COUNCIL ASSESSMENT REPORT

Panel Reference No.	2018SNH021
DA Number	LDA 2018/171
LGA	City of Ryde
Proposed Development	Construction of 2 x 15 storey residential apartment buildings comprising 317 dwellings (2 x studio, 104 x 1 bedroom, 179 x 2 bedrooms & 32 x 3 bedrooms apartments) over 3 basement levels of car parking for 308 car spaces together with landscaping works and associated site works.
Street Address	159-161 Epping Road, Macquarie Park
Applicant/Owner	Applicant: 159 Epping Road Pty Ltd C/- Mecone Owner: The Owners Strata Plan 9264
Date of DA Lodgement	4 May 2018
Number of Submissions	One
Recommendation	Approval subject to conditions
Regional Development Criteria - Schedule 7 of SEPP(State & Regional Development 2011)	General Development over $30 Million
List of All Relevant s4.15(1)(a) Matters	**Environmental Planning Instruments** • Environmental Planning and Assessment Act 1979; • Biodiversity Conservation Act 2016; • Environmental Protection and Biodiversity Conservation Act 1999; • Sydney Environmental Planning Policy (State and Regional Development) 2011; • State Environmental Planning Policy No. 55 – Remediation of Land; • State Environmental Planning Policy (Infrastructure) 2007; • State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004; • State Environmental Panning Policy 65 (Design Quality of Residential Apartment Development); • Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005; and • Ryde Local Environmental Plan 2014. **Development Control Plans** • City of Ryde Development Control Plan 2014; and • Section 7.11 Development Contributions Plan 2007.
List all documents submitted with this report for the Panel's consideration	• Conditions of Consent (**Attachment 1**) • Plans (**Attachment 2**) • Advice from the applicant agreeing to the draft conditions of consent (**Attachment 3**)

Report prepared by	Tony Collier – Senior Coordinator Major Development
Report Date	23 April 2019

Summary of s4.15 matters

Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary of the assessment report? **Yes**

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report? **Yes**

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report? **N/A**

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S7.24)? **N/A**

Conditions

Have draft conditions been provided to the applicant for comment? **Yes**

1. EXECUTIVE SUMMARY

The following report is an assessment of a development application for 2 x 15 storey residential apartment buildings over basement parking together with landscaping works and associated site works at 159 – 161 Epping Road, Macquarie Park.

The development will contain 317 dwellings (2 x studio, 104 x 1 bedroom, 179 x 2 bedrooms & 32 x 3 bedrooms apartments) and car parking for 308 vehicles within three basement levels.

The site is zoned B4 Mixed Use under the Ryde Local Environmental Plan 2014 and the proposed development is permissible with consent.

The development has been assessed in respect of the relevant planning instruments and the application is non-compliant with the following design objectives of the Apartment Design Guide. These non-compliances are in regard to the following:

- Part 3, Objective 3F – Visual Privacy:
  - The minimum separation distances for the buildings are less than recommended from 5 + storeys to habitable rooms.
- Part 4, Objective 4A - Solar access:
  - 64% of apartments achieve solar access instead of 70%.
- Part 4, Objective 4D - Apartment size and layout (bedrooms sizes and apartment depth). Bedrooms are required to have a minimum length of 3m and area of 10m². The following units do not comply:
  - NG-01 – Bed 2 – 2.9m wide (9.4m²)
  - NG-02 – Bed 2 - 2.9m wide (9.4m²)
  - NG-03 – Master – 2.95m wide (10.8m²)
  - NG-09 – Bed 3 – 2.77m wide but only for a max. length of 1.7m, then room then widens to compliant width (9.2m²)
  - S1-03 – Bed 3 – 2.96m wide (10.9m²).
- Part 4, Objective 4E - Private Open Space size and dimensions:
  - S1-05 – 3 bedroom unit with depth 2.2m instead of 2.4m.
  - S2-10 – 2 bedroom unit with balcony area of 11m² instead of 12m².
- Part 4, Objective 4F – Common circulation and spaces (maximum number of units off circulation core):
  - There are 9 apartments off each corridor instead of 8.

The development also proposes two variations to the Ryde DCP Part 4.5 – Macquarie Park Corridor, namely the maximum allowable floor plate size above 8 storeys (Section 7.8) and maintaining the natural ground level for a zone of 4m from side and rear boundaries (Section 8.4).

Despite the variations sought, the form and scale of the proposed development are considered to be generally characteristic of other large scale developments along Epping Road. The proposed apartments will receive good levels of amenity in terms of views, natural light and ventilation.

It is noted that the site generally slopes to the rear (towards Eucalyptus Avenue), so in the event of a failure of the on-site drainage system, will result in potential overland flows directed towards private land, which is contrary to Council's DCP requirements. In this regard, the applicant has not, to date, provided sufficient information to demonstrate that the entire site can discharge to Epping Road. The applicant was made aware during pre-lodgement advice provided by Council's Development Engineer that discharge to Epping Road will be accepted provided it can be demonstrated that all parts of the land under development can be discharged to this point, in addition to accommodating any failure mode of the system. During the course of the application, the applicant has proposed alternative solutions, however Council has maintained its position and approval of the stormwater system is considered to be only acceptable subject to Deferred Commencement conditions.

During the notification period, Council received one submission which is discussed later in this report.

After consideration of the development against section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the relevant statutory and policy provisions, the proposal is considered suitable for the site and is in the public interest subject to the overland flow issue being satisfied as per Council's recommended conditions.

This assessment against the relevant planning framework has not identified any fundamental issues of concern. Consideration has also been given to various design matters by Council's technical departments who have no objections to the proposed development, subject to conditions.

This report determines that this development proposal is suitable in terms of design and is consistent with the desired future character of the precinct, and recommends that consent be granted to this application in accordance with conditions provided in **Attachment 1.** These conditions have been reviewed by the applicant who has agreed with all of the conditions.

2. APPLICATION DETAILS

Applicant: 159 Epping Road Pty Ltd C/- Mecone

Owner: The Owners Strata Plan 9264

Capital Investment Value: $146,333,000 (including GST)

Disclosures: No disclosures with respect to the Local Government and Planning Legislation Amendment (Political Donations) Act 2008 have been made by any persons.

3. SITE DESCRIPTION AND CONTEXT

The site is located at the northern side of Epping Road and is legally described as Strata Plan 9264, known as No. 159 to 161 Epping Road, Macquarie Park.

The site has an area of approximately 8,074m², has a frontage to Epping Road of approximately 76m to the south west, whilst all other boundaries are shared with Baptist Care Aged Care Facility (see **Figure 1**).

The rear of the site adjoins Eucalyptus Street, which is a private road within the Baptist Care site. The site has sole vehicular access from Epping Road and the development site will not benefit from any access to/from Eucalyptus Street.

Figure 1: Location of the subject site highlighted in orange and the adjoining Baptist Care site is also labelled.

The site currently accommodates a two storey walk up residential flat building and basement parking and is well setback from the Epping Road frontage. Within the front setback area facing Epping Road there is an at-grade car parking and lawn area and a small enclosure for waste bins. Located to the south west of the site is an electrical substation which sits on a separate parcel of land.

There are a total of 71 trees, with 23 trees on adjoining land and 48 trees located on the subject site, 30 of which are proposed to be retained with the remaining 41 trees proposed to be removed. In respect of matters required to be considered under the Environmental Planning and Assessment Act 1979 and relating to the species and provisions of the Biodiversity Conservation Act 2016, no threatened fauna species, no threatened flora species, and one Threatened Ecological Community, being Sydney Turpentine-Ironbark Forest (STIF), were recorded within the study area.

Four (4) tree species namely, Angophora costata, Eucalyptus saligna, Eucalyptus pilularis and Elaeocarpus reticulatus, are representative of endemic native tree species forming part of the remnant STIF community present.

The ecological community on the subject site includes ten (10) individual remnant trees (T18, T19, T23, T35, T36, T42, T43, T53, T54 and T55). **Figure 2** illustrates the area of

the site which form part of the STIF community. The hatched areas indicate the location of the trees which will be impacted. **Figure 3** shows examples of the STIF community, which are part of the remnant trees present on site.

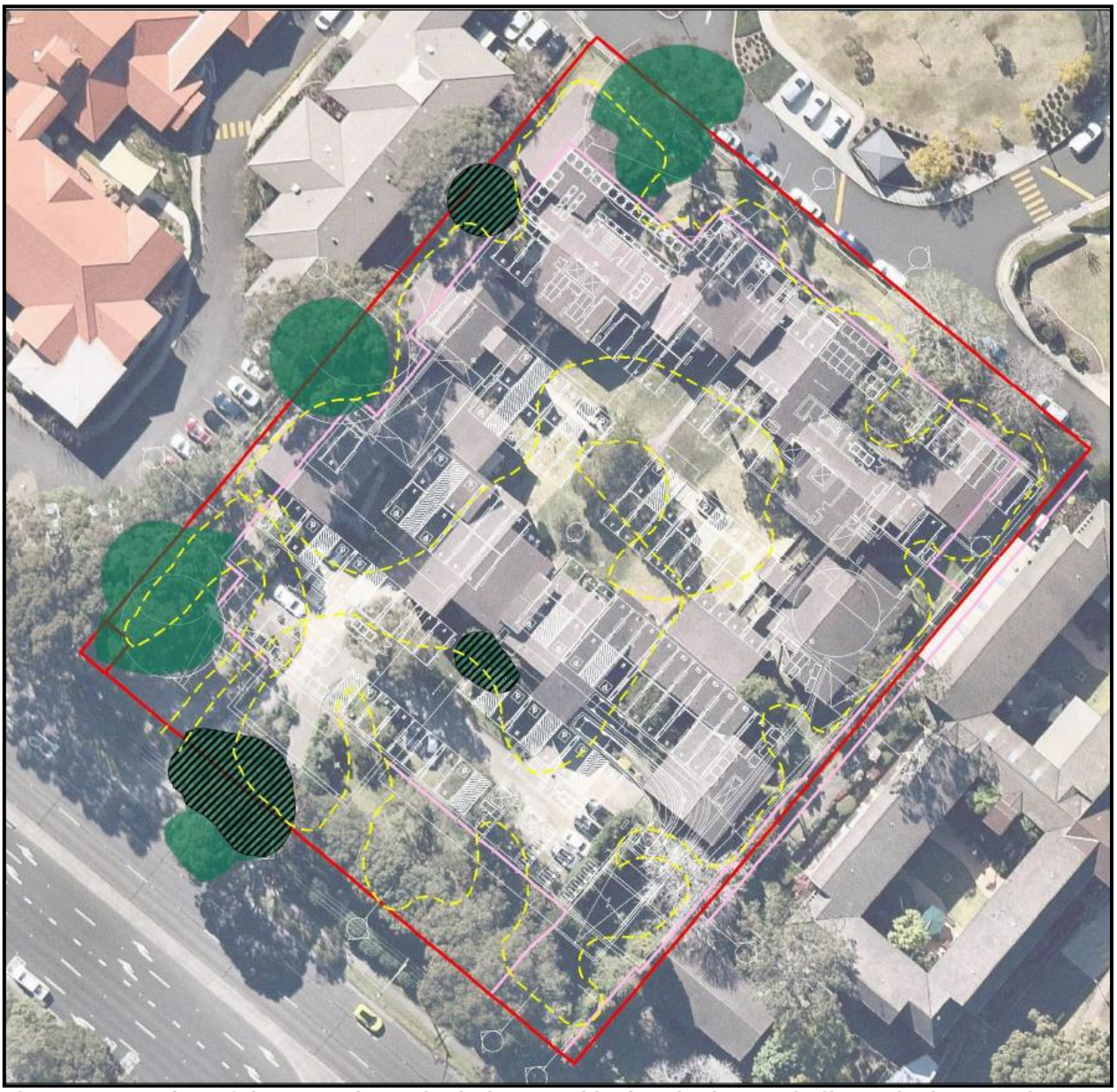


Figure 2: Location of the STIF shown in dark green (the hatched areas indicate the impacted part of the community)

Large Sydney Blue Gum tree near the northern corner of the site – looking north-west along the rear boundary

One large Blackbutt and one large Sydney Blue Gum trees in the western corner of the site – looking west along the front western corner boundary

Figure 3: Photos of examples of STIF part of the remnant trees present on site (Photo source: Travers Biodiversity Development Assessment Report dated 11 January 2019).

The natural ground surface on the site generally falls toward the southern corner RL72.77 from the northern corner RL78.08 relative to Australian Height Datum (AHD).

The site is bounded by land zoned B4 Mixed Use to the north, east and west. The entirety of the adjoining land consists of one singular land holding belonging to Baptist Care. The site contains a "village like" retirement style development consisting of a residential aged care facility and independent living units. To the south of Epping Road (and vegetated median strip), directly adjacent to the development site is R2 Low Density Residential consisting of predominantly single and two storey dwellings.

The site is located within the B4 Mixed Use zone of the Macquarie Park Corridor and is also identified as being part of the Macquarie University Station Precinct (also known as Herring Road Precinct).

Historical Context: The Herring Road Priority Precinct

The site is located within the Herring Road Priority Precinct, which was nominated by City of Ryde in July 2012. The NSW Government endorsed Macquarie University Station (Herring Road) as a Priority Precinct in November 2012.

The Precinct includes Macquarie University and Macquarie Shopping Centre and is in close proximity to the employment opportunities offered by Macquarie Park. The Precinct is well serviced by public transport including bus services, the Epping to Chatswood Rail Line, and in the future the North West Rail Link. Upgrades to the M2 have also been completed recently, including new ramps at Christie Street, which improve access to the precinct.

The State Environmental Planning Policy (Major Development) Amendment (Ryde) 2014 included amendments to the State Environmental Planning Policy (Major Development) 2005 and the Ryde Local Environmental Plan 2014 (RLEP 2014) to deliver the Precinct. The RLEP was subsequently amended on 1 October 2015.

Figure 4 below shows the indicative structure plan for the Precinct.

Figure 4: Indicative structure plan for the Herring Road Priority (Source: Herring Road Finalisation Report dated May 2015 as prepared by NSW Department of Planning)

4. HISTORY

The following table provides a summary of the background to this application.

Date	Comments
13 December 2017	The applicant attended a pre-lodgement meeting. At the meeting the UDRP advised the applicant: "*The proposal appears capable of generally conforming with the relevant development standards for floor space and building height, although specific comment is made regarding the proposed building height below.* *The proposed building is sited on a busy road, with relatively constrained access. The rear of the site is fronted with what appears to be a private street, upon which access cannot (at this time) be relied. The neighbouring sites are held in single ownership and given recent renewal projects in the vicinity of the subject site, there appears to be the potential to work cooperatively with neighbouring landowners in order to deliver a coordinated, master planned solution that delivers improved public benefit."*
4 May 2018	Development Application lodged with Council.
16 May 2018 – 15 June 2018	In accordance with Council policy the application was advertised in the *Northern District Times* and adjoining property owners were also notified of the application in writing. Submissions about the proposal closed on 15 June 2018.
19 June 2018	The applicant was advised of the concerns raised by Baptist Care to the proposal, which was received by Council during the notification period. At the same time, the applicant was advised of drainage, traffic and waste issues which needed to be addressed.
5 July 2018	The applicant attended a second Urban Design Review Panel meeting, whereby the applicant presented the amended design. The UDRP advised that "*The proponent is encouraged to coordinate the design with the adjacent site. The Panel encourages the proponent to adopt the above recommendation and provide revised drawing to Council for review.*" The recommendations referred to are discussed below.
31 July 2018	Applicant provided with minutes from UDRP meeting.
10 August 2018	The applicant was also advised of outstanding development engineering (stormwater) matters to be addressed.
15 August 2018	The applicant was sent details of the comments received by RMS, which was also sent to their traffic consultant.
22 August 2018	An email was sent to the applicant outlining landscape matters to be addressed.
18 October 2018	Applicant submitted a consolidated response to Council's requests for further information.
24 October 2018	Applicant advised that further Flora and Fauna Assessment, in particular, Significance of Impact test required.
25 October 2018	Briefing given to Sydney North Planning Panel and site inspection.
29 October 2108	The application submitted an amended Biodiversity Assessment Report, Revised Tree Assessment and updated landscape plans.
5 November 2018	Email to applicant advising of further traffic and waste issues regarding basement.

Date	Comments
15 November 2018	Meeting with the applicant to resolve traffic and waste issues.
20 December 2018	Additional information submitted by applicant including amended plans and tree assessment information.
11 January 2019	Email to applicant advising of further clarification required regarding trees.
12 February 2019	Applicant advised the Council's Traffic and Waste teams were satisfied with amended plans.
18 February 2019	Applicant advised of outstanding development engineering (stormwater) matters to be addressed.
20 February 2019	Advice received that the amended Biodiversity Development Assessment Report (BDAR) submitted to Council is now satisfactory.
22 February 2019	Applicant submitted further amended stormwater plans.
27 February 2019	Email sent to applicant advising the stormwater plans still unsatisfactory.
28 February 2019	Meeting held with applicant to discuss and resolve outstanding engineering matters.
6 March 2019	Applicant submitted further amended stormwater plans.
12 March 2019	Email sent to applicant advising the stormwater plans still unsatisfactory.
28 March 2019	RMS concurrence received.
8 April 2019	Amended stormwater and architectural plans submitted.
9 April 2019	Applicant advised of the outstanding stormwater and OSD matters.
16 April 2019	Meeting held with Council officers, the applicant, developer and the applicant's engineer to further discuss outstanding OSD matters.
17 April 2019	Further amended stormwater plans submitted.

5. THE PROPOSAL

The applicant seeks consent for demolition of the existing buildings and construction of 2 x 15 storey residential flat buildings (referred to in this report at North Tower and South Tower shown in **Figure 5**) comprising a total of 317 residential apartments consisting of:

- 2 x studio apartments (0.6%).
- 104 x 1 bedroom apartments (32.8%).
- 178 x 2 bedroom apartments (56.2%).
- 33 x 3 bedroom apartments (9.9%).

- Car parking and common areas within 2 basement levels consisting of:
  - 308 car parking spaces across two levels;
  - 32 disabled car spaces;
  - 6 car share spaces;

- Waste storage rooms; and
- bicycle parking racks/rooms.

- Separate garbage truck entry, turning area and collection.

- Landscaping and associated site works.

- Construction of deceleration lane providing direct access to the site from Epping Road.

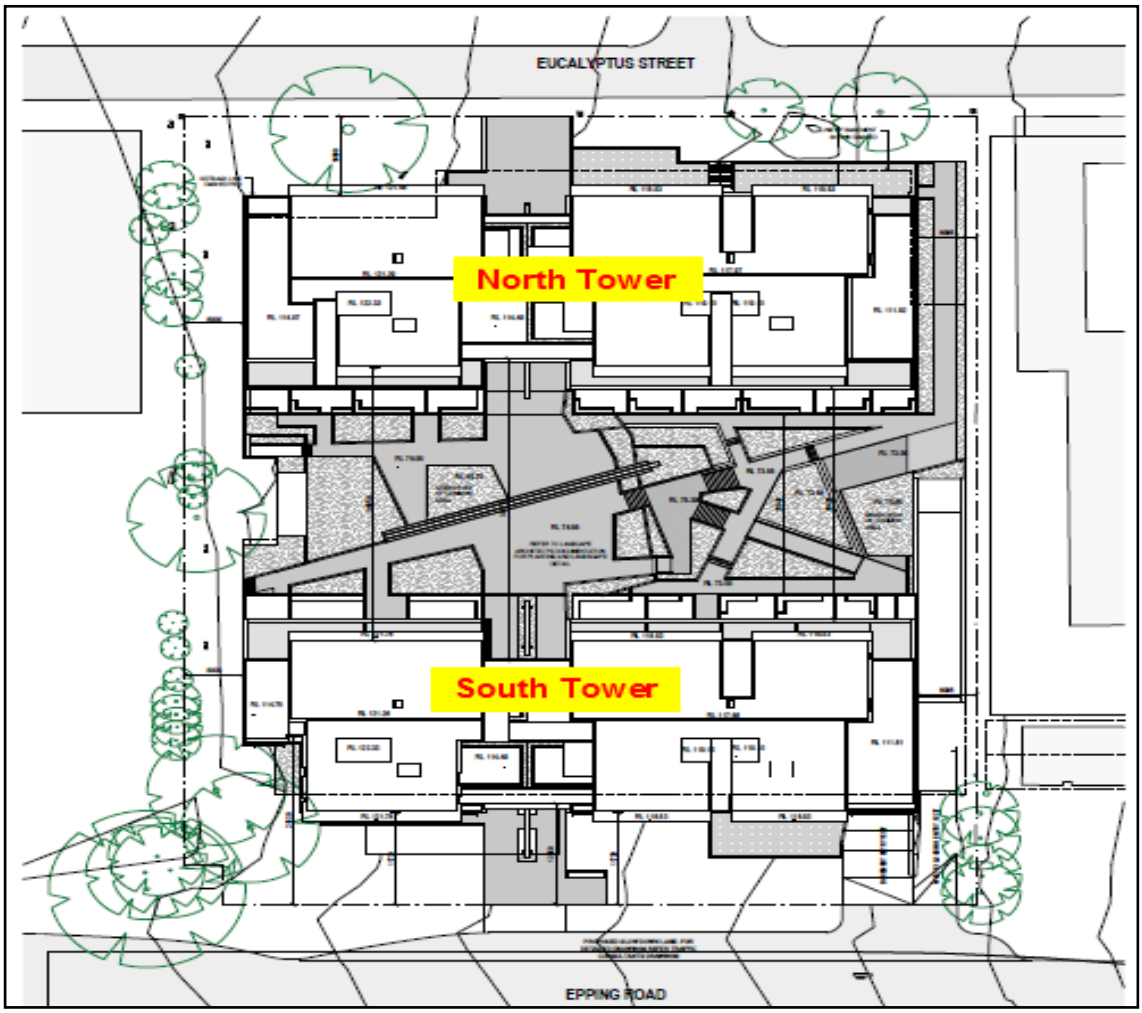


Figure 5: Site plan of proposed site showing location of North and South Towers.

- Tree Removal. There are a total of 71 trees, with 23 trees on adjoining land and 48 trees located on the subject site, 30 of which are proposed to be retained with the remaining 41 trees proposed to be removed. **Figure 6** below shows the location of the trees in and around the site.

  The green circled trees represent trees to be retained, and the red circled trees represent those to be removed. The blue circles indicate the tree protection zones.

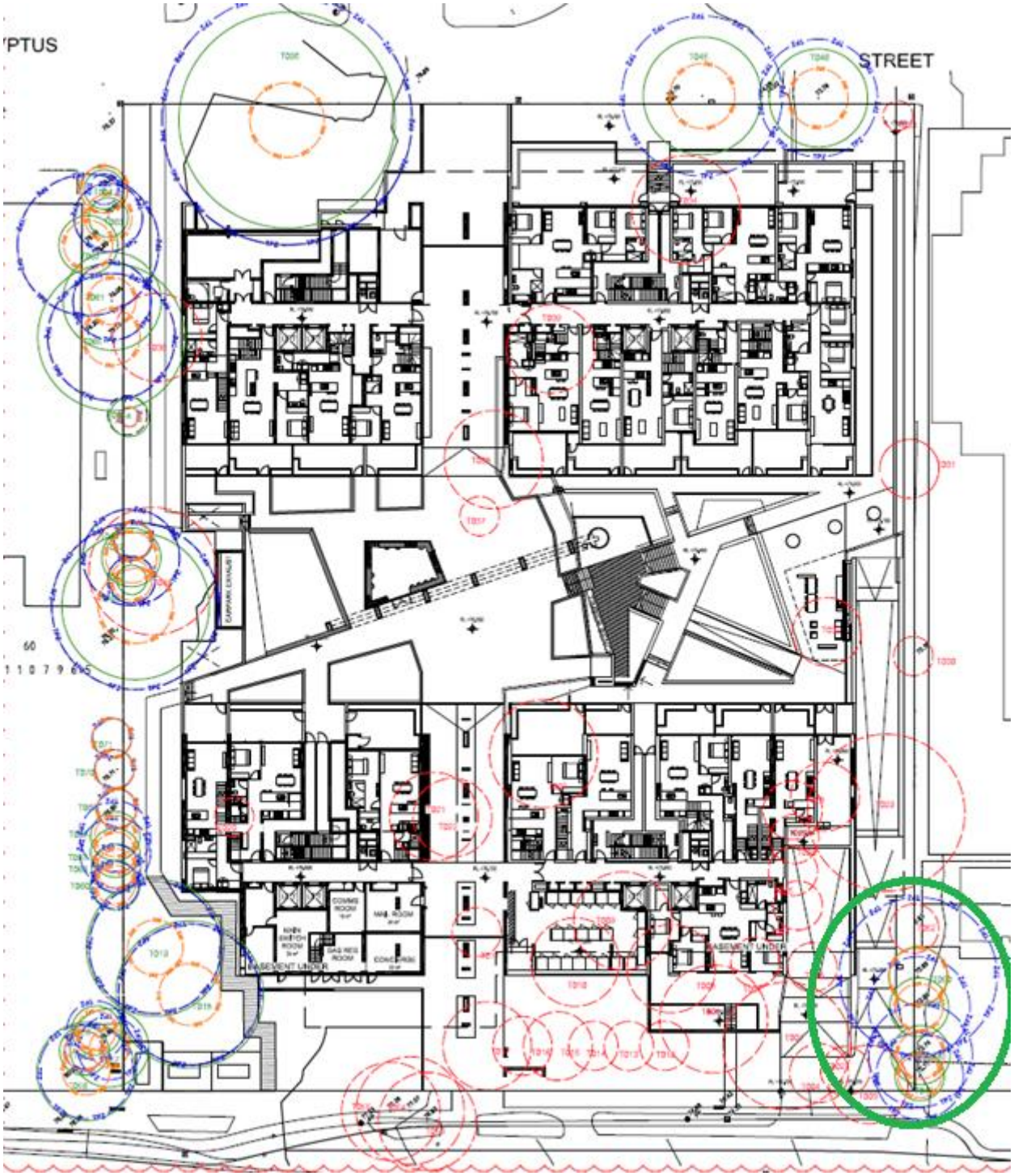


Figure 6: Location of trees to be retained and removed (Source: TaylorBrennan)
Note: The thick green circled area indicates trees to be removed from the adjoining lot as a result of site works (see commentary later in this report).

