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URBIS

CLAUSE 4.6 VARIATION REQUEST (HEIGHT)

Proposed Mixed Use
Development

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The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

Title: Sacred River Dreaming
Artist Hayley Pigram
Darug Nation
Sydney, NSW

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1. INTRODUCTION

This Clause 4.6 Variation Request (**the Request**) has been prepared on behalf of Cottonwood Development Pty Ltd (**the Applicant**) and accompanies a Development Application (**DA**) – LDA2024/0158 – for the proposed mixed-use development at 15-21 Cottonwood Crescent, Macquarie Park (**the site**).

The request seeks an exception from the maximum permitted building height control that applies to the site under Clause 4.3 of the *Ryde Local Environmental Plan 2014 (RLEP2014)*. The request is made pursuant to Clause 4.6 of the RLEP 2014 and should be read in conjunction with the amended DA package for which this request supports.

The following sections of this request include:

- **Section 2:** A description of the site and brief overview of the proposed development (as amended).
- **Section 3:** Identification of the relevant environmental planning instrument and the relevant development standard which is proposed to be varied, including the extent of contravention.
- **Section 4:** Justification for the proposed variation including assessment of the variation in accordance with Clause 4.6 of the LEP.
- **Section 5:** Summary and conclusion.

1.1. PROJECT BACKGROUND

This Clause 4.6 Variation Request has been updated in response to ongoing consultation with Council and the UDRP regarding the bulk, height and overall scale of development at the site. Specifically, it has been amended to address the provisions of Clause 4.6 with respect to the reduced height of development, as reflected in the updated Architectural Plans that accompany this document. The following changes have immediate relevance to the assessment of this Clause 4.6 Variation Request:

- **Height of Development:**

The maximum height of the proposed development has been reduced, following the implementation of massing refinements in relation to the Cottonwood Tower. The following is noted in summary:

- **Cottonwood Tower:**

The maximum height of the Cottonwood Tower has reduced from RL 120.3m to RL 117.1m. The maximum height of development above existing natural ground level has reduced from 73.3m to 71m. The numerical extent of the proposed height variation that is presented by the Cottonwood Tower has reduced from 12.8% to 9.2% of the standard to be varied.

- **Waterloo Tower:**

The maximum height of the Waterloo Tower has been retained at RL 113.9m (69.9m above existing natural ground level). The numerical extent of the proposed height variation that is presented by the Waterloo Tower (7.54% of the standard to be varied) remains exceedingly minor.

- **Residential Apartments above Height Plane:**

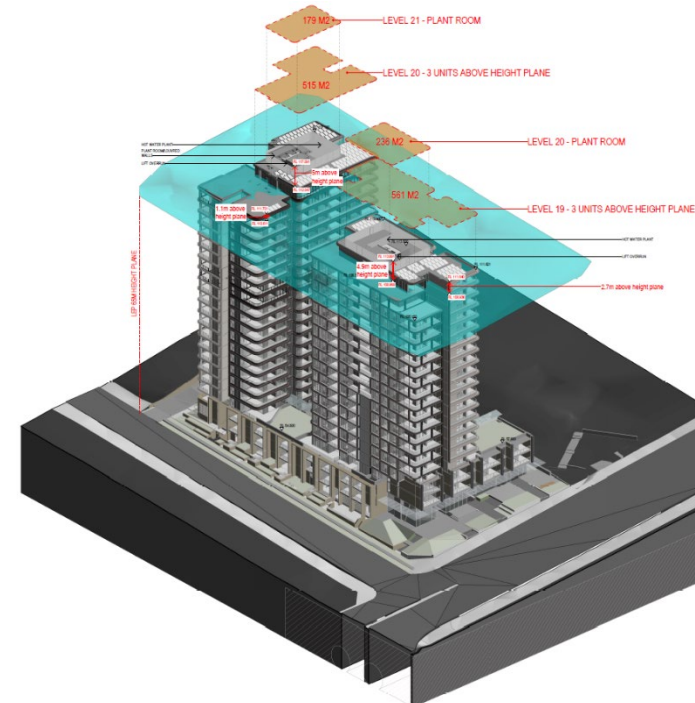
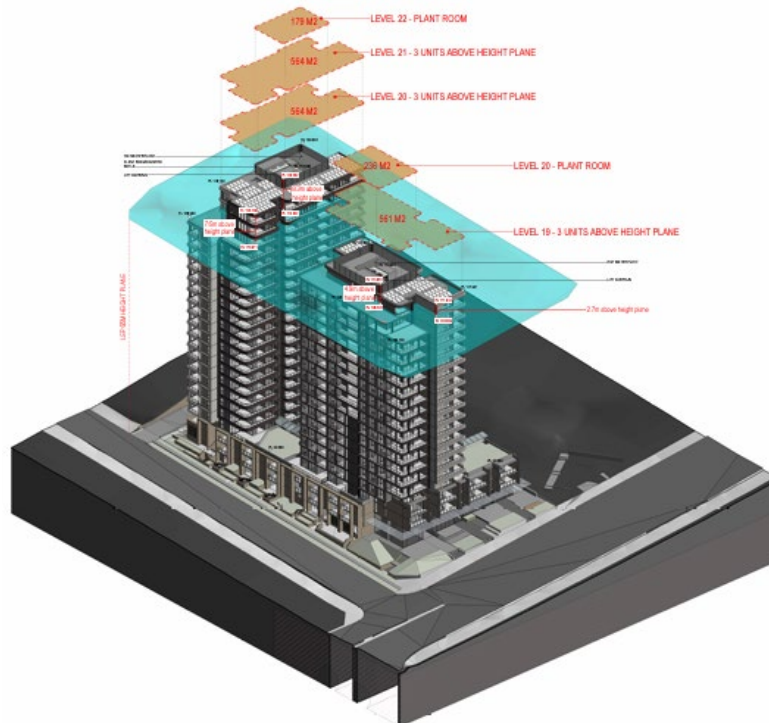
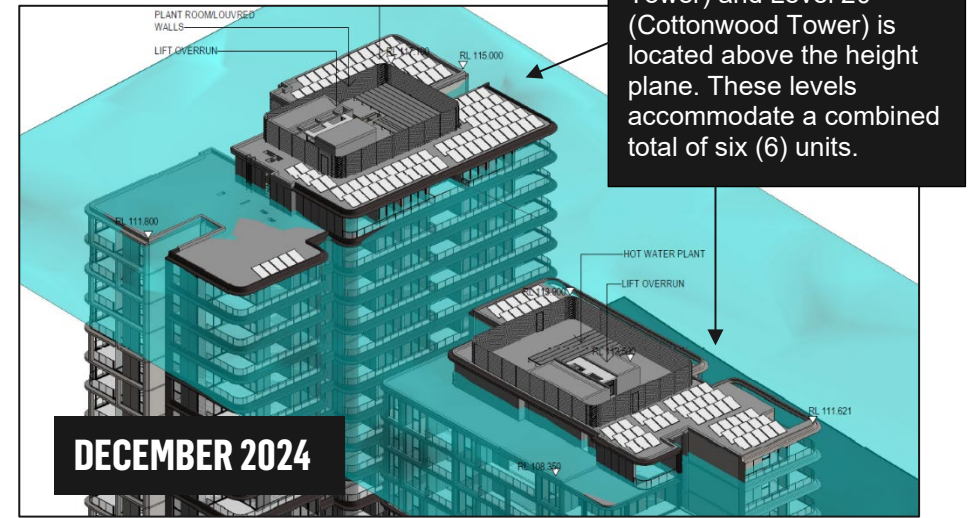
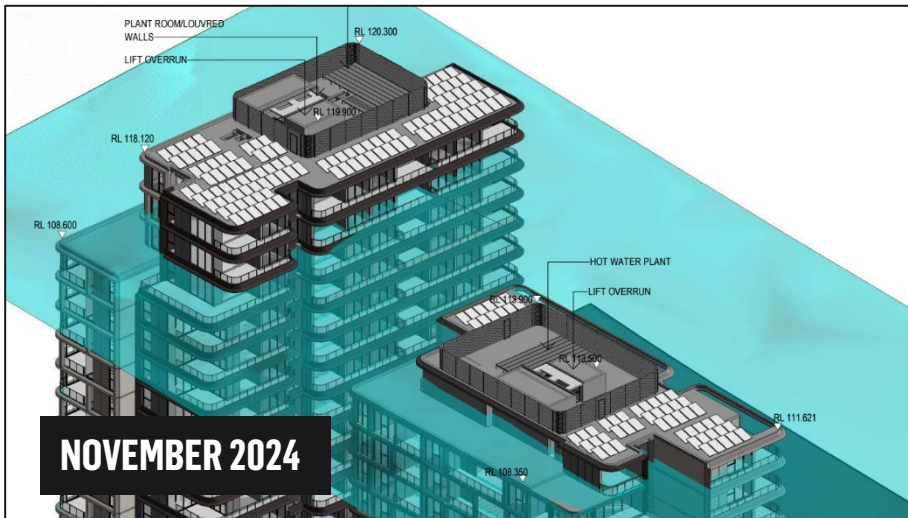
The number of residential apartments above the maximum permitted building height (65m) has reduced from nine (9) apartments to six (6) apartments. The net reduction of three (3) apartments above the maximum permitted building height is negligible relative to the overall dwelling yield of two-hundred and fifty-five (255) residential apartments, which has not changed. This net reduction is based on the partial (not full) proportion of Level 20 (Cottonwood Tower) and Level 19 (Waterloo Tower) that is located above the height plane.

