



**Sydney Metro Northwest Places Program  
Tallawong Station Precinct South  
SSD 9063**

**Submissions Report**

**October 2018**



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# Executive Summary

## Overview

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. It is Australia's biggest public transport project, consisting of:

- the Sydney Metro Northwest (SMNW) (Stage 1), which is due for completion in 2019
- Sydney Metro City and Southwest (Stage 2), which is due for completion in 2024
- Sydney Metro West (Stage 3) which is due for completion in the second half of the 2020s and
- Sydney Metro Western Sydney Airport which will become the spine for the region's growth for generations to come, connecting communities and travellers within Western Sydney and the rest of Sydney with a fast, easy and reliable metro service.

SMNW is delivering eight new stations and commuter car parking as well as upgrading the existing railway line between Epping and Chatswood - and the five existing stations - to metro rail standards. It will provide, for the first time, a reliable public transport service to a region which has the highest car ownership levels per household in Australia.

Tallawong Station will be the final station on the SMNW line. Located in the heart of the North West Growth Centre, the new Tallawong Station will become the transport hub for booming residential growth at The Ponds, Rouse Hill and surrounding areas.

As part of Sydney Metro Northwest Places Program, surplus government owned land to the south of Tallawong Station is now proposed to be developed based on 'transit oriented development' (TOD) principles and reflecting best practice in urban design.

This Submissions Report addresses submissions received in response to exhibition of the Environmental Impact Statement (EIS) for the Stage 1 State Significant Development Application (SSD application). The Stage 1 SSD application seeks concept approval for development of the surplus government land south of Tallawong Station, referred to as the Tallawong Station Precinct South. This Submissions Report has been prepared to satisfy the provisions of Section 4.39 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (and Section 85A of the *Environmental Planning and Assessment Regulation* (EP&A Regulation)).

## The project

Tallawong Station Precinct South will be a vibrant, liveable, mixed use precinct that is integrated with, and supports, the new metro station. It will be an exemplar of transit oriented development that maximises the benefits of the fast, frequent metro connections.

Approval is sought for a Concept Proposal for:

- residential, retail and commercial uses in buildings of varying heights of up to eight storeys
- a village park, retail plaza, landscaping, roads, car parking and services
- an indicative yield of 1,100 dwellings
- approximately 9,000m<sup>2</sup> of commercial floorspace.

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## Project objectives

The objectives for the Concept Proposal are to:

- provide mixed use development within 300 metres of Tallawong Station which will provide a rapid and frequent metro rail service connecting to jobs, services and strategic centres in the northwest and across Sydney
- provide high density residential development around the station, supported by appropriate community and open space facilities
- provide for integrated retail, commercial, recreational and community uses to stimulate activity around the new station
- moderate the amount of private car parking and ensuring pedestrian and bicycle connectivity to the station and the local centre to the north
- provide liveable and active public domain spaces for the community that integrate with proposed land uses and the metro station.

## Consultation on the EIS

The EIS was placed on public exhibition by the Department of Planning and Environment for four weeks, from 12 July until 9 August 2018.

During the exhibition period, interested stakeholders and members of the community were able to:

- view the EIS online on the Department's Major Projects website
- view the EIS in person at either Blacktown City Council chambers, 24 Main Street Blacktown or the Department's Information Centre at Pitt Street Sydney
- make a written submission to the Department for consideration in their assessment of the Concept Proposal
- attend the drop-in community information session facilitated by the SMNWP project team at Rouse Hill Community Centre, Rouse Hill Town Centre on 28 August 2018.

Government agencies and key stakeholders were briefed via meetings, presentations, phone calls and emails to ensure they were adequately informed of the project.

Chapter 3 provides further information on consultation undertaken.

## Overview of submissions

The Department of Planning and Environment received 31 submissions during the EIS exhibition period. 11 of the 31 submissions were from government agencies and the remaining 20 submissions were from local community members including nearby land owners.

Key issues of concern to the community included:

- traffic and parking impacts
- building height and scale
- inadequate infrastructure
- impact on residential amenity, including overshadowing, loss of privacy and views, noise impacts

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- social impacts, including the potential for increased crime
  - inadequate planning to accommodate the increased density
  - overdevelopment and overcrowding
  - construction impacts
  - inadequate provision of open space
  - inappropriate land use.

Key issues of concern to government agencies and key stakeholders included:

- solar access to the public domain
- building scale and design
- open space provision and design
- drainage engineering and water quality
- access, traffic management and parking
- waste management
- treatment of public domain and green infrastructure
- consistency with planning and development controls
- design excellence strategy
- planning for utilities
- acoustic impacts
- site contamination.

Chapters 5 and 6 of this report provide further information on submissions, including issues raised and responses.

## **Project response to submissions**

The Concept Proposal has been amended to address a number of issues raised during the public exhibition period. Changes made to respond to issues raised are:

- expanding the area of the village park by more than 500m<sup>2</sup> to exceed the requirements of the Blacktown City Council Growth Centres Precinct DCP 2010
- relocating the retail plaza to provide for improved solar access
- articulating Building 2C.1 to reduce building bulk
- increasing the setbacks on the upper levels of buildings along Schofields Road to address possible solar access impacts on dwellings at The Ponds.

Chapter 7 of this report provides a description of these changes and a comparison of the preferred project to the exhibited project.

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## Conclusion

The Tallawong Station Precinct South Concept Proposal represents an appropriate use of the land and is consistent with planning controls.

The proposal supports best practice transit oriented design, providing increased residential density in immediate proximity of the new Tallawong Metro Station. The proposed infrastructure upgrades will provide residents with greater access to public transport and employment options, while promoting the use of sustainable travel options.

The proposal's permeable internal layout provides good connection to the surrounding cycling and walking network and to public transport. It will provide an attractive, vibrant and safe place for people to live and work.

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- H. Acoustic Logic Response to Submissions
- I. AECOM Engineering Issues Response to Submissions
- J. AECOM Waste Strategy Report

## Glossary and Abbreviations

Term	Definition
<b>ADG</b>	Apartment Design Guide (NSW Department of Planning and Environment, 2015)
<b>Concept Proposal</b>	The overall concept for which approval is being sought
<b>concept SSD application</b>	A concept development application as defined in Section 4.22 of the EP&A Act, as a <i>development application that sets out Concept Proposals for the development of a site, and for which detailed proposals for the site or for separate parts of the site are to be the subject of a subsequent development application or applications</i>
<b>Council</b>	Blacktown City Council
<b>CPTED</b>	Crime Prevention Through Environmental Design
<b>Cudgegong Road Station (Area 20) Precinct</b>	The area designated as such under the North West Growth Area and shown in Figure 8 in the EIS
<b>DA</b>	Development application
<b>The Department</b>	NSW Department of Planning and Environment
<b>DSI</b>	Phase 2 Detailed Site Investigation
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
<b>EP&amp;A Regulation</b>	<i>Environmental Planning and Assessment Regulation 2000 (NSW)</i>
<b>EIS</b>	Environmental Impact Statement, as submitted to The Department on 2 July 2018
<b>GANSW</b>	Government Architect NSW
<b>Growth Centres SEPP</b>	State Environmental Planning Policy (Sydney Region Growth Centres) 2006
<b>Growth Centres DCP</b>	Blacktown City Council Growth Centres Precinct DCP 2010
<b>ISEPP</b>	State Environmental Planning Policy (Infrastructure) 2007
<b>Local centre</b>	The local centre is shown in Figure 7 of the EIS. It refers to Site as well as land to the north of Tallawong station
<b>m</b>	Metre
<b>m<sup>2</sup></b>	Square metres
<b>NRT</b>	Northwest Rapid Transit Consortium
<b>PSI</b>	Phase 1 Preliminary Site Investigation
<b>RMS</b>	Roads and Maritime Services
<b>SEARs</b>	Secretary's Environmental Assessment Requirements
<b>Secretary</b>	Secretary of the NSW Department of Planning and Environment, or their delegate
<b>SEPP</b>	State Environmental Planning Policy

<b>The Site</b>	The subject site - Tallawong Station Precinct South as shown in Figure 6 of the EIS
<b>Sydney Metro</b>	Sydney Metro (ABN 12 354 063 515) a New South Wales Government agency constituted under the <i>Transport Administration Act 1988 (NSW)</i>
<b>SMNW</b>	Sydney Metro Northwest
<b>SRD SEPP</b>	State Environmental Planning Policy (State and Regional Development) 2011
<b>SSD</b>	State significant development
<b>SSD application</b>	State significant development application
<b>SSI_5100</b>	<i>North West Rail Link Major Civil Construction Works</i> CSSI application approved by the Minister for Planning on 25 September 2012
<b>SSI_5414</b>	<i>North West Rail Link – Stations, Rail Infrastructure and Systems</i> CSSI application approved by the Minister for Planning on 8 May 2013
<b>SMNW</b>	Sydney Metro Northwest - Construction and operation of a metro rail line together with eight new stations and the upgrade of the railway between Epping and Chatswood. The project is approximately 23 kilometres long (of which approximately 15.5 kilometres is located in underground rail tunnels), extending from Epping Station to just west of the proposed new Tallawong Station. The Sydney Metro Northwest, formerly known as the North West Rail Link, is Stage 1 of the overall Sydney Metro project with Stage 2 involving the construction and operation of a new metro rail line from Chatswood through Sydney's CBD to Sydenham (Sydney Metro City and Southwest).
<b>Tallawong Station Precinct South</b>	The Site
<b>TfNSW</b>	Transport for NSW
<b>TOD</b>	Transit oriented development

# 1. Introduction

## 1.1. Background

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. It is Australia's biggest public transport project, consisting of:

- the Sydney Metro Northwest (SMNW) (Stage 1), which is due for completion in 2019
- Sydney Metro City and Southwest (Stage 2), which is due for completion in 2024
- Sydney Metro West (Stage 3) which is due for completion in the second half of the 2020s and
- Sydney Metro Western Sydney Airport which will become the spine for the region's growth for generations to come, connecting communities and travellers within Western Sydney and the rest of Sydney with a fast, easy and reliable metro service.

SMNW is delivering eight new stations and commuter car parking as well as upgrading the existing railway line between Epping and Chatswood - and the five existing stations - to metro rail standards.

Surplus land around the new SMNW stations of Cherrybrook, Castle Hill, Hills Showground, Norwest, Bella Vista, Kellyville and Tallawong (formerly referred to as Cudgegong Road) and an upgraded Epping Station will be transformed for a range of residential, community, retail and commercial uses - attracting investment, stimulating economic development, and providing a diverse range of housing products in attractive and complete precincts. This is known as Sydney Metro Northwest Places Program (SMNWP).



Figure 1: Sydney Metro overview map

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As part of the SMNWP, surplus government owned land to the south of Tallawong Station is now proposed to be developed based on transit oriented development (TOD) principles and reflecting best practice in urban design.

## 1.2. The assessment and approval process

The Tallawong Station Precinct South Concept Proposal comprises a mixed use development, park and associated facilities on land located south of the proposed Tallawong Metro Station (previously known as Cudgegong Road Station).

As the Concept Proposal is associated with railway infrastructure and is for residential accommodation and commercial premises with a capital investment value (CIV) of more than \$30 million, the project is identified as State Significant Development (SSD) pursuant to Schedule 1, 19(2)(a) of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

A Stage 1 State Significant Development Application (SSD application) was lodged with the NSW Department of Planning and Environment (the Department) on 2 July 2018. The SSD application seeks approval for a concept development only and is made under Section 4.22 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) which relates to concept development applications (DAs).

An Environmental Impact Statement (EIS) in support of the Stage 1 SSD application was prepared in accordance with the Environmental Assessment Requirements issued by the Secretary of the Department on 16 February 2018. Following lodgement of the SSD application, the EIS was publicly exhibited for a period of 28 days from 12 July 2018 to 9 August 2018. Thirty-two submissions were received by the Department, which included twenty submissions from the community and twelve submissions from government agencies and Blacktown City Council.

## 1.3. Changes to the exhibited Concept Proposal

A number of key changes have been made to the Concept Proposal to address issues raised in submissions. These changes are summarised below.

- **Expanded village park** - The park area has been increased from 2,900m<sup>2</sup>, which complied with the size requirements of the Blacktown City Council Growth Centres Precinct DCP 2010, to 3,411m<sup>2</sup>. This corresponds with the land area reserved for open space under the Land Reservation Acquisition Map in Appendix 6 of the *State Environmental Planning Policy (Sydney Region Growth Centres)*, and the area identified in the Contributions Plan No 22L Rouse Hill Land and Contributions Plan No 22W Rouse Hill Works.
- **Relocated retail plaza** - The retail plaza has been relocated to the eastern side of Building 1A.2 to provide improved solar access, amenity to the public domain and to the retail precinct specifically. This relocation supports a strong visual connection and pedestrian interface between the park and the retail plaza. The overall result will be a significantly improved public domain experience.
- **Articulation of Building 2C** - To address Council's concern regarding the length of the building on Site 2C, approximately 400m<sup>2</sup> of Gross Floor Area (GFA) has been removed from the centre of the building to allow for its articulation. This change will reduce the perception of building bulk and scale and also allow for improved pedestrian connection between buildings.
- **Increased setbacks for upper levels of buildings on Schofields Road** - It is proposed to minimise potential overshadowing from the buildings that front Schofields

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Road by setting back the upper levels, resulting in a reduction of 312m<sup>2</sup> GFA. This will also reduce the perceived bulk of buildings along Schofields Road and the extent to which these buildings exceed the maximum building height plane.

Chapter 7 provides a description of the proposal changes and a comparison of the preferred project to the exhibited project.

## 1.4. Purpose of this report

This Submissions Report presents responses to issues raised in submissions received during the exhibition of the EIS. These issues have been carefully considered by the Sydney Metro, Landcom and technical consultants. This Submissions Report has been prepared in accordance with Clause 85A of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). It also details the final preferred Concept Proposal.

The report is structured as below.

### Main document

- an introduction to the report (Chapter 1)
- an overview of the exhibited Concept Proposal (Chapter 2)
- a description of stakeholder and community consultation undertaken for the EIS (Chapter 3)
- an analysis of the submissions received during exhibition of the EIS, including numbers, stakeholders who provided a submission, and key issues raised (Chapter 4)
- responses to issues raised by community and government agency submissions received during exhibition of the EIS (Chapters 5 to 6)
- a description of the revised Concept Proposal and conclusion (Chapter 7).

### Appendices

- Summary of community and government agency issues raised in submissions (Appendix A)
- Clause 4.6 Variation revision (Appendix B)
- Bennett and Trimble Urban Design Report Response to Submissions (Appendix C)
- Bennett and Trimble Design Quality Guidelines Report Response to Submissions (Appendix D)
- Bennett and Trimble Design Verification Report Response to Submissions (Appendix E)
- SCT Consulting Technical Memorandum Post Exhibition Responses to Traffic and Parking Comments (Appendix F)
- Clouston Associates Tallawong Station Precinct South Public Domain and Landscape Strategy – Response to Submissions Supplement (Appendix G)
- Acoustic Logic Response to Submissions (Appendix H)
- AECOM Engineering Issues Response to Submissions (Appendix I)
- AECOM Waste Strategy Report (Appendix J).

## 2. Overview of the exhibited Concept Proposal

### 2.1. Overview

The exhibited Concept Proposal includes residential, retail and commercial uses and building envelopes of varying heights up to eight storeys. The exhibited proposal also included car parking, roads, landscaping, services and a village park of approximately 2,900m<sup>2</sup>. The proposal includes an indicative yield of 1,100 dwellings.

The exhibited Concept Proposal sought approval for:

- up to 16 buildings of varying heights to a maximum of eight storeys
- a maximum gross floor area (GFA) of 94,295m<sup>2</sup>
- residential development of up to 1,100 dwellings equating to approximately 85,000m<sup>2</sup> GFA
- commercial, retail and community uses of approximately 9,000m<sup>2</sup> GFA
- provision of basement car parking facilities for the retail, commercial and residential developments in consistent with the following maximum car parking rates:

<b>Residential</b>	<b>Maximum car parking rate</b>
1 bedroom apartment	0.4 spaces/dwelling
2 bedroom apartment	0.7 spaces/dwelling
3+ bedroom apartment	1.2 spaces/dwelling
Visitor	0.14 spaces/dwelling
<b>Other</b>	
Commercial	1/70m <sup>2</sup> GFA
Retail/community	1/60m <sup>2</sup> GFA

- provision of bicycle parking spaces at a rate of 1 bicycle parking space per dwelling and 1 space per 10 dwellings for visitors
- a minimum 5% Affordable Housing
- a public park (approximately 2,900m<sup>2</sup>)
- landscaping of the Site
- road layout
- strategies for utilities and services provision
- strategies for managing stormwater and drainage
- a strategy for the achievement of ecologically sustainable development.

## 2.2. Project objectives

The objectives for the Concept Proposal are to:

- provide mixed use development within 300 metres of the Tallawong Station which will provide a rapid and frequent metro rail service connecting to jobs, services and strategic centres in the northwest and across Sydney
- provide high density residential development around the station, supported by appropriate community and open space facilities
- provide for integrated retail, commercial, recreational and community uses therefore stimulating activity around the new station
- moderate the amount of private car parking while ensuring pedestrian and bicycle connectivity to the station and the local centre to the north
- provide liveable and active public domain spaces for the community that integrate with proposed land uses and the metro station.



### 3. Stakeholder and community consultation

*This section describes the community and stakeholder consultation undertaken during the exhibition of the Stage 1 SSD application.*

#### 3.1. Consultation associated with public exhibition

The EIS was placed on public exhibition by the Department of Planning and Environment for 28 days, from 12 July to 9 August 2018.

The EIS and accompanying technical papers were made available on the Department of Planning and Environment's website ([www.majorprojects.planning.nsw.gov.au](http://www.majorprojects.planning.nsw.gov.au)).

Hard copies of the EIS were available at the following locations:

- Department of Planning and Environment, Pitt Street Sydney
- Blacktown City Council, 24 Main Street, Blacktown.

#### Community Information Session

On Saturday 28 July 2018, a two hour drop-in community information session for Tallawong Station Precinct South SSDA was held at Rouse Hill Community Centre, Rouse Hill Town Centre.

The purpose of the session was to:

- provide an opportunity for community members to speak with the project team about plans for Tallawong Station Precinct South
- inform the community on how to provide feedback on the proposal directly to the Department of Planning and Environment, in line with the Department's guidelines for submission.

