



Sydney Metro Northwest Places Program Hills Showground Station Precinct SSD 9653

Response to Submissions Report

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Glossary and Abbreviations

Term	Definition
ADG	Apartment Design Guide
Concept development application	A concept development application as defined under section 4.22 of the EP&A Act: <i>is a 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>
CIV	Capital Investment Value
Concept Proposal	The overall concept for which approval is being sought
Council	The Hills Shire Council
CPTED	Crime Prevention Through Environmental Design
DA	Development Application
DPIE	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000 (NSW)</i>
GANSW	Government Architect NSW
Gross Floor Area	GFA
THLEP 2019	The Hills Local Environmental Plan 2019
m	Metre
m ²	Square metre
MNWL	Metro North West Line commenced operations in May 2019. The project involved the construction of eight new metro stations and supporting infrastructure between Tallawong and Cherrybrook and converting five existing stations between Epping and Chatswood. New metro rail line will be extended from Chatswood through Sydney's CBD to Bankstown (Sydney Metro City & Southwest) in 2024.
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
SSDA	State Significant Development Application
SMNWP	Sydney Metro Northwest Places Program
TTIA	Traffic and Transport Impact Assessment
TfNSW	Transport for NSW

Executive Summary

Purpose

This report presents responses to submissions received during the public exhibition of SSD 9653 for the Hills Showground Station Precinct - Concept Proposal and Stage 1 Subdivision (SSDA Concept Proposal) and the request for additional information from the Department of Planning, Industry and Environment (DPIE).

The SSDA Concept Proposal was publicly exhibited between 13 November 2019 and 10 December 2019. A total of 27 submissions were lodged with DPIE during the public exhibition. Of these, 12 were received from public authorities, 11 from the public and 4 from organisations.

The RtS identifies the issues raised, provides a response and presents a revised SSDA Concept Proposal for consideration by DPIE.

The Concept Proposal

The SSDA Concept Proposal seeks approval for development of government owned land located within the Hills Showground Station Precinct (the 'site') in The Hills Shire Council Local Government Area (LGA). The proposal relates to three development lots (the SSDA area), known as:

- Hills Showground Precinct West (Lot 53 DP 1253217) – for simplicity referred to as 'Precinct West' for the remainder of this report
- Doran Drive Precinct (Lot 55 DP 1253217)
- Hills Showground Precinct East (Lot 56 DP 1253217 and PT Lot 50 DP 1253217) – for simplicity referred to as 'Precinct East' for the remainder of this report.

The SSDA Concept Proposal sets out the vision, planning and development framework that will form the basis for assessment of all future development on the site.

The exhibited SSDA Concept Proposal initially sought approval for the general arrangement of the site as follows:

- building envelopes ranging in height between 13 metres (four storeys) and 68 metres (twenty storeys)
- a maximum gross floor area of 175,796m², including a maximum residential floor area of 169,096m² (up to 1,900 dwellings, including a minimum of 5% affordable housing) and a non-residential gross floor area between 6,700m² and up to 13,600m²
- concept subdivision of Lot 56 DP 1253217 (Hills Showground Precinct East) to identify future development lots
- a new public plaza with a minimum area of 1,400m² (referred to as Doran Drive Plaza)
- a new public park with a minimum area of 3,500m² (referred to as Precinct East Park)
- provision of up to a maximum of 2,273 car parking spaces and 799 bicycle spaces
- public domain improvements, public open space and roads.

Overview of submissions

A total of 27 submissions were lodged with DPIE during the public exhibition. Of these, 12 were received from public authorities and 15 from the public or organisations.

The key issues raised in the submissions related to:

- Built form, scale and design and associated amenity impacts
- Dwelling yield
- Traffic and car parking
- Infrastructure provision
- Design excellence
- Waste and water management
- Application and compliance with planning controls
- Castle Hill Showground
- Utility infrastructure capacity.

Sections 4 and 5 of this report provide further information on submissions, including issues raised and the response to these.

Project response to submissions

The SSDA Concept Proposal has now been revised to address a number of issues raised during the public exhibition period. Changes made in response to the issues include:

Density, bulk and scale

- A reduction to the overall density, bulk and scale of the proposal (in particular Precinct East) of 9,310m² GFA to allow for:
 - increased building separation
 - increased setbacks
 - increased solar access to dwellings, communal and public open space areas
 - improved public domain interface
 - reduction in yield up to 1,620 dwellings (previously up to 1,900 dwellings)
 - change in maximum commercial/retail gross floor area to 13,940m² (previously a range of 6,700m² to 13,600m²)
 - reduction in maximum car parking spaces to 1,957 (previously 2,293 car spaces).

Building Envelopes and height

- Transition controls, flexible building envelopes and additional controls for Precinct West to address Cattai Creek and existing commuter carpark interface
- Looser building envelopes and additional controls for the Doran Drive Precinct as well as an increase in the number of storeys from 20 to 21 while still complying with the 68m height limit
- Looser building envelopes, additional controls and inclusion of townhouse style apartments within Precinct East.

Setbacks

- Setbacks increased to Showground Road from 3m to 10m consistent with THDCP, 4.5m to 5m to new local street consistent with the Hills LEP and a 3m outdoor dining setback introduced for Doran Drive Precinct and Precinct West.

Other elements

- An aligned THDCP apartment mix – maximum of 25% x 1 bedrooms, and minimum of 20% x 3 bedrooms across the precinct
- Additional integration of the Castle Hill Showground master plan with the concept scheme
- Amendments to site coverage, building separation and height to improve solar access to new local park in Precinct East
- Revised and more detailed Urban Design Guidelines with a greater level of detail.

These changes are summarised in **Figure 1** below.

Revised Plan



Figure 1 Revised Concept Plan (Cox, 2020)

Section 6 provides a detailed description of the changes to the proposal and a comparison between the exhibited and amended versions of the proposal.

Conclusion

The revised SSDA Concept Proposal will enable the vision and objectives for the Precinct of high-quality built form and landscape outcomes, as identified in the 2017 Showground Station Precinct Plan, to be realised as the Precinct transforms over time.

The proposed building envelopes for future development on the site are appropriate in the context of the surrounding locality, comply with the development controls in The Hills Local Environmental Plan 2019 (THLEP) and are accompanied by detailed Urban Design Guidelines.

The SSDA Concept Proposal aligns with the NSW Government's priorities relating to housing affordability, local infrastructure delivery and economic development. The proposal will facilitate further urban renewal along the Sydney Metro Northwest corridor and activate the Hills Showground Station.

The potential environmental impacts, both direct and cumulative, have been identified and assessed as part of the EIS accompanying the development application.

Landcom has carefully considered all 27 submissions received during the exhibition period. This RtS has considered all the issues in detail, addressing and providing a response to the matters raised. Additional information required by DPIE has been provided and amendments made to the SSDA Concept Proposal are sufficient to enable the application to be determined.

It is considered that the SSDA Concept Proposal is in the public interest and is recommended that approval be granted.

1. Introduction

1.1. Purpose of this report

This report presents responses to submissions received during the public exhibition of SSD9653 for the Hills Showground Station Precinct - Concept Proposal and Stage 1 Subdivision (SSDA Concept Proposal) and the request for additional information from the Department of Planning, Industry and Environment (DPIE).

The SSDA Concept Proposal was prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by DPIE and publicly exhibited from 13 November 2019 to 10 December 2019. A total of 27 submissions were lodged with DPIE during the public exhibition. Of these, 12 were received from public authorities, 11 from the public and 4 from organisations.

Following the exhibition period, DPIE requested additional information in relation to a number of key assessment issues associated with the proposal including precinct planning, density and built form. These matters have now been addressed.

The Response to Submissions report (RtS report) has been prepared in accordance with clause 82 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The RtS outlines issues raised and highlights the key design changes proposed in response to those issues.

1.2. Context and Background

The Sydney Metro program of works includes:

1. Metro North West Line

Passenger services started in May 2019 between Tallawong and Chatswood, with a metro train every four minutes in the peak. The project was delivered on time.

2. Sydney Metro City & Southwest

The Sydney Metro City & Southwest project includes a new 30km line extending the metro rail from the end of Metro North West Line at Chatswood, under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the ultimate capacity to run a metro train every two minutes each way through the centre of Sydney.

Sydney Metro City & Southwest will deliver new metro stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo and new underground metro platforms at Central Station. In addition, it will upgrade and convert all 11 stations between Sydenham and Bankstown to metro standards.

3. Sydney Metro West

Sydney Metro West is a new underground railway between CBDs of Parramatta and Sydney. This once-in-a-century infrastructure investment will transform Sydney for generations to come, doubling rail capacity between these two areas, linking new communities to rail services and unlocking housing supply and employment growth between the two CBDs.

Sydney Metro West will service key precincts, with stations at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays and the Sydney CBD. A potential station at Pyrmont is being investigated.

4. Sydney Metro – Western Sydney Airport

Metro rail will also service Greater Western Sydney and the new Western Sydney International (Nancy Bird Walton) Airport. The new railway line will become the transport spine for the Western Parkland City's growth for generations to come, connecting communities and travellers with the rest of Sydney's public transport system with a fast, safe and easy metro service. The Australian and NSW governments are jointly delivering this new railway, to open at the same time as the airport.

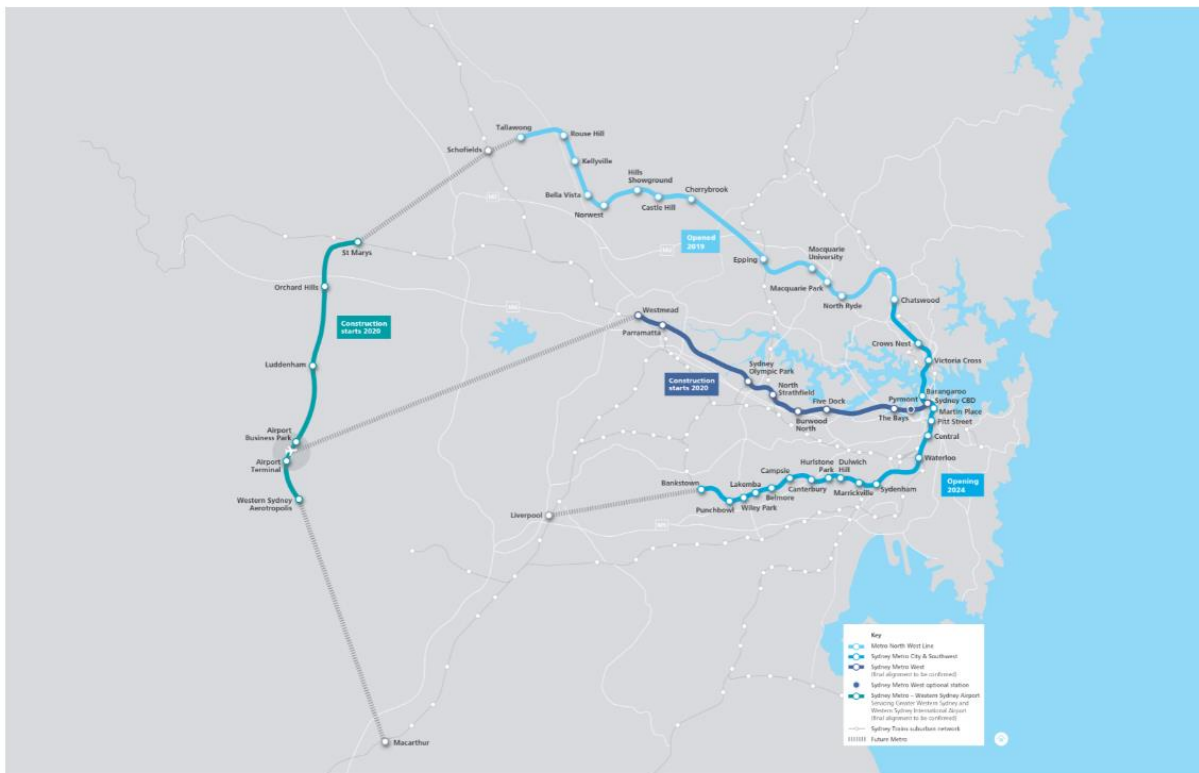


Figure 2 Sydney Metro Overview Map (Sydney Metro, September 2020)

Sydney Metro Northwest Places Program

NSW Government owned land surrounding the MNWL stations includes land that is no longer required to support construction or operation. These sites have been made available for development that supports NSW Government priorities of housing affordability, local infrastructure delivery and economic development.

Through the Sydney Metro Northwest Places Program (SMNWP), Landcom is the master developer for government land around new Metro North West Line. As the master developer, Landcom will lead studies to support planning for project sites, work with local councils, Department of Planning, Industry and Environment (DPIE), other government agencies, local businesses and communities to shape plans for projects.

Landcom will appoint private sector development partners to deliver projects across the program.

1.3. Supporting documents

As a result of the changes to the concept proposal and/or in response to submissions a number of documents originally submitted with the EIS have been revised. In addition, Landcom commissioned a Social Infrastructure Assessment to support the revised proposal.

Table 1: Supporting documentation

Document	Prepared by	Appendix
Supporting documents submitted with the EIS that have been revised		
Urban design documents		
Apartment Design Guideline (ADG) Compliance Summary	Cox	A
Concept Plan Drawings for Approval	Cox	B
Crime Prevention Through Environmental Design Report (CPTED)	Cox	C
Design Verification Statement	Cox	D
Design Excellence Strategy	Landcom	E
DCP Compliance Table	Elton	F
SMNWP Public Art Guidelines	Landcom	G
Urban Design Report	Cox	H
Urban Design Guidelines	Cox	I
Other documents		
Biodiversity Development Assessment (BDAR) Report	WSP	J
Ecological Sustainable Development (ESD) Report	WSP	K
Integrated Water Cycle Management Strategy (IWCMS)	WSP	L
Subdivision Plan (draft)	RPS	M
Traffic and Transport Impact Assessment (TTIA)	SCT Consulting	N
Visual Impact Assessment (VIA)	Cardno	O
Wind Impact Assessment (WIA)	Windtech	P
New document to support the concept proposal		
Social Infrastructure Assessment (SIA)	Urbis	Q

Section 6 provides a detailed description of the changes to the proposal and a comparison between the exhibited and amended proposal.

2. Stakeholder and community consultation

2.1. Public exhibition

The SSDA Concept Proposal was placed on public exhibition for 28 days between 13 November 2019 and 10 December 2019.

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

- view the EIS online on DPIE's Major Projects website
- view the EIS in person at The Hills Shire Council at 3 Columbia Court, Baulkham Hills
- make a written submission to DPIE
- contact Landcom's project team or the responsible planning officer at DPIE to discuss the concept proposal.

2.2. Future consultation

DPIE will make this RtS report publicly available on the major project website. DPIE will assess the project which includes consideration of the RtS report and supporting documents, and will liaise with stakeholders as required.

Landcom will also publish the RtS report and supporting documents via the SMNWP website to ensure Council, stakeholders and the public are informed about the planning status of the concept proposal. Ongoing communications activities will include regular e-news and website updates. The project information line and email address will also be in place for any public enquiries.

3. Analysis of submissions received

3.1. Submissions received

During the exhibition period, submissions were invited from the public and other stakeholders. Submissions were accepted by electronic online submission or post.

A total of 27 submissions were registered by DPIE. A breakdown of submissions received by stakeholder is provided in **Table 2**.

Table 2: Breakdown of submissions received

Submission type	Number of submissions received
Public submissions	
Public	11
Organisations	4
Subtotal	15
Public Authorities	
NSW Government departments/agencies	11
Council	1
Subtotal	12
Total	27

The 12 submissions received from public authorities included:

- Department of Education (DET)
- Department of Primary Industries (DPI)
- Environment Protection Authority (EPA)
- Fire and Rescue NSW (FRNSW)
- Heritage Council of NSW
- The former Roads and Maritime Services (RMS) – (now part of Transport for NSW)
- Sydney Metro
- The Hills Shire Council
- The Office of Environment and Heritage
- Transport for NSW (TfNSW)
- WaterNSW
- Water and the Natural Resources Access Regulator (NRAR).

The four submissions received from public organisations included:

- Endeavour Energy (partly owned by private investors and partly by the State of NSW via a corporation constituted under the *Electricity Retained Interest Corporations Act 2015*.)
- Computer Pals for Seniors, Castle Hill
- Merc Capital
- Body Corporate Strata Plan 19470.

DPIE also provided a letter setting out additional information on a number of key assessment issues.

Submissions from Council and Government agencies raised issues relevant to their respective areas of interest and responsibility and provided recommendations relating to conditions of approval.

Submissions from DPI, EPA, FRNSW, NRAR, and WaterNSW did not raise any key issues or concerns regarding the proposal. However, FRNSW recommend that further consultation be undertaken at the detailed design stage.

3.2. Summary of issues raised

3.2.1. Key issues raised in public authority submissions

Key issues raised by public authorities included those relating to:

- Strategic planning - dwelling yield
- Built form and urban design
- Provision of education facilities/consultation with DET
- Castle Hill Showground
- Further consultation with council – interface with adjoining public land, local infrastructure and open space
- Provision of, and mechanisms to deliver local infrastructure
- Wind analysis
- Traffic, parking and access
- Design excellence strategy
- Waste and water management.

3.2.2. Key issues raised in public submissions

All of the 11 submissions received from the public raised concerns on:

- Built form and urban design
- Application and compliance with planning controls
- Traffic and parking
- Castle Hill Showground
- Infrastructure provision
- Utility infrastructure capacity.

Issues that were beyond the scope of the SSDA have not been addressed in the RtS report.

A breakdown of the key concerns raised in public submissions is provided in **Table 3**. As most submissions raised more than one issue, the number of issues identified is greater than the total number of submissions received. Further details of the issues raised in public submissions and responses to these is provided in Section 4.

Table 3: Key issues raised in public submissions

Key issue	Number of times key issue was raised
Built form and urban design	28
Traffic impacts/issues	24
Application and compliance with planning controls	11
Castle Hill Showground	7
Parking	6
Infrastructure provision	6
Other development matters	5
Issues beyond the scope of the SSDA	5
Utility infrastructure capacity and servicing arrangements	3

4. Responses to public authority submissions

4.1. Overview

As noted in Section 4.1, 12 submissions were received from public authorities.

Submissions from DPI, EPA, FRNSW, NRAR, and WaterNSW did not raise any key issues or concerns regarding the proposal. However, some did make recommendations with respect to future consultation as well as conditions of approval which are detailed below.

Issues raised in Council's submission and by the other public authorities/government agencies are addressed in the following sections.

DPIE's request for additional information has been addressed Section 4.2.

All the submissions received can be viewed on the DPIE's NSW Major Project Portal website.

4.2. Department of Planning, Industry and Environment

DPIE provided comments and recommendations relating to strategic planning, built form and design, traffic, parking and access, design excellence and water and waste management.

Table 4 below provides detail of the comments and recommendations made by DPIE, the project response and the relevant supporting documentation.

Table 4: Response to issues raised by the DPIE

Issue/recommendation	Project response	Appendix Ref
Strategic planning		
1. Strategic objectives Demonstrate how the proposed density, number of dwellings, road layout and land uses contribute to the strategic planning objectives for the overall Showground Station Precinct as required by the SEARs.	<p>The concept proposal is a continuation of the strategic planning that has been undertaken in the North West to drive city-shaping outcomes as a response to the significant infrastructure investment that the Metro North West Line represents.</p> <p>That planning has sought to deliver diverse, high density communities, co-located with the areas of highest amenity and accessibility, that is, within walking distance of the Sydney Metro stations.</p> <p>The density and mix of uses are a factor of zoning and current permissible Floor Space Ratios and heights that have been developed as part of the strategic planning for the precinct.</p> <p>The proposed density, number of dwellings, road layout and land use are consistent with the following strategic documents:</p> <ul style="list-style-type: none">• The Hills Corridor Strategy, 2015• North West Rail Link Corridor Strategy, 2013• Greater Sydney Regional Plan – A Metropolis of Three Cities and Central City District Plan, 2018• Future Transport 2056 Strategy and Greater Sydney Services Infrastructure Plan, 2018• State Infrastructure Strategy 2056	TTIA Appendix N UDG Appendix I

Issue/recommendation	Project response	Appendix Ref
	<ul style="list-style-type: none"> • The Planning Proposal for the Showground Station Precinct under the Planned Precincts Program, 2017 • The Showground Station Precinct Plan – Transport Plan, December 2015 • Hills Showground Precinct Station s7.11 Contribution Plan, 2018 • Hills Future 2036 – The Hills Shire Council Local Strategic Planning Statement, 2019. <p>The Concept SSDA seeks to achieve the objectives of the various strategic plans by transforming the area and delivering a high-density mixed-use precinct, directly adjoining a metro station. The project will achieve the following strategic outcomes:</p> <ul style="list-style-type: none"> • Deliver a mix of housing and employment in a highly accessible location • Contribute to the goal of achieving a 30-minute city and optimising infrastructure use • Provide a local centre to serve the needs of people who live in, work in and visit the local area • Provide a transit oriented development to help contribute to a low carbon future for Sydney • Maximise sustainable transport alternatives, through the provision of cycling and walking networks, provision of the metro station and bus connections • Have the infrastructure to support the growth • Be an attractive, legible and well-designed place to live, work and visit. <p>The dwelling cap for the Site has been revised from 1,900 to 1,620 dwellings and is more closely aligned to Council's estimate of 1,521 dwellings that is identified in Council's Infrastructure Contributions Plan No. 19 'Contributions Plan No. 19 Showground Station Precinct'.</p> <p>The Council's Hills Corridor Strategy estimates that the Showground Precinct would accommodate up to 300 dwellings per hectare over 6.2 hectares. The maximum yield of 1,620 proposed in this SSDA equates to 261 dwellings per hectare over that same area. The proposal, therefore, is consistent with the Council's Hills Corridor Strategy, will have the necessary infrastructure to support the precincts' growth and will not compromise the delivery of a high-quality built form outcome from being delivered.</p> <p>Finally, the Urban Design Guidelines have been amended and strengthened and form a site-specific Development Control Plan (DCP) to address key objectives for the development of the site.</p>	

Issue/recommendation	Project response	Appendix Ref
<p>2. Dwelling yield</p> <p>Further consider the appropriateness of the proposed maximum dwelling yield, particularly with regard to achieving good built form outcomes and the planned and proposed infrastructure capacity across the precinct.</p>	<p>Built form outcomes</p> <p>Further consideration has been given to the design of the concept proposal with the focus on achieving better built form and amenity outcomes. The dwelling cap has been revised down to 1,620 dwellings across the precinct from 1,900 dwellings, with a reduction of 9,310m² GFA to the overall density, bulk and scale of the proposal (in particular Precinct East) to allow for:</p> <ul style="list-style-type: none"> • increased building separation beyond the baseline Apartment Design Guide (ADG) • significant increase in the modulation of buildings • increased setbacks increased solar access to dwellings, communal and public open space areas • improved public domain interface. <p>The revisions to the current proposal result in a built form outcome that is aligned with the ADG guidance that building envelopes should be 25-30% greater than the achievable floor area.</p> <p>Depending on the mix of apartment typologies and size of apartments to be delivered by a future developer, the total number of dwellings could potentially be reduced below the dwelling cap. Building envelope controls in the Urban Design Guidelines set the requirements to ensure appropriate built form outcomes can be achieved within the proposed GFA.</p> <p>Other detailed controls in the Urban Design Guidelines as well as the ADG will ensure high quality design outcomes and levels of amenity in the public and private domain are achieved.</p> <p>Infrastructure capacity <i>Social</i></p> <p>A Social Impact Assessment (Appendix Q) has been prepared to support the concept proposal and identify what impact the increased yields proposed for the Hills Showground Station Precinct are likely to have on social infrastructure (community and cultural facilities, libraries, education, childcare, health services, and open space) requirements for the site. The key recommendations are detailed in Table 7.</p> <p>A summary of social infrastructure requirements and comments/actions that Landcom are undertaking to address these is detailed in Table 7.</p>	<p>UDG Appendix I</p> <p>SIA Appendix Q</p> <p>TTIA Appendix N</p> <p>IWCMS Appendix L</p>

Issue/recommendation	Project response	Appendix Ref
	<p><i>Other infrastructure</i></p> <p>The Utility Servicing Impact Assessment, prepared by WSP, demonstrated that there is sufficient capacity in the public infrastructure networks (including the supply of potable water, wastewater, electricity, gas and telecommunications) to adequately service the future development. With exception of sewer, the site will be serviced by existing infrastructure. The strategic options for sewer upgrades will be further developed by the future developers of the site and an appropriate solution will form part of the future development application. Detailed utility investigation and further discussions with the relevant authorities will occur at that time. Further consultation with utility providers will be required as part of the detailed DA process.</p> <p>The revised Integrated Water Cycle Management Strategy (Appendix L) outlines the infrastructure required to facilitate the development at the site and demonstrates that this is feasible.</p> <p>It has been demonstrated in the Traffic and Transport Assessment Report (TTIA) (Appendix N) that there is adequate road infrastructure (existing and planned) and capacity in the public transport to accommodate the project.</p>	
<p>3. Consultation with the Department of Education</p> <p>Consult further with the Department of Education and clarify plans to meet the future education needs of the precinct and the wider area.</p>	<p>The DET submission recommended further consultation with Schools Infrastructure NSW (SINSW) who form part of DET and are responsible for the planning and delivery of school infrastructure.</p> <p>Consultation with SINSW has confirmed that a new primary school is required to meet future demand generated within the wider Hills Showground area. SINSW is undertaking a detailed review of accommodation needs and is considering options for the location of the new primary school, including access to appropriate open space. Options under consideration include the Precinct West site within the Hills Showground Station Precinct and other site/s within the wider precinct. SINSW will be working to finalise the location in the coming months.</p> <p>Landcom will continue engaging with SINSW to support the identification of an appropriate school site to service the future needs of the wider Hills Showground area.</p> <p>SINSW would obtain the necessary approvals for a future school as part of a separate application if required.</p>	<p>N/A</p>