- **Gross Floor Area:**

The GFA of the proposed development has increased from 23,071m² to 24,323m². The submission of a separate Clause 4.6 Variation Request to vary Clause 4.4 follows the inclusion of this additional GFA (+1,252m²), which is attributed to the provision of enclosed corridors instead of the breezeways that were previously proposed.

The proposed height reduction is compared to what was previously proposed at **Figure 1** (overleaf).

Figure 1 – Proposed Height Reduction (December 2024)



2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

2.1. SITE DESCRIPTION

The site consists of four (4) properties at 15-21 Cottonwood Crescent, Macquarie Park. The area and associated legal lot entity for each property within the site has been identified in **Table 1**. An aerial of the site is provided at **Figure 1** (overleaf).

The site benefits from two (2) street frontages to Waterloo Road (north) and Cottonwood Crescent (east), in addition to a high-amenity interface with Elouera Reserve (west). The south-western site boundary adjoins two (2) residential properties at 13 Cottonwood Crescent and 12-14 Lachlan Avenue. The approximate length of each site boundary is listed below. The site is currently connected to all necessary services including water, gas, electricity, communications and sewage.

- **North-east:** 52.45m to Waterloo Road.
- **South-east:** 97.35m to Cottonwood Crescent.
- **South-west:** 50.6m to 13 Cottonwood Crescent and 12-14 Lachlan Avenue.
- **North-west:** 100.9m to Elouera Reserve.

Table 1 Legal Site Description

Address	Legal Lot Entity	Area
15 Cottonwood Crescent, Macquarie Park	SP8144	1,284m ²
17 Cottonwood Crescent, Macquarie Park	SP7630	1,284m ²
19 Cottonwood Crescent, Macquarie Park	SP7892	1,284m ²
21 Cottonwood Crescent, Macquarie Park	SP7984	1,278m ²
Total Site Area		5,130m ²

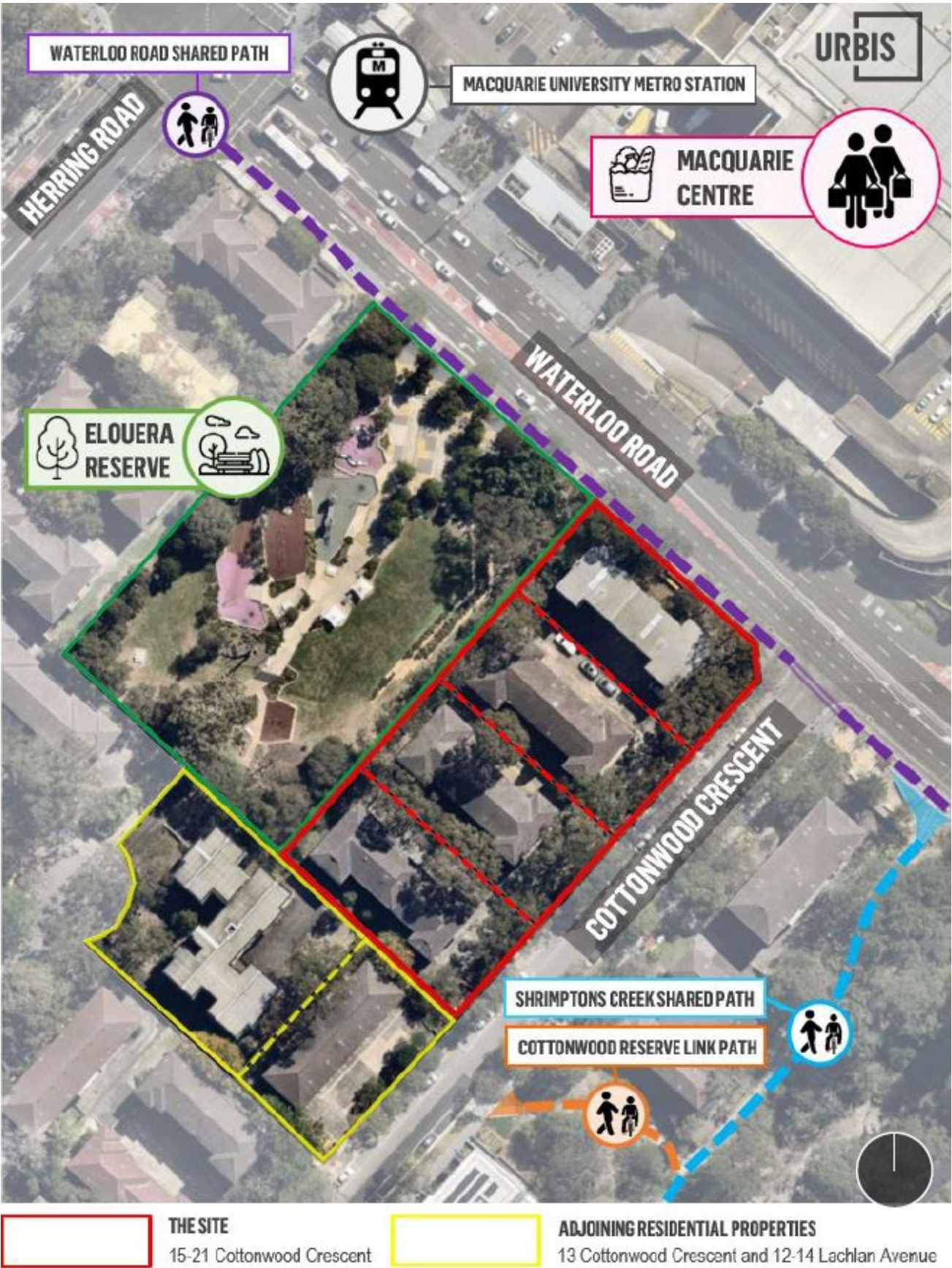
1.1.1. Existing Development

Each property within the site accommodates a stand-alone four-storey residential flat building. Existing development at the site is summarised in **Table 2**. and is shown at **Figure 2** and **Figure 3** (overleaf).