The session was advertised through the following channels:

- newspaper advertisements in Rouse Hill Times and Blacktown Advocate in the two weeks prior to the session
- an invitational flyer distributed to properties within approximately 800 metre of the Tallawong Station South site
- social media posts and website updates (@Landcomplaces and [www.landcom.com.au/places/sydney-metro-northwest-places](http://www.landcom.com.au/places/sydney-metro-northwest-places)).

The community information session was facilitated by six SMNW project team members. Project information available at the session included:

- 10 AO information boards which outlined the proposal
- printed copies of the EIS Overview Tallawong Station Precinct South document
- digital copies of the EIS (available on ipad)
- a sign-up sheet for attendees to receive future project enews.

Twenty community members attended the session and most attendees were local residents from Schofields, The Ponds or local Hills suburbs.

Most attendees took the opportunity to ask team members specific questions about the nature of the proposal, planning controls for the site and about the scope of Landcom's role as masterplanner for the sites.

## 3.2. Consultation during the preparation of this report

Based on stakeholder feedback received during the public exhibition of the Environmental Impact Statement, the proposal was revised to address building heights, open space, parking, traffic, drainage, design excellence, public domain issues and noise impacts.

Prior to the lodgement of this report, Landcom briefed the following key stakeholders to clarify submission issues and/or to ensure these stakeholders were informed about the Response to Submission and changes to the project:

- Department of Planning and Environment
- Blacktown City Council
- Government Architect NSW
- Roads and Maritime Services.

## 3.3. Future consultation

### 3.3.1. Response to Submissions

The Department of Planning and Environment will make this Response to Submissions Report publicly available and will undertake further consultation with agencies as necessary.

Landcom will make the Response to Submissions document available via the Sydney Metro Northwest Places Program website.

### 3.3.2. Ongoing consultation and engagement activities

Landcom will continue to work with stakeholders and the community to ensure they are informed about the planning status of Tallawong Station Precinct South.

Ongoing communications activities will include regular enews and website updates. The project information line and email address will also be in place for any community enquiries.

## 4. Analysis of submissions received

*This section provides a summary of the submissions received during exhibition of the EIS, including a breakdown of the stakeholders who provided a submission, the number of submissions received, and the key issues raised in submissions.*

### 4.1. Submissions received

During the exhibition period, submissions were invited from the community and other stakeholders. The receipt of submissions was coordinated and registered by the Department of Planning and Environment (the Department) and uploaded to the Department's website. Submissions were accepted by electronic online submission or post, and were forwarded to Landcom and Sydney Metro for review and consideration.

A total of 31 submissions were registered by the Department. A breakdown of submissions by stakeholder is provided in Table 1.

**Table 1: Breakdown of submissions received**

Submittor type	Number of submissions received
<b>Community submissions</b>	
Community members	20
Sub total	<b>20</b>
<b>Government or Government agencies</b>	
NSW Government departments/agencies	11
Councils	1
Sub total	<b>11</b>
<b>Total</b>	<b>31</b>

Eleven submissions were received from the Government stakeholders:

- Blacktown City Council
- Government Architect NSW
- Sydney Water
- Endeavour Energy
- WaterNSW
- Transport for NSW
- Sydney Trains
- Office of Environment and Heritage
- Roads and Maritime Services
- Rural Fire Service
- NSW Environment Protection Authority.

The Department also provided a letter setting out additional information or clarification required prior to final assessment of the project.

Submissions from agencies raised a range of issues relevant to their respective areas of interest and responsibility, and provided a number of recommendations, including recommendations for suggested conditions of approval for the preferred project. Blacktown City Council objected to the proposed development principally on the grounds of provision of open space.

Submissions from Sydney Trains, Office of Environment and Heritage and WaterNSW did not raise any comments or concerns regarding the proposal.

## 4.2. Summary of issues raised

Appendix A provides an overview of the submissions received and the relevant sections of this report that address the issues raised in submissions during exhibition of the EIS.

### 4.2.1. Key issues raised in community submissions

Of the 20 submissions received from the community, 16 submissions objected to the proposed development or raised particular concerns, three supported the proposal and one submission did not relate directly to the SSDA. Key issues raised by the community included:

- traffic and parking impacts
- building height and scale
- inadequate infrastructure
- impact on residential amenity, including overshadowing, loss of privacy and views, noise impacts
- social impacts, including the potential for increased crime
- inadequate planning to accommodate the increased density
- overdevelopment and overcrowding
- construction impacts
- inadequate provision of open space
- inappropriate land use

Of the community submissions supporting the project, one submission advocated greater building heights and a clear strategy for infrastructure coordination while the others indicated general support.

A breakdown of the key concerns raised in community submissions is provided in Table 2 by key issue category. Since most submissions raised more than one issue or raised the same issue more than once, the number of issues identified is greater than the total number of submissions received.

**Table 2: Key issues raised in community submissions**

Key issue category	Number of times key issue was raised
Traffic and parking	13
Building height and scale	7
Impact on infrastructure	6
Impact on residential amenity	5
Inadequate planning	5
Adverse social impacts	4
Overdevelopment and overcrowding	3
Inadequate open space	2
Construction impacts	2
Inappropriate land use	2
Insufficient affordable housing	1
Issues beyond the scope of the SSDA	2

#### 4.2.2. Key issues raised in agency submissions

Key issues raised by government agencies and Blacktown Council included those relating to:

- solar access to the public domain
- building scale and design
- open space provision and design
- drainage engineering and water quality
- access, traffic management and parking
- waste management
- treatment of public domain and green infrastructure
- consistency with planning and development controls
- design excellence strategy
- planning for utilities
- acoustic impacts
- site contamination.

## 5. Responses to issues raised in government agency submissions

*This section provides responses to the issues raised in submissions provided by government agencies, including local councils and NSW State Government departments and agencies.*

### 5.1. Overview

Submissions were received from the following government agencies:

- NSW Government departments/agencies:
  - Government Architect NSW (GANSW)
  - NSW Environment Protection Authority
  - Transport for NSW
  - Roads and Maritime Services
  - NSW Rural Fire Service
  - Water NSW
  - Sydney Trains
  - NSW Office of Environment and Heritage.
- Utility providers:
  - Sydney Water
  - Endeavour Energy.
- Councils:
  - Blacktown City Council.

The Department of Planning and Environment (the Department) also provided a letter setting out additional information or clarification required prior to final assessment of the project.

The issues raised in the agency submissions are categorised according to the key issue categories and responses are provided in the following sections.

The issues listed in each section are a summary of the key issues raised in submissions. Full details of the issues raised are provided in the complete submissions, available on the Department's major projects' website.

### 5.2. Department of Planning and Environment

#### 5.2.1. Building height, solar access and design excellence

##### *Summary of issues raised*

Request for further justification on the proposed clause 4.6 variation request to vary the Height of Buildings development standard, with regard to:

- the proposed quality and quantity of commercial floor space and the implications for building heights and overall strategic planning objectives for the project
- clarification sought regarding floor to floor ceiling heights
- compliance with the Apartment Design Guide.

Request for further consideration of the density, building bulk and scale with a view to improving and/or better balancing solar access between the retail courtyard, cul-de-sac plaza, key residential streets and other open spaces.

The Department also requested further detail on how the design excellence process would be implemented at future DA stages.

## *Response*

### **Height of buildings**

The clause 4.6 variation request that accompanied the EIS has been revised to include further justification in relation to the variation of the Height of Buildings development standard. The revised clause 4.6 variation request is provided at Appendix B.

The proposed variation to the Height of Buildings development standard is considered justifiable having regard to:

- the slope of the site
- the opportunity to create a vibrant, mixed use precinct with active street frontages by providing retail/commercial floorspace on the ground and first floor of buildings resulting in higher floor to floor ceiling heights
- the need to comply with the design criteria and design guidance within the Apartment Design Guide (ADG), for non-residential uses and to promote future flexibility of use and conversion to non-residential uses
- the need to provide lift overruns to access rooftop gardens which are intended to provide enhanced amenity for residents and a diversity of recreational opportunity
- the height of development approved in the vicinity of the site, including approvals to buildings exceed the building height controls.

The Department requested that justification be provided regarding commercial floor space in the context of building heights and the overall strategic planning objectives for the project.

One of the fundamental objectives of the project is to create a vibrant, liveable, mixed use precinct that is integrated with, and supports, the new metro station. The provision of appropriate and adequate retail/commercial floorspace is essential to achieving this objective.

The Retail and Commercial Land Use Analysis prepared by AEC for the Stage 1 SSSA (May 2018) provides a detailed economic and property market analysis that underpins the proposed retail/commercial floorspace distribution on the Site. Its key findings are summarised below:

- Development momentum and activity in Area 20, and the North West Growth Area more generally, indicates that there will be strong demand for additional retail/commercial floorspace outside the B2 Local Centre beyond 2021. Retail/commercial floorspace in the B4 Mixed Use land in the Tallawong Station Precinct South will therefore provide important supplementary retail, office and related spaces to meet the needs of residents, workers and commuters that are not met in the Local Centre.
- The commuter car park will drive high volumes of pedestrian and vehicle activity on a daily basis. Retail and complementary facilities will provide vital services that are directly accessible to local residents, workers and commuters.
- Local residents are likely to be characterised by two working parents with high levels of commuting. The Tallawong Station Precinct South can best support local residents

by providing accessible, convenience style retail and other support facilities for households that are likely to have above average incomes but who are time poor.

- Commercial office floorspace is justifiable in the Tallawong Station Precinct South as it would be able to capitalise on the accessibility of the site and infrastructure connectivity. Commercial uses would also support jobs, generating demand for retail uses and offering the potential for more people to work closer to home.
- Demand for traditional office space within the immediate vicinity is strong. Anecdotal evidence from leasing agents indicates that traditional office space is fully occupied with strong demand from small businesses.
- The global trend for workspaces with flexible tenure arrangements is generating increasing demand across the Sydney commercial market. Until recently co-working has tended to cluster within the Sydney CBD and surrounding markets, however there is increasing evidence that co-working offices are spreading to western Sydney. The success of co-working spaces is dependent on a range of factors including connectivity, amenity, accessibility, range of floorspace offered and sense of community.

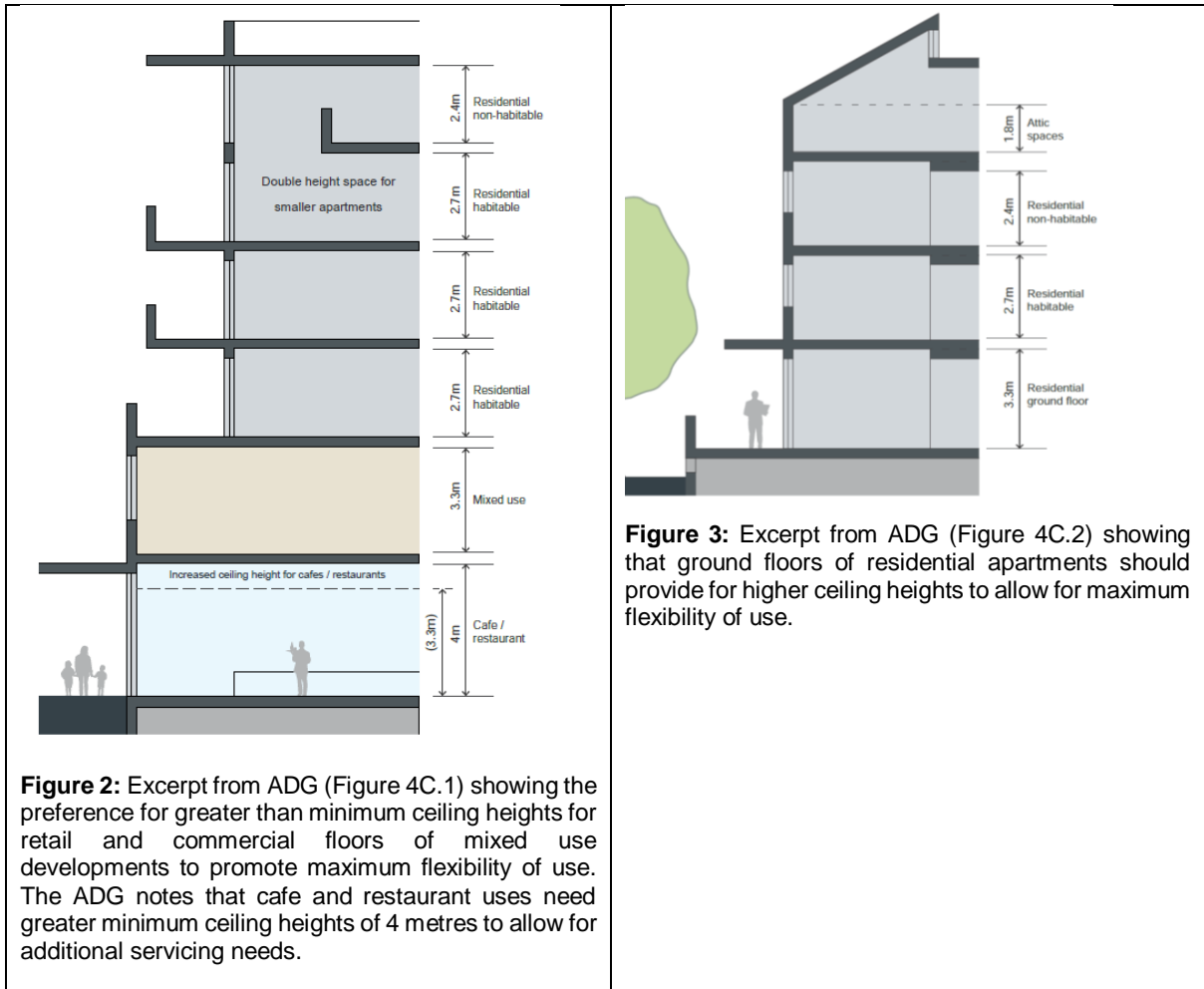
If the objective of a vibrant, activated and viable mixed use centre next to the station is to be realised, then it is crucial that adequate commercial floorspace is provided in the Tallawong Station Precinct South. The AEC report provides a detailed analysis of the type and amount of retail/commercial floorspace that is needed. The recommendations in the report have been incorporated into the Concept Proposal, which distributes approximately 9,000m<sup>2</sup> retail/commercial GFA across B4 Mixed Use Zone adjacent to the new metro station.

To accommodate the retail/commercial floorspace, the ground and first floor of buildings in the B4 Mixed Use zone will have higher floor to floor heights than the residential levels above. The floor to floor height of the ground level is proposed at 4.4 metres (allowing for provision of cafes/restaurants) and 3.7 metres on the first floor (floor to ceiling height of 4 metres and 3.3 metres respectively). This accords with the recommendations in the Apartment Design Guide (ADG).

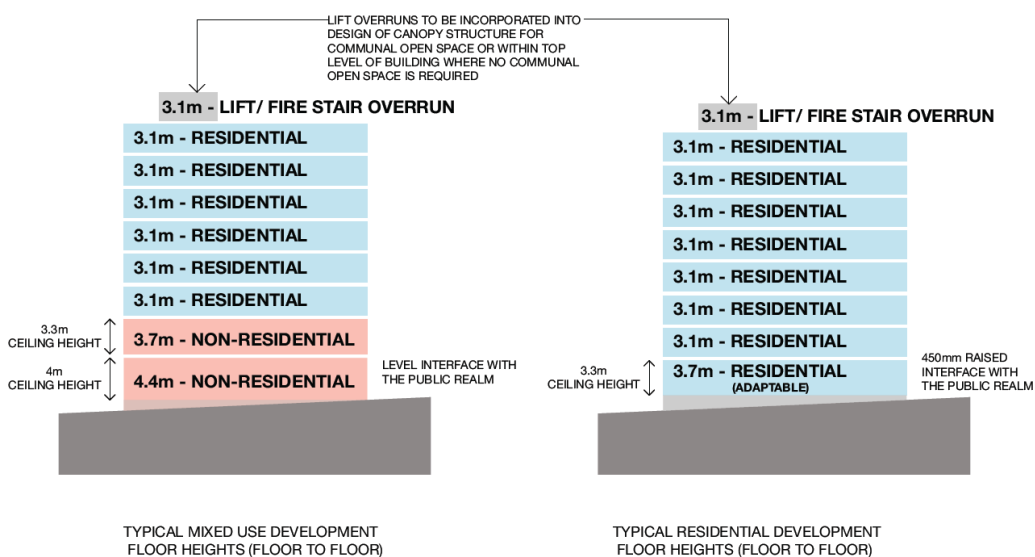
Provision is also made for 3.7 metre floor to floor ceiling heights (floor to ceiling height of 3.3 metre) on the ground floors of building 1B.3 and buildings in the R3 zone to provide for maximum flexibility of ground floor uses in the future, in accordance with the design guidance requirements of the ADG.

The proposed floor to floor heights correspond with the objective in the ADG that the ground and first floor levels of mixed use apartment buildings should have increased ceiling heights to ensure their longer term adaptability for other non-residential uses such as offices and shops. This is shown in Figure 2 and Figure 3 (Figures 4C.1 and 4C.2 of the ADG) on the following page.





The Concept Proposal has adopted the ADG recommendations, as shown in Figure 4.



**Figure 4:** Typical development floor heights (floor to floor) under Concept Proposal showing adherence to ADG requirements for ground and first floors

Providing adequate retail/commercial floorspace to meet the needs of future residents, workers and commuters, the need to ensure higher ceiling heights for retail/commercial floorspace, and the promotion of flexibility of future use, has added to the overall height of the buildings.

### Improving solar access to parks/retail plaza

To provide improved solar access to the public domain, a number of changes have been made to the Concept Proposal. These are listed below.

- **Village park** - The park area has been increased from 2,900m<sup>2</sup> to 3,411m<sup>2</sup> (see Figure 6) with the expanded area of parkland receiving good solar access. This is in addition to the original park area which already receives sunlight to an area greater than 50% of its site area between 11 am and 2 pm on 21 June.

It should be noted that this accords with the solar access requirements for open space, as set out in Section 5.2.1 of the Blacktown Growth Centre Precincts DCP requirement. The expanded park has been achieved by reducing the footprint of Building 1.B1 at its northern end. This has reduced the overall gross floor area of the building by 386m<sup>2</sup>.