The following table outlines the all the trees to be removed, including those located on the adjoining site. The green highlighted rows represent STIF to be removed.

Tree No.	Species	Location	STIF
T001	Spotted Gum	Subject site	
T002	Bangalay	Subject site	
T003	Port Jackson Cypress	Subject site	

Tree No.	Species	Location	STIF
T004	Melaleuca	Subject site	
T005	Spotted Gum	Subject site	
T006	Norfolk Island Pine	Subject site	
T007	Bottlebrush	Subject site	
T008	Swamp Oak	Subject site	
T009	Swamp Oak	Subject site	
T010	Swamp Oak	Subject site	
T011	Crimson Bottlebrush	Subject site	
T012	Melaleuca	Subject site	
T013	Melaleuca	Subject site	
T014	Melaleuca	Subject site	
T015	Melaleuca	Subject site	
T016	Melaleuca	Subject site	
T017	Melaleuca	Subject site	
T020	Arborvitae	Subject site	
T021	Broad-leaved Paperbark	Subject site	
T022	Broad-leaved Paperbark	Subject site	
T023	Blueberry Ash	Subject site	Yes
T024	Arborvitae	Subject site	
T025	Arborvitae	Subject site	
T026	Arborvitae	Subject site	
T027	Arborvitae	Subject site	
T028	White Cedar	Subject site	
T029	Sweet Gum	Subject site	
T030	Cocos Palm	Subject site	
T031	Tibouchina	Subject site	
T032	Ash	Subject site	
T033	Crimson Bottlebrush	Subject site	
T034	Bangalay	Subject site	
T036	Sydney Blue Gum	Subject site	Yes
T037	Bottlebrush	Subject site	
T038	River Oak	Subject site	
T039	Broad-leaved Paperbark	Subject site	
T040	Sweet Gum	Subject site	
T041	Port Jackson Cyrpess	Subject site	
T042	Cypress	Subject site	Yes
T047	Callitris	**Baptist Care Site^**	
T048	Callitris	**Baptist Care Site^**	
T049	Callitris	**Baptist Care Site^**	
T050	Callitris	**Baptist Care Site^**	
T052	Cypress	Subject site	
T053	Smooth-barked Apple	**Public domain**	Yes
T054	Smooth-barked Apple	**Public domain**	Yes
T055	Smooth-barked Apple	**Public domain**	Yes
T60	River Oak	**Baptist Care Site^**	
T60a	River Oak	**Baptist Care Site^**	
T60b	River Oak	**Baptist Care Site^**	
T60c	River Oak	**Baptist Care Site^**	
T60d	River Oak	**Baptist Care Site^**	
T60e	River Oak	**Baptist Care Site^**	
T60f	River Oak	**Baptist Care Site^**	

Note: On 12 February 2019, the applicant submitted written owners consent to remove these trees from BaptistCare NSW and ACT (dated 29 January 2019), as owner of the land on which these trees are located.

A photomontage of the proposed development is also provided in **Figure 7**.

Figure 7: Photomontage of proposed development from Epping Road looking north

6. APPLICABLE PLANNING CONTROLS

The following planning instruments, policies and controls are relevant to the development:

- Environmental Planning and Assessment Act 1979;
- Environmental Planning and Assessment Regulation 2000;
- Biodiversity Conservation Act 2016;
- Environmental Protection and Biodiversity Conservation Act 1999;
- State Environmental Planning Policy (State and Regional Development) 2011;
- State Environmental Planning Policy No. 55 – Remediation of Land;
- State Environmental Planning Policy (Infrastructure) 2007;
- Deemed SEPP - Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 200
- Ryde Local Environmental Plan 2014;
- Ryde Development Control Plan 2014; and

- Section 94 Contribution Plan.

7. PLANNING ASSESSMENT

7.1 Environmental Planning and Assessment Act, 1979

All relevant matters for consideration under Section 4.15 have been addressed in the assessment of this application.

7.2 Environmental Planning and Assessment Regulation 2000

This application satisfies Clause 50(1)(a) of the Regulation as it is accompanied by the necessary documentation for development seeking consent for a mixed use development and associated car parking, including:

- A Design Statement from a qualified designer;
- An explanation of the design in terms of the Design Quality Principles set out in Part 2
- of *State Environmental Planning Policy No. 65 - Design Quality of Residential*
- *Apartment Development;*
- BASIX Certificate; and
- Required drawings and montages.

This application has also satisfied Clause 92(b) of the Regulation as it is accompanied by a Demolition Control Plan, which has been prepared in accordance with AS2601 – Demolition of Structures.

7.3 Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

As advised, the site contains STIF which is listed as an endangered ecological community under EPBC Act. However, the STIF does not meet the threshold criteria for a threatened ecological community under this Act due to its patch size being less than 1 hectare and lack of understorey and groundcover layers. With respect to the EPBC Act 1999, the Biodiversity Development Assessment Report (BDAR) concludes:

> "*In respect of matters required to be considered under the Environment Protection and Biodiversity Conservation Act 1999, no threatened fauna species, no protected migratory species, no threatened flora species, and no TECs listed under this Act were recorded within the study area.*"

The application was referred to Council's Consultant Landscape Architect and Ecologist who supported this finding.

Detailed commentary by Council's Consultant Landscape Architect and Ecologist can be found in the Referrals section of the report.

7.4 Biodiversity Conservation Act 2016 (BC Act)

As stated above, one (1) threatened ecological community was recorded within the site and public domain. Four tree species being *Angophora costata* (Smooth-barked Apple), *Eucalyptus saligna* (Sydney Blue Gum), *Eucalyptus pilularis* (Blackbutt) and *Elaeocarpus reticulatus* (Blueberry Ash) are representative of endemic native tree species forming part of the remnant STIF. This vegetation community exists as ten (10) individual remnant trees with no native understorey or groundcover species present.

The development is being built within an urbanised area which is seeing a transition to higher densities, and some of areas of native vegetation sit within the building envelope. However, through design changes, the applicant has been able to retain five (5) individual remnant trees.

The applicant has submitted an assessment within the BDAR which has assessed the site for biodiversity values and has identified how the applicant proposes to avoid and minimise any potential biodiversity impacts. The BDAR concluded that the proposed development was not considered to have a significant impact on matters of national environmental significance. As such a referral to the then Department of Environment and Energy was not required.

The proposed development will provide for 833m² of replacement plantings (82 trees) including STIF species, which is 38% more replacement planting than recommended by this BDAR.

The BDAR also states:

"The direct impacts of the proposal within the subject site are considered as:

- *Removal of 0.03ha of highly modified TEC vegetation (STIF).*

The potential indirect impacts of the proposal are considered as:

- *Minor reduction of arboreal connectivity for arboreal mammals*
- *Reduced cross-site movements by small bird species such as passerines.*
- *Increased soil nutrients from changes to runoff that may provide further opportunities for weed plumes.*
- *Concentrated stormwater runoff from solid surfaces and subsequent increased flows.*

The potential cumulative impacts (combined results of past, current and future activities) of the proposal are considered as:

- *Increased risk of weed invasion and fungal mobilisation or infections.*
- *Cumulative loss of STIF within the locality.*

The landscape plans as provided in Appendix 7 has provided for 833m2 of replacement plantings including STIF species, which is 38% more replacement planting than recommended by this Biodiversity Development Assessment Report.

5.3 Mitigation measures

The following recommendations are made to avoid, minimise or ameliorate the above potential ecological impacts, address threatening processes and to guide a more positive ecological outcome for threatened species and their associated habitats.

- *Replacement landscaping is to use locally occurring native species commensurate with STIF including trees, shrubs and ground covers to encourage local fauna use, to consolidate remnant vegetation linkages and to provide 'island' refuges for native flora and fauna species within the locality. STIF vegetation is to be replaced at a minimum 2:1 ratio and maintained until maturity. Dedicated landscape beds are to be established with STIF tree, shrub and groundlayer species as shown in Attachment 6.*

- *Integrated weed management and control of high threat exotics"*

The application was referred to Council's Consultant Landscape Architect and Ecologist who raised no objection to the proposal subject to conditions.

Detailed commentary by Council's Consultant Landscape Architect and Ecologist can be found in the Referrals section of this report.

7.5 State Environmental Planning Policy (State and Regional Development) 2011

This proposal has a Capital Investment Value of more than $30 million, and consequently the Sydney North Planning Panel is the consent authority for this application.

7.6 State Environmental Planning Policy No. 55 – Remediation of Land

The requirements of State Planning Policy No. 55 – Remediation of Land apply to the subject site. In accordance with Clause 7 of SEPP 55, Council must consider if the land is contaminated. If it is contaminated, is it suitable for the proposed use and if it is not suitable, can it be remediated to a standard such that it will be made suitable for the proposed use.

A Preliminary Environmental Site Assessment prepared by Butler Partners and dated 12 April 2018 was submitted with the development application. This report found that *"proposed Lot 2 does not present a significant risk to human health or the environment, and is suitable for future commercial or industrial development, subject to the following:*

- *Existing building – as the building on the site is known to contain hazardous building materials, hazardous materials removal works should be undertaken in accordance with the National Code of Practice: how to Safely Remove Asbestos (Safe Work Australia 2016). Upon demolition and removal, the footprint of the building should be validated as being suitable for the proposed development;*
- *Asbestos – whilst no asbestos was identified in soil and on the ground surface during the current investigation, asbestos has been identified in previous investigations. Prior to undertaking bulk demolition of hardstand etc. the entire site should be cleared of asbestos by a qualified occupational hygienist.*
- *The identification of asbestos in private reports. An unexpected finds protocol should form part of the demolition, civil and construction contractors works plans. This protocol must outline the process for identification, assessing and investigating any unexpected finds of potential contamination within the site.*

- *Waste classification – in accordance with the Protection of the Environment Operations Act, waste classification of material for off-site disposal will be required if excavation is proposed at the site.*

The issue of contamination was considered by Council's Environmental Health Officer in respect of the DA for early works. The EHO supported the findings of the above report and raised no objections to the approval of the development.

7.7 State Environmental Planning Policy (Infrastructure) 2007

Clauses 101, 102 and 104 of the Infrastructure SEPP applies to the proposed development:

Clause 101 Development with frontage to classified road

The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that:

(a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and

(b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of:

  (i) the design of the vehicular access to the land, or
  (ii) the emission of smoke or dust from the development, or
  (iii) the nature, volume or frequency of vehicles using the classified road to gain access to the land, and

(c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road.

It is considered that with the implementation of the deceleration lane, vehicular access into the site will be safe and efficient, and will not impact on the ongoing operation of Epping Road.

The proposed development will be sufficiently setback so as not to be directly affected by vehicle emissions, and attenuation measures such as particular glazing systems have been recommended in the Acoustic Report prepared by Wood & Grieve Engineers (dated 11 April 2018) to reduce the impacts of traffic noise on the development.

Clause 102 Impact of road noise or vibration on on-road development

Clause 102 applies to residential development adjacent to a road corridor or freeway with an annual average daily traffic volume of more than 40,000 vehicles and which the consent authority considers would be likely to be adversely affected by road noise or vibration.

The Road and Maritime Services (RMS), which was previously known as RTA, have published traffic volume maps for NSW ('Traffic Volume Maps for Noise Assessment for Building on Land Adjacent to Busy Roads'). The noise assessment for the development is indicated on Map 15 as mandatory under Clause 102 of the SEPP.

Clause 102(2) also requires the consent authority to consider any guidelines that are issued by the Director-General for the purposes of this clause and published in the Gazette. The supporting guidelines (as published by The Department of Planning in 2008) guide development adjacent to railway lines and along motorways, tollways, freeways, transit ways and other 'busy' roads. For new residential developments, internal noise levels of 35 dB (A) have been set for bedrooms during the night-time period and 40 dB (A) for other habitable rooms.

Clause 102(3) prohibits the consent authority from granting consent to residential development adjacent to a road corridor or freeway unless it is satisfied that appropriate measures will be taken to ensure that the above-mentioned LAeq levels are not exceeded.

As the site is located adjacent to Epping Road which has volume in order of over 40, 000 vehicles per day, this Clause applies to the proposed development.

As stated above, the acoustic report prepared by Wood & Grieve Engineers recommends design measures to minimise the acoustic impact of the traffic on the development by way of specific glazing systems.

Therefore, the subject application is considered to satisfy the provisions of Clause 102 subject to condition to be included in the consent if the application is worthy of approval to adopt the recommendations of the acoustic report in the design of the proposed development (see **Condition No. 50**).

Clause 104 Traffic Generating Development

The proposed development, being residential accommodation with 75 or more dwellings (on a site with access to a classified road) is considered to be a traffic generating development. Before determining this DA, the consent authority must:

- Take into consideration any submission that the RMS provides in response.
- The accessibility of the site including the efficiency of movement of people to and from the site and the potential to minimise the need for travel by car.
- Take into consideration any potential traffic safety, road congestion or parking implications of the development.

The Development Application was referred to RMS who has provided the following response:

> *"Roads and Maritime has reviewed the submitted information and noted that proposed development would have direct access from Epping Road via a deceleration lane. A 3.5m wide strip of land will be dedicated as public road for future relocation of deceleration lane when necessary.*

Based on the above, Roads and Maritime provides concurrence for removal of existing redundant driveway(s) and construction of a deceleration lane along Epping Road in accordance with Section 138 of the Roads Act 1993 subject to Council's approval and following conditions being included in any consent issued by Council:

1. *All buildings and structures together with any improvements integral to the future use of the site are to be wholly within the freehold property (unlimited in height or depth) along Epping Road boundary.*

2. *Any redundant driveway(s) on the Epping Road boundary shall be removed and replaced with kerb & gutter to match existing.*

3. *The proposed deceleration lane along Epping Road shall be designed to meet Roads and Maritime requirements, and endorsed by a suitably qualified practitioner. The design requirements shall be in accordance with AUSTROADS and other Australian Codes of Practice. The certified copies of the civil design plans shall be submitted to Roads and Maritime for consideration and approval prior to the release of the Construction Certificate by the Principal Certifying Authority and commencement of road works. Documents should be submitted to Development.Sydney@rms.nsw.gov.au.*
   The developer is required to enter into a Works Authorisation Deed (WAD) for the abovementioned works.

   Roads and Maritime fees for administration, plan checking, civil works inspections and project management shall be paid by the developer prior to the commencement of works.

4. *A 3.5m wide strip of land along full property frontage in Epping Road shall be dedicated as public road, prior to issue of the Construction Certificate. This strip of land shall be identified as a separate lot in any future sub-division plan for the site and dedicated at no cost to the Roads and Maritime or Council.*

5. *Detailed design plans and hydraulic calculations of any changes to the stormwater drainage system in Epping Road are to be submitted to Roads and Maritime for approval, prior to the commencement of any works.*

   Documents should be submitted to Development.Sydney@rms.nsw.gov.au.

   A plan checking fee will be payable and a performance bond may be required before Roads and Maritime approval is issued.

6. *The developer is to submit design drawings and documents relating to the excavation of the site and support structures to Roads and Maritime for assessment, in accordance with Technical Direction GTD2012/001.*

   The developer is to submit all documentation at least six (6) weeks prior to commencement of construction and is to meet the full cost of the assessment by Roads and Maritime. Documents should be submitted to Development.Sydney@rms.nsw.gov.au.

If it is necessary to excavate below the level of the base of the footings of the adjoining roadways, the person acting on the consent shall ensure that the owner/s of the roadway is/are given at least seven (7) day notice of the intention to excavate below the base of the footings. The notice is to include complete details of the work.

7. *All vehicles are to enter and leave the site in a forward direction, and vehicle turn around facility must be provided within the site boundary.*

8. *All vehicles are to be wholly contained on site before being required to stop.*

9. *All demolition and construction vehicles are to be contained wholly within the site and a construction zone will not be permitted on Epping Road.*

10. *A Road Occupancy Licence should be obtained from Transport Management Centre (TMC) for any works that may impact on traffic flows on Epping Road during construction activities.*

11. *A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council for approval prior to the issue of a Construction Certificate.*

12. *Since Epping Road has full time parking restrictions, parking for building maintenance and removalists is to be provided on site.*

13. *The proposed development should be designed such that road traffic noise from Epping Road is mitigated by durable materials in order to satisfy the requirements for habitable rooms under Clause 102 (3) of State Environmental Planning Policy (Infrastructure) 2007."*

Comment: Where relevant, these matters have been included as RMS conditions within the general conditions of consent. (See **Condition Nos. 25, 26, 90, 91, 113, 114, 115, 117, 118 and 145**).

It is a RMS requirement for the land owner to dedicate the 3.5 metre strip of land so if in future RMS need to widen Epping Road, RMS would then provide a deceleration lane within that dedicated strip of land for the subject site. Without the deceleration lane, there would be a driveway connection from Epping Road which would not perform as a deceleration lane, and this is not an acceptable to the RMS. Therefore, in the meantime, the construction of the deceleration lane will occur within existing road reserve. RMS have advised that there are currently no plans for Epping Road widening works, however RMS is preserving land for any future road works, when required.

As a result of the land dedication, Council considered requesting the applicant to amend the proposed design so that the building be setback 10m from the proposed front boundary (after the 3.5m is dedicated to RMS). However, it was considered that this option would negatively impact on amenity of the buildings, insofar as being unable to provide adequate communal open space and sufficient solar access. It was therefore concluded that because the proposed building is setback 11.73m from the existing Epping Road frontage, once the 3.5m of land is dedicated to RMS in the future, the

building will be setback 8.23m. This is considered acceptable because when the 10m setback is imposed to the future redevelopment of the Baptist Care site, the buildings will generally align and the green setback area will be maintained.

7.8 Deemed State Environmental Planning Policy Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

This Plan applies to the whole of the Ryde local government area. The aims of the Plan are to establish a balance between promoting a prosperous working harbour, maintaining a healthy and sustainable waterway environment and promoting recreational access to the foreshore and waterways by establishing planning principles and controls for the catchment as a whole.

Given the nature of the project and the location of the site, there are no specific controls that directly apply to this proposal.

7.9 State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development

State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development (SEPP 65) requires that prior to determination of application for apartment development, the consent authority must take into consideration the following:

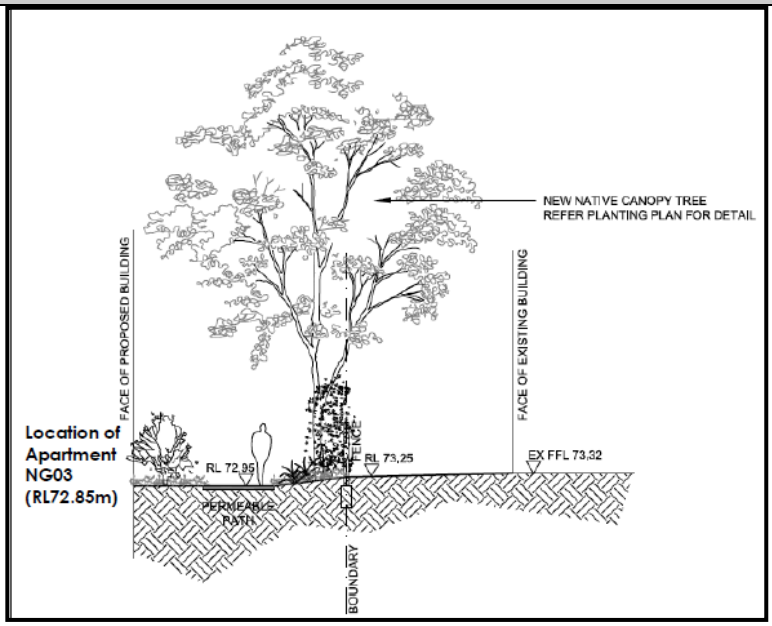
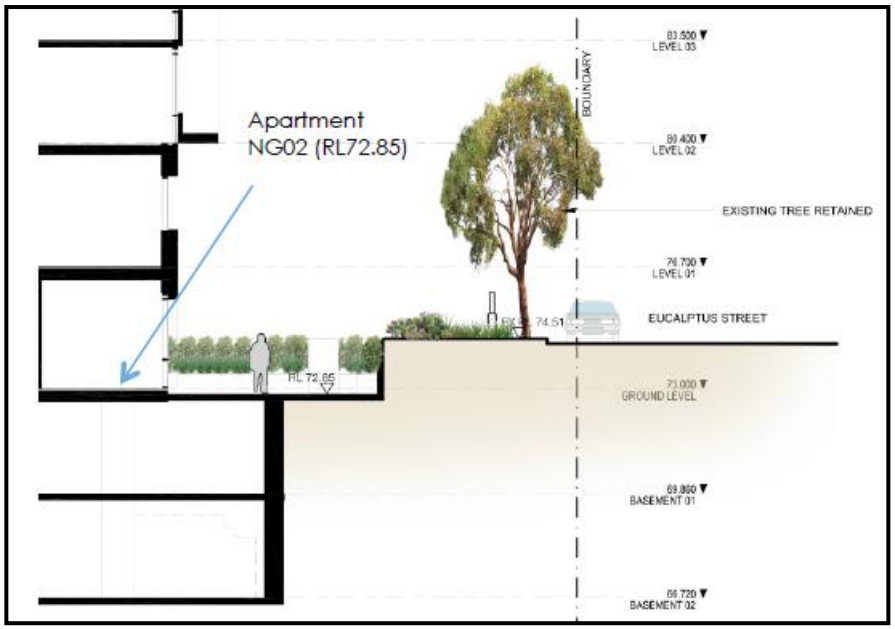
A. The advice (if any) of the design review panel;
B. The design quality of the development evaluated against the design quality principles provided under Schedule 1 of the SEPP; and
C. The Apartment Design Guide.

7.9.1 Urban Design Review Panel and evaluation against the design quality principles

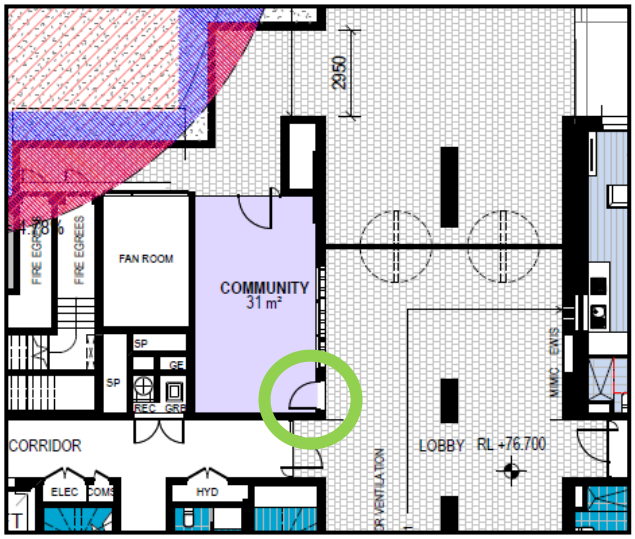
On 5 July 2018 the Ryde Urban Design Review Panel (UDRP) reviewed the proposal for a second time. The following is a summary of the comments provided to the applicant by the UDRP ("the Panel").