Table 2 Description of Existing Development

Address	Existing Development	No. Units
15 Cottonwood Crescent, Macquarie Park	Four-storey residential flat building. Name unknown. Primary frontage and vehicle access at Cottonwood Crescent.	15
17 Cottonwood Crescent, Macquarie Park	Four-storey residential flat building known as 'Darvall Court'. Primary frontage and vehicle access at Cottonwood Crescent.	15
19 Cottonwood Crescent, Macquarie Park	Four-storey residential flat building known as 'Oxley'. Primary frontage and vehicle access at Cottonwood Crescent.	15
21 Cottonwood Crescent, Macquarie Park	Four-storey residential flat building. Name unknown. Primary frontage to Waterloo Road. Vehicle access at Cottonwood Crescent.	15

Figure 2 - Site Aerial



Source: Urbis (excl. Nearmap Aerial Underlay)

2.1.1. Site Topography

The maximum elevation across the site is approximately RL 50m AHD, located in the western portion of the site at the top of the existing retaining wall on 15 Cottonwood Crescent. Surface elevations on the site generally fall by 4m towards the north-east and south-west, with several steps in elevation due to the existing retaining structures at the site.

The sloped gradient of the site is relevant to the assessment of the proposed height variation (refer to **Section 4.2**), particularly in relation to the concentration of additional building mass towards the rear of the site where ground excavations will be undertaken to accommodate the basement and building foundations for the Cottonwood Tower.

2.2. PROPOSED DEVELOPMENT

The proposed development includes:

- Demolition of existing residential flat buildings at the site.
- Bulk earthworks, including ground excavations to accommodate building foundations and basement car parking facilities.
- Construction of two (2) residential towers above a single mixed-use podium with a total Gross Floor Area (GFA) of 24,323m², including:
 - Cottonwood Tower: 20 storeys.
 - GFA of 12,060m².
 - 124 residential apartments.
 - Waterloo Tower: 19 storeys.
 - GFA of 12,263m² (including 263m² of retail GFA).
 - 131 residential apartments.
- Vehicle access to the proposed basement car parking facilities from Cottonwood Crescent.
- A maximum of 288 car parking spaces.
- Landscaping and vegetation management, including: Total landscaping: 2,442m², accounting for 48% of the total site area.
 - Tree canopy coverage: 30% of the total site area
 - Trees removed: 40.
 - Trees proposed: 54 (net +14).
 - Minor public domain works, including landscaping and surface embellishments along the Waterloo Road frontage.

3. PLANNING INSTRUMENT, DEVELOPMENT STANDARD AND PROPOSED VARIATION

3.1. ENVIRONMENTAL PLANNING INSTRUMENT

This request seeks a variation to the FSR development standard prescribed under Clause 4.3 of the RLEP 2014. This variation request is made pursuant to Clause 4.6 of the RLEP2014.

3.2. SITE ZONING

The site is zoned MU1 Mixed Use pursuant to the zoning provisions under the RLEP2014 (refer to **Figure 2** below).

Figure 3 - Applicable Land Use Zone



Source: NSW Planning Portal Spatial Viewer (adapted by Urbis)

3.3. DEVELOPMENT STANDARD TO BE VARIED

The development standard to be varied is imposed by Clause 4.3(2) of the RLEP 2014. This development standard specifies that the "height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map". The site is subject to a maximum permitted building height of 65m under Clause 4.3 of the RLEP 2014 (refer to **Figure 4** overleaf).

Figure 4 – Extract: Height of Buildings Map - Sheet HOB_004



Source: Ryde Local Environmental Plan 2014 (adapted by Urbis)

3.4. EXTENT OF PROPOSED HEIGHT VARIATION

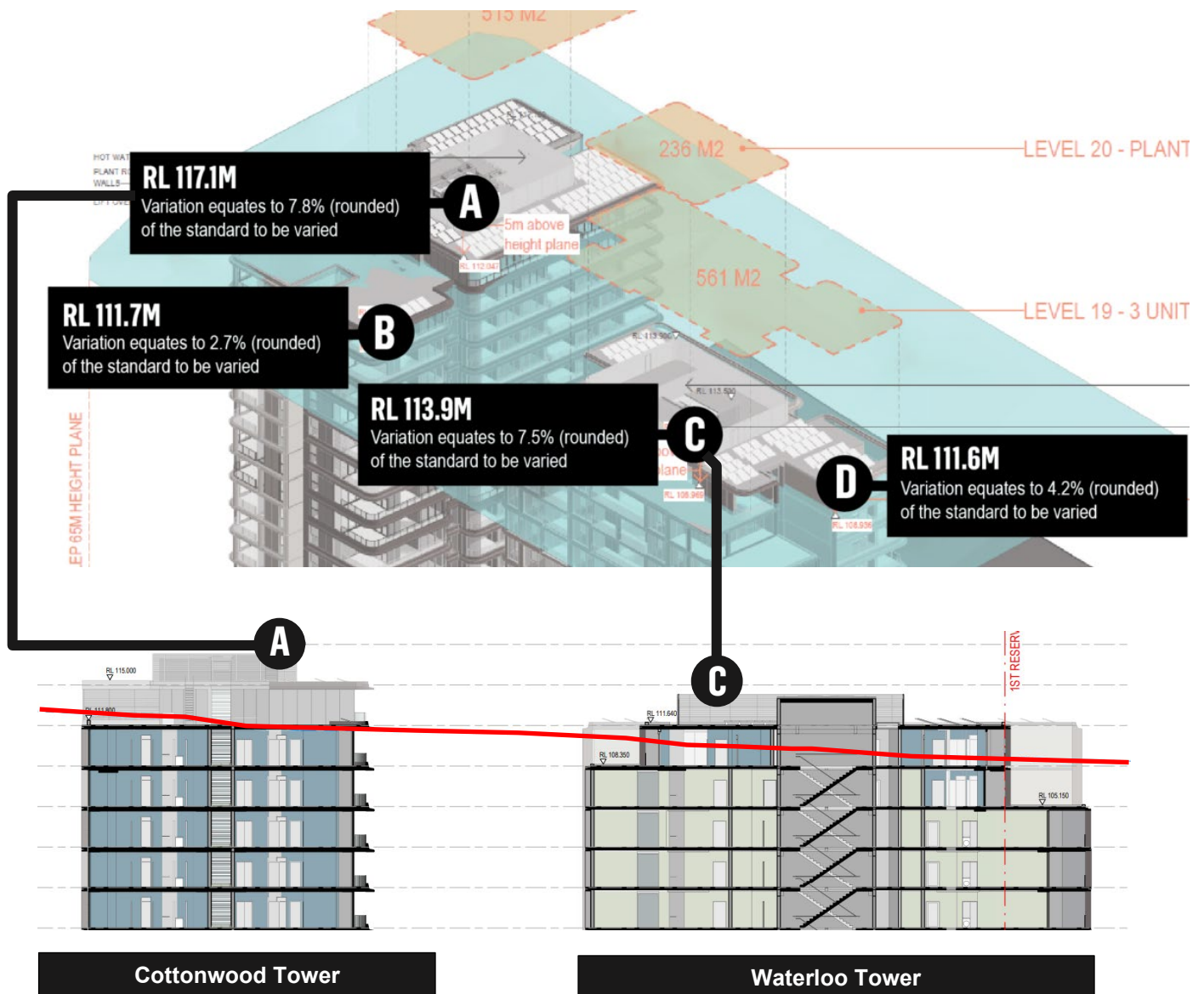
Table 3 provides a variable breakdown of the proposed height variation based on roofline measurements at different aspects of the proposed built form. Importantly, the height exceeds the maximum 65m building height at varied locations and does not include an upper limit maximum across one uniform plane. This has been strategically designed to balance the bulk and scale of the building, whilst placing the highest points of the built form internal to the site, limiting potential impacts on adjoining receivers. These roofline measurements are shown overleaf at **Figure 5**.

