that the closest existing child care service to the Carter Street Precinct is located in Newington. The revised CSMP proposes a 130 space child care centre. However, Council's draft Social Infrastructure Strategy identifies the need for at least 160 child care places to meet the anticipated future population of the Carter Street Precinct. Council supports smaller childcare centres of approximately 80 places, as research shows smaller centres support positive learning outcomes for children. This should be addressed in the revised CSMP.	Council officers recommend an increase to the capacity of planned child care places from 130 to 160. This should be ideally provided in two centres of 80 places each and located outside of the fuel pipeline safety setback/buffer as per the Land Use and Safety Study.
Affordable Housing	The CSMP does not make provision for affordable rental housing. It is recommended that the NSW Government give strong consideration to incorporating an inclusionary zoning affordable housing scheme within the Precinct in line with the Greater Sydney Commission's identified target of 5-10%. In this respect, the revised CSMP is inconsistent with C5 of the Liveability Planning Priority identified in the Central City District Plan.	Council officers recommend the revised CSMP to incorporate provision for affordable rental housing in the Precinct in the order of 5%-10%.

Key Recommended Actions:

B1. The following recommendations are made regarding social infrastructure planning:

- **That the relocation of the primary school is supported, and further that arrangements be made to ensure future facilities located within the primary school can benefit the broader community outside of school hours through formal shared use arrangements and appropriate design elements that support public access**
- **That Council work with the DPE to identify at least six future play spaces on planned public open space and that they be designed in accordance with the principles outlined by Council in its draft Social Infrastructure Strategy and costed by a quantity surveyor. This recommendation to be read in conjunction with recommendation C2.**
- **That planned childcare provision within the Precinct be increased from 130 to 160 places, across 2 or more child care centres which can be provided by private or non-for profit operators.**
- **That the CSMP and subsequent LEP amendment incorporates provision of future affordable rental housing in line with targets endorsed in the Central City District Plan by the Greater Sydney Commission.**

C. OPEN SPACE

Central Public Open Space

27. The increased size, location, shape and concept design of the Central Public Open Space is supported, however, the following details need to be addressed:

- Sporting fields should accommodate a full size standard cricket field or 2 standard soccer fields to maximise capacity and useability;
- District level playground facility with high accessibility and shade that caters for a wide range of ages and abilities;
- Concern that a significant portion of the park (north west corner) is located outside the precinct and is within SOPA land. Delivery of this park is therefore crucially reliant upon rezoning of SOPA land for public open space and this needs to be reflected in the revised Sydney Olympic Master Plan 2030 and an amendment to SEPP (State Significant Precincts) 2005. This 'split' ownership also potentially creates ongoing maintenance and management complexities with different parts of the park subject to different legislation, planning controls, etc. Supportive of a potential co-ordinated approach to realise the delivery of this large public open space that will function as the district park for the precinct. However, Council requires further detail as to how this will be achieved across multiple land ownerships / precinct boundaries.

Haslams Creek / Riverside Active Park

28. This foreshore park adjoins Haslams Creek that is mapped as a 'Coastal Environment Area' under SEPP (Coastal Management) 2018. Whilst the previous masterplan provided for a 20m wide 'landscaped foreshore reserve', the proposed design is highly urban and compromises the objectives of the adjoining 'Coastal Environment Area' under the *Coastal Management Act 2016*. It does not fully realise a key opportunity to complete a contiguous vegetated corridor along Haslams Creek between Homebush Bay and the M4 motorway. The proposed narrow linear park configuration and design offers limited functionality and amenity, with a significant portion wedged between the M4 motorway and the southern side of a large residential tower. The amenity and useability of this park is likely further impacted by land use safety issues associated with the gas pipeline/s that traverse under the park. As Haslam's Creek is a tidal estuarine waterway at this location it should accommodate a minimum of 40m setback (incorporating a vegetated riparian corridor) consistent with Office of Water guidelines.

Local and pocket parks

29. A number of new or expanded pocket and local parks are also split between the precinct and SOPA land, including the Local Park and Plaza (**Figure 3**) and Pocket Parks 1 & 4 (**Figure 4**). This has significant implications for both design / delivery as well as ongoing maintenance and management, raising similar concerns as those raised above under Central Public Open Space.

Figure 3 – Local Park and Plaza (p92 of the UDR)

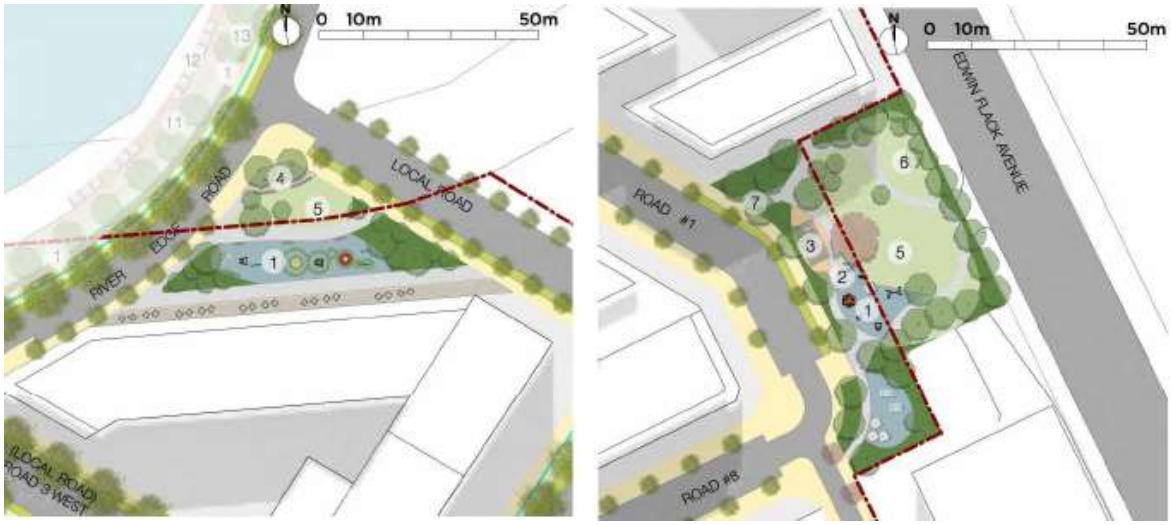


Figure 4 – Pocket Park 1 & 4 (p100 of the UDR)

30. A lane or public pathway should also be provided between all local / pocket parks and adjoining private residential properties to ensure a clear delineation between public and private domain and to maximise public access / permeability.

Key Recommended Actions:

C1. The following recommendations are made in relation to open space within the Carter Street Precinct:

- **That the portions of land in pocket parks 1 & 4 and the Central Public Open Space that are located in the SOPA area be rezoned/identified for public open**

space in the Sydney Olympic Park Masterplan 2030 as well as an amendment to the SEPP (State Significant Precincts) 2005.

- **That a minimum 40m setback (incorporating a vegetated riparian corridor) be provided along Haslams Creek / Riverside Active Park or alternatively justification why this Office of Water requirement should not apply.**
- **That a lane or public pathway should be provided between all local / pocket parks and adjoining private residential properties to be identified in the DCP to ensure a clear delineation between public and private domain and to maximise public access / permeability.**

Funding Gaps

31. As a result of the DPE's revised CSMP, new open space has been identified in the form of small pocket parks or extension to the foreshore park along the western corner of the precinct.

32. It is noted that the draft CSMP is not proposing to increase Council potential acquisition burden i.e. identify additional areas zoned RE1, however it does identify potential new open space in the Draft DCP to be provided and potentially dedicated to Council in the future. Whilst Council would not need to purchase the land upon which these parks are located as the developer would have already extracted the FSR from this land, Council would be liable for the embellishment of these parks in order to ensure they are usable and not just left over spaces.

33. It is noted that the revised CSMP includes an open space infrastructure schedule indicating a design and schedule of embellishment items for each piece of proposed open space. However, no details around the cost of these works have been included in the draft CSMP.

34. Furthermore, the embellishment of public open space identified in the draft CSMP outside of what is currently included in the Carter Street S94A Plan 2016 should be fully funded by State Government. The existing Carter Street S94A Plan is already constrained given the significant traffic infrastructure works, community facilities and Local and District open space works already identified in the Plan.

35. However, should this cost end up being passed onto Council, it is requested that the DPE engage a quantity surveyor to cost the embellishment works identified in the Open Space Infrastructure schedule contained in the revised CSMP to allow Council to plan for the delivery of these works from other funding sources and determine future maintenance plans.

Key Recommended Action:

C2. Any additional public open space identified in the draft CSMP should be fully funded by State Government (including embellishment). The Open Space Infrastructure schedule identified in the revised CSMP should also be costed by a quantity surveyor (paid for by DPE) to allow Council to review and determine future maintenance plans. Council reiterates that the revised Masterplan is a process that was instigated by DPE and therefore any additional cost implications resulting from its implementation should be borne by the State Government. Potential funding sources include: Housing Acceleration Fund, Precinct Support Scheme.

D. TRAFFIC AND TRANSPORT

The following recommendations are made with regards to Traffic and Parking:

Key Recommended Actions:

D1. The number of parking spaces a development can have is currently set as a maximum and this is proposed to continue. It is recommended that the minimum rates set out in the ADG also be included in the DCP so that a range effectively applies (minimum and maximum rates). This may be reviewed subject to State Government commitment to Parramatta Light Rail Stage 2 or West Metro.

D2. The Masterplan is silent on traffic issues at the intersection of Carter Street and Hill Road. Currently, right turning traffic from Hill Road into Carter Street causes traffic to queue up back on to the M4 during peak periods. It is understood that the Hill Road upgrade proposes to make this intersection left in/left out from Carter Street. The Masterplan should address the proposed access restrictions at the intersection of Carter Street and Hill Road. Furthermore, banning this right turn will have a significant effect on vehicles, particularly trucks/freight/delivery accessing the Carter Street precinct (including the employment area) from the M4 west of Lidcombe. The new green spine road will address the alternative route for cars, however, it is proposed to have a load limit. A strategy for truck/freight/delivery access for the Carter Street precinct should be included in the Masterplan and DCP.

D3. The cross section and driveway widths proposed for Carter Street in the draft DCP need to be altered to take into account truck access to industrial properties on the south side of the street.

D4. There are no right turn bays from Uhrig Road southbound into Carter Street or the Green Spine Road. This may result in the need to introduce right turn bans with alternative routes, or cause delays to pedestrians, bus passengers and motorists at intersections due to longer cycle times and queue. It is recommended that the right turn arrangements from Uhrig Road southbound be reviewed.

Hill Road upgrade:

36. It is acknowledged in the Planning Report that there will be a significant upgrade to Hill Road. Hill Road is expected to be widened by 7-12m to increase the number of northbound lanes from 2 to 4 between Parramatta Road and John Ian Wing Parade. Further, a new signalised pedestrian crossing is proposed at the Hill Rd/East-West spine and an upgraded intersection at Hill Road and John Ian Wing Rd.

37. One of the key reasons for preparing the revised CSMP is the need for the Carter Precinct to respond to the proposed westbound M4 off ramp (State Road) into Hill Road required to service the precinct. However, in order to accommodate the off ramp, a significant upgrade to Hill Road (local road) is required. Council is concerned that the State Government may fund the off ramp only but not include the necessary Hill Road upgrades which would be left to Council to fund.

38. The M4 off ramp and associated Hill Road upgrade therefore needs to be delivered and funded as part of a consolidated job lot as they are critical to the implementation of the revised CSMP. It is therefore critical that the Hill Road upgrade is fully funded by State

Government in its entirety (not just the Hill Road Off ramp) and not passed onto Council to fund (ie via S94A developer contributions).

39. Furthermore, the DPE have advised previously that the new signalised pedestrian crossing (at the proposed East West pedestrian spine) may not be delivered when Hill Road is widened but that RMS would install the necessary infrastructure under the road so that it would be easier and relatively cheap for Council to install the crossing. Notwithstanding, Council's position is that this signalised crossing be provided as part of the broader Hill Road Upgrade given existing funding constraints within the existing Carter Street S94A plan.

Key Recommended Actions:

D5. That Council make representations to both the Minister for Roads and Minister for Planning that the Hill Road widening from the M4 to Ian Wing Parade and upgrade works (including upgrade to the intersection at John Ian Wing Parade and pedestrian crossing at Hill Road/East West Spine Road) will form part of the proposed Hill Road off ramp project and that it be fully funded by State Government considering that the Hill Road changes initiated the revised Master Plan process.

Regional Cycle Network:

40. Council considers that the revised CSMP is a significant improvement from the current master plan with regards to how it implements the proposed Regional Cycle network including associated State Government funding allocation. Refer to **Figure 5** showing how the revised CSMP connects to the existing cycle network.

41. Table 3 Item "Regional Cycle Network" of the Planning Report (p. 43) indicates that the DPE has allocated $5 million towards improving regional cycling connectivity. Council officers have identified this can contribute to extending the M4 cycleway along Carter Street, including new bridges over Haslams Creek and Hill Road on that alignment (refer **Figure 5**). Council officers acknowledge that the additional potential bridge over Haslams Creek north of the M4 will help pedestrian connectivity and increase amenity of Haslams Creek as a destination, however, it is considered that it may be of little benefit for cyclists compared to the proposed bridge at the M4. It has been identified by Council officers that any additional shared bridge over Haslams Creek may be better located opposite or near Pondage Link (refer **Figure 5**). This would significantly improve walking and cycling connectivity to Newington's parklands and the public school.

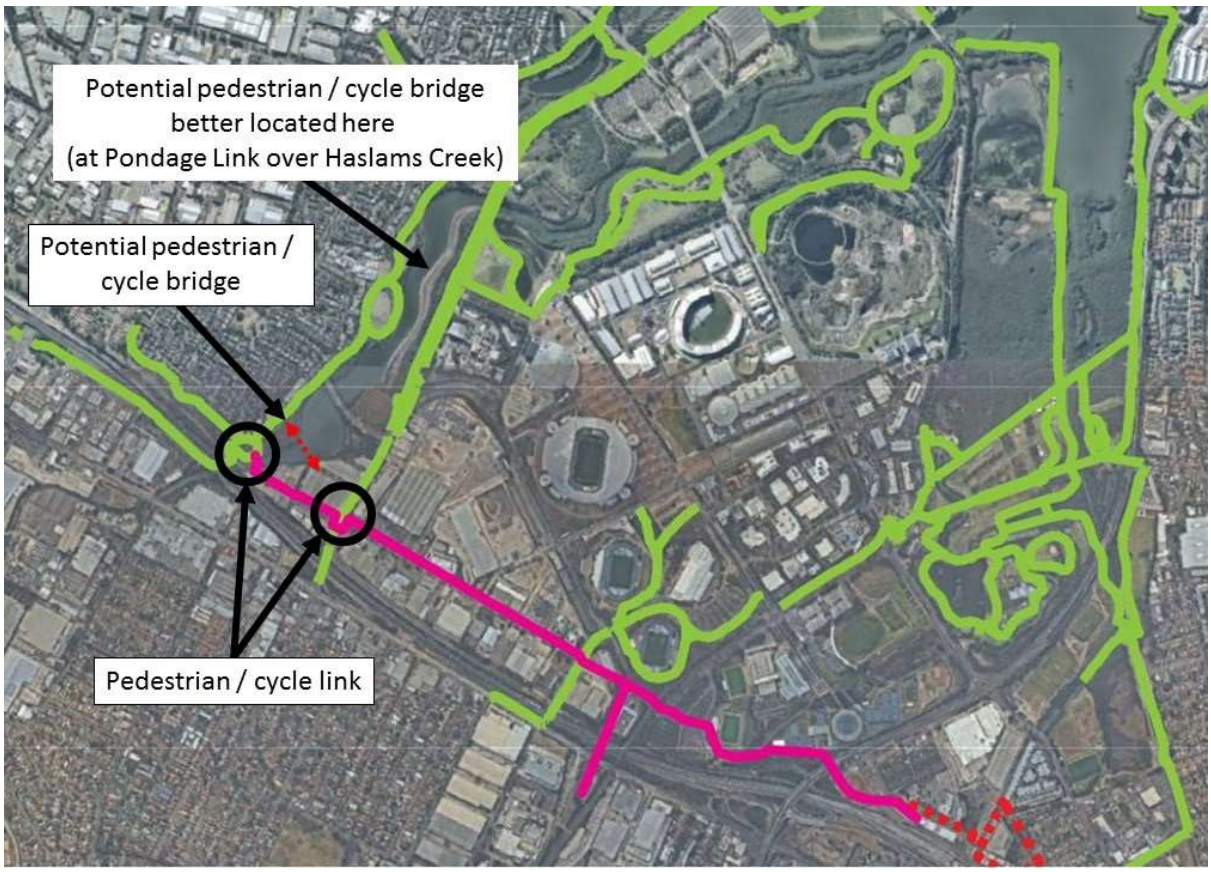


Figure 5 – Existing Cycle network (in green) and proposed new regional cycle network (in pink)

Key Recommended Actions:

D6. Council supports the proposed cycling and pedestrian connections identified in the revised CSMP however recommends that an alternate crossing at Pondage Creek be considered (Figure 6) in place of the proposed Haslams Creek Crossing between Ian Wing Parade and M4 (Figure 4).

Parramatta Light Rail

The following recommendation are made in relation to Parramatta Light Rail:

Key Recommended Actions

D7. Section 6.13 of the UDR suggests that the town centre / village plaza terminus section of Stage 2 Light Rail will be catenary free operated. Council officers support this suggestion, although this does not seem to be reflected in the cross sections in the master plan which show overhead wiring. This needs to be clarified.

D8. Council officers generally support the location of the public open space (Village Plaza) to be adjacent to the indicative light rail stop at Uhrig Road. That said, Council officers consider an increased area of open space that allows the light rail stop to better align with the RE1 zone would improve the urban design outcome. It is recommended that the open space zone be extended as per the red dashed line in Figure 6 (identified in the DCP as public open space but not zoned

RE1) below labelled 'Village Plaza' to address this including implications on height and FSR for the development block to the east.

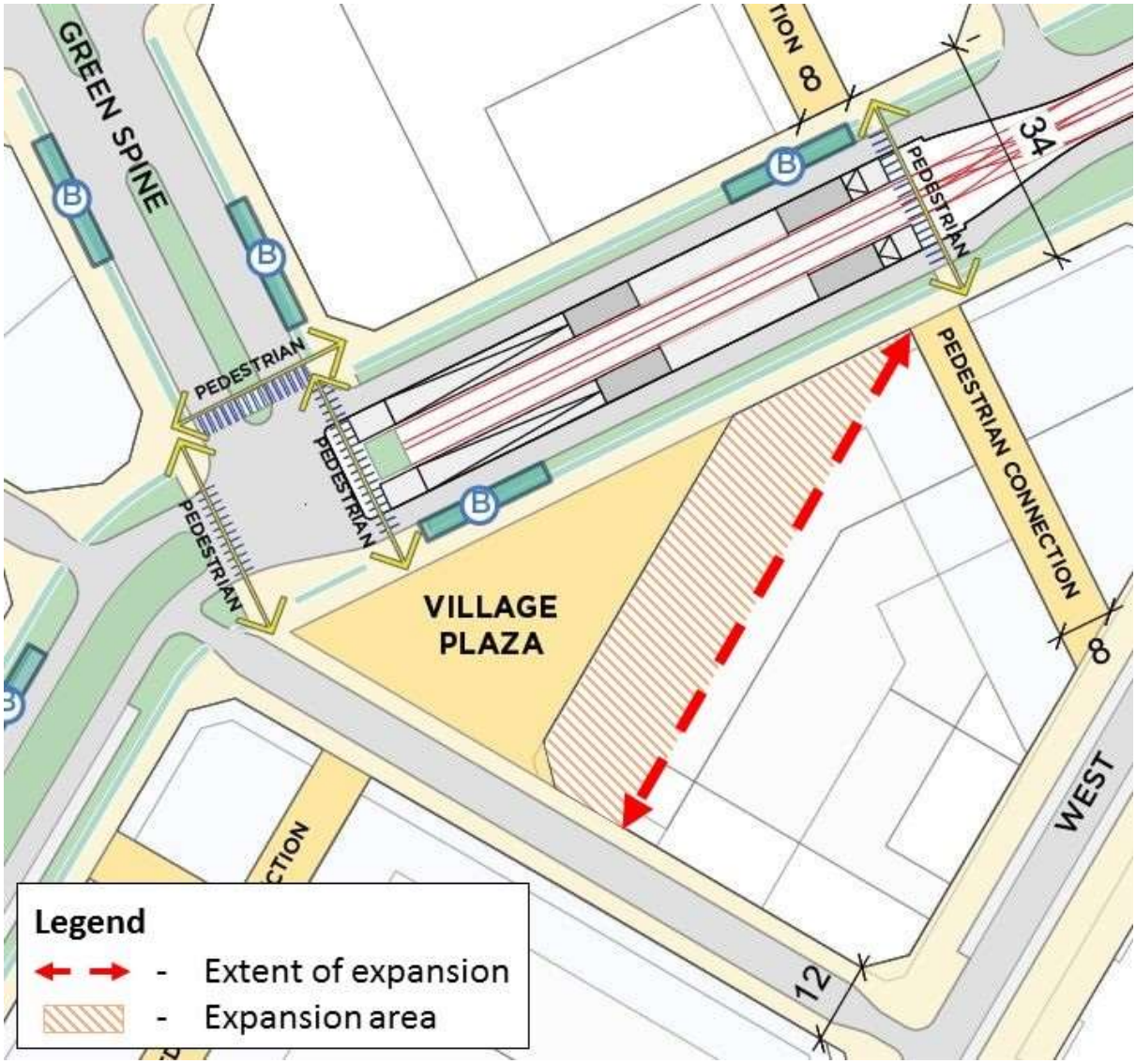


Figure 6 – Indicative Light Rail stop and proposed increase to the Village Plaza

E. SUSTAINABILITY

42. The sustainability requirements set out in the revised CSMP and Draft DCP propose a low standard, which is considered to be insufficient for a precinct of this scale and density. Other comparable precincts that have or are in the process of adopting higher sustainability development standards include Melrose Park, Camellia and the Parramatta CBD.

43. There is a significant opportunity for the Carter Street precinct to contribute towards the delivery of environmental sustainability goals outlined in the following documents:

- The Greater Sydney Commissions Central City District Plan 2017
- The City of Parramatta Community Strategic Plan 2038
- The City of Parramatta Environmental Sustainability Strategy 2017

44. The following comments relate to the draft DCP under the relevant controls:

Under 6.1 Sustainability: C.2

45. The control indicates that buildings are to comply with or exceed the BASIX for residential development. That said, beyond minimum performance BASIX targets have not been mandated or specified in the DCP. Council has undertaken significant work in preparing beyond minimum performance BASIX targets as part of the CBD planning proposal and also the Camellia Town Centre. It has been demonstrated that exceeding current base case targets are economically feasible to achieve for a developer (less than 1% of the price of an average apartment in Parramatta) while providing greater affordability for purchasers (refer to Camellia Town Centre Precinct Sustainability Report). It is recommended that higher BASIX targets be mandated and specific in the DCP and that Council work with DPE to determine these specific targets.

46. Further, the control provides an alternative to achieve a 4.5 star as built NABERS rating for commercial office buildings. It is considered by Council officers that NABERS rating requirement is limited to commercial office building, that the rating type is not specified and that there is no provision for ratings for other non-residential building types. Whilst Council officers support the use of NABERS for commercial buildings, a 4.5 star NABERs requirement is much too low. A rating of 4.5 star is currently below average for existing building stock in Sydney and therefore inappropriate to represent best practice for a new development, especially one likely to be delivered over an extended time period. Council's work in the CBD Planning Proposal recommended a NABERS Energy 5 Star base building rating for commercial buildings (refer to Parramatta CBD Bonus Scheme Study). Furthermore, the draft DCP also fails not specify the type of NABERS rating a commercial building requires whether it be a base building or whole building rating. Finally, the use of NABERS should not be restricted to commercial office buildings. Hotels, shopping centres or other non-residential buildings should either require a NABERS rating or other similar accredited rating.

Under 6.1 Sustainability: C.4

47. The control provides a broad, general recommendation for buildings to incorporate energy efficiency solutions in buildings, however there are no specifications for minimum requirements. There is an opportunity to be more prescriptive in terms of appliance energy ratings, lighting types and include the consideration of shading and glazing in the design and construction of buildings. Doing this would also assist a developer reach a higher BASIX or NABERS target.

Under 6.1 Sustainability: C.6

48. The requirement for the re-use of grey water is supported by Council officers. However, the control needs to be strengthened and more clearly articulated. It is unclear in the DCP where the recycled water is required. Also we need to reference the district water scheme as water treatment for reuse on a building by building basis results in systems that are poorly maintained or worse decommissioned once construction is complete.

Under 6.3 Stormwater (Water Sensitive Urban Design): C.3

- The removal of the bioswale requirements (replaced with overlands flow) on The John Ian Wing Parade extension is not supported as is seen as being counter to the Resilience City and Efficient City Directions of the Central Sydney District Plan 2018.

Under 4.5 Vehicular Access and Parking: Track mark removal of C.9

49. With the significant amount of cycleways in the Sydney Olympic Park Area, poeple are encouraged to cycle. Not providing end of trip facilities in commercial buildings would act as a disincentive to use sustainable transport modes such as cycling to get to work. Providing end of trip facilities provides social, environmental, health and economic benefits.

Further comments

50. The DCP controls do not address installation or maximising onsite renewable energy. It is recommended that the DCP include installation or maximising onsite renewable energy generation strategies.