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
Context and Neighbourhood Character Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.	The Panel reviewed the proposal at Pre-DA stage and was generally supportive and mainly raised the following issues to be addressed in the DA design development: • Importance of the landscape character of the site and in particular along Epping Road. • Site circulation for pedestrians (and potentially low speed vehicles) should be rationalised to ensure that any proposed internal site circulation systems are clear, intuitive to use and potentially contribute to a broader precinct-wide street system. • Side setbacks and building separation distances with adjacent properties both for existing and future buildings. • Further analysis of existing uses on adjacent sites, the location and setback of windows and associated rooms (habitable and non-habitable) is needed to assess amenity impacts, including visual

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.	privacy and sun access. The above points are addressed below in the report. Since the last meeting, the Panel has reviewed a preliminary master plan proposal for the large consolidated site adjoining the subject site's side and rear boundaries. The proponent is strongly encouraged to coordinate with the adjacent site. **Comment:** ***Noted.***
Built Form and Scale Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.	**Epping Road** - The front setback has been increased from 10 to 12m as recommended by the Panel. The setback along Epping Road in general is characterised by significant tree planting. The proposal could better utilize this space by supplementing the proposed smaller tree planting in the landscape plan with large established trees. **Comment*****: The applicant has submitted revised Landscape Plans which show a greater level of planting in the front setback (see Figure 8).***  **Figure 8: Revised Landscape Plan illustrating greater planting in front setback** **Rear setback and future road frontage** – The design proposal enables a future building entry from the north as recommended by the Panel. Apartments appear to be sited below ground level (refer to Section DD). **Comment:** ***There are five apartments (NG01, NG02, NG03, NG09, and SG06) which appear to be sited below ground.*** ***As shown in Figure 9, the landscaped area along the north eastern boundary to the building frontage will be provided between RL72.95m - RL73.25m, whilst the finished floor level of the adjoining apartment (NG03) will be RL72.85m which is a difference of between 0.10m – 0.40m, therefore this apartment is not considered to be below ground.***

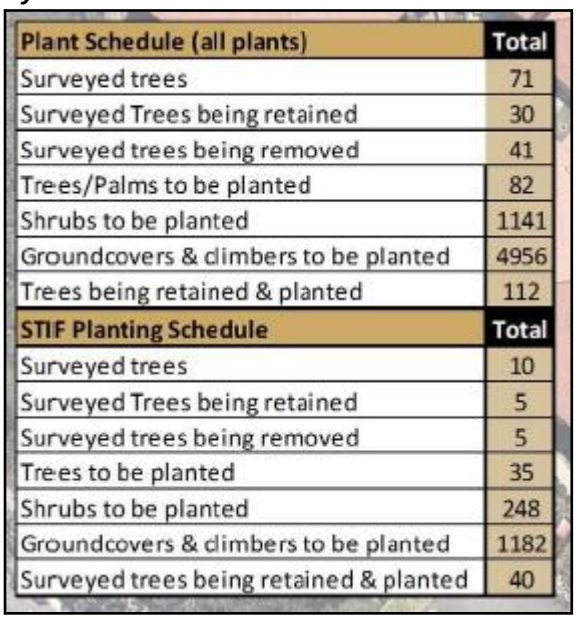
SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
	 **Figure 9: Relationship between apartment NG03 and its courtyard** ***Similarly the boundary addressing Eucalyptus Street is at a level of RL74.51m, while the level of adjoining courtyard of NG02 is RL72.95m, being a difference of 1.56m (see Figure 10). To ensure the apartments are provided with sufficient amenity, the floor to ceiling heights are increased to 3.3m, and the depth of the courtyard is 4.3m deep which allows for acceptable ventilation. Furthermore, as this apartment faces north-east, it also achieves good solar access.***  **Figure 10: Relationship between apartment NG02 and its courtyard** ***In relation to apartment NG01, the courtyard has a level of RL72.85, which is 2.965m lower than the adjoining ground level. This apartment has a floor to ceiling height of 3.3m to allow for greater amenity. In this regard the courtyard has a depth of 6 metres allowing for greater solar***

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
	access, natural light and ventilation to penetrate the living areas. ***Apartment NG09 is a townhouse style unit with its living areas located on the ground floor adjacent to its courtyard and the bedrooms located on the first floor. The courtyard level is RL72.95 and the adjoining ground level, being the path leading up to the communal open space, is RL73.00.*** ***Apartment SG06 has a finished floor level of RL72.950, which is at its deepest 1.798m below the adjoining ground level. To ensure the apartments are provided with sufficient amenity, the floor to floor heights are greater than required at 3.7m and the courtyard provides an additional depth of 6 metres. Together with the additional floor to ceiling heights this will ensure greater natural light into the unit and greater amenity to the residents.*** **Side setbacks** - The adjoining property preliminary concept plan showed streets along the side boundaries of the subject site. If future roads are proposed along existing side boundaries, these boundaries become street frontages. While the proposal cannot assume a design outcome not yet approved, the coordination of the design with the adjoining land owner is strongly recommended. At a minimum the proposed landscape and fencing could be designed to enable a pleasant landscape interface and potentially a pedestrian footpath to a future street frontage. The proposed landscape and footpath along the side boundaries contribute in part to this aim. Further refinements along the side boundaries include: - relocation of substations away from the corner where they could become highly visible with a future road network. - review of the loading dock ramp setback/location to enable a softer landscape interface with a future street and the existing adjoining property. A section through the car park entry and the loading dock ramp to the side boundary is needed to show how landscape as illustrated in the landscape drawings can be accommodated along the boundary and whether a footpath could also be accommodated. ***Comment: Part 4.5 Macquarie Park of DCP 2014 identifies new streets and laneways that are intended to improve vehicular pedestrian and cycle permeability within the Macquarie Park Corridor. The access network plan in this DCP does not require the provision of any roads adjacent to the side boundaries. A road is required along the rear boundary and the development has been designed to allow for this. It is difficult to require the redesign of this development to reflect the potential future designs on an adjoining site, especially if these designs have not been approved or submitted as a formal Development Application. Given that no roads are required along the site boundaries it is unlikely that roads would be provided.*** ***The substations are existing and are located on another allotment. The substation associated with the proposed development has been located adjoining these existing substations to minimise the impact.*** **Building separation** – 6m side setbacks are provided which complies with the non-habitable building separation for a building over 9 storeys. The proposal includes narrow vertical windows to kitchens and studies and occasionally as secondary windows to dining areas facing side boundaries. To overcome the building separation constraints, these louvre screens are

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
	provided. The Panel recommends deleting the louvres and introducing translucent glazing to enable better light quality while maintaining privacy. **Comment:** ***Translucent glazing has been provided in accordance with the Panel's recommendations and amended plans have been submitted which reflect this change.*** **Solar access** - Additional analysis of solar access impacts on existing context is needed to assess the proposal. **Comment:** ***Additional solar analysis has been provided, which considers the impact on the adjoining building. It is noted that the adjoining site is likely to be redeveloped in the future, however, the solar analysis submitted by the applicant has detailed that the proposed building envelope will ensure that the existing development located on the north eastern boundary of the site will maintain at least 2 hours solar access to balconies. Further discussion relating to solar access impacts on existing context can be found in Section 13 – Public Notificiation & Submissions of this report.*** **Community room** - Entry is concealed and should be located off the main lobby space. **Comment:** ***An entry door has been added as suggested, and is illustrated in Figure 11.***  **Figure 11: Snapshot of community room with entry door added off the lobby** **Building articulation and height** – The Panel reiterates the previous report advice which supported '*the strong vertical articulation and variations introduced into the building height. These are critical to successfully break down the form and mass of an otherwise very tall and long building envelope. The variation in building height is particularly important to the success of the scheme and depends in part on the variation remaining at 3 to 4 storeys at each end and in the centre of the proposed buildings. The Panel would be concerned if there was any proposed 'erosion' of this design strategy*.' The building height appears to comply.

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
	A number of units appear to be below ground level. In particular units SG-06 and NG-01. Generous courtyard depths are supported as they provide space for outlook and to manage levels. More information is needed on site levels and apartments along the boundaries (sections). **Comment***: **The Building Height complies and is discussed in more detail under the Ryde LEP heading further on in this report. In terms of the units appearing to be below ground, please refer to the comments above in this table under the "Built Form and Scale" section regarding this matter.***
Density Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.	Appears to comply with the permissible FSR. **Comment*: The FSR complies and is discussed in more detail under the Ryde LEP heading further on in this report.***
Sustainability Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.	The proponent states that 64% solar access is achieved. The intercardinal orientation of Macquarie Park is a challenge for solar access. Further refinement of south facing apartment layouts on Levels 12 and 13 could improve solar access performance. The proponent states that 61.2% of apartments achieve cross ventilation. The Panel notes the high number of single aspect apartments and questions the following: • Unit N12-10 and similar are single aspect apartments counted as cross ventilated. Bathrooms are not an acceptable path of ventilation and in this arrangement the deep notch to the bathroom window is too deep under ADG to comply with cross ventilation. • Unit S11-10 and similar include a vertical screened window as a secondary opening to the living space. This window is immediately adjacent to the neighbouring balcony. Screening provides visual privacy but does not address aural privacy if windows are used for cross ventilation compliance. **Comment:** ***The Design Guidance relating to natural ventilation provided in the ADG includes following objectives which are relevant to this development:*** ***Objective 4B-2:*** ***Apartment depths are limited maximise ventilation and airflow (see also figure 4D.3)***

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
	Objective 4B-3: ***1. At least 60% of the apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storey or great are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.*** ***Where the UDRP states that the applicant claims 61.2% of apartments achieve cross ventilation, it is important to note that this applies only to the first nine storeys. In this regard, the number of apartments from the ground level to Level 9 equals 206, and of these 126 (61.2%) are considered to be cross ventilated. A separate detailed discussion regarding this calculation is provided in the ADG assessment table further along in this report.*** ***In relation to the units in question, namely N12-10 and S11-10 the windows provided are not considered necessary and therefore have been conditioned to be deleted. It is considered that because these apartments are located above the first nine storeys, and also due to the balconies of these apartments being unenclosed, these units are deemed cross ventilated in accordance with Objective 4B-3. In order to address the UDRP's concerns regarding privacy, condition 2 in the general conditions outlines amendments required to the architectural plans to ensure that both acoustic and visual privacy are maintained to all apartments.***
Landscape Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, coordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.	The generous courtyard design and landscape strategy to mitigate the storey level change is supported in principle. The proposal seeks to retain 29 of 44 trees on the subject site. These trees are along site boundaries and within setbacks. Further information including tree protection zones should be included on landscape and architectural drawings. The proposal should seek to maximize deep soil along site edges to maintain trees or support replacement trees. Opportunities for sustaining large trees within the courtyard are limited by basement car parking and the longevity of soil in planters. A pocket of deep soil within central courtyard would assist in supporting larger tree planting and enhance the amenity and use of the space and promote the longevity of planting. Sections along boundaries showing how levels are managed and planting is achieved as per the illustrative landscape plan would be useful. Further information is needed for boundary treatments, retaining wall and fencing heights to address queries above in Built Form and Safety. Refer above for comments on increased tree planting to Epping Road setback. **Comment:** ***Since the UDRP reviewed the application, the Tree Assessment (Arboriculture Impact Assessment) Report has been revised and the most updated report (dated December 2018) states that overall 71 trees have been surveyed, and from these 30 trees are to be retained and 41 trees are to be removed. The revised Tree Assessment***

<table>
<tr><th>SEPP 65 – Schedule 1 Design Quality Principles</th><th>UDRP Comments</th></tr>
<tr><td>Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long term management.</td><td>Report identifies the required tree protection zone of each tree on the site and states that 833m² of replacement plants including STIF species will be included in the development. Figure 12 provides a planting schedule a breakdown of the number of trees to be removed, replanted and retained which has been taken from the BDAR. The revised plans also show the building design to provide clear assessment of which trees are impacted. This matter is covered in depth under Part 9.5 of the Ryde DCP – Tree Preservation.
 
<table>
<tr><th>Plant Schedule (all plants)</th><th>Total</th></tr>
<tr><td>Surveyed trees</td><td>71</td></tr>
<tr><td>Surveyed Trees being retained</td><td>30</td></tr>
<tr><td>Surveyed trees being removed</td><td>41</td></tr>
<tr><td>Trees/Palms to be planted</td><td>82</td></tr>
<tr><td>Shrubs to be planted</td><td>1141</td></tr>
<tr><td>Groundcovers & climbers to be planted</td><td>4956</td></tr>
<tr><td>Trees being retained & planted</td><td>112</td></tr>
<tr><th>STIF Planting Schedule</th><th>Total</th></tr>
<tr><td>Surveyed trees</td><td>10</td></tr>
<tr><td>Surveyed Trees being retained</td><td>5</td></tr>
<tr><td>Surveyed trees being removed</td><td>5</td></tr>
<tr><td>Trees to be planted</td><td>35</td></tr>
<tr><td>Shrubs to be planted</td><td>248</td></tr>
<tr><td>Groundcovers & climbers to be planted</td><td>1182</td></tr>
<tr><td>Surveyed trees being retained & planted</td><td>40</td></tr>
</table>
Figure 12: Planting summary and schedule (Source: Travers Bushfire and Ecology)

The proposal has provided deep soil areas within the property frontage and the side boundaries, which meets the minimum requirements of the ADG. There is no opportunity to provide deep soil in the centre of the site as the area for the basement is already constrained. The applicant has also submitted revised Landscape Plans which give additional detail on plantings including typical boundary treatments, fencing and planting sections.</td></tr>
<tr><td>Amenity
Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well-being.
Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient</td><td>Both buildings exceed the ADG building depth guidance. Room sizes and depth dimensions to confirm ADG requirements are needed.

Comment: The UDRP identified that some apartments appeared to exceed the ADG depth guidance. This minor departure applies to some of the two storey townhouse style apartments. These apartments depart from the open plan layout depth control by a maximum of 15% or 1.2m. This is primarily due to the column locations of the building and aligning the rooms accordingly. To compensate for this minor departure, these apartments have;
- An increased floor to ceiling height of 3.3m, which improves overall light admittance;
- Exceeds the minimum apartment size required by the ADG;
2 bedrooms apartments between 90m² – 95m²; and
3 bedroom apartments between 106m² and 119m²
- Additional private open space, which in many cases resides directly adjacent to the communal open space.</td></tr>
</table>

SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
layouts and service areas and ease of access for all age groups and degrees of mobility.	***All other apartment layouts comply with the minimum room sizes and maximum room depths.*** ***Based on the above provided justification, this non-compliance is considered acceptable.***
Safety Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well-lit and visible areas that are easily maintained and appropriate to the location and purpose.	The site circulation from Epping Road through to Eucalyptus Street is supported and improves site legibility and safely. The interface of the proposal with future roads along the side boundaries may hinder surveillance and therefore safety. The lower 4 storeys could incorporate additional windows to promote overlooking of a future street, while still be compliance with privacy separation for existing buildings (subject to further analysis of existing buildings). **Comment:** ***There are no roads identified in the DCP adjoining the side boundaries. Despite this, the proposal provides windows to living rooms and kitchens up to the fourth storey addressing the side boundaries.***
Housing Diversity and Social Interaction Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.	The proposed mix of dwelling types and unit sizes appears to be acceptable. The proposed townhouse type is supported on the basis it increases housing types and choice. **Comment:** ***Noted.***
Aesthetics Good design achieves a built form that has good proportions and a balanced composition of	The Panel is generally supportive of the architectural expression and landscape design of the proposal. **Comment:** ***Noted.***

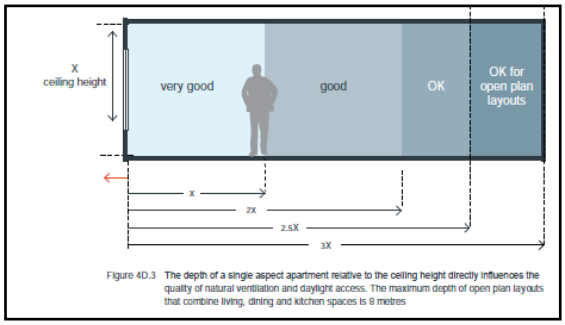
SEPP 65 – Schedule 1 Design Quality Principles	UDRP Comments
elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of a well-designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.	

7.9.2 Apartment Design Guide

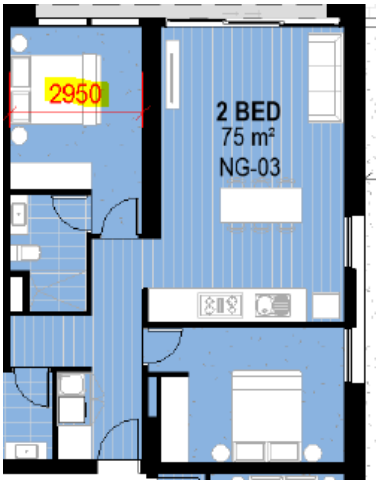
The SEPP requires consideration of the "Apartment Design Guide" (ADG) which supports the 9 design quality principles by giving greater detail as to how those principles might be achieved. The table below provides an assessment of the proposal against the matters in the ADG:

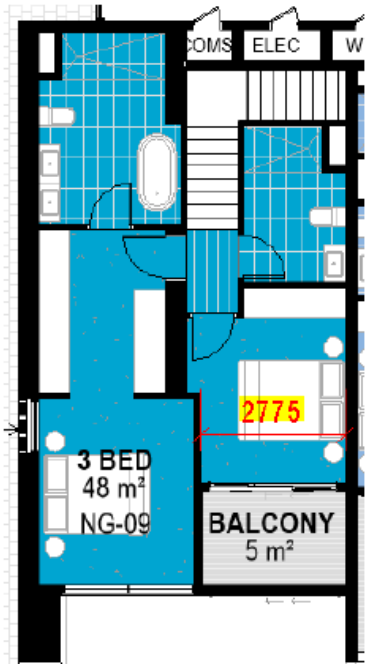
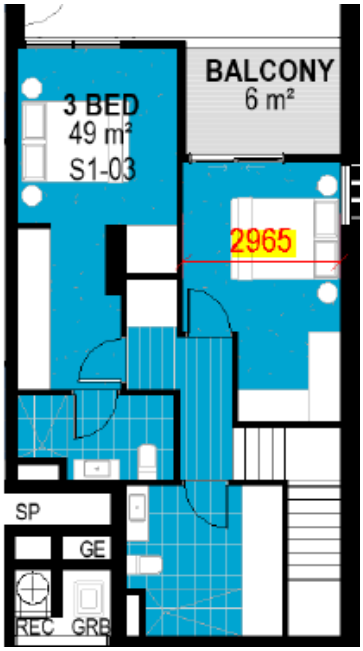
Criteria	Proposed	Compliance
Part 3 Siting the development Design criteria/guidance		
Communal and Public Open Space Communal open space has a minimum area equal to 25% of the site. **Site area = 8,037m²** **25% = 2,009.25m²** Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter)	The proposal provides a total of 27% (2,184m²) of the site area as common open space, which has a minimum dimension of 3 metres. 50% of open space receives >2hours sunlight.	Yes
Deep Soil Zones Deep soil zones are to meet the following minimum requirements: 15% of the site as deep soil on sites greater than 1,500m2 **Site area = 8,037m²** **15% = 1,205.55m²**	20.37% (1,637m²) deep soil area	Yes
Visual Privacy Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear	The development does not comply with the visual separation distances for the side boundaries from Level 4 and above. The north tower has been setback between a	**No, but considered acceptable.** *Refer to separate tables below.*

Criteria	Proposed	Compliance
boundaries are as follows: • Up to 12m (4 storeys) 6m (habitable) / 3m (non-habitable) • Up to 25m (5-8 storeys) 9m (Habitable) / 4.5m (non-habitable)	minimum of 6.15m and 10.57m from the side boundaries on the lower levels (Level 4 to Level 8), and between 6.155m and 52.38m on the higher levels (Level 9 to Level 14). Similarly, the south tower has been setback between a minimum of 6.137m and 12m from the side boundaries on the lower levels (Level 4 to Level 8), and between 6.155m and 13m on the higher levels (Level 9 to Level 14). Two windows have been provided the full height of the buildings on both the eastern and western elevations, however these windows are translucent glass which will maintain visual privacy.	
Car parking For development in the following locations: • on sites that are within 800 metres of a railway station; or • within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre, the minimum parking for residents and visitors to be as per RMS Guide to Traffic Generating Developments, or Council's car parking requirement, whichever is less.	Car parking requirements provided complies with the RMS and Council's parking rates. Refer to DCP compliance table. A total of 6 car share spaces have been allowed for within the basement car park to be utilised by the residents.	Yes
Solar Access and Daylight Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas No more than 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	64% of apartments receive in excess of 2 hours of sunlight to living room windows and private open space areas during mid-winter. Due to the orientation of the site, topography and density, full compliance with the ADG solar access design criteria is difficult to achieve. The design aims to maximise the number of units that achieve 2 hours of direct sunlight between 9am - 3pm at mid-winter by minimising the number of south facing units to 6 out of 26 apartments on a typical level, and maximising the separation between the two proposed buildings. Once again, due to the orientation of the site, 26% of apartments receive no direct sunlight between 9am and 3pm mid-winter. The applicant has attempted to improve amenity in these apartments by providing shallow layouts and larger window openings.	**No, but considered acceptable**
Natural Ventilation At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated	There are 206 apartments located on the levels between the Ground Level and Level 9. Of these, the applicant states that 126 (61.2%) achieve cross ventilation. This is based on the current revision of the architectural plans.	**Yes** *Refer to separate tables below*

Criteria	Proposed	Compliance
only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.	As noted above, a number of units have been provided with additional windows to achieve cross ventilation which as a result pose privacy concerns from an aural perspective. Therefore, in order to ensure acoustic amenity is maintained, a number of these apartments are proposed to be amended to reduce the number of openings which will improve acoustic privacy. From these 126 apartments, 36 apartments located on the levels between Ground Level and Level 9 are single aspect apartments. Whilst the additional windows are to be deleted, these apartments are limited in depth and therefore can rely on Figure 4D.3 in the ADG (see **Figure 13**) in achieving natural ventilation and this is demonstrated in the separate tables below.  **Figure 13: ADG Figure 4D.3 showing how apartment depth can assist with natural ventilation.** Overall 90 apartments will be cross ventilated and 36 apartments will achieve natural ventilation. Therefore, the 126 apartments below the 10th storey will obtain natural ventilation through the characteristics identified in the ADG. The apartments located on the 10th storey and above are deemed to be cross ventilated as the balconies are open with no enclosures, therefore allowing all apartments on these levels to receive adequate natural ventilation.	
Ceiling Height Measured from finished floor level to finished ceiling level, minimum ceiling heights are: • Habitable Rooms – 2.7m • Non-habitable rooms – 2.4m • If located in a mixed use area - 3.3m for ground and first floor to promote future flexibility	All apartments integrate minimum ceiling heights ranging between 2.7m and 3.3m.	Yes
Apartment Layout Apartments are required to have the following minimum internal areas:		Yes

Criteria	Proposed	Compliance
• Studio - 35m^2 • 1 Bedroom - 50m^2 • 2 Bedroom - 70m^2 • 3 Bedroom - 90m^2 The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m^2 each.	• Studio min. 45m² • 1bed min. 50m^2 • 2bed min. 70m^2 • 3bed min. 97m^2 Units with an additional bathroom provide the additional floor space.	
Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	Complies.	Yes
Master bedrooms have a minimum area of 10m^2 and other bedrooms 9m^2 (excluding wardrobe space) Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Five apartments do not meet the minimum bedroom width in one direction but comply with the minimum areas. These apartments also demonstrate that no amenity to the room is lost by representing a queen bed in each of these rooms (see Figure 14). • NG-01 – Bed 2 – 2.9m wide (9.4m²) • NG-02 – Bed 2 - 2.9m wide (9.4m²) • NG-03 – Master – 2.95m wide (10.8m²) • NG-09 – Bed 3 – 2.77m wide but only for a max. length of 1.7m, then room then widens to compliant width (9.2m²) • S1-03 – Bed 3 – 2.96m wide (10.9m²)  **NG-01**	**No, but considered acceptable**

Criteria	Proposed	Compliance
	 **NG-02**  **NG-03**	

Criteria	Proposed	Compliance
	 **NG-09**  **S1-03** **Figure 14: Non-compliant bedrooms within affected apartments**	
Living rooms or combined living/dining rooms have a minimum width of: • 3.6m for studio and 1 bedroom apartments • 4m for 2 and 3 bedroom apartments	Complies.	
Private Open Space All apartments are required to have primary balconies as follows: • Studio - 4m^2	• Studio – 4m² to 6m² • 1B – 8m^2 to 17m^2	Yes Yes Yes

Criteria	Proposed	Compliance
• 1 Bedroom - 8m^2 (Minimum depth of 2m) • 2 Bedroom - 10m^2 (Minimum depth of 2m) • 3 Bedroom - 12m^2 (Minimum depth of 2.4m	• 2B – 10m^2 to 29m^2 • 3B – 12m^2 and 41m^2 There are two apartments which have non-compliances, which are considered acceptable:- - S1-05 - 3-Bed unit with a total balcony area of 13m². Depth 2.2m - S2-10 - 2-Bed unit balcony total area of 11m². Depth complies. It has been demonstrated that outdoor furniture including a table and 6 chairs can be accommodated in the primary balcony of each of these apartments.	Yes **No, but considered acceptable**
For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m.	There are four apartments which have non-compliances, which are considered acceptable:- - SG-02, 14m² / 3m min depth - SG-05, 12m² / 3m min depth - NG-04, 13m² / 3m min depth - N1-09, 13m² / 3m min depth A table with 6 chairs can be accommodated in the primary balcony of each of these apartments.	**No, but considered acceptable**
Common Circulation Space The maximum number of apartments off a circulation core on a single level is 8.	All levels and cores are consistent with a maximum of 8 apartments, with the exception of the ground floor of the North building. The number of apartments served by the circulation corridor is 9. All these apartments however are courtyard apartments and have external access via the landscaped gardens.	**No, but considered acceptable**
Storage In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: • Studio - 4m^2 • 1 Bedroom - 6m^2 • 2 Bedroom - 8m^2 • 3 Bedroom - 10m^2	Compliant storage is provided within each unit and within the basement levels.	Yes
At least 50% of the required storage is to be located within the apartment	Storage is provided within each unit and the basement levels. At least 50% of required storage is located within apartments.	Yes

3F Visual Privacy

The design Criteria (measurable requirements) states the separation between windows and balconies is provided to ensure visual privacy is achieved. The minimum required separation distances from buildings to the side and rear boundaries are as follows:

Building Height	Habitable rooms and balconies	Non-habitable rooms
Up to 12m (4 storeys)	6.0m	3.0m
Up to 25m (5-8 storeys)	9.0m	4.5m

Over 25m (9+ storeys)	12.0m	6.0m

Internal separation

The following table details the internal separation distances between windows of habitable rooms and balconies of Tower A and Tower B against the Design Criteria.