Table 3 Breakdown of Height Variation (December 2024)

Measurement Point <i>Refer to Figure 6 (overleaf)</i>	Permitted Height	Height Above Permitted	Height Above Existing Natural Ground Level	Extent of Variation (%)
Cottonwood Tower				
A RL 117.1m	65m RL 112.05m	5.1m (rounded)	70.1m (rounded)	7.8% (rounded)
B RL 111.7m	65m RL 110.6m	1.1m (rounded)	66.1m (rounded)	2.7% (rounded)
Waterloo Tower				
C 113.9m	65m RL 109m	4.9m (rounded)	69.9m (rounded)	7.5% (rounded)

Measurement Point <i>Refer to Figure 6 (overleaf)</i>	Permitted Height	Height Above Permitted	Height Above Existing Natural Ground Level	Extent of Variation (%)
D 111.6m	65m RL 109m	2.7m (rounded)	67.7m (rounded)	4.2% (rounded)
Maximum Extent of Height Variation (averaged between the highest point of both towers)				
Average	65m	5.0m (rounded)	70m (rounded)	7.7%

Figure 5 – Height Plan Isometric Diagram (December 2024) – Annotated Close Up



Source: AJC (adapted by Urbis)

NB: Further reference should be made to the full diagram within the updated Architectural Plans.

4. JUSTIFICATION FOR THE PROPOSED VARIATION

The following sections provides responses to the key items required to be addressed when considering a variation under the provisions of Clause 4.6. This request has been informed by an assessment of the proposal on:

- Whether compliance with the Development Standard is unreasonable or unnecessary in the circumstances of the case.
- Whether there are sufficient environmental planning grounds to justify contravening the development standard.

This assessment finds that the proposed variation is well-founded and that due to the technical non-compliance brought about by the proposed amendments to the design, the proposal and extent of variation warrants flexibility in the application of the maximum permitted building height control.

4.1. CLAUSE 4.6(2) – IS THE PLANNING CONTROL A DEVELOPMENT STANDARD THAT CAN BE VARIED?

The maximum permitted building height control that applies to the site (65m) is a numeric development standard capable of being varied under Clause 4.6 of the RLEP 2014.

The proposed height variation is not excluded from the operation of Clause 4.6(2) as it does not comprise any of the matters listed within Clause 4.6(6) or Clause 4.6(8) of the RLEP 2-14.

4.2. CLAUSE 4.6(3)(A) – IS COMPLIANCE WITH THE DEVELOPMENT STANDARD UNREASONABLE OR UNNECESSARY IN THE CIRCUMSTANCES OF THE CASE?

This Clause 4.6 Variation Request references the ‘First Method’ outlined in *Wehbe v Pittwater Council [2007]* NSWLEC 827. The objectives of Clause 4.3 and the MU1 Mixed Use Zone are addressed in **Table 4**. Further reference should be made to Section XX and Section XX.

Table 4 ‘First Method’ – Consistency with Objectives of Clause 4.3

Objective	Assessment	Consistency
(a) <i>to ensure that street frontages of development are in proportion with and in keeping with the character of nearby development,</i>	<p>This DA seeks approval for a scale of development that is anticipated in the local area and responds to the topography of the site in relation to the bulk and height of the proposed tower forms. The following is noted in this regard:</p> <ul style="list-style-type: none">▪ The north-western quadrant of the Macquarie Park Corridor (Herring Road Urban Activation Precinct) has emerged as the focal point of a burgeoning high-density residential property market. This is outlined in further detail within Section 2.3 of the SEE.▪ The visual context for the site and surrounding local area is characterised by high-rise tower forms along Waterloo Road, south of Shrimptons Creek including to the immediate east of the site along either side of the Shrimptons Creek open space corridor.▪ The topography of the site, which is characterised by a shallow slope from the south-west towards the north-east. Accordingly, the height of the proposed development is concentrated towards the south-west of	Consistent.

Objective	Assessment	Consistency
	<p>the site where building mass for the Cottonwood Tower is proposed above the permitted building height to a maximum elevation of RL 117.1m. The Waterloo Tower is constructed to a lower maximum elevation of RL 113.9m, which is appropriate to the reduced ground level elevation towards the north-east corner of the site. Both tower forms propose one (1) level of habitable floorspace above the maximum permitted building height. The subsequent extent of the proposed height variation is minor, equating to 7.8% (Cottonwood Tower) and 7.5% (Waterloo Tower) of the standard to be varied. These similar values represent the highest point of each tower form.</p> <ul style="list-style-type: none"> ▪ Macquarie shopping centre and mixed-residential development at 1 Macquarie Place located opposite and along the north side of Waterloo Road, are characterised by long low (bulky 3 to 4 storey podium forms and tall tower forms. ▪ The proposed development is generally consistent with the required setbacks to Waterloo Road and Cottonwood Crescent under the RDCP 2014. A streetscape design outcome has been achieved that is anticipated under the local planning framework. 	
<p>(b) <i>to minimise overshadowing and to ensure that development is generally compatible with or improves the appearance of the area,</i></p>	<p>The updated Architectural Plans that accompany this document include Shadow Diagrams that show the extent of shadowing that will be cast by the proposed development.</p> <p>This material has been considered within Section 4.2.1 of this Clause 4.6 Variation Request, and it has been demonstrated that:</p> <ul style="list-style-type: none"> ▪ The tower forms have been recessed back from the primary façade alignment at the upper levels to minimise the extent of overshadowing that is attributed to the proposed height variation. ▪ The proposed extent of overshadowing will not result in an unacceptable reduction to the level of solar amenity afforded to surrounding residential development. ▪ As outlined in the row above, this DA seeks approval for a scale of development that is anticipated in the local area, including in relation the bulk and height of the proposed tower forms. ▪ The SEE and Design Report have outlined the design rationale for streetscape interface treatments, landscaping, tree planting and the massing approach for the proposed development. The level of amenity afforded 	<p>Consistent.</p>

Objective	Assessment	Consistency
	<p>to the adjoining streetscapes of Cottonwood Crescent and Waterloo Road will improve from existing.</p> <ul style="list-style-type: none"> There will be no unacceptable reduction to solar amenity as a result of shadowing that will be cast by the proposed development, inclusive of the proposed height variation. 	
<p>(c) <i>to encourage a consolidation pattern and sustainable integrated land use and transport development around key public transport infrastructure,</i></p>	<p>Section 4.4 of Part 4.5 within the <i>Ryde Development Control Plan 2014 (RDCP 2014)</i> promotes the uptake of sustainable transportation modes, including public transport.</p> <p>The site is immediately adjacent to an existing bus stop that is serviced by a number of high-frequency bus routes. Importantly, the site is located within the walkable catchment of the Macquarie University Metro Station.</p> <p>The proposed development will achieve significant uplift within a transit-oriented context. This is consistent with the intended effect of Objective (c), including in relation to the finer-grain implementation of this object under the RLEP 2014.</p> <p>Further, Section 5.8.4 of the SEE has demonstrated that a sustainable travel management outcome can be readily achieved by the proposed development. This will be supported by a Travel Plan, which will be prepared in accordance with the Travel Plan Guidelines and supplied to Council before a Construction Certificate is issued.</p>	Consistent.
<p>(d) <i>to minimise the impact of development on the amenity of surrounding properties,</i></p>	<p>Further reference should be made to the following material:</p> <ul style="list-style-type: none"> Section 4.2.1, of this Clause 4.6 Variation Request which demonstrates that the proposed development will not result in any unacceptable adverse reduction to the level of solar amenity afforded to surrounding development and public spaces. Section 5.11.2 of the SEE, which demonstrates that the proposed development will not result in any unacceptable reduction to the level of acoustic amenity that is currently afforded to surrounding noise receptors. The RFI Response material that was submitted to Council in November 2024, which outlines how the proposed development presents a quality interface to Elouera Reserve that will achieve a secure outcome for residents without compromising the level of visual amenity afforded to this public space, as well as vice versa with members of the public utilising public open space. Section 3 of the SEE, which provides an outline of the high-quality landscape, façade and boundary treatments 	Consistent.