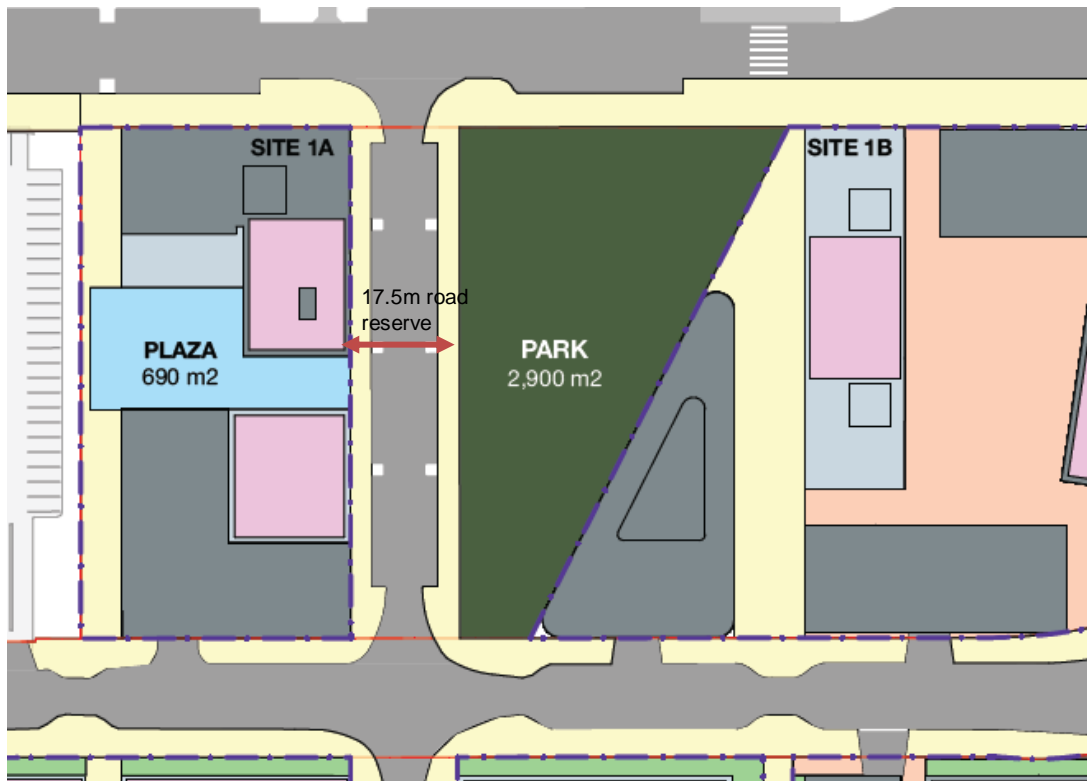
- **Retail plaza** – The retail plaza has been relocated to the eastern side of Building 1A.2 to provide for improved solar access and amenity. The relocation means there will be a strong visual connection and pedestrian interface between the park and the retail plaza. The overall result will be a significantly improved public domain experience.

Figure 5 compares the original concept for park and retail plaza with the new concept of the enlarged park and relocated plaza.

An updated Urban Design Report is provided at Appendix C which documents the proposed changes. It includes updated shadow diagrams and solar analysis.

The changes will allow for improved solar access in those areas of the public domain that will be the focus of community activity and pedestrian movement.

**Figure 5:** Comparison of original concept for park and retail plaza with new concept providing for enlarged park and relocated plaza



Original park/retail plaza concept under exhibited Concept Proposal SSDA



Proposed enlarged park and relocated plaza under amended concept

## Design excellence

Landcom has been developing a Design Excellence Strategy in consultation with the office of the Government Architect NSW (GANSW) which will inform the Design Excellence framework for all Sydney Metro Northwest Projects. This new strategy will draw upon key members of the newly formed Landcom Design Advisory Panel and identified stakeholders at distinct stages in the design process. This design review will provide objective and experienced feedback, streamline stakeholder involvement and embed design excellence throughout all project phases.

As a result of this wider program approach and the need for an interagency discussion across GANSW, Landcom and Sydney Metro, the details of the strategy have not been finalised. This draft Landcom Design Excellence Strategy has been submitted to GANSW and it is anticipated that this will be revised and agreed over the coming months.

A draft Tallawong Design Excellence Strategy has been developed to align with this broader strategy and has been submitted to GANSW for review. This will also be finalised in consultation with GANSW and will be submitted to the Department prior to the Tender Evaluation stage.

### 5.2.2. Open space

#### *Summary of issues raised*

Consider opportunities for additional open space and better connectivity to surrounding open spaces.

#### *Response*

#### **Enhanced open space**

The exhibited Concept Proposal provided for a village park of 2,900m<sup>2</sup>. This complied with the Blacktown Growth Centres DCP (Schedule 4 Cudgegong Road Area 20 Precinct) which requires that a park of 2,500m<sup>2</sup> to 3,000m<sup>2</sup> be provided south of the metro station.

In response to comments provided by the Department, GANSW and Blacktown City Council, the design of the village park has been revised to increase the size and improve the functionality and usability of the space. An additional 500m<sup>2</sup> has been added, increasing the park area from 2,900m<sup>2</sup> to 3,411m<sup>2</sup>, with the measurement of the park allowing for an 18 metre wide street to the west (increased from 17.5 metre). This increased size has enabled provision of more level, usable space and improvements to circulation and accessibility through the park.

The park concept design has been further developed to guide the future detailed design, as shown in the Public Domain and Landscape Strategy Response to Submissions Supplement (Appendix G). However, as this is a Concept SSD application, the resolution of the park design will not be determined until the detailed development application stage.



**Figure 6:** Updated park concept

Some of the important features of the park concept design include:

- minimising the length of the potential ramps to allow a unified larger level plaza space
- balancing lawn and pavement in the upper level plaza to allow for a more flexible space for different functions
- revising the relative levels of the lower plaza to ensure easy transitioning between walkway landings and building entries.

Overall, the level usable space has been increased to a total of 73% (2480m<sup>2</sup>) of the entire park area compared to 69% (2014m<sup>2</sup>) in the previous concept design.

A three metre wide colonnade has been created within Building 1B.1 to provide outdoor dining adjacent to the park and to provide the adjoining development with the amenity of the park without encroaching into the park area. This is shown in Figure 7.



**Figure 7:** Updated park concept design. The proposed outdoor dining area would be located along the shop frontages (right of picture).

### Connections to Open Space

Open space connections and proximity have been examined in more detail by Clouston Associates within Public Domain and Landscape Strategy Response to Submissions Supplement (Appendix G).

The site has good pedestrian and cycle access via the existing and recently constructed separated, shared pedestrian and cycle paths on Schofields Road, Tallawong Road and Cudgegong Road. The additional north-south road, Aristida Ave, provides additional vehicular and pedestrian connectivity, which is further enhanced by the pedestrian/cycle bridge between Aristida Avenue and Tallawong Station.

Signalised intersections at the Themeda/Tallawong Road, Themeda/Cudgegong Road and Schofields/Tallawong Road and Schofields/Cudgegong Road intersections ensure, safe connections for traffic and pedestrians accessing the Metro Station, the shops, park or homes within Tallawong South.

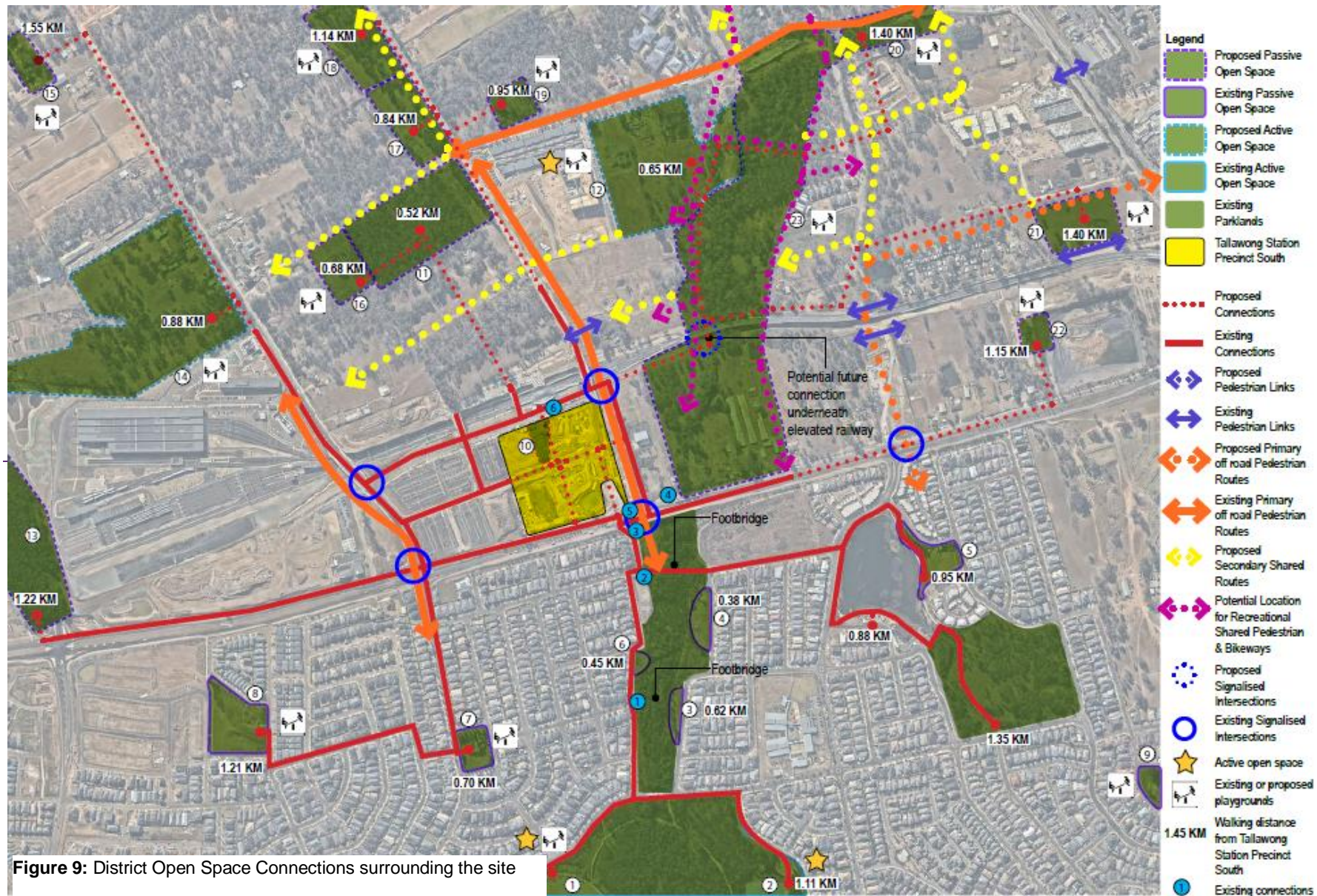
Additional pedestrian and cycle connections are proposed within the Site, connecting people to the metro station, shops and park. These connections include:

- 3.5 metre pedestrian paths through the site directly to Tallawong Station
- separated cycle and pedestrian paths which link directly to the pedestrian/cycle bridge
- an additional mid-block, north-south connection from Schofields Road
- pedestrian connections adjacent to the commuter car park and through east-west through the retail plaza. These paths are 1.6 metre to 3.5 metre wide, and have been designed in accordance with CPTED principles.

Beyond the site, an extensive pedestrian and cycle network is planned, as shown in Figure 3-3 of the Schedule 4 Cudgegong Road Area 20 Precinct DCP reproduced below (Figure 8). The Concept Proposal links to this planned network, offering high quality, direct and safe connections to the surrounding regional and sub-regional open space network. These connections are shown in Figure 9.



**Figure 8:** Pedestrian and Cycle Network under Schedule 4 Cudgegong Road (Area 20) Precinct DCP





## Nearby Existing Open Space

For residents within Tallawong South, signalised crossings at Schofields Road provide safe connections to the existing open space located to the south in The Ponds. Via an accessible ramp, The Ponds cycle network provides access to Seconds Ponds Creek Corridor Park and the active open spaces and playing fields at Peel Reserve and Jonas Bradley Park. Within 1.4 kilometres (km) there is over 11 hectares (ha) in existing open space.

Additional detail on existing open space, park size and distance from Tallawong South is shown in the table below.

**Table 3: Existing Open Space near Tallawong South**

Name	Size	Distance	Facilities
Peel Reserve Park	4.38 ha	1.04 km	Children's playground, outdoor fields, softball field, exercise station
Jonas Bradley Park	3.80 ha	1.11 km	Picnic shelters, BBQs, tennis courts, playground, soccer fields, basketball & netball, exercise stations
Greenview Park	0.14 ha	0.95 km	Pocket park
Arrowroot Park	0.37 ha	0.38 km	Pocket park
Lake Edge Park	0.75 ha	0.95 km	Picnic shelters, BBQs, toilets, near bushland with walking trails, Lake Ironbark
Tanundra Park	0.08 ha	0.45 km	Pocket park
Kalina Reserve Park	0.46 ha	0.7 km	Children's playground
Second Ponds Playground	1.22 ha	1.21 km	Children's playground/kickabout open space
Glenheath Park	0.59 ha	1.4 km	Children's playground/kickabout open space & Picnic shelters
<b>Total</b>	<b>11.79 ha</b>		

## Nearby Proposed Open Space

Proposed open space in the vicinity of the site will be located to the north of Tallawong Station, in accordance with Blacktown City Council's Contributions Plan No.22W and 22L – Rouse Hill. As Table 4 shows there will be over 40 hectares of open space within 1.4 km, with over 30 ha less than 1km away.

Additional detail is provided in the Public Domain and Landscape Strategy Response to Submissions Supplement (Appendix G).

**Table 4: Proposed Open Space near Tallawong South**

<b>Name</b>	<b>Size</b>	<b>Distance</b>	<b>Facilities</b>
Cudgegong Reserve	4.04 ha	0.52 km	Cudgegong Reserve including cycleway, fencing and landscaping
Second Ponds Creek Corridor Park	6.32 ha	0.65 km	Active reserve including playing field, amenities, lighting, carpark, playground, pathway, fencing and landscaping
Proposed Park 1043	9.7 ha	1.22 km	Corridor park including pathway, fencing, cycleway and landscaping
Proposed Park 1045	9.7 ha	0.88 km	Active reserve including playing field, amenities, lighting, carpark, playground, pathway, fencing and landscaping
Proposed Park 1048	0.74 ha	1.55 km	Local park including playground and landscaping
Proposed Park 1046	0.83 ha	0.68 km	Local park including playground and landscaping
Proposed Park 1047	2.15 ha	0.84 km	Local park including pathway, fencing, seating and landscaping
Proposed Park 1044	1.17 ha	1.14 km	Local park including pathway, fencing, playground and landscaping
Proposed Park 940	0.57 ha	0.95 km	Local park including playground and landscaping
Proposed Park 943	1.05 ha	1.4 km	Neighbourhood park including playground, pathway and landscaping
Proposed Park 949	1.38 ha	1.4 km	Neighbourhood park including playground, pathway, fencing and landscaping works
Proposed Park 1071	0.35 ha	1.15 km	Local Park including playground and landscaping
Second Ponds Creek Corridor Park	8.3 ha	0.15 km	Corridor park including playground, cycleway and landscaping
<b>Total</b>	<b>40.62 ha</b>		

### 5.2.3. Traffic, parking and access

#### *Summary of issues raised*

Request that additional analysis be provided in relation to the following:

- the non-residential car parking rate, considering the site's developing context and evidence of car parking demand at comparable centres.
- cumulative traffic impact from additional dwellings in the wider Area 20 Precinct and proposed dwellings above baseline scenario for the Tallawong Station Precinct and identify mitigation works if required.
- demonstration that 3 metre lane widths are adequate for larger vehicles e.g. buses, garbage and service vehicles.
- clarification regarding the calculation of increase of peak hour trips at Schofields Road/Cudgegong Road and Schofields Road/Tallawong Road intersections.

The Department also requested that a way-finding strategy be provided which identifies the capacity and safety of pedestrian and cycle links, including links to the east, west and south to The Ponds.

#### *Response*

A Traffic Impact Assessment was prepared for the Stage 1 SSD application by SCT Consulting (Appendix L of the EIS). In response to issues raised regarding traffic impact and car parking provision, SCT Consulting has undertaken further assessment. A copy of SCT's Technical Memorandum in response to issues raised, including a review of parking rates and an assessment of cumulative traffic impact, is provided at Appendix F.

#### **Non-residential car parking rate**

Based on a review of relevant guidelines such as the RMS Guide to Traffic Generating Developments as well as Council DCP rates, the Stage 1 SSD Application recommended the provision of 143 parking spaces for the non-residential component. This represents around a 60% reduction in non residential parking provision.

Transit oriented developments must aim to adopt car parking rates that provide a balance between meeting car parking demand whilst encouraging residents to adopt sustainable and active transport. New developments are encouraged to minimise car parking provision and demonstrate the inclusion of a supportive mix of land uses and transport alternatives or strategies to reduce trip generation and discourage private vehicle use.

The Tallawong Station Precinct South is an exemplar transit oriented development with direct access to the metro network and a proposed mix of land uses that serve local residents predominantly within a walking catchment. The precinct will support future residents and workers who choose to live and work in a transit oriented centre with low parking provision.

As a guiding principle, Sydney Metro and Landcom consider that reduced car parking provision for Tallawong Station Precinct South is fundamental to achieving:

- an exemplar transit oriented development (maximising the benefits of fast frequent metro connections with services every 4 minutes in the peak and 10 minutes in off-peak)
- a town centre where cars do not dominate
- activation and life on the street

- less congestion of precinct roads.

Providing high levels of car parking does not align with the key principles or transit oriented development.

The best approach to influence reduced car use is to restrain parking provision at its destination for non-residential uses (while offering attractive public transport alternative, in this case Sydney Metro and its connecting bus network). This is evident in parking provision, mode share targets as well as DCP parking rates of key centres with good public transport access such as Parramatta, Chatswood, Liverpool, North Sydney, Macquarie Park.

Reduced car parking rates for non-residential development at Tallawong South is appropriate because:

- the commercial and retail development proposed within the development will serve the local community, with a limited travel catchment. The retail is not designed to serve a wider car access market, that would access alternatives such as Rouse Hill Town Centre and The Ponds.
- non-residential uses are expected to be accessed via active transport, walking and cycling, instead of private cars. This is supported by research in Sydney that has found that residents in higher density developments close to rail stations with ready access to local supermarkets are highly likely to walk to do their shopping, reducing the demand for parking (Ellis and Parolin 2010).
- the tenancies will generally be small, with lower expected traffic generation rates, and parking demand.
- metro station users are expected to be a major customer market for the proposed retail at Tallawong. These commuters have been provided with 1000 commuter car parking spaces, kiss-and-ride spaces and bus access, which minimises the need for additional off-street parking.
- while the commuter car parking at Tallawong Station is proposed principally for week-day commuters who will park and ride from there, off peak use by people visiting the non-residential uses at Tallawong will also be possible.