Note: The Design Criteria states that separation distances between buildings on the same site should combine the required building separations (i.e. 2 x the prescribed separation distance).

Building Height	Required	North Tower to South Tower	Compliance
Ground	12.0m	29.429m	Yes
Level 1		29.429m	Yes
Level 2		29.429m	Yes
Level 3		29.429m	Yes
Level 4	18m	34.85m	Yes
Level 5		34.85m min	Yes
Level 6		34.85m min	Yes
Level 7		34.85m min	Yes
Level 8		34.82m min	Yes
Level 9	24m	34.85m min	Yes
Level 10		34.85m min	Yes
Level 11		34.85m min	Yes
Level 12		34.85m min	Yes
Level 13		34.84m min	Yes
Level 14		34.85m	Yes

External separation

The following tables provide detail of the level of compliance against the Design Criteria with respect to building separation to the side (i.e. east and west) boundaries.

North Tower				
Building Height	**Required**	**East**	**West**	**Compliance**
Ground	6.0m	6.005m	-	Yes
Level 1		6.005m	6.0m	
Level 2		6.155m	6.0m	
Level 3		6.149m – 10.58m	6.15m	
Level 4	9.0m	6.155m – 10.58m	6.15m – 10.575m	No
Level 5		6.155m – 10.58m	6.15m – 10.575m	No
Level 6		6.155m – 10.58m	6.15m – 10.575m	No
Level 7		6.155m – 10.58m	6.15m – 10.575m	No
Level 8		6.155m – 10.58m	6.15m – 10.575m	No
Level 9	12.0m	6.155m – 10.58m	6.15m – 10.575m	No
Level 10		6.155m – 10.58m	6.15m – 10.575m	No
Level 11		6.155m – 10.58m	6.15m – 10.575m	No
Level 12		10.574m -12.82m	6.15m – 10.575m	No
Level 13		10.58m – 12.98m	10.575m – 15.35m	No
Level 14		49.98m – 52.38m	10.52m – 15.35m	No

South Tower				
Building Height	**Required**	**East**	**West**	**Compliance**
Ground	6.0m	9.505m	-	Yes
Level 1		6.005m	6m	Yes
Level 2		6.155m	6m – 11.85m	Yes
Level 3		6..137m – 10.58m	6.15m - 12m	Yes
Level 4	9.0m	6.137m	6.15m – 10.575m	No
Level 5		6.155m – 10.58m	6.15m – 12m	No
Level 6		6.155m – 10.58m	6.15m – 12m	No
Level 7		6.155m – 10.58m	6.15m – 12m	No
Level 8		6.155m – 10.58m	6.15m – 12m	No
Level 9	12.0m	6.155m – 10.58m	6.15m – 12m	No
Level 10		6.155m – 10.58m	6.15m – 12m	No
Level 11		6.155m – 10.58m	6.15m – 12m	No
Level 12		10.58m – 12.98m	6.15m 12m	No
Level 13		12m – 13m	10.57m – 12m	No
Level 14		12m – 13m	10.57m – 12m	No

The applicant has provided a minimum setback of 6 metres from the east and west side boundaries. Furthermore, in order to minimise overlooking, architectural screening and treatments are provided to the windows that address the side boundaries to reduce the blank wall effect. The UDRP suggested deleting the louvres and introducing translucent glazing to enable better light quality, while maintaining visual privacy. The applicant amended the plans to accommodate this recommendation.

Natural Ventilation

The results for the natural ventilation of these apartments applying the criteria of Figure 4D.3 are presented in the following tables for the two residential towers of the development. Each unit is rated in accordance with its depth.

North Tower				
Unit No	**Ceiling height**	**Acceptable depth**	**Depth**	**Natural ventilation rating**
N3-10	2.7m	8m	7.46m	OK for open plan layouts
N3-12		6.75m	6.53m	OK
N4-02		8m	7.16m	OK for open plan layouts
N4-03		8m	7.59m	OK for open plan layouts
N4-10		8m	7.45m	OK for open plan layouts
N4-12		6.75m	6.54m	OK
N5-02		8m	7.16m	OK for open plan layouts
N5-10		8m	7.45m	OK for open plan layouts
N5-12		6.75m	6.75m	OK
N6-02		8m	7.35m	OK for open plan layouts
N6-10		8m	7.45m	OK for open plan layouts
N6-12		6.75m	6.75m	OK
N7-02		8m	7.45m	OK for open plan layouts
N7-09		8m	7.31m	OK for open plan layouts
N7-11		6.75m	6.54m	OK
N8-02		8m	7.15m	OK for open plan layouts
N8-09		8m	7.45m	OK for open plan layouts
N8-11		6.75m	6.75m	OK

South Tower				
Unit No	**Ceiling height**	**Acceptable depth**	**Depth**	**Natural ventilation rating**
S2-07	2.7m	6.75m	6.54m	OK
S3-10		8m	7.45m	OK for open plan layouts
S3-12		6.75m	6.75m	OK
S4-02		8m	7.85m	OK for open plan layouts
S4-10		8m	7.45m	OK for open plan layouts
S4-12		6.75m	6.75m	OK
S5-02		8m	7.85m	OK for open plan layouts
S5-10		8m	7.45m	OK for open plan layouts
S5-12		6.75m	6.75m	OK
S6-02		8m	7.85m	OK for open plan layouts
S6-10		8m	7.31m	OK for open plan layouts
S6-12		6.75m	6.53m	OK
S7-02		8m	7.61m	OK for open plan layouts
S7-10		8m	7.20m	OK for open plan layouts
S7-12		6.75m	6.55m	OK
S8-02		8m	7.85m	OK for open plan layouts
S8-10		8m	7.10m	OK for open plan layouts
S8-12		6.75m	6.54m	OK

The development has been assessed to consider other design aspects which generate natural ventilation in accordance with Figure 4D.3 stated in Part 4 of the ADG. It has been found that the layout of these single aspect units achieve an "OK" rating. Accordingly, the proposed development satisfies the 60% SEPP 65 requirement for apartments to provide adequate natural ventilation characteristics.

7.10 State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

A BASIX Certificate (894075M) has been prepared for the development, which provides the development with a satisfactory target rating. Appropriate conditions will be imposed requiring compliance with the BASIX commitments detailed within the Certificate (see **condition numbers 4 and 144**).

7.11 Ryde Local Environmental Plan 2014

The following is an assessment of the proposed development against the applicable provisions from the Ryde Local Environmental Plan 2014 (RLEP 2014).

Clause 2.2 - Zoning

The site is zoned B4 Mixed Use under the provisions of the RLEP 2014.

The residential flat building development is permitted in this zoning.

Clause 2.3 – Zone Objectives

The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The objectives for the B4 Mixed Use zone are as follows:

- *To provide a mixture of compatible land uses.*
- *To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.*
- *To ensure employment and educational activities within the Macquarie University campus are integrated with other businesses and activities.*
- *To promote strong links between Macquarie University and research institutions and businesses within the Macquarie Park corridor.*

The development satisfies the above objectives in that it will provide residential development in an accessible location. Additionally, the subject site is located within walking distance of bus services, retail and commercial services and is therefore considered to be a suitable location for this development.

Clause 4.3 (2) - Height of Buildings

A maximum building height limit of 45 metres applies to the development site. Although there is cross fall over the site, both towers sit within the maximum building height limit. The site has an existing ground RL of 74.25 at the lowest point relative to the North Tower and an RL of 73.23 at the lowest point relative to the South Tower.

The maximum height of the North Tower is RL119.1 at the top of the lift overrun, resulting in a maximum building height of 44.85 metres, and the maximum height of the South Tower is also RL119.1 at the top of the lift overrun, resulting in a maximum building height of 45m as measured from the existing natural ground level, which is illustrated in **Figures 15, 15A and 15B**.

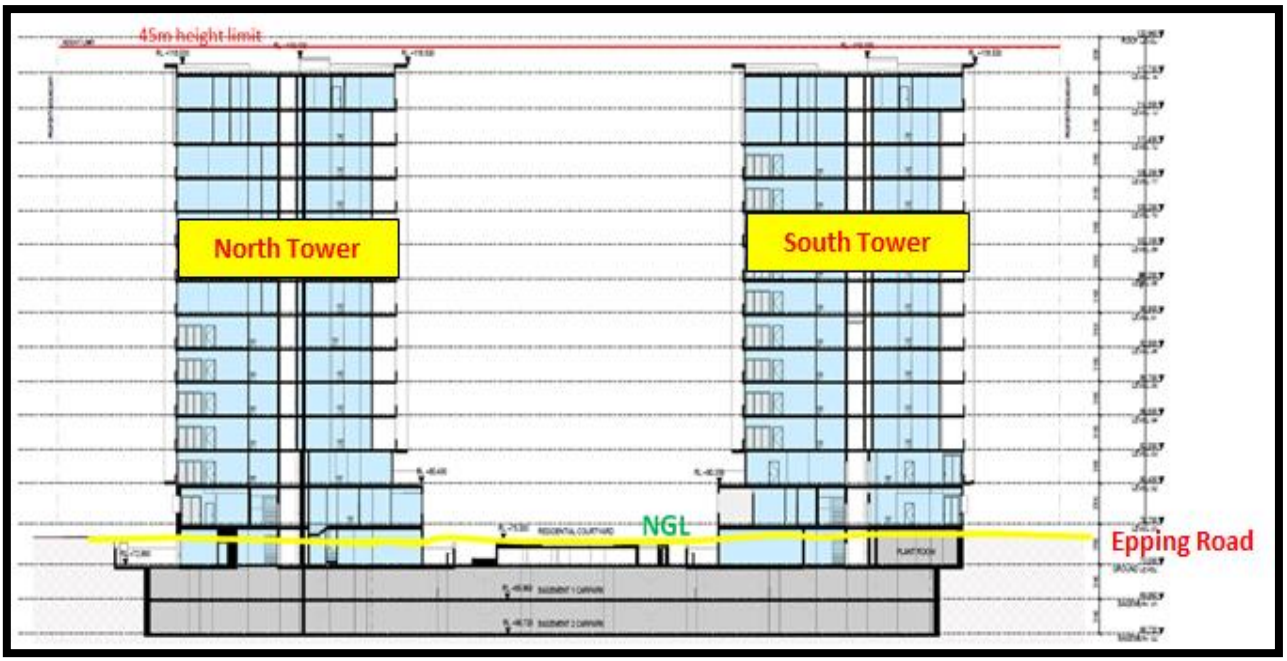


Figure 15: Section drawing showing maximum height limit represented by red dashed line (Source: Warren and Mahoney)

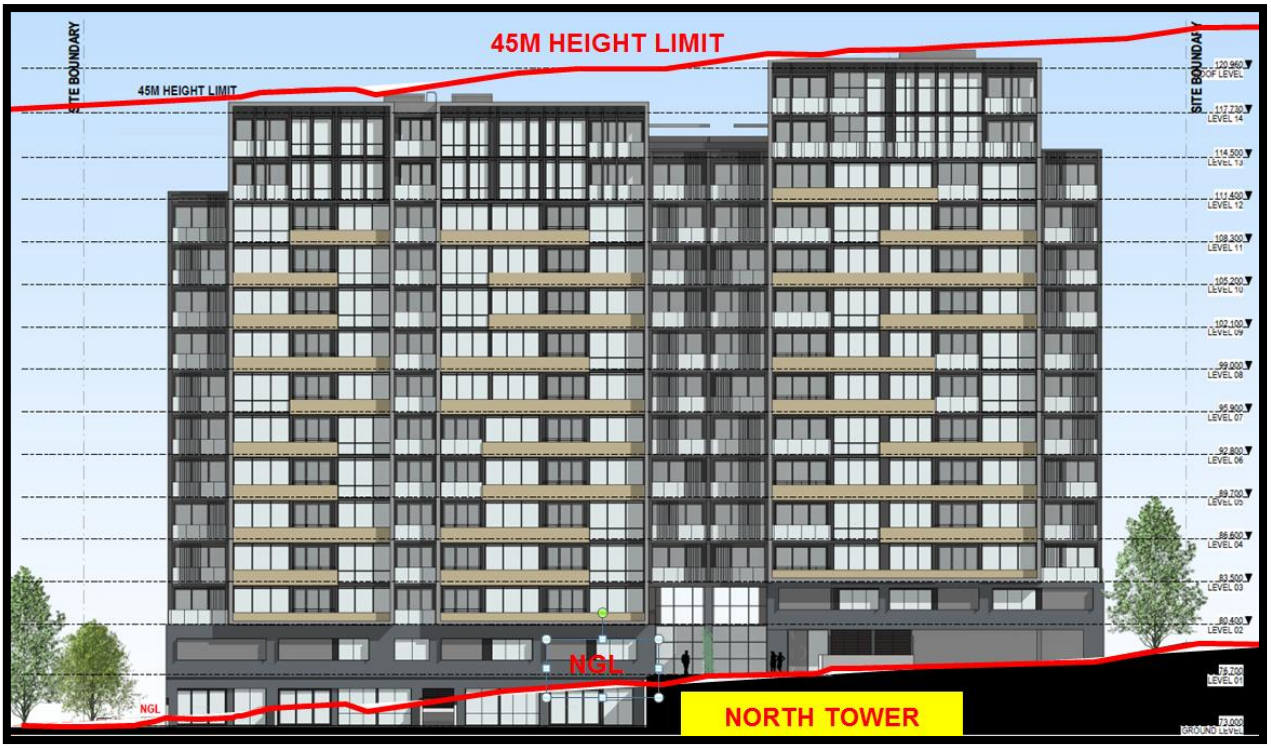


Figure 15A: North east Elevation illustrating South Tower within 45m height limit

Figure 15B: South West Elevation illustrating South Tower within 45m height limit

Clause 4.4 - Floor Space Ratio

The Floor Space Ratio Map specifies a maximum floor space ratio (FSR) of 3.5:1 for the site. The proposed development has a GFA of 28,257m^2. Based on the site having an area of 8,074m^2, this results in the development having a FSR of 3.5:1. The proposal complies with the FSR control.

Clause 6.1 – Acid Sulfate Soils

The objective of this clause is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.

Council's Acid Sulfate Soils Mapping identifies the site as not being located within a classified acid sulfate soils area.

Clause 6.4 Stormwater Management

Development consent must not be granted to development on land within residential, business and industrial zones unless the consent authority is satisfied that the development:

- is designed to maximise the use of water permeable surfaces on the land having regard to the soil characteristics affecting on-site infiltration of water, and
- includes, if practicable, on-site stormwater retention for use as an alternative supply to mains water, groundwater or river water, and
- avoids any significant adverse impacts of stormwater runoff on adjoining properties, native bushland and receiving waters, or if that impact cannot be reasonably avoided, minimises and mitigates the impact.

Council's Senior Coordinator Development Engineering Services has advised that the proposed stormwater management system for the development is not acceptable in its current form; however there are solutions available which can resolve this issue and conditions of consent have been imposed accordingly.

Therefore the proposal is acceptable subject to the application of conditions being applied to any development consent regarding stormwater management.

Clause 6.2 Earthworks

Development consent is required for the earthworks associated with the development.

Before granting consent for earthworks the consent authority must consider the following matters:

- *The likely impact on drainage, soil stability, amenity of adjoining properties, likelihood of disturbing relics, potential impacts on watercourse, drinking water catchment or environmentally sensitive area.*
- *Any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.*

The proposed development includes excavation for basement car park. Council's Development Engineer requires that a condition be included in the consent to address engineering issues such as a sediment and erosion control plan to be submitted prior to the issue of a construction certificate.

The site is not known to contain any relics or watercourse. The development is considered satisfactory in respect of this clause.

Clause 6.6 - Environmental Sustainability

The objective of this clause is to ensure that development on land in a business or industrial zone exceeding 1,500m² in GFA embraces principles of quality urban design and is consistent with principles of best practice environmentally sensitive design.

The application includes an Energy Efficiency Report dated 16 April 2018 as prepared by Wood & Grieve Engineers. The Report notes the development's commitment to ecological sustainable development and a reduced energy impact, including the following design responses:

- Full height glazing to main living zones ensure effective solar penetration is achieved during winter periods, while horizontal spandrel panels and shading fins ensure effective solar control to the majority of dwellings during peak summer periods.
- Centralised gas hot water systems have been specified.
- VRV systems with day/night zoning instead of traditional single split system air conditioning.
- Car park air supply and exhaust includes CO sensors and variable speed fan drives for optimized energy efficiency.
- Internal and external lighting shall be minimum LED or compact fluorescent for optimised efficiency.
- Minimum appliance specifications for improved energy efficiency.
- Solar photovoltaic power system – nominal spaces have been allocated on the roof zones of both north and south towers for the future integration of solar photovoltaic system.

A condition is imposed requiring compliance with the recommendations of the Report (see **condition number 49**).

8. DRAFT ENVIRONMENTAL PLANNING INSTRUMENTS

There are no relevant Draft Environmental Planning Instruments for the subject site.

9. DEVELOPMENT CONTROL PLANS

9.1 City of Ryde Development Control Plan 2014 (RDCP 2014)

The following sections of the RDCP 2014 are of relevance, being:

- Part 4.5 – Macquarie Park Corridor;
- Part 7.2 - Waste Minimisation and Management;
- Part 8.1 - Construction Activities;
- Part 8.2 - Stormwater Management;
- Part 8.3 – Driveways;
- Part 9.2 - Access for People with Disabilities;
- Part 9.3 – Parking Controls; and
- Part 9.5 – Tree Preservation.

Note: With regard to Parts 7.2 to 8.3, noting the advice received from the various technical departments within Council and the consideration of issues previously in this report, the proposal is satisfactory in relation to the above matters. Therefore, the following assessment addresses the relevant controls within Parts 4.5, 9.2, 9.3 and 9.5 only.

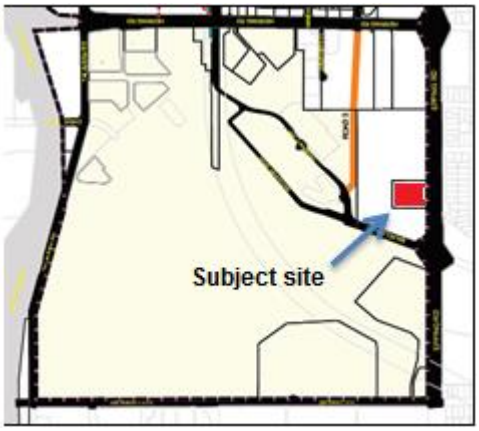
Part 4.5 – Macquarie Park Corridor

The site is located within the Mixed Use/Residential area as identified by the Urban Structure Plan under the DCP. The DCP states:

> *"Planned residential communities centred on the North Ryde and Macquarie University Rail Stations provide for more than 10,000 new dwellings close to transport, employment and education facilities. Together the Herring Road and North Ryde Station UAPs and this DCP provide for new residential and working communities supported by new infrastructure including new parks, road connections and community facilities. "*

The development is considered to compliment this vision through the provision of additional housing within close proximity of the transport, employment and education facilities.