Issue/recommendation	Project response	Appendix Ref
<p>4. Integration with Castle Hill Showground</p> <p>Illustrate how the proposal integrates with Council's draft Master Plan for Castle Hill Showground.</p>	<p>The draft Master Plan for Castle Hill Showground was placed on exhibition following the exhibition of SSD 9653. However, the concept proposal and Master Plan were developed in collaboration and the subsequent revised plans for both now complement each other in terms of uses, street activation, podium scale, active transport and planned programming of public open space.</p> <p>The Urban Design Report includes an illustration on how the Concept Plan integrates with Council's draft Master Plan for Castle Hill Showground. The interface to the Showground and demonstration of clear access and linkages between the two master plans is illustrated in Figure 3. Physical movement connections between the regional recreation, events and leisure destination of the Castle Hill Showground and the Hills Showground Station Precinct are planned as follows:</p> <ul style="list-style-type: none"> • Doran Drive will be an activated spine, framed by retail and food and beverage uses • Andalusian Way will become a green street with ample street tree planting and a potential shared pedestrian and cycle path between the Castle Hill Showground and the planned shared path on Middleton Avenue south of Carrington Road (a Council led project) • Cattai Creek shared path is envisaged to be extended north through the Cattai Creek corridor adjoining the Castle Hill Showground (a Council led project) • Complementary uses are also being considered by Council for the Castle Hill Showground in food and beverage uses north of Doran Drive, sports community uses north of the Doran Drive and Showground Road intersection and a mixture of events, food and beverages, culture, entertainment, regional parklands, dog training and community uses within the Castle Hill Showground. <p>The Urban Design Guidelines gives further consideration to the following matters:</p> <ul style="list-style-type: none"> • identification of verge widths and relationship to future podium • provision of 3m setback and design controls to facilitate outdoor dining • pedestrian and cycle connectivity • public domain materials, finishes and landscape species for a cohesive approach between existing plazas and streets, this proposed development and the development of Castle Hill Showground • acoustic controls to ensure noise from the Showground and active street frontages are considered. 	<p>UDR Appendix H</p> <p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
<p>5. Consultation with Council</p> <p>Consult further with Council on the management of the proposal's interface with the adjoining public lands (Cattai Creek, Hills Showground, etc.) and the provision of local infrastructure and open space for the proposal.</p>	<p>Landcom has met with Council to consult on the various matters including the interface with the adjoining public lands (Cattai Creek, Hills Showground, etc.) and the provision of local infrastructure and open space for the proposal.</p> <p>Noting the revitalisation works of Cattai Creek is outside of the SSDA area and involves land that is not owned by Sydney Metro. Further discussion with Council is welcomed, however it should not be a matter for consideration under this application.</p> <p>Castle Hill Showground Master Plan interface</p> <p>As noted above the concept proposals for both the draft Castle Hill Showground Master Plan and the SSDA Concept Plan complement each other in terms of uses, street activation, podium scale, active transport and planned programming of public open space. See response above and Figure 3.</p> <p>Further co-ordination of the detailed DA with the Council Showground Master Plan during the development of detailed DAs across the precinct is encouraged.</p> <p>Cattai Creek interface</p> <p>The revised Urban Design Guidelines now includes transition controls for Precinct West to address Cattai Creek interface:</p> <ul style="list-style-type: none"> • A 45-degree height plane is to be taken from the top bank of Cattai Creek and extended east to prescribe the maximum building heights permitted within the envelope • A maximum of one step is permitted for the tower envelope within this transition line to prevent ziggurat or terraced tower forms. <p>The above controls, along with setback and height controls ensure that development will be appropriately scaled.</p> <p>The Integrated Water Cycle Management Strategy has been revised in consultation with Council (refer Section 4.3.4 of this report). The Biodiversity Development Assessment Report (BDAR) has also considered any impacts to the creek be appropriately managed as part of future development of the land.</p> <p>The UDG suggests Doran Drive include a crossing point to aid the connections to Cattai Creek via a shared path along the northern side of De Clambe Drive. Cattai Creek and connections to/from the employment lands are part of The Hills Shire Council Castle Hill Showground Master Plan and Cattai Creek Revitalisation project.</p>	<p>UDG Appendix I IWCMS Appendix L</p>

Issue/recommendation	Project response	Appendix Ref
	<p>Provision of open space and local infrastructure</p> <p>Landcom has begun consultation with Council to discuss the appropriate mechanisms for the delivery of the open space and local infrastructure.</p>	
<p>6. Staging and delivery mechanisms</p> <p>Provide information on staging and the potential mechanisms to secure the timely delivery of any proposed open space, community facilities and infrastructure for future developments.</p>	<p>A summary of discussions with Council to date regarding the staging and mechanisms to secure the timely delivery of infrastructure items is detailed below.</p> <p>Doran Drive Plaza</p> <p>In the case of Doran Drive Precinct, the future developer will be responsible for the delivery of the Doran Drive Plaza around 2023 in consultation with Council as part of a future detailed DA.</p> <p>Precinct East new street and park</p> <p>In the case of Precinct East, Landcom intends to deliver Precinct East New Road and Precinct East Park around 2022 in consultation with Council as part of a separate DA.</p> <p>Community facilities</p> <p>During the Showground Priority Precinct studies, DPIE identified a need for a 1,500 - 2,000m² new multi-purpose community centre and additional library 1,000m²+ floor space This was subsequently identified in the Showground Contribution Plan No. 19.</p> <ul style="list-style-type: none"> • Item CF1 Additional Library Floor Space: +1,000m² of GFA • Item CF2 Multi-Purpose Community Centre (Approx. 2,000m² GFA). <p>The proposed funding sources for the provision of these items are to be further investigated as outlined in the Showground Station Precinct Finalisation report and Council Contribution Plan No.19.</p> <p>The Social Infrastructure Assessment determined that the increase in population associated with the proposed development will generate the demand for approximately 285m² of community centre space and 246m² of library space.</p> <p>As part of the Social Infrastructure Assessment consultation and our recent discussions with Council, they confirmed their preference for the community facilities be provided off site through a monetary contribution (to the total value of approximately 500 m² GFA for combined community centre and library space). This was due to the proximity to other community uses and low demand the Site would generate.</p>	<p>SIA Appendix Q</p>

Issue/recommendation	Project response	Appendix Ref
	Notwithstanding the above, further consultation with Council will be undertaken as part of the future DAs to decide whether monetary contribution will be provided or whether this may be delivered by a developer on site through a works-in-kind agreement.	
Built form		
<p>7. Compliance with ADG</p> <p>Revise the proposed building envelopes to achieve improved amenity and compliance with the ADG.</p>	<p>The proposed building envelopes have been revised to promote improved amenity by ensuring they allow for ADG compliance, and for extension beyond baseline ADG compliance where appropriate. The proof of concept scheme prepared by COX demonstrates that this can be achieved within the revised envelopes and results in a reduction of 9,310m². The positive impact on the overall density, bulk and scale of the proposal and achieves the desired outcome of improved amenity and spatial quality.</p> <p>Changes included tower configurations, increased building separation distances and increased setbacks to provide better amenity outcomes including maximise key aspects such as:</p> <ul style="list-style-type: none"> • views of the sky • access to sunlight from the public realm and open space areas • visual and acoustic privacy of residents. <p>Further, the concept proposal and supporting Urban Design Guidelines now prescribe the minimum building separation distance between towers, podiums, and terrace style apartments.</p>	<p>ADG Compliance Summary & Table Appendix A</p> <p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
<p>8. Urban Design Guide</p> <p>Review and revise the submitted Urban Design Guide to:</p> <ul style="list-style-type: none"> • support compliance with Apartment Design Guideline (ADG) • respond to the advice of the State Design Review Panel (SDRP) • promote greater housing mix and diversity in building typologies • consider Council's Development Control Plan for the precinct • include detailed parameters to secure the desired urban design and planning outcomes for the precinct. 	<p>The Urban Design Guidelines have been reviewed and amended to support the revised concept proposal and address the matters raised by DPIE aforementioned and specifically addressed below.</p>	<p>ADG Compliance Summary & Table Appendix A</p> <p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
a) Support compliance with Apartment Design Guideline	<p>The Urban Design Guidelines states within the introduction that the Apartment Design Guide (ADG) is to be read in conjunction with one another. It is expected that all development will conform to the ADG and exceed it where required via specific controls included in the Urban Design Guidelines.</p> <p>The objectives and controls within the UDG support the objectives of the ADG. The UDG does not obstruct the ability for future development to conform to the ADG.</p>	<p>ADG Compliance Summary & Table Appendix A</p> <p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
b) Respond to the advice of the SDRP	<p>The SDRP has had the opportunity to review the concept proposal at three meetings.</p> <p>Issues raised at the SDRP#1 were addressed in EIS submitted to DPIE. SDRP#2 and #3 were addressed after the SSDA lodgement and resolution to the issues have now been captured in the urban design guidelines.</p> <p>Key changes as a result of issues raised at the SDRP #2 and #3 are summarised below:</p> <ul style="list-style-type: none"> • The vision and design principles are now more refined and developed in their appreciation and celebration of the place • The Urban Design Guidelines have been expanded to provide site-specific controls the appropriate level of information to act as a DCP. There is differentiation between site wide controls and sub precinct specific controls to ensure the differing character areas are developed accordingly. An additional layer of 'Design Guidance' has been included to demonstrate or benchmark how the objectives and guidelines may be achieved • Detailed controls are included to ensure built form massing is appropriately broken down and articulated to achieve well designed and proportioned elevations for a positive impact on perceived bulk and scale • The above includes stepping ground floors to relate to the natural slope of the street for appropriate street presence, activation and permeability • Controls have been included to ensure that Indigenous cultural history will be integrated into the scheme in a meaningful way with reference to the Heritage Interpretation Strategy (GML, 2019) and SMNWP Public Art Guidelines • A suggested physical pedestrian connection from Doran Drive along the northern side of De Clambe Drive to aid the connection from the creek to the employment lands west of the 	<p>ADG Compliance Summary & Table Appendix A</p> <p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p> <p>WIA Appendix P</p> <p>SIA Appendix Q</p>

Issue/recommendation	Project response	Appendix Ref
	<p>precinct has been suggested to create a strong link from the heart of the precinct to the Creek</p> <ul style="list-style-type: none"> • Further detail has been provided in the Urban Design Guidelines to clarify the roles of public spaces and streets in and around the heart of the precinct, including new public spaces as well as the interface with and activation of the existing public spaces • Further development of the Urban Design Guidelines to ensure the concept proposal continues to complement the draft Castle Hill Showground Master Plan • A Social Infrastructure Assessment (Appendix Q) has been undertaken to review the existing and future open spaces in the broader Council LGA and demonstrate benchmarks are being met. Refer to response 2 in this table. • The concept proposal has been revised to ensure that amenity and quality of life are the primary drivers and that the built form and GFA is an outcome of those considerations • The building envelopes have been revised to achieve the above including reducing bulk and increasing building separation, improving the visual and acoustic privacy, outlook, natural ventilation and daylight access. <p>Further detail has been provided in the Urban Design Guidelines to ensure good design outcomes and the achievement of key objectives in areas such as public art and heritage, place making, sustainability, future readiness and the like. This includes:</p> <ul style="list-style-type: none"> • A range of flexible ground floor uses, townhouse style apartments and podium terraces are now included to deliver on housing diversity and ensure non-residential use can be included along ground floor edges as and when there is market demand for these uses • Council's desired housing mix (see below for further consideration of housing mix) • Controls and objectives to ensure that pedestrian movement and safety into the site is clear • A setback strategy that relates to the street hierarchy • Mitigation strategies from the relevant Wind Impact Assessment (Appendix P) • Controls have been included in the Urban Design Guidelines to ensure that sustainability measures are implemented along with a supporting table which details 	

Issue/recommendation	Project response	Appendix Ref
	<p>how baseline ESD requirements and stretch targets will be measured, considered and met.</p> <ul style="list-style-type: none"> • Further details regarding tree canopy targets for each precinct have been included in the Urban Design Guidelines • Opportunities for connecting to the employment lands have been considered. 	
<p>c) Promote greater housing mix and diversity in building typologies</p>	<p>The Urban Design Guidelines include the following to promote greater housing mix and diversity in building typologies:</p> <ul style="list-style-type: none"> • Locations and design controls for terrace style apartments within Hills Showground Precinct East • Requirements and design consideration for affordable housing (excerpt at • Figure 4 below) • 20% Silver level design Livable (universal) and diverse housing requirements • Apartment mix controls (excerpt at Figure 5 below). <p>The affordable housing controls in the UDG include key design considerations and outline the minimum amount of affordable housing to be provided. The location(s) and configuration(s) of affordable housing within the Hills Showground Station Precinct is flexible as long as the 5% minimum is met across the precinct and may occur on any or all of the associated development lots.</p> <p>Further, any affordable housing stock is to be managed by a Community Housing Provider for a minimum of 10 years from the date of practical completion/certification/occupancy.</p> <p>The apartment mix controls will ensure there is a mix of dwelling types, to provide for housing choice for different demographics, living needs and household budgets.</p> <p>A precinct specific approach has been applied to apartment mix controls to take into account the desired future character for each precinct with respect to the provision of 2 and 3-bedroom dwellings. For example, Doran Drive Precinct will form the heart of the precinct and is located closest to the station and therefore is expected to accommodate more 2-bedroom apartments and less 3-bedroom apartments. Precincts East provides a transition to the existing adjacent residential areas, and Precinct West provides opportunity for single loaded through apartments and home office arrangements and as such is suited to a higher percentage of larger 3-bedroom product. The maximum number of 1-bedroom</p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
	<p>apartments has been limited to 25% for all sub precincts.</p> <p>Notwithstanding the above, the approach achieves an overarching mix across the Hills Showground Station Precinct of:</p> <ul style="list-style-type: none"> • No more than 25% studio or 1-bedroom dwellings or both • At least 20% 3 (or more)-bedroom dwellings. <p>The above mix is consistent with the apartment mix controls in clause 9.7 (previously clause 7.12) of the THLEP and THDCP in Part D Section 19 Hills Showground Station Precinct.</p>	
<p>d) Consider Council's Development Control Plan for the precinct and include detailed parameters to secure the desired urban design and planning outcomes for the precinct.</p>	<p>A detailed review of THDCP and in particular the site-specific controls for the Showground Precinct 'Part D Section 19 Hills Showground Station Precinct' has been undertaken as part of developing the revised concept proposal and revised Urban Design Guidelines.</p> <p>Many of the controls in Part D have been carried across into the Urban Design Guidelines. The Urban Design Guidelines identify those sections of the THDCP that apply to future development and those sections that will be superseded. Where the concept proposal and Urban Design Guideline differ to THDCP, justification has been provided as to why it is appropriate and/ or achieves a better outcome.</p> <p>The Urban Design Guidelines also identify other plans, documents and legislation that should be read in conjunction with the guidelines. Appendix F provides a detailed assessment of the concept proposal and Urban Design Guidelines against THDCP controls. Matters that have been specifically raised as issues (such as car parking rates, setback controls, wind criteria and the suggested through site link within the Doran Drive Precinct) are also addressed within this report.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
<p>e) Include detailed parameters to secure the desired urban design and planning outcomes for the precinct</p>	<p>As evidenced via responses a) through d) above, the revised Urban Design Guidelines is a comprehensive document that will act as a site-specific DCP and includes clear objectives, controls and design guidance. These parameters will secure the desired urban design and planning outcomes for the precinct.</p>	<p>UDG Appendix I</p>
<p>9. Setbacks</p> <p>Reconsider and revise the proposed setbacks where appropriate to:</p>	<p>Setbacks have been reviewed and revised (where considered appropriate) to address the matters listed above as well as the concerns of Council and TfNSW (RMS).</p>	<p>Concept Plan Drawings for Approval Appendix B</p>

Issue/recommendation	Project response	Appendix Ref
<ul style="list-style-type: none"> • complement the varied streetscape character surrounding the site • address environmental conditions along Showground Road • allow for sufficient landscaping area to meet tree canopy targets • support active street frontages and potential outdoor land uses where appropriate • ameliorate adverse solar and wind impacts to public spaces and open spaces • consider implications on future road widening and other road infrastructure upgrades required for the precinct in consultation with TfNSW (RMS). 	<p>A summary of changes to setbacks proposed as part of this revised proposal are detailed in Table 8. The revised concept proposal complies with most the Council's setback controls. In particular, a 10m setback has been provided to Showground Road to address future widening and upgrades as well as amenity impacts.</p> <p>The one remaining variation applies to the upper level setbacks. Doran Drive Precinct and Precinct East proposes a 3m upper level setback instead of 5m and in Precinct West a 2m setback is proposed instead of 3m. These upper level setbacks are considered appropriate given:</p> <ul style="list-style-type: none"> • The 5m upper level setback is considered excessive for a transit-orientated development city centre environment. Provision of a 5m upper level setback will result in the delivery of excessively wide (25+m) lower levels of residential buildings and/or unfeasibly thin (<17m) upper levels when the 5m secondary setbacks are taken in to account. 3m is deemed appropriate to achieve the design principles of providing for delineation between podium and upper level elements and a pedestrian scale streetscape • A 2m upper level setback is considered appropriate on Precinct West given the width of the lot, the local centre environment, and will still provide for pedestrian scale streetscape. <p>Further:</p> <ul style="list-style-type: none"> • minimum building separation requirements meet and exceed ADG requirements • the combination of setback and separation controls ensure that an adequate level of solar access is provided to future dwellings, public domain and open space areas (existing and proposed) • controls in the Urban Design Guidelines provide that buildings will be articulated to complement building mass and emphasise key design elements. • appropriate measures to mitigate adverse environmental impacts remain achievable with the proposed setbacks. <p>A 0m (podium) setback has been provided for Doran Drive Precinct and Precinct West and provision has been made for a 3m outdoor dining setback as defined by the relevant controls and guidance within the Urban Design Guidelines.</p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
<p>10. Additional shadow diagrams</p> <p>Submit additional shadow diagrams, at hourly intervals, demonstrating that the existing/ proposed public open spaces will receive adequate solar access.</p>	<p>Additional shadow diagrams, at hourly intervals, have been prepared and included in the Urban Design Report. The shadow diagrams demonstrate that existing/ proposed public open spaces will receive adequate solar access, that is:</p> <ul style="list-style-type: none"> • New Doran Drive Plaza – the entire area (except for any areas shaded by awnings) will achieve a minimum of two hours of sunlight between 9am and 3pm on 21st June (mid-winter) • New Precinct East Local Park – 75% of the new park will achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21st June (mid-winter) • Station Plaza – 65% of the existing station plaza will achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21st June (mid-winter). <p>The above is considered adequate for the site.</p> <p>Although the ADG does not address public open space, it provides a comparable benchmark of 50% direct sunlight in relation to direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm on 21 June (mid-winter). The solar gain achieved in the public open spaces within this concept proposal exceeds these minimum requirements.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p> <p>UDR Appendix H</p>
<p>11. Wind Analysis</p> <p>Submit a wind analysis for all buildings over 8 storeys, incorporating any required changes to the proposed building envelopes and wind mitigation measures.</p>	<p>A revised Wind Impact Assessment (Appendix P) has been prepared to support the revised concept proposal. The assessment concludes that the proposed landscaping, podium and tower setbacks and general layout of buildings within the concept proposal are expected to be very effective in mitigating adverse wind conditions throughout the site.</p> <p>It was recommended that through-site links and tower aspects should be oriented to avoid direct alignment with the prevailing winds, incorporate bends, planting and screens in order to mitigate funnelling effects. Podium and tower setbacks are also expected to assist in redirecting the down washed flows to the proposed tree lines adjacent to building facades. To further improve the wind conditions within the critical trafficable areas the following general wind mitigation treatments are recommended. These recommendations have been included in the Urban Design Guidelines.</p> <p>The Urban Design Guidelines stipulate that wind tunnel testing is required for buildings 8 or more</p>	<p>WIA Appendix P</p>

Issue/recommendation	Project response	Appendix Ref
	<p>storeys or over 25 metres in height consistent with Part D Section 19 of the THDCP for the Showground Station Precinct.</p> <p>Wind tunnel testing conducted during the detailed design stage will verify wind conditions and enable a more detailed feedback and design of the potential wind mitigation measures for each building.</p>	
<p>12. Discrepancies between documents</p> <p>Review and clarify the discrepancies between the built form depicted in the Urban Design Report and submitted plans (Note: p. 91 Urban Design Report and SK 07 & SK 17 Plans for Approval).</p>	<p>The Urban Design Report and submitted plans have been revised in response to submissions and DPIE's RFI. All care has been taken to ensure that there are no discrepancies between the revised Urban Design Report and Concept Plans for approval.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
Traffic, parking and access		
<p>13. Integration with road network</p> <p>Identify the proposed road network and connections to be established as part of the concept proposal and how these roads integrate with future road network connections outside the Precincts.</p>	<p>The Urban Design Guidelines have been updated to include further details about how the road network and connections to be established as part of the concept proposal will integrate with future road network connections outside the Precincts.</p> <p>In summary, the Urban Design Guidelines includes further information regarding:</p> <ul style="list-style-type: none"> • Potential car parking configuration and access arrangements have been identified for each precinct with supporting controls to ensure good urban design outcomes are achieved (Figure 6) • Active transport movement and access network both existing and proposed (Figure 7) – clarifying what will be delivered as part of the proposal • The new street in Precinct East profile (Figure 9) has been revised in consultation with Council and controls included to ensure the street has been integrated with the existing NRT roads refer Sections 2.7.1 and 5.2.13 of the UDG. • The relationship of the interface between the buildings and existing streets. 	<p>UDG Appendix I</p> <p>TTIA Appendix N</p>
<p>14. Car parking rates</p> <p>Provide further justification for the proposed car parking rates together with additional</p>	<p>The recommended parking rates (excerpt below) seek to encourage public transport use and minimise traffic impacts.</p>	<p>TTIA Appendix N</p>

Issue/recommendation	Project response	Appendix Ref																																				
analysis on travel modes and public transport use.	<div>Table 4-9 Recommended parking rates for Hills Showground Station Precinct site</div> <table><tr><th>Land use</th><th>Minimum car parking rates</th><th>Maximum car parking rates</th><th>Bicycle parking rates (minimum)</th></tr><tr><td rowspan="4">Market housing</td><td>1 Bed</td><td>0.4 space per dwelling</td><td rowspan="4">An average of 1 space per market housing apartment (as an overall cap) *</td></tr><tr><td>2 Bed</td><td>0.7 space per dwelling</td></tr><tr><td>3 Bed</td><td>1.0 space per dwelling</td></tr><tr><td>Visitor</td><td>0.1 spaces per dwelling</td></tr><tr><td rowspan="4">Affordable housing</td><td>1 Bed</td><td>0.4 space per dwelling</td><td rowspan="4">One space per three apartments for resident and one visitor space per 12 apartments</td></tr><tr><td>2 Bed</td><td>0.5 space per dwelling</td></tr><tr><td>3 Bed</td><td>1.0 space per dwelling</td></tr><tr><td>Visitor</td><td>- 0.1 spaces per dwelling</td></tr><tr><td>Retail</td><td colspan="2">1 space per 130 m² – 60 m² GFA</td><td>One space per 450 m² GFA for staff</td></tr><tr><td>Office / commercial</td><td colspan="2">1 space per 145 m² – 100 m² GFA</td><td>One space per 600 m² GFA for staff</td></tr><tr><td>Car share spaces</td><td colspan="2">One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial</td><td>-</td></tr></table> <div>Source: SCT Consulting, 2020</div> <p>Parking rates has been informed by:</p> <ul style="list-style-type: none">• A detailed review and comparison of RMS Guidelines and The Hills Shire / Showground Precinct DCP rates• Consultation with DPIE, Council and TfNSW• Consideration of Council’s draft Local Strategic Planning Statement which states: <i>Opportunities exist for reconsideration of existing car parking rates for residential and commercial developments in close proximity to public transport, where car ownership levels are typically lower. Reducing parking opportunities at both origin and destination will influence travel choices.</i>• Consideration of Landcom’s principle to facilitate:<ul style="list-style-type: none">○ An exemplar TOD (maximising the benefits of fast frequent metro connections with services every four minutes in the peak and 10 minutes in off-peak)○ A town centre not dominated by cars○ Activation and life on the street○ A reduction in the congestion of precinct roads.• Analysis of travel modes and public transport use. <p>As a result of submissions received, residential parking rates have been reduced from the rates that were previously exhibited, to the RMS minimum rates for Metropolitan Regional (CBD) Centres* (consistent with TfNSW advice) to a maximum of an average of one space per market housing apartment in line with the Showground Precinct DCP, as shown in Table 4-1 (excerpt below). The objective of this is to encourage usage of public transport and other sustainable transport options and minimise the impacts to road traffic. It will also enable flexibility for future DAs to adapt the rates to bedroom mix sizes overtime to meet the future demographic needs</p> <td></td>	Land use	Minimum car parking rates	Maximum car parking rates	Bicycle parking rates (minimum)	Market housing	1 Bed	0.4 space per dwelling	An average of 1 space per market housing apartment (as an overall cap) *	2 Bed	0.7 space per dwelling	3 Bed	1.0 space per dwelling	Visitor	0.1 spaces per dwelling	Affordable housing	1 Bed	0.4 space per dwelling	One space per three apartments for resident and one visitor space per 12 apartments	2 Bed	0.5 space per dwelling	3 Bed	1.0 space per dwelling	Visitor	- 0.1 spaces per dwelling	Retail	1 space per 130 m ² – 60 m ² GFA		One space per 450 m ² GFA for staff	Office / commercial	1 space per 145 m ² – 100 m ² GFA		One space per 600 m ² GFA for staff	Car share spaces	One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial		-	
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	<p>and ongoing modal shift towards more sustainable transport outcomes.</p> <p>*A slight variation is proposed to the minimum parking rate for a 3 bed apartment from 1.2 to 1 to avoid any confusion with having the maximum rate at 1 which was supported by TfNSW.</p> <p>The affordable housing car parking rates proposed are consistent with the SEPP (Affordable Rental Housing) 2009. When the location and configuration of the minimum 5% of affordable housing is determined during detailed DA stage, the affordable housing car parking rates are to be applied.</p> <p>The proposed visitor car parking rate for the residential component remains unchanged at 1 space per 10 dwellings consistent with TfNSW advice and is proposed be a minimum of zero for affordable housing and a maximum of 1 space per 10 dwellings consistent with market housing as this is not specified in the SEPP (Affordable Rental Housing) 2009.</p> <table><caption>Table 4-1 Car parking requirements for residential developments</caption><thead><tr><th rowspan="2">Dwelling type</th><th rowspan="2">Proposed no. of units*</th><th colspan="2">Number of parking spaces required for Hills Showground sites</th></tr><tr><th>Proposed Minimum Rates</th><th>Proposed Maximum Rates</th></tr></thead><tbody><tr><td rowspan="3">Residential</td><td>1 Bed 402 units</td><td>0.4</td><td rowspan="3">An average of 1 space per market housing apartment</td></tr><tr><td>2 Bed 892 units</td><td>0.7</td></tr><tr><td>3 Bed 310 units & 16 townhouses</td><td>1.0</td></tr><tr><td colspan="2">Sub-total spaces for 1,620 dwellings</td><td>1,111</td><td>1,620</td></tr><tr><td>Visitor</td><td>1,620 dwellings</td><td>0.1</td><td>0.1</td></tr><tr><td colspan="2">Sub-total visitor spaces</td><td>162</td><td>162</td></tr><tr><td colspan="2">Total</td><td>1,273</td><td>1,782</td></tr></tbody></table> <p>Source: SCT Consulting, 2020 * According to the updated Concept Plan across the precinct, a 25 percent, 55 percent and 20 percent ratio was applied for the proportion of one bed, two bed and three bed dwellings for all dwelling types.</p> <p>The estimated number of parking spaces to be provided for the residential component is between a minimum of 1,273 to a maximum of 1,782 spaces (including visitor, affordable housing and the offset for the car share spaces – see table below) of the proposed development. This is based on the range for similar TOD sites and are still lower rates than The Hills Shire DCP and Showground Station Precinct DCP. The maximum car parking provision for the residential component is also slightly lower than those required under the ADG as the minimum rate for the Metropolitan Sub-Regional Centres (0.6/0.9/1.4) (as exhibited) and the rate prescribed in the Showground Precinct DCP (1 space per apartment).</p> <table><caption>Table 4-2 Comparison of recommended residential car parking rates with other relevant rates</caption><thead><tr><th>Dwelling type</th><th>Proposed no. of units*</th><th>Proposed Minimum Rates</th><th>Proposed Maximum Rates</th><th>Showground Precinct DCP¹</th><th>The Hills Shire DCP (minimum rates)</th><th>Metropolitan Sub-Regional Centres (minimum rates)</th><th>Previously exhibited rates (maximum rates)</th></tr></thead><tbody><tr><td rowspan="3">Residential</td><td>1 Bed 402 units</td><td>0.4</td><td rowspan="3">An average of 1 space per market housing apartment</td><td>1.0</td><td>1.0</td><td>0.6</td><td>1.0</td></tr><tr><td>2 Bed 892 units</td><td>0.7</td><td>1.0</td><td>2.0</td><td>0.9</td><td>1.0</td></tr><tr><td>3 Bed 310 units & 16 townhouses</td><td>1.0</td><td>1.0</td><td>2.0</td><td>1.4</td><td>1.5</td></tr><tr><td colspan="2">Sub-total spaces for 1,620 dwellings</td><td>1,111</td><td>1,620</td><td>1,620</td><td>2,036</td><td>1,598</td><td>1,783</td></tr><tr><td>Visitor</td><td>1,620 dwellings</td><td>0.1</td><td>0.1</td><td>0.2</td><td>0.4</td><td>0.2</td><td>0.1</td></tr><tr><td colspan="2">Sub-total visitor spaces</td><td>162</td><td>162</td><td>324</td><td>648</td><td>324</td><td>162</td></tr><tr><td colspan="2">Total</td><td>1,273</td><td>1,782</td><td>1,944</td><td>3,486</td><td>1,924</td><td>1,945</td></tr><tr><td colspan="2">Percentage difference of other comparison rates to the proposed maximum rates</td><td>-</td><td>-</td><td>+9%</td><td>+96%</td><td>+2%</td><td>+9%</td></tr></tbody></table> <p>Source: SCT Consulting, 2020 * According to the updated Concept Plan across the precinct, a 25 percent, 55 percent and 20 percent ratio was applied for the proportion of one bed, two bed and three bed dwellings for all dwelling types.</p>	Dwelling type	Proposed no. of units*	Number of parking spaces required for Hills Showground sites		Proposed Minimum Rates	Proposed Maximum Rates	Residential	1 Bed 402 units	0.4	An average of 1 space per market housing apartment	2 Bed 892 units	0.7	3 Bed 310 units & 16 townhouses	1.0	Sub-total spaces for 1,620 dwellings		1,111	1,620	Visitor	1,620 dwellings	0.1	0.1	Sub-total visitor spaces		162	162	Total		1,273	1,782	Dwelling type	Proposed no. of units*	Proposed Minimum Rates	Proposed Maximum Rates	Showground Precinct DCP ¹	The Hills Shire DCP (minimum rates)	Metropolitan Sub-Regional Centres (minimum rates)	Previously exhibited rates (maximum rates)	Residential	1 Bed 402 units	0.4	An average of 1 space per market housing apartment	1.0	1.0	0.6	1.0	2 Bed 892 units	0.7	1.0	2.0	0.9	1.0	3 Bed 310 units & 16 townhouses	1.0	1.0	2.0	1.4	1.5	Sub-total spaces for 1,620 dwellings		1,111	1,620	1,620	2,036	1,598	1,783	Visitor	1,620 dwellings	0.1	0.1	0.2	0.4	0.2	0.1	Sub-total visitor spaces		162	162	324	648	324	162	Total		1,273	1,782	1,944	3,486	1,924	1,945	Percentage difference of other comparison rates to the proposed maximum rates		-	-	+9%	+96%	+2%	+9%	
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Issue/recommendation	Project response	Appendix Ref
	<p>Reduced car parking provision for the residential component will provide a balance between car parking demand, and the encouragement of sustainable and active transport by residents. The car parking needs of future residents can still be met through a number of flexible and sustainable parking management measures / options such as:</p> <ul style="list-style-type: none"> • Decoupled parking, to accommodate parking needs of all residents • Addressing car travel needs via carpooling and / or using shared vehicles • Parking spaces dedicated to electric vehicles, with charging stations • Parking spaces dedicated to a car share scheme and community car- share vehicles, both on-street and incorporated in easily accessed public car parks. <p>Further measures are considered to minimise parking provision by introducing shared vehicle parking spaces within the development. Car share is a recent parking management option that is being increasingly considered for developments in Sydney as part of a travel demand management plan to reduce the number of parking spaces required to be provided in new developments.</p> <p>Future DAs will be required to demonstrate how car share parking spaces are to be incorporated, including access and security. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.</p> <p>These requirements support the notion of using car share schemes, such as Go Get, to achieve reductions in private vehicle ownership. They also allow for action to be taken regarding parking provision and a review of existing parking controls.</p> <p>Additional mode share analysis suggests that there could be a significant shift to public transport use, from less than 10 percent currently to between 24 percent and 61 percent depending on the types of transport and built form policies implemented for this development given its location and density. This complements a proposed reduction in parking supply.</p> <p>Retail and commercial parking has been developed based on a merit assessment from the TTIA consistent with Part D Section 19 of THDCP. The non-residential component of the site is expected to be relatively minor. Patrons will likely be residents and passing trade within the local</p>	