Objective	Assessment		Consistency
	<p>that have been incorporated through a carefully considered design approach.</p> <p>The proposal is consistent with Objective (d), notwithstanding the proposed height variation.</p>		
(e) <i>to emphasise road frontages along road corridors.</i>	Waterloo Road	<p>The Waterloo Tower podium form presents a well-defined active frontage to Waterloo Road with a 'Grand Resident Lobby' towards the corner of Waterloo Road and Cottonwood Crescent. This includes provision for extensive display glazing to two (2) proposed retail tenancies at the Lower Ground Level and Upper Ground Level.</p> <p>The proposed development incorporates a ten (10) metre built form setback from the street interface with stepped terraces and landscaping to deliver on the vision for a 'Linear Park' along Waterloo Road under the <i>Waterloo Road Active Street Masterplan (WRM)</i>.</p> <p>The design rationale for the proposed podium form and street wall alignment along the Waterloo Road frontage is outlined in detail within the RFI Response material that was submitted to Council in November 2024.</p> <p>The proposed development is consistent with Objective (e) as it relates to the Waterloo Road frontage.</p> <p>As shown in Figure 5, it is further noted that the numerical extent of the proposed height variation reduces towards the Waterloo Road frontage where the vast majority of pedestrian receptors will observe the proposed development from. As discussed above in relation to Objective (a), the reduced height of development (December 2024) responds appropriately to the undulating topography of the site, which is characterised by a shallow downward slope from the south-west to the north-east.</p>	Consistent.
	Cottonwood Crescent	<p>The prominence of 3-storey street wall and walk-up 'terrace style' maisonette dwellings at the Cottonwood Crescent interface is appropriate to the lower volume of pedestrian movement and residential character form</p>	Consistent.

Objective	Assessment	Consistency
	<p>along this suburban street. The design approach was adopted following ongoing consultation with Council's Urban Design Review Panel which assisted towards the achievement of a streetscape design outcome that is appropriate to the transitioning profile of the local area. Further reference should be made to the RFI Response material that was supplied to Council in November 2024, which provides a response to feedback that has been received to date from Council and the UDRP.</p> <p>Development along the Cottonwood Crescent frontage satisfies the requirement for a 5m built form setback to <i>"all existing and new streets unless otherwise specified"</i> under Part 4.5 of the RDCP 2014. Terraced landscaping and trees are proposed at this frontage to reinforce the natural profile of the local area. This planting is intended as a buffer to afford an appropriate level of privacy and amenity to the private outdoor terraces of the 3-bedroom maisonette dwellings, whilst still providing an aesthetically pleasing design when viewed from the public domain and for passersby.</p> <p>The refined design rationale for the proposed podium form and street wall alignment along the Cottonwood Crescent frontage is outlined in detail by the RFI Response material that was supplied to Council in November 2024.</p> <p>The proposed development is consistent with Objective (e) as it relates to the Cottonwood Crescent frontage.</p>	

4.2.1. Additional Discussion – Overshadowing (December 2024)

The updated Shadow Diagrams within the amended Architectural Plans (December 2024) clearly identify the extent of overshadowing cast from the proposed development that is attributable to the reduced extent of the proposed height variation. These Shadow Diagrams should be reviewed in conjunction with this section. Extracts of these shadow diagrams are provided overleaf (refer to **Figure 6** and **Figure 7**).

The points below are to be considered with regard for Objective (b) of the standard to be varied, as outlined in **Table 4**.

- **The height of the proposed tower forms is reasonable to anticipate with respect to site-specific topography.**

The topography of the site, is characterised by a shallow slope from the south-west towards the north-east. The height of the proposed development is concentrated towards the south-west of the site where building mass for the Cottonwood Tower is proposed above the maximum permitted building height to a maximum elevation of RL 117.1m.

The Waterloo Tower is constructed to a lower maximum elevation of RL 113.9m, which is appropriate to the reduced ground level elevation towards the north-east corner of the site. Both tower forms propose one (1) level of habitable floorspace above the maximum permitted building height. Further, the full proportion of these levels (Level 20 for the Cottonwood Tower and Level 19 for the Waterloo Tower) is not located above the height plane. The subsequent extent of the proposed height variation is minor, equating to 7.8% (Cottonwood Tower) and 7.5% (Waterloo Tower) of the standard to be varied. These similar values represent the highest point of each tower form.

- **The tower forms have been recessed back from the primary façade alignment at the upper-most levels to minimise the extent of overshadowing that is attributed to the proposed height variation.**

The tower forms have been recessed back from the primary façade alignment at the upper-most levels to minimise the extent of overshadowing attributed to the proposed height variation. The massing strategy for the proposed tower forms incorporates a 'step' at the upper-most high-rise levels, which has contributed towards the overall negligible extent of overshadowing that is attributed to the proposed height variation. Notably, the southern-eastern aspects of the Cottonwood Tower and Waterloo Tower have been retained below the maximum permitted building height of 65 meters.

The Shadow Diagrams that accompany this document have been updated to reflect the extent of additional overshadowing that is attributed to building mass above the permitted building height (65m) based on the most recent massing refinements to the Cottonwood Tower (December 2024). Refer to the extracts that are provided at **Figure 6** and **Figure 7** (overleaf).

- **The proposed extent of overshadowing will not result in an unacceptable reduction to the level of solar amenity afforded to surrounding residential development.**

The proposed extent of overshadowing will not result in an unacceptable reduction in the level of solar amenity afforded to surrounding residential developments. The updated Architectural Plans provide an assessment of potential solar impacts to demonstrate this, including the following properties:

- **14-16 Cottonwood Crescent:**

Sun eye testing of the approved development at 14-16 Cottonwood Crescent (LDA2018/0506) has demonstrated that the same number of future apartments at this property will retain a minimum of 2 hours of solar access during the Winter Solstice. The proposed reduction in tower height that is reflected in the updated Architectural Plans (December 2024) further reduces the extent of overshadowing that is cast to this south-adjointing property.

- **2-10 Cottonwood Crescent:**

Sun eye testing of the approved development at 2-10 Cottonwood Crescent (LDA2020/0243) has determined the same assessment outcome as above, which is further complemented by the reduced height of the Cottonwood Tower (December 2024).

- **13 Cottonwood Crescent and 12-14 Lachlan Avenue:**

An amalgamated development scenario for these properties has been considered based on the permitted built form envelope for future development under the RLEP 2014, RDCP 2012, and the ADG. Sun eye testing of this scenario has concluded that the proposal does not hinder the capacity for future development on these properties to satisfy the applicable solar access requirements under the ADG. This finding is based on reasonable assumptions and public information available to date. This finding was presented to Council and the UDRP before the height of the Cottonwood Tower was further reduced (December 2024) to support this Clause 4.6 Variation Request.