Key Recommended Actions:

E1. The following recommendations are made in relation to sustainability:

- **That higher BASIX targets be mandated and specific in the DCP and that Council work with DPE to determine these specific targets**
- **That the NABERS requirement should include executing a commitment agreement with the Office of Environmental and Heritage prior to development consent being granted. This will ensure adequate risk management of the design to deliver the NABERS commitment, which can only be fully demonstrated post occupancy.**
- **That commercial office buildings must meet a NABERS Energy 5 Star base building rating**
- **That hotels must meet a NABERS Energy 4.5 Star whole building rating**
- **That shopping centres must meet a NABERS Energy 4 Star rating**
- **That in relation to Control 6.1 C.4, require minimum 4-star energy efficient appliances, require installation of LED lighting and require appropriate shading and glazing in the design of the building**
- **That Control 6.1 C.6 should be rewritten to: mandate the requirement for all buildings to be connected to the Water Reclamation and Management Scheme (WRAMS) and accordingly this would require the dual piping in buildings.**
- **That the DCP provide controls that will create improvements in the built outcomes including car share and future proofing for electric vehicle technology.**
- **That the DCP include:**

    - **Provision of dedicated 15A power for each residential parking bay to allow future installation of EV charging**
    - **Visitor and shared parking bays to be provided with 50% of spaces being provided with EV charging**
    - **Car share spaces**
- **That the DCP reintroduce bioswale requirements into 6.3 C.3.**
- **That Control 4.5 C.9 is kept in the DCP. 'End of trip' facilities (such as showers and change rooms) are to be provided for all commercial uses.**
- **Further, that the DCP include installation or maximising onsite renewable energy generation strategies.**

F. NON-RESIDENTIAL FLOOR SPACE

51. The revised CSMP seeks to focus non-residential uses in the new village centre on Uhrig Rd. The proposed village centre is located on land zoned B2 Local Centre where development in this area must comply with the objectives of the zone providing a range of retail, commercial and service functions on lower levels with shop top housing above.

52. It is anticipated that the Carter Street Precinct will provide for approximately 42,000m2 of non-residential uses within the B2 Local centre.

53. Council considers that in order to service the future residential population envisaged at Carter Street, a vibrant and active local centre is required to service local needs as well as minimising local trips in and out of the precinct.

54. However, there is no proposed minimum provision of non-residential floorspace to be identified in the LEP as well as well as a lack of detail around the proposed break down of uses (proportion of retail to commercial) that should make up the 42,000m2 of non-residential uses. Furthermore, there is also concern that space set out for non-residential uses may be converted at a later date to residential development if this is not managed appropriately.

Key Recommended Action:

F1. That the DPE consider introducing a minimum non-residential floor space provision in the B2 Local Centre zone under the LEP to ensure that the village centre develops into a vibrant precinct that can service the daily or weekly shopping needs of the incoming population and well as provide essential service functions to the local community.

5. CONCLUSION

55. Council is supportive of the changes identified in the draft CSMP and consider that it represents an improvement from the current scheme. Namely relocation of the school and increased central open space are significant improvements as well as amendments to ensure the precinct better responds to proposed traffic and transport infrastructure.

56. However, there are number of key concerns and issues outlined in this submission that require further consideration and analyses to resolve to ensure the Carter Street Precinct is best placed to accommodate the expected 5,500 dwellings and 42,00m2 of retail/commercial uses. Council looks forward to working through the issues raised in this submission with the DPE prior to implementing the draft CSMP and associated planning controls.

Appendix 1 – Detailed Public Domain Comments

Carter Street Precinct 2018

1. Uhrig Road and Village Plaza (refer UDR, Figures 49, 90 & 113)
    a. Detailed longitudinal and regular cross sections are required to show that the design for the light rail stop adequately addresses natural topographic conditions. The required length of access ramps and extent of retaining structures is of concern. It is premature to lock in street dimensions until this work is completed.
    b. 3.5m travel lanes at the stop locations may need review to accommodate passing in the event of vehicle breakdown. A minimum of 5m between kerb barriers may be required (refer detail design work undertaken for PLR1 on Hawkesbury Road). Minimum requirements need to be confirmed.
    c. Clearly show minimum 1.8m clear path of travel separate to any proposed public dining zone and cycleway in the Uhrig Road footway. Refer to the Public Domain Guideline for requirements
    d. Proposed cycle paths should be minimum 1.5m.

    Recommendation: Review the width of Uhrig Road as required to address the above issues.

2. Green Spine (refer UDR, page 81)
    a. Where zero lot ground level building setbacks are proposed in Road #2 (village centre), the street section must accommodate minimum 5m footway width (excluding the cycleway) to adequately accommodate the required large scale street tree planting.
    b. Show the limit of basement car parking aligned with the 5m ground level building setback alignment on all street sections.

    Recommendation: Ensure that a minimum 5m footway width (excluding cycleway) can be achieved in Road #2 in the village centre context where zero lot ground floor building setbacks are proposed.

3. East-West Spine (Road #3) – Vehicle connection to Uhrig Road as a local street should be provided to maximise connectivity in the centre.
    Recommendation*: Extend the East-West local street to connect directly to Uhrig Road.*

4. Hill Road (UDR, page 82) –
    a. The Draft Master Plan provides limited information about the proposed M4 off ramp on the amenity and access across Hill Road. Additional information, including typical sections showing the grade separated ramp, is required to fully describe the master plan proposal and demonstrate that the required functionality in the street can be achieved.
    b. The proposed setback to street trees from the travel lanes on both sides of the road needs to be reviewed against RMS requirements. A setback of 3m between infrangible street trees and travel lane for proposed vehicle speed 60kph or more will be required.
    c. Documentation about proposed setbacks on Hill Road are inconsistent (eg Figures 50 & 95 and text). A consistent 12m setback to buildings is assumed. Review and co-ordination of documents is required.

Recommendation: Provide more detailed plans and a series of sections to fully describe the impact of the M4 Motorway off–ramp at Hill Road. Review RMS guidelines for location of street trees adjacent to travel lane. Update documentation to consistently depict 12m deep soil setbacks to development on Hill Road.

5. Carter Street (UDR page 83) - The separated bi-directional cycleway needs to be minimum 3000mm (refer PPDG). The footpath on the northern side of Carter Street can be reduced to 1800mm to compensate.

   Recommendation: Adjust the drawings to accommodate a 3000mm minimum cycleway on the southern footway.

6. Carter Street Extension East (UDR, Figure 88) – An extension of the alignment of Carter Street east of Birnie Street is proposed and supported. The drawings are not consistent about:
   a. the width of the street - 20m is required, but annotated as a 10m laneway on Figure 88, or
   b. the proposed connection to Edwin Flack Avenue to the east.

   Recommendation: Adjust drawings as required to consistently show a 20m reservation aligned centrally with existing Carter Street and future connection to Edwin Flack Avenue.

7. Creek Edge Street (UDR page 84).
   a. The overall width of the foreshore riparian zone needs to be clearly shown in the street section and on master plan drawings generally. Refer notes at #?? for further information about minimum preferred riparian setback to Haslam's Creek.
   b. Locate street trees in the footway in front of the alfresco zone, not in the parking lane, to maximise opportunity for their future health and vitality.
   c. A minimum width of 1800mm is requested for any street tree planting zone.

   Recommendation: Adjust the drawings to address the above issues.

8. Local Streets (UDR, page 86)
   a. Typically local streets do not need to provide a share path on both sides of the street. A 1800mm pedestrian path is sufficient for local and park edge streets.
   b. Note that the ground level building setback zone for local, and all, streets must be provided as deep soil and clear to sky. Basement car parking and major building overhang is not permitted in this zone.
   c. A minimum width of 1800mm is requested for any street tree planting zone. This excludes any paving edge to provide access to parked cars (refer Figure 105).

   Recommendation – Adjust the typical local street section to address the above issues. Note that the minimum permissible footway width is 3.65m (3.5m between property boundary and back of kerb) for local streets with residential ground floor use.

9. Boundary Deep Soil Setback Zones - The Planning Report clearly articulates an objective that ground level building setback zones be free of basement car parking under and built form overhang above (refer Page 44 & 48). This objective needs to be clearly and consistently reflected in all typical street sections to assist communication of permissible activity in the setback zones.

Recommendation – Adjust all typical street sections to clearly show the permissible extent of basement car parking and built form overhang in ground level building setback zones.

10. Central Public Open Space (UDR, page 90) – The proposed size, location, shape and concept design of the main open space is supported. Council has concerns, however, about the split ownership of the park. The north-west corner is located outside the precinct boundary on land under SOPA ownership and management, subject to planning controls and regulations under the *Sydney Olympic Park Authority Act 2001* that are not under Council jurisdiction. The 'split' ownership will likely result in acquisition and ongoing maintenance and management complexities.

    Recommendation – Provide plan and program articulating suitable land acquisition or other proposal that allows the holistic design and co-ordinated delivery, management and maintenance of the proposed park.

11. Local Park & Plaza (UDR, page 92 & 100) – A number of small pocket parks are also located across two land ownerships with the same implications for holistic design and co-ordinated construction delivery, and ongoing maintenance and management (refer notes for the Central Public Open Space above). COP is supportive of the co-ordinated approach to the realisation of a legible public open space legacy between the Carter Street precinct and SOP, however, clarity about how this will be achieved across the two land ownerships is required.

    Recommendation – Provide plan and program articulating suitable land acquisition or other proposal that allows the holistic design and co-ordinated delivery, management and maintenance of the proposed pocket parks.

12. Riverside Active Park (UDR, page 94) – The proposed location and configuration of the Riverside Activation Park is considered sub-optimal. A key opportunity to provide a significant and contiguous riverside park asset at this location is not realised. The proposed disjointed linear park configuration offers limited functionality and amenity, has poor aspect (being on the south side of proposed high rise residential development and sandwiched between the M4 motorway) and is still subject to further land use safety investigations. It's contribution to the amenity of the new precinct is significantly compromised. Further, clarity about the required riparian zone setbacks along Haslam's Creek need to be provided. Haslam's Creek is a tidal estuarine waterway at this location and should accommodate a minimum of 40m riparian corridor setback consistent with Office of Water guidelines. Rationale for reduction for the guideline requirement from 40m to 20m is not specifically addressed in the Planning Report or other supporting documentation.

    Recommendation – Further master plan refinement (reflected in amended DCP requirements) of the westernmost corner of the Draft Revised Master Plan addressing core riparian zone requirements at Haslam's Creek and improved functionality and amenity of the proposed riverside park is required.

13. Built Form Ground Level Setbacks (refer UDR, Figure 50) – Please note amendments and corrections required as shown on the mark-up drawing below based on the following strategies:
    a. 5m setback required for residential ground floor use
    b. 0m setbacks typically permissible for retail/commercial ground floor use only. For these interfaces a 5m minimum width footpath is required to

accommodate awnings, activation and street trees. This does not apply for interface with a pedestrian laneway.

c. Approved built form ground level setbacks at 1-5 Carter Street are 3m. These were approved in accordance with the requirements of the existing Carter Street DCP.

Recommendation – Refinement of master plan documentation to reflect the above built form ground level setback requirements is required.

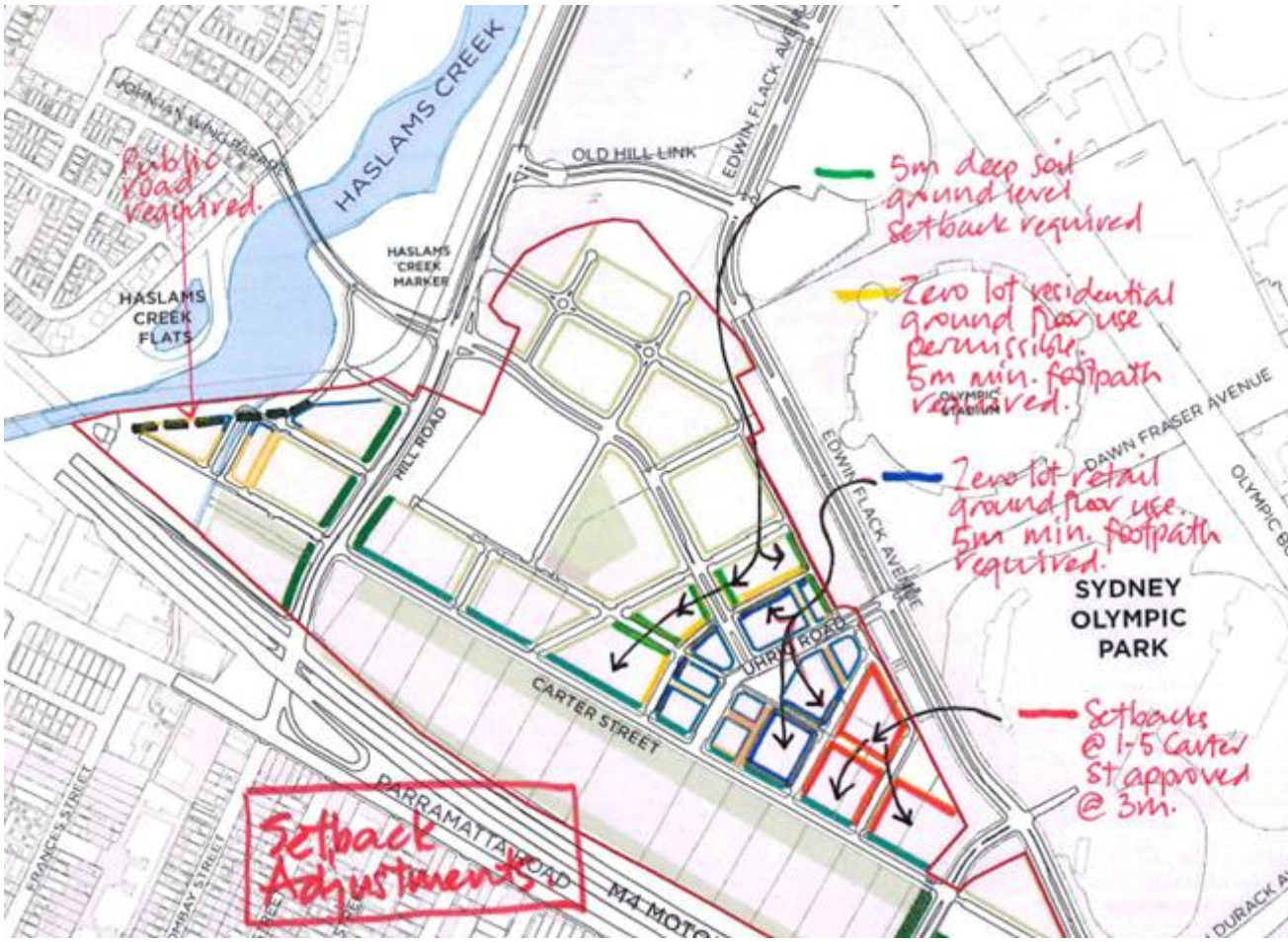


Figure 1 - *Proposed ground level built form setbacks*

14. Laneways #1 and #2 (refer Figure 88, PL#1, PL#2, PL#3)
    a. Detailed investigation of proposed built form ground level and upper podium and tower setbacks for these laneways is required to ascertain compliance with ADG building separation requirements which appear not be achieved.
    b. Review of on-street car parking and servicing provision in the village centre is also required to ensure there is adequate amenity to support operation of the centre.

Recommendation – Detailed plans and typical sections showing proposed laneways #1 and #2 detailing overall widths, allocations for traffic, pedestrians & activation activities, proposed built form ground level setbacks and building separation addressing ADG requirements and the above strategies (refer also 17 above) is required to support the master plan proposal.

15. Town Centre Through Site Links -The CSMP proposes through site links on either side of Uhrig Road to improve pedestrian permeability and accessibility to the new light rail terminus. The CSMP identifies pedestrian links on the western side of Uhrig Road as being required to be open to the sky while the development site on the

eastern side of Uhrig Road is proposed to be provided within the building. Council's preference is that these through site link should be open to the sky.

Recommendation – The identification of through site links on both sides of Uhrig Road (open to the sky on the western side but located within the building on the eastern side) has been applied inconsistently and potentially inequitably for different land owners. Council requests further information or urban design justification as to why this approach has been taken.

16. Section 4.9 of the UDR, Figure 19 shows two roads that do not currently exist (highlighted in **Figure 2**). Furthermore, Figure 19 shows "Employment area / activity centre" as an item on the legend but none is shown on the map.

Recommendation - This needs to be updated to reflect the commercial zone south of Carter Street.

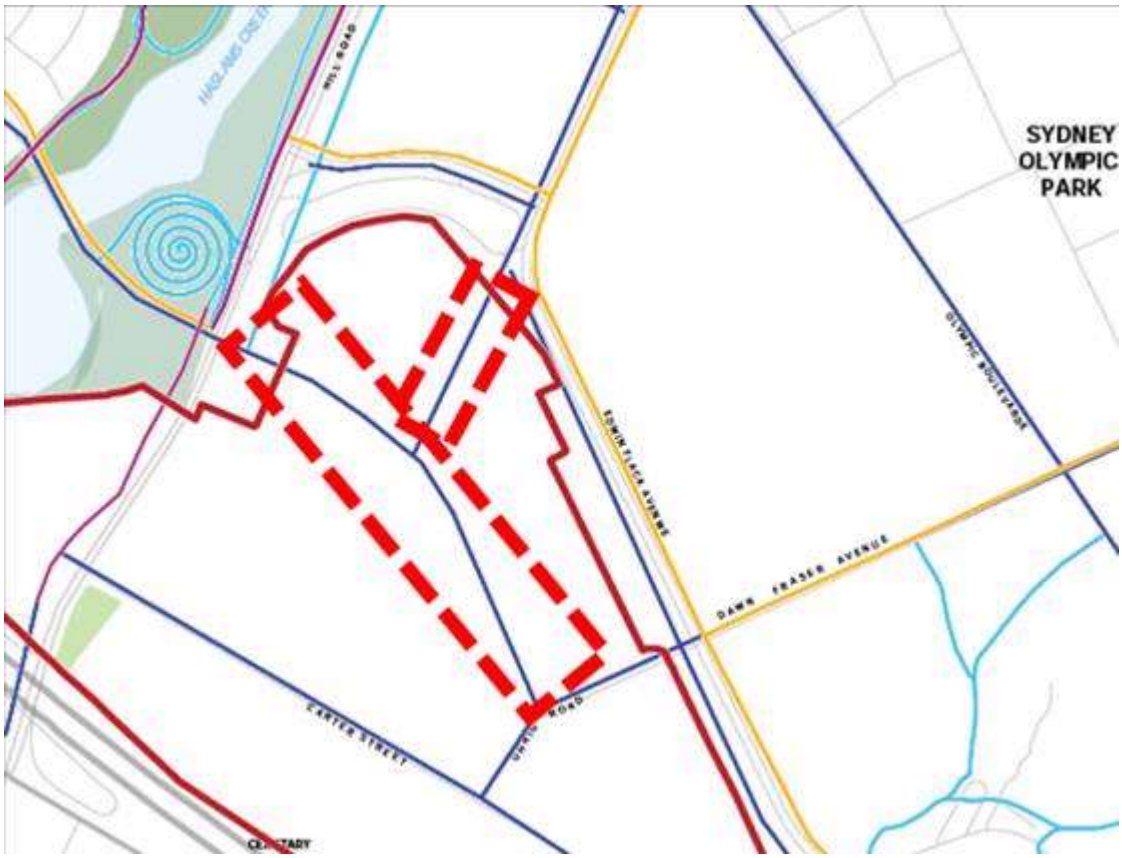


Figure 2 – Figure 19 of the UDR showing two roads that do not currently exist

17. Section 6.7 of the UDR, Figure 43 is missing a number of proposed pedestrian and cycling pedestrian and cycling connections.

Recommendation - Figure 3 has the following pedestrian and cycling connections added as dashes and are recommended to be included in the CSMP:

- **Shared user path on all sides of Central Public Open Space;**
- **Shared user path on western side of Road #7 and Road #9;**
- **Shared user path on western side of Road #6 and Road #5;**
- **Separated bicycle path southern side of Carter Street extension both west of Hill Road and east of Birnie Avenue.**

Furthermore, the path on the eastern side of Hills Road between the M4 and Carter Street is not supported as the on-ramp G-loop prevent access further south to Parramatta Road (outlined in red).

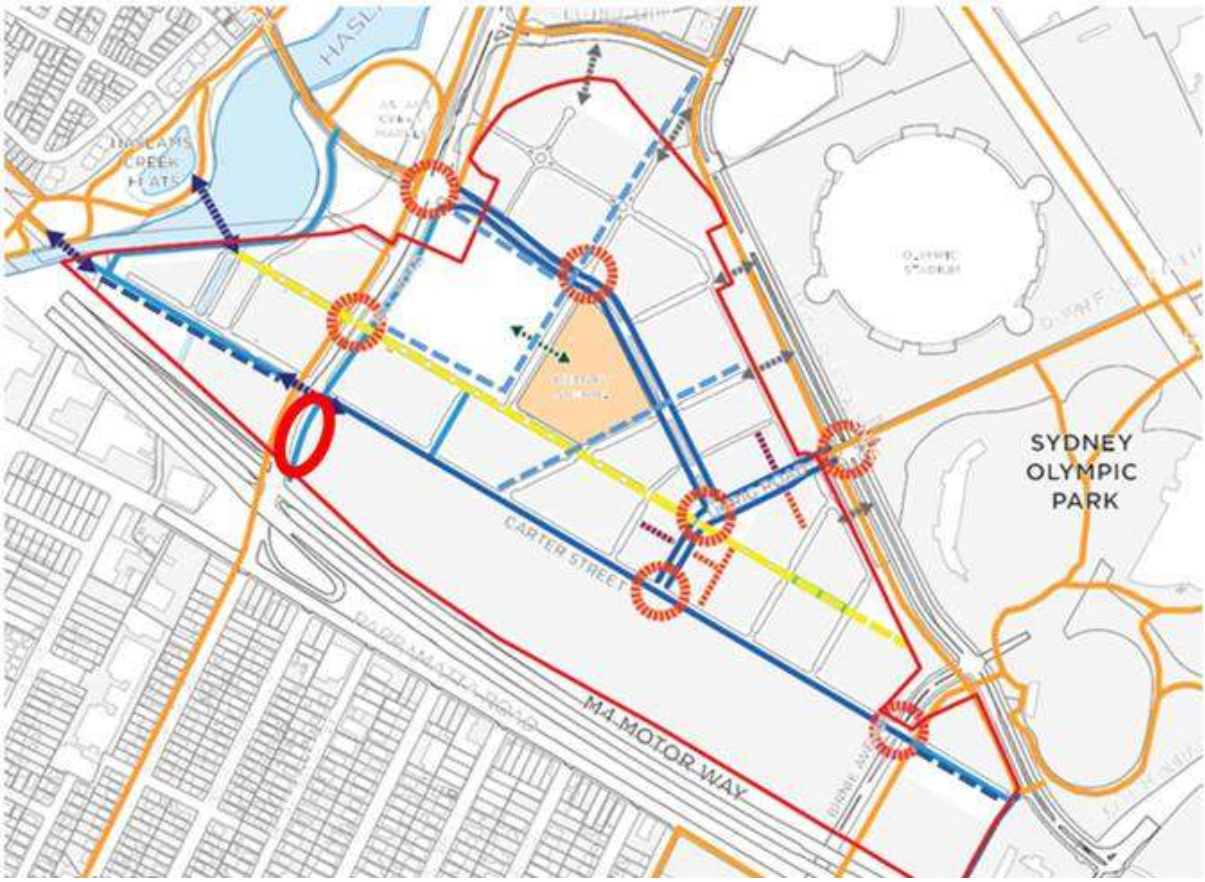


Figure 3 – Figure 43 of the UDR with updated pedestrian and cycling connections

18. Section 6.9 of the UDR, on Figure 45 the proposed secondary green grid link along the south boundary of the Precinct, east of Hills Road may not be feasible, given the recently opened Hill Road WestConnex on-ramp.

19. In relation to Section 6.13 of the UDR, there is a grammatical error in the first sentence. This needs to be amended. Further, on Figure 49 there is no pedestrian crossing facility shown on Carter Street at its T-intersection with Uhrig Road.

Recommendation – That signalised pedestrian crossings for both sides of Uhrig Road at Carter Street be provided.

20. In relation to Section A.2 of the UDR, the following recommendations are made:

Recommendation:

- **Council officers consider that it is important that pedestrians are given the opportunity to cross at un-signalised locations at every intersection, particularly the Green Spine Road and Carter Street. It is recommended that controls be included in the DCP to ensure pedestrians are provided the opportunity to safely cross at every intersection (signalised or un-signalised)**
- **In the section regarding Carter Street (p.83 of the UDR) it states that the cycleway will be on the northern side. It is recommended that the text be corrected to reflect the cycleway to be on the southern side, not the northern side**

- **On Figure 97 of the UDR, given the regional function of the Carter Street cycleway, it is recommended that the cycleway surface be flush with the separation strip and verge and that the cycleway is a minimum of 3m wide.**
- **For Figures 98/99 of the UDR, it is recommended that the shared user path be shifted to the kerb edge and widened to 3.5-4m, consolidating the trees and green space in the creek corridor.**

21. In relation to A.3 of the UDR, the following recommendations are made:

Recommendation:

- **on Figure 116, it is recommended to show placement of an indicative bridge over Hill Road with the footpath along Hill Road removed on the eastern side south of**

- **Figure 112 and 114 needs to show a bi-directional cycle path on the southern side of the Carter Street extensions.**

Appendix 2 – Proposed DCP amendments (Draft Carter Street DCP – CoP Council amendments in track changes)

NSW GOVERNMENT

APPENDIX 2

Draft Amendment to Carter Street Precinct Development Control Plan

NSW Department of Planning and Environment

September 2018

September 2018

Disclaimer

Copyright notice

Note –
Please ensure that all text in all drawings is legible at A4 size.

Note –
Please ensure that all maps are as large as possible, of high resolution and the colour palette to differentiate controls (e.g. setbacks) need to have great contrasts

For the purposes of this document:

Black text indicates existing DCP text.

~~Red strikethrough text~~ indicates the text which is proposed to be deleted.

Blue underlined text indicates proposed new text.

Contents

1. Introduction

This Development Control Plan (DCP) establishes a framework to guide development in the Carter Street ~~Priority~~ Precinct (the Precinct).

1.1 Name of this DCP

This DCP is called the Carter Street Precinct Development Control Plan 2018. The DCP has been prepared pursuant to the provisions of Section ~~74C~~ 3.43 of the *Environmental Planning and Assessment Act 1979* (the Act).

The DCP was adopted by the Secretary of the Department of Planning and Environment (the Secretary) on 13 January 2016 and came into force on 9 February 2016. A list of amendments to this DCP is detailed in Section 1.10 below.

