

## **APPENDIX B**

## **UPG OVERSHADOWING STUDIES**



DKO

# High Street Penrith

SHADOW STUDY RE1



## VERNAL EQUINOX

7AM

MARCH 20TH - REDUCE BY 69m<sup>2</sup>

Built Context	20th	720	76.6%
Built Context + Approved DA18/0271		870	92.5%
Additional Shadow by approved DA18/0264		150	15.9%
Built Context + DA18/0264 + Proposed		939	99.8%
Additional Shadow by Proposed		69	7.3%
Built Context + Proposed		939	99.8%
Additional Shadow by Proposed without DA18/0264		219	23.2%
Difference between additional shadow of Proposed and DA18/0264		69	7.3%



8AM

MARCH 11TH - REDUCE BY 340m<sup>2</sup>

Built Context	11th	0	0.0%
Built Context + Approved DA18/0268		565	60.1%
Additional Shadow by approved DA18/0264		565	60.1%
Built Context + DA18/0264 + Proposed		905	96.2%
Additional Shadow by Proposed		340	36.1%
Built Context + Proposed		905	96.2%
Additional Shadow by Proposed without DA18/0264		905	96.2%
Difference between additional shadow of Proposed and DA18/0264		340	36.1%



9AM

MARCH 16TH - REDUCE BY 197m<sup>2</sup>

Built Context	16th	0	0.0%
Built Context + Approved DA18/0269		238	25.3%
Additional Shadow by approved DA18/0264		238	25.3%
Built Context + DA18/0264 + Proposed		436	46.3%
Additional Shadow by Proposed		197	21.0%
Built Context + Proposed		233	24.7%
Additional Shadow by Proposed without DA18/0264		233	24.7%
Difference between additional shadow of Proposed and DA18/0264		-6	-0.6%



## AUTUMN EQUINOX

7AM

SEP 17TH - REDUCE BY 17m<sup>2</sup>

Built Context	17th	207.03	22.0%
Built Context + Approved DA18/0280		860	91.4%
Additional Shadow by approved DA18/0264		653	69.4%
Built Context + DA18/0264 + Proposed		878	93.3%
Additional Shadow by Proposed		17	1.8%
Built Context + Proposed		839	89.2%
Additional Shadow by Proposed without DA18/0264		632	67.2%
Difference between additional shadow of Proposed and DA18/0264		-21	



8AM

OCT 14TH - REDUCE BY 606m<sup>2</sup>

Built Context	14th	0	0.0%
Built Context + Approved DA18/0306		293	31.1%
Additional Shadow by approved DA18/0264		293	31.1%
Built Context + DA18/0264 + Proposed		899	95.5%
Additional Shadow by Proposed		606	64.4%
Built Context + Proposed		899	95.5%
Additional Shadow by Proposed without DA18/0264		899	95.5%
Difference between additional shadow of Proposed and DA18/0264		606	64.4%



9AM

NO ADDITIONAL SHADOW BY PROPOSED

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7AM

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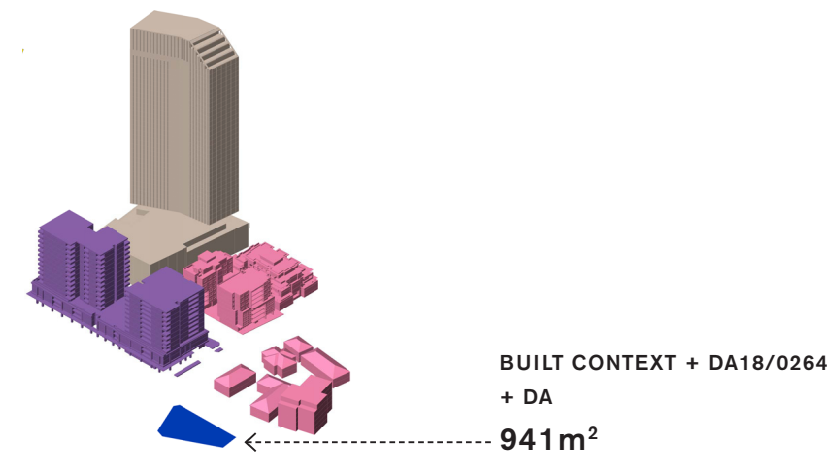
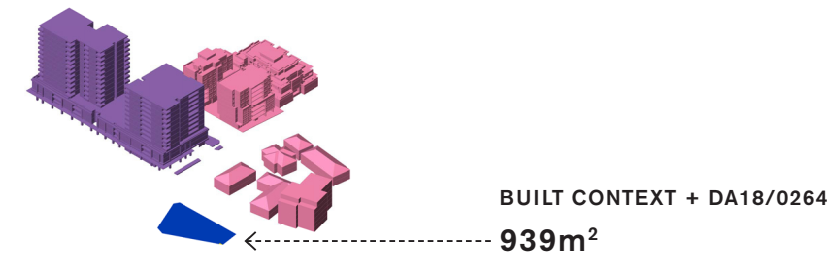
9AM