- **A significant proportion of 'shadowing' that is attributed to the proposed height variation is contained within the shadow footprints that are already cast by surrounding development.**

This makes a substantial area of the 'theoretical' shadow footprint for the proposed height variation effectively redundant for the purposes of assessing this Clause 4.6 Variation Request.

- **Approval is sought under this DA for a scale of development that is anticipated in the local area, including in relation the bulk and height of the proposed tower forms.**

The following is noted in this regard:

- The emerging high-rise height datum along Waterloo Road.
- Proposed façade recessions at high-rise tower levels.
- The reduced height of the Cottonwood Tower, which has prompted the updates reflected in this version of the Clause 4.6 Variation Request for the proposed height variation.
- The topography of the site, which is characterised by a shallow slope from the south-west towards the north-east. Accordingly, the height of the proposed development is concentrated towards the south-west of the site where building mass for the Cottonwood Tower is proposed above the permitted building height.
- The proposed development will not result in any additional overshadowing to Elouera Reserve or Wilga Park. Cottonwood Reserve and the Shrimptons Creek Corridor are shaded by dense tree canopy, and the vast majority of the modelled shadow footprint for the proposed development that extends over these public spaces is attributed to height-compliant built form.
- The continued maintenance of an acceptable level of solar amenity for surrounding public spaces and residential dwellings.

- **A thorough response to public submissions that raised matters associated with overshadowing has been provided.**

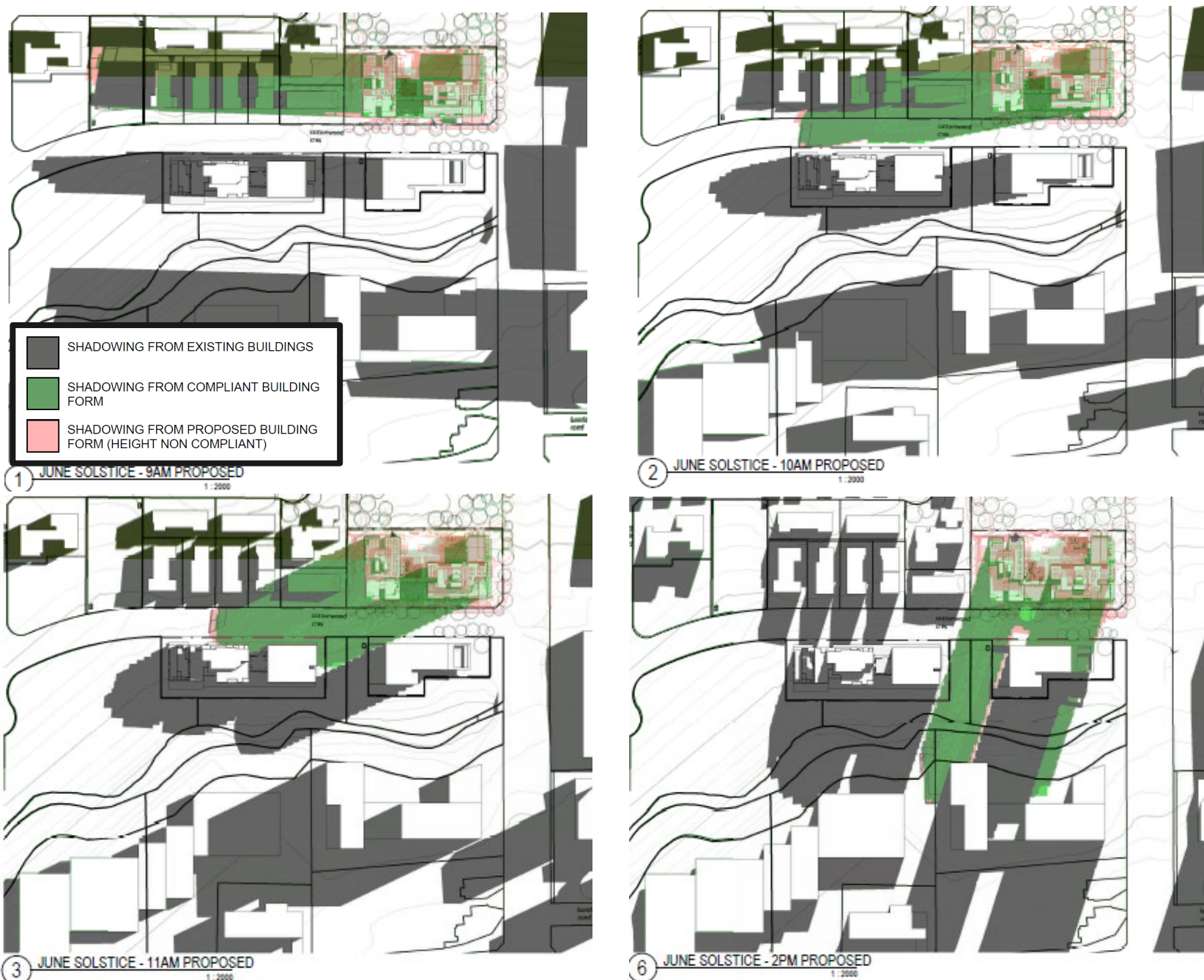
'Part C' of the RFI Response Table that was submitted to Council in November 2024 provides a direct response to public submissions (received while the DA was on Public Exhibition) with respect to the point above. This initial response is further complemented by the reduced height of the Cottonwood Tower (December 2024) that this Clause 4.6 Variation Request has been updated to address.

It is essential that the points above are reviewed in conjunction with the updated shadow analysis that has been provided by Drawing Sheet 'RFI 03' within the amended Architectural Plans. The points above reinforce that the proposed development does not compromise the achievement of Objective (b) of Clause 4.3:

(b) minimise overshadowing and to ensure that development is generally compatible with or improves the appearance of the area.

Further reference should be made to the Shadow Diagram extracts that are provided at **Figure 6** and **Figure 7** (overleaf).

Figure 6 – Shadow Diagram Extracts (Updated December 2024) – Winter Solstice



Notes:

Minimal overshadowing to public parks and surrounding properties that is attributed to the proposed height variation.