Issue/recommendation	Project response	Appendix Ref																
	<p>walking catchment, accessing the premises by foot or bicycle, with a reduced reliance on cars. Given the proximity of the retail and commercial uses to the metro station, the car parking rate has been based on comparable TOD sites as follows:</p> <ul style="list-style-type: none">• Retail 1 space per 130m² – 60m² of GFA• Office/commercial 1 space per 130m² – 60m² of GFA. <p>The TTIA demonstrates that the proposed parking for retail and office/commercial are sufficient to meet parking demand.</p> <p>All other uses are to comply with parking rates set out in Table 1 of Part C of THDCP and will not exceed the overall cap of 1,957 spaces.</p> <p>The Hills Showground Station Precinct site is well served not only by the metro but by other modes of transport including buses, connection to the T-way, improved/ new pedestrian and cycle routes. Reduced parking is proposed to create a transit-oriented centre, reflecting the higher level of public transport services and to minimise additional congestion to the surrounding road network.</p> <p>Based on the yield and land use mix and the recommended maximum parking rates, the updated Concept Proposal would supply up to a maximum of 1,957 car parking spaces (including residential, retail, office/commercial, visitor parking and car share) (see table below) and the required service and motorcycle parking. This represents a reduction in car parking spaces required by THDCP in the order of 50 percent. The reduced parking rate will maximise the full potential of the strategic location of the site adjacent to the metro station, reduce trip generation and discourage private motor vehicle use.</p> <table><caption>Table 4-5 Total car parking spaces for overall development</caption><tr><th>Type of use</th><th>Overall development</th></tr><tr><td>Non-residential</td><td>104-203 spaces</td></tr><tr><td>Residential</td><td>1,111-1,620 spaces</td></tr><tr><td>Visitor</td><td>162 spaces</td></tr><tr><td>Sub-total</td><td>1,377-1,985 spaces</td></tr><tr><td>Shared vehicle</td><td>10-14 spaces</td></tr><tr><td>Offsetting of normal parking spaces</td><td>minus 30-42 spaces</td></tr><tr><td>Total</td><td>1,357-1,957 spaces</td></tr></table> <p>Source: SCT Consulting, 2020</p>	Type of use	Overall development	Non-residential	104-203 spaces	Residential	1,111-1,620 spaces	Visitor	162 spaces	Sub-total	1,377-1,985 spaces	Shared vehicle	10-14 spaces	Offsetting of normal parking spaces	minus 30-42 spaces	Total	1,357-1,957 spaces	
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Total	1,357-1,957 spaces																	
<p>15. Traffic and Transport Assessment</p> <p>Revise the Traffic and Transport Assessment in response to advice from TfNSW (RMS) including revised traffic models.</p>	<p>The Traffic and Transport Assessment has been revised to respond to advice from TfNSW (RMS) including revised traffic models. Refer Section 4.9 of this report for a response to the issues raised by TfNSW.</p>	<p>TTIA Appendix N</p>																

Issue/recommendation	Project response	Appendix Ref
Other matters		
16. Design Excellence Finalise the Design Excellence Strategy (DES) to be revised in consultation with GANSW and Council	<p>Landcom consulted with DPIE and GANSW where feedback was provided on the DES.</p> <p>The DES was also discussed at the meeting with Council. Key concerns raised by Council included clarification of Landcom's Design Advisory Panel (DAP) and their role in the review of future DAs as well as the role of Council's DRP.</p> <p>In response to the concerns, Landcom has revised the DES. Key changes include:</p> <ul style="list-style-type: none"> • Revised structure of the DES similar to the other SMNWP precincts within the Hills LGA • Further clarity on the future DA pathways as well as the roles and responsibilities between the different consent authorities • A standard glossary of terms is included. <p>In addition, design excellence benchmarks have now been included to support the implementation of the DES and a waiver is being sought for on the requirement for an architectural design competition in accordance with Clause 9.5 (6) of THLEP 2019, which allows GANSW to certify in writing that a design review panel (SDRP or Council DRP) should review the detailed DA.</p> <p>For further detail regarding the response to issues raised by Council refer to Section 4.3.</p>	DES Appendix E
17. Water and waste management Address the water and waste management concerns raised by TfNSW (RMS) and Council	<p>Water and waste management concerns raised by TfNSW (RMS) and Council have been addressed in the revised Integrated Water Cycle Management Strategy, Urban Design Report and Guidelines and Traffic and Transport Report. Responses to the concerns raised by Council are addressed in the following Sections 4.3 communal and in Section 4.9 for TfNSW.</p>	UDG Appendix I IWCMS Appendix L

Table 5: Maximum yield and density for development lots

Precinct	Total Maximum GFA	Maximum Residential GFA	Residual Commercial/retail GFA	Maximum no. of dwellings
Hills Showground Precinct West	29,146	26,141	3,005	307
Doran Drive Precinct	51,065	40,130	10,935	440
Hills Showground Precinct East	86,275	86,275*	-*	873
Total	166,486	152,546	13,940	1620

*Ground floor uses may be non-residential. In the case that ground floor areas that are currently shown in the proof of concept as residential are developed as non-residential GFA will reduce by that area and the non-residential GFA will increase by that area. Total maximum GFA will remain constant.

Table 6: Social infrastructure requirements

Precinct	Summary and recommendation	Comments/Actions
Community facilities and libraries	<p>Based on community facility and library benchmarks, the population is likely to generate demand for around 285m² of community centre space and based on the NSW State Library Population Based Library Calculator, the population is likely to generate demand for around 246 m² of library space.</p> <p>Given the proximity to planned and existing community facilities in the surrounding area, it is recommended that contributions are made towards the delivery or expansion of a facility off site rather than delivery of a community facility onsite (to the value of approximately 500 m² GFA for combined community centre and library space) with the view to increasing the capacity of library services in the surrounding area.</p>	Further consultation with Council regarding the provision of community facility and library will be undertaken.
Open space	The site is in close proximity to significant open space and recreational facilities (104ha within 2km). The concept master plan also addresses and exceeds the performance criteria outlined in the NSW Government Architect's Open Space for Recreation Guide and the total open space provision in the Hills Showground Station Precinct exceeds the WHO standard of 0.9ha/1000 with 1.35ha/1,000 people. Therefore, this study supports the open space provision proposed in the concept master plan. However, it is recommended that consultation with Council occurs around the level of embellishment of the park if it is to be transferred to Council to manage and maintain.	<p>The following new open space is to be provided within the site:</p> <ul style="list-style-type: none"> Doran Drive Plaza minimum of 1,400m² Precinct East Park minimum of 3,500m². <p>Further consultation is being undertaken regarding the dedication of Precinct East Park as detailed in Table 4.</p>
Education	The future population of the Hills Showground Station Precinct does not generate enough demand by itself to require either a primary or secondary school. However, the broader Precinct population of 24,332 people is likely to generate demand for approximately 973 primary school places and approximately 486 high school places. This would suggest the need for a new primary school to serve the needs of the broader Precinct.	Further consultation will be undertaken with SINSW on this matter as detailed in Section 4.4.

Precinct	Summary and recommendation	Comments/Actions
	<p>The Hills Showground Station Precinct development would generate demand for only 15% of the total number of primary and secondary school places for the broader Precinct.</p> <p>Consultation with SINSW confirmed the need for school space in the wider area to meet future demand from a growing population. SINSW are considering the suitable location of a new primary school (including access to appropriate open space). Landcom will continue engaging with SINSW to support the identification of an appropriate school site to service the future needs of the wider Hills Showground area.</p>	
Childcare	<p>It is likely the future population of the Hills Showground Station Precinct will generate demand for approximately 107 childcare places. Assuming that a contemporary childcare centre can provide for between 90 to 120 childcare places, this equates to the need for at least one new childcare centre.</p> <p>There are a number of childcare centres with vacancies in the surrounding area that may be able to absorb some demand. However, the provision of these childcare centres would be left to market forces once demand can be demonstrated. The GFA allocated for commercial uses in the Precinct could cater for a childcare.</p>	No action required.
Health	<p>Consultation with the WSLHD has confirmed that there are significant acute care services in the north and north west Sydney district including Blacktown hospital and Westmead hospital. The site is also in close proximity to the planned Rouse Hill Hospital and Health Service. The support services around the smaller hospitals will also be able to provide non acute health services.</p> <p>Residents of the area would also have access to services provided in the Castle Towers Medical Practice and Castle Hill Medical Centre. Based on a national benchmark of one general practitioner per 1,000 people, the development may also be able to support between 3 4 general practitioners. Assuming that contemporary medical practices employ a minimum of four GPs, it is estimated the development could support one new medical practices. Medical services in the Doran Drive Precinct will be provided by private sector providers, as demand develops.</p>	No action required.

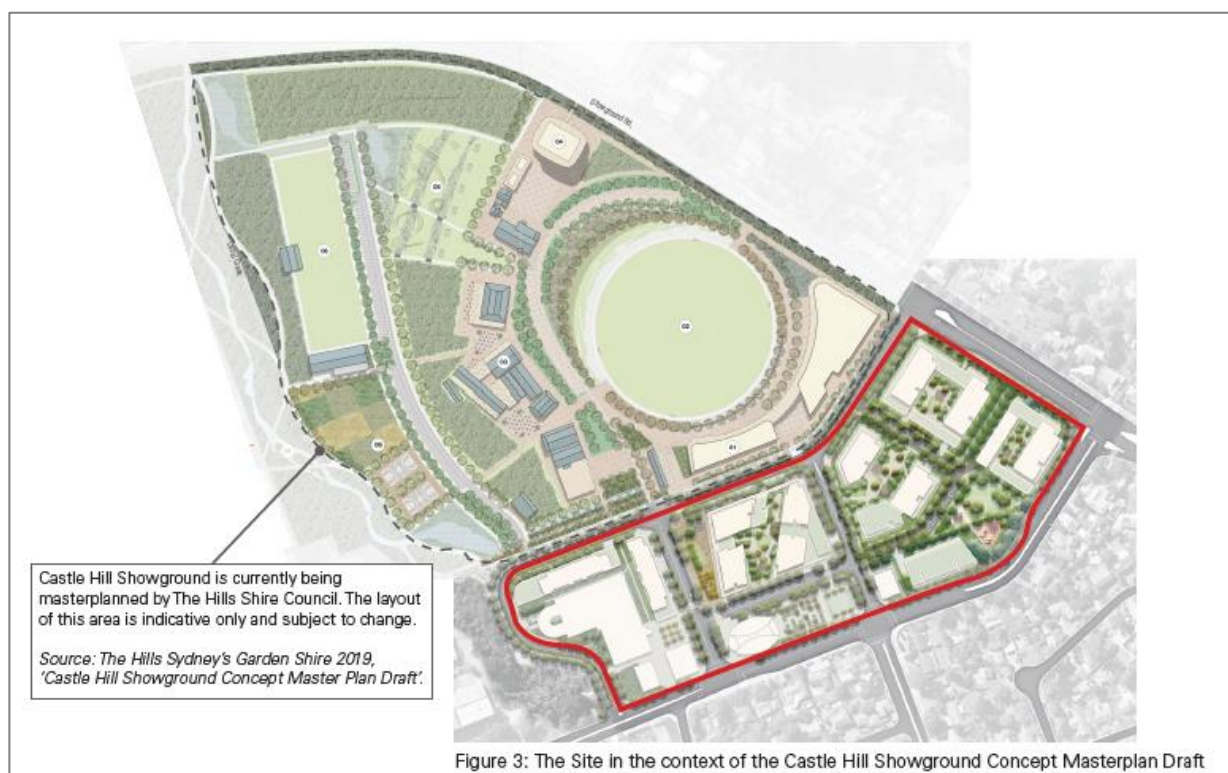


Figure 3 Integration with Castle Hill Showground (Cox 2020)

Diversity and Inclusion

Providing for diversity and inclusion in the planning and design of The Hills Showground Station Precinct is of paramount importance to ensure housing choice for different demographics, living needs and household affordability levels, supporting the objectives outlined in clause 7.11 of The Hills Local Environmental Plan 2019 (THLEP).

Affordable housing

Affordable Housing is defined as housing for 'very low-income households, low income households and moderate-income households' under section 1.4 (1) of the EP&A Act.

Objectives

- a) To ensure that the development promotes social and economic integration while providing households on lower incomes access to housing opportunities.
- b) To ensure consistency in the material treatment of affordable and market dwellings.

Controls

1. A minimum of 5% of the number of dwellings delivered must be Affordable Housing. The location(s) and configuration(s) of affordable housing within the Hills Showground Station Precinct is flexible as long as the 5% minimum is met, and may occur on any or all of the associated development lots.
2. Affordable Housing must be integrated into the overall development with no discernible difference in quality when compared to market housing.
3. The provision of Affordable Housing must conform to the State Environmental Planning Policy (Affordable Rental Housing), 2009 (ARHSEPP).
4. Car parking for affordable housing is to be in accordance with Sections 3.2.13, 4.2.12, and 5.2.16 Car Parking and Access of this document consistent with State Environmental Planning Policy (Affordable Rental Housing) 2009.

Figure 4 Affordable housing controls (Cox, 2020)

Dwelling Typologies and Mix

Objectives:

- To provide housing choice to suit different demographics, living needs and household budgets.
- To guide appropriate locations for differential typologies given their proximity to infrastructure and mixed-use areas, as well as adjacent residential areas and open space.

Control:

- Apartment mix is to be provided in accordance with Table 1 below. The approach below achieves an overarching mix across the Hills Showground Station Precinct of:
 - No more than 25% studio or 1-bedroom dwellings or both
 - At least 20% 3 (or more)-bedroom dwellings.
- Any variation to the apartment mix controls must be supported by a market demand assessment prepared by a suitably qualified professional.
- Townhouse apartments are to be provided at a minimum along the new internal street to Precinct East where 12m high (3 storey) envelopes are stipulated.

	Precinct West	Doran Drive	Precinct East
1 bedroom dwellings	No more than 25% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be studio or 1-bedroom dwellings, or both.		
3 bedroom dwellings	At least 23% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more-bedroom dwellings.	At least 10% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more-bedroom dwellings.	At least 24% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more-bedroom dwellings.

Figure 5 Apartment mix controls (Cox, 2020)

Table 7: Assessment of setbacks proposed

Issue	Requirement	Exhibited concept (vs Requirement)	Revised concept (vs Requirement)	Assessment of Revised Concept
The Hills LEP 2012				
East Precinct (local street)	5m	4.5m (podium) Variation by 0.5m	5m Complies	Now complies to allow for sufficient landscaping, improve amenity outcomes and consider implications of future widening and upgrades.
The Hills DCP2012				
East Precinct (local street)	5m (upper levels)	3m (upper levels) Variation by 2m	3m (upper levels) Variation by 2m	A 3m upper level setback is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a pedestrian scale streetscape. (refer detail in Table 4, Item 10)
East Precinct (Showground Road)	10m (podium)	3m (podium) Variation by 7m	10m (podium) Complies	Now complies to address amenity issues and consider implications of future widening and upgrades.
	5m (upper levels)	3m (upper levels) Variation by 2m	3m (upper levels) Variation by 2m	A 3m upper level setback is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a

Issue	Requirement	Exhibited concept (vs Requirement)	Revised concept (vs Requirement)	Assessment of Revised Concept
				pedestrian scale streetscape. (refer detail in Table 4 , Item 10)
East Precinct (De Clambe Drive)	5m (podium)	3m (podium) Variation by 2m	Complies	Now complies to allow for sufficient landscaping and improve amenity outcomes.
	5m (upper levels)	3m (upper levels) Variation by 2m	3m (upper levels) Variation by 2m	A 3m upper level setback is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a pedestrian scale streetscape. (refer detail in Table 4 , Item 10)
East Precinct (Carrington Road)	5m (podium)	Complies	Complies	No change from requirements.
	5m (upper levels)	3m (upper levels) Variation by 2m	3m (upper levels) Variation by 2m	A 3m upper level setback is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a pedestrian scale streetscape. (refer detail in Table 4 , Item 10)
East Precinct (setback to service box)	6m	Complies	Complies	No change from requirements.
Doran Drive Precinct (De Clambe Drive and Doran Drive)	3m (podium)	0m (podium) Variation by 3m	0m (podium) 3m (outdoor) Partial Variation	0m (podium) with provision for 3m outdoor dining setback within the podium to support active street frontages and potential outdoor land uses.
	5m (upper levels)	3m (upper levels) variation by 2m	3m (upper levels) Variation by 2m	A 3m upper level setback is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a pedestrian scale streetscape. (refer detail in Table 4 , Item 10)
Doran Drive Precinct (Andalusian Way and Mandala Parade)	0m (podium)	Complies	Complies	No change from requirements.
	5m (upper levels)	3m (upper levels) Variation by 2m	3m (upper levels) Variation by 2m	A 3m upper level setback is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a pedestrian scale streetscape. (refer detail in Table 4 , Item 10)
West Precinct	0m (podium)	0m (podium)	Complies	0m (podium) with provision for 3m outdoor dining setback to support active street frontages and potential outdoor land uses.
	3m (upper levels)	2m (upper levels) Variation by 1m	2m (upper levels) Variation by 1m.	A 2m upper level setback in Precinct West is deemed appropriate to achieve the design principles of providing for delineation between the podium and upper level elements and a pedestrian scale streetscape. (refer detail in Table 4 , Item 10)

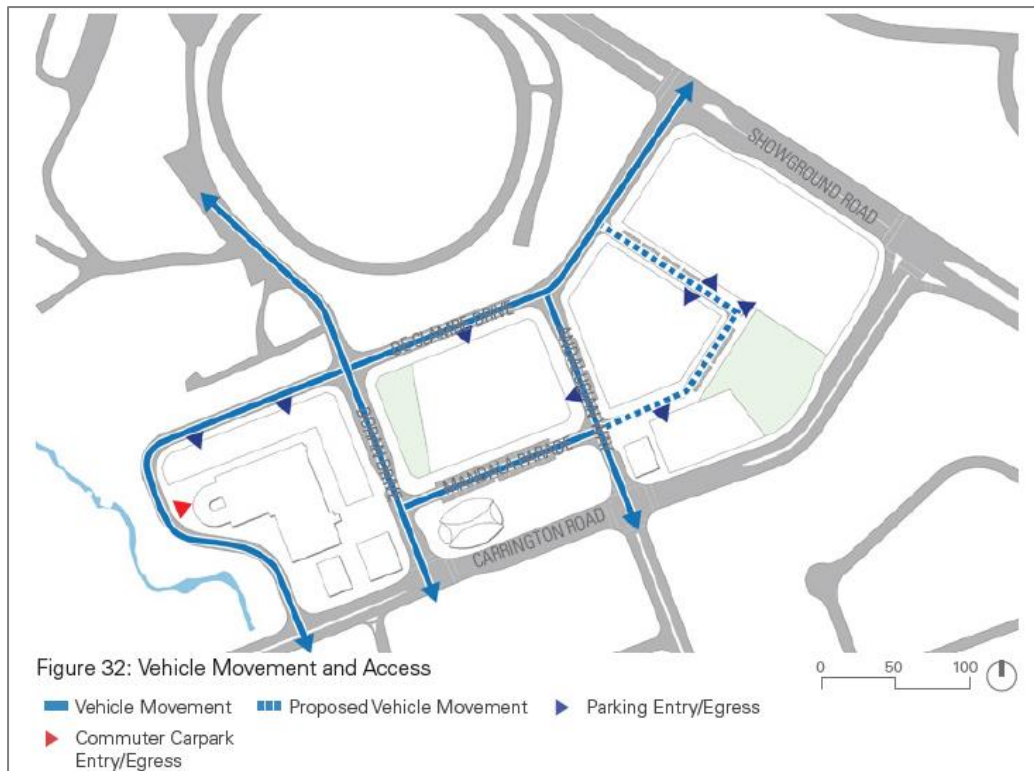


Figure 6 Vehicle movement and access (Cox, 2020)

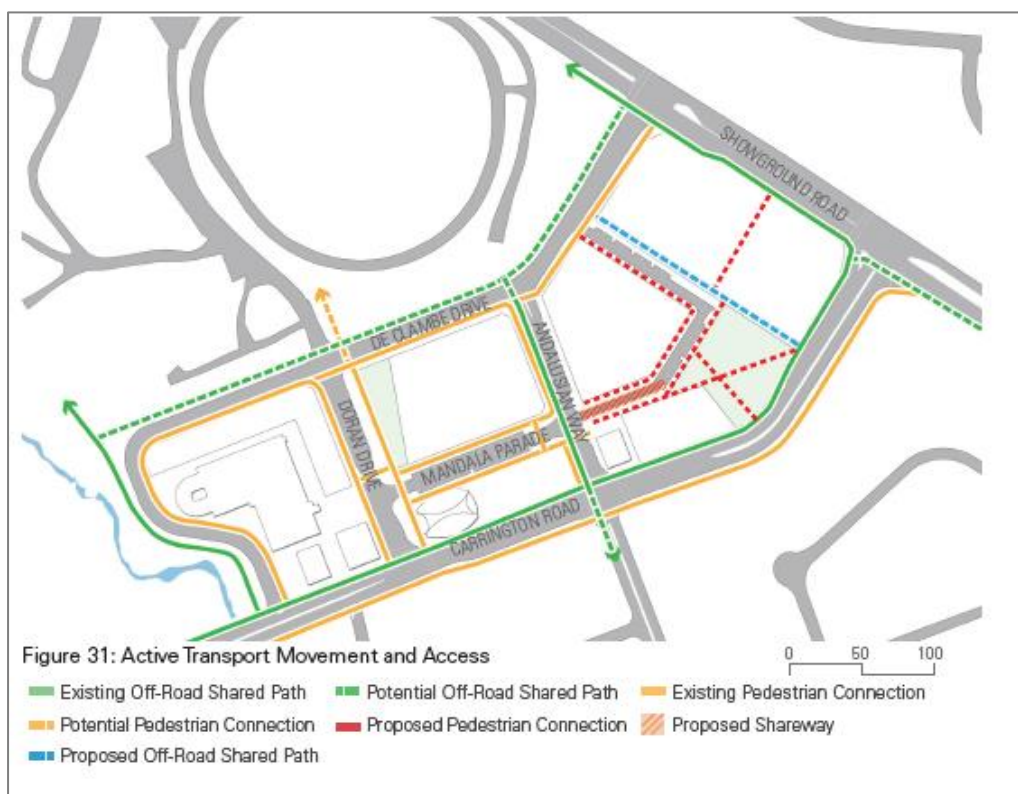


Figure 7 Proposed active transport network (Cox, 2020)

4.3. The Hills Shire Council

The Hills Shire Council (Council) made a number of comments and recommendations relating to urban design, the provision of local infrastructure, traffic and parking matters and water and waste management.

Table 9 below provides detail on the comments and recommendations made by Council, the project response to these comments and recommendations, and the associated documentation provided to support the project response.