1.2 Land to which this DCP applies

This DCP applies to ~~development indicated~~ land within the ~~yellow~~ black boundary of the Carter Street Precinct as shown in **Figure 1**.

Figure 1: Land to which this DCP applies

1.3 Purpose of this DCP

The purpose of this DCP is to guide the future development of the Precinct by:

- identifying the vision, development principles, key elements and indicative structure for the Precinct,
- communicating the planning, design and environmental objectives and controls against which the consent authority will assess development applications,
- ensuring the orderly, efficient and environmentally sensitive development of the Precinct, and

- promoting a high quality urban design outcome.

1.4 Relationship to other plans

This plan supplements the *Auburn Local Environmental Plan 2010* by providing specific development provisions for the Carter Street ~~Priority~~ Precinct.

Development within the Precinct will need to have regard to this DCP as well as the relevant provisions of the Auburn Development Control Plan 2010 (Auburn DCP 2010). In the event of any inconsistency between this DCP and the Auburn DCP 2010, this DCP will prevail to the extent of the inconsistency.

Relevant provisions of the Auburn DCP 2010 ~~and the Sydney Olympic Park Authority (SOPA) Guidelines~~ are cross referenced in this DCP and are set out below.

Auburn DCP 2010

- Introduction (development application requirements and notification requirements)
- Residential flat buildings – ancillary site facilities
- Residential flat buildings – adaptable housing
- Child care centres
- Advertising and signage
- Parking and loading
- Access and mobility
- Stormwater drainage
- Waste
- Tree preservation

~~*SOPA Guidelines*~~

- ~~Sydney Olympic Park Master Plan 2030~~
- ~~Sydney Olympic Park Urban Elements Design Manual 2008~~
- ~~Sydney Olympic Park Authority Guidelines for Outdoor Advertising, Identification and Promotional Signage (October 2002)~~

In addition to this DCP and the Auburn DCP 2010, applicants should refer to:

- The City of Parramatta Council's *Public Domain Guidelines* including DA submission requirements,
- Relevant State Environmental Planning Policies, particularly *State Environmental Planning Policy No 65–Design Quality of Residential Apartment Development*, ~~and~~
- The relevant ~~Section 94 Contributions Plan~~ development contributions plan, and
- Any relevant ~~infrastructure~~ planning agreement, including the Carter Street Planning Agreement executed on the 18 November 2015, and any subsequent Planning Agreements for this Precinct.

This DCP replaces all DCPs and deemed DCPs that applied to the Carter Street Precinct prior to the commencement date of this DCP.

1.5 Consent Authority

Unless otherwise authorised by the Act, ~~Auburn~~ the City of Parramatta Council is the consent authority for all development on land in the Precinct to which this DCP applies.

1.6 Application of this DCP

The provisions of this DCP are not statutory requirements and any development application will be considered on its merits. The consent authority is to be flexible in applying the controls and allow reasonable alternative solutions that achieve the overall vision, development principles and key elements for the Precinct as well as the specific objectives of the controls.

Role of the indicative structure plan

The Carter Street Precinct indicative structure plan at **Figure 2** shows how the ~~overall~~ Precinct may develop over time. It is intended as a guide to demonstrate how the vision, development principles and key elements for the Precinct may be achieved. It is recognised that there may be other options for the ~~site's~~ Precinct's layout which may be as effective in achieving the above for the Precinct. As such, Council may grant consent to a proposal that differs from the indicative structure plan where the variation is considered to ~~still~~ achieve the vision, principles and key elements set out in this DCP.

Consistency with objectives and controls in this DCP

Clauses in this DCP contain objectives and controls relating to various aspects of development. The objectives enable Council and applicants to consider whether a particular proposal will achieve the development outcomes established for the Precinct. The controls, if met, mean that development would be consistent with the objectives.

However, in some circumstances, strict compliance with the controls may not be essential, or may be difficult to achieve because of the particular characteristics of a development site. In these situations, ~~Council~~ the consent authority may grant consent to a proposal that does not comply with the controls in this DCP, providing the relevant objectives are achieved. Where a variation is sought it must be justified, demonstrating how the development will meet the vision and development principles as well as the objectives of the relevant control.

1.7 Information to be submitted with Development Applications

Information requirements for development applications are set out in the Auburn DCP 2010.

1.8 Notification of Development Applications

Notification of development applications will be undertaken in accordance with the Auburn DCP 2010.

1.9 Submission requirements

Applicants should refer to the submission requirements in the City of Parramatta Council's ~~*Public Domain Guidelines*~~ *Application Guidelines*.

1.10 List of Amendments

This DCP has been amended as follows:

Amendment No.	Sections Affected	Description of Amendment	Date adopted	Date in force
1	All	Changes to the Structure Plan, public open space and public domain, building height and form and land use safety requirements.	No.	No.

2. Vision, Principles and Indicative Structure

2.1 Vision

The urban renewal of the Carter Street Precinct will support Sydney Olympic Park in its role as a Strategic Centre and deliver a mix of housing, employment and retail services with easy access to public transport, the regional road network and ~~world class~~ high quality public open space, entertainment and recreational facilities.

2.2 Development Principles

To achieve the vision, the Carter Street Precinct is to:

P.1 Develop~~ment~~ transitions and respond~~s~~ to surrounding areas.

P.2 Strengthen the role of the Carter Street Precinct ~~develop~~ as an integral part of the broader Sydney Olympic Park Strategic Centre.

P.3 Create a network of unique, memorable and high-quality places and to maximize public street connections to Sydney Olympic Park.

P.4 Create a compact, walkable urban precinct ~~community within close proximity to Sydney Olympic Park~~ supported by a~~n~~ neighbourhood centre ~~activity centre village centre~~ comprising 'main street' retail and ~~a village~~ square plaza public spaces.

P.5 Provide a mix of ~~medium and high-density~~ housing types ~~to increase housing choice~~.

P.6 ~~Incorporate a network of accessible public open spaces.~~

P.7 Incorporate a primary school that serves the Carter Street Precinct community.

P.8 ~~in the provision of~~ Provide a connected street network, transport access and mobility infrastructure ~~through the design of integrated transport services~~in a way that that prioritises walking, cycling and the use of public transport.

P.9 Create a new employment area (light industrial/technology/business park/office/retail) with access to Parramatta Road and the M4 Motorway.

P.10 Incorporate a network of ~~publicly accessible~~high quality public open spaces and streets.

P.11 Comprise ~~a~~ diverse ~~and innovative~~ built forms that ~~provides~~contribute to a high-quality living environment, ~~and~~

P.12 Incorporate sustainability measures that reduce impacts on the natural environment, and

P.13 Ensure development in the Precinct responds to environmental constraints.

2.3 Indicative Structure Plan

Objectives

O.1 To support Sydney Olympic Park in its current role as a strategic centre. ~~by providing a mix of housing, retail, employment and services.~~

O.2 To ensure that development occurs in a coordinated manner consistent with the vision and development principles for the Precinct.

O.3 To ensure the key elements (refer Table 1) ~~of the Precinct~~ are delivered whilst providing some flexibility in the design of the precinct where the key elements are not compromised ~~tive.~~

O.4 To locate residential uses close to Sydney Olympic Park. ~~to optimise access to facilities, outlook and amenity.~~

O.5 To develop a ~~local activity centre~~ ~~village~~ neighbourhood centre ~~in the area~~ around ~~surrounding~~ Uhrig Road ~~to support the incoming population,~~ focused around a ~~'main street'~~retail street with ~~fine grain~~ laneways and a ~~retail spine with a~~ central ~~village~~square plaza.

O.6 To develop a ~~secondary active~~ public street frontage to~~along~~ Haslams Creek~~, providing~~ with local small-scale services, retail and opportunities for outdoor dining.

O.7 To locate employment uses at the south of the Precinct, providing good access to Parramatta Road and the M4 Motorway., ~~and to form a buffer for the adjacent nearby residential uses.~~

~~O.8~~ To accommodate the proposed Parramatta Light Rail Stage 2 extension into the Precinct ~~planned to terminate on Uhrig Road.~~

~~O.9~~O.8 To contribute to regional active transport infrastructure consisting of connected and dedicated footpaths, shared paths and access to public transport stations and stops.

O.09~~10~~ To ensure key regional infrastructure upgrades, such as the future Hill Road widening, are integrated into the Precinct and provide high quality public domain outcomes.

Controls

C.1 Provide a connected public street network within the precinct and to the surrounding area.

C.2 Create a buffer between Parramatta Road/M4 Motorway and new residential uses.

C.3 Deliver d~~D~~evelopment ~~is to be~~ consistent with the key elements in **Table 1** and the indicative structure plan at **Figure 2**. Where variations are proposed, development is to demonstrate how the vision, development principles, key elements for the precinct and relevant specific objectives are to be achieved.

C.4 All new streets are to be made public, and cannot be located over basements.

~~C.1~~C.5

C.6 ~~Development that includes new streets is to include~~For new streets and development prepare a subdivision plan that confirms the street network, individual development lots, proposed setbacks and ~~proposed~~ floor space allocations.

~~C.2C.1 All new streets are to be made public, and cannot be located over basements.~~

~~C.3~~C.7 ~~Development that proposes an alternative layout for a part of the indicative structure plan is to be subject to a subdivision development application prior to approval of any other development within that area which is not for a public purpose.~~ The subdivision development application should address the following matters as they relate to that area:

- confirm the street, pedestrian and cycleway network
- confirm the delivery of all key elements (refer Table 1)
- identify individual development lots, and lots for public open space or other public purposes
- confirm how development will be distributed across the area consistent with the floor space ratio controls identified in the Auburn Local Environmental Plan 2010, by allocating a maximum allowable gross floor area (GFA) to each development lot distributed into individual building envelopes where proposed
- indicate proposed setbacks and active street frontages, and
- include a storm-water management strategy for the area.

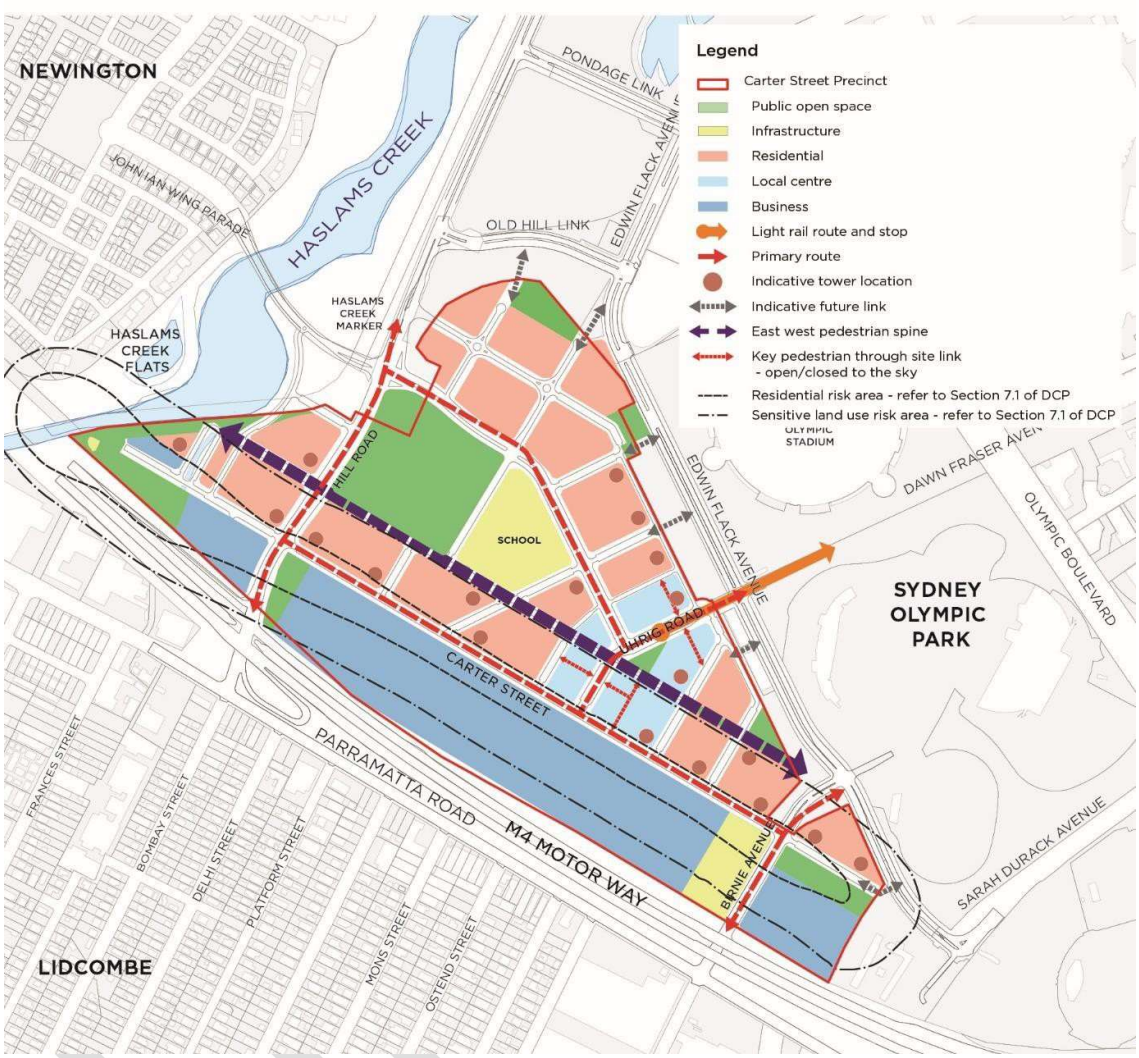
Table 1 Key elements

Element	Description
Open Space	• A connected public street network that knits into Sydney Olympic Park and surrounding local context. • A significant new ~~2.98~~ 3.4 hectare public park for recreation. ~~and water sensitive urban design initiatives~~ • New ~~20m~~ 40m wide linear public foreshore reserve along Haslams Creek. • A new public village ~~square~~ plaza integrated with main street retail at Uhrig Road. • ~~Two~~ Four new local parks located within residential areas.
~~**Retail and**~~ **Community facilities**	• ~~Community centre within Uhrig Road local village centre.~~ • New primary school on a 1.9-hectare site adjoining the main public open space.
Retail / Commercial	• Retail centre along Uhrig Road with up to 12,000 m^2 ~~sqm~~ of shops and services and commercial uses with up to 30,000 m^2 of ~~high quality~~ commercial space. • ~~An active focused strip~~Public street fronting Haslams Creek with active uses. • Active ~~street level~~ uses along and adjoining Uhrig Road local ~~village~~ centre.
Residential	• High density ~~urban community~~housing ~~with potentially over~~ to a maximum of 5,500 dwellings. • Private and communal open space for residents within urban blocks. • Walkable neighbourhood to shops, parks, public transport and the Olympic Park Train Station.

Employment	• 13.6 hectares of highly accessible land for employment uses. • Corporate offices, business and technology parks, retail and light industrial uses ~~visible from~~along Carter Street and the M4 Motorway.

Element	Description
Built form	• Building heights ranging from ~~4-22storeys~~ 3 to 36 storeys. • Residential buildings generally with 4-8 storey street walls, 4 storey podiums and higher tower buildings ~~on~~ along the ~~northern part of~~ Precinct's northern parts. • ~~8-12 storey buildings to the east and west of the local centre~~ • ~~Taller 16-22 storey landmark buildings at key locations including the local centre and on main streets~~ • ~~Varied building heights for visual interest and dynamic urban form, providing a good street level scale and optimising solar access.~~ • ~~Innovative, quality architecture and ecologically sustainable design driven outcomes~~ • A new school in the heart of the Precinct. • Building setback and articulation controls.
Movement network	□ New, connected footpaths, shared user paths and streets to create a permeable ~~movement~~ street network. □ Clear pedestrian legibility and sightlines with new pedestrian crossings at all intersections ~~located on key links.~~ □ Extensive active transport network, with dedicated cycle paths, footpaths, cycleways, shared user paths linking activities and locations, public transport stations and stops; □ Locations for new pedestrian bridges. □ ~~Public Streets to be located on the ground identified.~~ □ Sight lines to the sky at the ends of streets □ • ~~Series of upgrades to intersections to improve traffic flow~~ • ~~Bus priority and new routes to train station~~ □ Publicly accessible foreshore ~~with~~including street access for cars and provision for pedestrians and cyclists ~~footpaths and shared paths~~ ~~pedestrian and cycle paths~~ linked to existing network. □ A stop for the proposed Parramatta Light Rail (Stage 2) incorporated into the wider ~~movement~~ street network. □ Upgrade to Hill Road as part of broader regional infrastructure works.

Figure 2: Indicative structure plan



Note –
The location of a tower ~~located~~ at the westernmost end of the Carter Street extension (on Haslems Creek) is not considered suitable.
A key objective needs to be that towers are not located at the end of view corridors.

3. Public Domain

3.1 Street Network and Design

Objectives

O.1 To establish a new public street network ~~over time~~ which responds to the natural landscape features of the site, the existing development and subdivision pattern and aligns and connects to ~~with~~ the road network in *Sydney Olympic Park Master Plan 2030*.

O.2 To provide convenient and direct street connections to adjacent areas particularly Sydney Olympic Park, ~~and~~ Lidcombe and more broadly to Newington.

O.3 To reinforce the main axis of Dawn Fraser Avenue by upgrading Uhrig Road and incorporating light rail infrastructure.

O.4 To incorporate the Hill Road upgrade into the Precinct and allow for the maximum number of pedestrian crossings ~~at key connectivity nodes~~.

O.5 To provide a clear street hierarchy utilising existing public roads (upgraded as necessary) and new collector roads and local streets.

O.6 To create a ~~fine-grain~~ street network in the ~~village~~ neighbourhood centre with small street blocks ~~consisting of pedestrian-dominated streets and trafficable public laneways.~~

O.7 To provide a compatible and connected interface with Sydney Olympic Park along the retained bus / car park zone. ~~site on Edwin Flack Avenue~~.

O.8 To extend the landscape and public domain character and quality of Sydney Olympic Park into the Precinct particularly for the main avenues of Hill Road, Uhrig Road and Birnie Avenue, whilst also providing compatibility with City of Parramatta Council's Public Domain Guidelines.

O.9 To maximise development frontage to streets and public spaces, by providing rear laneways for vehicular access and permeability.

O.10 To provide a ~~street~~ ~~road~~ street network which can accommodate future public transport initiatives such as the proposed Parramatta Light Rail (Stage 2) project and dedicated bus routes., ~~in order to cater for growth associated with the development.~~

~~O.10~~O.11 To provide generous public street proportions that allow for on-street car parking *and* an attractive, safe and comfortable streetscape for pedestrians and cyclists.

~~O.11~~O.12 ~~To create an attractive, safe and comfortable streetscape for pedestrians and cyclists that comprises consistent and high-quality surface treatment paving, street furniture and street tree plantings~~.

Controls

C.1 The street network is to be consistent with **Figure 3.**

C.2 New streets are to be consistent with the typical street sections at **Figure 4** to **Figure ~~7~~ 13**.

C.3 All new ~~roads~~ street are to be public, dedicated to Council and cannot be located over basements.

C.4 Rear lanes are to be designed as ~~shared~~ low-speed zones and incorporate quality landscaping and lighting.

C.5 Significant individual trees are to be retained and protected where possible and appropriate, particularly those which are significant and provide habitat potential, shade, amenity and p~~P~~recinct landmarking.

C.6 Streets and public spaces are to be defined with trees of appropriate scale and species ~~and with reference to the Parramatta Public Domain Guidelines and proposed street tree planting~~ plan. developed in consultation with council officers. ~~*Sydney Olympic Park Master Plan 2030* and *Sydney Olympic Park Urban Elements Design Manual 2008*~~.

C.7 Intersection and crossing design is to favour pedestrian convenience and safety, followed by cyclist convenience and safety, particularly on cycleways.

C.8 Dedicated ~~and direct~~ cycleways and/or shared cycleways are to be provided on key routes and links, with a preference for single-direction dedicated cycle paths. Connections are to be provided to existing and proposed cycle routes in the broader area. Bike parking facilities are required in accordance with the requirements of the Parramatta Public Domain Guidelines and to meet Australia Standard AS2890.3.2015 (Class B).

C.9 The minimum footway (kerb to property boundary) width for any local residential street is 3.65m. The minimum footway width for neighbourhood centre streets with retail or commercial ground floor use is 5m. Indented car parking, which decreases available area for pedestrians and street trees, is to be minimized.

C.10 Footpaths are to be provided on both sides of every street~~.~~:

- ~~Pavement width, with a~~ minimum 1.5~~2~~m ~~on~~ for local streets and

~~C.9~~ Minimum 1.8m on collector roads.~~, is to allow for comfortable walking, unimpeded by obstacles. The placement of trees, street furniture and signage is to provide for amenity without causing clutter.~~

~~C.10~~C.11 ~~Footpath planting~~Understory landscape finishes in the footway should~~is to~~ consist of low-level, low maintenance native shrubs, groundcovers and strappy-leaved grasses~~. Turf areas less than 10m^2 are not permitted. Turf is generally not~~ and turf.

preferred, except where access requirements from street parking to footpaths are too prolific for links to be extensive.

C.11C.12 Uhrig Road is to be designed to provide:

- ~~vibrant streetscape with~~ high quality ~~landscaping~~landscape finishes, ~~and~~
- generous footpaths ~~for outdoor café seating, particularly to the south-easternside, adjacent to the village plaza, and~~(refer C9) with clearly identified clear path of travel (minimum 1.8m) and outdoor dining zones. Refer Parramatta Public Domain Guidelines.
- crossings that allow safe and convenient access to the proposed Parramatta Light Rail stop and terminus on Uhrig Road and the remainder of the light rail corridor.

~~C.12~~C.13 ~~A public domain plan~~Public Domain Alignment Drawings are ~~is~~ to be submitted with relevant development applications in accordance with the Parramatta Public Domain Guidleines.~~that details the design,~~ Mmaintenance and management of new and existing streets, street furniture, pavement, ~~and~~ vegetated surfaces is required until handover to COP.~~, and Bike Parking facilities which meet Australia Standard AS2890.3.2015 and be of Class B.~~

~~C.13~~C.14 New streets are to have shared services pits to reduce maintenance costs and reduce conflict with street plantings.??? Delete this requirements unless an arrangement with service providers is already agreed.

~~C.14~~C.15 Utilities design must be coordinated such that tree planting is possible in ~~either kerb blisters or~~the footpaths, . Additional tree planting in kerb blisters can also be provided. ~~preferably both.~~ Refer to street type sections for tree planting locations.

~~C.15~~C.16 Furniture and lighting is to be provided with reference to the ~~*Sydney Olympic Park Urban Elements Design Manual 2008*~~ Parramatta Public Domain Guidelines.