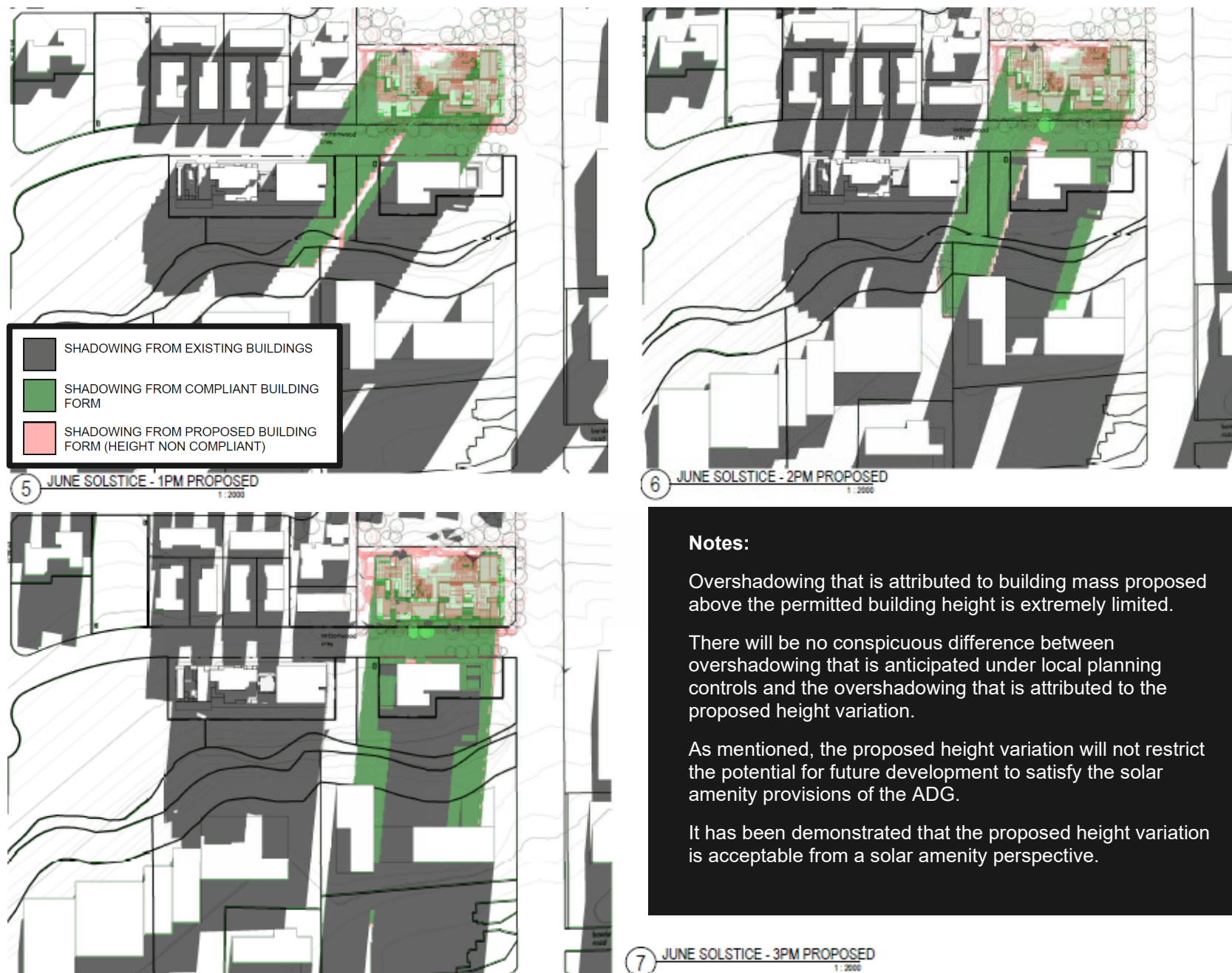
No overshadowing to Elouera Reserve or Wilga Park.

It has been demonstrated that the proposed development will not restrict the potential for future development to satisfy the solar amenity provisions of the ADG.

The updated shadow diagrams show:

1. Shadowing that is attributed to compliant building mass proposed below the height limit.
2. Minimal shadowing that is attributed to building mass above the height limit.
3. Shadowing that is already cast by surrounding buildings.

Figure 7 – Shadow Diagram Extracts (Updated December 2024) – Winter Solstice



Source: AJC (adapted by Urbis)

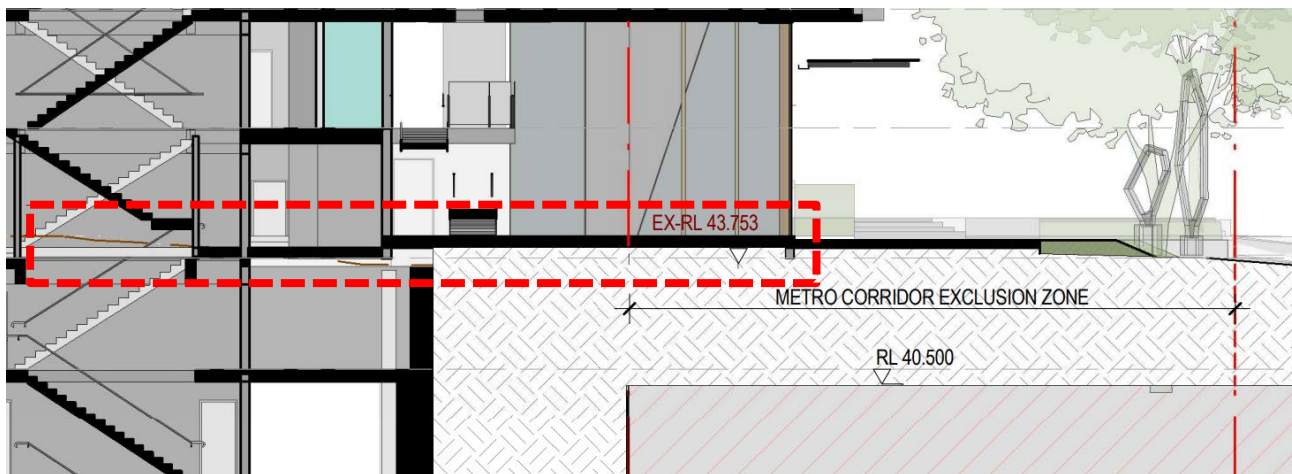
4.2.2. Additional Discussion – Slab Height

The proposed excavation works will occur within 20-30m of the existing Sydney Metro Tunnel beneath Waterloo Road. Notwithstanding, the proposed development has been designed in consideration of the *Sydney Metro Underground Corridor Protection Technical Guidelines* (April 2021).

The excavated depth is expected to be greater than 2m within the 'Second Reserve' boundary of the Sydney Metro corridor, as outlined in the *Sydney Metro Underground Corridor Protection Technical Guidelines* (April 2021). These guidelines indicate that excavations for basements within the second reserve to depths greater than 2 m are allowed; but require assessment and approval from Sydney Metro. We refer to our response to the RFI that was received from Sydney Metro on 14 October 2024, which was submitted to Council in November 2024.

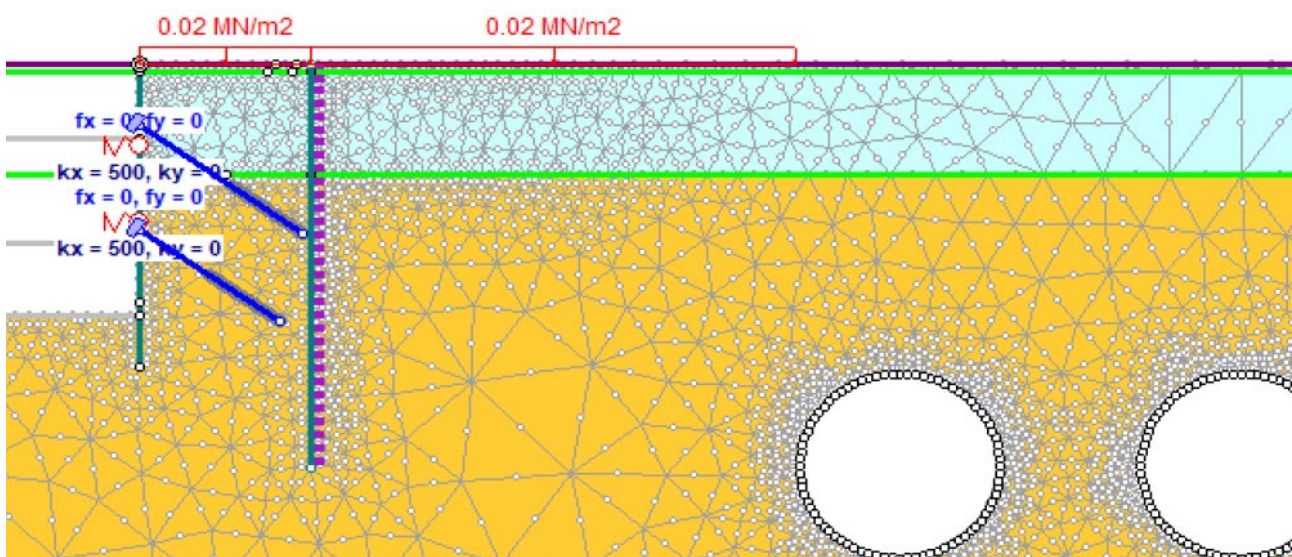
In accordance with the *Sydney Metro Underground Corridor Protection Technical Guidelines*, excavations within the First Reserve of the Sydney Metro corridor are prohibited, while excavations to a depth of 2m (or greater) within the Second Reserve require assessment. The Ground Level slab height has been constrained by the First Reserve of the Sydney Metro rail corridor and cannot be excavated to a depth below existing natural Ground Level. This has contributed towards the overall height of the Waterloo Tower, which has been reduced in response to site-specific topography as outlined in **Table 4**.