In view of comments received regarding proposed parking provision in the Concept Proposal, SCT Consulting undertook a further review of residential and non-residential parking rates (refer SCT Technical Memorandum at Appendix F).

The SCT Technical Memorandum examined a number of additional guidelines on parking rate provision in addition to the RMS Guide to Traffic Generating Developments and the Blacktown DCP. The additional references provide guidance to parking rates for town centres that are close to existing or future train stations including:

- Draft Bella Vista and Kellyville Precinct DCP
- City of Ryde DCP – North Ryde Station Precinct
- City of Ryde DCP – Macquarie Park Corridor
- Liverpool Council DCP – Liverpool City Centre
- Parramatta Council – Special Precincts (Westmead)
- Green Square (City of Sydney DCP)
- North Sydney Council DCP.

The Epping Town Centre, Bella Vista and Kellyville Precinct and North Ryde Precinct DCP are considered to be the most relevant to the Tallawong Station Precinct South as they are all

located along the Sydney Metro Northwest corridor and, in the case of the Bella Vista/Kellyville and North Ryde Precincts, the size of the town centres are of a similar order. A full summary of the relevant parking rates for non-residential uses (office and retail) are included in Appendix A to the SCT Technical Memorandum (see Appendix F).

A comparison of the non-residential car parking rates in each of these precincts is provided in Table 5.

The centres suggested by the Department are not considered comparable for the following reasons:

- Rouse Hill Regional Centre was designed and established without mass transit. It has very high car use and therefore car parking demand given it does not currently have good and direct access to a train station. The regional scale and catchment of Rouse Hill Regional Centre is significantly larger than Tallawong Station Precinct South, hence was built with high parking provision.
- Edmondson Park Town Centre has very high parking provision despite its proximity to the station. Hence this does not achieve the principle of a TOD exemplar. Unlike the Tallawong Station Precinct South, heavy rail services to the Edmondson Park town centre are less frequent and there are fewer major employment and retail centres accessible within 30 minutes.

**Table 5 Comparison of non-residential parking provision in similar centres**

Land use	Indicative yield	Most relevant parking rates	Parking provision
Retail	6,000m <sup>2</sup>	Draft Bella Vista and Kellyville Precinct DCP. 1 space/50m <sup>2</sup> of retail GFA and 1 space/30m <sup>2</sup> of supermarket GFA	160
		Parramatta DCP – Epping Town Centre (2011): 1 space/60m <sup>2</sup> /GFA	100
		City of Ryde DCP – North Ryde Station Precinct: 1 space/100m <sup>2</sup> of retail GFA and 1 space/60m <sup>2</sup> of supermarket GFA	80
		<b>Average (1 space/70m<sup>2</sup> of retail GFA and space per 60m<sup>2</sup> of supermarket GFA)</b>	<b>93</b>
Office	3,000m <sup>2</sup>	Parramatta DCP – Epping Town Centre (2011): 1 space/70m <sup>2</sup> /GFA	43
		Draft Bella Vista and Kellyville Precinct DCP. 1 space/80m <sup>2</sup> GFA	38
		City of Ryde DCP – North Ryde Station Precinct: 1 space/90m <sup>2</sup> GFA	<b>34</b>
		<b>Average (~1 space/80m<sup>2</sup> GFA)</b>	<b>38</b>
<b>TOTAL (Average)</b>			<b>131</b>

Averaging the rates under these three precinct-specific DCPs would result in the provision of 131 spaces for the non-residential component of the proposed development. Given the provision of 131 spaces for the non-residential component is very similar to that originally

proposed in the Stage 1 SSD Application, it is considered that the proposed non residential parking rate should not change. The recommended non residential rate remains as follows:

- 1 space per 60m<sup>2</sup> of supermarket GFA
- 1 space per 60m<sup>2</sup> for retail GFA
- 1 space per 70m<sup>2</sup> for commercial/office GFA

On this basis, it is proposed that 143 car parking spaces would be provided for the non-residential component of the development.

### Cumulative traffic impact

As requested by the Department, the SCT Technical Memorandum includes an assessment of cumulative traffic impact (refer Appendix B of SCT Technical Memorandum at Appendix F for detailed analysis). To assess the cumulative impact, additional traffic modelling of broader developments in Area 20 was undertaken together with the proposed development.

The traffic modelling confirmed that the performance of surrounding major intersections would operate at a marginally lower level of service as a result of the additional approved 533 dwellings in the wider Area 20 Precinct together with the additional 1,100 units proposed by Landcom. The exception to this is the Terry Road/Schofields Road intersection which is estimated to perform at Level of Service E during the 2036 AM peak as a result of the additional approved 533 lots (excluding the 1,100 units in the Concept Proposal). To accommodate the additional vehicle movements arising from the extra 533 lots, the right turn bay of the northern approach at this intersection would need to be extended from 40 metres to 120 metres. The SIDRA modelling with the extended right turn bay confirmed that the intersection would be expected to operate with Level of Service D or better under all modelling scenarios. However, the modelling confirms that the extension to the right turn bay is not needed as a result of the subject development and would therefore need to be provided by others.

### Peak hour trips at Schofields Rd/Cudgegong Rd and Schofields Rd/Tallowong Rd intersections

The Department requested that clarification be provided on how the increase in peak hour trips at the Schofields Road/Cudgegong Road and Schofields Road/Tallowong Road intersections had been calculated.

In the original SSDA Traffic Impact Assessment, SCT Consulting determined a baseline dwelling yield (i.e. a certain number of apartments) based on the 2015 *Cudgegong Road Station (Area 20 Precinct) Finalisation Report* and the associated Arup traffic report. SCT Consulting considered the proportion of the subject site's zonings compared to the area of B2/B4 apartments and R3 zonings. Using this approach it was estimated that 650 apartments were within the site. With an estimated yield of 1,100 apartments the Concept Proposal is approximately 450 apartments more than the baseline dwelling yield.

Applying residential trip rates of 1.19 and 0.15 per dwelling in the AM and PM peak hours consistent with the Arup traffic report, the net increase in trip generation was distributed onto the adjacent network based on the Journey-to-Work data to the wider road network. The majority of the car park accesses are connected to the wider network via Conferta Avenue which forms left-in left-out intersections with both Tallowong Road and Cudgegong Road. Hence, the majority of traffic will be entering Tallowong Station Precinct South via Cudgegong Road and the majority of traffic leaving Tallowong Station Precinct South will be via Tallowong Road.

## Adequacy of 3 metre lane widths for larger vehicles

The Civil Design Report prepared by AECOM for the EIS (March 2018, Appendix J of the EIS) provided tracking details at key intersections using the design vehicles set out in Table 6.

**Table 6: Design vehicles**

Item	Standard	Adopted	Comment
<b>Horizontal Road Alignment</b>			
Vehicle design speed	BCC DCP	50 km/h	Based on operational speed of 50km/h
Turning paths	BCC/TfNSW AS 2890.2-2002	<u>Design Vehicle:</u> BC Refuse vehicle: <ul style="list-style-type: none"> <li>• Overall length = 11m</li> <li>• Width = 2.5m</li> <li>• Wall to wall turn radius = 10.5m</li> </ul> Medium Rigid Vehicle (MRV) <ul style="list-style-type: none"> <li>• Overall length = 8.8m</li> <li>• Overall width = 2.5m</li> <li>• Kerb to kerb turn radius = 10m</li> </ul>	Access to BCC Garbage Truck and single MRV to proposed roads required
	Austrroads	Emergency response vehicles and service vehicles	L = 19.0m

The vehicle tracking plans are contained within the Civil Engineering Drawings provided in Appendix Y to the EIS. The drawing numbers are as follows:

- Drawing 60558549-SHT-CI-0801
- Drawing 60558549-SHT-CI-0802
- Drawing 60558549-SHT-CI-0803
- Drawing 60558549-SHT-CI-0804

Subsequent to the exhibition of the EIS, additional tracking was undertaken at each of the building entrances for larger refuse vehicles and these are contained within the revised Waste Strategy Report provided at Appendix J of this Submissions Report. These tracking plans demonstrate that the proposed 3 metre lane widths are adequate for larger vehicles such as refuse and service vehicles.

## Wayfinding

To assist with transport and accessibility, Sydney Metro and Landcom are developing a program-wide approach to wayfinding under SSI – 5414 in partnership with stakeholders and future asset owners (including TfNSW, rail operator and councils). It will include temporary and permanent signage and alternatives for Sydney Metro Northwest Places and Interchanges, including precincts around stations and cycling/pedestrian/shared path connections to destinations.

The Sydney Metro Wayfinding Strategy will be completed in early 2019. A detailed wayfinding plan, consistent with the Sydney Metro Northwest Wayfinding Strategy, should be submitted with the first detailed development application for the site.

This strategy also addresses the issue of better connectivity to open space areas raised by DPE at Section 5.2.2.

## 5.2.4. Other matters

### *Summary of issues raised*

Evidence of consultation with relevant acquisition authorities is needed, together with any written undertaking from those authorities to vary land boundaries identified for acquisition. Confirmation is required that the any proposed variation will not affect the quality and quantity of open space required or land required for drainage and water management.

Further analysis is required regarding the potential noise impacts from road and rail noise to balconies fronting Schofields and Cudgegong Roads and fronting the rail corridor.

### *Response*

#### **Land acquisition**

As noted in the EIS, land identified for acquisition by Blacktown Council is shown on the Land Reservation Acquisition Map accompanying the planning controls for Area 20 provided in Appendix 6 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*. The Acquisition Map identifies an area of Local Open Space in the B4 zone for acquisition. However, the area nominated as Local Open Space does not correspond with the proposed park under the Concept Proposal which has been relocated northwards to better integrate with the station, provide a focal point for the community and enable superior solar access to be achieved. The park is permissible in either location.

The nominated area for open space on the Land Reservation Acquisition Map was intended to accommodate the open space requirement of 2500m<sup>2</sup>-3000m<sup>2</sup> stipulated in the DCP as evidenced by the Planning Report for Proposed Amendments to the Area 20 Precinct Plan (2014):

*Areas of proposed public open space north and south of the Cudgegong Road Station are identified for acquisition. These parks are not identified as RE1 Public Recreation on the Land Zoning Map. These proposed parks are also identified in the DCP, and will be included in Council's section 94 Contributions Plan. They are not zoned, to enable the final location and design of the parks to be determined as development plans for this land are prepared. The size and dimensions of the parks are set out in the DCP and Council retains the option to acquire the land as shown on the acquisition map should future development proposals not result in an adequate open space outcome (p14-15).*

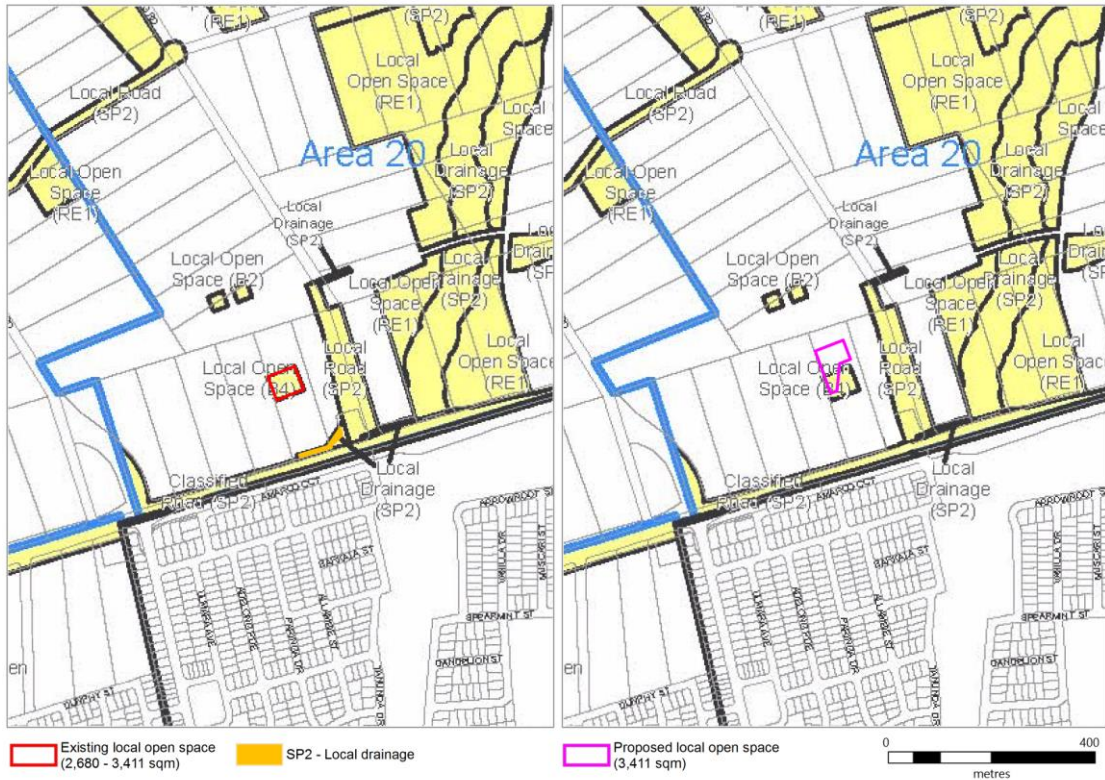
However it is understood from Council that the land identified on the Land Reservation Acquisition Map and within Council's Contribution Plans is 3,411m<sup>2</sup> in area.

As discussed elsewhere, the Concept Proposal has been revised to increase the area of the village park to an area of 3,411m<sup>2</sup>. As such, the quantity of open space in the revised scheme complies with the requirements of the Land Reservation Acquisition Map (although in a different configuration), and exceeds the 2,500m<sup>2</sup>-3,000m<sup>2</sup> requirement outlined in the DCP. Further, the open space has been designed in accordance with the requirements of the Blacktown DCP and the Contributions Plan and will be of high quality.

There is also a small area of SP2 Drainage land that is not required for drainage purposes and is suitable to be rezoned for residential purposes. The AECOM *Engineering Issues* report (see Appendix I) confirms that the revised stormwater strategy does not require of the SP2 Drainage zone.

An excerpt of the Land Reservation Acquisition Map and proposed modifications are provided in Figure 10.





**Figure 10:** Land Reservation Acquisition Map – Existing and Proposed Modifications

Landcom has undertaken extensive consultation with Blacktown City Council regarding the need to amend the acquisition plan to address boundary changes to the proposed village park and drainage zone. In emails to Council dated 25 July 2018 and 7 August 2018 Landcom requested that Council consider the proposed changes to the land use and acquisition authority maps as discussed in the EIS and provide confirmation that Council supports the proposed changes.

Council’s submission to the EIS exhibition notes that it supports the most expeditious means of amending the zoning and acquisition SEPP maps to reconcile the zone boundaries with approved land uses as part of the SSSA approval process. Council has indicated that any such changes should be made with its agreement.

Landcom is continuing to work closely with Council to determine the final boundaries of land for acquisition. It is considered that this is not a matter that requires resolution before the SSSA is determined given that the open space area corresponds with that provided for under the existing planning framework and the matter does not impact on the permissibility of land use.

Additionally, given that all relevant land is currently owned by either Sydney Metro or RMS, the owner-initiated acquisition provisions of the *Land Acquisition (Just Terms Compensation) Act 1991* will not apply. As a result the identification of the land on the Land Reservation Acquisition Map is not relevant.

### Noise impacts

The Department requested that further analysis is required regarding the potential noise impacts from road and rail noise to balconies fronting Schofields and Cudgegong Roads and fronting the rail corridor.

In response, Acoustic Logic has provided further detail on the assessment of noise impacts associated with road and rail in the vicinity of proposed apartments. A copy of the Acoustic Logic report is provided at Appendix H.

Table 7 provides an assessment of road traffic noise impacts on the Concept Proposal against relevant criteria for the worst-case facades.

**Table 7: Traffic Noise Reduction**

Facade <sup>1</sup>	Room	Predicted Traffic Noise Level, dB(A)		Traffic Noise Criteria, dB(A) <sup>2</sup>		Required Noise Reduction, dB(A)	
		Day, Leq 15hour	Night, Leq 9hour	Day, Leq 15hour	Night, Leq 9hour	Day, Leq 15hour	Night, Leq 9hour
West	Bedroom	65	61	40	35	25	26
	Living	65	61	43	40	22	21
South	Bedroom	70	65	40	35	30	30
	Living	70	65	43	40	27	25
East	Bedroom	67	63	40	35	27	28
	Living	67	63	43	40	24	23
North	Bedroom	63	57	40	35	23	22
	Living	63	57	43	40	20	17

Note<sup>1</sup> Worst case noise level in the designated façade direction.

Note<sup>2</sup> 3dB(A) has been allowed for the contribution from mechanical noise.

Acoustic Logic advises that acoustic treatment is required for the worst-case facades (i.e those fronting Schofields Road and in close proximity to Cudgegong Road). To ensure that the noise criteria in Table 7 are achieved, mitigation measures are recommended as follows:

- External boundary walls of concrete or masonry construction.
- Glazing
  - Light weight single glazing, 4-5mm glazing
  - Medium weight single glazing, 6mm-8mm glazing
  - Heavy weight single glazing, 10-12mm glazing.

In order to comply with the internal noise criteria, all windows and doors may need to be closed where acoustic glazing is recommended. This will mean that natural ventilation may not be possible for buildings fronting Cudgegong Road and in close proximity to Schofields Road. In this event, mechanical ventilation may be required to ensure adequate ventilation of apartments with windows closed.

This is not inconsistent with the ADG which notes that:

- Achieving the design criteria may not be possible due to noise and pollution (4J-1)
- Alternatives may be considered in terms of natural ventilation (4J-2)
- Design solutions to mitigate noise include acoustic glazing (4J-2)

There are a range of suitable solutions that are available to address noise impacts for apartments in noise affected areas. These will be explored as part of the detailed design phase and appropriately addressed in the detailed development application(s) as relevant.

## 5.3. Blacktown City Council

### 5.3.1. Planning and design

#### *Summary of issues raised*

Blacktown City Council indicated that there should be no residential units above the 26 metre height limit with the exception normally given to lift overruns, parapets and lightweight roof structures associated with rooftop communal open space. Lift overruns and shade structures should be integrated into a singular cohesive element. Departures should only be allowed where appropriately offset elsewhere on the site. Council is unable to determine whether appropriate offsets have been provided.