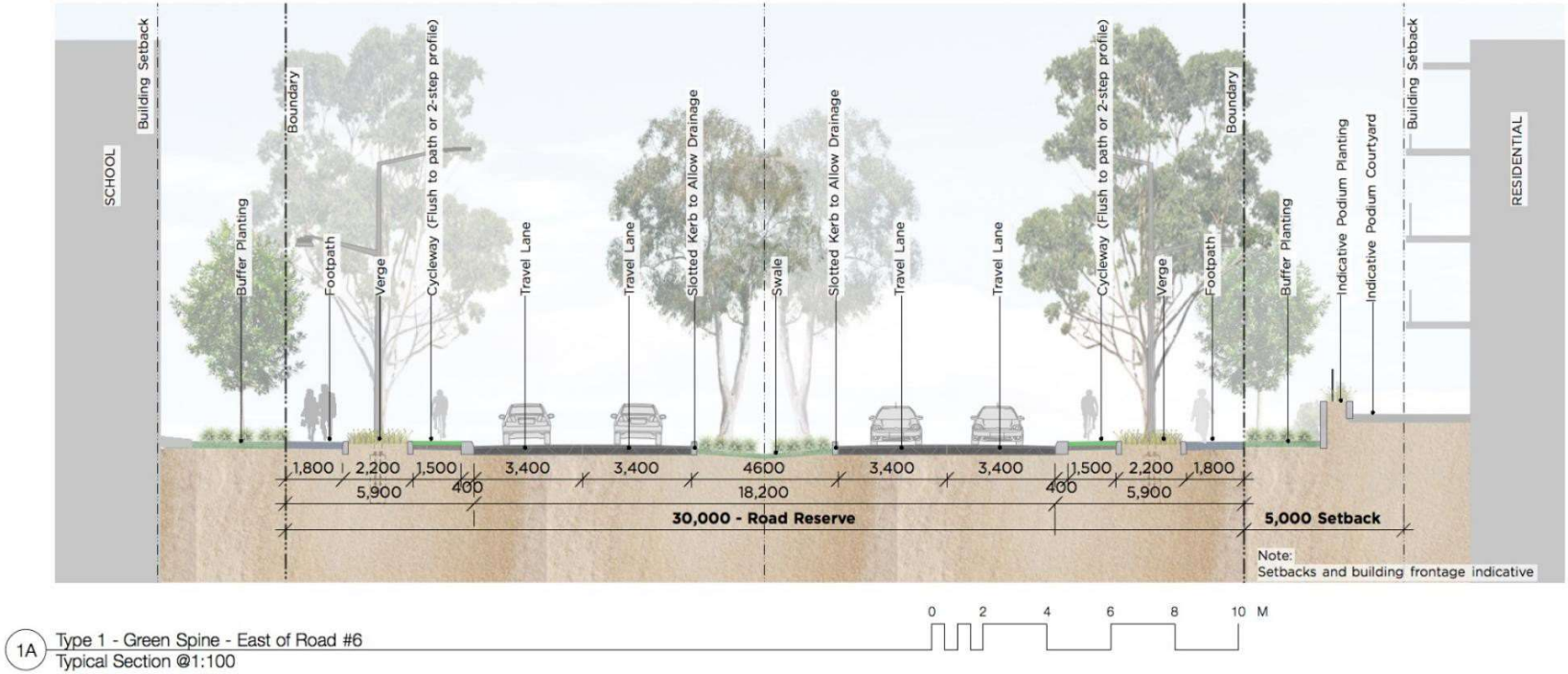
~~C.16~~C.17 Signage is to be provided in accordance with COP requirements.~~with reference to the Parramatta Public Domain Guidelines. *Sydney Olympic Park Urban Elements Design Manual 2008* and *Sydney Olympic Park Authority Guidelines for Outdoor Advertising, Identification and Promotional Signage (October 2002).*~~

~~C.17 Landscaped gateways to the Precinct at Hill Road and Birnie Avenue near the M4 Motorway are to be established.~~

Figure 3: Street Network

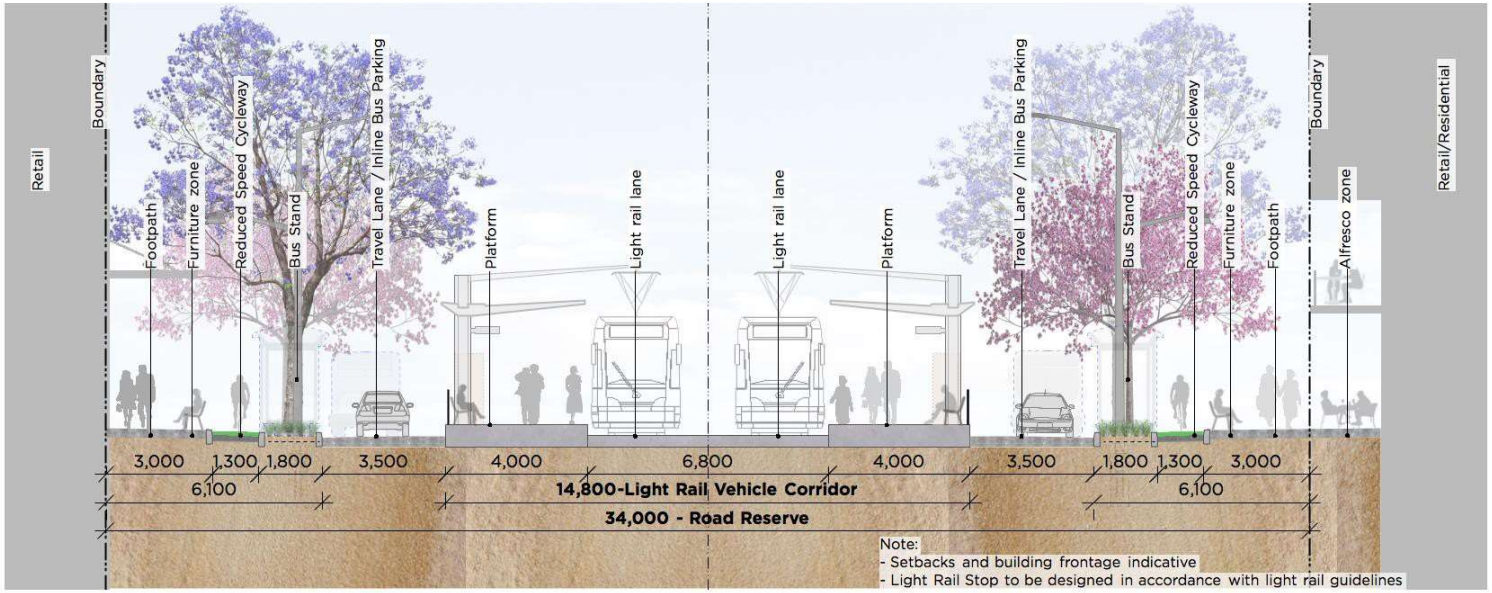
Show a public street frontage to Haslems Creek.
Show street connections into the SOP street network.

Figure 4 Street Section A-A – Green Spine



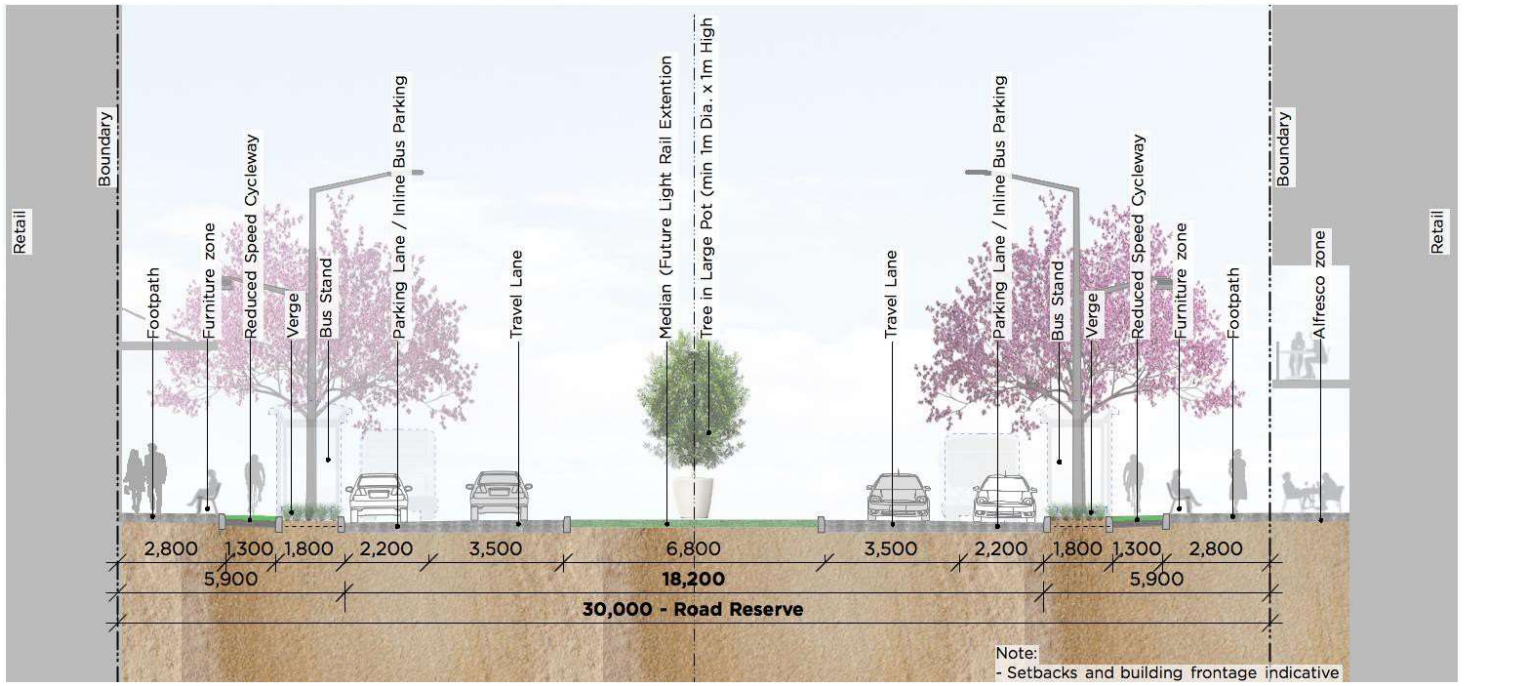
Note
Street sections are to be updated in accordance with comments provided on the Master Plan
On street car parking is required.

Figure 5: Street Section B-B – Uhrig Road North



Building colonnades are not supported.

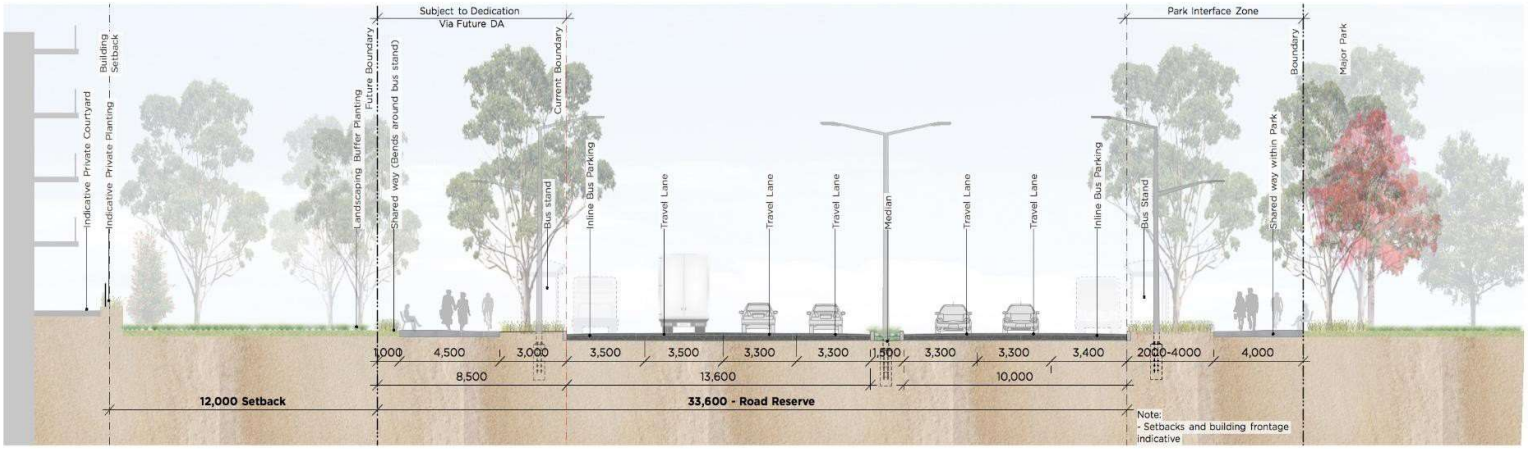
Figure 6 Street Section C-C – Uhrig Road South



1A Type 5 - Uhrig Road South
Typical Section @1:100

Clearly show 1.8m clear path of travel and any proposed outdoor dining zone separate to cycle way.
No building colonnades.

Figure 7: Street Section D-D – Hill Road



1A Type 10 - Hill Road (Narrow Median Situation)
Typical Section @1:100

0 2 4 6 8 10 M

Figure 8: Street section E-E – Creek Foreshore

*the shared path width of 3.2m is considered too narrow as a link towards Newington. ~~Consider s~~Shared path width of 4m

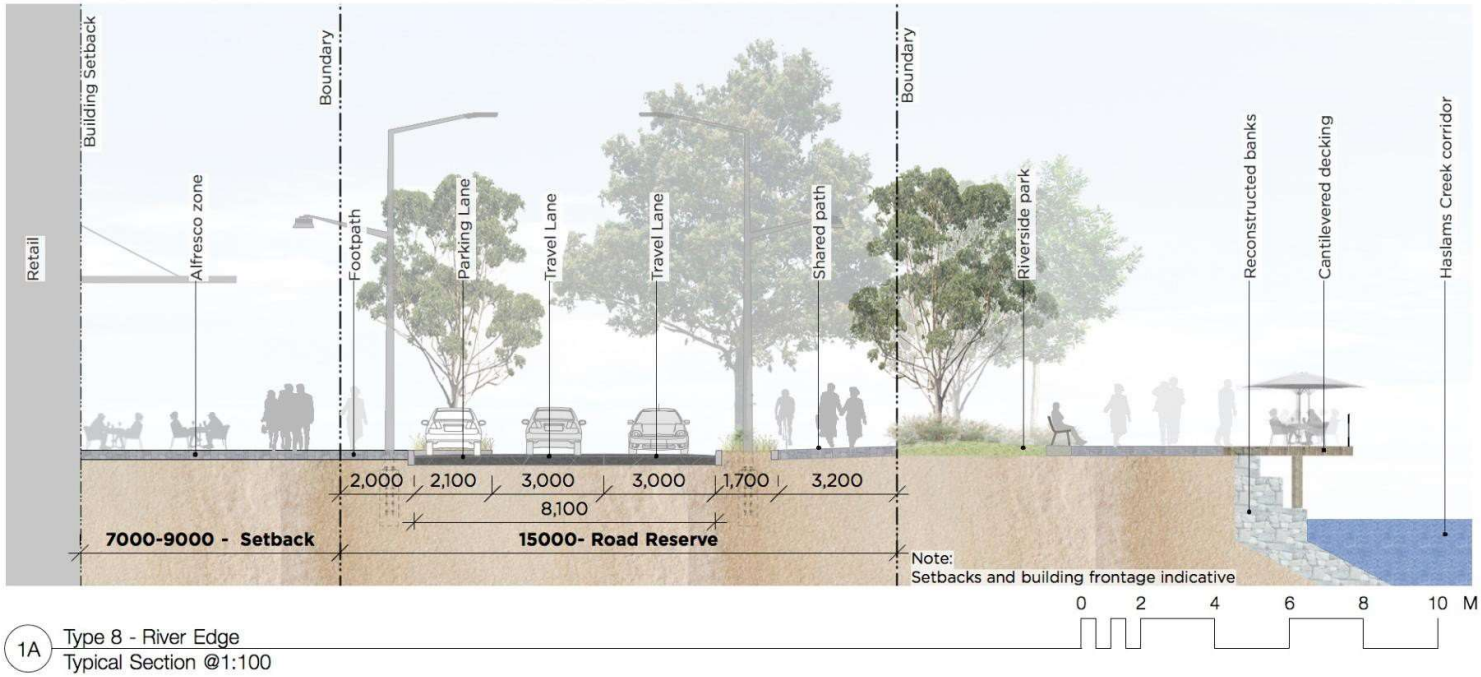


Figure 9 – Street Section F-F – Local Street

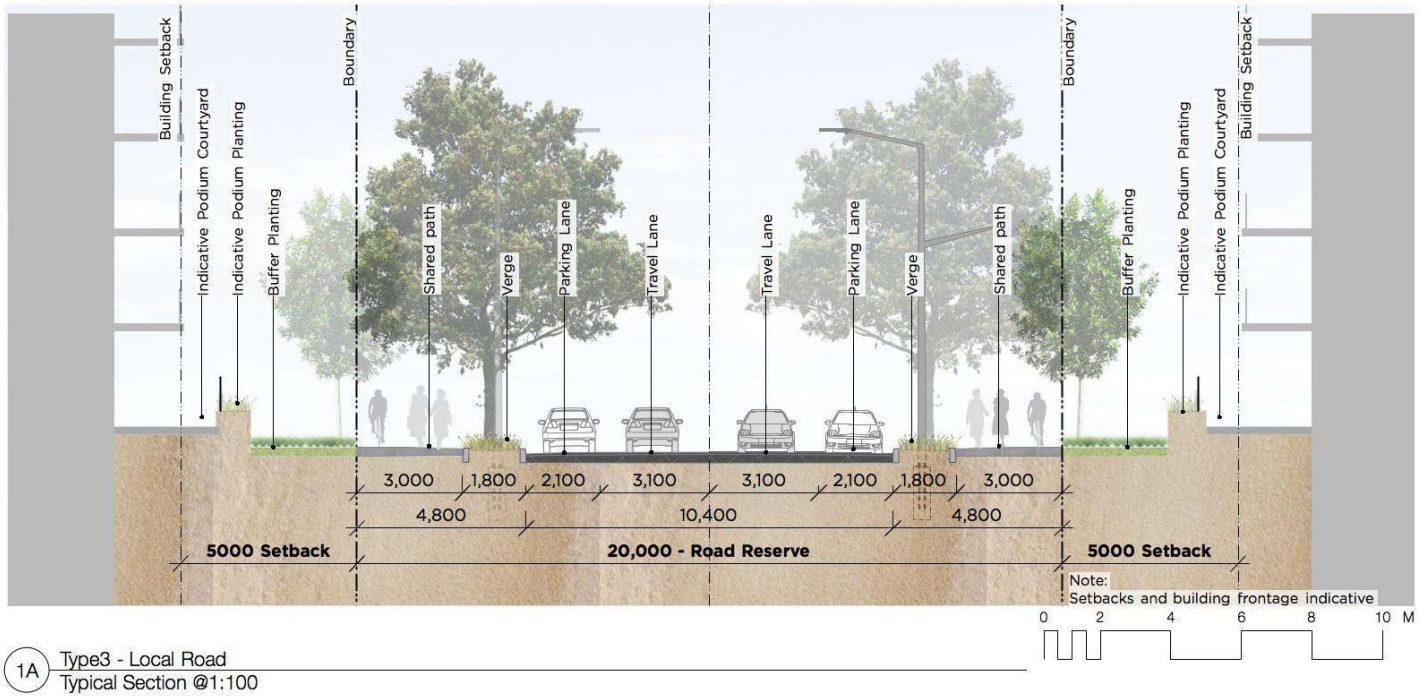
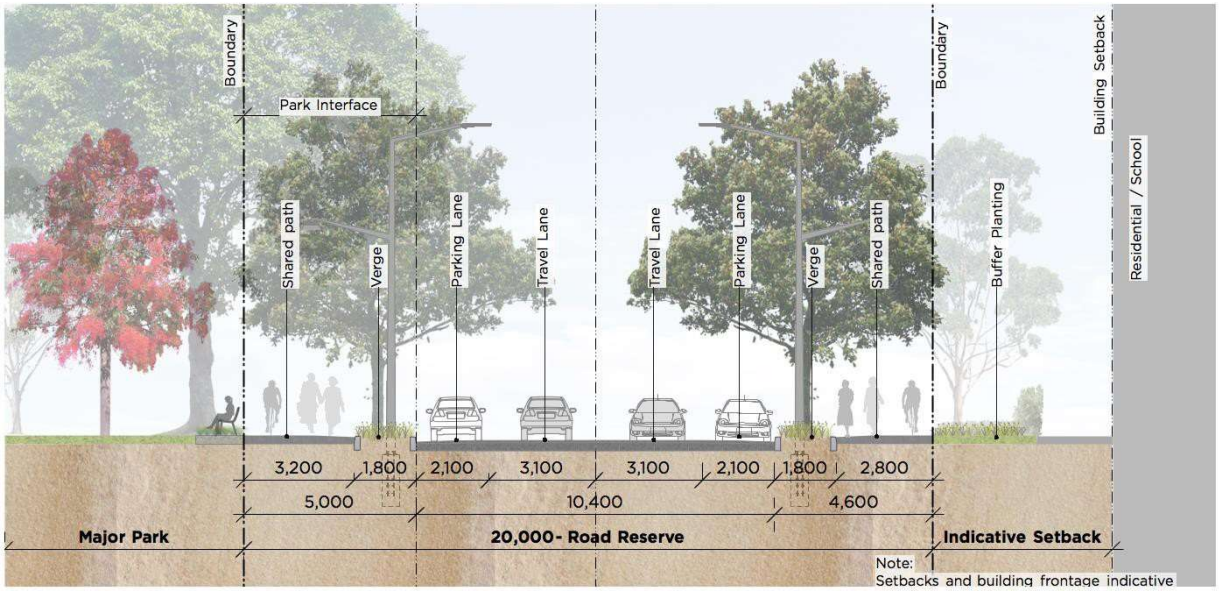


Figure 10: Street Section G-G Local Road – Park Edge

Show minimum 5m ground floor building setback on the drawing.

*** the shared path width of 3.2m on park side is considered too narrow as the main shared path around the main recreation park. Consider Sshared park wifth of 4m.**



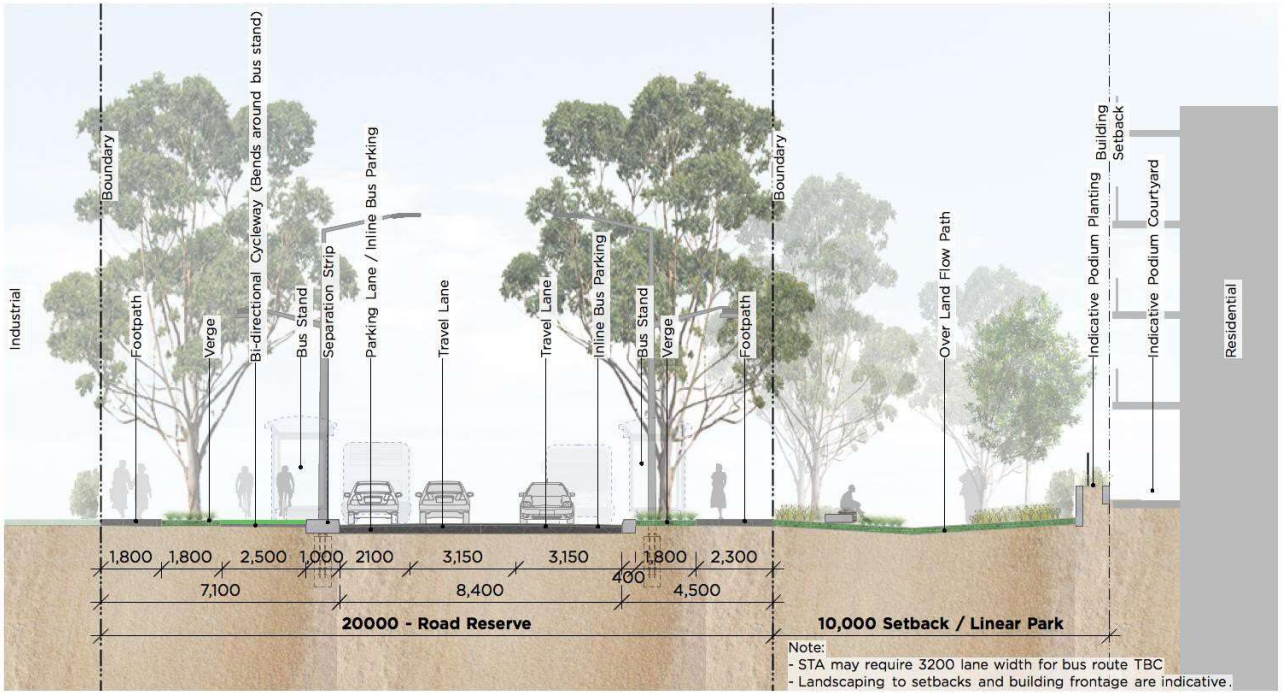
0 2 4 6 8 10 M

1A Type 6 - Park Edge
Typical Section @1:100

~~* The shared path width of 3.2m on park side is considered too narrow as the main shared path around the main recreation park. Consider shared path width of 4m~~

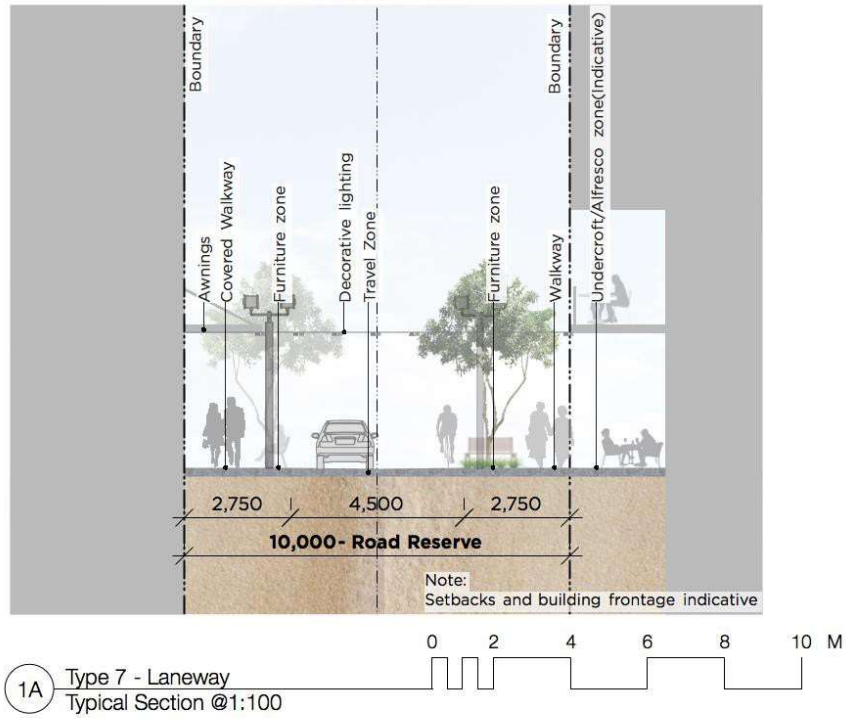
Figure 11: Street Section H-H – Carter Street

* the shared path width of 2.5m is considered too narrow as the regional cycleway link along Carter Street. ~~Consider~~ Sshared path width of 3m



1A Type 2 - Carter Street
Typical Section @1:100

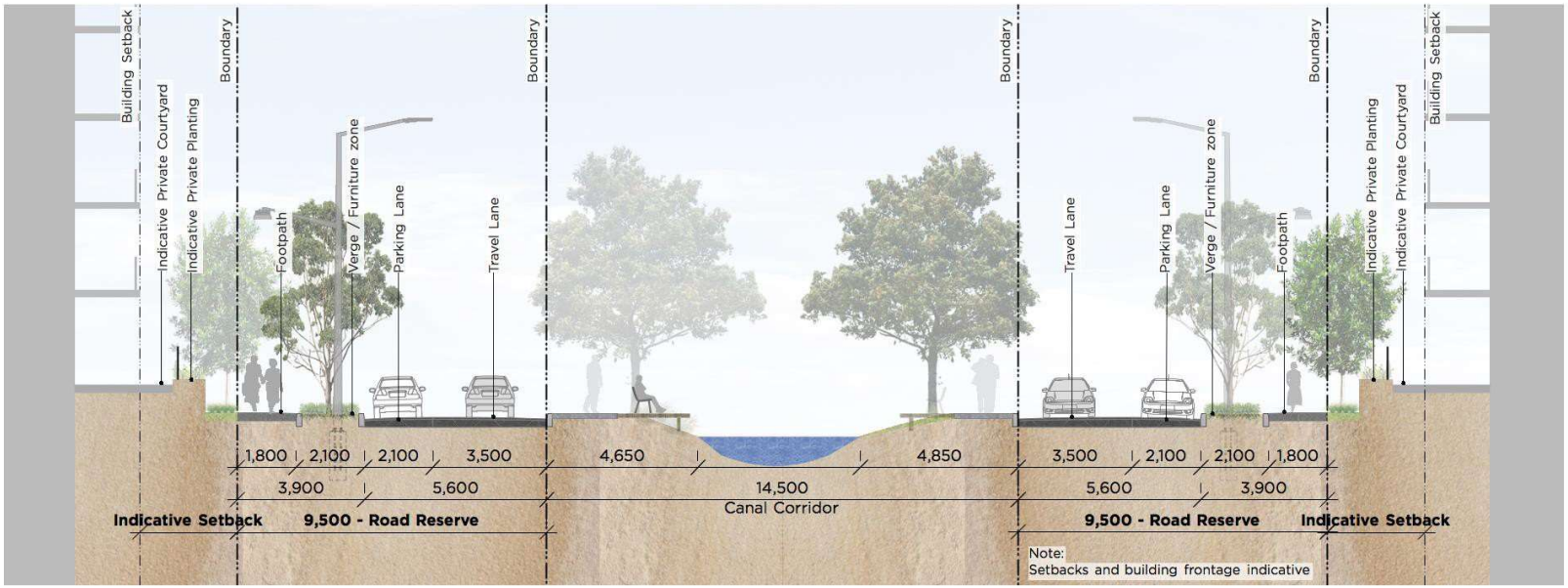
Figure 12: Street Section I-I – Laneway



Demonstrate that ADG building separation requirements are met.