The compliance table of the relevant controls pursuant to Part 4.5 Macquarie Park Corridor is as follows:

Relevant Control	Comment	Comply
Part 4.5 – Macquarie Park Corridor		
4.0 Access Network		
4.1 Streets		
Provide new public streets and pedestrian connections in accordance with Figure 4.1.1 Access Network.  **Figure 10. Extract from Figure 4.1.1 showing the proposed road and pedestrian network.**	There are no new public streets or pedestrian connections required for this site.	N/A
4.3 Bicycle Network		
a. Provide dedicated cycle access in accordance with Ryde Bicycle Strategy 2014. b. The Regional Bicycle network is to be implemented as off-street shared cycle ways in accordance with the Macquarie Park Public Domain Technical Manual, the Regional Bicycle networks comprises:	The proposed development restores the footpath and cycleways in accordance with the design provided in the submitted Traffic Impact Assessment.	Yes

Relevant Control	Comment	Comply
iii Epping Rd.		
4.4 Sustainable Transport		
A Framework Travel Plan (FTP) is required to be submitted to Council for approval together with a DA for all development that exceeds 10,000m² new floor space. For all development, the FTP must: (i) Adopt strategies and procedures to meet a 40% public transport/60% private transport target for the development for journey-to-work trips, to minimise drive-alone vehicle trips and to encourage transport choice to and within the Macquarie Park Corridor. (ii) Demonstrate how on-site parking provision and built form design will contribute to the FTP and assist in meeting the 40% public transport/60% private transport target for the development for the journey-to-work. (iii) Demonstrate infrastructure connections to the nearby footpath, bicycle and public transport networks including through-site-links where required. (iv) Provide, to Council satisfaction, supportive infrastructure for: • Public transport passengers (bus shelters and passenger waiting areas) to be provided where a new public bus stop or service is required to service the additional demand from the development or meet relevant mode share targets for the development. • Taxi drop-off areas or parking (as appropriate) and carpooling and car share dedicated parking in publicly accessible locations, within the development site. The number of dedicated parking spaces provided must support relevant mode share targets for the development. Car share parking requirements are detailed in Clause 4.4.i below. • Walking and cycling (lockers and end-of-trip facilities).	The applicant has not provided FTP, however the proposal is capable of providing measures to promote and maximise the use of sustainable travel modes, including walking, cycling, public transport and car sharing. A condition of consent will be required to ensure a finalised Framework Travel Plan is submitted prior to the issue of any Occupation Certificate. This will enable a detailed plan to be submitted that addresses the individual tenant needs as well as the DCP requirements. (See **condition number 193**).	Yes, subject to condition of consent
<u>Parking Rates</u> Bicycle parking and end-of-trip facilities are to be provided in accordance with the RDCP 2014 Part 9.3 Parking Controls.	The DCP requires that for buildings greater than 600m^2 GFA, bicycle parking shall be equivalent to 10% of the required car parking spaces or part thereof. As the development has proposed 308 car parking spaces, a total of 31 bicycle parking spaces are required. The development has proposed 36 bicycle parking spaces which are located on the Basement 1 Level.	Yes
Parking is to be provided in accordance with the RDCP 2014 Part 9.3 Parking Controls. Residential Development - Macquarie Park Corridor (as shown on RLEP 2014 Centres Map) :	The DCP requires car parking to be provided at the rates shown in the left hand column. Based on unit break up (see table below under Part 9.3), the development could provide a maximum of 308 car parking spaces which is	Yes

Relevant Control	Comment	Comply
• Maximum 0.6 space / one bedroom dwelling • Maximum 0.9 spaces / two bedroom dwelling • Maximum 1.4 spaces / three bedroom dwelling • Maximum 1 visitor space / 10 dwellings • 1 car share space per 50 proposed parking spaces	proposed. As the car parking provided is equal to the maximum amount of car spaces allowed, the development complies.	
Car Sharing Parking All parking spaces for car share schemes are to be: (i) Publicly accessible 24 hours a day seven days per week. (ii) Located together in the most convenient locations. (iii) Located near and with access from a public road and integrated with the streetscape through appropriate landscaping where the space is external. (iv) Designated for use only by car share vehicles by signage. (v) Parking spaces for car share schemes located on private land are to be retained as common property by the Owners Corporation of the site.	The development proposes 6 car share spaces located on Basement Level 1.	Yes
5.0 Public Domain		
5.10 Art in Publicly Accessible Places		
Art must be included in all new development with more than 10,000m² new floor space in the amount of 0.1% of the construction cost of the works capped at $1,500,000.	The applicant will provide a detailed Art Plan prior to issue of Constriction Certificate.	Yes, subject to condition of consent
Art must be located within the site so as to be publicly accessible (i.e. viewed or experienced from publicly accessible places).	The development is able to comply with this requirement, subject to condition of consent.	
A site specific Arts Plan is to be submitted together with the development application. The Arts Plan will include: (i) Arts project description and statement of artistic intent. (ii) Thematic framework for the artwork. Suggested themes arising from the history of the Macquarie Park Corridor are: • Innovation and/or technology • Transport and people movement • History of Macquarie Park Corridor • Future of Macquarie Park • Natural environment (iii) Concept drawing and descriptions of proposed art works including: • Proposed location • Whether or not the artwork is integrated into the building design, landscape or other site features • Proposed use of materials with particular information to be provided on robustness, durability and low	The applicant will be required to complete a competitive selection process for the artist procurement, concept design and design development. It is intended that City of Ryde will have input into this process. It is proposed to include a condition of consent to require a more detailed plan to be submitted to Council which will detail the thematic framework for the artwork, concept drawings, implementation and preliminary construction details. (See **condition number 58**).	

<table>
<tr><th>Relevant Control</th><th>Comment</th><th>Comply</th></tr>
<tr><td>maintenance.
(iv) Implementation
(v) Preliminary construction details with particular emphasis on public safety considerations.</td><td></td><td></td></tr>
<tr><td colspan="2">7.0 Built Form</td><td></td></tr>
<tr><td colspan="3">7.4 Setbacks & Build-to-Lines</td></tr>
<tr><td>Minimum setbacks and build-to-lines must be provided as shown in Figure 7.3.2 Active Frontage and Setback Control Drawing as follows:

<table><tr><th>Frontage</th><th>Setback</th></tr><tr><td>Existing/new streets</td><td>5m</td></tr><tr><td>M2 tollway and Epping Rd</td><td>10m green setback</td></tr><tr><td>All parks</td><td>5m built form</td></tr></table></td><td>The proposed building is setback 11.73m from the existing Epping Road, however once the 3.5m of land is dedicated to RMS for the slip lane in the future, the building will be setback only 8.23m. Whilst this will create a non-compliance, it is considered that in the future when the Baptist Care site is developed, and the 10m setback is imposed, all buildings will generally align and the green setback area will be maintained.

Along the rear boundary, facing Eucalyptus Street (Private Road) the building is setback 10 metres.</td><td>No. Variation acceptable</td></tr>
<tr><td>Underground parking is not permitted to encroach into the front setback areas unless it can be demonstrated that the basement is designed to support significant mature trees and deep root planting in accordance with Figure 7.4.1.</td><td>The building footprint has been shifted to accommodate the retention of trees in the south western corner of the site, which will support the existing mature trees and deep root planting.</td><td>Yes</td></tr>
<tr><td colspan="3">7.6 Rear and side setbacks</td></tr>
<tr><td>Buildings are to be set back 10m from the rear boundary and 5m from a side boundary unless a proposed new road is shown on the site.</td><td>The proposed building sets back 10m from the rear boundary and 6m from the side boundaries.</td><td>Yes</td></tr>
<tr><td colspan="3">7.7 Building Separation</td></tr>
<tr><td>Provide building separation as per SEPP 65 - Design Quality of Residential Apartment Development requirements.</td><td>See discussion under SEPP 65 (ADG).</td><td>No. Variation acceptable</td></tr>
<tr><td colspan="3">7.8 Building Bulk and Design</td></tr>
<tr><td>The floor plate of buildings above 8 storeys is not to exceed 2,000m², unless it can be demonstrated that slender built forms are achieved through courtyards, atria, articulation or architectural devices.</td><td>The proposed floor plates of the buildings range from 528m² to 2125m² from level 8 and above. The development addresses the street with a large portico which allows for the entrance to the development to be clearly identifiable.</td><td>No. Variation acceptable</td></tr>
<tr><td>Façade design is to:
(i) Reflect and respond to the orientation of the site using elements such as sun shading and other passive environmental controls where appropriate.
(ii) Provide building articulation such as well design roof forms, expressed vertical circulation etc.
(iii) Express corner street locations by giving visual prominence to parts of the façade.
(iv) Integrate and coordinate building services such as roof plant, parking and mechanical ventilation with the overall façade and building design, and be screened from view.
(v) Roof forms, building services and</td><td>Articulation and façade treatments have been developed as described in the Architectural Statement and Urban Design report prepared by Warrant and Mahoney Architects. The proposal results in two proportionately vertically expressed buildings with articulation and variance achieved through recesses and cut-outs. Considerable emphasis has been given to providing useable, textured communal and private open space.

Council’s Urban Design Review Panel raised no issues in respect of the building facades and articulation.</td><td>Yes</td></tr>
</table>

Relevant Control	Comment	Comply
screening elements are to occur within the overall height controls. (vi) Ventilation louvres and car park entry doors are to be coordinated with the overall façade design.		
The distance of any point on a habited floor from a source of natural daylight should not exceed 12m. (i) Atria and courtyards are to be used to promote access to natural light, pedestrian links and slender building forms. (ii) Arrange courtyards and atria to respond to street lot and solar orientation. (iii) The preferred height to width ratio of atria is 3:1.	The architectural plans demonstrate that habited floor within the building will be within 12m from a source of natural daylight.	Yes
Buildings are to be designed to be flexible – car parking above ground level is to have a floor-to-ceiling height of not less than 2.7m.	The development does not include car parking above ground. All the car parking has been incorporated within the basement levels, therefore this clause does not apply.	N/A
8.0 Site Planning and Staging		
8.4 Topography and Building Interface		
a. Level changes across sites are to be resolved within the building footprint. ii. Where buildings are set back from the street boundary, entries are to be provided at street level wherever possible. b. An accessible path of travel is to be provided from the street through the main entry door of all buildings. i. Where necessary, stairs and ramps are to be integrated with the landscape design of front setbacks. c. Natural ground level is to be retained for a zone of 4 m from the side and rear property boundaries. Retaining walls, cut and fill are not permitted within this zone. d. The maximum height of retaining walls within the front, side and rear setbacks are not to exceed 1.2 m. e. Publicly accessible open spaces under private ownership (courtyards, forecourts) must be provided at footpath level. Where level changes cannot be avoided due to topography, the finished level of the open space must not exceed 1.2 m above footpath level.	The proposed design is set back from the street boundary allowing for an accessible path of travel to the entry at street level. The entrance leads through the central courtyard between the North and South towers. The site has an overall fall of approximately 5 metres so to retain natural ground levels within 4m from the side and rear property boundaries is difficult. The proposed design provides for level changes to accommodate an accessible link between the two buildings, as well as allowing for the building entries at street level. The variation is considered acceptable.	**No. Variation acceptable**
8.5 Site Facilities		
Vehicular access to loading facilities is to be provided from secondary and tertiary streets where possible.	The access to the loading facility is proposed from Epping Road as the site does not have any secondary street access. The development complies with the DCP requirement.	Yes
Rubbish and recycling areas must be provided in accordance with Section 6.3 Waste Management. These areas must: (i) Be integrated with the development. (ii) Minimum the visibility of these facilities from the street.	All rubbish will be collected from inside the building. Vehicles will entry via the service driveway located on the eastern side property boundary. The waste arrangements are considered satisfactory by Council's Senior Coordinator Resources Recovery.	Yes

Relevant Control	Comment	Comply
(iii) Be located away from openable windows to habitable rooms.		
Barrier free access is to be provided to all shared facilities.	An access report has been submitted by the applicant, prepared by Morris Goding Accessibility Consulting dated 16 April 2018. The report concludes that the development is capable of complying with the provisions of the Disability (Access to Premises) Standard 2010 and Australian Standards AS1428. A condition of consent will be imposed to ensure compliance with the recommendations of this report. (See **condition number 53**)	Yes
8.6 Vehicular Access		
Potential pedestrian/vehicle conflict is to be minimised by: (i) Limiting the width and number of vehicle access points. (ii) Ensuring clear site lines at pedestrian and vehicle crossings. (iii) Utilising traffic calming devices. (iv) Separating and clearly distinguishing between pedestrian and vehicular accessways.	The development has separated the vehicular access for the car parking and the loading dock, however these entries are located adjacent to each other. This results in a combined driveway width of 10.875m. The access points have been assessed by Council's Senior Coordinator Development Engineering Services who has confirmed that the access arrangement is satisfactory.	Yes
Safe and secure 24-hour access to car parking areas is to be provided for building users.	The development has proposed security doors and intercoms to the car parking. A boom gate and intercom will be provided to the loading bay. This will provide secure 24-hour access to these areas.	Yes
<u>At-Grade Parking</u> Parking areas must not be located within the front, side or rear setbacks.	All parking for the new building is located within the proposed basement levels. Parking will not be provided in the setbacks areas.	Yes
9.0 Environmental Performance		
9.1 Wind Impact		
Buildings shall not create uncomfortable or unsafe wind conditions in the public domain which exceeds the Acceptable Criteria for environmental Wind Conditions. Carefully locate or design outdoor areas to ensure places with high wind levels are avoided. All applications for buildings over 5 storeys in height shall be accompanied with a wind environmental statement.	The applicant has provided a Wind Report by Windtech Consultants Pty Ltd. The report indicates suitable wind conditions are expected to be experienced for the majority of the outdoor trafficable areas within and around the subject development. The site benefits from shielding provided by subject development and the use of effective wind mitigating features in the buildings design such as the recessing balconies into the overall building footprint, full-height privacy screens, impermeable balustrades and blade walls, and these features are recommended to be retained in the development. A condition of consent will be imposed to ensure compliance with the recommendations of this report. (See **condition number 52**)	Yes
9.2 Noise and Vibration		
An Acoustic Impact Assessment report prepared by a suitably qualified acoustic consultant is required to be submitted with all development applications for commercial, industrial, retail and community buildings with the exception of application for minor building operations.	The applicant has provided an Acoustic Report prepared by Wood & Grieve Engineers which has concluded that in-principle treatment and design requirements demonstrate that compliance with the statutory criteria can be achieved. A condition of consent will be imposed to ensure compliance with the recommendations of this report. (See	Yes

Relevant Control	Comment	Comply
	condition number 50).	
9.4 Soil Management		
Development is to be designed and constructed to integrate with the natural topography of the site to minimise the need for excessive sediment disturbance and prevent soil loss. An Erosion and Sediment Control Plan (ESCP), prepared by a suitable qualified environmental engineer, is required to be submitted in support of all development proposals.	Appropriate conditions of consent will be imposed to require the submission of an erosion and sediment control plan that meets the Council's requirements. (See **condition numbers 88 and 124**).	Yes

Part 9.2 - Access for People with Disabilities

The application includes an Access Report dated 16 April 2018 as prepared by Morris-Goding Accessibility Consulting.

The Report concludes that the development demonstrates an appropriate degree of accessibility and that compliance with statutory requirements, pertaining external site linkages, building access, common area access, sanitary facilities and parking can be readily achieved.

Appropriate conditions are imposed requiring compliance with the recommendations made in the Report, the BCA and relevant Australian Standards. (See **conditions 3 and 38**).

Part 9.3 – Car Parking

The residential parking requirements under Part 9.3 of the RDCP 2014 are:

- Maximum 0.6 space / one bedroom dwelling
- Maximum 0.9 spaces / two bedroom dwelling
- Maximum 1.4 spaces / three bedroom dwelling
- Maximum 1 visitor space / 10 dwellings
- 1 car share space per 50 proposed parking spaces

The development provides the following parking provision:

	Rate (Max)	No. of units	Provided	Compliance
1 bedroom/studio	0.6 spaces = 63.6	106	270	Yes
2 bedroom	0.9 spaces = 161.1	179		Yes
3 bedroom	1.4 spaces = 44.8	32		Yes
Visitor	1 per 10 units = 31.7	-	32	Yes
Car share	1 per 50 units = 6.34	-	6	Yes
Total	**307.5 (308)**	**317**	**308**	**Yes**

The development proposes 308 car parking spaces. As this is equal to the maximum permitted, the development complies.

Part 9.5 Tree Preservation

As stated above, there are a total of 71 trees, with 23 trees on adjoining land and 48 trees located on the subject site, 25 of which are proposed to be retained (Trees 18, 19, 35, 40, 42, 43, 44, 45, 46, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70 & 71) with the remaining 46 trees proposed to be removed (see **Figure 16**). The green circled trees represent trees to be retained, and the red circled trees are those to be removed. The blue circles indicate the tree protection zones.

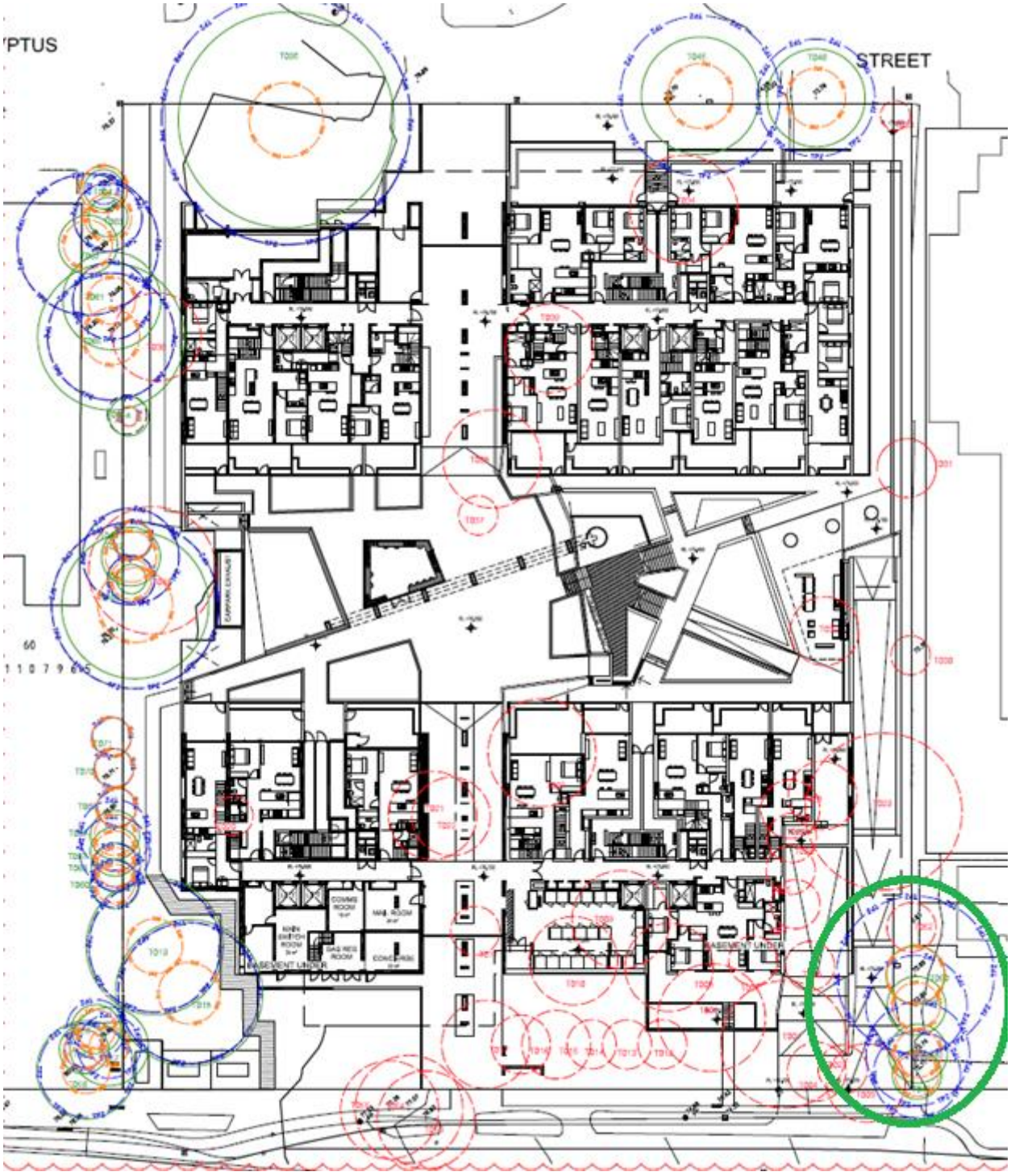


Figure 16: Tree removal and retention plan (Source: TaylorBrammer).
Note: The thick green circled area indicates Conifer trees to be removed (Trees 47 to 50) from the adjoining lot as a result of site works.

The City of Ryde's Development Control Plan 2014 Part: 9.5 outlines requirements relating to Trees on development sites which are set out in Section 2 of The City of Ryde Tree Management Technical Manual. This document specifies that all Development Applications relating to land upon which trees are located shall:

- *Include a determination of the retention value of all trees on the land*
- *Design for the retention of the trees categorised as having high or medium retention values*
- *Specify construction techniques which avoid or minimise the adverse impact of the development on trees to be retained*
- *Include details of the species and location of proposed replacement planting.*

In the Aboricultural Impact Statement prepared by Travers Bushfire & Ecology, retention values have been provided for all trees and four (4) trees have been identified with a high retention value. These four are also identified as endangered ecological community remnants.

As stated above, there is remnant trees located on the north-east and north-west boundaries which form a remnant of the STIF endangered ecological community occurring within the north-western boundary of the site.

The applicant's arborist has identified five (5) of these trees are of notable good health and visual significance to warrant that that they be retained.

STIF is listed as an endangered ecological community under Part 2, Section 2 of the NSW Biodiversity Conservation Act, 2016. As a result, a Test of Significance/5 Part Test, pursuant to section 7.3 of the Biodiversity Conservation Act 2016, is required for this development. The "Test of Significance" (5-part test) concludes the proposed development will not have a "significant impact" on the present threatened ecological community within the site.

Recommendations have been outlined in the Biodiversity Assessment Report to minimise the identified potential for ecological impacts of the proposal, to address threatening processes. These recommendations include the following mitigation measures:

- Replacement landscaping is to use locally occurring native species commensurate with STIF including trees, shrubs and ground covers to encourage local fauna use, to consolidate remnant vegetation linkages and to provide 'island' refuges for native flora and fauna species within the locality. STIF vegetation is to be replaced at a minimum 2:1 ratio and maintained until maturity. Dedicated landscape beds are to be established with STIF tree, shrub and ground layer species.
- Integrated weed management and control of high threat exotics.

Furthermore, the Arboricultural Impact Assessment also provides tree management recommendations.

Due to the development being centrally located on the site, the site requires the removal of the majority of trees present due to several internal plantings alongside existing buildings and in courtyards. However, the trees located along the outer perimeter and the remaining road frontage are recommended to be retained.

It is noted that significant replanting is proposed and is shown on the Landscape Plans (see **Figure 17**). The replacement planting will include STIF species, namely 35 new trees, 248 shrubs and 1,182 groundcovers and climbers totalling 833m² of replacement planting, which is more than recommended in the Biodiversity Development Assessment Report (i.e. 2:1 ratio which equates to 600m²).

Figure 17: Landscape Plan showing proposed replacement planting (Source: TaylorBrammer)

10. SECTION 7.11 CONTRIBUTIONS

Section 7.11 Development Contributions Plan 2007 (Interim Update (2014))

Council's current Section 94 Development Contributions Plan 2007 (Interim Update (2014) effective 10 December 2014 requires a contribution for the provision of various additional services required as a result of increased development density.

Accordingly the contribution is based on the additional floor space there is in the development proposal. The contribution that are payable with respect to the increased density on the subject site (being for commercial development inside the Macquarie Park Area) are as follows:

A Contribution Type	B Contribution Amount
Community & Cultural Facilities	$726,690.37
Open Space & Recreation Facilities	$2,915,123.92
Civic & Urban Improvements	$374,991.82
Roads & Traffic Management facilities	$402,458.72
Cycleways	$51,844.96
Stormwater Management Facilities	$45,896.18
Plan Administration	$13,977.49
Total Contribution	**$4,530,983.46**

A condition on the payment of Section 94 Contribution of **$4,530,983.46** has been included in the draft notice of determination attached to this report. (See **condition number 37**).

11. REFERRAL RESPONSES

External Referrals

WaterNSW

Under section 4.47 of the Environmental Planning and Assessment Act, the proposed development is identified as Integrated Development and was referred to WaterNSW, whereby the following comments were provided:

"WaterNSW has determined that the proposed development will encounter groundwater during the excavation process, and is subject to a Water Supply Work Approval under the Water Management Act 2000 for dewatering during the construction phase. If there is ongoing take of groundwater during the post construction phase, a Water Supply Work Approval and a Water Access Licence will be required. This determination is subject to appropriate construction methods to be employed to minimise volume of groundwater take during the construction phase. WaterNSW provides General Terms of Approval attached."

The General Terms of Approval form part of the draft consent (See **condition 24**).

Roads and Maritime Service (RMS)

The application was referred to the RMS for review. The full comments from RMS have been provided earlier in the report under the heading State Environmental Planning Policy (Infrastructure) 2007. RMS has raised no objections to the development subject to the recommended conditions of consent. (See **condition numbers 25, 26, 90, 91, 113, 114, 115, 117, 118 and 145**).

Transport for NSW (Sydney Coordination Office)

The following comments have been provided:

"The Sydney Coordination Office (SCO) has reviewed the relevant DA documentation for 159-161 Epping Rd, Macquarie Park (LDA2018/171) and provides the following comments for Council's consideration:

Construction Pedestrian and Traffic Management

Comment
The Traffic Impact Assessment by Traffix (April 2018) does not include any detail or information on how the demolition and construction activity will be managed by the developer. It should be noted that several construction projects within the Macquarie Park precinct are likely to occur at the same time as this development. The cumulative increase in construction vehicle movements from these projects could have the potential to impact on general traffic and bus operations, as well as the safety of pedestrians and cyclists particularly during commuter peak periods.

Recommendation
TfNSW requests that the applicant prepares a Construction Pedestrian and Traffic Management Plan (CPTMP) to Council in consultation with the Sydney Coordination Office (SCO) within TfNSW. The CPTMP should be endorsed by the SCO prior to any construction activity on the site and take into account the potential impacts of the proposed development on the operation of Station Link, where works are proposed prior to May 2019.