Table 8: Response to issues raised by The Hills Shire Council

Issue/recommendation	Project response	Appendix Ref
Urban Design		
<p>1. Built Form and Density</p> <p>The proposed built form and density (1,900 dwellings) is of a scale which is beyond that envisaged under the applicable strategic framework and the concepts put forward by the Department of Planning, Industry and Environment as part of the Priority Precinct exhibition. As these plans were used to justify the rezoning of the site to Council and the community, there is a reasonable expectation that future development aligns with these outcomes. The delivery of yields more consistent with the outcomes previously exhibited by the Government through the precinct planning process (approximately 1,500 dwellings) would enable a more appropriate density and built form outcome to be achieved.</p> <p>The SSDA concepts depict a relatively bulky built form with minimal modulation or variation in height across the site. The density is also considered to be too high for the site owing to the overwhelming bulk and scale presented. It is expected that a high-profile development of this nature would provide exemplar outcomes of good building and development beyond baseline ADG</p>	<p>The project response to this issue is provided in Section 5.2 (Table 4, Item 2).</p>	<p>Concept Plan Drawings for Approval Appendix B UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
<p>minimum requirements. The North Ryde precinct and Lachlan's Line developments for example are not considered to be appropriate precedents to follow nor are they contextual and reflective of an appropriate future character for the Showground Precinct.</p> <p>The proposal is seeking to maximise development potential at the expense of providing an attractive, varied and interesting built form. The concept currently resembles a high-level feasibility proposal rather than a masterplan for higher density urban living providing high quality amenity dwellings and public domain.</p>		
<p>2. Landmark or gateway site</p> <p>In this precinct there are sites worthy of being termed a landmark or gateway site.</p> <p>These sites such as the corner of Showground Road and Carrington Road should be expressive of their location and visual prominence on the site. Providing more variety in the height and form of the towers should be considered in contrast to the dominant single height datum that is currently expressed.</p>	<p>The site located on the corner of Showground Road and Carrington Road is acknowledged within the SSDA as being one of prominence and contributing to the character of the broader area. To reinforce this prominence and character the SSDA seeks to:</p> <ul style="list-style-type: none"> • Retain existing, mature, native trees along Carrington Road and Showground Road • Provide for a significant landscape buffer of 10m to Showground Road to enable additional trees to be planted in both the public and private domain • Allow for a 100m², landscaped bioretention basin at the corner of the Carrington Road and Showground Road intersection • Allow for a publicly accessible through site-link from Showground Road that incorporates existing trees • Provide for a built form that modulates in height in presentation to both Showground Road and Carrington Road through: <ul style="list-style-type: none"> • 3- storey townhouse apartments adjoining the Precinct East Park on Carrington Road • 4-storey podium apartments that are suitably setback and address Carrington Road and Showground Road • An 8-storey, midrise, single-loaded apartment building setback more than 20m from Showground Road <p>A 16-storey residential building which presents an articulated façade to the intersection and</p>	<p>Concept Plan Drawings for Approval Appendix B UDG Appendix I</p>

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	through a north-east to south-west orientation, minimises the extent of building located along the Showground Road interface.	
<p>3. Inconsistencies between documents</p> <p>It is further noted there are inconsistencies between the proposed building heights within the Urban Design Report (page 91) which includes some two and three storey elements in the Doran Drive Precinct and the Plans for Approval (Drawing No. SK7) which identify buildings ranging from four storeys to 20 storeys. Consistency between all of the relevant information is considered paramount if these documents are to be used to guide future built form outcomes.</p>	The project response to this issue is provided in Section 4.2.	<p>Concept Plan Drawings for Approval Appendix B UDG Appendix I</p>
<p>4. Building Separation</p> <p>The tower heights and lengths are such that the ADG minimum building separation of 24m is insufficient and consideration should be given to providing greater setbacks through the off-setting of towers so that distances of around 40m can be achieved. Distance separation of less than 24m between tower forms is inappropriate and fails to provide any certainty that a high amenity-built environment is able to be achieved.</p>	<p>Significant improvements in tower separation have been achieved through the reduction in density and site coverage. Building separation now exceeds ADG in most instances. Refer Figure 7 which illustrates the proposed building separation being achieved. Key changes include:</p> <ul style="list-style-type: none"> • Precinct West – tower separation has increased from 12m to 18m • Doran Drive buildings in the north separated by 12m and those in the south 24m • Precinct East separation between towers ranges from 24 to 54m (previously 18m to 24m). <p>Building envelope controls within the approved Concept Plans and the Urban Design Guidelines will ensure that these separation distances are adhered to by future DAs.</p>	<p>Concept Plan Drawings for Approval Appendix B UDG Appendix I</p>
<p>5. Urban Grain</p> <p>The Urban Design Guidelines will not provide a 'fine grained' street frontage. For example, the Urban Design Guidelines (page 28) include a trigger for buildings to incorporate articulation at 50m of building length which is considered inadequate. It is recommended that a requirement be included</p>	<p>Additional DCP controls have been incorporated into the Urban Design Guidelines.</p> <p>Where a building has a length greater than 30m it is to be separated into at least two parts by a significant recess or projection. Where a building has a length greater than 40m it shall have the appearance of two distinct building elements with individual architectural expression and features.</p>	<p>UDG Appendix I</p>

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<p>in the Urban Design Guidelines, consistent with the Showground Precinct DCP, that for streets with a road reservation of less than 20m width the length of building facades shall not exceed 40m. A maximum building length control of 65m should be included for streets with a road reservation of 20m or greater.</p> <p>Consideration should be given to how a finer grain street edge could be achieved to prevent the built form presenting as being monolithic and without a sense of human scale. Reference should be made to the current DCPs for Showground and Castle Hill North for guidance on how to better achieve a fine-grained street edge.</p>	<p>No towers in Hills Showground Precinct West are longer than 65m and interface a road that is wider than a 20m reserve. This is also mitigated by the slender building form of a width of no more than 17m.</p> <p>No towers in Doran Drive Precinct are longer than 40m and interface roads that are all wider than a 20m reserve</p> <p>All towers within Hills Showground Precinct East read as less than 50m in length. Two of the tower elements are joined (the 32m and 40m along the internal street as shown in the adjacent plan), however they are at different orientations, with different heights, and are significantly articulated both horizontally and vertically to read as two separate buildings.</p> <p>Any buildings that exceed 40m in length address a street that has a reservation of more than 20m (De Clambe Drive, Carrington Road, Showground Road and Andalusian Way).</p>	
<p>6. Mid-Block Links</p> <p>It is recommended that consideration be given to an additional through-site link within the Doran Drive Precinct to break up the built form and provide greater connectivity between the station area and the Castle Hill Showground. It is noted that the indicative layout plan within Council's Showground Precinct DCP requires a pedestrian link in this location. The Showground is expected to accommodate large events and additional through-site links would better accommodate pedestrians moving on mass between the Showground and the station. The resultant break in built form would also assist with reducing the visual bulk and scale of buildings.</p>	<p>The concept proposal does not preclude a mid-block link but it was not included in the concept plan in order to support greater activation and viability of the precinct's primary retail frontages along Mandala Parade and Doran Drive Plaza, which provide direct connections between the showground and the metro station. A mid-block connection would dilute activity away from these primary frontages and, at 75m in length, it may struggle to satisfy CPTED requirements for safety and surveillance if it wasn't activated by retail and food and beverages at night.</p>	<p>UDG Appendix I</p>
<p>7. Setbacks</p> <p>Landcom is seeking to reduce minimum setback controls</p>	<p>The project response to this issue is provided in Section 4.2 (Table 4, Item 9).</p>	<p>Concept Plan Drawings for Approval Appendix B</p>

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<p>required for the site under THLEP 2012 and THDCP 2012. Refer Table 7.</p> <p>The minimum setback of 10m to Showground Road in THDCP seeks to respond to the busy nature of this Arterial Road. It aims to provide sufficient space for deep soil planting including larger tree species to ameliorate potential visual and acoustic outcomes and maintain a green and leafy character consistent with the Garden Shire identity. The larger setback also acknowledges the lower scale development on the opposite side of Showground Road.</p> <p>In addition, the required upper level setbacks in the THDCP (generally 5m) seek to ensure that taller building elements comprise a generous setback from streets to reduce building scale and bulk and provide ample sunlight access to the public domain.</p> <p>The proposed reduced setbacks are not supported. The minimum setbacks within THLEP 2012 and THDCP 2012 were set as a result of detailed precinct planning completed by the NSW Government. These already vary substantially from Council's typical front setback requirements for apartment buildings of 10 metres (apart from Showground Road). These already reduced setbacks acknowledge the intended urban character of the area, whilst continuing to allow reasonable space for deep soil planting and larger tree species, increasing urban tree canopy and privacy and amenity for future residents. The setbacks established under the applicable framework also seek to enhance solar access to</p>	<p>For clarification it is noted this is a control in Part D Section 15 of THDCP as per Figure 42 Upper Level Setbacks (R1 General Residential and B2 Local Centre).</p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
<p>streets and reduce wind impacts – this is desirable from an amenity perspective in this high density area.</p> <p>Where the street is defined as an active frontage, consideration should be provided to what uses may occur. It is recommended that appropriate setbacks be provided as per the existing controls to enable active frontages to be functional. Providing a zero lot setback on these frontages will prevent on-street cafe and dining opportunities from occurring as they will provide an impediment to the pedestrian path of travel. The established controls were put in place with due consideration of desired future uses and should be complied with.</p> <p>It is also considered inappropriate to vary the requirements as part of a masterplan approval, without any detailed concepts for individual buildings to justify the variation. It is noted that there would remain some scope for variation to setbacks to be considered on a case-by-case basis as part of future built form applications for individual buildings. This would allow for consideration of variations having regard to the detailed design of individual buildings, proposed land uses and specific opportunities and constraints afforded by individual sites.</p>		
<p>8. Site Coverage</p> <p>The proposed site coverage appears to exceed the maximum requirement under THDCP of 50%. This would be a contributing factor in the proposal exceeding the capacity of the site and is evident with the Precinct East</p>	<p>The DCP stipulates that the site coverage of future development within the R1 General Residential zone shall not exceed 50% of the site area (excluding land to be dedicated or acquired for a public purpose).</p> <p>Excluding the new Precinct East Street and Public Open Space, the resultant developable area for Precinct East totals 20,998m². This is comprised of:</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDR Appendix H</p> <p>UDG Appendix I</p>

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<p>common open space areas which are in shadow throughout the day on 21 June. The lack of solar access indicates that the proposed density is too high. It is not considered to be acceptable that the principal ground level open space for these developments receives no solar access on 21 June. Roof top gardens do not provide an acceptable substitute and present issues for children seeking areas for safe play. Full site coverage is unnecessary and inappropriate in an outer metropolitan station precinct.</p>	<ul style="list-style-type: none"> • Lot 1 - 2,286m² • Lot 2 - 6,194m² • Lot 3+4 - 12,518m² <p>As a total for Precinct East, the site coverage is 47%. The site coverage for each Lot is:</p> <ul style="list-style-type: none"> • Lot 1 – 1,404m² @ 61% coverage • Lot 2 – 2,762m² @ 45% coverage • Lot 3+4 – 5,707m² @ 46% coverage. <p>Lot 1 is deemed to be an appropriate site coverage outcome in that the 61% site coverage is a direct result of reducing the size of the development lot to allow for the dedication of additional open space to the Precinct East Park.</p> <p>The reduction in densities and reconfiguration of building orientation, height and bulk has resulted in significantly increased solar access to communal open spaces. At least 50% of all the combined communal open spaces within the development lots receive the minimum 2 hours of sunlight between 9am and 3pm on 21 June (mid-winter). In addition, the current scheme allows for principal communal open space areas that could be located in areas that achieve 100% direct sunlight should that be desired, far in exceedance of DCP or ADG requirements.</p> <p>The provision of communal open space on podiums and rooftops is now widely accepted for higher density development and can be designed to ensure safe play for children.</p> <p>It is also important to note that all lots benefit significantly from the provision of the new local park. As this will be dedicated it is not included in the site coverage calculations.</p>	
<p>9. Communal Open Space</p> <p>Communal open space provision should demonstrate compliance with the requirements of The Hills DCP 2012 Part D Section 19 – Showground Precinct rather than the SEPP 65 Apartment Design Guide. Provision of play areas within individual communal open spaces should be considered to cater for the projected population, of</p>	<p>The concept proposal complies with the majority of Council's controls and these have been included in the Urban Design Guidelines, with the exception of the two controls which have not been included.</p> <p>Justification with respect to this non-compliance is detailed below.</p> <p>As defined by the ADG, communal open space means outdoor space located within the site at ground level or on a structure that is within common ownership and for the recreational use of residents of the development. Communal</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDR</p> <p>Appendix H</p> <p>UDG</p> <p>Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
<p>which a high proportion will be children.</p>	<p>open space may be accessible to residents only, or to the public.</p> <p>Amount of communal open space</p> <p>Council's controls for communal open space is well in excess of the minimum requirements of the ADG and it would be difficult to achieve the densities anticipated for the site under the current height and FSR controls if these requirements were to be met. Refer Table 9 for comparison of Council's requirements vs the ADG.</p> <p>The proof of concept proposal demonstrates that the minimum ADG requirements for communal opens space can be met and exceeded.</p> <p>Location of communal open space</p> <p>The provision of communal open space on podiums and rooftops is now widely accepted for higher density development and has a variety social, environmental and economic benefits. These includes:</p> <ul style="list-style-type: none"> • Beautifying buildings and the streetscape, with green roofs and roof top gardens • Insulating buildings from heat which in turn will reduce reliance on heating, ventilation, and air conditioning systems, achieving sustainability objectives • Insulating buildings from noise • Creating areas for recreation and food growing • Extending roof life by protecting the waterproofing layer from weather and temperature changes • Cooling city temperatures and reducing the urban heat island effect • Slowing and cleaning stormwater runoff from buildings • Providing a safe and secure space for residents to recreate • Offering people urban respite and foster social interaction and community building. <p>The communal open space will also include amenities that encourage social gatherings such as lounges and barbeques allowing people backyard luxuries in small but functional spaces.</p>	

Issue/recommendation	Project response	Appendix Ref
	Provision of open space on upper levels will also ensure solar access requirements under the ADG can be met and exceeded.	
<p>10. Solar Access</p> <p>The bulk, massing and tower heights should be arranged so as to provide unimpeded solar access to proposed public open space locations including the existing station park for two hours on 21 June. For a proposal of this size, high quality public open space design is essential, in keeping with the place-making principles of high quality liveable urban places.</p> <p>The shadow diagrams provided as part of the Urban Design Report indicate that the communal open spaces within the East Precinct will be predominantly overshadowed between 9am and 3pm on 21 June. Whilst the controls within The Hills DCP 2012 Part D Section 19 – Showground Precinct do not apply to State Significant Development Application, these controls establish Council and the community's expectations of future redevelopment within the station sub-precinct within the draft DCP. The proposed developments would not comply with the DCP requirement that developments shall achieve direct sunlight to the principal usable part of the communal open space for a minimum of two hours between 9am and 3pm on 21 June. It is noted that a reduction in density and greater variation in heights, as recommended previously, would likely assist with mitigating this issue.</p>	<p>Densities have now been reduced and solar access to public and private open space has been increased. Solar Access requirements to the Precinct East Local Park have been increased to 70% of the public open space during the Winter Solstice. This is well in exceedance of any similar urban environments adjoining a metro station in Sydney.</p> <p>As detailed in Section 4.2 (Table 4) of this report the additional shadow diagrams, at hourly intervals, have been prepared and included in the Urban Design Report demonstrating that existing/ proposed public open spaces will receive adequate solar access, that is:</p> <ul style="list-style-type: none"> • New Doran Drive Plaza – the entire area 100% (with the exception of any areas shaded by awnings) will achieve two hours of sunlight between 9am and 3pm on 21st June (mid-winter) • New Precinct East Local Park – 75% of the new park will achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21st June (mid-winter) • Station Plaza – 65% of the existing station plaza will achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21st June (mid-winter). <p>Controls have been included in the Urban Design Guidelines to ensure these minimum requirements specific to the site are met and that there is certainty for Council and the community.</p>	<p>Concept Plan Drawings for Approval Appendix B</p>

Issue/recommendation	Project response	Appendix Ref
<p>11. Other SEPP 65 Matters</p> <p>The following additional matters require further consideration and potential design revision to demonstrate meeting ADG objectives and design criteria:</p> <p>A number of apartments noted as meeting natural cross-ventilation are not in compliance with the acceptable design criteria as engineered solutions and ventilation shafts are not considered acceptable solutions; and</p> <p>Deep soil zones provided in front setbacks cannot be included in ADG summary of deep soil provision as a 6m minimum distance is required.</p>	<p>The proof of concept demonstrates that solar access and ventilation requirements as per the ADG can be met. Future DAs would also need to demonstrate compliance with the ADG.</p> <p>Deep soil within 5m primary setbacks will not count towards individual lots achieving the requirements under ADG. The concept proposal demonstrates the minimum deep soil requirements of 7% can be achieved within Doran Drive Precinct and Hills Showground Precinct East in accordance with the ADG. The ADG acknowledges that achieving 7% may not be possible in high density areas and on constrained sites, as is the case for Doran Drive Precinct and Precinct West, however it can be demonstrated that these sites can achieve acceptable stormwater management and alternative forms of planting, including appropriate soil volumes for the required landscape species and sizes.</p>	<p>Concept Plan Drawings for Approval Appendix B UDR Appendix H UDG Appendix I</p>
<p>12. Active Frontages</p> <p>The Urban Design Guidelines should require human scale activated street frontages throughout the precinct. Public and Private Interface Guideline No. 1 on page 36 of the Urban Design Guidelines requires ground floor residences to provide an elevated stoop no less than 1m and no more than 1.2m above the levels of the adjoining public domain. It is recommended that these metrics be amended to no less than 0.3m and no more than 0.6m to provide greater street level activation and reduced potential CPTED concerns.</p> <p>Controls for active commercial street frontages should be included in the Urban Design Guidelines consistent with the active street frontage controls within Section 5.6 of Council's Showground Precinct DCP. It is critical that active frontages are oriented towards the Showground and potential synergies are explored at the</p>	<p>Stoop levels have been amended in the Urban Design Guidelines to 0.3-0.6m to remain consistent with THDCP and therefore the future residential flat building development in the broader Showground Precinct.</p> <p>Active frontage controls are included within the Urban Design Guidelines.</p> <p>Refer to Appendix F which provides a detailed comparison of the controls within the Urban Design Guidelines against THDCP controls</p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
interface between development on the Government land and future uses of the adjoining public land.		
<p>13. Street Trees</p> <p>The urban tree canopy proposed is insufficient and will not attain 40% coverage targets set by the GSC and GANSW. It is recommended that a requirement be included within the Urban Design Guidelines for street trees to be spaced consistent with existing street trees along De Clambe Drive, Andalusian Way and Doran Drive.</p>	<p>Canopy Cover now includes best-practice controls to achieve 20% overall canopy cover of the site and 40% within any new public domain delivered as part of the project consistent with other precedent projects noted by DPIE such as Waterloo.</p> <p>Street trees are to be spaced every 10m as per the DCP and a control has been included in the Urban Design Guidelines.</p>	<p>UDG Appendix I</p>
<p>14. Wind</p> <p>Given the density and foot traffic expected for this site, it is recommended that wind controls be included in the Urban Design Guidelines to require buildings of eight or more storeys to be subject to wind tunnel testing at the development application stage and demonstrate the following:</p> <p>In open areas to which people have access, the annual maximum gust speed should not exceed 23 metres per second;</p> <p>In walkways, pedestrian transit areas, streets where pedestrians do not general stop, sit, stand, window shop and the like, annual maximum gust speed should not exceed 16 metres per second;</p> <p>In areas where pedestrians are involved in stationary short-exposure activities such as window shopping, standing or sitting (including areas such as bus stops, public open space and private open space), the annual maximum</p>	<p>The Urban Design Guidelines stipulate that wind tunnel testing is required for buildings 8 or more storeys in height or over 25 metres in height. However, the wind speed criteria proposed in Urban Design Guidelines is slightly different to that in Council's DCP. Windtech has instead recommended the adoption of the Davenport (1972) comfort criteria. The Davenport criteria is based on the Gust Equivalent Mean (GEM) parameter, as opposed to the annual gust mean used for Melbourne criteria and is considered to be more accurate in the analysis of comfort.</p> <p>Further, long exposure criterion is considered to be less relevant when controlling general land use, and the relevance will only be clear once the specifics of an individual tenancy are known. These criterion relate to the specific type of individual tenancy within a retail or commercial space, or to specific tenant requirements rather than the overarching land use. It is noted in the UDGs that any approval by future tenants/operators will be subject to approval by the relevant determination authority, and that THDCP applies to the assessment of the use of non-residential premises, where applicable.</p>	<p>WIA Appendix P</p>

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<p>gust speed should not exceed 13 metres per second;</p> <p>In areas for stationary long-exposure activity, such as outdoor dining, the annual maximum gust speed should not exceed 10 metres per second; and</p> <p>The report is to be prepared by a suitably qualified engineer.</p> <p>These controls are consistent with the DCP controls for the Showground Precinct and Castle Hill North Precinct. Consideration of the wind mitigation strategies as per the Wind Environment Statement prepared by Windtech should also be included as a requirement in the Urban Design Guidelines.</p>		
<p>15. Building Materials / Finishes –</p> <p>Greater diversity is suggested for the building colours and finishes shown on Page 47 of the Urban Design Guidelines. Whilst it is acknowledged these intend to adhere to a specific theme, greater diversity including suggested finishes for architectural features would be of benefit to encourage greater visual interest in the built form.</p>	<p>Additional "Character Statements" are included in the Urban Design Guidelines.</p> <p>The revised Urban Design Guidelines also suggest greater variety and diversity in the materials and finishes palettes for both built form and public domain, drawing from the context of the site as well as THDCP.</p>	<p>UDG Appendix I</p>
<p>16. Mix of Housing Typologies</p> <p>The EIS and Urban Design Report refer to the provision of a range of housing (apartment) typologies. Whilst medium density housing forms such as terraces are not specifically identified in the plans, the provision of terraces or 'terrace edges' as per Council's adopted controls for Castle Hill North Precinct</p>	<p>The project response to this issue is provided in Section 4.2 (Table 4).</p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
could be considered for peripheral locations.		
<p>17. Design Excellence</p> <p>Concern is raised regarding the design excellence strategy and consistency of built form outcomes if different consent authorities and Design Review Panels are utilised. The Sydney Central City Planning Panel and Council's Design Review Panel which comprise of members with suitable local knowledge and expertise should have a role in assessing all future built form applications.</p> <p>Whilst Landcom has established its own Design Advisory Panel, it is unclear as to the weight and relevance of this panel's recommendations in relation to the proposal. There is no coherent strategy in place to ensure the recommendations are followed and considered, and there is no transparency in the process for members of the general public or Council to review the findings of the DAP against the design proposal put forward.</p> <p>Reference should be made in the Urban Design Guidelines to the criteria within Clause 9.5 of The Hills LEP 2012 which was put in place by DPIE when the LEP was gazetted in 2017.</p> <p>Design Excellence Guideline No. 2 within the Urban Design Guidelines (page 8) should be removed. Council officers are not involved in the design of individual buildings and development lots. Council has a Design Review Panel comprising three highly skilled and experienced design professionals approved by the Government Architect. The Design review panel provides</p>	<p>The project response to this issue is provided in Section 4.2 (Table 4).</p>	<p>DES Appendix E</p>

Issue/recommendation	Project response	Appendix Ref
design advice to applicants and Council officers.		
<p>18. Level of Detail in Urban Design Guidelines</p> <p>As the concept approval will effectively constitute a site specific DCP (in satisfaction of Clause 9.4 of The Hills LEP 2012), the Urban Design Guidelines should include sufficient detail to guide the final built form outcome. The guidelines need to have a level of detail equivalent to a DCP and should be expanded to provide guidance on additional matters such as:</p> <p>Unit mix and apartment size - future apartment development should comply with Council's housing mix and diversity criteria, as specified within Clause 7.12 of LEP 2012</p> <ul style="list-style-type: none"> • Common and private open space • Public domain character and treatments • Required parking rates. 	<p>The Urban Design Guidelines have been significantly expanded and include revised structure, content and level of detail. This includes site wide controls and precinct specific controls. As detailed in Section 4.2, a detailed review has been undertaken to:</p> <ul style="list-style-type: none"> • support compliance with ADG • respond to the advice of the State Design Review Panel (SDRP) • promote greater housing mix and diversity in building typologies • consider Council's DCP for the precinct • include detailed parameters to secure the desired urban design and planning outcomes for the precinct. <p>The Urban Design Guidelines have been updated to address these matters.</p> <p>Common and private open space controls, public domain character and treatments and required parking rates have been included.</p> <p>Clause 7.12 (now Clause 9.7) of the LEP does not apply to the site. Minimum apartment sizes will be as per the ADG however this would not preclude developers from providing larger apartments at the site and we note the Proof of Concept provides a variety of apartments at greater than ADG sizes. As detailed in Section 4.2 (Table 4), dwelling mix controls have been included in the Urban Design Guidelines and have been slightly adjusted for each of the development lots but achieve the overarching mix across the Hills Showground Station Precinct of 25% studio or 1-bedroom dwellings or both, and at least 20% 3+-bedroom dwellings consistent with Clause 9.7 (previously Clause 7.12) of the THLEP and THDCP in Part D Section 19 Hills Showground Station Precinct.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
<p>19. Proof of Concept</p> <p>It is recommended that the proof of concept be peer reviewed by a Government Architect-approved consultancy to ensure its quality and accuracy.</p>	<p>Landcom consulted with SDRP and Landcom DAP to review the revised scheme.</p> <p>The Proof of Concept has also been carried out by a world class and reputable architectural practice, with internal review by staff independent of the specific project team as part of its QA practices.</p> <p>Notwithstanding this, Landcom has no objections should DPIE commission an</p>	<p>UDR Appendix H</p>

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	independent review if it determines such a review is warranted.	
<p>20. Plans for Approval</p> <p>As a key purpose of the SSDA is to lock in the permissible GFA for each of the future development lots, it is recommended that the maximum GFA and yields for each lot be included on the 'Plans for Approval'. This would be consistent with the proposed approach for the SSDAs for the Bella Vista and Kellyville Station Precincts (Government land).</p>	A dwelling cap of 1,620 dwellings is now proposed within the SSDA. The cap applies individually to each development lot within the station precinct and is documented in the "Plans for Approval". The maximum GFAs for each development lot is likewise identified on the 'Plans for Approval'.	Concept Plan Drawings for Approval Appendix B
Local Infrastructure		
<p>21. Social Infrastructure Assessment</p> <p>With regard to social infrastructure, the EIS relies on the Community and Open Space Study prepared by ARUP in support of the precinct planning for the Showground Precinct. It is not considered appropriate to rely on this study as the yields being sought through the SSDA significantly exceed those anticipated for the site as part of the precinct planning. In light of the higher yields that are now intended to be achieved under the current proposals, further consideration needs to be given to social infrastructure requirements to ensure that the future residents are adequately serviced with parks, community facilities, schools etc.</p>	The project response to this issue is provided in Section 4.2 (Table 4) of this report. A Social Infrastructure Assessment (Appendix Q) has been prepared.	SIA Appendix Q

Issue/recommendation	Project response	Appendix Ref
<p>22. Cattai Creek Embellishment</p> <p>The SSDA does not include any details with respect to the revitalisation and embellishment of the portion of the Cattai Creek Corridor adjoining the site (Lot 51 DP 1253217). Works to this land have been the subject of ongoing discussions between Landcom and Council and it is expected that any works required on this land will be undertaken and / or funded by Landcom or future developers.</p>	<p>The revitalisation work of Cattai Creek is outside of the SSDA area and involves land that is not owned by Sydney Metro. Further discussion with Council is welcomed, however it should not be a matter for consideration under this application.</p>	<p>N/A</p>
<p>23. Lot 57 DP 1253217</p> <p>A parcel of land adjoining the Castle Hill Showground (Lot 57 DP 1253217) which is owned by Sydney Metro is currently being used to provide parking for the showground and metro station. It is expected when no longer required by Sydney Metro that this land will be amalgamated into the adjoining showground, at no cost to Council, as a critical portion of this facility which will in part support the future population on the subject site.</p>	<p>This parcel of land adjoins the Castle Hill Showground and is adjacent to the defined boundary area of the SSDA. Landcom is open to discussion with Council regarding the future of this site. The location of this Lot removes it from consideration under this application.</p>	<p>N/A</p>
<p>24. Community Facility Floor Space</p> <p>The EIS submitted with the SSDA notes that the provision of community uses within commercial floor space will be subject to further discussion with Council as part of future detailed DAs. It is not considered acceptable to defer the resolution of this matter to future detailed DAs. Rather, it is critical that the SSDA identifies how the development will address increased demand for community facilities and establishes a mechanism to secure delivery of community</p>	<p>See further response to this issue raised in Section 5.2 (Table 4).</p> <p>The Social Infrastructure Assessment identified the site would generate a demand for around 285m² of community centre space and 246m² of library space.</p> <p>Consultation with Council confirmed their preference to have a monetary contribution towards the community facility and library space off site due to the proximity to other community uses and low demand the SSDA would generate.</p> <p>Notwithstanding the above, further consultation with Council will be undertaken as part of the future DAs to decide whether monetary contribution will be provided or whether this may</p>	<p>SIA Appendix Q</p>