Other planning and design issues raised by Council were as follows:

- the building running north-south on site 2C is excessively long and needs to be broken in two, having regard to the principles in the ADG.
- a single basement entry to each lot is required.
- the ground floor residential interface can be up to 1 metre above the footpath level, not 450 mm as noted on the detailed urban plan and section A.
- in principle, the site layout and massing is acceptable, subject to full compliance ADG, including increased building separation for the 5th level of the relevant apartment buildings and above.
- waste collection arrangements must be contained within sites. All trucks must enter and leave in a forward direction. Basement collection is the preferred configuration for all sites. The proposal indicates ground floor collection for site 1B which is unsightly and undesirable.
- subterranean apartments are not supported due to perceived poor amenity, safety and security, unsatisfactory interface with the public domain and drainage issues. Finished floor levels of the ground floor apartments should be raised to up to 1 metre for improved privacy and surveillance of the public domain.
- timber finishes are not supported and more durable finishes should be provided.
- Building-specific acoustic reports must be submitted for each building demonstrating compliance with Clause 102 of the Infrastructure SEPP.

#### *Response*

#### **Building height**

As noted in Section 5.2.1, the maximum building heights are justified due to the following factors:

- the slope of the site
- the desire to accommodate retail/commercial floorspace which will require higher floor to floor ceiling heights

- the need to comply with design criteria and design guidance within the ADG, for non-residential uses and to promote future flexibility of use and conversion to non-residential uses
- the provision of lift overruns to access rooftop gardens which are intended to provide enhanced amenity for residents and a diversity of recreational opportunity
- the height of development approved in the vicinity of the site.

None of the buildings within the Concept Proposal exceeds eight storeys. Building heights are offset, with the Concept Proposal providing buildings of two, three, four, seven and eight storeys.

The need to create level building platforms and the steep topography of the land has meant that parts of buildings exceed the 26 metre height limit. This is partly offset throughout the development, with Buildings 1B.2, 2A.2 and 2A.3 substantially below the maximum building height. Even at their highest point, Buildings 2A.2 and 2A.3 are still 30 percent below the maximum building height and Building 1B.2 is 20 percent below the maximum height.

In addition, while the lift overruns also result in non-compliance with the height limit, this is considered appropriate as:

- they are necessary to provide access to the rooftop open space
- they are contained within the central areas of the roof levels
- they are not visible from the street
- they will not result in additional overshadowing to adjoining properties as shadows will be fully contained within the roof area.

It is noted that a number of similar developments have been approved elsewhere in the release area, in close proximity to the site, which do not comply with the maximum height limit and exceed the intended eight storey height. These include:

- 44 and 56 Cudgegong Road, Rouse Hill (DA No SPP-17-00010)

Development Application (DA) for 16 x 2 storey townhouses, 7 x 3 storey townhouses, 6 x 8 storey residential flat buildings and 2 x 10 storey residential flat buildings, comprising a total of 711 dwellings, 1,057 car parking spaces and associated landscaping, road construction and stormwater drainage works.

The application was approved for 8 residential flat buildings and 2 townhouse complexes ranging in height from 8 metres to 33 metres. The DA approval allowed for the building height to be varied by up to 27.3% above the maximum height limit.

- 60 Cudgegong Road and 99-107 Rouse Road, Rouse Hill (DA-15-1543)

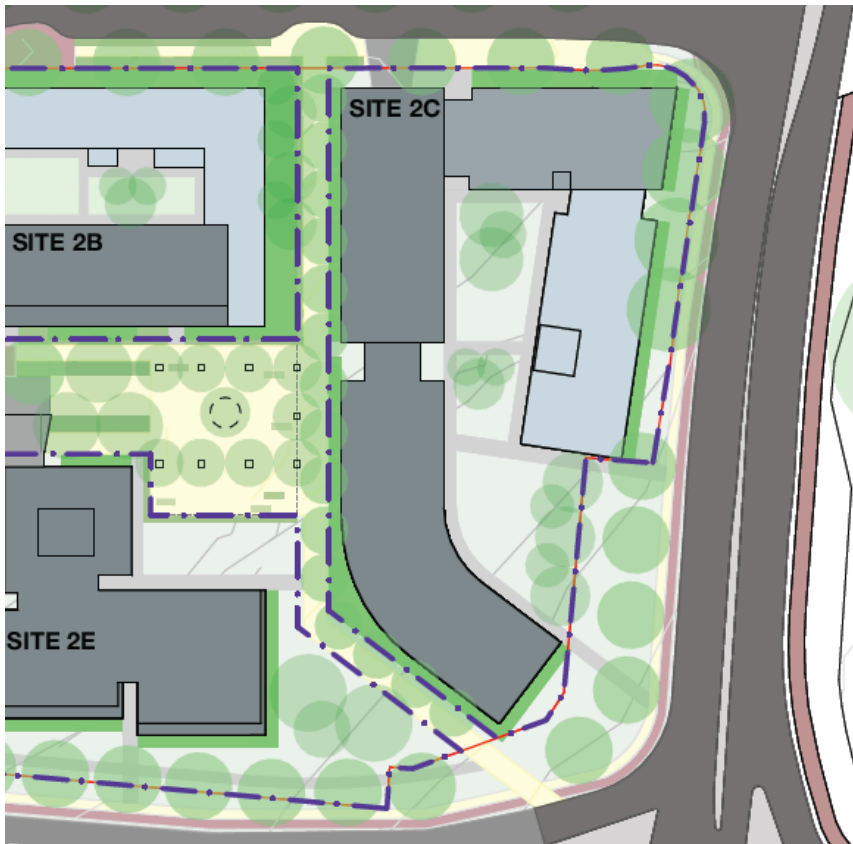
Staged DA for nine building envelopes ranging from 2-8 storeys, community park, total 732 dwellings. Approved by Land and Environment Court on 15.7.16. Modification for increase in building envelopes from 2-8 to 2-9 storeys approved by Council in March 2018. This site had a five storey height limit.

Council considered that the approval of buildings above the maximum height control was warranted because buildings elsewhere on the site were proposed to be constructed below the maximum height control. That is, the better planning outcome for the site involved a variety of buildings at different heights, some above and some below the maximum height control, rather than all buildings on the site being constructed to the five storey height limit.

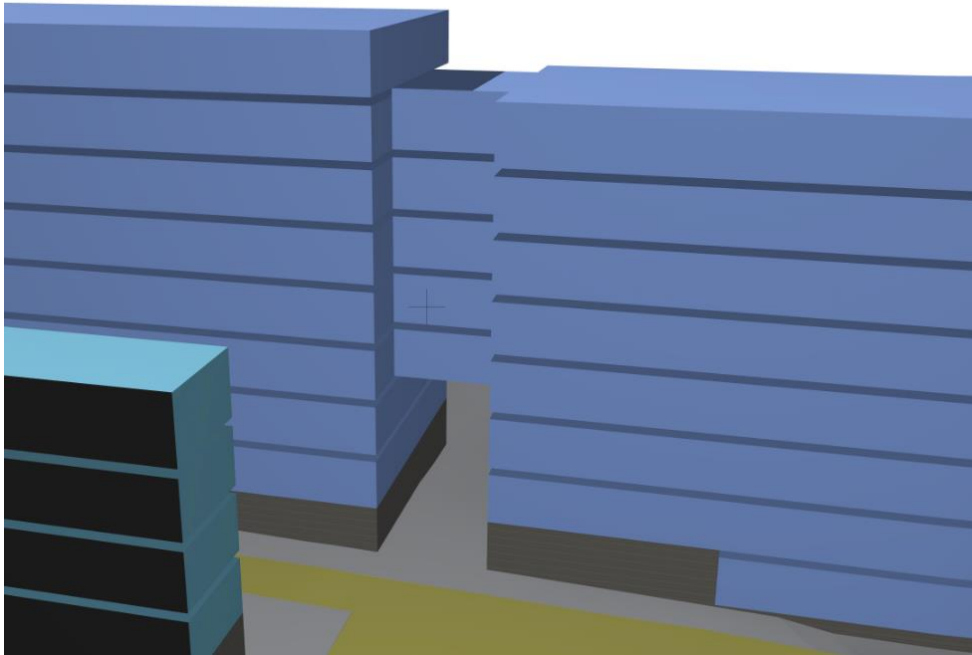
Council supports the approach to provide a variety of buildings at different heights. The proposal is consistent with the approach, without exceeding the intended eight storey height. A range of heights are proposed, including two, three, four, seven and eight storey building forms. The proposed heights are compatible with the scale and character of the surrounding development.

### Building on Site 2C

To address Council's concern regarding the length of the building on Site 2C, the building has been articulated to provide a sense of separation. This has been achieved by removing approximately 400m<sup>2</sup> of GFA from the centre of the building. This is shown in Figure 11. This change will not only reduce the perception of building bulk and scale but will also allow for improved pedestrian connection between buildings, as shown in Figure 12.



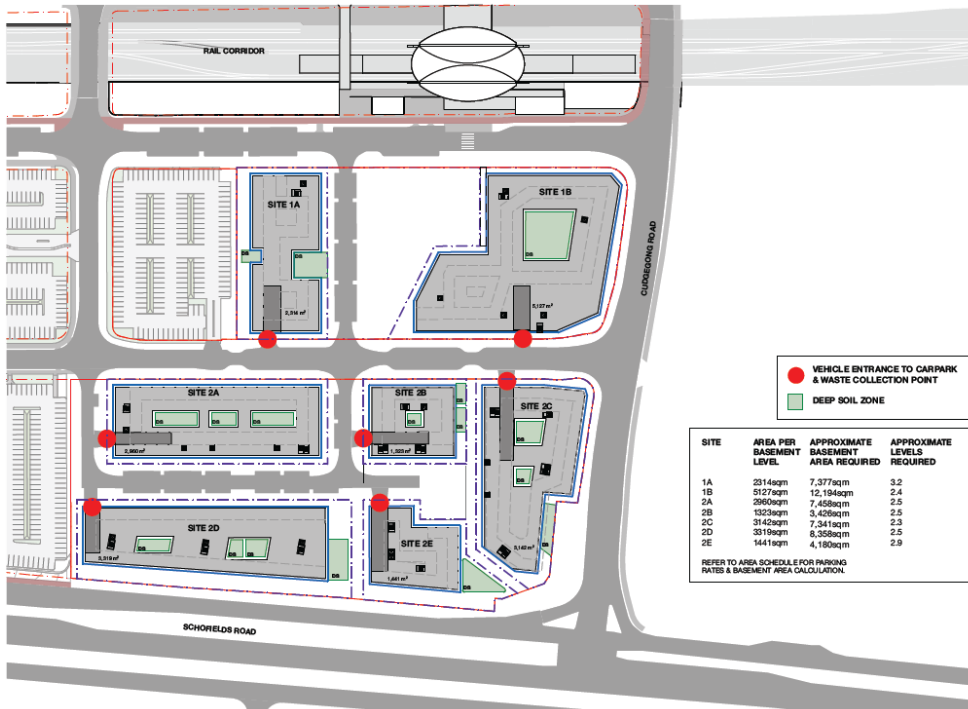
**Figure 11:** Proposed articulation of Building 2C.1



**Figure 12:** Concept showing proposed articulation of Building 2C.1 allowing for pedestrian connection between buildings

### Single basement entries

The Concept Proposal has been amended to ensure all lots are able to accommodate basement entries. This is shown in Figure 13.



**Figure 13:** Vehicle entrance points to building basements (shown by red dots)

## Ground floor apartments

Council advised that it does not support subterranean apartments. No subterranean apartments are proposed in the Concept Proposal therefore this comment is not relevant. The building envelopes have been designed to avoid the need for below ground dwellings and, given the slope of the land, this is in part why the building envelopes have exceeded the height limit.

## Site layout

It is noted that Council considers the site layout and massing is acceptable, subject to full compliance with the ADG. The development has been designed to comply with the ADG, noting that full compliance can only be determined at the detailed development application stage.

With respect to building separation, further detail is provided at Appendix C (Urban Design Report) clarifying building separation. The drawing shows that the building separation complies with the ADG and is therefore considered acceptable.

## Waste collection

The Waste Strategy submitted with the Stage 1 SSD Application (Appendix CC of EIS) has been revised to address comments received in submissions, including those received from Council. The updated Waste Strategy is provided at Appendix J.

In general, provision has been made for basement waste collection and for all trucks to enter and leave sites in a forward direction. However, the location, size and access requirements of waste collection zones will be determined at the detailed development application stage.

## Materials and finishes

While materials and finishes are a matter for the detailed development application stage, the Design Quality Guidelines have been revised to remove reference to timber. As a general principle, all materials and finishes will be durable in accordance with Council's requirements.

## Acoustic assessment

Further assessment regarding acoustic impacts and requirements for buildings in close proximity to road and rail is provided in Section 5.2.3. More detailed noise and vibration assessments will be provided with detailed development applications as relevant.

### 5.3.2. Open space, public domain and landscape

#### *Summary of issues raised*

Council considers that there is insufficient information regarding the increased population as a result of the proposed development. The applicant must provide additional open space commensurate with the expected increase in population or a monetary contribution to address the provision of additional open space off-site. Further discussions with Council need to occur on this through a VPA process. The standard open space provision of 2.83 hectares of usable open space per 1,000 persons must be applied to this proposal. Council strongly objects to the proposal on this basis.

Further information is required regarding:

- details of expected increased population.
- the total allocation of public open space within this development.
- any alternatives to address insufficient public open space in this development.

All local road footpaths are to be a minimum of 1.6 metres and this is to include the adjacent SP2 and RE1 area which must be a minimum 3.5 metres wide. There is no justification for any reduction in the footpath widths.

All private courtyards, rooftop gardens, retail courtyards, cul de sac plaza, precinct entry space, paths, pedestrian and cycleway links are not to be included as public open space (RE1) area.

The submitted landscape plans are not satisfactory and changes are required to species, planting details and alterations to shared paths. It is recommended that:

- a streetscape landscape plan is submitted for review and approval prior to development approval.
- that the revised plan has modifications to the width of the shared path as shown in sections "E", "G" & "H" in the civil plans, to allow for additional landscaped area along the paths for tree planting. A reduction of path width from 3.5 m to 2.5 or 3.0 m would allow more room for larger canopy trees to be installed that would provide better shade for path users.
- that the revised plan should indicate the species for each street as nominated on the attached species mark-up.
- that the revised plan should also indicate tree and street tree planting details showing root directors to be installed for all street trees and trees within 3 m of any infrastructure. The plan should also show planting and maintenance specifications that meet Council specifications.
- a revised landscape plan for the proposed open space areas adjacent to Themeda Avenue be submitted for review and approval Council
- that all street trees and trees on land to be dedicated to Council have bonds and fees applied as per Council's Goods and Services Pricing Schedule.

## *Response*

### **Rationale for open space provision**

A Social Needs and Impact Assessment was prepared for the Concept Proposal (Appendix K of the EIS). The report estimated that the Tallawong Station Precinct South has the potential to accommodate between 2,750 and 2,970 people at completion. It found that the proposed village park would provide public open space within a 200 metres radius of all residents and would be sufficient to meet residents' needs. Park embellishments could include play equipment and play themes, which would meet Council's requirements for play opportunities within 500 metres walking distance of all residents. Further, the proposed roads and pedestrian and cycle network would provide the connectivity between the development to nearby open spaces of the Second Ponds Creek corridor park and Cudgegong Reserve.

The Social Needs and Impact Assessment indicated that a park of around 3,000m<sup>2</sup> would be adequate for up to 5,000 residents in an urban infill context. While the proposed village park is within a greenfield area, the development will support higher density living. The park will provide public open space within 200 metres radius of all residents, which meets the 400 – 500 metre distance required under Council's draft Recreation and Open Space Strategy. The village park would also have at least two street frontages, which meets the requirement of the draft Strategy.

The GANSW has recently released a draft discussion paper titled "Open Space for Recreation Guide" (July 2018). It notes that planning that relies on a spatial standard such as 2.8 hectares



/1000 people is not effective without high levels of quality control and often works against opportunities for multiple use and innovative solutions. The Guide:

*...encourages planners to look beyond “blunt” tools such as spatial standards or percentages of land area, and encourages consideration of the range of recreation opportunities required and what strategies are available to achieve them. The aim of the new approach is to allow more innovation in planning, more efficient use of land for recreation, and a focus on the quality of the outcome rather than just the quantity*

The GANSW Open Space for Recreation Guide provides guidance on standards for the provision of open space. This indicates that open space in should be 0.1 to 0.5 hectare in high density locations and located within 200 metres of homes. The previous park size of 2,900m<sup>2</sup> and the revised concept size of 3,411m<sup>2</sup> both comply with these guidelines and exceed the DCP requirement for 2500-3000m<sup>2</sup> park within the precinct.

As noted in Section 5.2.1, the Concept Proposal has been amended to increase the area of the village park from 2,900m<sup>2</sup> to 3,411m<sup>2</sup>. This has been achieved by reducing the building footprint and GFA of Building 2B.1. It is also proposed to provide an additional area to the east of the park along the edge of Building 1B.2 for outdoor dining.

In addition to the open space provision on site, it is noted that monetary contributions will be payable towards the provision of open space in the Cudgegong Road Station Precinct (Area 20) in accordance with Rouse Hill Contribution Plans 22L and 22W. It is expected that the open space land and works on the site will form part of a “works in kind agreement”, with works and land value offsetting total contributions payable.

### **Compliance with footpath widths**

AECOM has provided a detailed response to issues raised by Council with respect to road design and widths (refer Engineering Report at Appendix I). It indicates that all road verge widths are a minimum 3.5 metres (when including footpaths) and local road footpaths are a minimum of 1.6 metres wide.

### **Landscape plans**

Specific issues raised in relation to the landscape plans have been responded to by Clouston in the *Public Domain and Landscape Strategy – Response to Submissions Supplement* provided at Appendix G. This includes the provision of a Streetscape Landscape Plan. With respect to street trees on Themeda Avenue, these are being provided by Sydney Metro as part of the road construction.

It should be noted that detailed landscape plans and street tree planting will be further addressed as part of the detailed development applications.

### **5.3.3. Compliance with planning controls**

#### *Summary of issues raised*

Council does not support use of clause 5.3 of Blacktown LEP 2015 to enable land zoned for infrastructure purposes to be used for residential purposes. Use of SP2 zoned land for residential purposes should be dealt with through a Planning Proposal however it is acceptable for this to be required as a condition of consent for a DA which approved a use under clause 5.3.