Figure 13: Street Section J-J – Canal Street

*** ~~N~~no shared path or off-road cycle facility shown. Consider making one side a 3m wide shared path**



1A Type 9 - Canal Street
Typical Section @1:100

3.2 Pedestrian and Cycle Network

Objectives

~~O1 To facilitate convenient movement, with safe and direct pedestrian and cycle connections between key locations including to Sydney Olympic Park and foreshore public open space.~~

~~O2~~O1 To provide safe and direct pedestrian and bicycle connections between key locations including local centres, proposed new primary school, proposed Uhrig Road light rail stop and terminus, Haslams Creek, Sydney Olympic Park, foreshore public open space and wider regional bicycle paths and routes.

~~O3~~O2 To enable the delivery of a shared path along the western side of Hill Road.

Controls

C.1 The pedestrian and cycle network is to be developed in accordance with **Figure~~8~~ 14**.

C.2 Pedestrian and cycle access throughout the Precinct, including connections from roads to public open space, is to be designed to:

- be direct and accessible to all
- be easily identified by users
- have a public character
- include required regulatory signage ~~include signage advising of the publicly accessible status of the link and the places to which it connects~~
- provide wayfinding signage advising of the publicly accessible status of the link and the places to which it connects
- be clearly distinguished from vehicle accessways, unless it is a laneway, purpose built 10km/hour shared zone with regulatory signage and speed controls ~~sharedway~~
- allow visibility along the length of the ~~link~~ street/laneway to the public domain at each end
- align with breaks between buildings so that views are extended and the sense of enclosure is minimised
- be open to the sky along the entire length
- comprise materials and finishes (paving materials, tree planting, furniture etc) that integrate with adjoining streets and public spaces and be graffiti and vandalism resistant
- be well lit to safety standards
- ~~be open to the sky along the entire length~~, and
- be accessible 24 hours a day.

C.3 A shared pedestrian and cycle link is to be provided on the western side of Hill Road, in accordance with **Figure 15**. The shared path is to:

- be incorporated into the design of the development,
- achieve the minimum area identified in **Figure 15**, and
- achieve the nominated setback from the new property boundary, in accordance with **Figure 20 and Table 2**.

C.4 Lockable bicycle storage is to be provided ~~within~~ at the village ~~square~~ plaza, public open spaces, Haslams Creek public open space and dining strip, primary school, public transport stops and other key locations across the Precinct.

C.5 Through-site links are to be provided in the locations shown on **Figure 16**. Through site links must meet the following requirements:

- generally have a width of 8 metres
- be at ground level and lined with active uses
- connect streets or lanes and have a clear line of sight between entrances
- be direct and accessible to all, have a clear line of sight between public places and except in exceptional circumstances be open to the sky
- if the through-site link is not open to the sky, have access to natural light from skylights in the middle of the link
- be easily identified by users and include signage advising of the publicly accessible status of the link and the places to which it connects
- be clearly distinguished as vehicle accessways, unless they are purposely designed as shareways

- be retained in private ownership

- be clear of obstructions or structures
- include landscaping to assist in guiding people along the link while enabling long sightlines, and
- be ~~fully accessible 24 hours a day.~~unambiguously public, with equal status to council owned public domain with their fully public nature embedded in the title arramagements.

Figure ~~10~~ 14: Pedestrian and Cycle Network

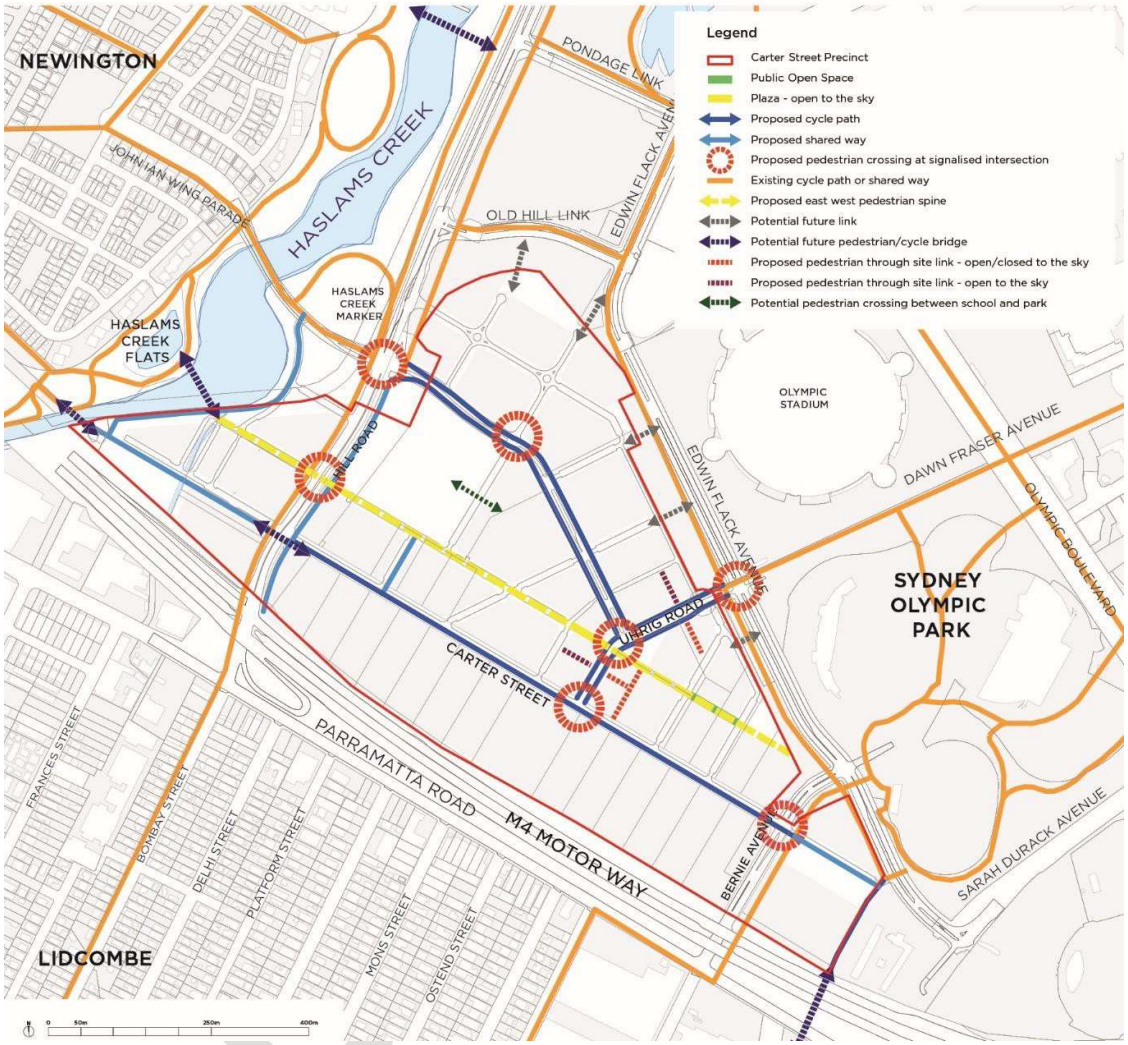


Figure 15: Land required for shared path on Hill Road

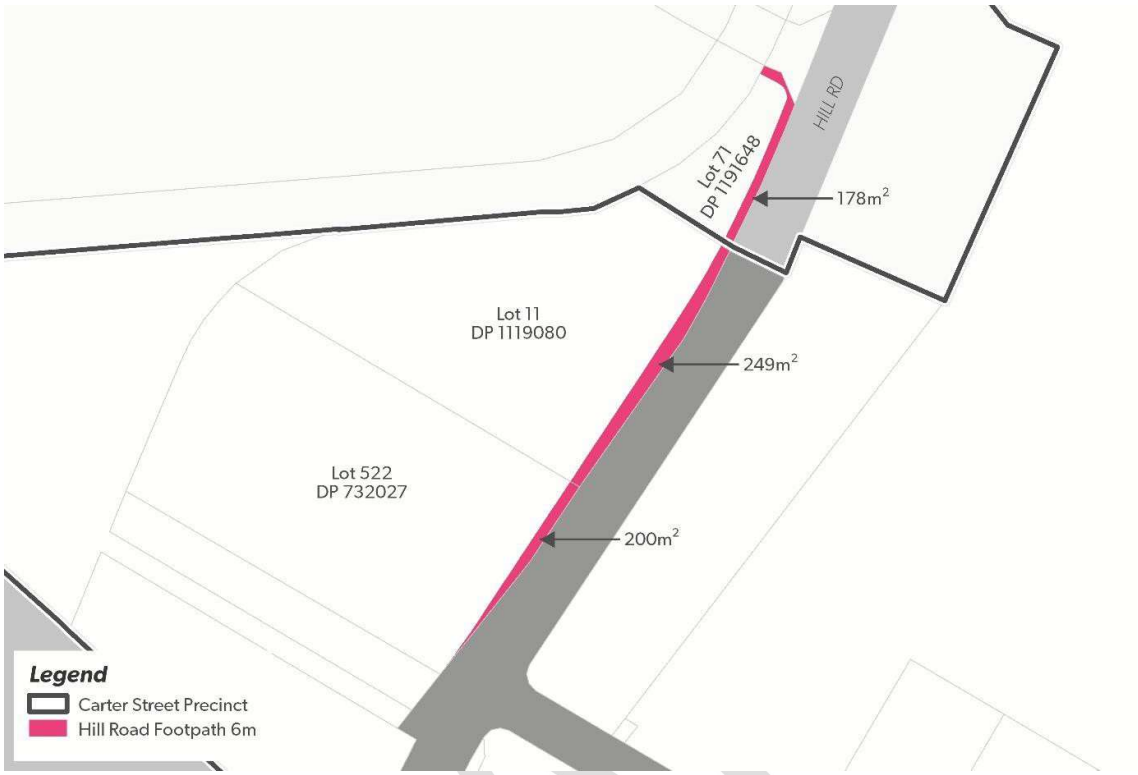
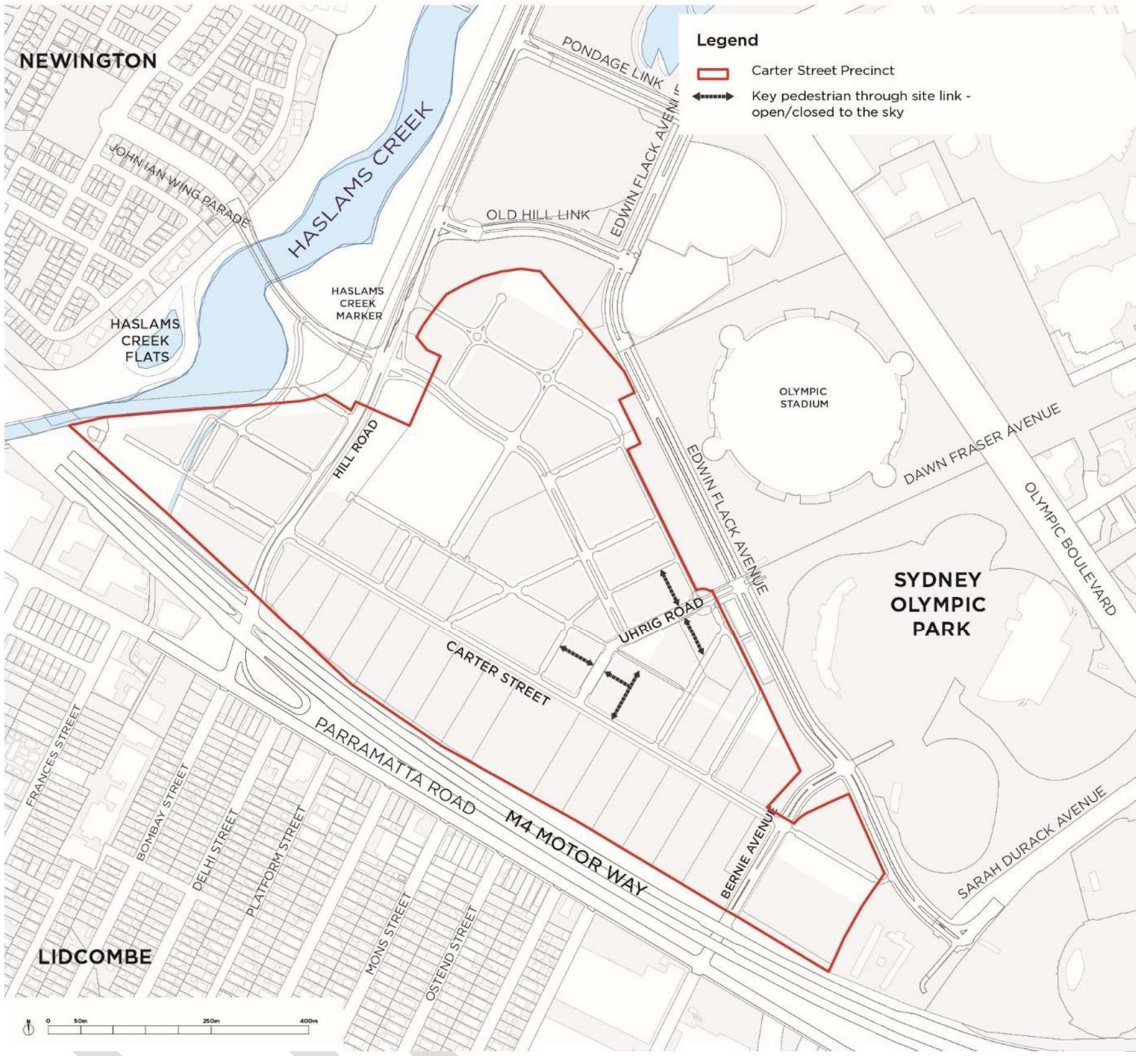


Figure 16: Through Site Links



3.3 Public Open Space Network

Objectives

O.1 To provide a range of quality hard and soft public open spaces~~, that are well-vegetated and with unique character and facilities, to support new residential and employment uses, including public open spaces, village plaza and places~~ for community gatherings and events. ~~to support new residential and employment uses, including parks, village squares and places for community gatherings and events.~~

O.2 To locate and design the primary school's open space so that it visually (and potentially functionally) integrates with the major adjoining public open space, including enabling informal community recreational use outside of school hours.

O.3 To create a continuous and active public foreshore park along Haslams Creek providing a range of experiences along the foreshore.

O.4 To ensure that public open space complements and integrates with the regional public open space network ~~within Sydney Olympic Park~~, ~~whilst also providing compatibility with City of Parramatta Urban Design Guidelines, and nearby local centres.~~

~~O.3 To improve linkages to existing parks and spaces.~~ To ensure that public open space is well located within

easy walking distance of residents.

O.5 To provide high quality landscaped public open spaces to cater for passive recreation, children's play and organised sport for new and surrounding residents and workers.

O.6 To contribute to the management of stormwater, visual amenity, urban heat reduction and enhancement of ecological values.

O.7 To provide public access ~~along~~ to waterways and green spaces, ecologically sensitive areas, recreational ~~activities~~ spaces and retail ~~areas~~destinations. ~~Haslams Creek including the construction of a southern bank to Haslams Creek.~~

O.8 To provide opportunities for collaboration between artists and designers in the development of creative, innovative, memorable, integrated and sustainable public art projects.

Controls

C.1 Public open space ~~is to~~ shall be be provided in accordance with **Figure ~~9~~ 17**.

~~C.1~~C.2 All public spaces are to be edged with a public street.

~~C.2~~C.3 A ~~2.98~~ 3.4 hectare public park ~~is to be developed~~ shall be provided east of Hill Road, adjacent to the John Ian Wing Parade extension that provides for a variety of experiences, recreational activities, and stormwater detention functions and establishes a green link to the Haslams Creek corridor.

~~C.3~~C.4 An urban ~~village~~ ~~square~~ plaza of 1,200m² ~~sqm~~, as measured from the Uhrig Road corridor to the edge of the adjoining development, is to be provided within the Uhrig Road ~~local~~ ~~village~~ neighbourhood centre as a central meeting place.

~~C.4~~C.5 A new ~~20m~~ 40m metre wide landscaped ~~public foreshore reserve~~riparian zone to Haslams Creek shall be provided ~~along Haslams Creek is to be introduced to complement the existing character and quality of the creek environs as shown in **Figure 10 18**. and subject to discussions with Sydney Water.~~

~~C.5~~C.6 Playing fields provided as part of the new ~~primary school~~ main public open space are to be made available to the ~~public outside of school hours~~ primary school during school hours and organised sporting groups outside of school hours and by special arrangement.

~~C.6~~C.7 Public open spaces are to:

- be defined with a consistent palette of furniture elements and materials and given uniqueness through function, facilities and planting character. ~~of high quality and durable materials and given variety through planting, colour and texture~~
- assist in activating the street contribute to pedestrian linkages across the Precinct and assist in activating the street and immediate area.
- maximise the linkages between destinations and be integrated with the circulation network.
- cater for pedestrians
- be well-lit with clear sightlines and accessed from multiple edges to be safe and accessible for all users.
- have a high level of amenity, including seating park furniture, shading (park structures and trees) and public art. ~~and~~
- be useable and enjoyable at night with appropriate lighting effects that define uses and are welcoming.

Details of the public open spaces are to be set out in a landscape master plan for the relevant development application.

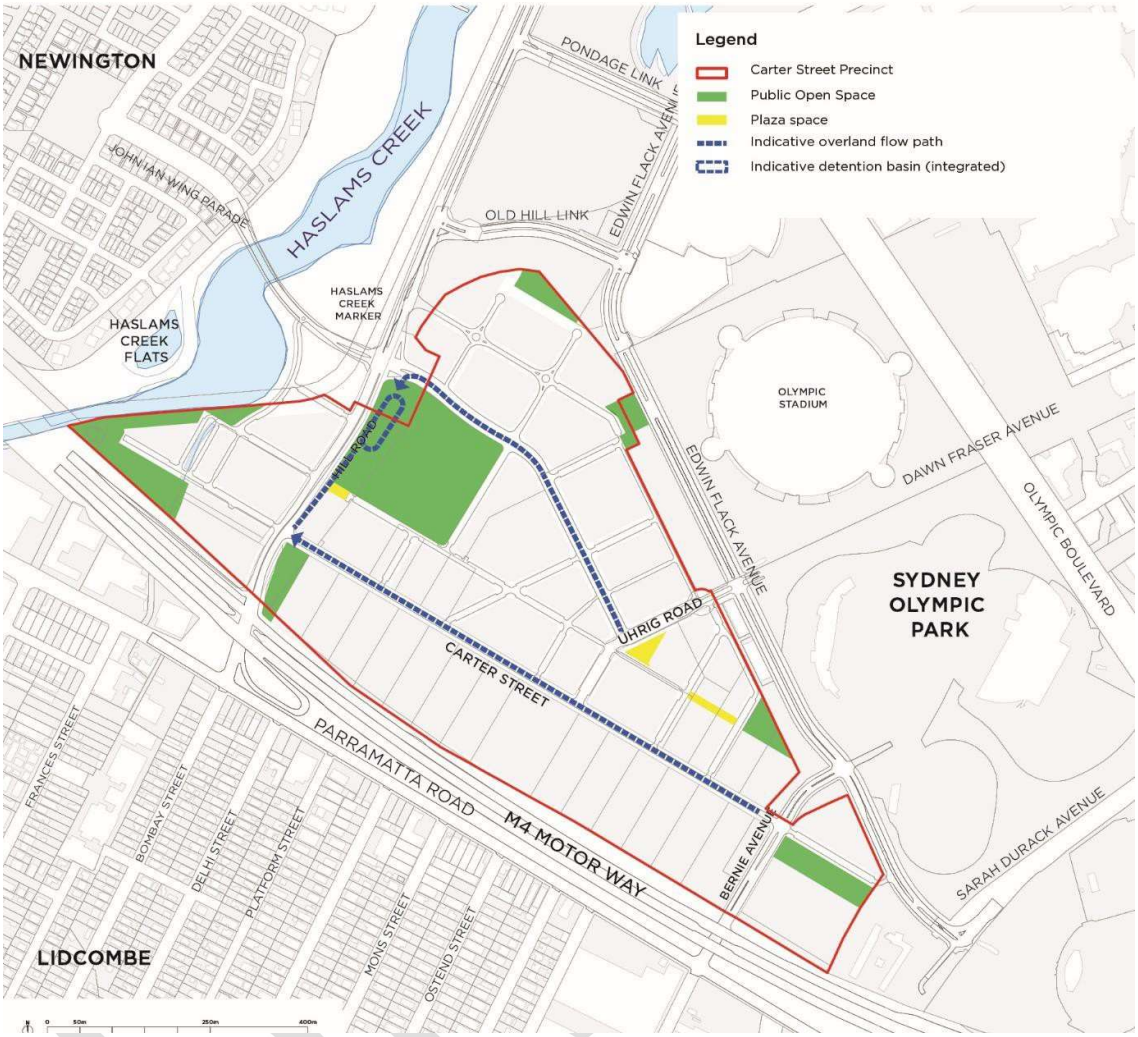
~~C.7~~C.8 A detailed Public Art Strategy is to be prepared and submitted with any development application which includes public domain areas.

~~C.8~~C.9 Furniture and lighting is to be provided ~~with reference to the Parramatta Public Domain Guidelines~~in accordance with COP requirements. ~~*Sydney Olympic Park Urban Elements Design Manual 2008* to integrate the Carter Street Precinct and Sydney Olympic Park.~~

~~C.9~~C.10 Signage is to be provided ~~with reference to the Parramatta Public Domain Guidelines~~in accordance with COP requirements. ~~*Sydney Olympic Park Urban Elements Design Manual 2008* and *Sydney Olympic Park Authority Guidelines for Outdoor Advertising, Identification and Promotional Signage (October 2002).*~~

~~C.10~~C.11 ~~A primary palette of endemic and native species that support local wildlife and reflect the location of nearby parklands and Sydney Olympic Park is to be maintained within the open space network.~~

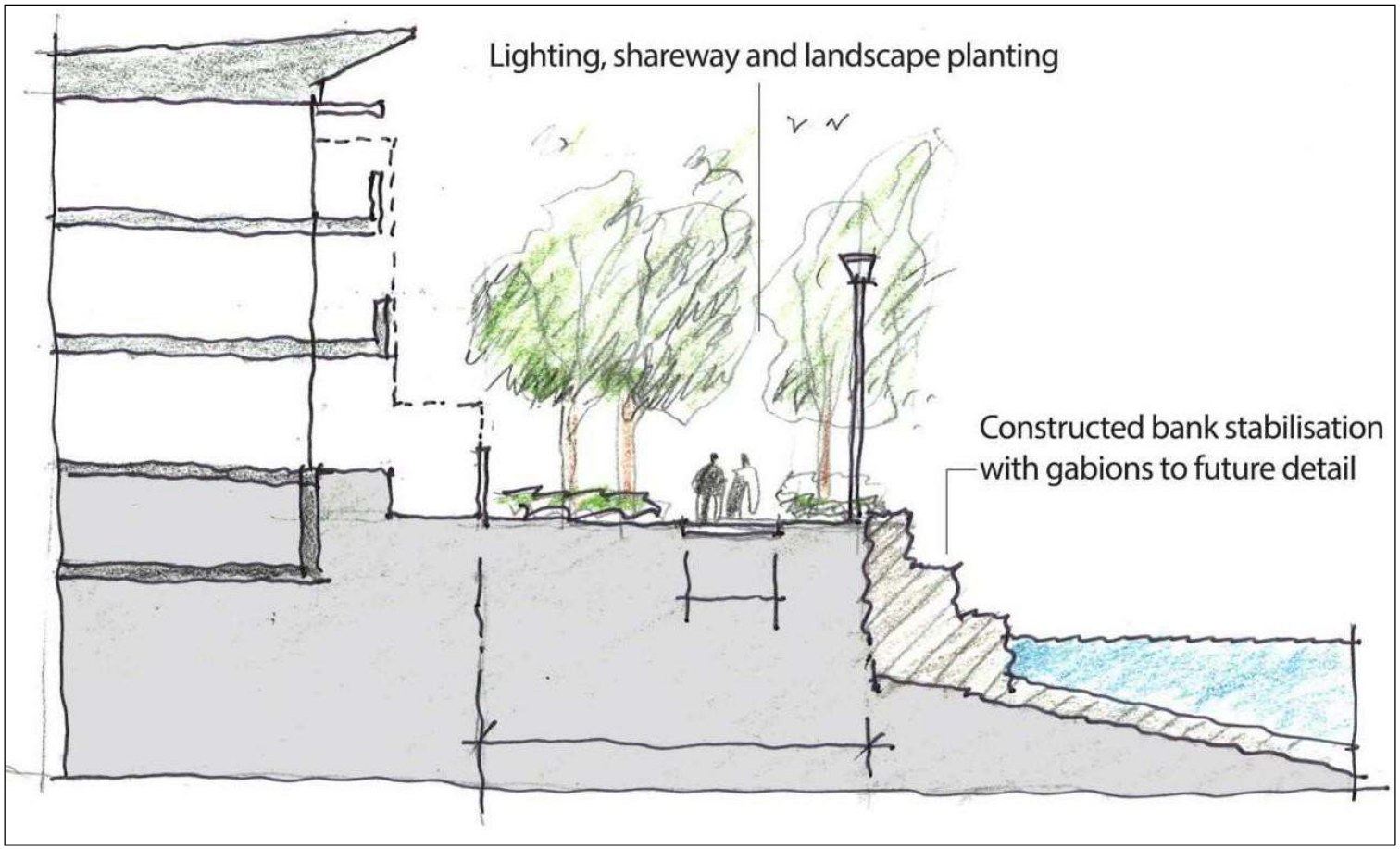
Figure 17: Public open space network



Review the master plan configuration in the western corner abutting Haslam's Creek – refer master plan commentary.