The CTMP must address the following matters:

- *Traffic and public transport customer management in the vicinity of the development.*
- *Location of all proposed work zones;*
- *Construction vehicle access arrangements;*
- *Proposed construction hours;*
- *Estimated number and type of construction vehicle movements including volume, time of day and truck routes.*
- *Construction program highlighting details of peak construction activities and proposed construction 'Staging';*
- *Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works;*
- *Cumulative construction impacts of projects in the Macquarie Park precinct. Should any impacts be identified, the duration of the impacts;*
- *Timing of and reinstatement standards for footpath and road openings; and*
- *Measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP.*

Freight & Servicing

Comment
The TIA notes compliance with AS2890.2 for the loading dock, providing capacity for a maximum vehicle length of 10.6m for waste collection. It allows for a minimum head clearance of 4.5m and minimum bay width of 3.5m is provided.

Recommendation

The SCO recommends that all new developments should be self-sufficient and cater for all loading and servicing on-site and that Council require the proponent to provide (as a minimum):

- *prepare and submit a draft Loading Dock Management Plan (LDMP) for review and approval by Council as a condition of development consent – the LDMP should provide details of waste vehicle movements and how these movements will be managed through the single lane driveway ramp.*
- *address how removalist vehicle movements will be accommodated noting that the proposed number of residential units is likely to generate regular movements of this type and Clearway restrictions on Epping Road. Removalist vehicles typically require longer dwell times; and the proposed height of the towers is likely to exacerbate this dwell time."*

(See **condition numbers 63 and 174**).

NSW Police

The application was referred to NSW Police for review as the Crime Prevention Through Environmental Design principles. The following comments have been provided:

"Surveillance

Natural surveillance is achieved when normal space users can see and be seen by others. This highlights the importance of building layout, orientation and location; the strategic use of design; landscaping and lighting. Natural surveillance is a by-product of well-planned, well-designed and well-used space. Technical/mechanical Surveillance is achieved through mechanical/electronic measures such as CCTV, help points and mirrored building panels. Technical/mechanical surveillance is commonly used as a 'patch' to supervise isolated, higher risk locations. Formal (or Organised) Surveillance is achieved through the tactical positioning of guardians. An example would be the use of on-site supervisors at higher risk locations.

General Comments:

In the proposal it does not stipulate whether CCTV will be placed throughout the development. Recommended Conditions of Consent: It is recommended that the premises install CCTV cameras as outlined below:

1. *The applicant must install and maintain surveillance cameras and recorders to monitor and record all entrance and exit points to the buildings. The cameras should include the foyer area to the buildings including the area around the mail boxes as mail theft in unit complexes in the Sydney Metropolitan area is a reoccurring crime. The cameras should also monitor the 50 metre vicinity outside the building including, but not limited to, the footpath area in front of the premises. CCTV cameras should also cover any communal areas, lifts, public spaces and the basement car parks. Recordings should be made twenty-four (24) hours a day seven (7) days a week.*
2. *As a minimum, CCTV cameras at entry and exit points to the premises MUST record footage of a nature and quality in which it can be used to **identify** a person recorded by the camera. All other cameras MUST record footage of a nature and quality in which it can be used to **recognise** a person recorded by the camera.*

3. *The time and date must automatically be recorded on all recordings made whilst it is recording. All recordings are to be kept for a minimum period of thirty (30) days before they can be reused or destroyed.*
4. *If requested by police, the applicant or body corporate is to archive any recording until such time as they are no longer required.*
5. *Recordings are to be made in a common media format such as Windows Media Player or similar, or should be accompanied by applicable viewing software to enable viewing on any windows computer.*
6. *The CCTV control system should be located within a secured area of the premise and only accessible by authorised personnel.*
7. *If the CCTV system is not operational, immediate steps are to be taken by the applicant to ensure that it is returned to a fully operational condition as soon as possible.*
8. *CCTV should be installed throughout the basement car park area and should include the entry and exit points to the car park.*

(See **condition number 177**).

Lighting

There is a proven correlation between poor lighting, fear of crime, the avoidance of public places and crime opportunity (Painter, 1997). Good lighting can assist in increasing the usage of an area. There was minimal indication of lighting with the plans, which were reviewed to indicate the lighting proposals for the development.

General Comments:

- *Lighting should be designed to the Australian and New Zealand Lighting Standards.*
- *A lighting maintenance policy needs to be established for the development.*
- *Australia and New Zealand Lighting Standard 1158.1 — Pedestrian, requires lighting engineers and designers to consider crime risk and fear when selecting lamps and lighting levels.*

Recommended Conditions of Consent:

- *The areas around the entrances and communal areas should be well lit and that all lighting should be designed to Australian and New Zealand Lighting standards.*
- *Sensor lighting should be installed into areas that may be areas of concealment.*
- *The walls and ceilings of the car park areas should be painted a light colour. This can assist in reducing power consumption in order to comply with the Australia New Zealand Standards — Lighting. It also ensures that the lighting within the car park is consistent without creating dark areas of the car park which can often be a target for criminal activity.*

(See **condition number 61**).

Territorial Re-enforcement

Criminals rarely commit crime in areas where the risk of detection and challenge are high. People who have guardianship or ownership of areas are more likely to provide effective supervision and to intervene in crime than passing strangers. Effective guardians are

often ordinary people who are spatially 'connected' to a place and feel an association with, or responsibility for it. Territorial Re-enforcement uses actual and symbolic boundary markers, spatial legibility and environmental cues to 'connect' people with space, to encourage communal responsibility for public areas and facilities, and to communicate to people where they should/not be and what activities are appropriate.

General Comments

- *Confusion resulting from vague entry design can legitimise exploration, trespassing and excuse making by opportunistic criminals. Entries should be legible and inviting.*
- *Effective signage and directions will provide guidance to visitors in locating main areas and keep them away from restricted areas.*
- *Signs can also assist in controlling activities and movements throughout the premises. Signage should reinforce (not be an alternative to) effective design.*

Recommended Conditions of Consent:

- *A street sign should be prominently displayed at the front of the development to comply with Local Government Act, 1993, Section 124, Order No.8.*
- *Signage also needs to be provided at entry/exit points and throughout the development to assist users. Clear signage should indicate residential and restricted areas.*
- *Signage also needs to be provided on any fire exit doors warning users that the doors are to be used for emergency purposes only.*
- *Signage is to be used to indicate entries and exits. Signs should be clear, legible and useful. The front of the building should have clear signage in regards to street numbers so that emergency services are able to clearly read the numbers. To assist with way finding for emergency services, numbering of street numbers, building numbers, levels of the building and unit numbers should be clearly displayed.*
- *Signs should be erected in the car parks and near entry and exit points which details security measures and reminds people to lock their vehicles and remove valuables from their vehicles.*
- *Location maps should be used throughout the complex to indicate to visitors where they are.*

(See **condition number 178**).

Environmental Maintenance

All space, even well planned and well-designed areas need to be effectively used and maintained to maximize community safety. Places that are infrequently used are commonly abused. There is a high correlation between urban decay, fear of crime and avoidance behaviour.

Recommended Conditions of Consent

- *As malicious damage (graffiti) is often an offence caused to such developments strong consideration must be given to the use of graffiti resistant materials to assist in the quick removal of such attacks.*
- *A maintenance policy should be established for this development.*
- *Good signage with clear instructions in relation to way finding should be erected within the basement car park areas.*

(See **condition number 180**).

Access Control

Access control treatments restrict, channel and encourage people and vehicles into, out of and around the development. Way-finding, desire-lines and formal/informal routes are important crime prevention considerations.

Access control is used to increase the time and effort required to commit crime and to increase the risk to criminals. Natural access control includes the tactical use of landforms and waterways features, design measures including building configuration; formal and informal pathways, landscaping, fencing and gardens. Technical/Mechanical access control includes the employment of security hardware and Formal (or Organised) access control includes on-site guardians such as employed security officers.

General Comments:

- *Natural ladders are building features, trees or nearby structures that can help a criminal to climb to balconies, rooftops, ledges and windows.*
- *Balcony to balcony access in high-rise apartments can provide opportunities for intruders to move between joining units without having to enter common areas.*

Recommended Conditions of Consent:

- *Access control should be set in place to exclude unauthorized access to the buildings as well as to restricted areas. Access to the residential building should be for residents only and should be accessed by some form of security system such as key access or a swipe card system. Access to the basement car parking for the residential area should only be able to be accessed by residents only.*
- *All areas should be fitted with doors that comply with Australian Design Standards.*
- *The locks fitted to the doors should be of a high quality and meet the Australian design standards.*
- *Any glass within these doors should be laminated to enhance the physical security of the doors.*
- *Fire exit doors to the development should be fitted with single cylinder locksets (Australia and New Zealand Standard — Lock Sets) to restrict unauthorized access to the development.*
- *The main entry/exit doors to individual units should also be fitted with single cylinder locksets (Australia and New Zealand Standard — Lock Sets) to restrict unauthorized access to the unit.*
- *The balcony doors to individual units should also be fitted with single cylinder locksets (Australia and New Zealand Standard — Lock Sets) to restrict unauthorized access to the unit.*
- *The windows to individual units should also be fitted with key operated locksets (Australia and New Zealand Standard — Lock Sets) to restrict unauthorized access to the unit*
- *Intercom facilities should be incorporated into entry/exit points to enable residents to communicate and identify with people prior to admitting them to the development.*
- *It is recommended that for security reasons that the basement car parking areas have some type of security gate or security roller shutter that can be closed to prevent*

people loitering in the car park and to prevent crimes such as malicious damage, stealings, assaults and sexual assaults.

- *As mail theft is a reoccurring crime in the metropolitan area, letter boxes should be secured in a location that can be accessed by residents only. Having the letter box opening where mail can be inserted by Australia Post on the external area of the building, but having access to the rear of the letter box where you retrieve the mail on the internal side of the building is strongly recommended. The applicant should also liaise with Australia Post and develop strategies in relation to security of mail boxes. Australia Post are able to implement systems to address mail theft in multiple residential complexes.*
- *It is recommended that if there are secure storage facilities for individual units in the basement car park area, that these facilities have good quality locks and ideally would be of a type that people cannot see into. Storage facilities in basement car parks are often a target for stealings and it is important to ensure the facilities are well secured.*

(See **conditions 181 to 183**).

Conclusion

The New South Wales Police have a vital interest in ensuring the safety of members of the community and their property. By using the recommendations contained in this evaluation, any person who does so acknowledges that:

1. *It is not possible to make areas evaluated by the NSWP absolutely safe for members of the community or their property.*
2. *It is based upon the information provided to the NSWP at the time the evaluation was made.*
3. *The evaluation is a confidential document and is for use by the consent authority or organizations referred to on page 1 only.*
4. *The contents of this evaluation are not to be copied or circulated otherwise that for the purposes of the consent authority or organization referred to on page 1.*

The NSW Police hopes that by using the recommendations contained in this document, criminal activity will be reduced and the safety of members of the community and their property will be increased. However, it does not guarantee that all risks have been identified, or that the area evaluated will be free from criminal activity if its recommendations are followed."

Internal Referrals

Development Engineering

The application was referred to the Council's Drainage Engineer for review. The following comments have been provided:

Referral 1

"Stormwater Management

Notwithstanding the comments raised within the RFI completed by Council's Drainage team, date 14 June 2018, reference D18/135458, the following is noted.

After reviewing the plans provided, the Landscape plan depicts the north-eastern corner of the site with an RL of 72.95, and the Architectural Ground Floor plan depicts the south-eastern corner of the site with an RL of 73.24. Thus, it is evident a portion of the site slopes to the rear of the site. During failure of the drainage system, it will result in potential overland flows directed towards private land which is contrary to Council's DCP requirements. Insufficient information is provided to demonstrate the Applicant has met Council's requirement. If the site slopes to the rear it will result in the requirement for a drainage easement to be obtained. This was highlighted during pre-lodgement advice provided by Council's Development Engineer that noted discharge to Epping Road will be accepted provided that it can be demonstrated that all parts of the land under development can be discharged to this point, in addition to accommodating any failure mode of the system.

A drains model output or similar for the calculation of the storage requirements of the On-Site Detention (OSD) system is to be provided for Council's review. The design must meet the requirements of Section 1.4.4 of Part 8.2 Technical Manual of Council's DCP 2014. In addition, it is suggested that the OSD system be redesigned to facilitate a failsafe system. i.e. if the overflow pipe within the OSD system was to fail, the stormwater overflow must be directed towards Epping Road.

The stormwater plans require additional information to meet Council's submission requirements, in particular the following:

1. *Pipe and pit sizes,*
2. *Pipe grades,*
3. *Invert and surface levels of all pits,*
4. *Additional RL levels along the ground floor, in particular near the north-eastern corner of the site, adjacent to Eucalyptus Street,*
5. *Overland flow path, and*
6. *Details concerning the basement pump system.*

These will require the stormwater management plan to be amended prior to development consent.

<u>Vehicle Access and Parking</u>
The development is located within Macquarie Park, and thus the rates found in Section 2.2 of Part 9.3 from Council's DCP 2014 have been applied.

Space Type	***DCP (max)***	***Proposed***	***Compliant***
Residential	*270*	*270*	*Yes*
Visitor	*32*	*32*	*Yes*
Car Share	*6 (min)*	*6*	*Yes*

Total car spaces provided within the site is 308, which meets Council's requirements.

From the above spaces, the following provisions for disabled spaces have been provided:

Space Type	***Required***	***Proposed***	***Compliant***
Residential - Disabled	*32*	*32*	*Yes*
Visitor Disabled	*1*	*1*	*Yes*

In addition, one (1) carwash bay has been provided. Although not required under Council's DCP this will provide additional amenity for the residence which is considered to be acceptable.

Notwithstanding the comments raised within the RFI completed by Council's Traffic team, date 14 June 2018, reference D18/135458, the following is noted:

The residential parking layout has been reviewed and is generally in accordance with AS2890 requirements. Entry to basement 1 shows an encroachment to the proposed car-wash bay as shown on the architectural plan, however the dedicated space can be moved south to avoid this. A condition of consent can deal with this matter.

It is recommended that the visitor and residential spaces be appropriately grouped allocated to ensure visitor spaces are clearly identified.

Under Section 7.4.5 of the traffic report completed by Traffix, ref 17.372r01v03, dated April 2018, it refers to Appendix D for the vertical clearance test of the service ramp which has not been provided. In addition to this, the section must ensure the ground clearance is in accordance with the requirements of Appendix A of AS2890.2. The ramp profile must also include the distance at grade changes to ensure compliance with Table 3.2 of AS2890.2.

Applicant is to confirm the swept paths of vehicles (both B99 and 11m Waste-Collection Vehicle) entering the site is accommodated within the deceleration lane.

Furthermore, provided access to the dedicated service area is a single lane only, it is unclear how it will be managed if the service space is already occupied. Vehicles must not bank up along Epping Road or interfere with the residential vehicular access.

Waste and Service Requirements
A service area to cater for waste collection and other services has been provided. Subject to the requirements within the RFI completed by Council's Traffic team, date 14 June 2018, reference D18/135458, and my comments listed under Vehicle Access and Parking within this report, the proposal shall meet Council's requirements.

Recommendation

Assessment of the engineering components of the proposed development has revealed the following matters need to be addressed;

- ***Stormwater Management*** *-*
    - *The Landscape plan depicts the north-eastern corner of the site with an RL of 72.95, and the Architectural Ground Floor plan depicts the south-eastern corner of the site with an RL of 73.24. Thus, it is evident a portion of the site slopes to the rear of the site. During failure of the drainage system, it will result in potential overland flows directed towards private land which is contrary to Council's DCP requirements. Insufficient information is provided to demonstrate the Applicant has met Council's requirement. If the site slopes to the rear it will result in the requirement for a drainage easement to be obtained. This was highlighted during pre-lodgement advice provided by Council's Development Engineer that noted discharge to Epping Road will be accepted provided that it can be demonstrated that all parts of the land under*

development can be discharged to this point, in addition to accommodating any failure mode of the system.

- *The OSD system shall be redesigned to facilitate a failsafe system. i.e. if the overflow pipe within the OSD system was to fail, the stormwater overflow must be directed towards Epping Road.*
- *A drains model output or similar for the calculation of the storage requirements of the On-Site Detention (OSD) system is to be provided for Council's review. The design must meet the requirements of Section 1.4.4 of Part 8.2 Technical Manual of Council's DCP 2014.*
- *Details concerning basement pump system,*
- *Plans must include Council's submission requirements, in particular following information:*
  - *Pipe and pit sizes,*
  - *Pipe grades,*
  - *Invert and surface levels of all pits, and*
  - *Additional RL levels along the ground floor, in particular near the north-eastern corner of the site, adjacent to Eucalyptus Street.*

- ***Vehicle Access and Parking*** *–*
  - *The Visitor and Residential car spaces be appropriately grouped allocated to ensure visitor spaces are clearly identified*
  - *The vertical clearance test of the service ramp must been provided for review. In addition to this, the section must ensure the ground clearance is in accordance with the requirements of Appendix A of AS2890.2. The ramp profile must also include the distance at grade changes to ensure compliance with Table 3.2 of AS2890.2.*
  - *Applicant is to confirm the swept paths of all vehicles (both B99 and 11m Waste-Collection Vehicle) entering the site is accommodated within the deceleration lane.*
  - *The provided vehicular access to the dedicated service area is a single lane only. It is unclear how it will be managed if the service space is already occupied. Vehicles must not bank up along Epping Road or interfere with the residential vehicular access."*

Amended plans were submitted by the applicant on 17 October 2018 and referred to the Development Engineer for further review.

Referral 2

"Stormwater Management

A review of the amended plans and report has noted the following:

- *There are still inconsistencies amongst the architectural, landscape and stormwater plans. The stormwater plan depicts along the eastern boundary the pits have an RL of 73.5 where the architectural and landscape plan depict an RL of 73.0. This stipulates that the stormwater pits will be 500mm above the finished ground level. Furthermore, there are insufficient RL levels along the western boundary of the architectural and landscape plans to confirm compliance with the stormwater plan. All plans are to be amended to be consistent in levels.*

- *Applicant has confirmed that during an extreme storm event, the overland flow path will discharge to Eucalyptus Street. Council require that the site stormwater runoff and overland flow path must be directed to a public drainage system. Considering Eucalyptus Street is a private road, a drainage easement is required to convey the runoff to the appropriate drainage network. Council cannot approve a system that could potentially damage private property which is why an easement is required.*
- *Council note that a similar situation occurred at 120 Herring Road, where the developer required a drainage easement over the downstream property that was currently planning a development proposal. The parties came to an agreement where the burdened owner had the right to relocate the easement if needed when their development came into effect. Council had no objection with this arrangement and thus will accept a similar arrangement. Please note that a deed of agreement will not be accepted by Council. The above terms will have to be within the registered easement terms.*
- *Based on the proposed stormwater design and if the OSD system surcharges, the basement will flood which is not a desirable outcome. Considering an easement will be required, Council are of the opinion the stormwater design should be amended to incorporate a fail-safe location for the OSD storage tank.*

These will require the stormwater management plan to be amended prior to development consent.

Vehicle Access and Parking

After reviewing the amended plans, the following is noted:

- *The visitor and residential spaces are still mixed in location, however this can be dealt via a condition of consent.*
- *The appropriate high clearance to the basement and loading bay is provided.*
- *Swept paths depict the swept paths within the deceleration lane and site*
- *The loading area has been increased in size to cater for 2 MRV vehicles. A Loading Dock Management Plan has been submitted to ensure queuing does not occur within the deceleration lane or Epping Road.*
- *Additional tandem spaces have been provided due to the rearrangement to accommodate the loading dock. These spaces must be provided as secondary spaces to the designated unit.*
- *308 off-street parking spaces have been provided, consistent with the previous review.*

Recommendation

Assessment of the engineering components of the proposed development has revealed the following matters need to be addressed;

Stormwater Management - A review of the amended plans and report has noted the following:

- *Plan Inconsistencies – There are still inconsistencies amongst the architectural, landscape and stormwater plans. The stormwater plan depicts along the eastern boundary the pits have an RL of 73.5 where the architectural and landscape plan*

depict an RL of 73.0. This stipulates that the stormwater pits will be 500mm above the finished ground level. Furthermore, there are insufficient RL levels along the western boundary of the architectural and landscape plans to confirm compliance with the stormwater plan. All plans are to be amended to be consistent in levels.

- *Drainage Easement – Applicant has confirmed that during an extreme storm event, the overland flow path will discharge to Eucalyptus Street. Council require that the site stormwater runoff and overland flow path must be directed to a public drainage system. Considering Eucalyptus Street is a private road, a drainage easement is required to convey the runoff to the appropriate drainage network. Council cannot approve a system that could potentially damage private property which is why an easement is required.*

Note – Council note that a similar situation occurred at 120 Herring Road, where the developer required a drainage easement over the downstream property that was currently planning a development proposal. The parties came to an agreement where the burdened owner had the right to relocate the easement if needed when their development came into effect. Council had no objection with this arrangement and thus will accept a similar arrangement. Please note that a deed of agreement will not be accepted by Council. The above terms will have to be within the registered easement terms.

- ***OSD Tank** – Based on the proposed stormwater design and if the OSD system surcharges, the basement will flood which is not a desirable outcome. Considering an easement will be required, Council are of the opinion the stormwater design should be amended to incorporate a fail-safe location for the OSD storage tank."*

Referral 3

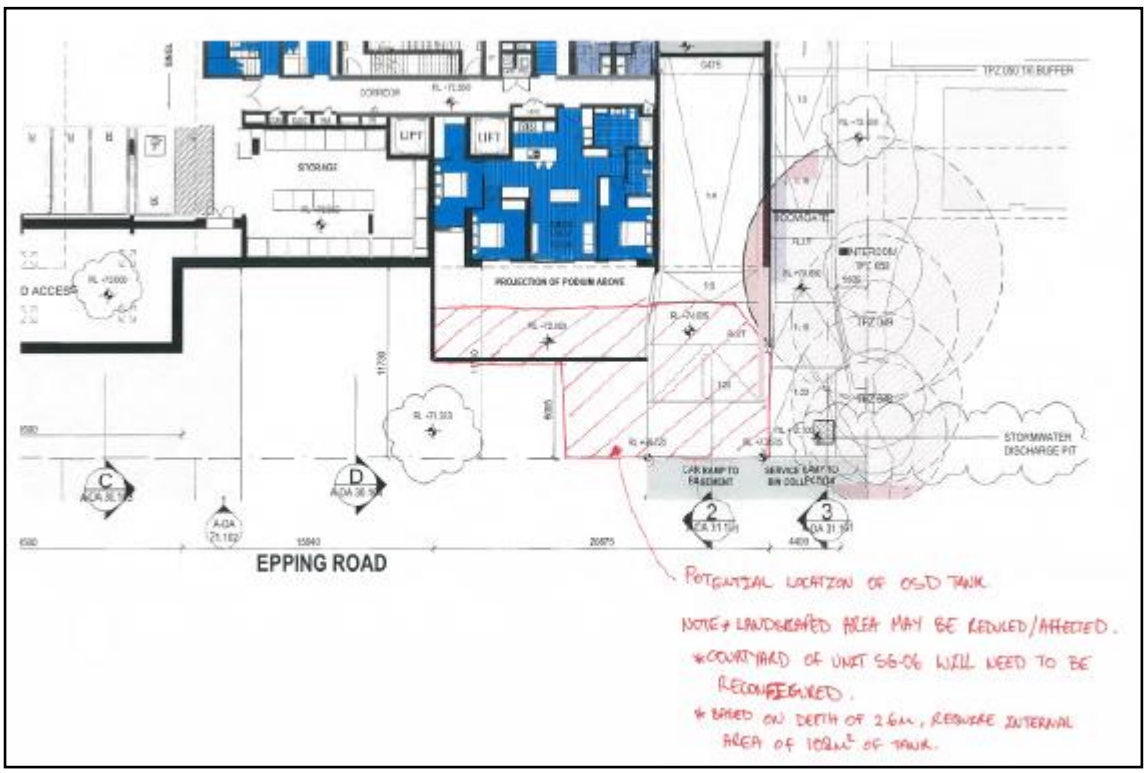
"Stormwater Management

A review of the amended plans has noted the following;

- *The architectural, landscape and stormwater plans have been updated to depict uniform finished surface levels.*
- *The proposed site discharge pit and gully pit have been relocated to further reduce the RL levels. This will ensure if the downstream gully pit was to block the system will surcharge to Epping Road.*
- *The OSD storage tank has a proposed IL of 70.20 and TWL of 72.3. Considering the discharge pit has an RL of 72.7, during a major storm event the OSD system will fail to function adequately as it will be subject to backwater effects. It is recommended that the OSD system provide a direct overflow to Epping Road.*
- *There is still a possibility to flood the basement which is not acceptable.*
- *No drainage easement has been proposed.*
- *Due to the lowering of the proposed courtyards below the boundary levels, the internal drainage system shall be designed to cater for the 100year storm event. An overland flow path will also be required for the rear courtyards facing Eucalyptus Street. It is envisioned this can be dealt with at Construction Certificate stage via a condition of consent.*

In response to this, the following recommendations are made;

- *During a major storm event it is inevitable that overland flow will be directed to Eucalyptus Street. This is private property and creates implications for both the subject site and downstream property. There is potential the downstream property owner in future may alter the level of the land or construct a boundary structure, damming any runoff and having flooding implications for the development. To address this, the Applicant will need to acquire a legal right to disperse water over the downstream property. This is typically enabled by the registration of an easement to drain water however given there are no services to be installed over the neighbouring lot, an alternate legal measure in the form of a covenant may be considered, subject to legal advice. The terms of any easement/ covenant must permit the conveyance of stormwater runoff over the downstream property that may occur from time to time. Due to the need for the adjoining lot owner to accept this legal agreement, this requirement must be implemented as a condition of deferred commencement.*
- *Regarding the OSD system, it is recommended that the OSD tank be relocated to a more appropriate location. Council are of the opinion the following can be achieved:*
    - *The tank may be located underneath the vehicular entry (clear of the TPZ). In order to gain additional area, the courtyard of unit SG-06 and landscaped area within the front setback may be reconfigured and/or reduced. This will ensure if the OSD was to fail, surcharge will occur to Epping Road.*
    - *The TWL of the tank shall be at least 72.70. This will ensure the discharge pit is the failure point within the site and the surcharge occurs to Epping Road.*
    - *If the IL of the orifice plate remains at 70.10, this allows for approximately 2.6m water depth, thus requiring approximately 108m^2 internal area to achieve the required volume.*
    - *Refer to image below for clarification."*



Amended plans were submitted by the applicant on 8 April 2019 and referred to the Development Engineer for further review.