The proposed open space is not located on the area nominated on the Land Reservation Acquisition Map under LEP 2015. This will necessitate a Planning Proposal to amend the map however in the first instance Council will support the most expeditious means of amending

zoning and acquisition maps via the SSDA approval process subject to this being followed by a Council agreed Planning Proposal to implement the changes.

The Concept Proposal should comply with the Growth Centre Precincts DCP including road design and widths.

### *Response*

#### **Zoning and Land Reservation**

The rationale and justification for reducing the area of land allocated for drainage purposes zoned SP2 was discussed in detail in the EIS. This remains relevant with the revised stormwater strategy. It is considered reasonable that approval for residential development of this land be granted as allowed for under clause 5.3, subject to progressing changes to the Land Use Zoning map consistent with the proposed use.

The issue of the need to amend the Land Reservation Acquisition Map has been discussed in Section 5.2.3.

#### **Road Design and widths**

The Concept Proposal complies with the road reserve widths under the Growth Centre Precincts DCP in all cases. In respect to road design the exception to compliance with the DCP is the north-south road adjacent to the park. This road incorporates the dedicated cycle path and makes provision for indented parking interspersed with street trees adjacent to the park within the 18 metre road reserve.

It is considered that non-compliance with the Growth Centre Precincts DCP for this one road is reasonable to provide for improved pedestrian and cycle connections and amenity adjacent to the park. This is addressed further in AECOM's report at Appendix I.

#### **5.3.4. Drainage engineering**

##### *Summary of issues raised*

More detail is required in relation to various drainage engineering elements of the project and in some instances the proposed solutions are not acceptable or are incorrect.

##### *Response*

A detailed response to the drainage engineering issues raised by Council has been provided by AECOM in its report at Appendix I. AECOM has undertaken further consultation with Council on the issues raised and has developed a revised drainage strategy. This strategy involves the deletion of the proposed new gross pollutant trap (GPT) and instead uses the existing GPT installed as part of the Northwest Rapid Transit (NRT) works. The intention is also to re-use and expand the current NRT bio-filtration detail. The revised strategy will avoid the need to construct new basin outlets to Second Ponds Creek as the current NRT outlets can be utilised.

The revised drainage strategy is shown in Figure 9 of the AECOM Engineering Report at Appendix I.

AECOM also reports that the SEI calculations have been updated using the probabilistic rational method rather than using a hydrologic model and will be provided to Council along with the MUSIC and DRAINS models which reflect the revised park design.

It is also noted that the revised strategy does not require the retention of SP2 local drainage zone adjacent to Schofields Road.

### 5.3.5. Access and traffic management

#### Summary of issues raised

Trip generation rates are considered reasonable due to the proximity of the site to the new metro train station service.

The amount of parking proposed is not adequate. Use of RMS and Parramatta car parking rates to determine parking provision is not supported. The amount of parking proposed is not adequate. Car parking rates used by other councils to determine parking provision is not supported and RMS Subregional centre parking rates should be applied. A total of 1,627 parking spaces are required rather than 1,100 as mentioned in the Traffic Impact Assessment.

All access driveways, ramps, circulation aisles, parking arrangements and sight lines are to be determined in accordance with the relevant Australian Standard.

No objection is made to the proposal provided the proposal is amended to cater for our required on-site parking of 1,627 parking spaces and these are provided within the site.

#### Response

##### Parking provision rationale

Sydney Metro Northwest will be a transformative project, and along with other transport improvements, is expected to achieve a significant shift in the way residents, workers and visitors travel to, from and within the precinct. Higher density development is being focussed around the station so that new residents will be within walking distance of the station and adjoining shops, businesses and open space areas.

There is significant growth in public transport patronage, with a 12% increase in all forms of public transport patronage during 2015-16, and patronage growth of more than 20% in the past two years. The metro service is expected to continue the increase in public transport patronage, especially for people living in close proximity to stations.

Journey to work data collected by the NSW Transport Performance and Analytics unit demonstrates higher use of public transport, walking and cycling to get to work when people live in centres around rail stations. This is reflected in Table 8 which shows as an example that people in Rouse Hill currently rely much more heavily on cars for their journey to work than people living in centres around railway stations such as Rhodes and Waitara.

**Table 8 Journey to Work Modes**

Centre (point of origin)	Public transport	Car (driver or passenger)	Other/not stated
Rouse Hill	11.9%	73.4%	14.7%
Hornsby	38.7%	44.2%	17.1%
Artarmon	47.7%	33.6%	18.7%
Rhodes	46.3%	38.8%	14.9%
Waitara	47.9%	35.2%	16.9%
St Leonards	51.4%	24.5%	24.1%

(Source: 2016 Census)

TfNSW is anticipating a modal shift in the centres around the new Metro stations as rail travel becomes an option for the first time in this part of Sydney, which has some of the highest car ownership levels per household in Australia. This approach to transit oriented development

seeks to improve the productivity and efficiency of the city by providing more people with alternative transport options.

One of the benefits of living near rail stations, especially those that also have mixed use town centres, is that residents are not as reliant on cars to get to work, do the shopping, drop children at child care, visit a park, or go out for coffee or dinner. It also makes not owning a car a viable and attractive option. Owning fewer cars per household, or even foregoing a car altogether, can save households many thousands of dollars per year.

Evidence from other transit oriented centres around rail stations shows that car ownership falls as owning a car, or more than one car is not necessary or desirable. Table 9 provides examples of car ownership in centres around stations, compared to the suburb of Rouse Hill.

**Table 9 Households with one or no vehicle**

Centre	1 vehicle	No vehicles	Total
Rouse Hill	23%	2%	25%
Hornsby	51%	16%	67%
Artarmon	55%	15%	70%
Rhodes	58%	15%	73%
Waitara	60%	19%	79%
St Leonards	54%	30%	84%

(Source: 2011 Census)

Car ownership is likely to fall further, with recent data from Roads and Maritime Services indicating that more than 25% of people aged 20-34 do not have a driver's license, also supporting a reduction in parking demand.

It is intended that Tallawong Station Precinct South will be an exemplar transit oriented development. Residents and workers are located within 300 metres of the Metro Station, and will have direct access to the metro network and a mixed land use centre that will provide services within a walkable catchment. In this context, providing high levels of private parking is not appropriate and is contrary to TOD principles.

### Parking review for Tallawong

As a result of issues raised in submissions relating to on site parking, SCT Consulting undertook a further review of relevant parking rates for residential and non-residential development. The review of parking rates is included in the SCT Technical Memorandum provided at Appendix F. The findings of the review in relation to non-residential parking rates are discussed in Section 5.2.3.

In addition to the RMS Guide to Traffic Generating Developments and the Blacktown Growth Centres DCP, the review examined a number of other parking rate guidelines for town centres that are close to existing or future train stations.

The review found that the Macquarie Park Corridor and North Ryde Station DCP car parking rates, which are the same as the RMS Subregional Centre rates (with the exception of visitor parking), should be adopted in relation to the number of parking spaces that are allocated per dwelling. This would result in a total of 1,144 car parking spaces being provided based on an average of 1.04 spaces per unit.

The review also recommended that the visitor parking rate in the Macquarie Park Corridor and North Ryde DCPs be adopted. This rate is lower than the RMS Subregional Centre visitor parking rate but is considered appropriate given that the Concept Proposal has excellent

access to public transport and the opportunity for visitor parking will also be provided by proposed on-street short-term car parking spaces.

As a result of the review to the residential parking provision, the Concept Proposal has been amended to provide a total of 1,287 car parking spaces, an additional 187 spaces when compared to the original SSDA Concept.

With the cost of constructing underground parking spaces estimated at \$50,000-60,000 per space the reduced car parking provision also benefits housing affordability, with lower car parking provision expected to be reflected in lower prices for apartments.

### 5.3.6. Waste management

#### *Summary of issues raised*

Further detail is required relating to waste management and waste generation rates for both residential and commercial uses.

#### *Response*

As noted in Section 5.3.1, the Waste Strategy submitted with the Stage 1 SSD Application (Appendix CC of EIS) has been revised to address comments received in submissions, including those received from Council. The updated Waste Strategy is provided at Appendix J.

As this application is a Stage 1 Concept Proposal, it is not possible or appropriate to provide detailed information relating to waste management and waste generation rates. Instead, this information will be provided at the detailed development application stage when specific waste generation rates and waste management measures can be determined.

### 5.3.7. Contamination

#### *Summary of issues raised*

A Stage 2 Contamination Report is required together with a Remediation Action Plan to demonstrate that the site can be made suitable for residential development.

#### *Response*

JSB&G has been commissioned to prepare a detailed site investigation (DSI) and this is currently underway. The DSI is being prepared in accordance with guidelines made or approved by the EPA and relevant Australian Standards. The findings of the Stage 2 DSI will inform the detailed development application(s). Initial findings indicate as follows:

- Site 1 (area of site north of Conferta Avenue) – Soil samples and analysis indicate no exceedances of the human health, ecological or management-based site assessment criteria. On this basis, Site 1 is considered suitable, from a contaminated land viewpoint for the proposed land uses.
- Site 2 (area of site south of Conferta Avenue) – Soil samples and analysis indicate no exceedances of the ecological or management-based site assessment criteria. Asbestos containing material (ACM) fragments were identified in surficial soils on the raised landform of Site 2. On this basis, potential risks to future site users under the proposed land uses have been identified on Site 2 which will require management for the site to be considered suitable for the proposed land uses.

Any recommendations of the Stage 2 DSI, including the preparation a RAP if required, will be implemented as required. A DSI will be provided with any detailed development application for the site. More information is provided at Section 5.5.4.

### 5.3.8. Other matters

#### *Summary of issues raised*

Other issues raised in Council's submission include the following:

- Proposal assumes roads and superlots but no subdivision details have been provided. A subdivision plan is required.
- The Quakers Hill Local Area Command (NSW Police) should be consulted to ensure proposal meets CPTED (Crime Prevention Through Environmental Design) principles

#### *Response*

##### **Subdivision**

Detailed information regarding the development staging is provided in Section 6.16 and Appendix N of the EIS.

Consistent with Appendix N of the EIS, as part of its staging strategy, Transport for NSW is intending to prepare a plan of subdivision to allow dedication of the roads to Council and create lots for the commuter car parks, Metro corridor and station box. This will also create residual lots, expected to be in the order of 16,300m<sup>2</sup> and 26,960m<sup>2</sup>, for future sale for the development the subject of this application.

While subdivision of the site is planned in due course parts of the site will be needed for interim activation associated with commencement of Metro services at Tallawong Station.

The interim activation area of around 300m<sup>2</sup> will be constructed under Minor Works Planning Approval: under Minor works - Consistency Assessment, State Significant Infrastructure (SSI - 5414) approval under Part 5.1 of the EP&A Act (10 July 2018). A plan showing the interim activation area is provided at Figure 14.

The purpose of this area is to provide public space to allow for programming, installations, retail, food and beverage opportunities while the precinct is under development.

This activation will be in effect at day one of metro opening (mid-2019) and has been programmed to remain activated up to year five of rail opening (2023+) subject to relocation within the precinct.

Access to the development sites will be restricted by hoardings and chain link fencing throughout construction, with safe and efficient pedestrian access to the station and the interim activation areas provided by the newly constructed shared paths on Tallawong Road, Cudgegong Road and Themeda Avenue.

##### **Consultation with NSW Police**

The EIS included an assessment of the Concept Proposal in relation to CPTED principles and included a CPTED report (Appendix P of the EIS). NSW Police was also consulted during the EIS exhibition. Further consideration will be given to CPTED principles during the detailed development application stage in consultation with NSW Police.

# Tallawong Precinct Activation

The map below shows interim activation across the Tallawong Precinct, indicating the locations of each activity or initiative.

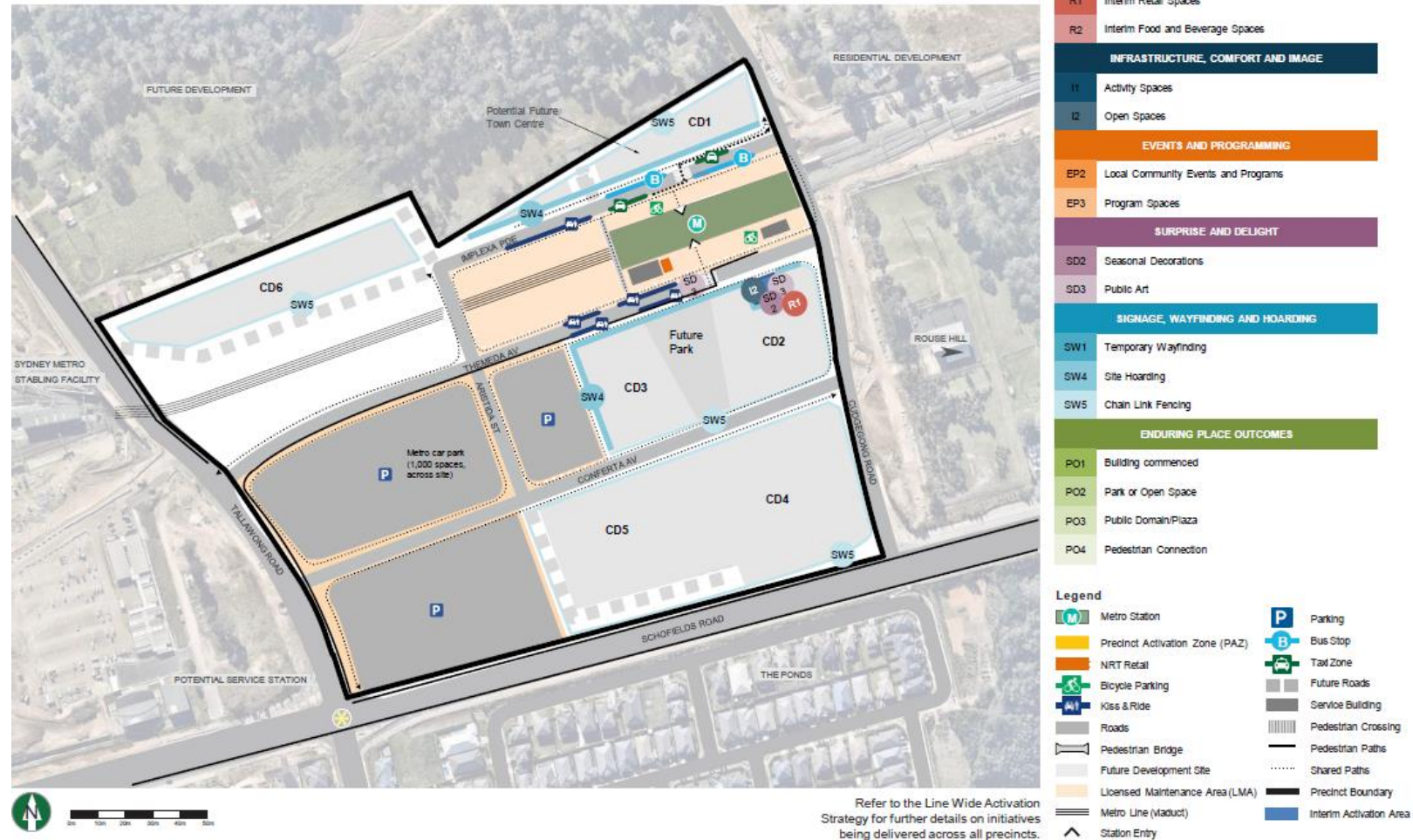


Figure 14: Tallawong Precinct Priority Activation Areas from day one of metro opening

## 5.4. NSW Government Architect

### 5.4.1. Overshadowing

#### *Summary of issues raised*

The Government Architect advised that the streetscape, public spaces and habitable spaces of dwellings should not be compromised through overshadowing as a result of the built form. It was noted that the large open space has good solar access with minimal overshadowing. However, the Government Architect raised concern about the extent of overshadowing of the retail courtyard, cul-de-sac plaza and key residential streets.

#### *Response*

As discussed in Section 5.2.1 and in the Clause 4.6 Variation Request at Appendix B, changes have been made to the building layout to allow for improved solar access to the village park and the retail plaza.

The overall result will be a significantly improved public domain experience. The changes will allow for good solar access in those areas of the public domain that will be the focus of community activity and pedestrian movement.

No changes are proposed to the cul-de-sac plaza which is a secondary space and not part of the central public domain network.

### 5.4.2. Green infrastructure

#### *Summary of issues raised*

The landscape proposal and green infrastructure in the Public Domain and Landscape Strategy are supported, however the opportunity to link green infrastructure more broadly, for example, with other ecosystems such as the water sensitive urban design strategy, has not been fully realised. This concern is also linked to issues discussed in Section 6.2.1 regarding the amenity of the network of public spaces within the development.

#### *Response*

The Water Sensitive Urban Design (WSUD) strategy has been developed in coordination with Blacktown City Council and is consistent with the existing WSUD strategy of a regional biofiltration basin for the area. It is also intended that the stormwater and runoff will be used as passive irrigation for landscape items as detailed in AECOM's Response to Submissions: Engineering Items at Appendix I. Further detail will be provided at detailed development application stage.

### 5.4.3. Design excellence

#### *Summary of issues raised*

While the design excellence report in the EIS adequately addresses the design excellence process to date, it does not adequately address the requirement to provide a design excellence strategy for the future. The design excellence strategy should:

- detail the Terms of Reference for the proposed internal Landcom design review panel to ensure the effectiveness of its independence and authority
- describe how Landcom will ensure a diversity of architectural response through its EOI and ITT processes



- articulate how design quality will be balanced with other considerations during the EOI and ITT processes.
- consider requiring a design competition that would take place post tender and in accordance with the Government Architects Design Excellence Competition Guidelines
- ensure that the panel role continue beyond development approval to ensure design quality extends into final construction quality
- require that any modifications to the Concept SSDA be reviewed by the State Design Review Panel
- describe what design excellence processes are expected to be addressed through the Blacktown Council development assessment process for subsequent stages
- describe how the Design Quality Guidelines are to be used and implemented at each stage.

### *Response*

As noted in Section 5.2.1, Landcom has been developing a Design Excellence Strategy in consultation with GANSW and Sydney Metro which will inform the Design Excellence framework for all Sydney Metro Northwest Projects. Details of the strategy have not yet been finalised.

Landcom is continuing to work closely with GANSW and Sydney Metro, and it is proposed that the final Tallawong Design Excellence strategy will be submitted to the Department prior to the Tender Evaluation stage.