Figure 18: Indicative Haslams Creek foreshore ~~(subject to discussions with Sydney Water)~~

Note – a public street is required fronting Haslam's Creek.



Provide 40m riparian zone setback.

4. Residential / Mixed Use Development

Preamble

This section of the DCP applies to residential and mixed-use development within the areas of the Precinct zoned R4 High Density Residential and B2 Local Centre. ~~being to the north of Carter Street, to the west of Hill Road fronting Haslams Creek, and to the east of Birnie Avenue~~. These areas ~~are planned primarily~~ are ~~medium and~~ high density residential supported by local retail uses and services ~~uses~~ focused on the Uhrig Road ~~local~~ village neighbourhood centre.

State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development also applies to certain residential flat buildings, shop top housing and mixed-use development with a residential accommodation component in the Precinct. ~~and~~ Such development is to ~~take into~~ consider~~ation~~ the Apartment Design Guide~~, where relevant~~.

4.1 Building Height and Form

Objectives

O.1 To ensure that existing residential apartment buildings within Sydney Olympic Park (up to ~~30~~ 40 storeys) remain the dominant built form elements of the wider Homebush Bay and Wentworth Point area.

~~O.2 To require a range of building heights and forms across the Precinct and within each street block to create variety and encourage different architectural styles.~~

~~O.3~~O.2 To encourage a mix of dwelling types including ~~townhouses, and low~~, medium and high-rise apartments ~~to create a diverse and sustainable community~~.

~~O.4~~O.3 To ~~reinforce the local centre though the location of taller buildings.~~ ~~create a visually interesting, modulating skyline~~have a built form comprised primarily of perimeter block development supported by taller slender tower buildings.

~~O.5~~O.4 To ensure that the perceived bulk and scale of buildings is minimised and that building forms provide a high level of residential amenity.

~~O.6~~O.5 To achieve a balance between an urban scale and creating a comfortable, human scale public domain.

~~O.7~~O.6 To protect the amenity of public spaces, particularly along Haslams Creek foreshore and the major central public park.

Controls

C.1 Building heights are to be consistent with *Auburn Local Environmental Plan 2010* and the following guidelines:

- ~~Predominantly b~~Buildings ~~of~~ are to be 4-8 storeys with taller tower forms located on the corner of blocks to reflect the street hierarchy ~~reduce overshadowing impacts on the public domain and development. on the northern part of the precinct~~
- Lower-scale and U-shaped buildings on the Haslams Creek foreshore . ~~in stepped courtyard forms to maximise views across the waterway.~~
- ~~buildings of 8-12 storeys to the east and west of the local centre, and~~
- ~~taller 16-22 storey~~ ~~Landmark buildings at key locations including the centre and on main streets.~~
- Be consistent with **Figure 19.**

C.2 ~~Buildings are to have a maximum length of 65 metres, but where a building has a length greater than 30m, it is to be separated into at least two parts by a significant recess or projection.~~

C.3 Buildings of ~~12~~ 8 storeys and above are to meet the following requirements:

- ~~be located to~~ minimise overshadowing on public and communal open space,
- have a maximum individual building footprint of ~~900m²~~ 800m²,
- incorporate a podium ~~to soften street presence, and~~
- ~~have a strong vertical emphasis in facade~~articulation.

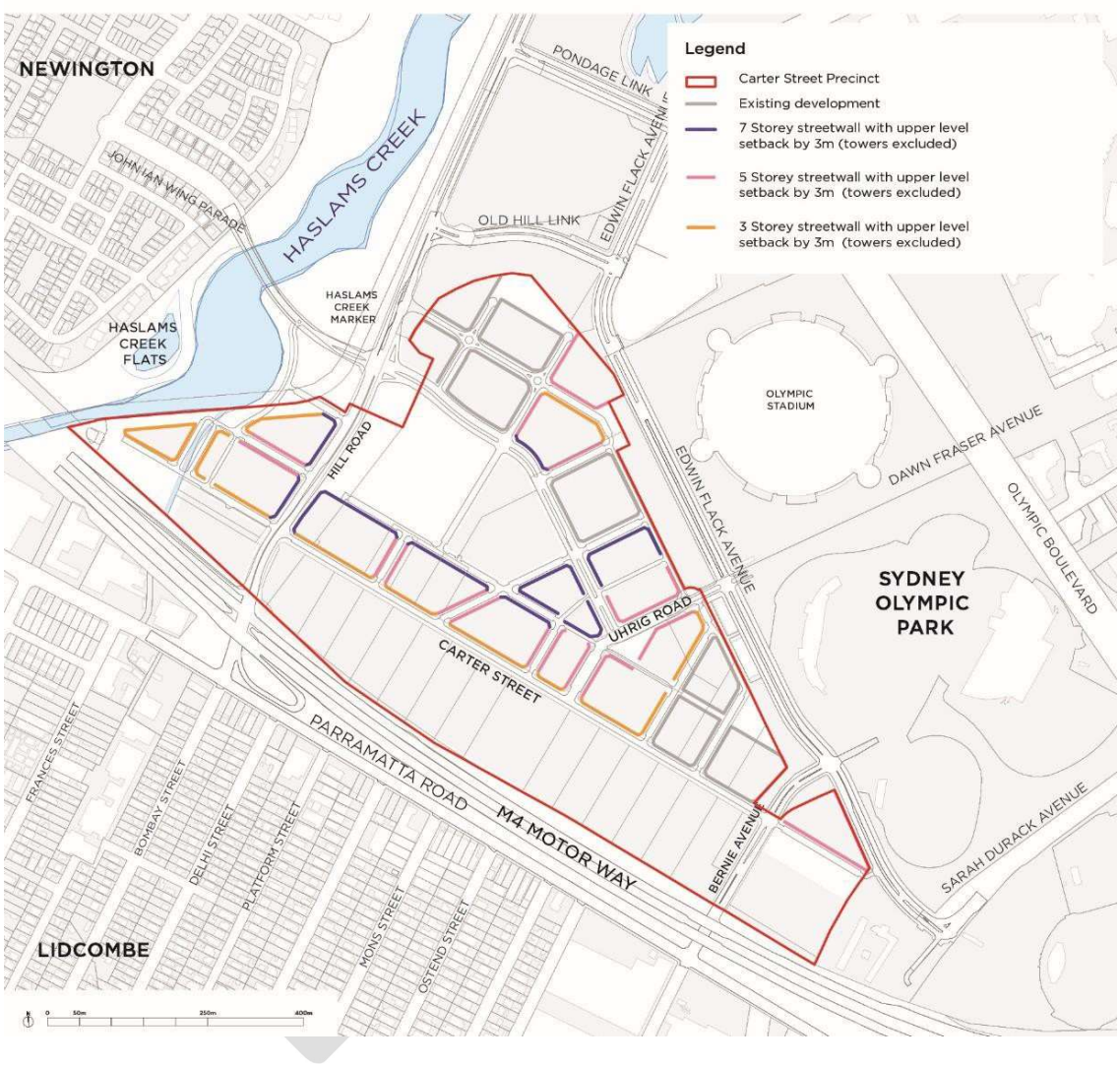
C.4 The highest level of any building of 12 storeys or less is to be setback at least 3 metres.

C.5 Towers must be slender form, with a maximum floor plate of 800m² and meet the following requirements:

- ~~have a clear vertical definition from adjoining buildings.~~

- have a clear horizontal articulation zone that correspond to the upper setback levels of adjoining buildings,
- be located generally in accordance with **Figure 2** and distributed through the Precinct,
- be separated in accordance with the NSW Apartment Design Guide,
- minimise overshadowing on public and communal open space, and
- be oriented to take advantage of views and enable view corridors.

Figure 19: Street wall heights



Notes
5 story street wall along Carter Street
7 storey street wall on Hill Road and around open space
Towers set back above the street wall (no change to the street wall)

4.2 Setbacks and Public Domain Interface

Objectives

O.1 To provide strong definition to the public domain and create a coherent, urban street wall that ~~encloses~~ defines streets.

O.2 ~~For ground floor residential uses on local streets~~ to create ~~an attractive~~ transitional space for ground floor residential uses on local streets ~~that enables engagement~~ between the public and private domains~~, softens the impact of the built form and~~ that is capable of being used for private outdoor recreation.

O.3 ~~For ground floor retail and commercial uses~~ to maximise presence and activation of the street in specific locations ~~f~~.or ground floor retail and commercial uses

O.4 To set ~~taller building elements~~towers back from the street ~~or road corridor~~and align them with the street to reduce apparent building scale and bulk and enable adequate sunlight access to the public domain.

O.5 To establish Uhrig Road as a high-quality pedestrian ~~friendly~~ retail strip.

O.6 To encourage active street frontages within the local ~~village~~ neighbourhood centre.

O.6 To establish ~~Hill Road as a pedestrian friendly environment with~~ tree canopy and ~~allowing for linkages~~ connections across Hill Road between the eastern and western side of the Precinct.

O.7 To provide articulation zones to ~~complement building mass and emphasise key design elements such as entrance points and~~ respond to environmental conditions including solar access, noise, privacy~~, and~~ views and internal organization.

O.8 To ensure that buildings within the B6 Enterprise Corridor zone are set back a safe distance from the infrastructure easement on the south side of Carter Street.

Controls

C.1 All buildings are to comply with the minimum setbacks shown in **Figure 20** and **Table 2**.

C.2 Ground floor residential uses are to have a minimum ~~1.5m~~ 5 metre minimum setback.

C.3 Buildings on street corners are to address both street frontages.

C.4 Buildings fronting the Haslams Creek foreshore are to:

- ~~Be highly modulated and articulated;~~
- ~~Avoid long building forms fronting the foreshore and public open space; and~~
- Incorporate generous landscaping within setbacks.

C.5 All landscape setback zones are to be deep soil zones with no basement car parking or other built structures extending onto these zones.

~~C.6 Buildings with a zero setback are required to be articulated through the use of balconies, recessed elements and the like.~~

~~C.7~~C.6 The ~~10 metre~~ setback along ~~key entry and circulating roads for those roads~~ shown at ~~**Figure 20 11** is to~~all ~~s~~treets must include deep soil landscaping and the retention of existing site trees, where possible.

~~C.8~~C.7 Buildings within the B6 Enterprise Corridor zone are to be limited to two storeys for the first 20 metres to the south and west of the infrastructure easement as shown at **Figure 20** ~~11~~.

~~C.9 Buildings on street corners or the interface with public space are to emphasise the corner by appropriate architectural treatment.~~

~~C.10~~C.8 All dwellings on the ground floor facing the street or public domain area are to have individual entries from the street. ~~wherever possible.~~

~~C.11~~C.9 Buildings with residential uses at ground floor are to be designed so that their main entry is at the same level as the finished footpath level or raised by up to a maximum of 600~~mm~~ millimetres to provide for a combination of privacy and passive surveillance.

~~C.12~~C.10 Active retail / business uses are required at ground level along Uhrig Road, between Edwin Flack Avenue and Carter Street, along the new cross streets and around the ~~village~~ neighbourhood ~~square~~ plaza as shown in **Figure 21.** ~~12.~~

~~C.13~~C.11 Retail and commercial uses at ground level are to be designed so that the ground floor for at least part of the premises is at the same level as the finished footpath level of the adjacent street and/or public open space.

~~C.14~~C.12 Continuous awnings are to be provided above retail uses.

~~C.15~~C.13 ~~Awnings~~ Canopies, or a sheltered area, are to be provided over commercial and residential entries.

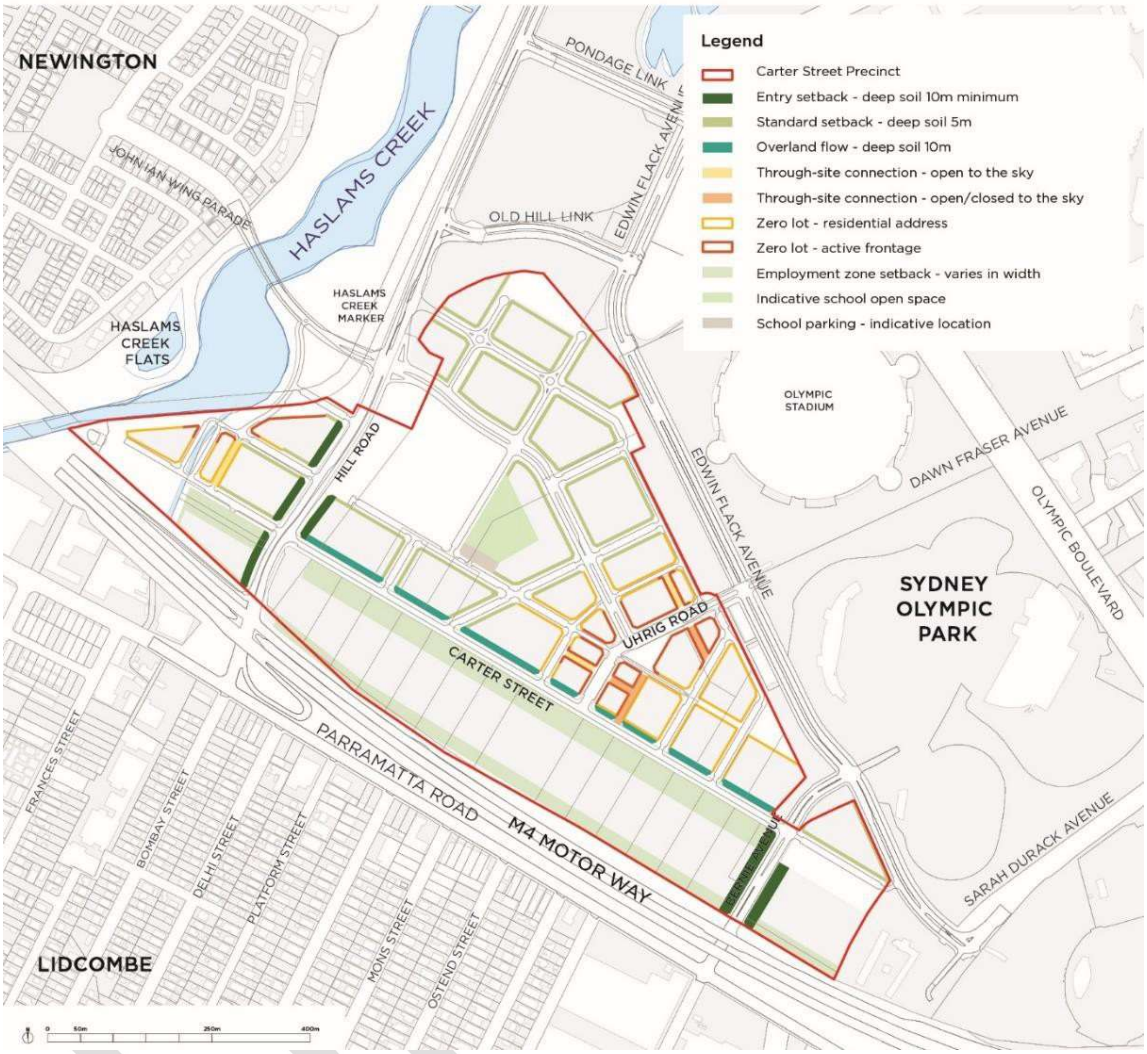
~~C.16~~C.14 Development within the U~~hrig~~ Road local village centre is to be designed to:

- provide a ground floor colonnade consistent with the requirements of *Sydney Olympic Park Master Plan 2030* for Dawn Fraser Avenue to provide weather protection and to encourage pedestrian movement,
- minimise overshadowing of the street in winter by development on the northern side, and
- reinforce the pedestrian scale and achieve good levels of solar access to the public domain.
- Colonnaded building frontages are not permissible.

~~C.17 In addition to the requirements of Sydney Olympic Park Master Plan 2030 for Dawn Fraser Avenue, ground floor colonnades within the Uhrig Road village centre must meet the following requirements:~~

- ~~Extend to the full extent of the Uhrig Road street frontage,~~
- ~~Provide continuous shelter for pedestrians,~~
- ~~Be well proportioned, high quality public domain elements that reflect the building's architecture and are visually integrated with adjoining colonnades,~~
- ~~The colonnade floor is to align with the adjoining external ground levels of the footpath, courtyard or public space and match paving finishes,~~
- ~~The colonnade height is to be a minimum of 8 metres,~~
- ~~The colonnade width is to be a minimum of 5 metres,~~
- ~~Support columns are to be spaced a minimum of 7.5 metres apart as measured from the centre of each column,~~
- ~~The size and spacing of support columns must be designed to allow pedestrian circulation and views of ground floor activity from the street and avoid concealment areas,~~
- ~~For continuity, the height and depth to the colonnade soffit is to be consistent along entire blocks and across lots,~~
- ~~High quality, lightweight, and retractable sun shading elements such as blinds and screens are encouraged between columns,~~
- ~~To increase liveliness, mezzanines extending into the colonnade for no more than one-third of the colonnade width are encouraged,~~
- ~~Colonnades are to be well lit to the appropriate Australian Standard as a minimum and to provide consistent lighting levels along the colonnade, and~~
- ~~Access pits and/or outlets for building services must not be located within the colonnade zone.~~

Figure 20: Minimum Building Setbacks



Amend minimum building setbacks in accordance with the commentary and mark up drawing in the master plan comments.

Table 2: Minimum Building Setbacks

Setback	Dimension / setback depth from property line	Land use	Deep soil	Parking within setback area
Entry setback	~~10 metres~~As shown on the master plan	Employment and Residential	Yes	Not permitted
Standard setback	5 metres	Residential	Yes	Not permitted
Overland flow – Carter Street	10 metres	Residential and village centre	Yes	Not permitted
Through-site connection – open to the sky	8 metres within property boundary	Village centre	No	Not permitted
Through-site connection - open/closed to the sky	8 metres within property boundary	Village centre	No	Not permitted
Zero lot - residential address	~~Build to street edge line - recesses permitted~~ In the laneway opposite the B4 zone only (refer mark up plan provided).	Residential	No	Not permitted
Zero lot - active frontage	Build to street edge line - recesses permitted	Village centre non-residential. Note that the footway must be minimum 5m wide.	No	Not permitted
Employment zone setback	Varies according to pipeline easements	Employment	Yes	Yes, in landscaped setting
Indicative school open space	Subject to detailed design	Education and community	Yes	Not permitted
School parking	Subject to detailed design	Education and community	Yes	Yes, in landscaped setting

4.3 BUILDING DESIGN
4.3

~~**Objectives**~~

Replace with these Objectives + controls

Objective |

- **To Minimise Perceived density**
- **To facilitate tall slim well-proportioned towers**
- **To have well –proportioned streets**
- **To enable architectural diversity within an overall consistent spatial structure**

Controls

- Locate towers along sides of streets
- Use small floor plate for towers as per CBD tower requirements
- Floorplate Size (Floor Plate is GBA).
- The maximum slab and tower floorplate controls for are:
    - Tower to 25 storeys = 800 m^2
    - Tower to 25-35 storeys (75-105m) = 950 m^2
    - Tower above 35 storeys (+105m) = 1100 m^2

Building Length

- The maximum length of slab buildings and towers is not to exceed 45m
- Street wall or perimeter block buildings are to have a maximum height of 6 +2 storeys (8 storeys)
- Podiums are to have a maximum height of 4 storeys.
- Towers are to be set back from the podium for 6m
- The maximum length of slab buildings and towers is not to exceed 45m
- The maximum frontage length of a street wall building or podium is to be related to block length.
- Where a development site frontage is in excess of 65m in length,
    - two or more buildings with different architectural expressions should be developed to front the street or public domain
    - a building separation of not less than 6m for the full height of the building and / or a party wall is to be introduced
- Buildings that are located adjacent to or opposite to one another are to be complementary but not the same design.
- All buildings are to:
    - have their own architectural character
    - have a well-proportioned façade design incorporating an arrangement of voids and solids, vertical and horizontal modulation and articulation, sun shading and entrances that relates to the overall form, length of frontage and height
    - reflect the building's internal organization
    - use robust materials well detailed and of an appropriate scale

- Podiums are to be designed as a discrete component separately from the tower. They are to relate to the public domain in section (levels, heights of ground floor, depth of street wall) and plan (alignment, entry location, definition of intersections) Consideration should be given to using different architects for the podium and tower,

~~O.1 To achieve variety in architectural design and character across the Precinct to provide a fine grain to enliven the public realm.~~

~~O.2 To develop within street blocks, buildings of varying sizes, heights and architectural expression, with a variety of facades, articulation, massing and character so that the street block presents as a group of buildings rather than a singular architectural design or building.~~

~~O.3 To incorporate high quality façade design and finishes, particularly where development is highly visible in a landmark location.~~

Controls

C.1 ~~Active street frontages and elements, such as retail uses, entry doors, windows and articulation of facades, are to be provided in accordance with **Figure 21**.~~

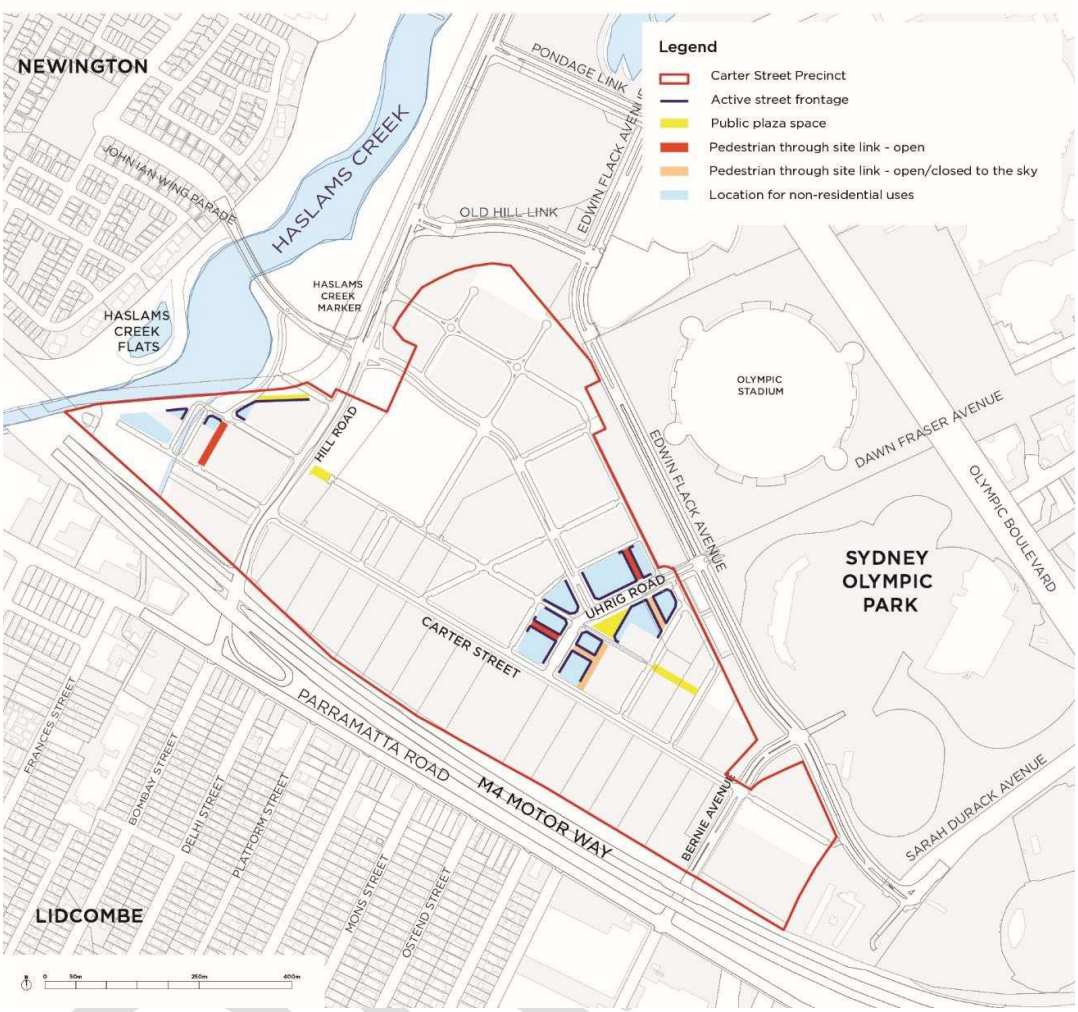
C.2 ~~Each street façade is to be articulated into smaller elements at a scale or grain that reflects:~~

- ~~the use of the building and the various components of the building,~~
- ~~the location of the building, or that part of the building relative to pedestrian or outdoor recreation activity, and~~
- ~~the building elements, including building entries, ground floor, lower floors, top floor and roof.~~

C.3 ~~Floor to ceiling heights for residential and mixed-use buildings are to meet the requirements of the Apartment Design Guide.~~

~~Replace building design objectives and controls with COP guidelines – refer separate text.~~

Figure 21: Active street frontages



4.4 Private Open Space and Landscaping

Objectives (review this section to ensure there is no overlap with ADG requiements)

O.1 To provide communal open space for residents that offers social opportunities and quality outlook from dwellings. (ADG?)

O.2 To cater for the recreational needs of building occupants.

O.3 To improve amenity ~~and soften the impact of buildings~~ through the provision of ~~landscaping~~ landscape finishes, including the retention and/or planting of trees within deep soil zones.

O.4 To assist with the management of water quality.

O.5 To reduce reliance on fencing and architectural screening through provision of vegetative screening and demarcation of space.

~~O.5~~O.6 Encourage the use of open fencing options.