Referral 4

"The additional stormwater information has been assessed and the following concerns are outstanding:

- *As discussed with Colin from Robert Bird Group, he mentioned the details of the tank will be updated. I was under the impression plan C-6-15 OSD Tank Details would be amended.*
- *The stormwater provided remains as an option. I explained to the applicant's engineer we will require definitive locations of the OSD tanks.*
- *OSD tank 1 has a proposed grate level of 72.8, which is higher than pits B-10 and B-1. Plans do not depict the OSD failure mode to the street.*
- *Further to above, the architectural plans depict a boundary level of 74.225 and 73.675, which is greater than the grate level of OSD 1. Further details are required clarifying the functionality.*
- *OSD tank 2 has a proposed grate level of 76.8 which is slightly higher than the architectural depicted level of 76.7*
- *The courtyards of NG01 to NG03 has a FFL of 72.85. Based on the information provided, this should be connected to OSD 1 not 2.*
- *RL of the gully pits located along the slip lane have not been shown.*
- *There are many inconsistencies with the architectural, stormwater, and landscape plans provided. I explained to you and your engineer this must be clarified. Attention to the eastern boundary is crucial as the stormwater plan depicts a 225mm pipe along the boundary whilst the landscape plan depicts a strip of trees – how will this function?*
- *Overflow path has not been depicted for the entire site.*
- *OSD locations have not taken into consideration the thickness of the constructed walls.*
- *Top of water level for each tank has not been depicted.*

I would like to take the opportunity to clarify the detail requested, and as stated in my email dated 2/4/19, Council required a comprehensive stormwater plan in accordance with the requirements found in Section 3 of Part 8.2 Stormwater Management Technical Manual. The information provided does not relieve Council of their concerns and still does not correlate with other plans."

Referral 5

Amended stormwater plans were submitted to Council on 17 April 2019. These plans were assessed by Council's Senior Development Engineer and the following comments were provided:

"The Applicant has successfully demonstrated to Council that the site can drain by gravity to Epping Road. However, as a portion of the site's topography falls to the rear onto private property, Council are concerned about the behaviour of stormwater runoff during an extreme storm event or emergency blockage. It is very likely that overland flow may be directed to the private property. As a result, Council have requested a fail-safe solution via the implementation of a legal instrument over the downstream property. The Applicant has agreed to legal instrument via a deferred commencement condition."

(See **condition numbers 1(A), 9, 14, 15, 17, 18, 77-81, 85-88, 95, 96, 116, 119, 123-127, 167-171, 173 and 195-197**).

City Works (Drainage)

The application was referred to the Drainage team of Council's City Works Department for review.

The following comments have been provided:

Referral 1

"The developer is to provide three new kerb inlet pits along Epping Road. The applicant is awaiting the response from RMS after their assessment of this development proposal. The applicant is required to submit the approval letter from RMS to Council to provide comments related to stormwater.

A large portion of runoff bypasses the OSD tank and is discharged into Epping Road drainage system without any water quality improvement treatments which is not acceptable."

Referral 2

Drainage raised no further objection to the approval of this application subject to the conditions (see **condition numbers 82-84, 122, 162 and 164-166**).

City Works (Traffic)

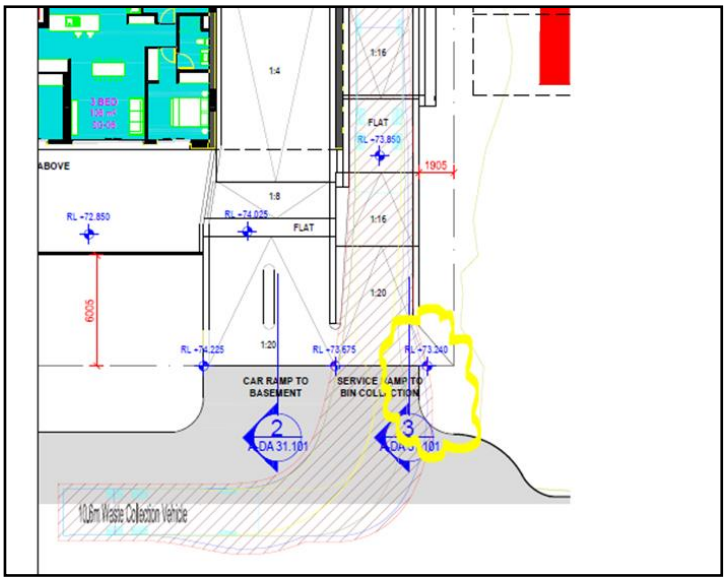
The application was referred to the Traffic team of Council's City Works Department for review.

The following comments have been provided:

Referral 1

"***Swept Path***

- *It is unclear from the submitted swept path (DWG No. TX.01 Rev B) of B99 vehicle whether the vehicle movement is accommodated within the deceleration lane or it occupies portion of the through lane on Epping Road. In this regard, swept path must be updated showing existing and proposed line markings to prove that entering vehicle movement can be accommodated within the deceleration lane.*
- *Swept path diagram (DWG No. TX.02 Rev B) must be updated to show forward in and forward out movement of Council's 11m waste-collection vehicle accessing the service/waste collection bay. In addition, swept path diagram must be updated so that there is no encroachment (see below).*



Deceleration Lane

Council assumes that length of proposed deceleration lane has been confirmed by RMS. Applicant to provide a written confirmation from RMS.

Loading Dock

Extra clearance must be provided within the loading dock to allow for truck manoeuvres. For driveway length of more than 30m, passing bay must be provided. It is noted that driveway length for loading dock is approximately 60m in length.

The applicant is to demonstrate whether the proposed loading dock can accommodate the service demands for removalists/ delivery trucks with only one loading bay."

The applicant responded with providing additional swept path analysis, and in this regard, the following comments were provided:

Referral 2

"Loading Dock

Provision of a turntable to assist with truck manoeuvring is not supported by Council. Turntables should only be proposed on constrained sites. Based on size of the development area, the site is not considered "constrained".

Council has not requested the applicant to provide service vehicle and loading to be on grade.

The basement level shall be re-designed to include the following requirements within the loading dock:

- *a turning area that can accommodate Council's 11m long waste vehicle*
- *two loading bays (a minimum of one 11m truck and an 8.8m MRV); and*
- *a passing bay within the ramp at 30m interval."*

Referral 3

"Traffic generation for the proposed development is expected to be about 48 to 60 vehicle trips per hour. The existing residential dwellings generate about 11 to 13 vehicle trips per hour. Therefore, the net increase in traffic would be at most 37 to 47 additional vehicle trips per hour during the AM and PM peak periods.

Intersection assessment undertaken at Epping Road / Balaclava Road, Epping Road / Site Access and Epping Road / Herring Road intersections indicated that the anticipated traffic generation due to the proposed development has no significant effect on the operation of these intersections.

The proposed deceleration lane along Epping Road which is a State Road is subject to RMS' approval and conditions."

Traffic raised no further objection to the approval of this application subject to the conditions (see **condition numbers 13, 30, 31, 63, 64, 139, 174 and 198**).

City Works (Public Domain)

The application was referred to the Public Domain team of Council's City Works department for review.

The following comments have been provided:

"The development is subject to the standards and requirements of the City of Ryde Development Control Plan DCP 2014 Part 4.5 Macquarie Park Corridor, North Ryde, and the City of Ryde Public Domain Technical Manual PDTM Section 6 – Macquarie Park Corridor.

- *The pavement of the footway is to be designed according to the requirements of the Public Domain Technical Manual, Section 6 - Macquarie Park Corridor.*
- *According to the City of Ryde Council DCP 2014 Part 4.5 the new public roads will have to be provided – Figure 4.1.1 Access Network. The new road* ***N^{o}14*** *is to be 14.5 m wide in accordance with Figure 4.1.3 and the new road* ***N^{o}1*** *is to be 20.0 m wide.*
- *The design of the new roads* ***N^{o}1*** *and* ***N^{o}14*** *must consider matching with existing levels of Waterloo Road and Lane Cove Road. At the rear section of the site proposed road levels must be suitable for future connection with existing infrastructure. The applicant shall redesign the finished levels for all Council's infrastructures elements in order to ensure a smooth transition will be achieved.*
- *The vehicular access from Waterloo Road to the site is restricted in manner left in/left out way into new road* ***N^{o}14****.*
- *The new roads* ***N^{o}1*** *&* ***N^{o}14*** *and proposed* ***pedestrian link*** *are to be fully constructed and dedicated to Council. All elements of required infrastructure within the new roads, including lighting, paving, street furniture, landscaping and the tree planting are to be provided as required in the Macquarie Park Corridor Public Domain Technical Manual.*
- *New roads* ***N^{o}1*** *&* ***N^{o}14*** *and proposed* ***pedestrian link*** *are to be maintained by the landowner until dedicated to Council. The mechanism to dedicate and timing should be elucidated in the Voluntary Planning Agreement.*
- *The reconstruction of existing infrastructure is to be achieved through the construction of new footpath, kerb and gutter along the Waterloo Road and infill of road pavement for a minimum width of one traffic lane.*

- *Proposed kerb return profiles are to be provided to ensure proper connections to existing kerb and gutter along Waterloo Road.*
- *The applicant is to provide suitably prepared engineering plans providing details that demonstrate the smooth connection of the proposed road into the remaining street scape. This will include relevant existing and design surface levels, drainage pit configurations, kerb returns that would enable street sweepers to properly manoeuver.*
- *Existing power poles in Waterloo Road fronting the development site are to be replaced with new MFP's (minimum of 5) in accordance with Council's MFP schema plan.*
- *Multi-function poles (minimum of 6) are required on the Eastern side of new road* ***N^{o}1*** *(Reference to be made to Council's MFP schema plan).*
- *Multi-function poles (minimum of 6) are required along new road* ***N^{o}14*** *(Reference to be made to Council's MFP schema plan)*
- *Multi-function poles are required along new pedestrian link.*
- *All telecommunication and utility services are to be placed underground along both Waterloo Road and new roads* ***N^{o}1*** *and* ***N^{o}14*** *frontages.*
- *According to Public Domain Manual - Section 6 and 3.3 Access Network – Cycleway strategy- The Bicycle Network is to be implemented as off-street shared cycleway along* ***Regional Bicycle Route*** *in Waterloo Road. Cycleways are to be located, as per approved concept plan from Council's Traffic Department adjacent to the property, to minimise conflict with street trees, lighting, signage and other public domain elements. The* ***Local Bicycle Network*** *is to be implemented as off-street shared cycleway in accordance with the Ryde Bicycle Strategy 2014 along proposed new road* ***N^{o}1****, located adjacent to property boundary to minimise conflict with street trees, lighting, signage, and other public domain elements.*
- *Road Opening Permits will be required for any construction work on the road.*
- *There will be several hold points for inspections during the course of the construction in the public domain area."*

Appropriate conditions have been included. (See **condition numbers 15, 16, 17, 19, 20, 70-76, 97-102, 140 and 151-161**).

City (Waste)

The application was referred to the Waste team of Council's City Works Department for review.

The following comments have been provided:

Referral 1

"*A chute system is shown with 4 chutes over the 4 towers. A 240L recycle bin will be house on each floor in the chute room. A separate driveway is shown for the waste truck to access and shows a height clearance of 4.5m however the gradient looks very steep with a portion showing 1:8.*

- *A bulky waste room of 29m2 has been provided however it is a distance from the truck loading bay. This room will need to be located adjacent to the truck loading bay to reduce handling of heavy items.*
- *The elevation of 1:8 will need to be looked at, as 27 tonne trucks are required a 1:12*

- *The swept path is shown for a 10.6 metre truck. Please provide a swept path for an 11metre truck.*
- *The waste bins are shown as 660L bins, for the size of this development, Council will be providing 1100L bins. There is no compaction allowed. Please amend the Waste Management Plan.*
- *An allowance of 60L per resident as been applied for recycling. Council requires 80L per resident. With the number of 240L recycle bins needed, Council requires that the 240L bins are transferred into 660L recycle bins which will be emptied twice weekly. Please amend the Waste Management Plan accordingly*
- *Bin Configuration based on the above would be:*
- *12 x 1100L waste bins serviced three times per week*
- *19 x 660L waste bins serviced twice per week*
- *56 x 240L recycle bins to be stored in each chute room prior to being decanted into the 660L bins. Please show on the plans that the above number of bins for servicing can fit in the bin holding bay."*

In response to the above, the applicant submitted an updated Waste Management Plan and updated swept paths. The following comments were provided based on the amended documents:

Referral 2

"The Waste Management Plan (WMP) has been updated and the swept path also shows the waste vehicle accessing the site using a turn table within the holding bay.

- *The bulky waste room does not appear to have been brought closer to the loading bay in the plans. The resolution within the WMP is for the Building Management to move the bulky waste from the storage room to the loading bay on collection days.*
- *Per the architectural drawings the bulky waste will need to be brought to the holding bay using a lift. Please indicate there is sufficient space within the holding bay to hold the bulky waste items.*
- *The elevation of the driveway as shown in the updated plans has been reviewed with the Traffic Department and deemed safe for the truck to access the site.*
- *The swept path has been updated to accommodate an 11m truck.*
- *A turn table has been proposed for the waste truck to have access to the loading bay. This is not supported by the waste team as there is sufficient space within the basement to allow the truck to turn around safely without the use of the turn table. Please see the Traffic RFI notes above for further information requested.*
- *The WMP has been updated to include the waste 1100L and recycling 660L bins. The calculations per unit have also been updated. However, the number of bins shown in the WMP has not been demonstrated to fit within the holding bay. Please indicate on the architectural drawings that all 12x waste 1100L bins and 19x recycling 660L bins could be presented in the holding bay simultaneously."*

Referral 3

"A chute system is provided with 4 chutes over the 4 towers. 1100L waste bins will be provided to go under the chutes. A 240L recycle bin will be supplied in each chute room on each floor. The caretaker will be responsible for taking the 240L recycling bins down to the basement and emptying them into the 660L recycling bins for collection.

Bin configurations will be:

- *13 x 1100L waste bins serviced 3 times per week*
- *19 x 660L recycle bins serviced 2 times per week*
- *56 x 240L recycle bins to go in the chute rooms on each floor.*

A bulky waste storage room has been provided adjacent to the loading bay for unwanted household items awaiting the pre-booked household collection. The caretaker will be responsible for liaising with the residents to take their goods to the storage room.

Trucks will enter from Epping Road via a boom gate and a separate driveway. A loading dock management plan has been provided to ensure that the waste collection truck has clear access to the loading bay."

No further objections were raised to the proposal and appropriate conditions of consent have been included in the application. (See **condition numbers 36, 65-69, 120, 121, 189 -192, 199, 200 and 203**).

Environmental Health

The application was referred to Council's Environmental Health Officer for review. The following comments have been provided.

"*Operational waste management will be assessed by Councils waste section as the development is all residential.*

The application included a preliminary site investigation by Butler Partners Pty Ltd, Preliminary Site Investigation: 159-161 Epping Road, Macquarie Park, Project no.: S17-106A, Revision 1. The report concluded that the site is suitable for the proposed high density residential use.

An acoustic report by Wood & Grieve, 159-161 Epping Road, Macquarie Park, Acoustic Report, Development Application, Project No. 30888-2, 11 April, 2018 was submitted with the application. It details the construction requirement for the building and the target noise levels required to be achieved for noise emissions and intrusions.

Carwash bay in basement requires discharge to sewer in accordance with Sydney Water Requirements.

Recommendation:

That the Manager Environmental Assessment be advised the proposal will be satisfactory subject to conditions."

Appropriate conditions of consent have been included in the application. (See **condition numbers 22, 23, 32-35, 131, 201-203, 205 and 206**).

Consultant Landscape Architect

The application was referred to Council's Consultant Landscape Architect and Ecologist for review.

The following comments have been provided:

Referral 1

"A preliminary landscape assessment has been carried out for the proposed residential flat building development located at 159-161 Epping Road, Ryde focusing on the proposed tree removal, impact to trees and open space arrangements. Following a review of the documents listed at Section 2.0, a number of concerns have been raised which are considered to require additional information and clarification to enable a full assessment to be carried out. As such, the following issues are raised and the applicant requested to resolve:

Author qualifications
Confirmation is to be provided to Council which verifies the Tree Assessment submitted by Travers Bushfire and Ecology dated 13 April 2018 has been prepared by a suitably qualified Arborist with minimum AQF Level 5 in Horticulture (Arboriculture) in accordance with requirements of Section 4.1 of the City of Ryde Tree Management Technical Manual 2012.

Trees not assessed
A number of trees identified on adjoining land have been omitted from the Tree Assessment prepared by Travers Bushfire and Ecology dated 13 April 2018 despite the potential for these trees to be impacted by the proposal. This includes five (5) mature Angophora costata (Smooth Barked Apple) located on the Epping Road frontage, one (1) Corymbia citriodora (Lemon Scented Gum) within the adjoining allotment to the south-east 1.5m from the boundary and two (2) Corymbia citriodora located on the adjoining allotment to the north-west. Full assessment of the impact to these trees must be carried out with design amendments undertaken if necessary or tree protection recommendations provided to mitigate any impacts to a sustainable level.

Impact to assessed trees
Concerns are raised in relation to the impact to a number of trees identified which have not been adequately discussed or assessed within the Tree Assessment prepared by Travers Bushfire and Ecology. Specifically this relates to Tree 18 & 19 whereby new pedestrian pathways appear to be located less than 500mm from the base of the trees within the Structural Root Zone Areas and Tree 47, 48, 49, 50 & 51 whereby the impact of the basement driveway does not appear to have been fully considered. In addition to the above, there has been no consideration given within the Tree Assessment to the impacts of stormwater infrastructure which directly conflict with a number of trees to be retained on site and adjoining allotments and would preclude their retention as part of the current design."

Epping Road Interface
The design of the interface and setback to Epping Road is not considered to have been resolved to a satisfactory level. No connections to the existing public domain area have been provided and the overall lack of planting within this area is considered unacceptable. Consideration should be given to the removal of existing Melaleuca bracteata (Trees 12-16) of low retention values to enable the provision of large canopy trees capable of reaching increased mature dimensions and providing an improved level of screening and amenity to the frontage area. Furthermore, it is considered that the deep

soil landscaped setback should include a more intensive landscape scheme rather than large tracts of open lawn areas.

Communal Open Space
The following concerns are raised in relation the central communal open space:

- *The Landscape Plans make reference to various seating areas however no seating has been indicated on the drawings. Additional forms of fixed and moveable seating in a variety of locations and configurations to enable varied recreational opportunities are to be provided.*
- *The provision of a 'seating nook' adjacent to the carpark exhaust is not acceptable. The carpark exhaust must be suitably screened through implementation of screen planting solutions to ensure a high level of amenity is provided to the communal open space area.*
- *The Landscape Plans and associated legends make reference to a number of palm plantings located within the communal open space however the planting schedule does not include any palm species.*
- *Details of the proposed palm plantings, if proposed, are to be included within the plant schedule and shown on the plans submitted.*
- *Further details are to be submitted in relation to the purpose and function of the communal facility located within the centre of the communal open space area. It should be ensured that the design of the surrounding spaces relates to and supports the function of the facility.*
- *The use and future performance of Corymbia ficifolia within the communal open space area is questioned given the limited sunlight availability within the courtyard area. Consideration should be given to a revised species selection.*

Communal Open Space
Further information is to be provided with regards to the locations of proposed tree plantings on site. A dedicated tree planting plan is to be provided which clearly identifies all proposed tree plantings to ensure a satisfactory level of canopy cover and screening is provided to the site which compensates for the proposed tree removal to take place.

Hard Paving
Concerns are raised in relation to the extent of hard paved terrace areas provided to the ground floor units (NG-01, NG-02, NG-03) fronting Eucalyptus Street which seems excessive. Additional deep soil planting areas should be provided from the edge of the basement to reduce hard surfaces on site and reduce encroachment to the TPZ areas of those trees to be retained within the Eucalyptus Street frontage.

Additionally, concerns are raised in relation to excessive area of hard paving proposed at the site entries at both frontages. Whilst it is understood the entries need to be clearly defined, it is considered further design resolution of these areas can provide a solution which softens these spaces, significantly reduces the level of hard paving and still provides a clear and defined entry portal."

On 29 October 2018, the applicant submitted amended plans and further documentation to address the matters raised. On review of the additional information submitted, the following comments were provided by Council's Consultant Landscape Architect:

Referral 2

"A review of the amended documentation submitted has revealed that a number of concerns remain outstanding. Each of the previously highlighted concerns, along with a detailed commentary as to the suitability of the proposed changes is outlined below:

Author qualifications
Confirmation was sought in relation to whether the Tree Assessment submitted by Travers Bushfire and Ecology dated 13 April 2018 had been prepared by a suitably qualified Arborist with minimum AQF Level 5 qualifications in accordance with requirements of Section 4.1 of the City of Ryde Tree Management Technical Manual 2012. In response, it is noted that the amended Tree Assessment dated 29 October 2018 does not appear to have been prepared by a qualified AQF Level 5 Arborist, however it has been reviewed and certified by one (Michael Shaw – Consulting Arborist). Whilst not ideal, it is considered that this issue has been satisfactorily resolved.

Trees not assessed
Concern was raised in relation to a number of trees located on the subject site and within the neighbouring allotments which had potential to be impacted by the proposal but had not been assessed as part of Tree Assessment submitted by Travers Bushfire and Ecology dated 13 April 2018. Specifically, this included five (5) mature Angophora costata (Smooth Barked Apple) located on the Epping Road frontage, one (1) Corymbia sp. within the adjoining allotment to the south-east 1.5m from the boundary and two (2) Corymbia citriodora located on the adjoining allotment to the north-west. In response, the amended Tree Assessment dated 29 October 2018 has included assessment of an additional twenty (20) trees located on the subject site and neighbouring allotments (including those listed above) as well as a detailed discussion as to the potential for them to be impacted by the proposal. As such, it is considered that this issue has been satisfactorily resolved.

Impact to assessed trees
Concern was raised in relation to the impact of the proposal on a number of trees identified within the Tree Assessment prepared by Travers Bushfire and Ecology dated 13 April 2018. Specifically, this related to the impacts of: a proposed pedestrian pathway within the Structural Root Zone (SRZ) of Trees 18 & 19; the proposed basement driveway within the Tree Protection Zones (TPZ) of Trees 47, 48, 49, 50 & 51 and; installation of stormwater infrastructure which directly conflicted with a number of trees to be retained on site and within the adjoining allotments.