## **5.5. NSW Environment Protection Authority**

### **5.5.1. Air quality**

#### *Summary of issues raised*

Air emission exposure from vehicles using Schofields Road has not been adequately addressed. Design approaches to reduce air quality impacts to residential buildings should be considered, including:

- using architectural and design approaches that provide separation from major roads and ensuring habitable rooms of future developments are oriented away from busy roads
- where development includes mechanical ventilation (such as air conditioning), ensuring that air intakes for the ventilation are situated away from pollution sources.

In relation to carbon emissions and sustainability, the Greater Sydney Regional Plan and Western City District Plan targets should be adopted. Given the size of the Concept Proposal, the opportunity to develop a low carbon precinct should be explored.

### *Response*

A report has been prepared by AECOM responding to engineering issues raised in submissions. A copy of the report is provided at Appendix I.

In relation to air emission exposure from vehicles using Schofields Road, AECOM notes that although the 2035 modelled traffic flows approach the guideline threshold of 2,500 vehicles per hour, improvements in the composition of the urban vehicle fleet expected through uptake

of hybrid and electric vehicles will result in reduced vehicular air emissions compared with the current vehicle fleet, thus negating the need to apply the guideline setback.

The Design Quality Guidelines (revised and provided at Appendix D) have been updated to include mitigation measures as outlined within the Parramatta Road Corridor Urban Transformation Strategy.

It is noted that while design responses have been considered and included within the Concept Proposal and Design Quality Guidelines, individual building designs are not covered in the concept SSDA. Architectural and design considerations including habitable room orientation and location of mechanical ventilation intakes for buildings in proximity to Schofields Road can be included in individual building DA design on a case by case basis.

In relation to carbon emissions and sustainability, AECOM notes that targets as provided in the Ecologically Sustainable Development (ESD) Report (provided in Appendix M to the EIS) have been developed to be generally in line with the GSC Regional Plan and Western City District Plan. This includes both minimum and aspirational targets to create low carbon precincts. Options as outlined in the ESD report will require further evaluation for feasibility and adoption at tender and in detailed design but provide the framework for the concept SSDA.

### 5.5.2. Noise

#### *Summary of issues raised*

A more detailed noise and vibration assessment should be undertaken for Stage 2 of the development to help identify more rigorous strategies for noise control and management, including construction noise mitigation.

The recommendations in the Acoustic Assessment should be recognised and built upon in any future assessments.

Noise generating activities and noise sensitive areas should be separated where practicable. Consideration should be given to protecting the proposed transport infrastructure corridors (road and rail) during this concept stage to minimise the risk of land use conflict and to minimise potential noise mitigation requirements at the post approval phase.

#### *Response*

As noted in Section 5.2.4, further detail on the assessment of noise impacts associated with road and rail in the vicinity of proposed apartments is provided at Appendix H.

In relation to road noise, appropriate mitigation measures will be required to ensure compliance with relevant criteria. While the overall building layout has endeavoured to minimise land use conflict as far as practicable, other measures such as acoustic glazing may be required for apartments that adjoin major roads.

Given the need to take advantage of the site's proximity to the new metro station and to capitalise on the government's investment in infrastructure, it is considered that on balance the proposed development along with the recommended mitigation measures will achieve an appropriate level of acoustic amenity.

More detailed noise and vibration assessments will be provided with detailed development application(s) as relevant. They will recognise the acoustic assessments undertaken for the Concept Proposal and build upon the information provided.

### 5.5.3. Water quality

#### *Summary of issues raised*

The Concept Proposal does not appear to have addressed key sustainability priorities in the Western City District Plan and has not provided details of expected water quality outcomes. While the EIS does state that water quality will comply with generic pollutant load reductions, it does not indicate ambient water quality targets for receiving waters to support the NSW Water Quality Objectives (WQOs). The generic targets do not reflect contemporary WSUD performance and may not deliver improvements in the health of local waterways being sought by the District Plan.

Consideration should be given to the OEHL and EPA's '*Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-Use Planning Decisions*' as well as a number of other policy and strategic documents aimed at improving or restoring water quality and water flows in NSW catchments.

Clarification should be provided regarding wastewater reuse as this is an important sustainability initiative for the Precinct.

#### *Response*

The AECOM report at Appendix I has provided a response to the water quality issues raised by the EPA. It notes that the Water Sensitive Urban Design (WSUD) strategy has been developed in coordination with Blacktown City Council and is consistent with the existing WSUD strategy of a regional biofiltration basin for the area. It further notes that post development water quality is expected to result in an improvement on the rural residential water quality.

Water quality details comply with both the Blacktown City Council DCP requirements and the Green Star Commitments for the site.

With regard to achieving water quality outcomes, AECOM recommends that a condition be imposed stipulating that:

- the requirements of Blacktown City Council, Sydney Water and the EPA be ascertained and addressed with regard to the on-site detention, healthy waterways (including downstream soil erosion) and water storage
- details of on-site detention and water storage and evidence of consultation with Blacktown City Council, Sydney Water and the EPA be submitted with the first detailed development application relating to the site.

This could include increasing storage of roof water for re-use which reduce the downstream Soil Erosion Index (SEI) further. With respect to wastewater, AECOM notes that options planning is currently being undertaken by Sydney Water. It is noted that the Civil Drawings show recycled water pipes to service each development lot (refer drawings 60558549-SHT-CI-0501 to 0505). This will be examined further in consultation with Sydney Water during the detailed design of the development.

### 5.5.4. Contaminated land

#### *Summary of issues raised*

While the proposal is only conceptual at this time, further contamination investigations will be necessary to fully characterise contamination at the site.

Information should be provided demonstrating that all stockpiles and topsoils are being managed to ensure they meet regulatory requirements. Similarly, all fill materials must be fit

for purpose and meet relevant regulatory requirements. Any waste transported from the site must be classified and taken to a lawful facility.

Extensive basement car park construction is likely to mean that groundwater will be encountered during the construction phase. The EIS has not considered how groundwater, seepage waters, and potential contamination in the waters will be managed during excavations or future occupation of the basements. Further assessment and planning is required to adequately address this issue.

The EPA has recommended draft conditions of consent to address issues raised.

### *Response*

The existing planning approvals for the Sydney Metro Northwest require the preparation and implementation of environmental management processes covering all of its activities, including activities within the Site. This includes the fill on the site, preparation of the CEMP and associated sub-plans which have been certified by an Independent Certifier and endorsed by the Department as well as established processes for unexpected finds, soil contamination, hazardous materials, waste management and remediation.

In relation to the development of the site for mixed use purposes, JSB&G has been commissioned to prepare a detailed site investigation (DSI) and this is currently underway, as discussed in Section 5.3.7. The DSI is being prepared in accordance with guidelines made or approved by the EPA and relevant Australian Standards. The findings of the Stage 2 DSI will inform the detailed development application(s). Any recommendations of the Stage 2 DSI, including the preparation a RAP if required, will be implemented as required.

In relation to EPA's recommended conditions of consent, the following comments are provided:

- a) As noted above, a DSI is underway which addresses this condition.
- b) As noted above, the existing planning approvals put in place appropriate measures for the management of on site contamination as well as in relation to imported fill.
- c) No objection.
- d) This condition should be re-worded to allow for Virgin Excavated Natural Material (VENM) to be lawfully imported to the site. As currently worded, VENM is not included and this would significantly restrict the potential options available for selection of materials during future works. It is recommended that the condition be worded as follows:

*The applicant must ensure that all new fill material being imported onto the site must be fit for purpose and either be Virgin Excavated Natural Material (VENM) as defined in Schedule 1 of the Protection of the Environment Operations Act 1997 or must meet the specific or general resource recovery order under Clause 91 and 92 under the Waste Regulation 2014. The fill must also be managed and classified for proposed use in accordance with NSW EPA approved guidance, to ensure no contaminated transport onto the site.*

- e) The DSI currently underway indicates there is sufficient information on all soil strata at the site such that there is confidence as to contamination conditions within the deeper soil profile. However, an Unexpected Finds Protocol would be a suitable inclusion into a broader Construction Environmental Management Plan (CEMP) framework to be prepared to guide environmental management of the site during future inground works, following detailed development applications.

- f) The DSI currently underway has completed appropriate assessment of groundwater conditions to demonstrate the absence of groundwater contamination that requires management in the event that future development works intercept seepage and/or groundwater. As such, a groundwater and seepage water management plan is not considered necessary.

It is therefore recommended that as part of a CEMP, procedures for management of site water, including stormwater flow, excavation seepage and any dewatering of basements be developed such that off-site discharge of water is in accordance with the NSW POEO Act and Regulations.

- g) The Site Audit process has commenced as part of the DSI. To streamline and ensure clarity in the future as to the required processes for assessment/signoff it is recommended that the proposed EPA condition be replaced with the following:

*A Site Auditor accredited under the Contaminated Land Management Act 1997 must review the adequacy of the investigations, unexpected finds protocol, any remedial works/validation assessments and/or management plan required to confirm the suitability of the land use such that a final site audit statement can be issued prior to issue of an occupancy certificate at the completion of works.*

- h) The suggested wording in this condition is inconsistent with the wording presented in Section 60 of the *Contaminated Land Management Act 1997*. It is therefore recommended that the proposed EPA condition be replaced with the following:

*Should any contamination be identified as meeting the triggers in the EPA 'Guidelines on the Duty to Report Contamination' the responsible parties as defined within this document are required to notify the EPA in accordance with section 60 of the Contaminated Land Management Act 1997*

- i) The DSI indicates that no significant pre-existing contamination exists at the site. This condition is considered to be superfluous.
- j) This is guidance to DPE and/or a future consent authority, it is not a condition of consent, however it is noted that it has no material impact.
- k) As for j).

### 5.5.5. Domestic waste management

#### *Summary of issues raised*

There is no clear recommendation on the desired approach for waste management to achieve the best outcome for the precinct. No innovative waste solutions have been considered for the development. Work should be undertaken in consultation with the EPA to help align the waste management strategy with the Western City District Plan priorities/actions.

#### *Response*

AECOM has provided a detailed response in its report at Appendix I to the waste issues raised by the EPA in its submission. An updated Waste Strategy has also been prepared by AECOM in accordance with the requirements of Blacktown City Council and is provided at Appendix J.

The Waste Strategy has been developed in consultation with Blacktown City Council and complies with its requirements.

This baseline strategy was requested by Blacktown City Council to outline what a conservative scenario may look like operationally, and to understand the architectural impact of traditional

waste management. This 'traditional scenario' is used as a foundation to assess the design against operation requirements.

As this application is a Stage 1 Concept Proposal, it is not possible or appropriate to provide detailed information relating to waste management. The final waste strategy and specific innovations are highly dependent on the eventual building designs, including architectural and structural limits.

Once building designs are further developed there is the opportunity to identify stretch targets for the each building and the precinct.

## 5.6. Transport for NSW

### 5.6.1. Broader traffic assessment

#### *Summary of issues raised*

Given the number of dwellings approved for development has exceeded that originally planned within the wider Precinct (i.e. Area 20), the Department of Planning and Environment should consider updating the traffic and transport study for the wider Precinct to evaluate cumulative traffic impact and inform any additional transport mitigation works required.

#### *Response*

SCT Consulting has undertaken an assessment of the cumulative traffic impact of the Concept Proposal having regard to broader developments in Area 20. The assessment is provided in Appendix F and discussed in Section 5.3.5.

The traffic modelling confirmed that the impact of the additional development in Area 20 together with the subject development would only impact marginally on the performance of surrounding major intersections. However, the assessment does identify the need to extend the northern approach to the Terry Road/Schofields Road intersection but notes that this upgrade is needed as a result of development in the wider precinct and not due to the subject development.

The need to update the traffic and transport study for the wider Precinct is a matter for the Department to determine.

### 5.6.2. Transport and access

#### *Summary of issues raised*

Clarification is needed as to which party is responsible for preparing the Travel Plan (referred to in the EIS) and subsequently delivering the Travel Plan measures.

More details are required regarding the pedestrian and cycle linkages to the east and west and particularly to the south across Schofields Road. These linkages and interfaces with adjoining sites need to be adequately addressed given the likelihood that many people will access commercial and retail activities by walking and cycling. Further design work should be provided regarding pedestrian footpaths and bike paths to ensure safe access.

Information regarding current bus routes needs to be updated, particularly regarding changes to services operating past the site and which will be directed via Tallawong Station once it is opened.

## Response

### Travel plan

Future developers will be required to develop and implement travel plans to support the development of Tallawong Station Precinct South. These will be in accordance with the future travel demand management framework and travel demand strategies established by Landcom and Sydney Metro.

### Pedestrian and cycle linkages

A comprehensive network of pedestrian and cycle links provide access to the new Tallawong Station and the proposed open space, retail and commercial uses. RMS and Sydney Metro are currently undertaking the following works:

- existing/under construction signalised intersections at Cudgegong/Schofields Road and Tallawong/Schofields Road, and at Tallawong Road/Themeda Ave and Cudgegong Road/Themeda Ave intersections (immediately south of the SMNW corridor)
- existing/under construction 1.6m wide divided footpaths on Schofields Road, Cudgegong Road and Tallawong Road between the SMNW corridor and Schofields Road
- footpaths adjacent the new north-south road between Tallawong Road and Cudgegong Road, Aristida Street
- a new north-south pedestrian and cycle connection between Aristida St and the Tallawong Metro Station across the Metro corridor
- Pedestrian crossings at Themeda Ave to access the station.

Proposed links under the Concept Proposal include:

- A 3.5 metre wide path, 5 metre wide public access from the station directly south through the site to the intersection of Cudgegong Road and Schofields Road
- A 3 metre wide off-road cycle way south of the metro corridor pedestrian and cycle crossing, from north to south across the site
- 1.6 metre to 3 metre wide pedestrian connections, from Schofields Road toward the retail/commercial precinct
- 3.5 metre pedestrian connection from the commuter carpark, through the retail plaza toward the park and station
- proposed pedestrian crossings of Conferta Ave.

These works will be implemented as part of future DAs.

The Wayfinding Strategy for the precinct is discussed in Section 5.2.3.

## Bus services

It is noted that additional bus services are now operating past the site and some of these routes may be redirected via Tallawong Station interchange once it is opened. These changes will further increase accessibility of the proposed development to the surrounding areas.

## 5.7. Roads and Maritime Services

### 5.7.1. Land for Schofields Road/Cudgegong Road intersection

#### *Summary of issues raised*

Land at the intersection of Schofields Road and Cudgegong Road has been identified in the Concept Proposal as part of the development. However, this land is owned by RMS and has not yet been declared surplus. The applicant must seek owner's consent from RMS before consent is granted.

#### *Response*

RMS has indicated in principle support to the proposed identification of this land as surplus. Owners consent would be obtained prior to determination.

## 5.8. NSW Rural Fire Service

#### *Summary of issues raised*

The RFS advised that it has no objection to the proposed development provided that relevant provisions in *Planning for Bushfire Fire Protection (PBP) 2006* are adhered to as follows:

- The provision of minimum Asset Protection Zones (APZs) between the unmanaged vegetation to the east and southeast and future residential and mixed use buildings.
- The provision of minimum APZs in accordance with Table A2.6 of PBP 2006 where future buildings include uses that fall under the definition of Special Fire Protection Purpose development.
- Future access to be provided in accordance with the design specifications set out in section 4.1.3 of PBP 2006.
- Future services to be provided in accordance with section 4.1.3 of PBP 2006.

#### *Response*

The proposal has been assessed by Australian Bushfire Protection Planners Pty Ltd (see Appendix U of the EIS). The report:

- found that the available separation distances between the riparian corridor and the mixed use and residential landuse removes the bushfire threat to the buildings
- confirms that the proposed development complies with the aim and objectives of *Planning for Bushfire Protection 2006* and the deemed to satisfy requirements of Section 4.3.6(f) of *Planning for Bushfire Protection 2006* – Buildings of Class 5 to 8 and Class 10 of the Building Code of Australia
- recommends fire fighting water supplies and access to comply with relevant Australian Standards and Fire and Rescue NSW access provisions.

It is recommended that conditions suitable for this Concept Application be imposed to address these issues, noting that a detailed development application will be lodged in due course.



## 5.9. Sydney Water

### 5.9.1. Trunk capacity

#### *Summary of issues raised*

There is sufficient water, wastewater and recycled water trunk capacity to service the initial development however amplification will be required over the next five years to support growth in the wider area. Network extensions or amplifications will be determined at the Section 73 application stage. However, opportunities for recycled water are currently being explored.

#### *Response*

This is noted and consistent with Concept SSDA Utilities Report at Appendix Z of the EIS. During subsequent design phases a formal Section 73 application will be made.

With respect to recycled water, an allowance has been made in the design for a recycled water network connecting to the existing Recycled Water Network and this will be explored further during subsequent design phases where a formal Section 73 application will be made.

### 5.9.2. Stormwater management and flooding

#### *Summary of issues raised*

Attention should be given to the appropriate use of land based on flooding constraints. Relevant development controls for stormwater discharges and increased storage of roof water should be considered in alignment with proposals for healthy waterways.

#### *Response*

Flood constraints are detailed within the Integrated Water Cycle Management Report (Appendix AA of the EIS). The requirements of Blacktown City Council, Sydney Water and the EPA will be ascertained and addressed with regard to the on-site detention, healthy waterways (including downstream soil erosion) and water storage, with information provided with the first detailed development application relating to the site.

### 5.9.3. Development impact on existing assets

The future development of Tallawong may result in impacts to Sydney Water's existing infrastructure, with potential risks to Sydney Water assets arising from development of new roads, infrastructure and construction works. Any works required to existing infrastructure will be considered as part of future development applications and at Section 73 application stage.

#### *Response*

Noted. The intent is to minimise the impact on existing Sydney Water assets. Potential crossings have been shown within the Civil Engineering Drawings (Appendix Y of the EIS). During subsequent design stages any requirements for protection or relocation of existing assets will be discussed formally with Sydney Water.

## 5.10. Endeavour Energy

A detailed response to the issues raised by Endeavour Energy is provided in the AECOM report at Appendix I. A summary of the key matters raised and responses is provided below.

### 5.10.1. Rouse Hill Switching Station

#### *Summary of issues raised*

Access to the Rouse Hill Switching Station needs to be maintained at all times. Proposed changes to Cudgegong Rd may affect access. Endeavour Energy will need to be given reasonable notice regarding any road works.

#### *Response*

It is recommended that this requirement be included with any future CEMP for the site. The current design limits all works to the eastern side of Cudgegong Road with the exception of the expansion of the existing biofiltration basin.

The current access as constructed by NRT is to remain without alteration as a part of this development.