Controls

C.1 Common open space / courtyards are to be located, designed and landscaped to:

- comprise a minimum of 30% of the development block at ground floor and co-located with deep soil.,
- enhance views from dwellings and create recreational and social opportunities,
- be the focal point for residents ~~and incorporate public art and water features~~ where appropriate, and
- achieve good amenity in terms of urban heat reduction, solar access and natural air flow.

C.2 ~~Additional~~ Communal open space on roof tops should be provided to increase available communal open space (but not at the expense of ground level open space requirements) and must employ measures to mitigate noise impacts on surrounding development. ~~is encouraged in locations where it does not adversely impact on the residential amenity of surrounding residents.~~

C.3 Deep soil zones are to be of dimensions that achieve their function as planting space for large trees, with no edge dimensions less than 4~~2~~000 millimetres.

C.4 ~~Where possible, d~~Deep soil zones are to be located within key communal outdoor space areas or elsewhere where large trees will benefit the maximum number of residents or contribute to the public domain.

C.5 A minimum of 50% of communal outdoor space on ground floor should be permeable surfaces with vegetative cover including softscape planting (i.e. turf, ground covers or shrubs).

C.6 Plant species appropriate to the Homebush context and the specific microclimate within the development are to be selected to maximise use of low-water usage endemic and native species and opportunities for urban biodiversity.

C.7 Drought tolerant plant species, and species that enhance habitat and ecology, are to be prioritised.

C.8 Landscape design is to be integrated with water and stormwater management.

C.9 Soil volumes for trees planted on structures are to comply with the Apartment Design Guide~~, where relevant~~..

4.5 Vehicular Access and Parking

Objectives

~~O.1 To maximise the accessibility of the Precinct by means other than the private car.~~

~~O.2 To encourage residents, staff and visitors to travel using alternative transport modes other than the private car.~~

~~O.3~~O.1 To minimise adverse traffic impacts and vehicular traffic generated by development.

O.2 To limit parking spaces for new development but maximize on-street car parking

O.3 ~~t~~To encourage active and public transport use.

O.4 O.5 To support the reduction of car trips ~~and encourage the use of sustainable transport.~~

Controls

C.1 All car parking is to be underground, under-croft or semi-basement located within the footprint of the building above.

C.2 Where ~~the~~ above ground car parking cannot be avoided due to site conditions, it must be well integrated into the overall ~~façade~~ design~~, and create a good relationship to the public domain, with all areas, except those adjoining ramps or plant areas,~~ Any above ground car park is to be 'skinned' ~~with single aspect residential accommodation, commercial premises, or other active uses to provide~~ a high quality public domain interface.

C.3 ~~Where above ground parking cannot be avoided due to site conditions, it must be well integrated~~ into the overall façade design and create a good relationship to the public domain.

C.3 Where the topography of the land or constraints of the water table result in the basement parking level projecting above ground level, it is to be designed to:

- not project more than 1.2~~m~~ metres above ground or as required to comply with flood planning levels, and
- ~~achieve an attractive ground level relationship~~ minimise negative visual impacts between the building(s) and the public domain.

C.4 Garages and car parking structures are not to project forward of the building line ~~and are to be screened from the public domain by active uses.~~

C.5 For safety and public domain amenity, driveways and vehicle access points are to be:

- physically separate and clearly distinguished from pedestrian entrances and access-ways,
- integrated into the overall design of the building, ~~and~~

- located within secondary streets and laneways where possible,

- have signage and line-marking for bicycle access, and
- designed to have minimal entry dimensions.

C.6 Vehicular access points for all developments are to be consolidated to minimise disruption to pedestrians. Driveway crossings and vehicular access points are not permitted along primary routes or within the Uhrig Road ~~local~~ village centre.

C.7 Vehicular access is to be designed to ~~give~~ reinforce priority to pedestrians and bicycles by continuing the type of footpath material and grade.

C.8 Loading areas for retail and commercial development are to be screened from public roads.

C.9 ~~'End of trip' facilities (such as showers and change rooms) are to be provided for all commercial uses.~~

C.9 Development is to comply with the relevant parking and loading requirements of ~~the~~ Auburn DCP 2010 – Parking and Loading, except for any inconsistency with this DCP.

C.10 ~~Residential development is to provide an appropriate number of car share parking spaces for the exclusive use of car share scheme~~ vehicles. ~~At least 1 car share space is to be provided for any residential development containing more than 50 residential units or any business development with a floor space of at least 5,000m^2 and is within an 800-metre radial catchment of a railway station or light rail stop (existing or proposed) or 400 metres radial catchment of a bus stop with a service frequency of 15 minutes or less during the morning peak (7am – 9am) in any direction.~~ The car share parking spaces are to be:

- included in the number of car parking spaces permitted on a site,
- publicly accessible at all times, adequately lit, sign-posted and located off-street,
- exclusive of visitor car parking,
- retained as common property by the Owners Corporation of the site, and not sold or leased to an individual owner/occupier at any time,
- made available for use by operators of car share schemes without a fee or charge,
- grouped together in the most convenient locations relative to car parking entrances and pedestrian lifts or access points,
- located in well-lit places that allow for casual surveillance,
- signposted for use only by car share vehicles, and
- made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.

A development application is to demonstrate how the car share parking spaces are to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.

C.11 Car parking spaces are to be provided at the rates specified in **Table ~~2~~ 3**. For any use not specified, the car parking rates in ~~Auburn Development Control Plan 2010~~ Auburn DCP 2010 apply.

C.12 Secure, conveniently located bicycle parking facilities are to be provided at the rates specified in **Table ~~3~~ 4.** The following controls apply to bicycle parking:

- Bicycle parking should be designed in accordance with AS2890.3 Parking Facilities – Bicycle Parking Facilities.
- Bicycle parking and access should ensure that potential conflicts with vehicles are minimised, including separate ramp access for bicycles within car parks, and providing safe rideable approaches along road frontages to the bicycle parking area for visitors and residents.
- Bicycle parking is to be located in accordance with 'Safer by Design' principles (NSW Police), including ensuring passive surveillance.
- Residential bicycle parking is to be secure and weather-protected within buildings
- Public bicycle racks in the public domain are to be located in accordance with the provisions of the Parramatta Public Domain Guidelines.
- Visitor bicycle parking is to be secure, weather-protected and conveniently located at prominent building entries. The quantum of bicycle parking is to be split between all visitor entries.

C.13 Any car parking located within the primary school is to be made available for public use outside school hours and on weekends.

C.14 Any development will require the preparation of a Traffic Impact Statement and a Green Travel Plan.

C.15 The Green Travel Plan must include:

- Targets – This typically includes the reduction of single occupant car trips to the site for the journey to work and the reduction of business travel, particularly single occupant car trips.
- Travel data – An initial estimate of the number of trips to the site by mode is required. Travel Plans require an annual travel survey to estimate the change in travel behaviour to and from the site and a review of the measures.
- Measures – a list of specific tools or actions to achieve the target.

NOTE: A copy of the Travel Plan must be available to Council on request.

Table ~~2~~ 3: Car parking rates

Land Use	Type	Maximum
Residential	Studio 1 bedroom 2 bedroom 3 bedroom 4 bedroom Visitors	0.5 spaces / dwelling 1.0 space / dwelling 1.0 spaces / dwelling 2.0 spaces / dwelling 2.0 spaces / dwelling 0.2 spaces / dwelling
Commercial	All	1 space / 80 sqm GLFA
Retail	Supermarket Local retail	1 spaces / 25 sqm GLFA 1 space / 50 sqm GLFA

Table ~~3~~ 4: Bicycle parking rates

Land Use	Type	Minimum
Residential	Resident Visitors	1 space per dwelling 1 space per 12 dwellings
Commercial	Staff Visitors	1 space per 150 sqm GLFA 1 space per 750 sqm GLFA
Retail		1 space per 300 sqm GLFA

4.6 Acoustic Assessment

Objectives

O.1 To ensure the amenity of future residents and workers by appropriately responding to noise impacts associated with traffic on the adjacent road network, nearby industrial uses and events at Sydney Olympic Park.

Controls

C.1 Site planning, building orientation, and interior layout is to lessen noise intrusion as far as possible.

C.2 Development applications are to demonstrate how buildings can comply with the noise criteria specified in **Table 4 5.**

Table 4 5: Noise criteria

Internal Space	Recommended Noise Criteria
Living areas Working areas	40 dBA (LAeq)
Sleeping areas	35 dBA (LAeq)

[1] *Subject to Council approval* ~~Objective~~ criteria on the grounds that DA 1269/2016 for the JQZ site, whish is the closest Carter Street Precinct site to the Olympic stadium, was able to meet the "Recommended Noise Criteria" in the DCP. If they can do it so can everyone else. Therefore, "Maximum Noise Criteria" has been deleted

4.7 Safety and Security

Objectives

O.1 To provide high levels of property safety and personal comfort and safety.

O.2 To minimise opportunities for criminal and anti-social behaviour.

Controls

C.1 Development is to address the principles of Crime Prevention Through Environmental Design.

C.2 Where buildings fronting onto Carter Street have basements with emergency exits, the emergency exists must not exit to Carter Street.

~~**Note**: Consideration shall also be given to Auburn Council's Policy on Crime Prevention Through Environmental Design~~

4.8 Sydney Olympic Park Event Impacts

Objectives

O.1 To ensure that development does not restrict the continued use of Sydney Olympic Park by the Sydney Olympic Park Authority in the exercise of its statutory functions in relation to events.

Controls

C.1 Relevant development approvals are to note that:

- residents are not able to complain in any forum or seek to make any claim or institute action against the Sydney Olympic Park Authority in relation to major events in accordance with the *Sydney Olympic Park Act 2001*, and
- proximity to Sydney Olympic Park results in impacts of noise and lighting, restrictions on vehicle or pedestrian access and security measures associated with certain events.

4.9 Adaptable Housing

Objectives

O.1 To ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate changing requirements of residents.

O.2 To encourage flexibility in design to allow people to adapt their home as their needs change due to age or disability.

Controls

C.1 Residential development is to meet the requirements for adaptable housing within residential flat buildings set out in the Auburn DCP 2010.

4.10 WIND MITIGATION:

NOTE: The draft DCP continues to defer to the Auburn DCP for certain matters. However, the Auburn DCP does not make provision for wind mitigation. Given that the masterplan now allows for significant increases in height and prefers a tower form, it is important for the DCP to address wind mitigation, particularly for the town centre. The current Parramatta DCP 2011 controls (Section 4.3 p.57 “Building Form and Wind Mitigation”) could be used.

5. Employment Uses

Preamble

This section of the DCP applies to development on land within the precinct zoned B6 Enterprise Corridor. This area to the south of Carter Street along the M4 Motorway is planned for higher density employment and new economic activities such as corporate offices, business parks, knowledge industry development, flexible commercial, bulky goods and community spaces.

5.1 Setbacks, Building Layout and Design

Objectives

O.1 To ensure development ~~creates a positive streetscape and achieves a high quality architectural design that promotes business~~ enterprise is of high quality design.

O.2 To establish an appropriate setback to the south of Carter Street to avoid underground services.

O.3 To provide an adequate buffer between commercial development and the M4 Motorway.

Controls

C.1 All buildings are to comply with the setbacks shown in Section 4.2, **Figure ~~11~~ 19.**

C.2 The 10~~m~~ -metre setback along Hill Road and Birnie Avenue is to provide for deep soil landscaping and the retention of existing site trees, where possible.

C.3 Landscape planting to the south side of Carter Street and within the services easement where permitted by relevant authorities is encouraged.

C.4 Where possible, the existing structural planting of native trees to the M4 Motorway/ Parramatta Road corridor is to be maintained and augmented as a visual green screen to development.

C.5 The location and means of access to customer car parking is to be clearly visible.

C.6 The façade modelling of a development is to utilise large expressed elements to relate to passing motorists and articulate the key components of the building such as entries, showrooms and the like. Finer detail, expressing environmental control, individual tenancies and building levels are to be used to add richness to the architectural design.

C.7 Buildings are to be designed ~~with a strong relationship to the street through glazing. Extensive blank walls are to be avoided~~ to align with Carter Street.

C.8 Signage is to be integrated into the overall façade design and be in accordance with the requirements of Auburn DCP 2010. ~~*Sydney Olympic Park Authority Guidelines for Outdoor Advertising, Identification and Promotional Signage (October 2002).*~~

C.9 Sunshading is to be provided appropriate to orientation for glazed portions of façades.

C.10 Roof design is to be incorporated into the overall building design and built form modelling.

C.11 Roof space is not to be used for car parking or external retail space.

C.12 Emergency exists must not exit onto Carter Street, where buildings front onto Carter Street have basements with emergency exits.

C.13 Development Applications are to have regard for, and address as required, the provisions of the Department's *Hazardous Industry Advisory Papers* (HIPAPs).

5.2 Access and Parking

Objectives

~~O.1 To maximise the accessibility of the site by means other than the private car.~~

~~O.2~~O.1 ~~To encourage residents, staff and visitors to travel using alternative travel modes other than the private car.~~

C.3 To minimise adverse traffic impacts.

O.4 To provide sufficient parking spaces for development while encouraging public transport use.

O.5 To ensure that car parking is appropriately located.

Controls

C.1 Car parking at the rates specified in Section 4.5, **Table ~~2~~ 3** is to be provided. For any use not specified the car parking rates in ~~Auburn Development Control Plan 2010~~ Auburn DCP 2010 are to apply.

C.2 Secure, conveniently located visitor bicycle parking facilities are to be provided at prominent building entries, the rates specified in Section 4.5, **Table ~~3~~ 4**.

C.3 Secure, conveniently located employee bicycle parking facilities are to be provided at the rates specified in Section 4.5, **Table 4.**

C.4 Car parking is to be located preferably within the services easement, or alternatively at the rear of buildings, or within a basement car parking structure.

C.5 Any parking located within the front setback area must be suitably landscaped to add positively to the streetscape.

C.6 'End of trip' facilities (such as showers and change rooms) are to be provided for all commercial uses.

C.7 Development is to comply with the requirements of ~~the~~ Auburn DCP 2010 – Parking and Loading, except for any inconsistency with this DCP.

6. Environmental Management

6.1 Sustainability

Objectives

O.1 To promote water conservation through application of best practice environmental design principles, innovative technology, water efficient landscaping, and water collection and recycling systems.

O.2 To minimise energy use through building design and selection of energy efficient systems and appliances.

O.3 To minimise waste and promote the reuse and recycling of materials.

O.4 To reduce the level of private car usage in favour of more sustainable modes of travel such as walking, cycling and public transport.

Controls

C.1 An ecologically sustainable design (ESD) consultant is to be engaged as a key member of design teams for new buildings and infrastructure to promote affordable and integrated sustainable design for the redevelopment of the precinct.

C.2 Buildings are to comply with or exceed the Building Sustainability Index (BASIX) for residential development, or achieve a 4.5 star as built NABERS rating for commercial office buildings.

C.3 Buildings are to express a strong commitment to ESD principles in particular passive design, optimal orientation, effective sun shading, cross ventilation and open plan living. This should be evident in the external architectural expression.

C.4 To minimise energy use buildings are to be designed to:

- use high levels of insulation as a simple means of reducing energy consumption
- include energy efficient appliances, light fittings and light sensors
- apply green roof and green façade / green wall elements to reduce heat loads on internal spaces, and
- provide effective metering systems to monitor the energy performance of buildings, including individual dwellings and tenancies.

C.5 A work management plan is to be prepared as part of development applications, which is to demonstrate the application of principles of the waste management hierarchy of waste: avoid use, reduction, re-use and recycling.

C.6 The re-use of grey water and provision of dual water reticulation systems is required. ~~encouraged where possible.~~

C.7 Relevant development applications are to include travel information kits for residents and workplace travel plans for workers.

6.2 Flooding

Objectives

O.1 ~~O.1~~ To ensure that land is appropriate to managing and minimising risks from flooding.

O.2 Protect the community and developments from river flooding rising from Haslam's Creek and its tributaries/creeks.

O.3 Protect the community and developments from overland flow flooding from rainfall up-slope of the site.

O.4 Manage the risks for all floods up to the Probable Maximum Flood.

O.5 Development must satisfy the requirements of the applicable Floodplain Risk Management Plan and the NSW Floodplain Development Manual.

Controls

C.1 Within the Carter Street precinct, the finished ground levels for habitable buildings is to be set above RL 4.0m AHD to avoid flooding impacts (or 0.5m above 1:100-year Annual Recurrence Interval).

C.2 Development is to comply with the flood risk management provisions of ~~the~~ ~~the~~ Auburn DCP 2010.

6.3 Stormwater (Water Sensitive Urban Design)

Objectives

O.1 ~~To adopt best practice techniques for stormwater quality management.~~ Manage and moderate stormwater flow across the catchment to minimise the effects of urbanisation, which include: increased amount of runoff, shorter times of concentration, faster and deeper overland flows, erosion and flooding

~~O.2 To minimise flooding and reduce the effects of stormwater pollution on Haslams Creek.~~

O.2 ~~To ensure an integrated approach to water management through the use of water sensitive urban design (WSUD) principles.~~ Manage and moderate storwater flow from individual sites to compensate for increased impervious areas and faster conveyance systems using on site detention, WSUD and other measures.

O.3 Provide effective, safe conveyance of stormwater across the catchment using planned and managed overland flow paths and trunk drainage.

O.4 Sustainable management and conveyance of stormwater within the Public Domain.

O.5 To integrate stormwater management systems into the landscape in a manner that provides multiple benefits, including water quality protection, enhancement of natural ecosystems, stormwater retention/detention, water recycling and recreational and visual amenity.

O.6 To protect and enhance natural water systems (creeks, rivers, wetlands, estuaries, lagoons, groundwater systems etc.).

O.7 To improve water quality of stormwater runoff from urban catchments.

O.8 To capture and use rainwater in place of mains water.

O.9 To use Water Sensitive Urban Design principles to manage water, particularly for rainfall events less than 1 in 3 months' probability.

O.10 To implement successful Water Sensitive Urban Design, landscape integration and stormwater quality improvements for private developments.

O.11 To implement successful Water Sensitive Urban Design, landscape integration and stormwater quality improvements for the public domain.

O.12 To improve receiving water body quality to be suitable for public recreation and amenity.

~~O.3~~O.13 To improve the ecological values of all waterways.

Controls

C.1 Stormwater is to be retained on development sites by:

- Collecting and storing water from roofs and hard surfaces
- Maximising porous surfaces and deep soil zones
- Draining paved surfaces to adjacent vegetation.

C.2 Development is to comply with the stormwater management provisions of the Auburn DCP 2010.

C.3 WSUD principles are to be integrated into the development through the design of the stormwater systems and landscaping scheme and in the orientation of the development rather than relying on 'end of pipe' treatment devices prior to discharge.

C.4 Development is to be sited and designed to minimise disturbance of natural watercourses and overland flow paths.

C.5 Impervious surfaces are to be minimised and soft landscaping with deep soil and tree planting extensively used to promote infiltration, evapotranspiration and reduced stormwater run-off.

C.6 WSUD elements should be located and configured to maximise the impervious area that is treated.

C.7 WSUD must be adopted for the following development types:

- Residential on lots greater than 1500m^2 or with 5 or more dwellings.
- Commercial and Industrial – development, redevelopment and alterations/additions which increase gross floor area by more than 150m2 or alter and/or add more than 150m2 of impervious area. (Approach to WSUD will vary depending on lot size.).
- Subdivisions of Industrial/commercial properties.

- Subdivision of residential properties where the existing lot is greater than 1500m^2 or 5 or more lots are being created.
- Other development >$50k in value which exceeds either of the following criteria:
    - Development which alters and/or adds more than 150 m^2 of impervious area
    - Development which results in an increase in gross floor area of more than 150 m^2

C.8 WSUD systems shall generally be designed to treat storm events up to the 1 in 3 month average recurrence interval. Low flows of this frequency must be separated from higher flows that will be diverted into OSD and other stormwater quantitative management systems.

C.9 The WSUD strategy must achieve the following pollution reduction targets:

Pollutant	**Performance Target** % reduction in the post development mean annual load of pollutant
Gross Pollutants (greater than 5mm)	90%
Total Suspended Solids (TSS)	85%
Total Phosphorus (TP)	60%
Total Nitrogen (TN)	45%
Hydrocarbons, motor oils, oil and grease	90%

NOTE: Reductions in loads are relative to the pollution generation from the same development without treatment

C.10 The post development mean annual runoff volume from the entire site must be reduced by at least 10% from that pre-development:

C.11 Rainwater must be harvested and used if possible.

C.12 The receiving waterway must be protected and enhanced.

C.13 WSUD systems may include the following (or other) measures:

- Vegetated and grassy swales
- Vegetated filter and buffer strips
- Wetlands
- Sand and gravel filters (depending on indigenous soil suitability)
- Bio-retention systems,
    - Permeable/Porous Pavements
    - Infiltration Basins
- Rainwater Tanks,
    - Gross Pollutant Traps and Filters
- Passive watering systems for landscaped areas
- Additional deep soil areas;
    - Naturalised watercourses,
    - Rain gardens,
- 'End of pipe' proprietary treatment devices (these must be used in conjunction with other landscape integrated measures to provide ancillary social, environmental and economic benefits)
- These measures are typically employed in a 'treatment train' to maximise the range and efficiency of pollutants removed.

C.14 Where water sensitive urban design measures are required, DA lodgement must be supported by the following documentation:

- A WSUD strategy report, describing the treatment train including all measures used, justification for this selection and a summary of design ancillary benefits
- MUSIC software modelling (or equivalent) to demonstrate that the proposed WSUD strategy achieves the required pollution reduction targets. Both a written summary of the assumptions, configuration and results of the model, and a digital copy of the model file must be submitted
- The above documentation must be prepared by a qualified hydraulic or environmental engineer/environmental scientist in consultation with the project landscape and architectural professionals

C.15 Council requires simple WSUD landscape designs that achieve water management objectives without unusual or complicated maintenance demands. The DA must be accompanied with a management and maintenance Plan for the WSUD biological and landscape facilities for both establishment phase (3-5 years) and the long term phase. The DA must be accompanied with a Management and Maintenance Plan for the WSUD proprietary treatment devices (such as GPT's, filters etc).

C.1 A comprehensive Stormwater Management Plan that complies with the stormwater drainage provisions in the Auburn DCP 2010 is to be prepared prior to the approval of development.

C.2 Carter Street and the John Ian Wing Parade extension are to act as overland flow paths for stormwater flows from east to west.

C.3 The John Ian Wing Parade extension is to include a 10m wide landscaped bio-swale / water element corridor to allow for an overland flow path, as shown in **Figure 9 18**.

C.4 Where included as part of the street, design, central bio-swales are the overland flow paths are to be designed and constructed to allow for pedestrian crossings.

C.5 All landscaping is to be compatible with flood risk and not impede overland stormwater flows.

C.6 All vegetation species and structures, including paths, walls and fences, are to be able to withstand temporary flood inundation in areas with a stormwater function. those areas designated as detention basins.

C.7 To minimise the impact of stormwater from communal open space on the health and amenity of Haslams Creek:

- stormwater is to be retained on development sites by:
  - collecting and storing water from roofs and hard surfaces
  - maximising porous surfaces and deep soil zones
  - draining paved surfaces to adjacent vegetation, and
- stormwater quality is to be protected by providing for:
  - sediment filters, traps or basins for hard surfaces, and
  - treatment of stormwater collected in sediment traps on soils containing dispersive clays.

C.8 Stormwater is to be managed within the precinct as shown in **Figure 9 18**.

C.9 The following stormwater targets are to be met for the entire precinct:

- 90% reduction in the post-development average annual gross pollutant load
- 85% reduction in the post-development average annual total suspended solids (TSS) load
- 65% reduction in the post-development average annual total phosphorus (TP) load
- 45% reduction in the post-development average annual total nitrogen (TN) load

C.10 The following stormwater targets are to be met for specific sites:

- 92% reduction in the post-development average annual gross pollutant load.
- 90% reduction in the post-development average annual total suspended solids (TSS) load.
- 68% reduction in the post-development average annual total phosphorus (TP) load.
- 47% reduction in the post-development average annual total nitrogen (TN) load.

7. Site Specific Controls

7.1 Development near pipeline easements

This section applies to land identified as "Area 1" and "Area 2" in **Figure 22.**

Objectives

O.1 To ensure development on or near fuel and gas pipeline easements considers potential impacts on the integrity of the pipelines.

O.2 To ensure development on or near fuel and gas pipeline easements considers potential safety risks and does not endanger life or property.

Controls

C.1 Development for any purpose that proposes to introduce significant population within the Precinct, or development for the purpose of residential accommodation or tourist and visitor accommodation, must not be located in Area 1 as shown in **Figure 22** unless it meets all the following requirements:

- Applicants consult with all the fuel and gas Pipeline Licensees and/or pipeline operators within the easement about their proposal, including to identify the Pipeline Easement, and address comments raised by the Pipeline Licensee and/or pipeline operators about the proposal.
- A risk assessment is undertaken in accordance with Hazardous Industry Planning Advisory Paper No 6 – Hazard Analysis demonstrating the development complies with relevant quantitative and qualitative risk criteria in Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning. The risk assessment must include, but not be limited to, evaluation of the potential risk exposure from the existing dangerous goods fuel and gas pipelines to the proposed development. It must also demonstrate that the proposed development will not contribute to significant increase of the cumulative societal risk.
- The development does not result in any non-compliance of the existing dangerous goods fuel and gas pipelines within the easement with Australian Standards – Pipelines – Gas and Liquid Petroleum (AS 2885).

C.2 Development for the purpose of sensitive land uses, including child care centres, home-based child care, respite day care, schools, hospitals, seniors housing or community facilities, and tourist and visitor accommodation, must not be located in Area 2 as shown in **Figure 22** unless:

- Applicants consult with all the fuel and gas Pipeline Licensees and/or pipeline operators within the easement about their proposal, including to identify the Pipeline Easement, and consider comments raised by the Pipeline Licensee and/or pipeline operators about the proposal.
- A risk assessment is undertaken in accordance with Hazardous Industry Planning Advisory Paper No 6 – Hazard Analysis demonstrating the development complies with relevant quantitative and qualitative risk criteria in Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning. The risk assessment must include, but not be limited to, evaluation of the potential risk exposure from the existing dangerous goods fuel and gas pipelines to the proposed development. It must also demonstrate that the proposed development will not contribute to significant increase of the cumulative societal risk.
- The development does not result in any non-compliance of the existing dangerous goods fuel and gas pipelines within the easement with Australian Standards – Pipelines – Gas and Liquid Petroleum (AS 2885).