Issue/recommendation	Project response	Appendix Ref
facility GFA as part of any concept approval.	be delivered by a developer on site through a works-in-kind agreement.	
<p>25. Doran Drive Plaza</p> <p>A clear and unimpeded path of travel should be provided through the Doran Drive Plaza as a key route accommodating pedestrians travelling between Castle Hill Showground and the station, particularly at times when events will bring large volumes of pedestrian through-traffic. Additional space may be required to facilitate the range of activities expected to be accommodated within this busy pedestrian thoroughfare.</p> <p>Detailed design of the embellishment of the plaza must be undertaken in consultation with Council, particularly if it is intended that this space be publicly dedicated.</p>	<p>The Doran Drive Plaza concept plan allows for a clear and generous pedestrian access across all pedestrian desire lines between retail, transport and the showground. In particular, maintaining a minimum 6m wide pathway adjacent to Doran Drive, and a minimum 5m wide footpath along the building frontage (may include outdoor dining provided a minimum 3m clear continuous footpath width is maintained).</p> <p>Doran Drive Plaza will have a public positive covenant on title to keep the plaza open, publicly accessible and operational for all members of the public to use and traverse. It will be in ownership of the Building Corporation. The Building Corporation will also be responsible for ongoing maintenance to the standard ordinarily expected of an equivalent first-class public open space when maintained by the Council. . Whilst Doran Drive Plaza will remain in private ownership, it is expected that any detailed design will be considerate of the important role of the Plaza as a thoroughfare and a key open space that must include elements, materials and finishes that coordinate with the surrounding streets and open spaces.</p>	UDG Appendix I
<p>26. Precinct East Park</p> <p>It is recommended that the proposed Precinct East Park comprise an area of at least 0.5ha consistent with the minimum area for a local urban park as per Council's adopted Recreation Strategy.</p> <p>A 70% tree canopy as recommended in the Urban Design Guidelines is ambitious for a park which is largely overshadowed. Consideration of public amenity is required as well as precedents of what a park with a 70% tree canopy would look like - the precedent images illustrated are not reflective of what is proposed and potentially fail to achieve a 20% tree canopy. As an example, Rouse Hill Town</p>	<p>Precinct East Park is a minimum 3,500m² in size. Earlier DPIE studies did not identify a park during the rezoning study. The Social Infrastructure Assessment addresses the suitability of the open space network and what is provided as part of this SSDA. The Social Infrastructure Assessment supports the 3,500m² park area and this exceeds the target in the NSW Government Architect - Draft Open Space for Recreational Guide, which recommends a local park should be a minimum of 3,000m²</p> <p>The canopy cover target is now 40% applied to all new public domain and publicly accessible spaces. The Precinct East Park canopy cover will contribute to that target but is no longer a standalone metric.</p>	SIA Appendix Q

Issue/recommendation	Project response	Appendix Ref
Centre currently achieves a 10-20% tree canopy.		
<p>27. Schools</p> <p>The additional population will contribute significantly to the demand for a school within the Precinct, which has not been identified. The Government imposed a cap of 5,000 dwellings within the entire Showground Precinct, until such time as the need for additional education infrastructure has been resolved by State Government. The proposal would exhaust nearly 40% of this yield on Government-owned land alone, without any solution to this regional infrastructure issue being established. The subject site represents the key remaining area of Government-owned land within the Precinct and it is strongly recommended that the development be revised to incorporate a new school on the Government-owned land in order to overcome this issue which was identified during the Precinct Planning Process.</p>	<p>The Social Infrastructure Assessment, identifies 11 schools within 2km of the site, Department of Education indicates there has been steady enrolment growth over the past five years (2014 to 2018). The Social Infrastructure Assessment further reports that the site does not generate enough demand itself for a school, however, the broader precinct is likely to generate demand. Consultation with SINSW has confirmed that a new primary school is required to meet future demand generated within the wider Hills Showground area. SINSW is undertaking a detailed review of accommodation needs and is considering options for the location of the new primary school, including access to appropriate open space. Options under consideration include the Precinct West site within the Hills Showground Station Precinct and other site/s within the wider precinct. SINSW will be working to finalise the location in the coming months.</p> <p>Landcom will continue engaging with SINSW to support identification of an appropriate school site to service the future needs of the wider Hills Showground area.</p> <p>SINSW would obtain the necessary approvals for a future school as part of a separate application if required.</p>	<p>SIA Appendix Q</p>
<p>28. Public Domain Plan</p> <p>The Urban Design Guidelines should include a requirement to give consideration to the relevant provisions of Council's Public Domain Plan for the Showground Precinct.</p>	<p>A new Public Domain and Landscape Guideline is included in the Urban Design Guidelines. The objectives and guidelines respond to the key issues outlined in the Showground Station Planned Precinct - Public Domain Plan (Council), including:</p> <ul style="list-style-type: none"> • The need to improve accessibility and connections across the precinct for pedestrians • Increase the quality of public space • Build upon the cultural identity, legibility and identity of the Precinct • Provision of cohesive and attractive streetscapes. <p>Where relevant, the Council Public Domain Plan controls have been incorporated in to the Urban Design Guidelines.</p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
<p>29. Delivery Mechanism</p> <p>With respect to local infrastructure, the proposal makes provision for the Doran Drive Plaza (1,400m² GFA) and a new public park (3,500m²). Whilst it is assumed these facilities would be provided by Landcom or future developers and dedicated to Council, no mechanism has been proposed by Landcom to facilitate this.</p> <p>A mechanism to secure the funding and / or delivery of all infrastructure required to support the proposed development must be established at the concept development application stage, as a critical outcome of any SSDA approval. It is expected that Landcom (and/or other developers) will be responsible for the full costs of the provision of all new infrastructure required to support the development including the matters identified above and the payment of contributions under the applicable Contributions Plan No. 19 – Showground Precinct. No approval should be granted prior to such a mechanism being established between Landcom and Council.</p>	<p>The project response to this issue is provided in Section 4.2 (Table 4).</p>	<p>N/A</p>

Issue/recommendation	Project response	Appendix Ref
<p>30. Relationship with Castle Hill Showground</p> <p>Future development will need to give strong consideration to the relationship between the subject site and the Castle Hill Showground. The proposal must have regard to the interface between future development and the Castle Hill Showground and demonstrate clear access and linkages between the two areas. Consideration should be given to verge widths, building setbacks, location of outdoor dining areas, pedestrian and cycling connectivity and view lines through the site. Future active frontages proposed (potential “eat-street”) should be oriented towards the Showground and potential synergies between future uses of the adjoining public land should be explored. This requirement should be included within the Urban Design Guidelines which will guide future development on the subject site.</p> <p>Landcom should also engage with Council with respect to future opportunities for partnering on investment into the Showground as this will service, and add value to, future development on the Government-owned land.</p>	<p>The project response to this issue is provided in Section 4.2 (Table 4) and Figure 1.</p>	<p>UDG Appendix I</p>
<p>31. Subdivision Plan</p> <p>Clarification is required with respect to the proposed subdivision plan. It is understood the proposal seeks to subdivide Lot 56 DP 1253217 to create three development lots, one public space lot and one lot to be the future road. Roads cannot be dedicated to the public until they are constructed. If the</p>	<p>Landcom will be delivering the new Precinct East Road and Park. It is understood that dedication will occur after works have been completed and subdivision registration.</p> <p>A revised draft subdivision plan has been included in the RtS package to align with the revised SSDA concept scheme.</p>	<p>Subdivision Plan (draft) Appendix M</p>

Issue/recommendation	Project response	Appendix Ref
intent is for the road to be delivered upon the eventual development of one or all of the development lots then it should be included as part of those lots and dedicated later when built.		
Traffic and Parking		
<p>32. Road Hierarchy</p> <p>The existing roads constructed by NRT are designated as local roads and the new road dissecting Lot 56 DP 1253217 is also a planned local road, however SK 06 distinguishes it from those other, existing local roads. Care should be taken to ensure the design of the new Precinct East street will present a uniform and logical profile with the existing streets already constructed by NRT.</p>	<p>The surrounding streets have a 24m road reserve, which is not aligned with the profile of the new Precinct East Street at 17m. The design of the new Precinct East road will present a uniform and logical profile with the existing streets already constructed by NRT. Consistency with surrounding streets will be achieved through finishes, treatment and street trees, not through road reserve dimensions.</p> <p>The following control has been included in the Urban Design Guidelines to ensure this is achieved and is similar to Council's site-specific control: <i>'An appropriate transition and connection is to be provided between the new public road through Precinct east and existing NRT roads'</i>.</p>	UDG Appendix I
<p>33. Street Profiles</p> <p>With consideration of the proposed density and foot traffic expected for these precincts, the street profile for the new Precinct East street should include generous footpaths to facilitate pedestrian and cycle movement. At a minimum a 2.5m shared path should be required on one side. 1.5m street verges with street trees at 10m spacing are also recommended.</p>	<p>The new local street profile in Precinct East will have a minimum shared path of 2.5m and 1.5m street verge width and a revised section has been prepared (Figure 8). Controls regarding street profile of the new Precinct East Street have also been included in the Urban Design Guidelines.</p>	UDG Appendix I
<p>34. Car parking rates</p> <p>Concern is raised with respect to the proposed parking rates (0.6 – 1.5 spaces per unit, 1 visitor space per 10 units, 1 space per 145m² of commercial gross floor area and 1 space per 130m² gross retail floor area). It is recommended that parking</p>	<p>The project response to this issue is provided in Section 4.2 (Table 4).</p>	UDG Appendix I TTIA Appendix N

Issue/recommendation	Project response	Appendix Ref
<p>rates for residential flat buildings be included within the Urban Design Guidelines which are consistent with Council's housing diversity provision (Clause 7.12 of LEP 2012 - 1 space per apartment and 1 visitor space per 5 apartments). It is further recommended that parking rates be considered for commercial and retail uses which are more in line with Council's current DCP requirements (1 space per 40m² for commercial uses and 1 space per 18.5m² for retail uses).</p>		
<p>35. Parking exit/entry points</p> <p>Parking exit points have not been identified, though it is assumed these may be combined with parking entry points.</p>	<p>The Urban Design Guidelines identify vehicle entry and exit points for each of the precincts (Figure 6) along with controls (Table 10).</p> <p>Further, the following controls have also been included for each precinct to ensure they are well designed:</p> <ul style="list-style-type: none"> • Adequate vehicular entry, exit and circulation areas are to be provided. The design must: <ul style="list-style-type: none"> ○ Provide a safe environment for both pedestrians and vehicles using the site and surrounding road networks ○ Ensure vehicular ingress and egress to the site is in a forward direction at all times ○ Be designed to minimise the visual impact of hard paved areas. <p>Future detailed DAs will be required to assess and confirm access locations, swept paths and loading areas in accordance with Australian Standards and Council's controls as specified in the UDG.</p>	<p>UDG Appendix I</p>
<p>36. Parking within building setbacks</p> <p>Parking should not occur within building setbacks and should be contained within the building footprint (preferably basement or suitably screened from the public realm).</p>	<p>A control has now been included in the Urban Design Guidelines to address the issue:</p> <p><i>'Parking is to be underground and avoided within street setbacks. Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship to the public domain.'</i></p>	<p>UDG Appendix I</p>

Issue/recommendation	Project response	Appendix Ref
Water and waste management		
37. Water Management		
<p>a) Flooding and overland flows within the subject site under developed conditions should be demonstrated in addition to existing conditions within the precinct and Cattai Creek. Consideration should be given to orderly development and identification of any constraints in relation to the existing and proposed stormwater network required to be provided. As per Council's Showground Precinct DCP, stormwater runoff must be treated on the development site before it discharges to a public drainage system.</p>	<p>Existing stormwater quality treatment provided as part of the Metro Northwest Line (MNWL) development includes:</p> <ul style="list-style-type: none"> • Water quality treatment devices (gross pollutant traps (GPTs), specifically SPEL Ecoceptor units) on surface inlets and grated drains • A temporary vegetated swale and a rock lined swale to carry flow to the OSD and to provide additional treatment of runoff from the site. • A 2135m³ OSD basin at the north-west corner for this Site only. <p>The IWCMS (Appendix L) identifies the following stormwater quality treatment measures in addition to what has already been constructed on site (Refer Section 4.4 IWCMS):</p> <ul style="list-style-type: none"> • GPTs and stormwater filtration devices at surface inlet pits and grated drains (OceanGuard units and Jellyfish filtration units have been included in the Concept Proposal) • Rainwater tanks for capture and re-use of stormwater from roof areas • Linear bioretention in parks areas, garden and tree beds to provide additional capture and treatment of runoff from the site. <p>Refer Figures 4-2 to 4-4 in Section 4.4 of the IWCMS for an indicative layout of the water quality treatment devices in each development lot and each sub-lot within Precinct East.</p> <p>Consideration of the constraints with respect to proposed stormwater network required to be provided has been identified in Section 4.3 of the IWCMS and is further summarised below.</p> <p>Two new smaller OSD storages in the proposed lot 5 of Hills Showground Precinct East (closest to Showground Road) will require pipe to convey flows to the existing stormwater network under Showground Road. A drainage easement would be designated for ongoing maintenance.</p> <p>The private drainage easement within Precinct West which currently comprises a vegetated channel to carry flow to the OSD and to provide additional treatment of runoff from the site would need to be moved. An alternate location is</p>	<p>IWCMS Appendix L</p>

Issue/recommendation	Project response	Appendix Ref
	proposed in between the current location and the car park. This will require separate approval and will require connection to the current outlet for discharge to the OSD basin. The IWCMS (Appendix L) further recommends hydraulic modelling to be undertaken to complete design and sizing and to ensure there are no further impacts to the existing assets within the Site.	
b) An indicative layout plan of the proposed stormwater network, stormwater treatment / management measures and overland flowpaths is required.	The latest layout proposes that the bioretention measures will be contained within the DA lots, for further details refer to section 4.4.3 of the IWCMS report.	IWCMS Appendix L
c) The proposed stormwater network level of service is required to be demonstrated to ensure compliance with Council design standards.	Section 2.2.1.1 of the IWCMS notes that design of stormwater systems for each DA area will comply with Council's Design Guidelines for Subdivision/Developments. A control has also been included in the Urban Design Guidelines.	IWCMS Appendix L
d) Flows draining from the eastern portion of the site to the intersection of Showground Road and Carrington Road are to consider the RMS proposed stormwater network upgrades in that immediate locality.	Section 4.2 of the IWCMS has been updated to state: "A piped stormwater drainage system will be provided to collect all concentrated flows from the proposed buildings and hardstand surfaces. Most of the Site will drain to the OSD basin on the north western boundary before discharge to Cattai Creek, except for a section at the eastern most point of the Site which drains towards Showground Road and Carrington Road and will be captured by two OSD basins in this DA Area. Rock rip rap, gravel and vegetation are provided at the outlet of the drainage system to act as energy dissipators to reduce scour potential."	IWCMS Appendix L
e) It is stated in Section 4.7.1 of the Integrated Water Cycle Management Strategy that scour protection shall be installed at each drainage outlet to the Creek to minimise erosion. However, no discharge locations have been proposed or indicated in the concept proposal. Proposed or likely discharge locations to the	Precinct West and Doran Drive Precinct will drain into the existing OSD basin whose outlet into Cattai Creek is already provided with scour protection. No additional drainage outlets to Cattai Creek are required and therefore no further scour protection is required. Section 4.8 of the IWCMS has been updated to indicate no additional drainage outlets to Cattai Creek are required and therefore scour protection is not required.	IWCMS Appendix L

Issue/recommendation	Project response	Appendix Ref
creek need to be identified.		
<p>f) It is stated in Section 4.7.3 of the Integrated Water Cycle Management Strategy that discharges to Cattai Creek would require implementation of a surface water quality monitoring program. Further information is required in this regard detailing why monitoring is required, what parameters are to be monitored and who would be responsible for the monitoring, noting that Council does not conduct a water quality monitoring program.</p>	<p>Water quality monitoring is required to ensure the treatment measures function as designed to help protect water quality in Cattai Creek. This was recommended by DPIE and OEH as part of the SEARs. The data collected could be added to the Greater Sydney Local Landcare, Sydney Water and DPIE Streamwatch dataset, noting that a monitoring site exists on Cattai Creek some 18km downstream but there is nothing in the upper catchment region. Council has indicated their support for the water quality monitoring program.</p> <p>Section 4.8.3 of the IWCMS has been updated as follows: <i>“Monitoring procedures and criteria should be established in consultation with Hills Shire Council and NSW Office of Water. This program would identify parameters, locations and frequency of monitoring at the site as well as water quality trigger values that, if exceeded, would trigger remedial investigations or actions.”</i></p> <p>A monitoring station should be located immediately downstream of the basin or if not possible a monitoring location should be established upstream and downstream of the outlet of the basin. An upstream monitoring location acts as a control and allows for differentiation between water quality impacts that result from activities at the Site and those that are a result of natural variations or events upstream of the Site. The need for the station has been identified by DPIE and the monitoring should be completed by the contractor during commissioning phase of treatment devices, then the monitoring program to be continued at Council’s discretion.</p> <p>Results of the surface water quality monitoring will be compared to ANZECC 2000 trigger values. These trigger values were developed in accordance with the National Water Quality Management Strategy (Department of Agriculture and Water Resources, 2018) to assess impacts to surface water quality associated with the development. Once established, should there be an exceedance of the water quality trigger values, the monitoring program would trigger an investigation into causes of any increase of pollutants in the waterway and further action or mitigation measures to improve water quality.</p>	<p>IWCMS Appendix L</p>

Issue/recommendation	Project response	Appendix Ref
	Refer Section 4.8.3 of the IWCMS for further detail regarding the indicative parameters.	
g) All future development applications should demonstrate compliance with industry standards and Council requirements with respect to water management.	Section 2.2.1.1 of the IWCMS mentioned design of stormwater system for each DA area will comply with Council's Design Guidelines for Subdivision/Developments. Controls have also been included in the Urban Design Guidelines.	IWCMS Appendix L
38. Water Infrastructure		
a) Biofiltration swales proposed in a road verge, intended to be owned and managed by Council will not be supported. Swales and tree pits need to be contained to the development lots noting they treat runoff from those lots (not the road areas already addressed as part of the previous station works).	Section 4.4.3 of the IWCMS has been updated to reference The Hills Shire Council Biofiltration Fact Sheet and will indicate that the proposed water quality treatment devices will be contained with the DA area not within the road verges. Section 4.4 indicates the devices are the responsibility of the property owners.	IWCMS Appendix L
b) Likely locations of proposed Gross Pollutant Traps should be demonstrated with detail as to who would be responsible for the ongoing management. Any cartridge filter treatment devices proposed to be owned and managed by Council will not be supported. Additionally, pit inserts i.e. enviropods, oceanguards or similar, are not generally supported where Council is responsible for the ongoing management and maintenance.	Water quality devices will be located within the DA areas and the ongoing maintenance and management of these devices will be responsible by the property owners.	IWCMS Appendix L
c) Gross pollutant traps are only required as an end-of-line item whereas Precinct East is at the top of the catchment that drains to the existing road network which already deals with gross pollutants before	Section 5.2.2 of the IWCMS includes Water Quality Treatment devices in the section of Precinct East that drains to Carrington Road and Showground Road.	IWCMS Appendix L

Issue/recommendation	Project response	Appendix Ref
discharging to the open channel and basin constructed downstream by others.		
d) The Strategy relies on the open channel and basin constructed downstream by others, without considering whether the modelling and reporting that informed the design of that open channel and basin considered this additional runoff from a developed catchment. This needs to be more closely considered, as supplementary on-site stormwater detention may be required. A plan / sketch showing the existing and proposed stormwater management measures in the context of the subject site that speaks to the Strategy is needed.	The NRT Design Report shows the basin has been designed to have a volume of 2135m ³ and sized to cater for the entire site (8.4ha) including the station (section 6.4.3.7 and 6.4.3.12, NRT design report, 2016). Section 4.3.2 of the IWCMS has been updated to indicate that the DA areas will not be connected to the private drainage channel and if they are then the channel will need to be redesigned to cater for additional flows.	IWCMS Appendix L
e) All stormwater management and treatment infrastructure / devices are to be provided with appropriate inspection and maintenance access.	Section 5.3 in the IWCMS has been updated to require all stormwater management infrastructure / devices, both for quantity and quality, within the DA areas will be provided with appropriate inspection and maintenance access. This can be achieved via an easement and should be identified on DYBD.	IWCMS Appendix L
39. MUSIC Modelling a) MUSIC modelling created for the concept proposal has not included roads. Roads proposed in the development are required to be included in the MUSIC modelling in support of the SSDA. The MUSIC set-up needs to be provided to demonstrate the source nodes and proposed stormwater treatment train that has been modelled. This set-up should also be indicated on a site plan to indicate the location of	Section 5.2.1 in the IWCMS identifies that the results of the MUSIC modelling has been updated to take into account the new local road within the Precinct East.	IWCMS Appendix L

Issue/recommendation	Project response	Appendix Ref
source nodes, treatment devices and receiving nodes.		
b) In reference to Appendix A, A3.4 Bioretention Measures of the Integrated Water Cycle Management Strategy, the bioretention parameters modelled in MUSIC need to be amended for the concept proposal. Specifically, any bioretention system is to be lined and contain an underdrain. Additionally, review and clarification or amendment is required in regard to the nominated value of 'Unlined Filter Media Perimeter' being 0.01m. An amended MUSIC model is required to demonstrate achievement of pollutant reduction targets for the proposed development.	The MUSIC model and descriptions in the text have been updated to consider Council's biofiltration requirements. The results of the updated MUSIC model have been included in the IWCMS as well as any changes to the strategy. MUSIC Model and appendix have been updated to include lined biofiltration with underdrains and updated filter media.	IWCMS Appendix L
c) Waste servicing All future roads must be able to accommodate Council's standard 12.5m long Heavy Rigid Vehicle (AS2890.2) to circulate the road network. Waste collection is unlikely to be supported in narrow laneways (less than 10 metres total reservation width). This requirement should be included as a control within the Urban Design Guidelines. A control should also be included within the Urban Design Guidelines that where roads terminate, a cul-de-sac turning head with a minimum diameter of 19 metres must be provided to enable efficient waste collection with no reversing. A further control should be included that all developments should provide	All existing streets and the new local street within Precinct East and proposed entries to service and waste collection areas can accommodate a 12.5m HRV. All entries allow for entering and exiting in a forward direction. These requirements are included in the UDG.	UDG Appendix I

Issue/recommendation	Project response	Appendix Ref
for on-site waste collection either at grade or via a basement and waste collection vehicles must be able to enter and exit the site in a forward direction.		
Approval Pathway for Future Development Applications		
Should future built form applications for individual sites follow the State Significant approval pathway, concern is raised that this will override Council's Development Control Plan and established local approval processes. It is recommended that future development applications be assessed through the established local approval framework, against the concept SSDAs as well as Council's DCP to ensure high quality development outcomes and a standard of liveability consistent with other high-density locations throughout the Shire. This approach will also ensure that future applications are assessed by the Sydney Central City Planning Panel and Council's Design Review Panel which comprise of members with suitable local knowledge and expertise.	<p>As detailed in Section 4.2, the Urban Design Guidelines for the Hills Showground Station Precinct will guide the development of future DAs and facilitate their assessment.</p> <p>Future detailed design DAs will be considered 'state significant' as per clause 12 of the SDRP SEPP unless in determining the application, the Minister (or delegate) delegates the responsibility for the determination of subsequent DAs to the Council under section 4.37 of the EP&A Act or for any subsequent DAs with a capital investment value (CIV) of less than \$30 million be delegated to Council.</p> <p>Council will continue to be consulted as part of the preparation of detailed SSDAs. Furthermore, the SDRP will also include an independent member nominated by the relevant local government as their representative; the SDRP process is facilitated and chaired by NSW Government Architects.</p>	UDG Appendix I