Figure 8 – Section Drawing Extract: Slab Height at Waterloo Road Interface



Source: AJC

Figure 9 – Extract: From Rail Corridor Interface Assessment Report



Source: Douglas Partners

4.3. **CLAUSE 4.6(3) – ARE THERE SUFFICIENT ENVIRONMENTAL PLANNING GROUNDS TO JUSTIFY CONTRAVENING THE DEVELOPMENT STANDARD?**

There is an absence of environmental harm arising from the contravention of the maximum permitted building height standard and sufficient and positive environmental planning grounds to justify contravening the development standard for the following reasons:

- **The objectives of Clause 4.3 have been achieved.**

The underlying objectives and purpose of Clause 4.3 have been achieved, notwithstanding the proposed height variation. This Clause 4.6 Variation Request has referenced the 'First Method' that was established through *Wehbe v Pittwater Council [2007]* NSWLEC 827 to demonstrate that compliance with Clause 4.3 of the RLEP 2014 is not reasonable or necessary in this case.

- **The bulk and height of the proposed development is anticipated within the context of the Macquarie Park Corridor.**

Approval is sought under this DA for a scale of development that is anticipated in the local area in relation to the bulk and height of the proposed tower forms. The following is noted in this regard:

- The emerging high-rise height datum along Waterloo Road.
- The reduced height of the Cottonwood Tower, which has prompted the updates reflected in this version of the Clause 4.6 Variation Request for the proposed height variation.
- The topography of the site, which is characterised by a shallow slope from the south-west towards the north-east. Accordingly, the height of the proposed development is concentrated towards the south-west of the site where building mass for the Cottonwood Tower is proposed above the permitted building height.
- Proposed façade recessions at high-rise levels.
- The continued maintenance of an acceptable level of solar amenity for surrounding public spaces and residential dwellings.

- **The height of development has been reduced in response to the topography of the site.**

The topography of the site, which is characterised by a shallow slope from the south-west towards the north-east. Accordingly, the height of the proposed development is concentrated towards the south-west of the site where building mass for the Cottonwood Tower is proposed above the permitted building height to a maximum elevation of RL 117.1m. The Waterloo Tower is constructed to a lower maximum elevation of RL 113.9m, which is appropriate to the reduced ground level elevation towards the north-east corner of the site.

Both tower forms propose one (1) level of habitable floorspace above the maximum permitted building height. The subsequent extent of the proposed height variation is minor, equating to 7.8% (Cottonwood Tower) and 7.5% (Waterloo Tower) of the standard to be varied. These similar values represent the highest point of each tower form. Further, the full proportion of Level 20 (Cottonwood Tower) and Level 19 (Waterloo Tower) is not located above the height plane.

- **The proposed height variation will not result in any unacceptable overshadowing to surrounding development and public open spaces.**

With reference to the justification provided in **Section 4.2.1**, the following is noted in summary:

- The tower forms have been recessed back from the primary façade alignment at the upper-most levels to minimise the extent of overshadowing that is attributed to the proposed height variation.
- The proposed extent of overshadowing will not result in an unacceptable reduction to the level of solar amenity afforded to surrounding residential development. It has been established that the proposal will not restrict the potential for future development to satisfy the solar amenity provisions of the ADG.

- A significant proportion of ‘shadowing’ that is attributed to the proposed height variation is contained within the shadow footprints that are already cast by surrounding development.
- Approval is sought under this DA for a scale of development that is anticipated in the local area, including in relation the bulk and height of the proposed tower forms.
- No overshadowing to Elouera Reserve or Wilga Park is proposed. Cottonwood Reserve and the Shrimptons Creek Corridor are shaded by dense tree canopy, and the vast majority of the modelled shadow footprint for the proposed development that extends over these public spaces is attributed to height-compliant built form.

▪ **The proposed height variation will not result in any unacceptable visual impact.**

The Visual Impact Assessment that was submitted at DA lodgement concluded that the proposed development would have an acceptable visual impact at the time of lodgement. The proposed massing refinements that were implemented since the VIA was submitted reinforce the findings of the VIA, which would only be complemented by the amendments that were made in November and December 2024.

▪ **The proposed height variation is necessary to address site-specific constraints.**

The Ground Level slab height has been constrained by the First Reserve of the Sydney Metro rail corridor and cannot be excavated to a depth below existing natural Ground Level. This has contributed towards the overall height of the Waterloo Tower, which has been reduced in response to site-specific topography.

For the reasons above, this Clause 4.6 Variation Request is well-founded. Compliance with Clause 4.3 of the RLEP 2014 is not reasonable or necessary in this instance. This Clause 4.6 Variation Request has established sufficient environmental planning grounds for the proposed height variation in the circumstances of this case.

5. CONCLUSION

For the reasons set out within this written request, compliance with the maximum permitted building height standard that applies under Clause 4.3 of the *Ryde Local Environmental Plan 2014* is unable to be achieved. Notwithstanding, this assessment demonstrates that there are sufficient environmental planning grounds and merit to warrant a variation to the maximum permitted building height (65m) that applies under Clause 4.3.

It is reasonable and appropriate to vary the applicable maximum permitted building height standard to the extent proposed for the following reasons:

- The proposed development facilitates a mixed-use development at a highly accessible location. The development is generally consistent with the desired built form characteristics and land use outcomes of the immediate context and surrounding locality within Macquarie Park. This Clause 4.6 Variation Request has demonstrated that the proposed height variation will not result in any unacceptable environmental impacts, including in relation to overshadowing, solar amenity, visual impact and the desired future character of the Macquarie Park corridor.
- Strict compliance with the maximum permitted building height (65m) is unreasonable and unnecessary as the objectives of Clause 4.3 of the RLEP 2014 and the MU1 Mixed Use zone objectives are achieved by the proposed development, notwithstanding the variation proposed.
- In light of the assessment that has been provided and the design amendments that have been adopted to reduce the height of development (December 2024), strict compliance with the development standard does not promote any identifiable public benefit, further noting that enforcing the standard to be varied would reduce residential yield at a highly accessible location.
- There are sufficient environmental planning grounds to justify contravening the development standard as it applies to the height of development, and there are no perceptible environmental impacts resulting from the contravention of the development standard.

For the reasons outlined above, this Clause 4.6 Variation Request is well-founded. The development standard is unreasonable in the circumstances and there are sufficient environmental planning grounds that warrant contravention of the standard. In the circumstances of this case, flexibility in the application of the maximum permitted building height standard should be applied.

DISCLAIMER

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All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