C.3 Development for the purpose of residential accommodation on any land within the Precinct that will result in the total residential floor space on a lot exceeding the floor space for that lot listed in **Table 6** and shown in **Figure 23** must not be undertaken unless a risk assessment is undertaken in accordance with Hazardous Industry Planning Advisory Paper No 6 – Hazard Analysis demonstrating the development complies with relevant quantitative and qualitative societal risk criteria in Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning. The risk assessment must include, but not be limited to, evaluation of the potential risk exposure from the existing dangerous goods fuel and gas pipelines to the proposed development. It must also demonstrate that the proposed development will not contribute to significant increase of the cumulative societal risk.

C.4 Development for any purpose other than residential accommodation on any land within the Precinct that will result in the total non-residential floor space on a lot exceeding the floor space for that lot listed in **Table 7** and shown in **Figure 24** must not be undertaken unless a risk assessment is undertaken in accordance with Hazardous Industry Planning Advisory Paper No 6 – Hazard Analysis demonstrating the development complies with relevant quantitative and qualitative societal risk criteria in Hazardous Industry Planning Advisory Paper No 10 – Land Use Safety Planning. The risk assessment must include, but not be limited to, evaluation of the potential risk exposure from the existing dangerous goods fuel and gas pipelines to the proposed development. It must also demonstrate that the proposed development will not contribute to significant increase of the cumulative societal risk.

[Drafting note: consideration will be given to including these controls in the State Environmental Planning Policy and Auburn Local Environmental Plan 2010].

Figure 22: Hazard Contours

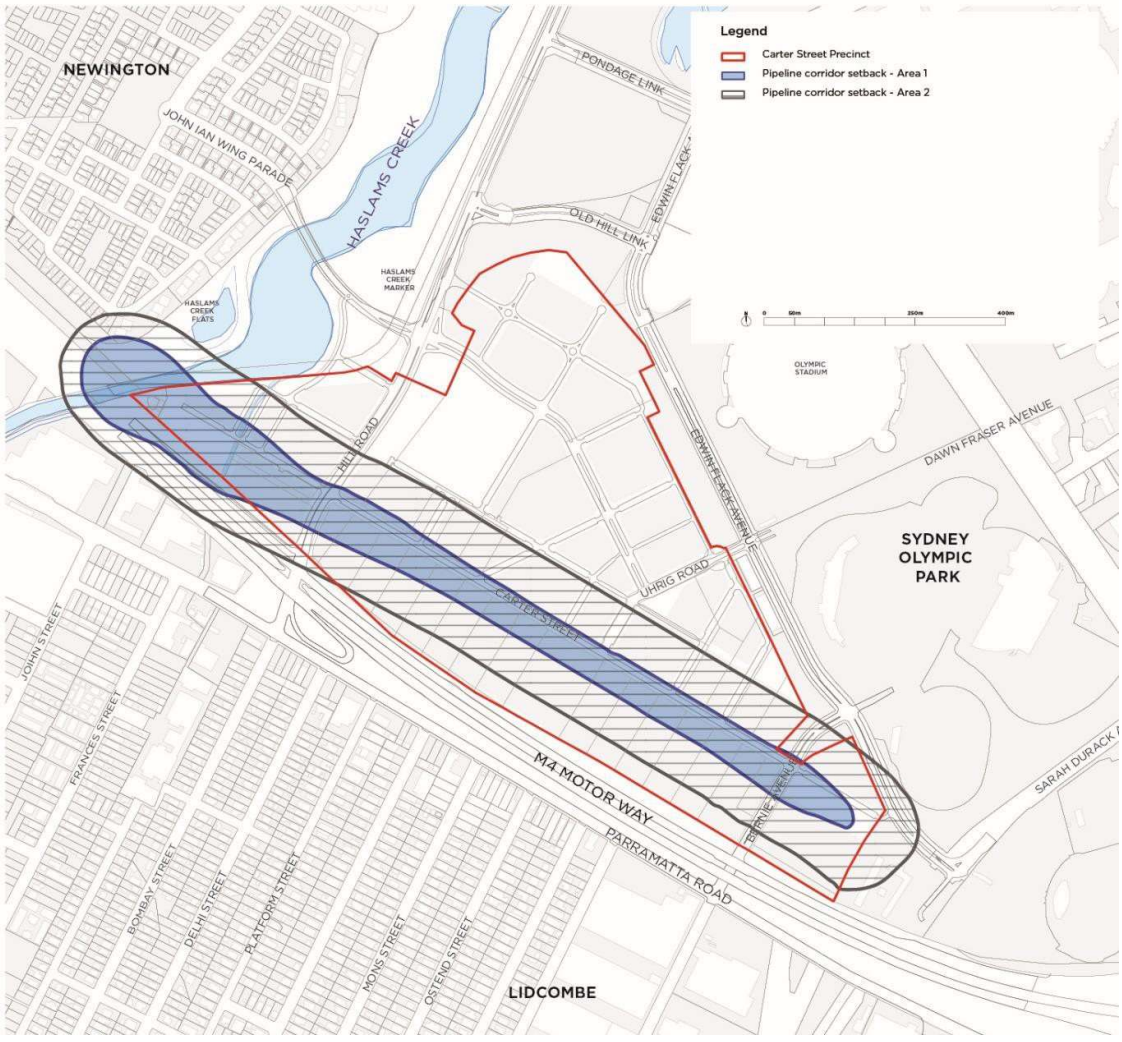


Figure 23: Indicative Layout Plan

Table 6: Societal Risk Residential Floor Space Thresholds, by lot

Lot, per Figure 24	Total GFA (m^2)
Haslam 2 (HC 02)	29,681
Haslam 3 (HC 03)	42,807
Park 1 (P 01)	71,887
Park 2 (P 02)	49,355
Haslam South 1 (HS 01)	19,867
Haslam South 2 (HS 02)	19,867
Haslam South 3 (HS 03)	20,626
Haslam South 4 (HS 04)	20,626
Haslam South 5 (HS 05)	25,303
Haslam South 6 (HS 06)	35,785
Haslam South 7 (HS 07)	48,574
Carter Town Centre 2 (TC 02)	40,368
Carter Town Centre 3 (TC 03)	41,527

Lot, per Figure 24	Total GFA (m^2)
Carter Town Centre 4 (TC 04)	52,585
Carter Town Centre 5 (TC 05)	42,084
Carter Town Centre 7 (TC 07)	5,298
Carter Town Centre 9 (TC 09)	2,0872
Carter Town Centre 10 (TC 10)	3,6962
Carter Street North 2 (CSN 02)	46,500
Carter Street North 3 (CSN 03)	46,500
Carter Street North 4 (CSN 04)	35,600
Carter Street North 5 (CSN 05)	54,192
Carter Street South (CS 01)	24,900

Table 7: Societal Risk Non-Residential Floor Space Thresholds, by lot

Lot, per Figure 24	Total GFA (m^2)
Haslam 2 (HC 02)	1,146
Haslam 3 (HC 03)	829
Carter Town Centre 6 (CTC 06)	12,329
Carter Town Centre 7 (CTC 07)	6,854
Carter Town Centre 8 (CTC 08)	4,334
Carter Town Centre 9 (CTC 09)	9,531
Carter Town Centre 10 (CTC 10)	5,328
Carter Street South 1 (CS 01)	5,431
Carter Street South 1	26,046
Carter Street South 2	118,000
Carter Street South 3	37,296


NSW
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5. APPENDIX B

Additional recommended sustainability controls to be included under the *Development Framework*

Dual Piping

Controls

C.01 All development must install a dual reticulation system to support the immediate or future connection to a recycled water network. The design of the dual reticulation system is to be such that a future change-over to an alternative water supply can be achieved without significant civil or building work, disruption or cost.

To facilitate this, the dual reticulation system is to have:

a) One reticulation system servicing drinking water uses, connected to the drinking water supply, and

b) One reticulation system servicing non-drinking water uses. The non-drinking water system is to be supplied with harvested rainwater with drinking water backup until such time as an alternative water supply connection is available.

c) Metering of water services is to be in accordance with the Sydney Water *Multi-level individual metering guide Version 9 June 2020*. Individual metering of the non-drinking water service is optional.

Electric Vehicles

Controls

The following Electric Vehicle (EV) technical terms are used:

EV Ready Connection is the provision of a dedicated spare 32A circuit provided in an EV Distribution Board to enable easy future installation of cabling from an EV charger to the EV Distribution Board and a circuit breaker to feed the circuit.

Private EV Connection is the provision of a minimum 15A circuit and power point to enable easy future an EV in the garage connected to the main switch board.

Shared EV Connection is the provision of a minimum Level 2 40A fast charger and Power Supply to a car parking space connected to an EV Distribution Board.

EV Distribution Board is a distribution board dedicated to EV charging that is capable of supplying not less than 50% of EV connections at full power at any one time during off-peak periods, to ensure impacts of maximum demand are minimised. To deliver this, the distribution board will be complete with an EV Load Management System and an active suitably sized connection to the main switchboard.

EV Load Management System is to be capable of:
- reading real time current and energy from the electric vehicle chargers under management
- determining, based on known installation parameters and real time data, the appropriate behaviour of each EV charger to minimise building peak power demand whilst ensuring electric vehicles connected are full recharged.
- scale to include additional chargers as they are added to the site over time.

C1. All multi-unit residential car parking must:

a. Provide an EV Ready Connection to each and every space allocated to residents at least one car space for each dwelling.

b. Provide EV Distribution Board(s) in of sufficient size to allow connection of all EV Ready Connections and Shared EV connections.
c. Locate EV Distribution board(s) so that no future EV Ready Connection will require a cable of more than 50m from the parking bay to connect.
d. Provide adequate space for the future installation (post construction) of compact meters in or adjacent to the EV Distribution Board, to enable the body corporate to measure individual EV usage in the future.
e. Identify on the plans the future installation location of the cable trays from the EV Distribution Board to the car spaces allocated to each dwelling that are provided a Future EV connection, and to make spatial allowance for it when designing in other services.

C2. All car share spaces and spaces allocated to visitors must have a Shared EV connection.

C3. All commercial building car parking must
a) Provide 1 Shared EV connection for every 10 commercial car spaces distributed throughout the carpark to provide equitable access across floors and floor plates.

C4. All garages in single dwellings are to be provided with a Private EV connection.

1. E-bike – to be included in the Bicycle Parking section

C#. The bicycle storage facility is to include 10A e-bike charging outlets to 10% of spaces with no space being more than 20m away from a charging outlet. Chargers are to be provided by the owner. [chargers excluded].

Urban Heat

The following technical terms are used as part of controls in this section of the draft DCP:

Solar heat reflectance is the measure of a material's ability to reflect solar radiation. A 0% solar heat reflectance means no solar heat radiation is reflected and 100% solar heat reflectance means that all of the incident solar heat radiation is reflected. In general, lighter coloured surfaces and reflective surfaces such as metals will have typically higher solar heat reflectance, with dark coloured surfaces or dull surfaces will typically have lower solar heat reflectance. External solar heat reflectance measured at the surface normal (90 degrees) is used in these controls.

Solar transmittance is the percentage of solar radiation which is able to pass through a material. Opaque surfaces such as concrete will have 0% solar transmittance, dark or reflective glass may have less than 10%, whilst transparent surfaces such as clear glass may allow 80 to 90% solar transmittance.

Solar Reflectance Index (SRI) is a composite measure of a materials ability to reflect solar radiation (solar reflectance) and emit heat which has been absorbed by the material. For example, standard black paint has a SRI value of 5 and a standard white paint has a SRI value of 100.

Reflective Surface Ratio (RSR) is the ratio of reflective to non-reflective external surface on any given façade.

Reflective surfaces are those surfaces that directly reflect light and heat and for the purposes of this DCP are defined as those surfaces that have specular normal reflection of greater than 5% and includes glazing, glass faced spandrel panel, some metal finishes and high gloss finishes.

Non-reflective surfaces are those surfaces that diffusely reflect light and heat and for the purposes of this DCP are defined as those surfaces that have specular normal reflection of less than 5%.

Maximum External Solar Reflectance is the maximum allowable percentage of solar reflectance for the external face of a Reflective Surface. The percentage of solar reflectance is to be measure at a normal angle of incidence

Objectives

O1. To reduce the contribution of development to urban heat in the Parramatta Local Government Area; and

O2. To improve user comfort in the local urban environment (private open space and the public domain).

Roof Surfaces

Objectives

O3. To reflect and radiate heat from roofs and podium top areas;

O4. To improve user comfort of roof and podium top areas.

Controls

C1. Where surfaces on roof tops or podiums are used for communal open space or other active purposes, the development must demonstrate at least 50% of the accessible roof area complies with one or a combination of the following:

a) Be shaded by a shade structure;

b) Be covered by vegetation consistent with the controls on Green Roofs or Walls in Section ### Landscaping;

c) Provide shading through canopy tree planting, to be measured on extent of canopy cover 2 years after planting.

C2. Where surfaces on roof tops or podiums are not used for the purposes of private or public open space, for solar panels or for heat rejection plant, the development must demonstrate the following:

d) Materials used have a minimum solar reflectivity index (SRI) of 82 if a horizontal surface or a minimum SRI of 39 for sloped surface greater than 15 degrees; or

e) 75% of the total roof or podium surface be covered by vegetation; or

f) A combination of (a) and (b) for the total roof surface.

Open Space

C1. At least 75% of the open site area must comprise of one or a combination of the following when assessed in plan view:

a) Vegetation,

b) Hardscaping elements shaded by overhanging vegetation or roof structures, including solar hot water panels and photovoltaic panels;

c) Water bodies and/or water courses; or

Areas directly to the south of vertical building elements, including green walls and areas shaded by these elements at the summer solstice.

Vertical facades

Objectives

O5. To minimise the reflection of solar heat downward from the building façade into private open space or the public domain.

Controls

C1. The extent of the vertical façade of street walls (or if no street wall, as measured from the first 12 metres from the ground plane) that comprise Reflective Surfaces must demonstrate a minimum percentage of shading as defined in Table 1 as calculated on 21 December on the east facing façade at 10am, northeast and southeast facing façade at 11.30am, north facing façade at 1pm, northwest and southwest facing façade at 2.30pm and the west facing faced at 4pm (as shown in Figure ##).

Table 1
Minimum podium percentage shading

Reflective Surface Ratio (RSR)	<30%	30%-70%	>=70%
Minimum percentage shading (%)	0	1.5*RSR-45	75

Shadow diagrams must be submitted with the development application quantifying the extent of shading at 10am, 11.30am, 1pm, 2.30pm and 4pm on 21 December for each relevant façade. Shadows from existing buildings, structures and vegetation are not considered in the calculations. Refer to Table 2 for sun angles corresponding to shading reference times.

Calculation of RSR for each relevant façade must also be submitted with the development application.

Table 2
Shading sun angles

Façade Orientation	Sun Angles
East ± 22.5°	Reference Time: 10am AEDT (UTC/GMT+11) Sun Elevation: 51° Sun Azimuth: 86°
Northeast/Southeast ± 22.5°	Reference Time: 11.30am AEDT (UTC/GMT+11) Sun Elevation: 69° Sun Azimuth: 66°
North ± 22.5°	Reference Time: 1pm AEDT (UTC/GMT+11) Sun Elevation: 80° Sun Azimuth: 352°
Northwest/Southwest ± 22.5°	Reference Time: 2.30pm AEDT (UTC/GMT+11)

	Sun Elevation: 67° Sun Azimuth: 290°
West ± 22.5°	Reference Time: 4pm AEDT (UTC/GMT+11) Sun Elevation: 48° Sun Azimuth: 272°

C2. The extent of the vertical façade of the tower (above the street wall or if no street wall, as measured above the first 12 metres from the ground plane) that comprise Reflective Surfaces must demonstrate a minimum percentage of shading as defined in Table 3 as calculated on 21 December on the east facing façade at 10am, northeast and southeast facing façade at 11.30am, north facing façade at 1pm, northwest and southwest facing façade at 2.30pm and the west facing faced at 4pm (as shown in Figure ##).

Table 3
Minimum tower percentage shading

Reflective Surface Ratio (RSR)	<30%	30%-70%	>=70%
Minimum percentage shading (%)	0	0.8*RSR-24	40

Shadow diagrams must be submitted with the development application quantifying the extent of shading at 10am, 11.30am, 1pm, 2.30pm and 4pm on 21 December for each relevant façade. Shadows from existing buildings, structures and vegetation are not considered in the calculations. Refer to Table 2 for sun angles corresponding to shading reference times.

Calculation of RSR for each relevant façade must also be submitted with the development application.

C3. Shading may be provided by:

a) External feature shading with non-reflective surfaces;

b) Intrinsic features of the building form such as reveals and returns; and

c) Shading from vegetation such as green walls that is consistent with the controls on Green Roofs or Walls in Section 10.9 Landscaping.

C5. Where it is demonstrated that shading cannot be achieved in accordance with the above controls, a maximum external solar reflectance as defined in Table 4 and as indicated in Figure 1.1 is generally acceptable.

Table 4
Maximum solar reflectance of Reflective Surfaces.

Reflective Surface Ratio (RSR)	<30%	30%-70%	>=70%
Maximum External Solar Reflectance (%)	No Max.	62.5-0.75*RSR	10

C6. Where multiple reflective surfaces or convex geometry of reflective surface introduce the risk of focussing of solar reflections into the public spaces:

d) Solar heat reflections from any part of a building must not exceed 1,000W/m2 in the public domain at any time;

e) A reflectivity modelling report may be required to qualify extent of reflected solar heat radiation.

Objectives

O6. To ensure awnings are designed to improve user comfort, providing shelter from the sun and reduced solar heat at the street level.

Controls

C1. All awnings and shading devices should have non-reflective surfaces

C2. Transparent awnings are not encouraged on buildings within the Parramatta LGA. If transparent awnings are used, the awning must have a maximum solar transmittance of 20.

Heating and Cooling Systems – Heat Rejection

Objectives

O7. To reduce the impact of heat rejection from heating, ventilation and cooling systems from contributing to the urban heat island effect in the Parramatta Local Government Area; and

O8. To avoid or minimise the impact of heat rejection from heating, ventilation and cooling systems on user comfort in private open space and the public domain.

Controls

C1. Residential apartments within a mixed use development or residential flat building should incorporate efficient heating, ventilation and cooling systems which reject heat from a centralised source on the upper most roof.

C2. Where the heat rejection source is located on the upper most roof, these should be designed in conjunction with controls in this Section of the DCP relating to Roof Surfaces and the controls on Green Roofs or Walls in Section #### Landscaping.

C3. No heat rejection units shall be located on the street wall frontage on the primary street.

C4. Heat rejection units are strongly discouraged from being located on building facades or on private open space, such as balconies and courtyards. However, where it is demonstrated that heat rejection cannot be achieved in accordance with the above controls C1 and C2 above and these units are installed, the HVAC system must demonstrate:

a) Heating, ventilation and cooling systems exceeds current Minimum Energy Performance Standard requirements; and

b) The heat rejection units are situated with unimpeded ventilation, avoiding screens and impermeable balcony walls; and

c) The area required by the heat rejection units is additional to minimum requirements for private open space.

C5. Where a mixed use development or residential flat building proposes wintergardens as the primary private open space, no heat rejection source from heating, ventilation and cooling systems are permitted to be located in the wintergarden.

Wintergardens

C1. Wintergardens must:

a) Be well designed and contribute to the high quality of the building façade.

b) Be designed and constructed as a private external balcony with drainage and finishes acceptable to an outdoor space and must not be treated as a conditioned space or weatherproof space.

c) Have effective natural ventilation provided by;

i. Not less than 80% of the external wintergarden perimeter being fully operable glass louvres, or;

ii. If fixed glazing is provided, permanent openings are provided of an area not less than 15% of the greater of enclosed wintergarden floor area or external wintergarden facade area. 30-50% of the fixed opening are to be provided in a zone within 500mm of the floor with the remainder being proving within 500mm of the soffit.

d) A generous opening must be provided between the wintergarden and any adjacent living area to allow seamless connection of the spaces where ambient conditions are suitable.

e) Acoustic control for living areas and bedrooms must be provided on the internal façade line between the wintergarden and the living area or bedroom.

f) Glazing in the external façade of a wintergarden must have a solar absorption of less than 10%.

g) The flooring of the wintergarden must provide exposed thermal mass.

Bird friendly design

Treatment and design of glazed facades to minimise bird strike will make an important contribution to the protection of endangered and migratory birds and also protect the urban native bird population.

Objectives

01. To minimise the risk of bird collisions due to high transparency, through treatment of external windows and other glazed building surfaces.

02. To require additional treatment, or reduced reflectivity and transparency of external windows and other glazed building surfaces, where buildings are located within 100 metres of specified waterways and parklands.

Controls

C.01. Treatment of all external windows and other glazed building surfaces of buildings is required to any new glazed surface (whether part of a new building or a building undergoing alterations and additions), when the glazed surface is:

a) less than 6 metres from another glazed surface such as corners and skybridges,
b) less than 6 metres from an internal planted area such as a green wall or planted atrium,
c) projecting vertically more than 1 metre above the building roof line,
d) projecting horizontally more than 1 metre beyond the building enclosed façade.

C.02 Where buildings are located within 100m of Haslams Creek treatment to 95% of the glazing is required.

Treatment to the glazing must be either:

- Bird strike UV patterning such as Ornilux,
- Fritted, etched, channeled or translucent glass such as Silk-screen with a minimum untreated dimension of 100mm x 100mm,
- Eternal treatments such as angled, layers or recessed glazing, shading elements such as louvers, overhangs and awnings or mesh with a minimum open dimension of 100mm x 100mm.

Green Roofs or Walls

Objectives

O1. To ensure that green roofs or walls are integrated into the design of new development.

O2. To encourage well designed landscaping that caters for the needs of residents and workers of a building.

O3. To design green walls or roofs to maximise their cooling effects.

O4. To ensure green walls and roofs are designed and maintained to respond to local climatic conditions and ensure sustained plant growth.

Controls

C1. Green roofs located on upper most roofs or podium levels should be designed as part of communal open space for residential development and as part of usable roof top space for commercial developments.

C2. Green roof and wall structures are to be assessed as a part of the structural certification for the building. Structures designed to accommodate green walls should be integrated into the building façade.

C3. Waterproofing for green roofs and walls is to be assessed as a part of the waterproofing certification for the building.

C4. Where vegetation or trees are proposed on the roof or vertical surfaces of any building, a Landscape Plan must be submitted which demonstrates:

a) Adequate irrigation and drainage is provided to ensure sustained plant growth and health and safe use of the space;

b) Appropriate plant selection to suit site conditions, including wind impacts and solar access; and

c) Adherence to the objectives, design guidelines and standards contained in the *NSW Department of Planning and Environment's Apartment Design Guide* for 'Planting on Structures'.

C5. Green roofs or walls, where achievable, should use rainwater, stormwater or recycled water for irrigation.

C6. Container gardens, where plants are maintained in pots, may be acceptable, however should demonstrate it is of significant scale to support high quality vegetation growth for cooling and amenity.

C7. Register an instrument of positive covenant to cover proper maintenance and performance of the green roof and walls on terms reasonably acceptable to the Council prior to granting of the Occupancy Certificate.

6. APPENDIX C

Recommended legal wording to be included in the State planning agreement at 15-21, 23-31 and 33-35 Carter Street, Lidcombe

The Development Contributions contemplated under this draft Planning Agreement 2018/9761 for 15-35 Carter Street, Lidcombe are noted as being provided by the Developer to the "***Minister***", or the "***Minister's nominee***".

Given that some of the development contributions contemplated under this Planning Agreement are expected to be local rather than state assets (such as the "Open Space Land"), it is anticipated that some of these development contributions might be transferred to City of Parramatta Council (**Council**) under this Planning Agreement (as the Minister's nominee).

In respect of any planning agreements in connection with the Carter Street Precinct where Council will be the recipient of any local development contribution under those planning agreements (and given that Council is not a party to the planning agreements in respect of the Carter Street Precinct), Council requests that a separate 'framework agreement' should be explored between Council and the Minister in respect of the Carter Street Precinct:

1. providing Council with greater detail and certainty regarding which development contributions will be provided to Council (as the Minister's nominee) under any Carter Street Precinct Planning Agreements;
2. requiring that the Minister consult with Council prior to the Minister reaching any agreement with any Developer under those Planning Agreements affecting any development contributions that will be eventually provided to Council. For example, a requirement that the Minister consult with Council before the Minister agrees to any:
    a. further encumbrances; or
    b. site conditions requiring the use land to as public open space to be subject to conditions,

    where those matters impact land that will be eventually transferred to Council;
3. allowing Council to certify practical completion of any works that will be transferred to Council under the Planning Agreement; and
4. providing Council with comfort that any Planning Agreement in respect of the Carter Street Precinct under which Council will be receiving works performed by the Developer will contain a mechanism for Council to:
    a. call on the Developer's rectification of any defective works during the defects liability period; and
    b. receive the benefit of any warranties applying to any materials or goods in respect of the works; and
    c. receive a copy of all as-built drawings, design and specifications in respect of those works, including a licence to use the intellectual property in those relevant documents.

It is expected that only the matters identified in items 1 and 2 above will be relevant to Planning Agreement 2018/9761 for 15-35 Carter Street, Lidcombe. However, the remaining items described above would be relevant in respect of other planning agreement(s) currently being negotiated by the Minister in respect of the Carter Street Precinct.

Given that multiple Planning Agreements are in the process of being negotiated by the Minister in respect of the Carter Street Precinct, and these may have long term impact on Council, Council seeks to open a dialogue with the Minister and the Department of Planning, Industry, and Environment to discuss whether a framework agreement could be entered between Council and the Minister addressing the matters described in items 1-4 above, to provide Council with greater comfort and certainty as to the manner in which Council will be consulted in respect of any development contributions that are provided of local significance for Council's future management.