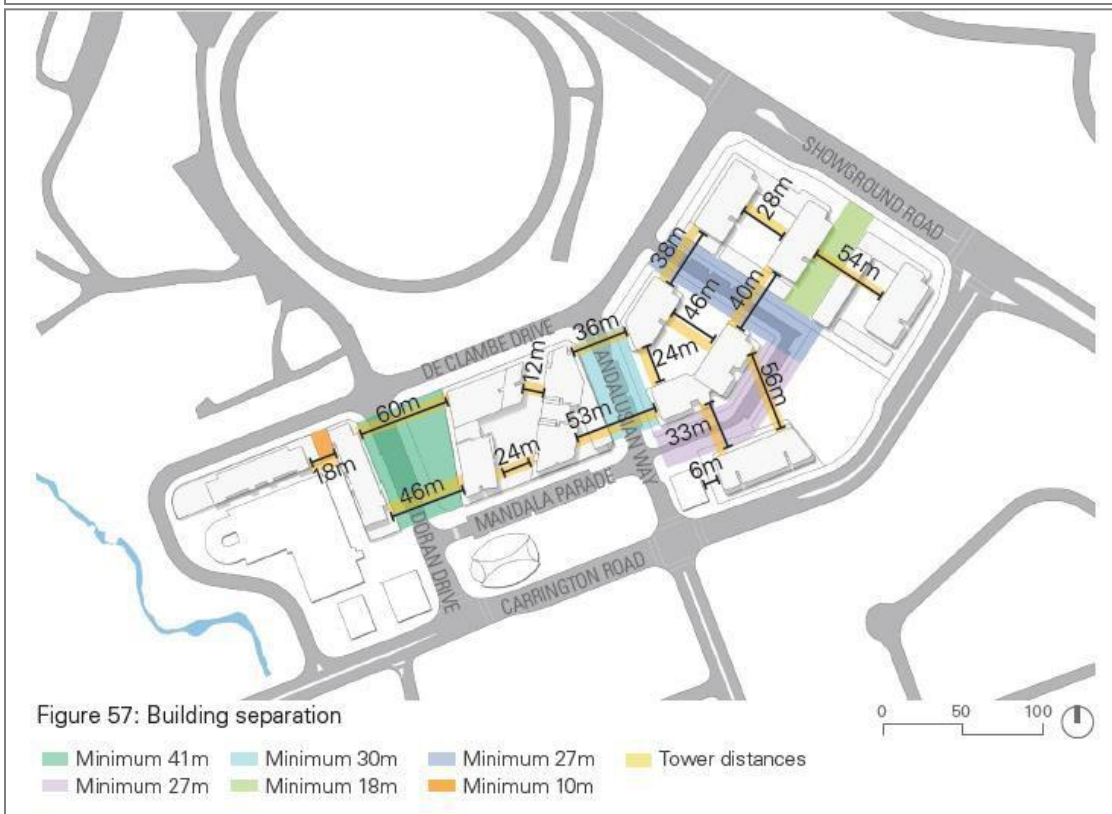
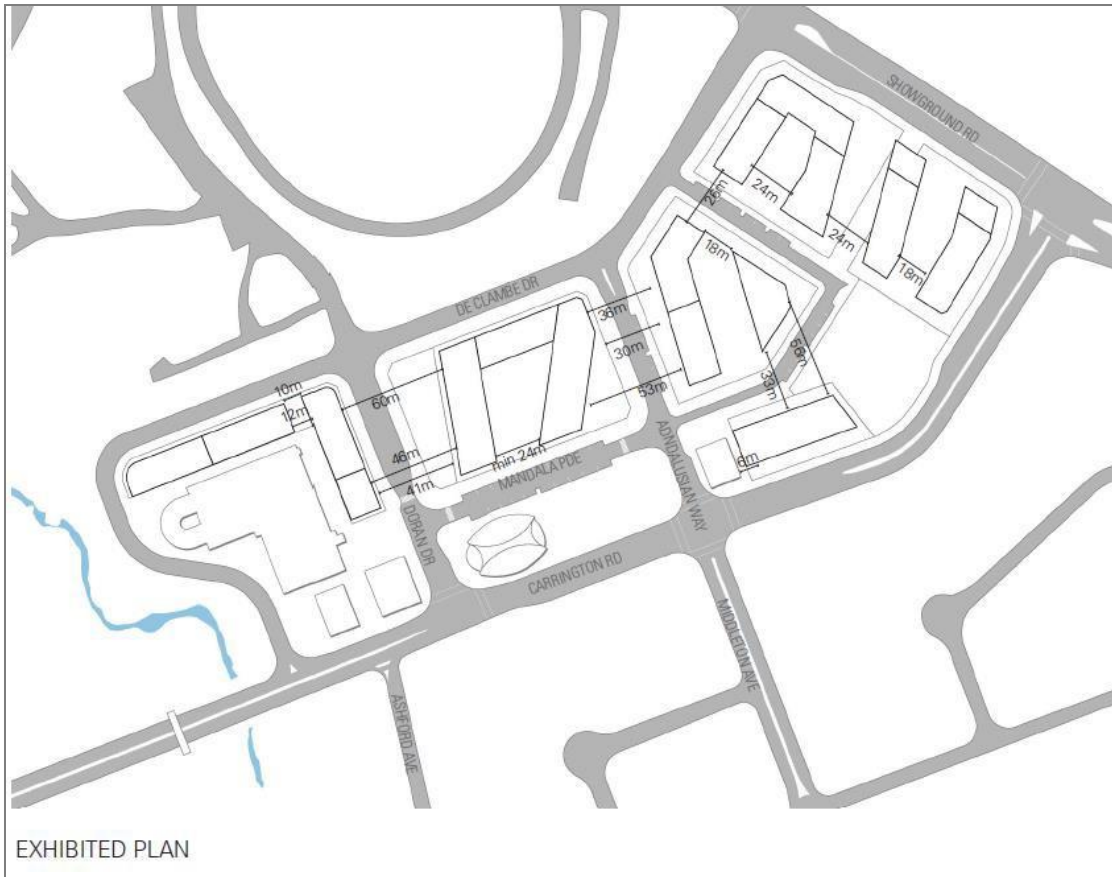


Figure 8 Comparison of building separation (Cox, 2020)

Precinct	Precinct West	Doran Drive Precinct	Precinct East
Lot size (site area)	3,293m ²	7,969m ²	28,226m ²
Total number of dwellings	307	440	873
THDCP	3,070m²	4,400m²	8,730m²
Communal open space (10m ² per dwelling)			
THDCP	767m ²	1,100m ²	2,182.50m ²
Min 25% of the required communal open space must be located at ground level in a singular large parcel			
ADG	823.25m²	1,992.25m²	7,056.50m²
Communal open space has a minimum area equal to 25% of the site			



Table 9: Key issues raised in public submissions

Precinct	Urban design Guideline parking entry/exit controls
Precinct West	Driveways and vehicular access to carparks shall not be located on Doran Drive. Vehicular access to carparks is to be limited to a maximum of two driveway entry points on De Clambe Drive
Doran Drive Precinct	Driveways and vehicular access to carparks shall not be located on Doran Drive. Vehicular access to carparks is to be limited to the eastern end of De Clambe Drive and along Andalusian Way. Access via Doran Drive and Mandala Parade is prohibited.
Precinct East	Driveways and vehicular access to carparks shall not be located on Showground Road, De Clambe Drive, Andalusian Way or Carrington Road. Vehicular access is to be limited to a maximum of 1 two-way driveway per superlot.

4.4. Department of Education

Issue raised

The proposed increase in population for the area (c.1800 dwellings) will generate demand for additional public education facilities and, when considered in conjunction with other planned growth in the broader Castle Hill context, there is potential cumulative demand for additional school sites.

The EIS briefly considers the demand for education facilities, and states (at p 13) that:

At the time of rezoning, the NSW Department of Planning and Environment identified the need to accommodate schools in the area. Landcom is actively working with the Department of Education to identify appropriate sites in the broader precinct.

While our discussions with proponents for these development areas are ongoing, School Infrastructure NSW is yet to identify suitable land for future school sites that may be required to meet this demand. Therefore, as part of the consideration of the current proposal, it requested that your assessment include, following further discussions with SINSW and the applicant, a more detailed response to the education needs generated by this development and in the wider context.

Response

Consultation with SINSW has confirmed that a new primary school is required to meet future demand generated within the wider Hills Showground area. SINSW is undertaking a detailed review of accommodation needs and is considering options for the location of the new primary school, including access to appropriate open space. Options under consideration include the Precinct West site within the Hills Showground Station Precinct and other site/s within the wider precinct. SINSW will be working to finalise the location in the coming months.

Landcom will continue engaging with SINSW to support identification of an appropriate school site to service the future needs of the wider Hills Showground area. SINSW would obtain the necessary approvals for a future school as part of a separate application if required.

4.5. Department of Primary Industries

The DPI raised no concerns with the concept proposal.

4.6. Environment Protection Authority

Issue raised / recommendation

The EPA advised that the proposal does not constitute a Scheduled Activity under Schedule 1 of the Protection of the *Environment Operations Act 1997* (POEO Act) and does not require an Environmental Protection Licence under the POEO Act. Accordingly, the EPA raised no concerns with the concept proposal.

The EPA did note that future development will be located in close proximity to the operational rail network, which the EPA regulates through environment protection licences. As such the EPA recommended that future planning approvals permitting development of the site should include requirements for acceptable vibration and ground-borne noise limits for spaces within the development drawn from the EPA's *Rail Infrastructure Noise Guideline* (EPA, 2013) and *Assessing Vibration: a technical guideline* (DECC, 2006).

Response

The submission is noted. The Noise and Vibration Impact Assessment (Renzo Tonin, 31 October 2019) to support the EIS demonstrated that vibration impacts from the metro rail movements were measured and found to be compliant with DPIE's *Development in Rail Corridors and Busy Roads - Interim Guideline* (rail noise) 2018 and Department of Environment and Conservation's *Assessing Vibration: a technical guideline* 2006 ('DEC Guideline 2006'); without additional treatments (based on the proposed range of uses).

Controls have also been included in the Urban Design Guidelines to ensure the above guideline is considered as part of future detailed DAs.

4.7. Fire and Rescue NSW

Issue raised / recommendation

FRNSW raised no concerns with the concept proposal. However, they did recommend that they be consulted as part of future detailed DAs with respect to fire and life safety aspects.

Response

Landcom accepts FRNSW recommendation and considers that this could be included as a condition to be satisfied in future detailed DAs.

4.8. Heritage Council of NSW

Issue raised / recommendation

The Heritage Council completed a review of the site and stated that there are no State Heritage Register (SHR) items on or near the site and no potential for historical archaeology as defined under the *Heritage Act 1977* which would be impacted by the proposed works.

Accordingly, as long as the recommendations regarding heritage as outlined in Section 8.5.3 of the EIS are included as conditions of consent, Heritage NSW does not require to be included in future correspondence regarding this SSD.

Response

Section 8.5.3 of the EIS outlined the recommendations of the *Aboriginal and Non-Aboriginal Heritage Impact Statement* (GML, 2019) as follows:

Aboriginal Archaeology

There is nil–low potential for Aboriginal objects or sites within the development lots. If Aboriginal sites and/or objects are suspected and/or identified during the process of works, the following Aboriginal unexpected finds protocol should be enacted:

- *Stop-work order—all works should cease immediately in the area surrounding the suspected objects. Any identified Aboriginal object(s) should be left in situ and not disturbed in accordance with the requirements of section 89A of the NPW Act. DPIE should be notified immediately; an archaeologist experienced in the identification of Aboriginal cultural material should inspect the suspected Aboriginal objects to make a positive identification.*
- *If the suspected items are not Aboriginal in origin or manufacture (as defined under the NPW Act), the location and items should be recorded and works may continue.*
- *If the objects are confirmed to be Aboriginal objects, the site should be registered on the AHIMS administered by the DPIE.*
- *If the suspected items are Aboriginal objects, an Aboriginal Cultural Heritage Assessment Report would be required before works could continue in the area of the identified objects, as set out in the SEARs. The extent of any works exclusion zone would need to be determined through discussion with DPIE and Aboriginal community representatives.*
- *In the unlikely event that human remains were to be discovered at any time during the works, works must cease immediately in the surrounding area. The findings would need to be reported immediately to the New South Wales Coroner's Office and/or the New South Wales Police.*

Historical Archaeology

The Site has nil–low potential for significant historical archaeological remains and is unlikely to contain relics. Implementation of an unexpected finds procedure is recommended:

- *If potential historical archaeological remains are identified during ground disturbance, works in the area must cease until they can be assessed by a qualified historical archaeologist*
- *the suspected items are assessed as not being significant historical archaeological remains or relics, works may continue.*
- *If the suspected items are found to be significant historical archaeological remains or relics, the NSW Heritage Division should be notified under section 146 of the Heritage Act. Further approvals may be required before works could recommence.*

Built Heritage

- *Future stages of the design, the scale of the buildings on the Site should step down towards the Castle Hill Showground in order to mitigate the impact on its setting and provide a more appropriate transition of scale.*

- *The Interpretation Plan should be adopted and implemented as part of the Concept Approval.*

The above recommendations with respect to unexpected finds protocol should form part of the conditions of consent. The elements of this strategy have been included in the Urban Design Guidelines that are proposed to be adopted as part of the Concept Approval.

Future detailed designs of buildings would need to consider heritage impacts on nearby items including Castle Hill Showground.

Landcom accepts the Heritage Council's requirement that the unexpected finds protocol and that future detailed designs of buildings are required to consider heritage impacts be included as a condition to be satisfied in future detailed DAs.

The buildings with frontage to the Castle Hill Showground have been stepped down through the provision of a 4-storey podium and secondary setbacks of 3m to the towers above on both Doran Drive and Precinct East to assist with providing appropriate transition of scale. Controls relating to maximum building setbacks and heights are outlined in the Concept Plans for Approval and Urban Design Guidelines.

The Heritage Interpretation Plan has been submitted as part of the EIS documents and will be implemented through Urban Design Guidelines which include requirements for future detailed DAs to be consistent with the plan.

4.9. Roads and Maritime Services and Transport for NSW

RMS and TfNSW, now a joint agency collectively known as TfNSW, made a number of comments and recommendations with respect to the concept proposal and SCT Consulting Traffic and Transport Assessment Report. The table below provides details on the issues and recommendations made and the response to each issue.

Table 10: Response to RMS and TfNSW issues and recommendations

Issue/ Recommendation	Project Response	Appendix Ref
1. Setbacks		
a) TfNSW is currently working with The Hills Shire Council on Traffic and Transport Planning Studies which will examine the cumulative impacts of the full development uplift associated with the North West Rail Link - Showground Road Station Structure Plan. The Hills Showground Station Precinct Traffic and Transport Planning Study will build on previous studies to assess the travel demand generation and network impacts of residential and commercial growth, and to formulate recommendations on robust mitigation measures. This	Setbacks along Showground Road have been reviewed and revised to address traffic matters such as future widening and upgrades as well as amenity impacts. A 10m setback has been provided to Showground Road and 5m primary setback has been provided along all interfaces within Precinct East. Additional project response to this issue is provided in Section 4.2 (Table 4, Item 9) of this report.	UDG Appendix I TTIA Appendix N

Issue/ Recommendation	Project Response	Appendix Ref
<p>may include the identification/need for further localised road widening in key locations in order to facilitate road/transport/active transport infrastructure upgrades.</p> <p>It is noted that the proposed building Set Backs identified within the Urban Design Report on Page 64 are inconsistent with/do not comply with the Building Set Backs identified within Figure 41 / 42 of The Hills DCP (2012) – Part D – Section 19 – Showground Station Precinct (see Tab A), particularly along Showground Road and part of De Clambe Drive. This has the potential to compromise any potential mitigation measures that may be identified as outcomes from The Hills Showground Station Precinct Traffic and Transport Planning Study (which is underway).</p> <p>That the proposed building Setbacks associated with this SSD comply with the Building Setbacks identified within Figure 41 / 42 of The Hills DCP (2012) – Part D – Section 19 – Showground Station Precinct.</p>		
2. Parking		
<p>a) TTAR Page 45, Section 4.4.1.1, Table 4.2 - TfNSW has concerns with regard to the Residential Parking rates proposed. The parking rates are considered generous and will subsequently work against the purposes of encouraging greater public and active transport usage for development located along the Sydney Metro NW Corridor.</p>	<p>Trip Generation Rates:</p>	<p>TTIA Appendix N</p>

Issue/ Recommendation	Project Response	Appendix Ref
<p>The Trip Generation Rates used by SCT Consulting within their modelling for the High Density Residential dwellings are (AM = 0.19 trips /unit and PM = 0.15 trips / unit) which is aimed towards a 47% Car Mode Share identified within the Hills Showground Station Precinct Rezoning Transport Plan.</p> <p>It is noted that the Roads and Maritime Guide to Traffic Generating Developments (High Density Residential – Metropolitan Regional CBD Centres) have a corresponding trip rate of 0.24 trips/dwelling. However, the Minimum Parking Rates proposed below generally correspond with the Roads and Maritime Guide to Traffic Generating Developments (High Density Residential – Metropolitan Sub Regional Centres) with the corresponding trip rate of 0.29 trips/dwelling and the proposed Maximum Rates below would result in a trip rate that is slightly higher.</p> <p>In order to facilitate the Hills Showground Station Precinct Rezoning Transport Plan's target mode share of 47% car usage it is recommended that the Residential Parking Rates be amended as follows:</p> <ul style="list-style-type: none"> • 0.4 spaces per 1-bedroom unit. • 0.7 spaces per 2-bedroom unit. • 1.20 spaces per 3-bedroom unit. • 1 space per 10 units (visitor parking) 	<p>The proposed peak hour car trip rates (0.19 and 0.15 trips per dwelling in the AM and PM peak hour) remains the same. The RMS Technical Direction (Guide to Traffic Generating Development - TDT 2013/004a) specifies the above average trip rates for high density residential flat buildings close to public transport. The site is in close proximity to frequent public transport services; has constrained parking provisions in line with TOD principles; and access to key employment areas within a reasonable travel time, which will further expand as the Metro projects expands. These trip rates are also consistent with nearby residential developments including the Tallawong Station Precinct South SSDA.</p> <p>Residential Car Parking Rates Landcom and Sydney Metro are committed to reducing the car parking provision to facilitate exemplar TOD by having less reliance on private vehicles, increase in walkability to other sustainable transport options and to reduce further congestion within the precinct.</p> <p>The revised concept plan adopts the RMS minimum rates for Metropolitan Regional (CBD) Centres* consistent with TfNSW advice, to a cap of an average of one space per market housing apartment in line the Showground Precinct DCP, as shown in Table 4-1 (excerpt below). The objective of this is to encourage usage of public transport and other sustainable transport options and minimise the impacts to road traffic. It also provides flexibility for future DAs to adapt the rates per apartment bedroom mix overtime to meet the future demographic needs and ongoing modal shift towards more sustainable transport outcomes.</p>	

Issue/ Recommendation	Project Response	Appendix Ref
	<p>*A slight variation is proposed to the minimum parking rate for a 3 bed apartment from 1.2 to 1 to avoid any confusion with having the maximum rate at 1 which was supported by TfNSW.</p> <p>The affordable housing car parking rates proposed are consistent with the SEPP (Affordable Rental Housing) 2009. When the location and configuration of the minimum 5% of affordable housing is determined during detailed DA stage, the affordable housing car parking rates are to be applied.</p> <p>The proposed visitor car parking rate for the residential component remains unchanged at 1 space per 10 dwellings consistent with TfNSW advice and is proposed be a minimum of zero for affordable housing and a maximum of 1 space per 10 dwellings as this is not specified in the SEPP.</p> <p>An outline of the difference between the residential car parking rates proposed in the exhibited EIS and those revised as part of this RtS is provided in the tables below.</p> <p>No changes have been made to the retail or office/commercial car parking rates.</p> <p>The estimated number of residential parking spaces to be provided within the precinct is between 1,273 and 1,782 (including visitor, affordable housing parking visitor). This provision is lower than required by both the THDCP and Showground Station Precinct DCP. The maximum car parking provision for the residential component is also slightly lower than those required under the ADG as minimum rate for the Metropolitan Sub-Regional Centres (0.6/0.9/1.4) (as exhibited) and the rate prescribed in the Showground Precinct DCP (1 space per apartment). See table 4-2 of the TTIA below.</p>	

Issue/ Recommendation	Project Response	Appendix Ref
	The reduction of the car parking rates is recommended to ensure car ownership can be reduced and traffic impacts can be further managed in the precinct as well as to support the proposed trip generation rates.	

Exhibited Concept Plan car parking rates:

Table 4.7 Recommended parking rates for Hills Showground Station Precinct site

Land use	Car parking rates range	Bicycle parking rates
Residential	1 Bed	One space per three apartments for resident and one visitor space per 12 apartments
	2 Bed	
	3 Bed	
	Visitor	
Retail	1 space per 130 m ² – 60 m ² GFA	One space per 450 m ² GFA for staff
Office / commercial / facility	1 space per 145 m ² – 100 m ² GFA	One space per 600 m ² GFA for staff
Car share spaces	One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial	-

Source: SCT Consulting, 2019 Car parking facilities

Revised Concept Plan car parking rates:

Table 4.9 Recommended parking rates for Hills Showground Station Precinct site

Land use	Minimum and maximum car parking rates range	Bicycle parking rates (minimum)
Market housing	1 Bed	One space per three apartments for resident and one visitor space per 12 apartments
	2 Bed	
	3 Bed	
	Visitor	
Affordable housing	1 Bed	One space per three apartments for resident and one visitor space per 12 apartments
	2 Bed	
	3 Bed	
Retail	1 space per 130 m ² – 60 m ² GFA	One space per 450 m ² GFA for staff
Office / commercial / facility	1 space per 145 m ² – 100 m ² GFA	One space per 600 m ² GFA for staff
Car share spaces	One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial	-

Source: SCT Consulting, 2020

Issue/ Recommendation	Project Response	Appendix Ref
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Comparison of recommended parking rates

Table 4-2 Comparison of recommended residential car parking rates with other relevant rates

Dwelling type	Proposed no. of units*	Proposed Minimum Rates	Proposed Maximum Rates	Showground Precinct DCP ⁽¹⁾	The Hills Shire DCP (minimum rates)	Metropolitan Sub-Regional Centres (minimum rates)	Previously exhibited rates (maximum rates)
Residential	1 Bed	402 units	0.4	An average of 1 space per market housing apartment	1.0	1.0	0.6
	2 Bed	892 units	0.7		1.0	2.0	0.9
	3 Bed	310 units & 16 townhouses	1.0		1.0	2.0	1.4
Sub-total spaces for 1,620 dwellings		1,111	1,620	1,620	2,838	1,500	1,783
Visitor	1,620 dwellings	0.1	0.1	0.2	0.4	0.2	0.1
Sub-total visitor spaces		162	162	324	648	3,24	162
Total		1,273	1,782	1,944	3,486	1,824	1,945
Percentage difference of other comparison rates to the proposed maximum rates		-	-	+9%	+96%	+2%	+9%

Source: SCT Consulting, 2020

*- According to the updated Concept Plan across the precinct, a 25 percent, 55 percent and 20 percent ratio was applied for the proportion of one bed, two bed and three bed dwellings for all dwelling types.

3. Traffic Modelling Including Modelling Inputs:

- a) TTAR Page 58, Section 5.2.5 Table 5.4 – Table 5.4 provides network performance results for the year 2031. However, in order for TfNSW to conduct a proper assessment, the detailed SIDRA modelling files, are required for review in order to confirm that intersection layouts are modelled correctly, phasing and cycle times are correctly modelled, that the detailed 95% queues do / don't show the need to upgrade turn bays.

Further details of the modelling should be attached as Appendix to the report and the raw SIDRA modelling files are to be included for review.

In addition, given the close proximity of the intersection of Gilbert and Showground roads to the intersection of De Clambe Drive and Showground Road, Gilbert Road intersection should be included in the Network modelling.

The updated traffic model has been provided along with the submission of the RtS.

Key roads servicing the development are Showground Road and Carrington Road. The intersections modelled in SIDRA Network were:

- Showground Road / Gilbert Road
- Showground Road / De Clambe Drive
- Showground Road / Carrington Road
- Carrington Road / Andalusian Way / Middleton Avenue;
- Carrington Road / Doran Drive
- Carrington Road / De Clambe Drive
- Carrington Road / Victoria Avenue.

SIDRA model now includes the intersection of Showground Road/Gilbert Road.

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- a) The detailed design for the intersection upgrade of Showground Road/Carrington Road has been designed under TfNSW's Bus Priority Infrastructure Program (BPIP) and has been based on modelling that considered

"The modelled road network currently operates with a performance of Level of Service D or better. The traffic modelling suggests that the following infrastructure upgrades may be required to cater for background traffic growth and the development traffic by 2031:

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<p>future growth. It is noted that the 2031 model of the TTAR has assumed that the intersection of Showground/Carrington roads is upgraded. However, the project remains unfunded with no commitment (or approved funding) to deliver this project at this stage. Therefore, as this upgrade is not included in TfNSW's current programs and no funding is allocated, the proponent needs to assess the impact of their development against the current situation/intersection capacity. It is recommended that the proponent re-examine/ model the following intersections (listed below) into the future (2031) based on their existing configurations (and not as depicted in Figure 5-3):</p> <ul style="list-style-type: none"> • Showground Road / Carrington Road; • Showground / De Clambe Drive; • Carrington Road / Middleton; • Carrington Road / Victoria Ave <p>Where modelling indicates impacts to the intersections the proponent is to identify the mitigations and upgrades needed.</p> <p>In addition, the applicant is to determine an appropriate contribution mechanism for the delivery of the required upgrades to the intersection of Showground Road/Carrington Road and surrounding intersections and roads.</p> <p>b) Though the TTIA Page 57 Section 5.2.4 states that "...the full Carrington Road and Showground Road upgrades provide sufficient capacity for the cumulative impacts of the precinct up to 2031, and that the SSDA does not trigger any additional infrastructure by</p>	<ol style="list-style-type: none"> 1. Additional eastbound lane on Showground Road between the approach to Gilbert Avenue and the approach to De Clambe Drive. 2. Upgrades associated with the intersection of Showground Road and Carrington Road; <ol style="list-style-type: none"> a. Additional lane on Carrington Road in both directions between Showground Road and Andalusian Way; b. Additional turning lanes from Showground Road to Carrington Road; c. Additional left turn slip lane from Carrington Road to Showground Road. 3. Signalisation of Carrington Road / Victoria Avenue intersection with additional turning lanes. <p>Refer to Figure 10 for indicative staging plan for development completion and local infrastructure.</p> <p>In recent times, the Federal and State Government announced funding for the Showground and Carrington Roads intersection upgrade as part of the Bus Priority Infrastructure Program (BPIP).</p>	

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<p>itself." It is recommended that an assessment is undertaken according to the proposed staging of development to inform any intermediate mitigation that would be required prior to the full development. This is integral to ensure that the network will function satisfactorily during the interim period.</p> <p>Where modelling indicates impacts to the intersections the proponent is to identify the mitigations and upgrades needed.</p>		
<p>c) TTIA Page 57, 5.2.5 - The traffic network assessment only considered year 2031. It is noted that the EIA indicates the three precincts will be developed in stages (Table 17 in the EIA and Appendix T). The earliest occupation is anticipated in mid-2023 for Doran Drive Precinct, followed by Precinct West by 2026-2029 and Precinct East to be completed by 2028-2031.</p> <p>The report would better inform of the traffic forecast along Showground Road by showing forecast figures between:</p> <ul style="list-style-type: none"> • De Clambe Drive and Gilbert Road • Carrington Road and Britannia Road 	<p>See response at 3 (a) and (b) above and Section 5.2.5 of the TTIA. The updated traffic model has been provided along with the submission of the RtS.</p>	<p>TTIA Appendix N</p>
<p>d) Page 56, Section 5.2.3, Table 5.2 – Vehicles which are heading towards Winsor Road are unlikely to use the section of Showground Road between De Clambe Drive and Carrington Road and would likely use De Clambe Dr and towards Castle Hill would likely use Carrington Road.</p>	<p>See response at 3(a) and (b) above and Section 5.2.3 of the TTIA.</p>	
<p>4. Stormwater</p>		
<p>a) The stormwater drainage at the intersection of Showground Road/Carrington Road currently floods in less than 1:10 ARI events and the council drainage</p>	<p>The eastern section of Precinct East will drain towards the drainage system at the intersection of Showground Road and Carrington Road and into the existing drainage</p>	<p>IWCMS Appendix L</p>

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<p>easements from Showground Road that drain toward Kathleen Avenue are under capacity.</p> <p>The development at 1-5 Carrington Road must be able to retain stormwater on site as part of an approved-on site detention system and the outflow of any stormwater must not be greater than existing flows</p> <p>The applicant should also contribute to the upgrade of the council stormwater easements between Showground Road and Kathleen Avenue</p>	<p>system at this intersection. The two proposed OSD basins, 236m³ and 61m³ in volume, are included in Precinct East to capture flow as per the Council Site Storage Volume requirements and to limit discharge to the Permissible Site Discharge (PSD) (refer to section 2.2.1.2) before release into the existing stormwater network. The estimated PSD for each basin is 51 litres per second and 13 litres per second.</p> <p>The OSD discharge will be controlled using an orifice plate either within a discharge control unit pit or headwall system to restrict the lower recurrence interval events and a weir system to restrict the rarer storms up to the 1% AEP storm event. A trash rack will be located at the outlet. A small area of approximately 0.01ha which is located at a lower point than the OSD basins at the eastern most corner of the lot may not be captured by the OSD basins.</p> <p>Consideration will be given to the potential upgrades undertaken by RMS on the drainage system in consequence of the civil and any drainage upgrading works completed within Showground Road.</p> <p>Future developers would need to contribute to the upgrade of drainage infrastructure as required by Council's Contribution Plan No. 19.</p>	
5. Public Transport Services		
<p>a) TTAR Page 17, Section 2.8.2.4, Figure 2-12 - The proposed bus network does not reflect how things have changed since the opening of Sydney Metro.</p> <p>RMS recommended that the figures are updated to ensure that the existing conditions are accurately captured.</p>	<p>There are no proposed changes of public transport network from the current conditions to cater for the SSDA concept.</p> <p>Bus network figures have been revised and are now included in the TTIA.</p>	<p>TTIA Appendix N</p>
<p>b) TTAR Page 56, Section 5.2.4 - The kerbside lanes will be upgraded to bus lanes in Carrington Road between Victoria Avenue and Doran Drive. It is</p>	<p>During consultation with Council, it is also acknowledged that the bus lanes on Carrington Road between Victoria Avenue and De Clambe Drive are temporary in nature.</p>	<p>TTIA Appendix N</p>