In response, the Landscape Plans have been amended to show the previously proposed pedestrian access impacting the SRZ of Trees 18 & 19 relocated away from this area and now aligned with the building form. Given the proposed permeable surface finish of the path and its new location within the outer edge of the TPZ area, it is considered that this issue has been satisfactorily resolved.

In relation to the impact of stormwater services impacting on various trees identified, it is noted that amended Stormwater Plans prepared by Robert Bird Group dated 17 October 2018 have been submitted in this instance and show the realignment of services away from TPZ/SRZ areas as much as possible. In addition, commentary has been provided within the updated Tree Assessment dated 29 October 2018 as to the impacts posed by the installation of stormwater services within TPZ areas including suggested mitigation methods. It is considered that this issue has been satisfactorily resolved given conditions

surrounding stormwater installation methods (including requirements for horizontal directional drilling) are able to be imposed prior to issue of construction certificate.

Concern still exists, however, in relation to the impacts and proposed retention/removal of Trees 47, 48, 49, 50 & 51 (Cupressus sp.) located adjacent to the south eastern boundary of the subject site. It is noted that the previously submitted Tree Assessment dated 13 April 2018 had shown these trees located on the neighbouring allotment and marked for retention (see Figure 1), however the amended Tree Assessment dated 29 October 2018 has shown these trees located on the subject site and marked for removal (see Figure 2). In addition, it is noted that a similar anomaly has occurred in relation to the proposed retention/removal of Tree 31 (Corymbia maculata) whereby the Tree Assessment dated 13 April shows it located on the neighbouring allotment and marked for retention (see Figure 1) as opposed to the updated Tree Assessment dated 29 October which shows it located on the subject site and marked for removal (see Figure 2). Images taken on site by CPS show these trees located on the neighbouring side of the existing fence line (see Figures 3 & 4) however it is understood the alignment of the fence may not necessarily be in keeping with the cadastral boundary. As such, it is considered that this issue is still outstanding and that further information is required to be submitted by the applicant as to the clarify the exact location and subsequent ownership of these trees. If these trees are deemed to be located on the neighbouring allotment, they must be considered a priority for retention and design changes will be required to reduce the impact of the proposed driveway and basement footprints on their TPZ and SRZ.

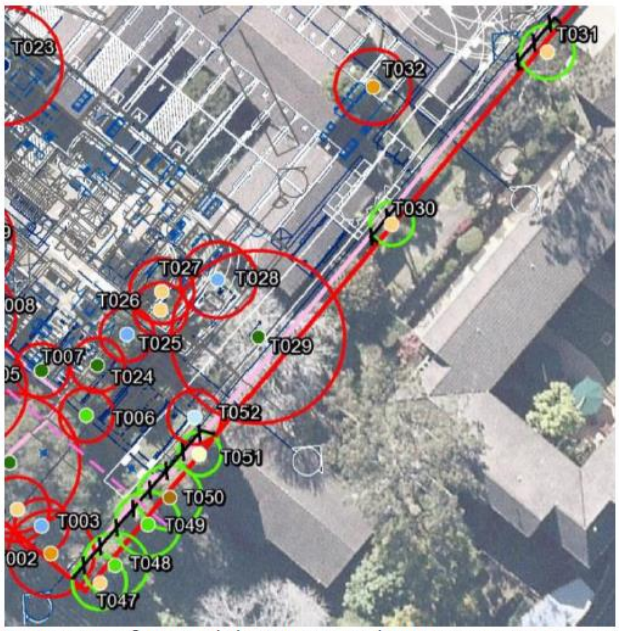


Figure 1: Tree Retention & Removal Plan Extract – April 2018 (Source: Travers Bushfire and Ecology 2018)

Figure 2: Tree Retention & Removal Plan Extract – October 2018 (Source: Travers Bushfire and Ecology 2018)

Figure 4: Image of Trees 47, 48, 49, 50 & 51 (Source: Creative Planning Solutions 2018)

Figure 5: Image of Tree 31 (Source: Creative Planning Solutions 2018)

Epping Road Interface

Concern was raised in relation to the level of landscape design resolution within the front setback of the subject site and the resulting poor relationship between the proposed development and the public domain. Specifically, the absence of any specified canopy trees and overall lack of planting resolution in general.

In response, amended Landscape Plans prepared by Taylor Brammer Landscape Architects dated 17th of October 2018 have been submitted to Council which detail a revised scheme that includes the provision of new canopy trees, shrubs and groundcovers. It is noted that the paved connection to the public domain could be further resolved, however given the substantial additions to planting within the front setback as detailed it is considered that the changes made in this instance are sufficient to soften the scale of the development and provide a satisfactory transition area.

Communal Open Space

A number of concerns were raised in relation the central communal open space. Each of these, along with a detailed commentary as to the suitability of the proposed changes is outlined below:

The Landscape Plans referred to various seating areas however no seating had been indicated on the drawings. Additional forms of fixed and moveable seating in a variety of locations and configurations were required to enable varied recreational opportunities were to be provided.

Comment: *Amended Landscape Plans have now labelled a number of previously defined retaining walls as 'seating walls'. Also re-labelled is the seating located underneath the pergola area at the south-eastern end of the communal open space – this is now defined as 'fixed and movable seating'. Although the amended plans do not appear to define any additional seating areas, it is considered that the clarifications made as part of this submission are sufficient and that this issue has been satisfactorily addressed.*

The provision of a 'seating nook' adjacent to the carpark exhaust was not considered to be acceptable. The carpark exhaust was to be suitably screened through implementation of screen planting solutions to ensure a high level of amenity was provided to the communal open space area.

Comment: *Amended Landscape Plans continue to show seating in this area and no additional screen planting provided. The only changes apparent are the provision of a feature wall finish to the inward facing side of the exhaust unit as well as directional linework showing the path of exhaust fumes directed over the adjacent garden bed and toward the north western boundary. It is noted that the inclusion of the above-mentioned feature wall will screen the exhaust unit to some degree and that exhaust fumes will be directed away from the seating area however the underlying issue remains in that users of the communal open space will be seated directly adjacent to an exhaust unit. As such, it is considered that this issue remains outstanding and that additional screen planting be included and seating be reconfigured in an amended scheme.*

The Landscape Plans and associated legends referred to a number of palm plantings located within the communal open space however the planting schedule did not include any palm species. Details of the proposed palm plantings, if proposed, were to be included within the plant schedule and shown on the plans submitted.

Comment*: The updated planting plan provided as part of the landscape package has removed any notion of palm plantings. As such, this issue is considered to satisfactorily resolved.*

Further details were to be submitted in relation to the purpose and function of the communal facility located within the centre of the communal open space area. The design of the surrounding spaces was to relate to and support the function of the facility.

Comment*: Updated documentation submitted to council fails to provide further clarification as to the purpose and function of this facility. It is noted that a response letter to Council's request for information prepared by Mecone Planning dated 17th October 2018 attempts to address this issue via explanation of this facility as an undercover area containing tables and chairs for residents to use in inclement weather. Despite this, it is considered that the area being referred to in the letter is a separate facility that is no longer part of the proposal. This is evidenced by the inclusion of Figure 6 below as part of their explanation. As such, it is considered that this issue remains outstanding and that further information as detailed in updated Architectural and Landscape plans is required.*

Figure 6: Community facility referenced in response letter (Source: Warren & Mahoney Architects 2018)

The use and future performance of Corymbia ficifolia within the communal open space area was questioned given the limited sunlight availability within the courtyard area. Consideration given to a revised species selection was requested.

***Comment**: It is noted that this species has been removed from the proposed planting plan and replaced with more suitable species. As such, it is considered that this issue has been satisfactorily resolved.*

Further information was to be provided with regards to the locations of proposed tree plantings on site. A dedicated tree planting plan was to be provided which clearly identified all proposed tree plantings to ensure a satisfactory level of canopy cover and screening is provided to the site which compensates for the proposed tree removal.

***Comment**: The revised landscape documentation includes an updated planting plan that now clearly specifies the location of proposed tree plantings. Despite the location of a number of canopy trees being unsuitable given available soil volumes and future canopy size, it is considered that conditions to rectify this will be able to be imposed prior to issue of construction certificate and that the underlying concern regarding tree coverage has been satisfactorily resolved.*

Hard Paving

Concerns were raised in relation to the extent of hard paved terrace areas provided to the ground floor units (NG-01, NG-02, NG-03) as well as the excessive hard paved areas at the site entries at both frontages.

In response, the Architectural and Landscape Plans have remained unchanged. It is noted that a response letter to Council's request for information prepared by Mecone Planning dated 17th October 2018 has sought to justify this by explaining that the proposal meets the deep soil requirements of the Apartment Design Guide (ADG) and that further landscaped areas will not add to the amenity for future occupants. Despite not

addressing previously highlighted concern, it is considered that conditions to rectify this issue will be able to be imposed prior to issue of construction certificate.

Impact to Ecological Value
Concern was raised in relation to the lack of information provided as to the ecological value of six (6) trees detailed within the Tree Assessment that were likely to be part of a remnant Critically Endangered Ecological Community (CEEC): Blue Gum High Forest in the Sydney Basin Bioregion (Trees 18, 19, 23, 35, 36 & 43). Of these, Tree 23 (Elaeocarpus reticulatus – Blueberry Ash) & Tree 36 (Eucalyptus saligna – Sydney Blue Gum) were to be removed.

In response it is noted that a Biodiversity Development Assessment Report prepared by Travers Bushfire & Ecology dated 29 October 2018 has been submitted in this instance and provides an assessment of impacts to Flora and Fauna as a result of the proposal."

A consultant ecologist (Lesryk Environmental) undertook a peer review of this report in order to assess if its findings have been adequately prepared, and if the ecological impacts of the proposal are acceptable. As such, the following comments were provided:

Referral 3

"This letter has been prepared in response to a Peer Review completed by Lesryk Environmental of the Biodiversity Development Assessment Report (BDAR) prepared by Travers Bushfire & Ecology dated 29 October 2018 for a proposed residential flat building development at the subject site being 159-161 Epping Road, Macquarie Park. The Peer Review was commissioned due to concerns originally raised by council in relation to the ecological value of six (6) trees (Trees 18, 19, 23, 35, 36 & 43) as detailed within the Tree Assessment also prepared by Travers Bushfire & Ecology dated 29 October 2018 that were likely to be part of a remnant Critically Endangered Ecological Community (CEEC): Blue Gum High Forest in the Sydney Basin Bioregion. Of these, Tree 23 (Elaeocarpus reticulatus – Blueberry Ash) & Tree 36 (Eucalyptus saligna – Sydney Blue Gum) were to be removed.

The Peer Review completed by Lesryk Environmental assessed the methodology used, clarified the available data as referenced within the report and reviewed compliance with relevant environmental protection and biodiversity conservation legislation. As a result of this review, Lesryk generally concur with the findings as stated within the BDAR including that no significant ecological impact is likely to occur to any Endangered Ecological Community (EEC) as a result of the proposed development.

One minor point of issue that Lesryk has raised within their Peer Review is in relation to the fact that BDAR has chosen to define the above-mentioned trees as part of the EEC: Sydney Turpentine-Ironbark Forest rather than CEEC: Blue Gum High Forest. Whilst it is noted that these two communities share a number of species and are listed within a similar geographical area, Lesryk considers that the BDAR should have provided an explanation why it has chosen to define the trees in this way."

In response to the Peer Review submitted by Lesryk, an email was sent to the applicant requesting additional information in the form of amendments to the BDAR that include a discussion as to why only one ecological community has been represented in order to ensure any impacts to potential Blue Gum High Forest have not been overlooked.

On 20 December 2018, the applicant submitted further information to address the above raised concerns. The following comments were provided:

Referral 4

"A review of the amended documentation submitted has revealed that all outstanding issues associated with the landscape documentation have now been satisfactorily addressed. Despite this, further information is still required in relation to the impact to existing trees and additional detail required within a revised Biodiversity Development Assessment Report.

Each of the previously highlighted concerns as referenced above, along with a detailed commentary as to the suitability of the proposed changes is outlined below:

Impact to assessed trees
Concern was raised in relation to the impacts to Tree 31 (Corymbia maculata) and Trees 47, 48, 49, 50 & 51 (Cupressus sp.) located adjacent to the south-eastern boundary. It was noted that the Tree Assessment prepared by Travers Bushfire & Ecology dated 13 April 2018 and following revisions dated 17 October 2018 & 29 October 2018 offered differing conclusions as to the location/ownership of these of these trees in relation to the boundary and subsequent proposals for retention/removal.

Subsequently, additional information was requested to be submitted to Council in the form of a detailed Survey to be completed by a registered Surveyor that addressed the exact location of these trees in relation to the cadastral boundary line. It is noted that this information is yet to be provided the Council and that this issue remains outstanding.

It is appropriate to note that the proposed development in its current form will result in major, unsustainable incursions to the Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) of these trees. If they are deemed to be located on the neighbouring allotment, they must be considered a priority for retention and design changes will be required to ensure their survival. ***Alternatively, it is considered that the trees can be removed if neighbouring owner's consent is obtained given they will be adequately compensated for via proposed canopy tree planting as included in the proposed landscape scheme.***

Communal Open Space
The provision of a seating area directly adjacent to the carpark exhaust was not considered to be a suitable design solution. The design of this area was to be reconfigured to include a suitable screen planting buffer between the enclosing wall surrounding the exhaust and the proposed seating and lawn areas adjacent to ensure a high level of amenity is provided future users of the space.

In response, amended landscape documentation received as part of this submission has shown the previously proposed seating in this location removed from the proposal and replaced with an angular raised planting bed. It is noted that new proposed plantings contained within this bed are not typically defined as screening species, however they are still considered sufficient in providing a suitable buffer between the exhaust and the defined lawn area adjacent. As such, it is considered that this issue has been satisfactorily resolved.

In addition to the above, further details were to be submitted in relation to the purpose and function of the communal facility located within the centre of the communal open space area. The design of the surrounding spaces was to relate to and support the function of the facility.

Updated landscape documentation submitted to Council has provided further clarification as to the purpose of this facility as a glazed, greenhouse-style enclosure inclusive of varied seating types, interior vertical herb gardens and assorted pot plants. Given this facility is intended for communal use and includes a selection of varied seating and planting types, it is considered that it will serve as a valuable addition to the wider communal open space area. As such, it is considered that this issue has been satisfactorily resolved."

The applicant made a further submission of amended documentation to address the outstanding matters. The following comments were provided:

Referral 5

"*A review of the amended documentation submitted has revealed that original concerns relating to impacts to Tree 47-51 have now been satisfactorily addressed through design modifications and as such is now supported.*

Additional commentary is still outstanding regarding the Biodiversity Development Assessment Report. In this regard, The Biodiversity Development Assessment Report prepared by Travers Bushfire & Ecology is to be updated to include a discussion as to why Trees 18, 19, 23, 35, 36 & 43 were defined under EEC: Sydney Turpentine-Ironbark Forest and not CEEC: Blue Gum High Forest in the Sydney Basin Bioregion."

Further clarification in relation to how those specific trees were defined under EEC: Sydney Turpentine-Ironbark Forest and not CEEC: Blue Gum High Forest in the Sydney Basin Bioregion was submitted by the applicant to Council for review. These final comments were provided:

Referral 6

"As previously highlighted, further information was requested to be provided within the BDAR that detailed a justification as to why Trees 18, 19, 23, 36 & 43 were defined under EEC: Sydney Turpentine-Ironbark Forest (STIF) and not CEEC: Blue Gum High Forest in the Sydney Basin Bioregion (BGHF).

A review of the amended BDAR has revealed that, essentially; due to a lack of species diversity on site and lack of remnant understory vegetation, the only way to split the two communities was by conducting an assessment of the soil type and site elevation – each of these being overwhelmingly more consistent with STIF rather than BGHF.

It is considered that the amendments made in this instance constitute a logical argument that provides a sufficient level of detail in response to the previous request for information and that Council can be reasonably satisfied that the ecological communities currently present on the subject site have been accurately represented.

As this was the only item that remained outstanding following those previous requests for information, the proposal is now fully supported from both a landscape & ecological perspective."

Appropriate conditions of consent have been included in the application. (See **condition numbers 27-29 and 103-111**).

12. LIKELY IMPACTS OF THE DEVELOPMENT

All likely impacts of the proposed development have been considered within the context of this report.

13. PUBLIC NOTIFICATION & SUBMISSIONS

The application was publicly exhibited from 11 May 2018 to 15 June 2018 and an advertisement was placed in the *Northern District Times* on 16 May 2018 in accordance with the relevant provisions of the RDCP 2014.

One (1) submission was received during this time, raising the following concerns:

- **Building separation and solar access**

It is noted that on the eastern and western boundaries, windows to habitable rooms and balconies have been designed to include a screened opening. This variation to the design criteria recommended by the Apartment Design Guide, combined with failing to achieve the design criteria for solar access, indicates that the design should be reconsidered to achieve an appropriate built form that responds to the site constraints.

Comment: As stated above, the UDRP acknowledged the original design provided louvre screens to overcome the building separation and instead, the Panel recommended deleting the louvres and introducing translucent glazing to enable better light quality while maintaining privacy. This recommendation was adopted and amended plans submitted.

In terms of solar access, it is inevitable that the increased density of the subject site will pose some impact on the adjoining property to the south-east. In this regard, the applicant's strategy to orientate the buildings in the north-west to south-east orientation has kept this impact to a minimum by reducing the mass of the building along the side boundaries. The applicant has supplied a comparison of the shadow cast from the existing development onto the neighbouring site as opposed to the shadow cast by the proposed development onto the neighbouring site. The purpose of this analysis is to identify overshadowing impacts from the proposed built form on the existing buildings located on the Baptist Care site. The outcomes of the analysis are illustrated in **Figure 18** and conclude that:

- No change is shadowing occurs between 9am and 11am.
- Minor overshadowing of the building from the proposed building at 12noon.
- Majority of overshadowing occurs between 9am and 10am and 1pm and 3pm.

It is considered that the solar access retained by the building adjoining the subject site to the south east is acceptable as it will maintain at least 2 hours of direct solar access to the private open spaces between 9am – 3pm in mid-winter.

NEIGHBOURING DEVELOPMENT SHADOW ANALYSIS

Existing

Proposed

9:00am

10:00am

Existing

Proposed

11:00am

12:00pm

Existing

Proposed

1:00pm

2:00pm

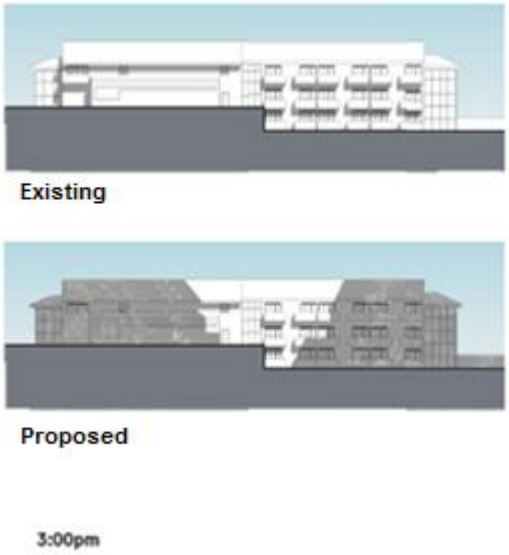


Figure 18: Neighbouring Development Shadow Analysis (Source: Warren and Mahoney)

- **Interface with Baptist Care on Eucalyptus Street**

Due to the current use of the site, which accommodates a number of residential aged care and independent living units in a 'village' type precinct, and the future use of the site which will seek to maintain this village character whilst providing a greater mix of uses, it is considered a high priority that LDA2018/0171 does not sterilise the streetscape on the Eucalyptus Street boundary.

Comment: A setback of 10 metres has been provided to the rear property boundary which adjoins Eucalyptus Street. Whilst the subject site will be denied access to Eucalyptus Street, the amended design allows for future activation to Eucalyptus Street (should future development of the Baptist Care site come to fruition), and allows future development of the streetscape. It is therefore considered that the Eucalyptus Street streetscape will not be sterilised.

- **Vehicle access**

BaptistCare notes that the proposal seeks approval for one vehicle access point from Epping Road, which will be left-in and left-out only. This arrangement means that any resident or visitor wishing to access the site who is travelling from the east would need to drive past the site, make a U-turn and then travel back down Epping Road to access the site. It is noted that the development application makes reference to BaptistCare refusing to grant vehicle access through the site. BaptistCare wish to clarify that their position is that they will not grant vehicle access through their site at the current time, however would consider potential future access, due to:

- The existing use as a residential aged care facility and independent living units. Eucalyptus Street provides local access for residents of the site and is not designed to operate as a thoroughfare for additional traffic; and
- The imminent master plan for the site may alter vehicle access. The BaptistCare site will be required to provide a road through the site, as set out in both the Ryde Development Control Plan and the Department of Planning and Environment's Macquarie Park Priority Precinct Structure Plan. As the location of this road will be finalised following an assessment of the site constraints, BaptistCare does not wish

to commit to providing vehicle access to the proposed development until the location of its internal roads are confirmed.

Comment: Noted, however it would be unreasonable to expect the developer of this site to delay the commencement of proposal subject to the master plan of the Baptist Care site being finalised. As stated above, RMS has been notified of the proposal and raises no objections in this regard.

14. CONCLUSION

This report considers an application for the construction of a 2 x residential flat buildings at 159 – 161 Epping Road, Macquarie Park.

The development results in several minor variations to the ADG requirements being:

- Part 3, Objective 3F – Visual Privacy
- Part 4, Objective 4A - Solar access
- Part 4, Objective 4D - Apartment size and layout (bedrooms sizes and apartment depth)
- Part 4, Objective 4E - Private Open Space size and dimensions
- Part 4, Objective 4F – Common circulation and spaces (maximum number of units off circulation core)

The development also proposes three variations to the Ryde DCP Part 4.5 – Macquarie Park Corridor, namely the 10m front setback along Epping Road (Section 7.4), the maximum allowable floor plate size above 8 storeys (Section 7.8), and maintaining the natural ground level for a zone of 4m from side and rear boundaries (Section 8.4). These variations are relatively minor and can be supported on planning grounds.

Despite the variations sought, the form and scale of the proposed development are considered to be generally characteristic of other large scale developments along Epping Road. The proposed apartments will receive good levels of amenity in terms of views, natural light and ventilation.

The land dedication of 3.5 metres to accommodate the decelaration lane if in future RMS need to widen Epping Road is considered not to have a detrimental effect on the overall public domain interface along Epping Road in this area, as the proposed development will continue to generally align with any new buildings associated with the redevelopment of the Baptist Care site allowing the continuation of planting, whilst responding to the desired streetscape character. It is noted that RMS currently have no plan to widen Epping Road, however RMS is preserving land for any future road works, when and if required.

Extensive investigations have been taken into the trees within the site and on adjoining land, the maximum allowable floor plate size above 8 storeys (Section 7.8), including remanent trees forming part of the STIF endangered ecological community. Both the applicant's arborist and ecologist, together with Council's consultant Landscape Architect and Ecologist are satisfied that the subject trees have been satisfactorily assessed and that the extent of the impact of the proposed works (including installation of stormwater pipes and the construction of the eastern basement access and service ramp) on trees as being retained are considered to be satisfactory, provided that the relevant tree protection

measures are implemented prior to and during construction. Furthermore, the removal of tress will be offset through the inclusion of replacement planting, including locally occurring native species commensurate with STIF including trees, shrubs and ground covers within the developments' landscaping.

The development is consistent with the desired future character of the precinct as identified in the relevant planning instruments. The application relies on the incentive provisions in respect to height that are permitted by the Ryde Local Environmental Plan 2014.

Having regard to the provisions of Section 4.15 of the Environmental Planning & Assessment Act 1979, the application is considered to be reasonable in the context of the site, and is recommended for approval subject to appropriate conditions of consent provided in Attachment 1 of this report.

15. RECOMMENDATION

Pursuant to Section 4.16 of the Environmental Planning and Assessment Act, 1979 the following is recommended:

A. That the Sydney North Planning Panel grant deferred commencement consent to development application LDA2018/171 for the construction of a 2 x residential flat buildings at 159-161 Epping Road, Macquarie Park subject to the conditions of consent in Attachment 1 of this report.
B. That a copy of the development consent be forwarded to RMS.
C. That the objector be advised of the decision.

Report prepared by:

Tony Collier
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Report approved by:

Sandra Bailey
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Liz Coad
Director City Planning and Environment