### 5.10.2. Network capacity

#### *Summary of issues raised*

Availability of electricity supply will be dependent on a range of factors. Future applicants will need to submit an application to Endeavour Energy to carry out final load assessment and to determine method of supply.

#### *Response*

This is noted and will be incorporated into the ASP 3 design when a formal application for connection of load will be made. Once the relevant information related to this connection application has been made, electrical substations will be designed in accordance with Endeavour Energy's Network Standards.

As a part of the individual building designs and detailed development applications, electrical servicing will be further defined.

### 5.10.3. Electricity easements

#### *Summary of issues raised*

Easements in private lots are problematic and are not supported by Endeavour Energy. Easements should be entirely incorporated into public reserves and not burden private lots.

#### *Response*

This is noted and will be incorporated into the ASP 3 design when a formal application for connection of load will be made. As a part of the individual building designs and detailed development applications, electrical servicing will be further defined.

### 5.10.4. Risks

#### *Summary of issues raised*

Future substation locations will require detailed assessment to consider suitability of access, safety clearances, fire ratings and bushfire risk, flooding etc.

Construction of any building or structure connected to or in close proximity to Endeavour Energy's electricity network is required to comply with AS/NZS 3000:2007 'Electrical installations' to ensure there is adequate connection to the earth.

### *Response*

This is noted and will be incorporated into the ASP 3 design when a formal application for connection of load will be made.

#### **5.10.5. Proximity to other uses**

##### *Summary of issues raised*

When designing new transmission and distribution facilities, consideration should be given to locating them where exposure to more sensitive uses is reduced.

New development can impact on electricity infrastructure. Endeavour Energy is not responsible for any amelioration measures should electricity emissions impact on nearby development.

The proximity of site to the Rouse Hill Switching Station or Feeder 9JA has not been discussed in the EIS and there is no discussion about a 'complementary interface' between Switching Station/Feeder 9JA and buildings to opposite side of Cudgegong Rd.

### *Response*

This is noted and will be incorporated into the ASP 3 design when a formal application for connection of load will be made.

It is further noted that Endeavour Energy is not responsible for any amelioration measures for such emissions that may impact on the nearby proposed development and that if it is determined by the ASP 3 design that such amelioration measures are required, these will form part of the precinct and building design by the developer.

## **5.11. Other NSW Government agencies**

A number of agencies indicated that they either had no comments regarding the Concept Proposal or that otherwise the proposal did not raise issues of concern. The agency comments are outlined below and no responses are required in relation to these submissions.

### *WaterNSW*

WaterNSW advised that the proposal site is not located in close proximity to any WaterNSW land, assets or infrastructure, and will not involve flood or water supply approvals.

### *Office of Environment and Heritage*

OEH advised that there are no biodiversity, natural hazards or Aboriginal cultural heritage issues that require a formal response.

### *Sydney Trains*

Sydney Trains advised that it had no comment on the proposal.

## 6. Responses to issues raised in community submissions

*This section provides responses to issues raised in submissions from the community.*

### 6.1. Traffic and parking

This section provides responses to issues raised in relation to the traffic and parking impacts associated with the Concept Proposal.

#### 6.1.1. Traffic impacts

##### *Summary of issues raised*

A number of submissions raised concerns about the impacts of the Concept Proposal generally on traffic, congestion and individual roads, and impacts on the performance of the road network. Issues raised included:

- increased congestion on Old Windsor Road and Windsor Road as well as other parts of the road network
- existing road infrastructure inadequate and already heavily congested
- the added traffic will increase risk of accident
- cumulative impact from significant development activity throughout the general area placing significant pressure on road network
- road network upgrades should be implemented before any new development is approved.

##### *Response*

The amount of traffic expected to be generated by the proposed development and using Old Windsor Road is negligible compared to its existing and forecast traffic volumes. The SSSA Traffic Impact Assessment (Appendix L of the EIS) and the additional traffic modelling undertaken (refer to Appendix F of this Submissions Report), have confirmed that the current infrastructure and roads are sufficient to accommodate the new proposal.

Further discussion on traffic impact is provided in Section 5.2.3.

#### 6.1.2. Parking impacts

##### *Summary of issues raised*

Some submissions raised concern that the Concept Proposal does not provide sufficient parking to accommodate the new development. Issues raised included:

- unrealistic to assume that people will not use cars. Proximity to the new Metro Station and active transport options (i.e. cycling and walking) do not necessarily mean that people will opt not to have cars
- car parking should be provided for each unit
- risk that residents will park in adjoining commuter car park, reducing parking available for train users
- inadequate parking may lead to overcrowding and social problems.

## *Response*

Transport for NSW and Landcom are proposing reduced off street car parking provision for Tallawong Station Precinct South mixed use development to facilitate:

- an exemplar transit oriented development
- a town centre not dominated by cars
- activation and life on the street
- a reduction in the congestion of precinct roads.

Future residents of the proposed development will be located within a 300m walking distance to the new metro station of the future SMNW project, which will provide direct access to Chatswood, Macquarie Park and other centres along the Sydney Metro corridor and Sydney CBD as well as the train network, with fifteen services in an hour during the peak. This matter is discussed in full in Section 5.3.5.

The commuter car park provides for over 1,000 commuter car spaces. It is designed to enable future installation of boom gates with access provided for Opal card holders, if required.

## **6.2. Building height and scale**

This section provides responses to issues raised in relation to the proposed height and scale of buildings.

### *Summary of issues raised*

Submissions raised concern that the proposed buildings would be too high and would result in overshadowing, loss of privacy, and adverse visual impacts. A number of submissions noted that the proposed building heights were out of character with the surrounding area.

One submission noted that the proposed building heights represent a missed opportunity and that additional height could contribute toward a more visually interesting and varied outcome and deliver a more vibrant town centre.

### *Response*

It is considered that the building height is appropriate given the NSW Government's objective of providing transit oriented development adjacent to the new metro station. All buildings are 8 storeys or less and while there are some exceedances to the maximum height limit of 26m, it is considered that this is reasonable.

It is considered that the proposed building heights represent an appropriate balance between achieving adequate development density given the site's proximity to the new metro station and the need to provide good residential amenity.

Further discussion on the rationale for the building height is provided in Section 5.2.1.

## **6.3. Infrastructure provision and overdevelopment**

### *Summary of issues raised*

Concerns were raised that the increased population arising from the proposal will put undue strain on infrastructure, including roads, schools and other services. It was noted that infrastructure is already stretched and that further development should not proceed until adequate infrastructure is in place.

## *Response*

The impact of the Concept Proposal in relation to transport infrastructure is discussed in Section 5.2.2. Traffic modelling indicates that the proposal will have only marginal impacts on the road network. In addition, significant improvements in transport infrastructure are being implemented in the NWPGA to meet demand from increasing population growth in the area.

A Social Needs and Impact Assessment was prepared for the Stage 1 SSDA and was included in Appendix K to the EIS. It noted that the Tallawong Station Precinct South development would lead to increased demand for local community facilities and services including child care, education, multipurpose community spaces, local open space and health services. Blacktown City Council has prepared contributions plans which identify local facilities and services that will need to be provided to meet this increased demand from development in the Rouse Hill area, including the subject site. These facilities and services will be funded via contributions from developers.

The proposal will accommodate approximately 300m<sup>2</sup> of flexible community space within close walking distance of residences, which can support different community uses by community members facilitating opportunities for social interaction. This would be a long term benefit for both new residents and residents from outside the area. It will also accommodate approximately 800m<sup>2</sup> of child care floor space, which would cater to around 110 children. This will benefit new residents and some workers in the Station Precinct South in the long term

In relation to education services, the Station Precinct South is within the school catchments of Schofields Public School, Riverstone High School (Years 7-10) and Wyndham High School (Years 11-12). NSW Department of Education indicated that these schools have the capacity to accommodate additional student numbers generated by the Station Precinct South proposal.

In the future, Schofields Public School will be expanded to accommodate 600 students, which will double the current capacity of the school. The forecast completion is mid-2020. The Department noted that as the NWPGA grows, the primary school catchment for the Station Precinct South will change from Schofields Public School to a future school in the Riverstone East/Area 20 area. However a potential site has not been identified yet.

Riverstone High School will also be upgraded with new classrooms and buildings, to be completed in mid-2020.

In relation to health services, consultation with the Western Sydney Local Health District indicated that existing community health/hospital services within the district would adequately serve the future Station Precinct South population.

It is considered that adequate infrastructure is either in place or adequate planning has been undertaken to ensure that infrastructure will be delivered as required to meet the needs of the Tallawong Station Precinct South development.

## **6.4. Residential amenity**

### *Summary of issues raised*

Concerns were raised that the bulk and scale of the buildings will result in loss of privacy, increase in noise and air pollution as well as overshadowing.

### *Response*

The Concept Proposal has been designed to achieve excellent amenity. Building envelopes have been designed to meet the requirements of ADG in terms of privacy, overshadowing, noise and other amenity considerations. The Concept Proposal has been designed to achieve

a built form that reflects design excellence while protecting the amenity and solar access of adjoining buildings and open space. More specifically, the building envelopes have been oriented and designed to:

- ensure adequate sunlight to apartments and solar access to the public domain, including the park
- provide for appropriate separation and privacy between buildings
- respond to the topography to take advantage of district views
- have reduced setbacks along certain street frontages to reinforce the spatial definition of the street and contribute to an engaging urban experience through proximity and immediacy
- allow for generous internal open spaces that add to the amenity of the apartments and to the pedestrian experience.

In addition, the village park has been increased in area and the retail plaza relocated further to the east to address solar access and residential amenity.

With respect to overshadowing, the urban form has been designed to mitigate overshadowing of surrounding areas. Further, the Concept Proposal has been amended to reduce the overall bulk of the buildings that front Schofields Road by setting back the upper levels. The top floors of Buildings 2D.1, 2D.2 and 2D.3 have been set back 1600mm and the top floor of Building 1E.1 has been set back 1800mm. This will ensure that dwellings to the south of Schofields Road will continue to receive excellent good access, as shown in the Shadow Diagrams in the Urban Design Report at Appendix C.

## 6.5. Social impacts

### *Summary of issues raised*

A number of concerns were raised that the proposed high density development will increase the potential for crime and risks to personal safety.

### *Response*

The Social Needs and Impact Assessment prepared for the Stage 1 SSSA (Appendix K to the EIS) provides an assessment of the potential for crime and safety impacts associated with the Concept Proposal. The assessment included discussions with Quakers Hill Police regarding crime and safety risks associated with the proposal.

The Social Needs and Impact Assessment makes a number of recommendations to encourage community cohesion and to reduce criminal activity. They include early activation around the metro station, as well as the implementation of Crime Prevention Through Environmental Design (CPTED).

A CPTED report was also prepared for the Stage 1 SSSA (Appendix P to the EIS). It concluded that the urban design and landscape approach for the Concept Proposal provides good passive surveillance, legibility and amenity for a diverse demographic that are expected to use the development and adjoining Metro Station.

The CPTED report recommended that a more detailed assessment of measures should be undertaken at the detailed development application stage to ensure the recommended measures in this report have been considered. CPTED principles that will be particularly important to consider include:

- signage coordinated with landscape / urban design elements to show separation of public and private areas to assist with legibility of the site given its mixed use nature
- landscaping to deter malicious damage, provide amenity and show ownership of all elements of the site
- lighting to deter opportunistic crime and provide safety for residents and pedestrians at all times.
- passive surveillance through the design and layout of the streets, park, plazas, buildings and private open spaces.
- increased activation of open spaces to encourage year-round high use and community interaction.

Future developers will be required to address CPTED principles as an integral component of the detailed urban design and landscaping of development parcels.

## 6.6. Open space

### *Summary of issues raised*

The size of the park is inadequate to serve the population.

### *Response*

The Social Needs and Impact Assessment prepared for the Stage 1 SSDA (Appendix K to the EIS) found that the proposed 2,900m<sup>2</sup> village park is sufficient to meet the needs of the potential future population. The park size exceeds the DCP size requirements of 2,500m<sup>2</sup> to 3,000m<sup>2</sup>, and meets the requirements of the GANSW discussion paper “Open Space for Recreation Guide” (July 2018), which indicates local open space in high density locations can be 0.1ha to 0.5ha in size where provided within 200m of homes.

As noted in Section 5.2.1, the Concept Proposal has been amended to increase the area of the village park from 2,900m<sup>2</sup> to 3,411m<sup>2</sup>, providing additional open space to serve the future community and visitors. The residents will have easy access to playing fields and other open space within The Ponds, and open space to be provided in accordance with the Rouse Hill Contribution Plans. This includes Cudgegong Reserve and Second Ponds Creek, both within 650m walking distance.

## 6.7. Construction impacts

### *Summary of issues raised*

The proposal will result in increased population during construction.

### *Response*

It is agreed that the number of people on the site and in the area will increase during construction. This is a matter that is more appropriately addressed as part of the next phase of applications and approvals.

## 6.8. Land use

### *Summary of issues raised*

The land should be used to provide additional commuter car parking.



### *Response*

The subject site offers superior access to Tallawong Station and will deliver a vibrant mixed use centre that demonstrates best practice transit oriented development principles. Adequate commuter car parking is being provided by Sydney Metro on adjacent land at Tallawong.

## **6.9. Reduction in land value**

### *Summary of issues raised*

The development will adversely impact property values.

### *Response*

The proposed development will create an urban precinct with a wide variety of dwellings and built forms and will deliver high quality public domain.

## **6.10. Affordable Housing**

### *Summary of issues raised*

Insufficient Affordable Housing provided.

### *Response*

The proposed development provides for 5% Affordable Housing to be managed by a registered community housing provider and provides for a housing type, apartments, that are more affordable than traditional low density housing.

## 7. Response to submissions and conclusion

*The Concept Proposal has been amended to address a number of issues raised during the public exhibition period. The proposed amendments are detailed below.*

### 7.1. Changes

A number of changes have been made to the Concept Proposal to address issues raised in submissions, summarised below:

- **Expanded village park** - The park area has been increased from 2,900m<sup>2</sup> to 3,411m<sup>2</sup>, more than the 2,500m<sup>2</sup> to 3,000m<sup>2</sup> required by the Growth Centres DCP. The expanded area of parkland will receive good solar access with sunlight to an area greater than 50% of its site area between 11am and 2pm on 21 June. The expanded park has been achieved by reducing the footprint of Building 1.B1 at its northern end. This has reduced the overall gross floor area of the building by 386m<sup>2</sup>.
- **Relocated retail plaza** - The retail plaza has been relocated to the eastern side of Building 1A.3 to provide for improved solar access and amenity to the public domain generally and to the retail precinct specifically. The relocation means that there will be a strong visual connection and pedestrian interface between the park and the retail plaza. The overall result will be a significantly improved public domain experience.
- **Articulation of Building 2C** - To address Council's concern regarding the length of the building on Site 2C, approximately 400m<sup>2</sup> of GFA has been removed from the centre of the building to allow for articulation. This change will not only reduce the perception of building bulk and scale but will also allow for improved pedestrian connection between buildings.
- **Increased setbacks for upper levels of buildings fronting Schofields Rd** - It is proposed to reduce the overall bulk of the buildings that front Schofields Road by setting back the upper levels. The top floors of Buildings 2D.1, 2D.2 and 2D.3 have been set back 1600mm and the top floor of Building 1E.1 has been set back 1800mm. This will ensure that dwellings to the south of Schofields Road will continue to receive good solar access, as shown in the Shadow Diagrams in the Urban Design Report at Appendix C.

Table 10 provides a comparison of the key features of the Concept Proposal as exhibited with the Amended Concept Proposal.

**Table 10: Comparison of original Concept Proposal with amended Concept Proposal**

<b>Item</b>	<b>SSDA Submission</b>	<b>Concept Proposal as amended (Submissions Report)</b>
GFA	94,295m <sup>2</sup>	93,393 m <sup>2</sup>
Residential GFA	Approx. 85,000m <sup>2</sup>	No change
Estimated dwellings	1,100	No change
Park	2900m <sup>2</sup>	3411 m <sup>2</sup>
Building height	Up to 30.8m	Up to 31.5m
Building 1B.1 Basement	Ground level waste room only	Basement extended for 1B buildings, for parking and waste
Retail plaza	Retail plaza on western side of Building 1A.1	Retail plaza relocated to eastern side of Building 1A.2
Residential car parking rates	0.4 space per 1 bed 0.7 space per 2 bed 1.2 space per 3 bed 0.14 space per unit – visitors Avg 0.88/unit	0.6 space per 1 bed 0.9 space per 2 bed 1.4 space per 3 bed 0.1 space per unit – visitors Avg 1.04/unit
Retail car parking rates	1 space/60m <sup>2</sup> GLFA	No change
Commercial car parking rates	1 space/70m <sup>2</sup> GFA	No change
Total car parking	1,108 spaces	1,287 spaces
Stormwater strategy	Included a new basin on the eastern side of Cudgegong Road	No new basin – stormwater treated on site (Refer Appendix I)
Waste strategy		Updated to address comments (Appendix J)
Footpath width	Section H footpath at 3.5m	Section H footpath at 3m
Ownership	Cul-de-sac to be owned by Council	Cul-de-sac to be privately owned
Design Quality Guidelines	Air quality not addressed	Air quality guidelines added

## 7.2. Conclusion

Following public exhibition of the EIS, changes have been made to the proposed Concept Proposal in response to submissions. This includes expanding the area of the village park, relocating the retail plaza to provide for improved solar access, articulating Building 2C.1 to reduce building bulk and increasing the setbacks on the upper levels of buildings along Schofields Road.

This Submissions Report has been prepared to satisfy the provisions of Section 4.39 of the EP&A Act and Section 85A of the EP&A Regulation. All submissions received during the public exhibition period of 12 July to 9 August 2018 have been carefully considered. Additional information has been provided and amendments made to the Concept Proposal to address issues raised in submissions where required.

The Tallawong Station Precinct South Concept Proposal supports best practice transit oriented design, providing increased residential density in immediate proximity of the new Tallawong Metro Station. The proposed infrastructure upgrades will provide residents with greater access to public transport and employment options, while promoting the use of sustainable travel options.

Internally, the proposed development promotes pedestrian and cyclist movements with a permeable internal layout that provides good connection to the surrounding cycling and walking network and to public transport. It will provide an attractive, vibrant and safe place for people to live and work.

Having regard to the above assessment it is concluded that the proposed development is appropriate on the site and within the locality, and should therefore be approved. It is expected further detailed development applications will be determined by Blacktown City Council.