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<p>understood that Council will be delivering these works in the very near future. This will be delivered before any other works along Carrington Road as mentioned in section 5.2.4.</p> <p>It is suggested that the proponent clarify from Council when the works will be delivered and update the report and any modelling to reflect the timing of the upgrades.</p>	<p>Council is preparing engineering design to finalise the footprint of the future widening including the bus lane. New carriageway is expected to be delivered around 2025-2030. However, for modelling purposes, Council confirms that there will be no changes to the intersection layout of Carrington Road with Doran Drive.</p>	
6. Active transport		
a) The pedestrian/bicycle crossings at the intersections of Showground Road with Carrington Road, De Clambe Drive and Victoria Avenue do not currently have bicycle lanterns to connect the shared path along Showground Road.	Section 4.2.3 of the TTIA now includes bicycle lanterns proposed as part of the future intersection upgrades along Showground Road at Victoria Avenue and Carrington Road.	TTIA Appendix N
b) The TTAR provides inconsistent information regarding the number of bicycle parking spaces. Page 40, Section 4.1 and Page 60, Section 5.3 indicate that 813 spaces are proposed. However, the rest of the TTAR and the EIA states the number of bicycle parking spaces is 799.	<p>705 bicycle parking spaces for residents and employees, which will have access to the existing pedestrian and cycle path network (refer Table 4.4 in the TTIA).</p> <p>All references have been updated in the TTIA report.</p>	TTIA Appendix N
c) TTAR Page 60, Section 5.3 - The statement of "bicycle parking spaces with end-of-trip facilities are required in this development...to encourage residents and employees to adopt sustainable transport modes" Further details in regards to the type of facilities should be provided i.e. bicycle hoops, lockers, bike shelters, shower rooms.	High quality, safe and accessible end-of-trip facilities (which includes centralised cycle hubs that are integrated within development at convenient locations, on-street secure bicycle storage located at end of cycle destinations, parking hubs for shared bikes, lockers and showers) will be provided in accordance with Table 4.5 in the TTIA as outlined in the Urban Design Guidelines.	UDG Appendix I TTIA Appendix N
7. General		
a) With regards to the proposed new traffic signal at the intersection of Victoria Street and Carrington Road, the traffic signal at this location needs to be supported by traffic data which justifies the requirements set out in Section 2 of	A traffic signal warrants assessment was undertaken for Carrington Road / Victoria Avenue, since this intersection is proposed to be upgraded from a roundabout to a new set of traffic signals as a result of regional traffic growth.	TTIA Appendix N

Issue/ Recommendation	Project Response	Appendix Ref																																		
<p>the RMS Traffic Signal Design Manual. The capacity to fund traffic signals is a consideration outside of the need to demonstrate suitable justification warranting such treatment as outlined in Section 2 of the RMS Traffic Signal Design Manual.</p> <p>Therefore, a traffic signal warrant assessment is required to be submitted to confirm when the traffic signal at the intersection of Victoria Street and Carrington Road will be warranted.</p> <p>In addition, noting that a comparison of Scenario 3 vs Scenario 5 shows that the DA Traffic worsens the Average Delay from 38.9 sec (LOS = C) up to 50.7 sec (LOS = D).</p> <p>The proponent is to mitigate its development traffic impacts to the future operational performance of the Carrington Road / Victoria Avenue intersection. This is subject to the identification of an improvement that is feasible.</p>	<p>TfNSW lists general warrants for installation of traffic signals in the Traffic Signal Design – Section 2 Warrants document (issued by RTA). The document stresses that the list is a guide and that traffic signals may not be the most optimal solution, even if the site satisfies the warrants. However, traffic signals may be installed irrespective of general warrants as a result of external factors.</p> <p>It should be noted that the warrant criteria must be satisfied for each of four one-hour periods of an average day.</p> <p>The expected approach volumes during the AM and PM peak periods are shown below in Table 5.4 of the TTIA. Traffic volumes that are higher than 600 vehicle/hr in each direction were highlighted in bold and it was confirmed that there are more than four hourly periods where traffic volumes exceeds 600 vehicle/hr on two approaches to the intersection (refer Table 5.4 in the TTIA)</p> <div><p>Table 5.4 Traffic volumes on each approach during 2031 AM and PM peak period (six hours)</p><table><tr><th rowspan="2">Peak period</th><th rowspan="2">Time</th><th colspan="3">Traffic volumes for all approaches</th></tr><tr><th>N</th><th>E</th><th>S</th></tr><tr><td rowspan="3">AM</td><td>7:00-8:00</td><td>1,292</td><td>1,154</td><td>1,292</td></tr><tr><td>8:00-9:00</td><td>1,351</td><td>1,207</td><td>1,351</td></tr><tr><td>9:00-10:00</td><td>1,111</td><td>992</td><td>1,111</td></tr><tr><td rowspan="3">PM</td><td>3:00-4:00</td><td>1,178</td><td>1,149</td><td>1,782</td></tr><tr><td>4:00-5:00</td><td>1,316</td><td>1,284</td><td>1,990</td></tr><tr><td>5:00-6:00</td><td>1,350</td><td>1,317</td><td>2,042</td></tr></table><p>Source: SCT Consulting, 2020</p></div> <p>The peak period traffic volumes for all approaches are reviewed against the TfNSW warrant criteria to establish whether signals are required at the intersection of Victoria Avenue and Carrington Road. Table 5.5 in the TTIA presents the findings of the review. It is understood that the definition of major road for a signalised intersection is associated with approaches with highest traffic demand but not associated with road hierarchy.</p> <p>Since a signalised intersection may be considered if one of the warrants is met, the Victoria Avenue and Carrington Road intersection may warrant a traffic signal based on criteria (a) Traffic Demand.</p>	Peak period	Time	Traffic volumes for all approaches			N	E	S	AM	7:00-8:00	1,292	1,154	1,292	8:00-9:00	1,351	1,207	1,351	9:00-10:00	1,111	992	1,111	PM	3:00-4:00	1,178	1,149	1,782	4:00-5:00	1,316	1,284	1,990	5:00-6:00	1,350	1,317	2,042	
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Issue/ Recommendation	Project Response	Appendix Ref
<p>b) Page 17 Section 2.8.2.4, Figure 2-13 is unclear as to which proposed intersection upgrades are to existing or new intersections. The diagram should distinguish between the proposed upgrades to existing intersections and new intersections. For example, the two new intersections on Showground Road with “new local roads” should be identified as new intersection instead of upgrade intersection.</p>	<p>The Showground Station Plan prepared by TfNSW (December 2015) reference contains principles and strategies of potential traffic and transport infrastructure and services to guide the planning of land use and transport changes within the study area and in the wider surrounding context. The specific traffic and transport infrastructure and services shown in this figure should be read as planning context and they may not be infrastructure and services proposed to service the site and the development as proposed in this SSDA.</p> <p>The RtS report now directs readers to the correct section of the report for proposed upgrades.</p>	<p>TTIA Appendix N</p>
<p>c) TTAR Appendix P, shows a connection from Doran Drive Precinct onto the intersection with Showground road and Gilbert Road. However, there is no information in the report with regards to this matter and this was not included in the modelling.</p> <p>Further information/clarification is required with regards to the need for another connection to Showground Road from the Doran Drive Precinct. It is noted that there are already two connections to the Showground Road at intersections with Carrington Road and De Clambe Drive. It should also be noted that this intersection is located around a bend and may result in adverse sight distance to the intersection and therefore would require a safety review.</p>	<p>As above.</p> <p>Gilbert Road upgrade is not part of the SSDA.</p>	<p>TTIA Appendix N</p>
<p>d) Page 17 Section 2.8.2.4, Figure 2-13 - The diagram appears to identify a “new local road” intersecting with Showground Road and Gilbert Road. There is no information in the report with regards to this matter and this was not included in the modelling.</p> <p>Clarification is required to determine if this is included in the proposal. If there is a new local</p>	<p>Gilbert Road upgrade is not part of the SSDA.</p> <p>A preamble is included at the start of the RtS report as well as in the specific section to clarify that discussions in this chapter are strategic planning context used to inform traffic and transport infrastructure and services proposed for the site, which are then specifically discussed further in the report.</p>	<p>TTIA Appendix N</p>

Issue/ Recommendation	Project Response	Appendix Ref
road at this location, then Showground Road/Gilbert Road would need to be identified as “upgrade intersection” since it’ll convert the existing T intersection layout to cross intersection and the TTAR modelling would require updating.		

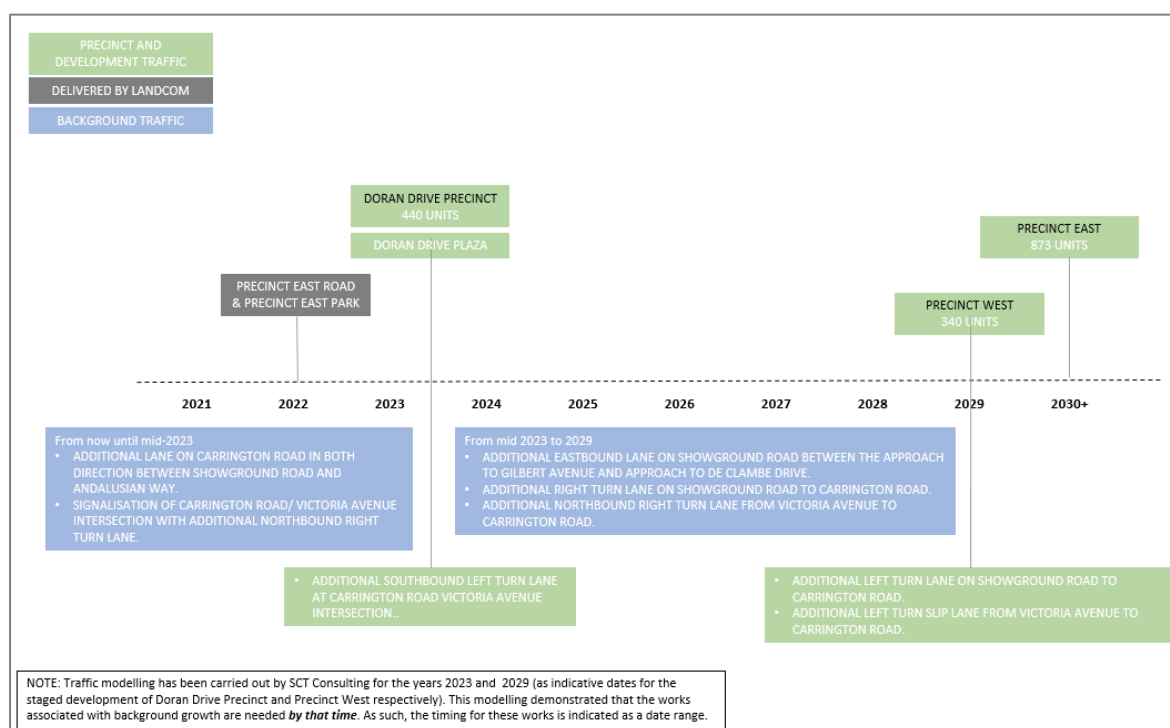


Figure 10: Indicative Staging Plan - Development Completion and Local Infrastructure (Landcom, 2020)

4.10. Sydney Metro

Issue raised / recommendation

Sydney Metro is of the view that the proposed development could potentially have an adverse impact on the operation and safety of the Sydney Metro Northwest rail corridor due the proximity of the Sydney Metro Northwest rail corridor and the works proposed.

Sydney Metro have therefore requested that the following condition is imposed on the consent as follows:

“As part of the lodgement of any future development applications, the Applicant shall prepare and submit documentation compliant with the Sydney Metro Underground Corridor Protection Technical Guidelines and Sydney Metro At Grade and Elevated Sections Corridor Protection Guidelines (available from www.sydneymetro.info).”

Sydney Metro has also requested the following:

- If, at any point, the DA is amended prior to the consent authority's determination, please ensure that the amended DA and any new or amended supporting documents are provided to Sydney Metro for further assessment. Any amendments to the DA may alter the impacts of the proposed development on the Sydney Metro Northwest rail corridor assessed by Sydney Metro, so Sydney Metro may need to vary any requested conditions.
- That any subsequent DAs are referred to Sydney Metro.

Response

Landcom accepts Sydney Metro's requirement to be included as a condition to be satisfied in future detailed DAs. The Sydney Metro Underground Corridor Protection Technical Guidelines and Sydney Metro At Grade and Elevated Sections Corridor Protection Guidelines have also been referenced in the Urban Design Guidelines (**Appendix I**).

It is recommended that a condition be included to require that subsequent DAs are referred to Sydney Metro.

4.11. The Office of Environment and Heritage

Biodiversity – Issue raised by Council Response

The Environment, Energy and Science Group (EES) in DPIE has reviewed the Biodiversity Development Assessment Report (BDAR) and acknowledges that the proposal will not impact any remnant native vegetation. However, EES notes that BDAR contains a number of errors or omissions. Although these are inconsequential given the small scale of impact, feedback on the errors is provided as follows:

- section 3.5 of the BDAR should have included a description of Anabat survey methods
- the BDAR states that the Wallangarra White Gum (*Eucalyptus scoparia*) was recorded on site. This species is listed as a threatened species under the *Biodiversity Conservation Act 2016*. Although no species credits would be required in this instance to offset the loss of this species as it is planted, section 9.1.3 of the BDAR should have included a discussion that the species is present (albeit planted)

- section 9.3.2. "Prescribed Biodiversity Impacts - Human Made Structures and Non-native vegetation", should have included a discussion of prescribed impacts from the loss of non-native vegetation
- Appendix B1 should have included the Large Bent-wing Bat.

It is noted that the proposal adjoins the riparian area of Cattai Creek. The BDAR states that the vulnerable Grey-headed Flying-fox was observed flying over the creek, and that the creek may provide potential foraging habitat for the Large Bent-wing Bat. The BDAR states that impacts on the creek line will only be "minor" and "mitigation measures will be implemented to reduce the potential impacts". These measures include those outlined in the Integrated Water Cycle Management Strategy, best practise erosion and sedimentation controls in accordance with approved CMP and weed control in accordance with an approved CMP.

To avoid impacts to threatened fauna and their habitats along Cattai Creek, EES recommends these mitigation measures are required as conditions of consent.

Response

BDAR report

A revised BDAR (**Appendix J**) has been prepared addressing the issues raised and summarised in **Table 11**.

Table 11: Comparison of original concept proposal with amended concept proposal

Issue raised	Response
Section 3.5 of the BDAR should have included a description of Anabat survey methods	Section 3.5.4 of the BDAR includes a detailed description of Anabat Surveys as follows: <i>"One ultrasonic Anabat detector (Anabat Express, Titley Scientific QLD) was deployed at the Cattai Creek culvert for one night to record echolocation calls of microchiropteran bats. Anabat detectors were set to record bat vocalisations starting at dusk. Bat activity is used as a substitute for abundance, and is based on the number of microchiropteran bat calls recorded during the survey period, including those calls assigned to a species complex (i.e. not positively attributable to an individual species)."</i>
Wallangarra White Gum (<i>Eucalyptus scoparia</i>) was recorded on site, section 9.1.3 of the BDAR should have included a discussion that the species is present (albeit planted).	Wallangarra White Gum (<i>Eucalyptus scoparia</i>) is commonly planted as a landscape and a street tree throughout NSW and the site is outside the natural geographic range of this species. Section 6.3 and Section 9.1.3 of the BDAR Report now includes a discussion on Wallangarra White Gum (<i>Eucalyptus scoparia</i>).
Section 9.3.2. "Prescribed Biodiversity Impacts - Human Made Structures and Non-native vegetation", should have included a discussion of prescribed impacts from the loss of non-native vegetation	Section 9.3.2.2 of the BDAR Report includes a discussion of prescribed impacts from the loss of non-native vegetation, stating: <i>"The non-native vegetation contains potential foraging habitat for the Grey-headed Flying-fox and as outlined in Section 9.4 the impact upon this foraging habitat for this species is likely to be minor due the large areas of better-quality habitat within the vicinity of the site."</i>

Issue raised	Response
Appendix B1 should have included the Large Bent-wing Bat	Appendix B1 has been updated to include the Large Bent-wing Bat.

Recommended mitigation measures

Landcom accepts OEH's recommendation that the measures identified (**Table 13**) to mitigate biodiversity impacts are to be included as a condition to be satisfied in future detailed DAs.

Table 12: Biodiversity mitigation measures

Potential impact	Proposed mitigation measures
Removal of vegetation	Replanting of landscape areas to incorporate native species (Landscape Plan and Design Guidelines). Tree Protection zones be incorporated to protect any retained native trees within the Site.
Impact on threatened flora species	No mitigation is required as the occurrence of any threatened flora species is considered unlikely.
Impact on threatened and native fauna species	A pre-clearing survey would be undertaken by a suitably qualified ecologist, prior to the removal of any trees. This should be included in the CMP.
Impact on adjacent Cattai Creek	Best practise erosion and sedimentation controls in accordance with approved CMP Weed control in accordance with approved CMP.

Flooding

OEH confirmed that the relevant flood risk management report for the Concept Plan is adequate and no outstanding flood risk management issues have been identified. The Concept Plan therefore is supported, with no additional requirements needed regarding flooding.

4.12. Water NSW

WaterNSW raised no concerns with the concept proposal as it is not located near any WaterNSW land, assets or infrastructure.

4.13. Water and the Natural Resources Access Regulator

The NRAR raised no concerns with the concept proposal.

5. Response to public submissions

Fifteen (15) public submissions were received in response to the exhibition, 11 of these were from individuals and the remaining 4 from organisations. The individual submissions included comments generally in support of higher density to development in the precinct, however, raised some concerns in the areas of built form, traffic and impact on the Castle Hill Showground itself. Of the responses from organisations, one was in support of the project, two raised objections and the fourth was from Endeavour Energy providing a comment on electricity capacity, largely concerned with future DAs.

The key issues raised included:

- Built form and urban design
- Application and compliance with planning controls
- Traffic and parking
- Castle Hill Showground
- Infrastructure provision
- Utility infrastructure capacity.

A summary of the key matters raised, number of times the issue was identified and the response, has been provided in **Table 14**. As 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.

Where the particular issue has been dealt with in detail elsewhere in the RtS, the table refers to the relevant sections.

Table 13: Key issues raised in public submissions

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
Built form and urban design	28		
1. Concerns regarding height and scale of buildings.	6	<p>Further consideration has been given to design of the concept proposal with the focus on achieving better built form and amenity outcomes.</p> <p>This has resulted in a reduction of 9,310m² of gross floor area (GFA) to the overall density, bulk and scale of the proposal (in particular Precincts East and West).</p> <p>The concept proposal, both exhibited and revised, complies with controls (height and FSR) and is consistent with intended future character of a high-density mixed-use precinct.</p> <p>Additional project response on this issue is provided in Section 4.2 (Table 4, Item 2).</p>	UDG Appendix I

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
<p>2. Concerned about overshadowing impacts (1), particularly:</p> <ul style="list-style-type: none"> • parks and recreation areas (2) • land to the south (2) 	5	<p>Changes to the concept proposal have resulted in increased solar access to dwellings on site, and to communal and public open space areas.</p> <p>Due to the orientation of the site, off-site overshadowing impacts will be largely contained within the overarching Site boundary with the exception of the properties to the south over Carrington Road.</p> <p>The proposed development has been designed to limit overshadowing on adjacent properties including future 12 storey residential development south of Carrington Road and 12 and 3 storey development east of Showground Road.</p> <p>The shadow diagrams (at hourly intervals), included in the revised Urban Design Report (Appendix H), demonstrate that on June 21 moving from west to east:</p> <ul style="list-style-type: none"> • a small portion of the potential buildings located south will be overshadowed between 9am – 12pm • overshadowing is at its greatest at 3pm with a more significant proportion of buildings being affected. <p>Throughout other times of the year however these properties to the south are largely unaffected.</p> <p>In view of the above, it is considered that the proposed future buildings will comply with the ADG requirements.</p> <p>In relation to the existing properties, the majority will only be affected at 3pm mid-winter.</p> <p>During the detailed design stages, compliance with the proposed controls for each building must be adhered to, to ensure overshadowing impacts do not compromise the solar access. Detailed shadow diagrams will be submitted as part of future DAs.</p>	<p>UDR Appendix H</p> <p>UDG Appendix I</p>
<p>3. Considers the proposal will have an adverse impact to community safety, health, and wellbeing</p>	4	<p>No design changes. The development provides numerous benefits for residents and the local community:</p> <ul style="list-style-type: none"> • New open space and non-residential uses will provide opportunities and places for people to shop, recreate, relax and socialise - bringing the new centre to life and contributing to health and wellbeing • new transport linkages to the metro station and surrounding areas will encourage 	<p>CPTED Appendix C</p> <p>UDG Appendix I</p>

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		<p>walking and cycling and use of public transport</p> <ul style="list-style-type: none"> The concept proposal has been designed to accord with CPTED principles as detailed in the CPTED Assessment (Appendix C). Future DAs for the detailed design of open space and residential buildings will be required to address CPTED principles in accordance with the requirements of the Urban Design Guidelines (Appendix I). 	
4. Proposal is out of character of the area	4	<p>The concept proposal complies with controls (height and FSR). It is consistent with the intended future character of the Showgrounds Precinct, which was rezoned for higher density development and to activate the station as part of the DPIE Sydney Metro Northwest Urban Corridor.</p> <p>The Urban Design Guidelines (Appendix I), SMNWP Public Art Guidelines, SMNWP Placemaking Guideline provide controls and guidance to ensure that the cultural heritage of the area is celebrated and recognised as part of redevelopment of the site through interpretive signage, public art and planting of specific species.</p>	<p>UDG Appendix I</p> <p>SMNWP Public Art Guidelines Appendix G</p>
5. Concerns about the significant number of dwellings on the site.	3	<p>The dwelling cap for the Site has been revised from 1,900 to 1,620 dwellings. It is more closely aligned to Council's expectation estimate of 1,521 dwellings as identified in strategic planning for the precinct and identified in Council's 'Contributions Plan No. 19 Showground Station Precinct'.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
6. Considers the concept proposal to be an overdevelopment of the site.	3	<p>No design changes. The concept proposal, both exhibited and revised, complies with controls (height and FSR). It is consistent with the intended future character for higher density development and to activate the station as part of the DPIE Sydney Metro Northwest Urban Corridor.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
7. Concerned about the quality and certification of future buildings.	2	<p>No design changes, however the UDG has been further developed to provide additional objectives and controls to ensure the intended quality of future development is met. All future building will need to comply with the Building Code of Australia and any material specifications that may result from the future determination of DAs. All</p>	

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		buildings are required to be certified by a qualified building surveyor who will be responsible for ensuring that building work complies with legislative requirements and conditions of consent.	
<p>8. Precinct West design and controls</p> <ul style="list-style-type: none"> Considers the site is too small to accommodate a 20-storey building Concerned about the no setback to footpath being provided 	1	<p>Precinct West has a height limit of 68m and FSR of 5:1 under THLEP, with a maximum height limit of 20 storeys in the THDCP. This has been informed by strategic planning for the wider precinct.</p> <p>Clause 9.1 of THLEP includes a development standard that requires shop top housing have a minimum lot size of 3,600m². Precinct West has site area of 3,293m², slightly less than the minimum lots size required.</p> <p>A Clause 4.6 Variation Request was submitted with the EIS and provided detailed justification of the contravention of the minimum lot size development standard. In summary, Lot 53 DP 1253217 (Precinct West) was created as part of this subdivision process. The lot is an "L" shaped parcel of land fronting De Clambe Drive to the north and Doran Drive immediately east. The lot was excised from the recently completed multi storey car park that has been delivered to service the Hills Showground Station. Detailed urban design analysis in the EIS demonstrated that this lot at 3,293m² is able to accommodate development of 20 storeys and facilitate good design with appropriate building footprints and built form.</p> <p>No setback is provided due to the non-residential ground floor uses, however the Urban Design Guidelines require a 3m setback if and where food and beverage retail with outdoor dining is proposed.</p>	<p>Concept Plan Drawings for Approval Appendix B</p> <p>UDG Appendix I</p>
Application and compliance with planning controls	11		
<p>9. Planning controls on government land</p> <ul style="list-style-type: none"> Considers that the distribution of density across the precinct should be shared more 	4	No design changes. The planning controls for the site are the result of precinct planning undertaken by state and local government. The site was identified as suitable to accommodate the majority of density for the wider precinct given its proximity to the Hills Showground station. The controls that now apply to the site differ from the surrounding areas and reflect a high-density mixed use precinct. See response	N/A

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
<p>equitably with private developers</p> <ul style="list-style-type: none"> No justification as to why increased densities allowed on Government land Government being favoured with different rules. 		project in Section 4.2 (Table 4 , Item 1) for further details.	
10. Government land given priority to utilise the dwelling cap diminishing the ability of private developers to achieve medium-higher density precinct	4	<p>The Government has not been given priority to utilise the dwelling cap of 5,000 dwellings. As at 3 October 2019, eight DAs within the broader Showground Precinct had been lodged with a total of 1,523 dwellings. Of these, two DAs had been approved equating to 351 dwellings. A planning proposal for 2,643 dwellings was also under consideration.</p> <p>It is understood that DPIE will closely monitor the delivery of housing approvals and dwelling completions following rezoning, and would support the lifting of this dwelling cap where further regional infrastructure commitments are made to support additional growth.</p>	N/A
11. Non-compliance/inconsistency with the application of the apartment size and diversity controls in the LEP.	3	<p>Clause 7.11 of the LEP does not apply to the site. Minimum apartment sizes will be as per the Apartment Design Guidelines however this would not preclude developers from providing larger apartments at the site. As detailed in Section 5.2.2 (item ii) in the Urban Design Guidelines, dwelling mix controls and have been slightly adjusted for each precinct, but across the site achieve the overarching mix across the Hills Showground Station Precinct of (25% studio or 1-bedroom dwellings or both and at least 20% 3 (or more)-bedroom dwellings consistent with Clause 9.7 (previously Clause 7.12) of the THLEP and THDCP in Part D Section 19 Hills Showground Station Precinct.</p>	N/A
12. Justification noncompliance with lot size controls for Precinct West is inadequate—subdivision of land to 3,293m ² and 2,286m ² and relies on non-compliance	1	<p>No design changes. Justification for non-compliance with lot size controls is detailed in the Clause 4.6 Variation Request submitted with the EIS. This report is a statutory requirement that was prepared in accordance with Clause 4.6 of the THLEP and matters set out in the 'five part test' established by the NSW Land and Environment Court.</p>	Refer to Clause 4.6 Report, Appendix E of the EIS

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
with apartment size/diversity control.		As detailed in the response to issue 11 above, Clause 7.11 of the LEP does not apply to the site.	
13. Doran Drive Plaza below minimum lot size 3,600m ² .	1	No design changes. The Concept Proposal provided for Doran Drive Plaza (1,400m ²) for passive open space at Doran Drive Precinct consistent with the Contributions Plan. The minimum lot size controls under Clause 9.1 of THLEP only apply to residential flat buildings and shop top housing.	N/A
14. Questions why reduction of lot sizes applies to higher density development.	1	No design changes. Lot size controls for standard residential lots is 700m ² under Clause 4.1 of THLEP. The minimum lot size controls for high density development i.e. residential flat buildings <11m is 1,800m ² and for residential flat buildings >11m and shop top housing is 3,600m ² pursuant to Clause 9.1 of THLEP.	N/A
15. Site should only be used for residential uses.	1	No design changes. Precinct West and Doran Drive are zoned B2 Local Centre and will provide up to 13,940m ² GFA of commercial/retail floor space to support the daily needs of residents, visitors and workers in the area. This is consistent with the objectives of the zone and strategic outcomes for the precinct. Precinct East will be predominately residential and will also be complemented by other non-residential uses such as child care facilities or gyms in response to market demand. Refer to the Urban Design Guidelines Appendix I which set out the intended future character of each precinct.	UDG Appendix I
Traffic impacts/issues	24		
16. Concerned that traffic congestion will increase.	8	Residential parking rates have been reduced from what was exhibited to further discourage private vehicle use and minimise traffic impacts. The parking rates proposed aim to create a transit-oriented centre by encouraging walking, cycling and public transport use, minimising additional congestion to the surrounding road network. Non-residential land uses will be provided to further minimise the need to use private vehicles. Traffic modelling has also confirmed that additional infrastructure upgrades are required to cater for the growth of the wider precinct.	UDG Appendix I TTIA Appendix N

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		Refer to response to item 20 which details measures to encourage public transport usage and walking and cycling.	
17. Considers that traffic in the area is getting worse.	6	<p>The traffic and transport network within and around the Hills Showground Station Precinct has been subject to a number of major improvements as part of the delivery of the Sydney Metro by the NSW Government, such works include:</p> <ul style="list-style-type: none"> • New local and collector roads within the precinct • Intersection upgrades and signalisation as required at Showground Road and Carrington Road, with new local roads within the precinct. • Widening of Showground Road between Carrington Road and Pennant Street, which has been accounted for as part of our concept plan. <p>The NSW Government is/ will be undertaking a number of projects in addition to the works carried out for Sydney Metro.</p> <p>Under the Council's Contributions Plan No. 19 additional works have been identified to meet the future demand, whilst ensuring an acceptable level of access, safety and convenience for all street and road users within the Showground Station These improvements will occur as part of the development of areas within the broader precinct by future individual developers, works include:</p> <ul style="list-style-type: none"> • Upgrade and widening of Carrington Road to four lanes incorporating a central landscapes median • One new roundabout at the intersection of Middleton Avenue and Fishburn Crescent • Upgrade of the following intersections: <ul style="list-style-type: none"> ○ Carrington Road and Victoria Avenue ○ Victoria Avenue and Anella Avenue/Hudson Avenue (left-in/left-out) ○ Victoria Avenue and Hoyle Avenue/Gladstone Road ○ New road between Fishburn Avenue and Showground Road (left-in/left-out). • One pedestrian bridge over Cattai Creek between Anella Avenue and the Showground • One pedestrian bridge over Carrington Road at Cattai Creek 	UDG Appendix I TTIA Appendix N

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		<ul style="list-style-type: none"> Cycleway along Cattai Creek corridor between Showground Road and Cockayne Reserve Shared footpath/cycleway along Salisbury Road (between Victoria Avenue and Windsor Road) and the remainder of Victoria Avenue (both sides) between Showground Road and Windsor Road. <p>See response to Issue 19 in this table regarding the upgrades required as a result of this proposal.</p>	
18. Parking rates proposed will incentivise car usage	2	See response to Issue 16.	UDG Appendix I TTIA Appendix N
19. Concerned about intersection performance in the area.	2	<p>The TTIA details the level of performance of intersections in the area and determines that the following infrastructure upgrades are required to cater for background traffic growth and the development traffic by 2031:</p> <ul style="list-style-type: none"> Additional eastbound lane on Showground Road between the approach to Gilbert Avenue and the approach to De Clambe Drive Additional lane on Carrington Road in both directions between Showground Road and Andalusian Way Additional turning lanes from Showground Road to Carrington Road Additional left turn slip lane from Carrington Road to Showground Road Signalisation of Carrington Road / Victoria Avenue intersection with additional turning lanes. <p>In the Showground Station Precinct Contributions Plan No. 19, the signalisation of Carrington Road and Victoria Avenue has already been included to meet the future demand, while ensuring an acceptable level of access, safety and convenience for all street and road users within the Showground Station Precinct. Hence, the upgrade of this intersection, as confirmed by the traffic modelling to cater for background traffic growth and development traffic, should be funded by all relevant Section 7.11 contributions. A traffic signals warrant has also been undertaken to confirm that this</p>	UDG Appendix I TTIA Appendix N

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		<p>intersection should warrant a traffic signal based on the expected traffic demand in 2031.</p> <p>The Contributions Plan No. 19 also identifies that the upgrade of Showground Road / Carrington Road will be provided by parties other than Council (including Transport for NSW and future individual developers within the Precincts) as development occurs. TfNSW is currently working with The Hills Shire Council on Traffic and Transport Planning Studies which will examine the cumulative impacts of the full development uplift associated with the North West Rail Link - Showground Road Station Structure Plan. The study will build on previous studies to assess the travel demand generation and network impacts of residential and commercial growth, and to formulate recommendations on robust mitigation measures. This may include the identification/need for further localised road widening in key locations in order to facilitate road/transport/active transport infrastructure upgrades.</p>	
20. Measures to encourage public transport usage including high quality public spaces to facilitate walking to the station are required.	1	<p>Measures proposed to encourage public and active transport include:</p> <ul style="list-style-type: none"> • Podium heights and scale and setbacks of towers provide for a pedestrian scale environment as well as public surveillance of streets • Future uses will help activate street frontages and use of the public domain • The new shared paths are to be delivered along the new Precinct East Street as well as Doran Drive Plaza. These will provide important connections to the existing street and cycle network, to public transport including the metro, bus stops and kiss and ride, as well as across the precincts and linking to other areas • Reduced residential car parking rates are being proposed to encourage a mode shift away from private car use • Provision has been made for car share arrangements, bicycle parking spaces and end-of-trip facilities • Streetscapes and public domain areas will be well designed with quality and durable finishes and landscape elements as well as significant planting for aesthetic amenity 	UDG Appendix I

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		<p>and environmental comfort. Awnings will be provided to retail and commercial frontages for weather protection.</p> <ul style="list-style-type: none"> The Hills Showground Station also provides a bike shed with 35 spaces available to the public. <p>The above measures are detailed in the Urban Design Guidelines (Appendix I).</p>	
21. Need for wider traffic study with specific recommendations relating to intersections, and construction of roads.	1	See response to Issue 19.	N/A
22. Concerned about increased noise and pollution from cars.	1	Controls have been included in the Urban Design Guidelines (Appendix I) so that noise and air quality impacts are appropriately addressed as part of future DAs. The reduction of residential parking rates will further discourage private vehicle use and minimise noise and pollution.	UDG Appendix I
23. Need to prioritise traffic upgrades in the area.	1	See response to Issues 17 and 19.	TTIA Appendix N
24. Concerned about pedestrian congestion.	1	Footpaths in the new Doran Drive Plaza and Precinct East local street have been generously sized to accommodate increased foot traffic expected for a high-density mixed-use precinct.	UDG Appendix I
25. Questioned whether traffic and waste servicing for businesses uses not addressed	1	<p>The Urban Design Guidelines (Appendix I) and Traffic and Transport Impact Assessment (Appendix N) take into consideration traffic impacts and servicing for business uses.</p> <p>Nominated vehicle entries/egress points have been identified along with parking rates. Controls have been included to ensure that future DAs take into consideration the above as well as Australian standards and other requirements to ensure that businesses are appropriately serviced.</p>	UDG Appendix I TTIA Appendix N
Parking	6		
26. Existing commuter carpark inadequate	3	The car park is not within the scope of SSD 18_9653. On-site parking will be provided for future residents and workers in accordance with	UDG Appendix I

Summary of issues raised	No. times issue raised	Project response	Appendix Reference																																				
and is already at capacity		<p>the rates set out below. These rates have been informed by the TTIA (Appendix N) and have been included in the Urban Design Guidelines (Appendix I).</p> <p>Table 4.9 Recommended parking rates for Hills Showground Station Precinct site</p> <table> <tr> <th>Land use</th><th>Minimum car parking rates</th><th>Maximum car parking rates</th><th>Bicycle parking rates (minimum)</th></tr> <tr> <td rowspan="4">Market housing</td><td>1 Bed</td><td>0.4 space per dwelling</td><td rowspan="4">An average of 1 space per market housing apartment (as an overall cap) *</td></tr> <tr> <td>2 Bed</td><td>0.7 space per dwelling</td></tr> <tr> <td>3 Bed</td><td>1.0 space per dwelling</td></tr> <tr> <td>Visitor</td><td>0.1 spaces per dwelling</td></tr> <tr> <td rowspan="4">Affordable housing</td><td>1 Bed</td><td>0.4 space per dwelling</td><td rowspan="4">One space per three apartments for resident and one visitor space per 12 apartments</td></tr> <tr> <td>2 Bed</td><td>0.5 space per dwelling</td></tr> <tr> <td>3 Bed</td><td>1.0 space per dwelling</td></tr> <tr> <td>Visitor</td><td>0.1 spaces per dwelling</td></tr> <tr> <td>Retail</td><td colspan="2">1 space per 130 m² – 60 m² GFA</td><td>One space per 450 m² GFA for staff</td></tr> <tr> <td>Office / commercial</td><td colspan="2">1 space per 145 m² – 100 m² GFA</td><td>One space per 600 m² GFA for staff</td></tr> <tr> <td>Car share spaces</td><td colspan="2">One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial</td><td>-</td></tr> </table> <p>Source: SCT Consulting, 2020</p> <p>Refer Section 4.2 (Table 4, Item 14) for further details regarding parking rates.</p>	Land use	Minimum car parking rates	Maximum car parking rates	Bicycle parking rates (minimum)	Market housing	1 Bed	0.4 space per dwelling	An average of 1 space per market housing apartment (as an overall cap) *	2 Bed	0.7 space per dwelling	3 Bed	1.0 space per dwelling	Visitor	0.1 spaces per dwelling	Affordable housing	1 Bed	0.4 space per dwelling	One space per three apartments for resident and one visitor space per 12 apartments	2 Bed	0.5 space per dwelling	3 Bed	1.0 space per dwelling	Visitor	0.1 spaces per dwelling	Retail	1 space per 130 m ² – 60 m ² GFA		One space per 450 m ² GFA for staff	Office / commercial	1 space per 145 m ² – 100 m ² GFA		One space per 600 m ² GFA for staff	Car share spaces	One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial		-	TTIA Appendix N
Land use	Minimum car parking rates	Maximum car parking rates	Bicycle parking rates (minimum)																																				
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Car share spaces	One space per 150 car spaces for residential and one space per 80 car parking spaces for commercial		-																																				
27. Some of the land at the site should be used for additional car parking.	2	See response to Issue 28.	UDG Appendix I TTIA Appendix N																																				
28. Parking for commercial uses in particular the supermarket not addressed.	1	Retail parking rates 1 space per 130 m ² – 60 m ² GFA (includes supermarket) were included in the concept proposal. Refer Section 4.2 (Table 4 , Item 14).	UDG Appendix I																																				
Castle Hill Showground	7																																						
29. Importance of heritage significance of the Showground.	5	<p><i>An Aboriginal and Non-Aboriginal Heritage Impact Statement</i> (GML, 2019) was prepared to support the concept proposal and made the following recommendation with respect to Castle Hill Showground.</p> <p>Future stages of the design, the scale of the buildings on the site should step down towards the Castle Hill Showground in order to mitigate the impact on its setting and provide a more appropriate transition of scale.</p> <p>The buildings with frontage to the Castle Hill Showground have been stepped down through the provision of a 4-storey podium and secondary setbacks of 3m to the towers above on both Doran Drive and Precinct East to assist with providing appropriate transition of scale. Controls relating to maximum building setbacks</p>	Refer to Aboriginal and Non-Aboriginal Heritage Impact Statement, Appendix L of the EIS																																				

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		and heights are outlined in the Concept Plans for approval and Urban Design Guidelines.	
30. Future uses incompatible with event use of Castle Hill Showground and concerned about resident noise complaints.	2	<p>Noise management controls have been included in the Urban Design Guidelines (Appendix I) to:</p> <ul style="list-style-type: none"> • ensure good amenity for future residents and workers • minimise land use conflicts arising from noise impacts between non-residential and residential land uses. • ensure that future residential development at the site does not compromise the operation of the Castle Hill Showground. • manage the expectations of residents regarding noise impacts from the future operation of the Castle Hill Showground. 	UDG Appendix I
Infrastructure provision	6		
31. Lack of public infrastructure and part of the site should be used for community public buildings, such as libraries, schools, and additional car parking at the station.	3	See response at Section 4.2 (Table 4, Items 2 and 5) for further details.	N/A
32. Provision of a community infrastructure at the site would future proof the precinct and eliminate the 5,000-dwelling cap.	2	<p>The dwelling cap of 5,000 dwellings is consistent with the level of growth forecast during public exhibition of the draft plans, and aligns with the local and state infrastructure that has been planned to support the precinct's growth.</p> <p>It is understood that DPIE will closely monitor the delivery of housing approvals and dwelling completions following rezoning, and would support the re-assessment of the dwelling cap if adequate infrastructure was provided to support additional growth.</p>	N/A
33. No contribution towards education establishment made.	1	See response at Section 4.2 (Table 4 , Item 3) for further details.	N/A

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
Utility infrastructure	3		
34. Does not consider that the utility servicing report gave enough information on infrastructure capacity to accommodate the proposal.	1	<p>The <i>Utility Servicing Impact Assessment</i> (WSP, 2019) submitted with the EIS, demonstrated that there is adequate capacity in the public infrastructure networks (including the supply of potable water, wastewater, electricity, gas and telecommunications) to adequately service the future development. With exception of sewer the site will be serviced by existing infrastructure. The strategic options for sewer upgrades will be further developed by the future developers of the site. An appropriate solution will form part of the future detailed development application for their development proposals.</p> <p>A high-level assessment is considered appropriate to support Concept Proposal. Detailed utility investigation and further discussions with the relevant authorities will occur at the time. Further consultation with utility providers will be required at the time of considering detailed DAs and will be required to calculate the final demand requirements as part of the detailed DA process.</p>	Refer to Utilities Servicing Impact Assessment, Appendix Y of the EIS
35. Concerns raised over internet (NBN) infrastructure which is already at capacity.	1	The <i>Utility Servicing Impact Assessment</i> (WSP, 2019) submitted with the EIS, demonstrated that there is adequate capacity in the telecommunications to service the future development.	Refer to Utilities Servicing Impact Assessment, Appendix Y of the EIS
36. Considers that when development lots were established there was no consideration given to appropriate size for road formations & utility infrastructure.	1	Development lots were determined by the design of the metro services and required to fit within the local context.	Concept Plan Drawings for Approval Appendix B

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
Other matters	5		
37. Concerns around the management of construction impacts	2	<p>There are no construction works proposed under this Concept Plan. A Construction Management Plan will be required to be prepared to manage the construction phase of the project for individual DAs.</p> <p>Potential impacts of construction on surrounding areas and the public realm with respect to noise and vibration will be addressed in the future planning and development stages through a Construction Noise and Vibration Management Plan (CNVMP).</p> <p>The CNVMP will identify potentially noisy activities, their impacts on surrounding receivers, and outline management strategies to control the impacts of noise and vibration during the excavation and civil works, structure construction, building fit out and landscaping.</p>	N/A
38. Concerns around the effects of high rise on the environment and contributing to climate change.	1	<p>ESD Strategy has been prepared to support the concept proposal and is supported by controls in the Urban Design Guidelines (Appendix I) to ensure sustainability requirements are met, many of which go beyond Council's requirements this includes a minimum:</p> <ul style="list-style-type: none"> • 5 Green Star Design and as-Built for residential • 4.5 Green Star Design for non-residential uses. 	UDG Appendix I
39. Increased stormwater and flooding impacts to downstream properties.	1	<p>Stormwater and flooding impacts have been addressed as part of the proposal to ensure that the risk to downstream properties will not be increased.</p>	IWCMS Appendix L
40. Concerned about the single points of reference used to undertake the Visual Impact Assessment.	1	<p>Six critical viewpoints within the view catchment were selected through a process of analysis of the visibility diagrams to identify representative viewpoints that would:</p> <ul style="list-style-type: none"> • Likely to be subject to changes in views as a result of the development • Be sensitive to these changes to views as a result of the expectations of viewers. <p>These viewpoints have been selected in consultation with Council and DPIE. Photomontages were prepared from each of these viewpoints to illustrate the changes to</p>	VIA Appendix O

Summary of issues raised	No. times issue raised	Project response	Appendix Reference
		these views that would result from implementation of the proposed development.	
Issues beyond the scope of the SSDA	5		
41. Castle Hill area overdeveloped already.	3	The redevelopment of this site for higher density development is consistent with a number of strategic studies and the current planning controls. Refer Section 4.2 (Table 4 , Item 1) of this report for further details.	N/A
42. Recommendations for the future uses of the Castle Hill Showground.	1	The draft Castle Hill Master Plan has been prepared and recommendations regarding future uses should be directed to Council and their project team.	N/A
43. Increase in crime in the area as a result of high-rise developments.	1	Noted. The concept proposal has been designed to accord with CPTED principles as detailed in the CPTED Assessment (Appendix C). Future detailed DAs for the detailed design of open space and residential buildings will be required to address CPTED principles in accordance with the requirements of the Urban Design Guidelines (Appendix I).	CPTED Appendix C UDG Appendix I

6. Changes to the Concept Proposal

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

Density, bulk and scale

- A reduction to the overall density, bulk and scale of the proposal (in particular Precinct East) of 9,310m² GFA to allow for:
 - increased building separation
 - increased setbacks
 - increased solar access to dwellings, communal and public open space areas
 - improved public domain interface
 - reduction in yield up to 1,620 dwellings (previously up to 1,900 dwellings)
 - change in maximum commercial/retail gross floor area to 13,940m² (previously a range of 6,700m² to 13,600m²)
 - reduction in maximum car parking spaces to 1,957 (previously 2,293 car spaces).

Building Envelopes and height

- Transition controls, flexible building envelopes and additional controls for Precinct West to address Cattai Creek and existing commuter carpark interface
- Looser building envelopes and additional controls for the Doran Drive Precinct as well as an increase in the number of storeys from 20 to 21 while still complying with the 68m height limit
- Looser building envelopes, additional controls and inclusion of townhouse style apartments within Precinct East.

Setbacks

- Setbacks increased to Showground Road from 3m to 10m consistent with THDCP, 4.5m to 5m to new local street consistent with the Hills LEP and a 3m outdoor dining setback introduced for Doran Drive Precinct and Precinct West.

Other elements

- An aligned THDCP apartment mix – maximum of 25% x 1 bedrooms, and minimum of 20% x 3 bedrooms across the precinct
- Additional integration of the Castle Hill Showground master plan with the concept scheme
- Amendments to site coverage, building separation and height to improve solar access to new local park in Precinct East
- Revised and more detailed Urban Design Guidelines with a greater level of detail.

Table 14 provides a comparison between the key features of the concept proposal as exhibited and the revised plan. These changes are illustrated in **Figure 11**.

Table 14: Comparison of original concept proposal with amended concept proposal

Item	SSDA Submission	Concept proposal as amended (RtS Report)
Maximum Height		
Precinct West	68m (20 storeys)	No change
Doran Drive Precinct	68m (20 storeys)	68m (21 storeys)
Precinct East	(16 storeys)	No change
Maximum FSR		
Precinct West	3.9:1	No change
Doran Drive Precinct	3.2:1	No change
Precinct East	3:1	2.7:1
Total GFA	175,796 m²	166,486 m²
Precinct West	29,154m ²	29,146m²
Doran Drive Precinct	51,004m ²	51,065m²

Item	SSDA Submission	Concept proposal as amended (RtS Report)
Precinct East	95,638m ²	86,275m ²
Commercial/retail GFA	6,700 - 13,600m²	13,940m²
Precinct West	1,000 - 2,760m ²	3,005m ²
Doran Drive Precinct	5,700 -10,840m ²	10,935m ²
Residential GFA	Up to 169,096m² (total GFA minus Commercial/Retail GFA)	152,546m²
Precinct West	28,154m ²	26,141 m ²
Doran Drive Precinct	45,304m ²	40,130 m ²
Precinct East	95,638m ²	86,275m ²
Total dwellings	1,800-1,900	1,620
Precinct West	293-313	307
Doran Drive Precinct	446-503	440
Precinct East	1,063	873
Apartment mix		
Precinct West	35% 1 bedroom, 55% 2-bedroom and 10% 3-bedroom	25% studio or 1-bedroom dwellings or both, 52% 2-bedroom, 23% 3 (or more)-bedroom dwellings
Doran Drive Precinct	35% 1 bedroom, 55% 2-bedroom and 10% 3-bedroom	23% studio or 1-bedroom dwellings or both, 67% 2-bedroom, 10% 3 (or more)-bedroom dwellings
Precinct East	35% 1 bedroom, 55% 2-bedroom and 10% 3-bedroom	25% studio or 1-bedroom dwellings or both, 50% 2-bedroom, 24% 3 (or more)-bedroom dwellings
Overall Building Envelopes		
GFA to envelope	69%	60 – 65%
Total car parking	2,078 – 2,273 spaces	1,357– 1,957 spaces
Office/ Commercial and retail	101 – 197 spaces	104 – 203 spaces
Residential*	1,703 – 2,076 spaces	1,111 – 1,620 spaces
Visitor	181 – 188 spaces	162 spaces
Shared Vehicle	N/A	10 – 14 spaces

Item	SSDA Submission	Concept proposal as amended (RtS Report)
		Offset normal parking spaces 30 – 42
Bicycle parking	799	705
Open space		
Public open space	Doran Drive Plaza a minimum of 1,400m ² Precinct East Park minimum 3,500m ²	No change
Communal open space	As per the ADG to address 25% of the total site area.	As per the ADG to address 25% of the total site area.

*It should also be noted that this SSDA is seeking consent for a minimum of five percent of affordable housing for a 10-year term across the precinct. The rates of 0.4 space per 1-bedroom unit, 0.5 space per 2-bedroom dwelling and 1 space per 3-bedroom dwelling will be applicable for the affordable dwellings. The cap of 1,620 car parking spaces (not including visitor parking) determined based on total capped residential yield of 1,620 dwellings with respective minimum and maximum rates of market housing products, will be further reduced when the quantity and location of affordable housing is confirmed at detailed design stage.

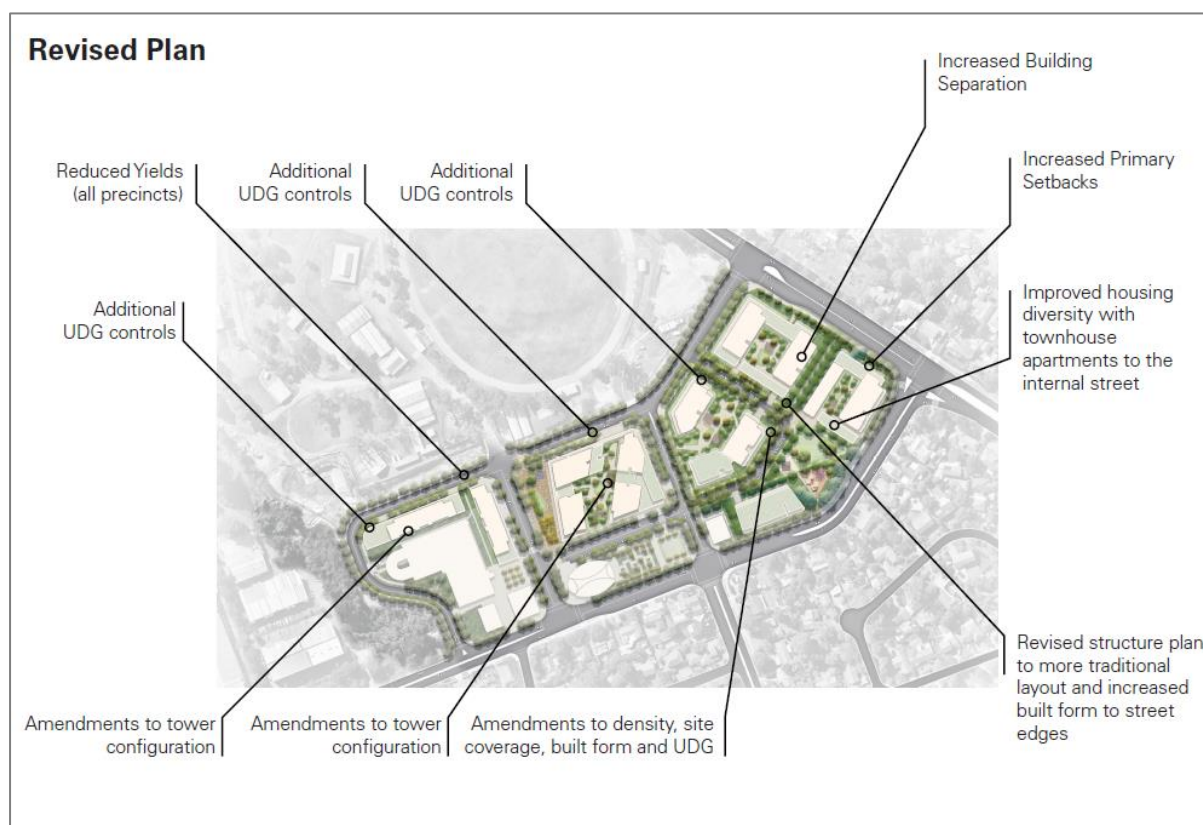


Figure 11 Revised Concept Plan (Cox, 2020)

7. Conclusion

This RtS Report has been prepared to satisfy the provisions of section 4.39 of the EP&A Act and clause 85A of the EP&A Regulation. All submissions received during the EIS exhibition period 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 revised SSDA Concept Proposal will enable the vision and objectives for the Precinct of high-quality built form and landscape outcomes, as identified in the 2017 Showground Station Precinct Plan, to be realised as the Precinct transforms over time.

The SSDA Concept Proposal aligns with the NSW Government's priorities relating to housing affordability, local infrastructure delivery and economic development. The proposal will facilitate further urban renewal along the Sydney Metro Northwest corridor and activate the Hills Showground Station.

The supporting studies demonstrate that the site can be adequately serviced and impacts can be appropriately managed through the detailed design phase of future stages. The Urban Design Guidelines, Design Excellence Strategy and ESD Strategy will ensure that exemplar outcomes are achieved. The Council's Contributions Plan 19 provide the framework to ensure that the required infrastructure will be delivered to support growth at the site.

Consultation with SINSW has confirmed that a new primary school is required to meet future demand generated within the wider Hills Showground area. SINSW is undertaking a detailed review of accommodation needs and is considering options for the location of the new primary school, including access to appropriate open space. Options under consideration include the Precinct West site within the Hills Showground Station Precinct and other site/s within the wider precinct. SINSW will be working to finalise the location in the coming months.

Landcom will continue engaging with SINSW to support identification of an appropriate school site to service the future needs of the wider Hills Showground area.

SINSW would obtain the necessary approvals for a future school as part of a separate application if required.

The proposed development is in the public interest and will have a range of positive social and economic benefits, namely:

- Deliver a mix of housing including affordable housing and employment in a highly accessible location
- Contribute to the goal of achieving a 30-minute city and optimising infrastructure use
- Contribute to the realisation of the site as local centre to serve the needs of people who live in, work in and visit the area
- Provide a compact development and contribute to a low carbon future for Sydney
- Maximise sustainable transport alternatives, through the provision of and connections to cycling and walking networks, as well as the metro station and bus connections
- Have the infrastructure to support the growth

- Provide for employment and business opportunities
- Be an attractive place to live, work and visit
- Provide new high-quality public spaces accessible to all that will aim to promote activity during the day and throughout the evening, contributing to a safe, attractive, inclusive environment for the local community and visitors.

It is considered that the SSDA Concept Proposal is in the public interest and is recommended that approval be granted.