NO ADDITIONAL SHADOW BY PROPOSED

## VERNAL EQUINOX - AMENDED BUILDING HEIGHTS

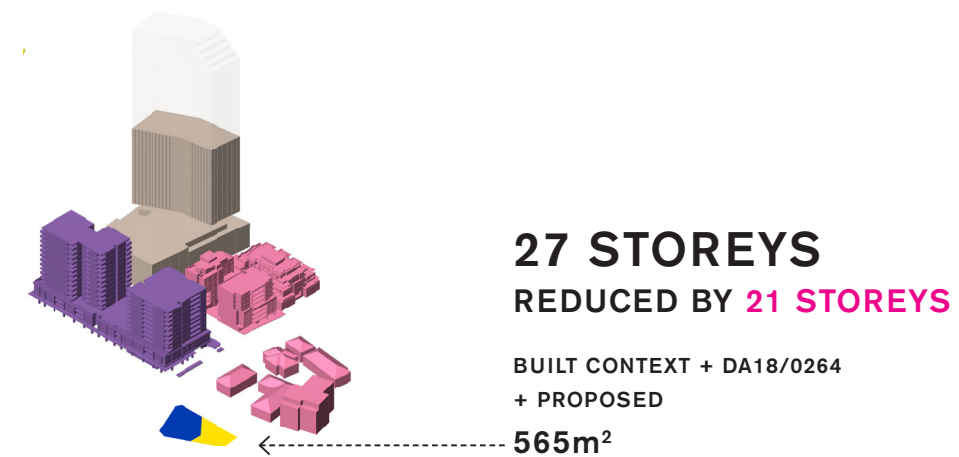
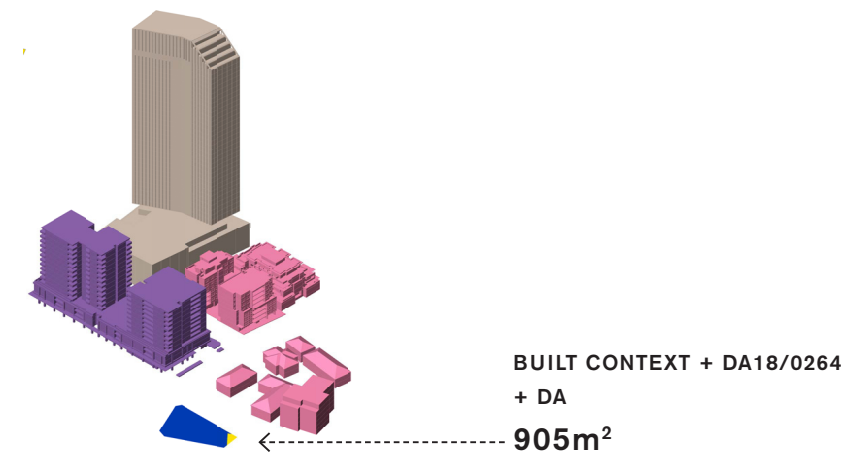
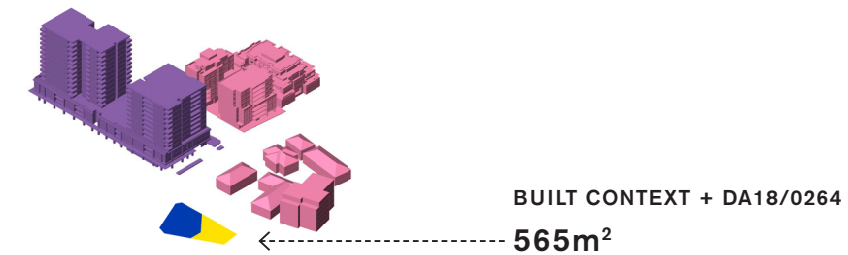
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MARCH 20TH - REDUCE BY 69m<sup>2</sup>



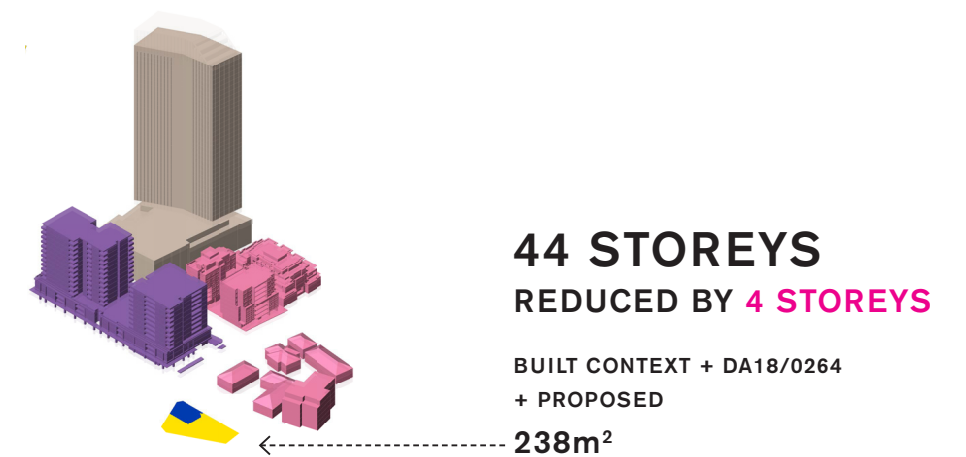
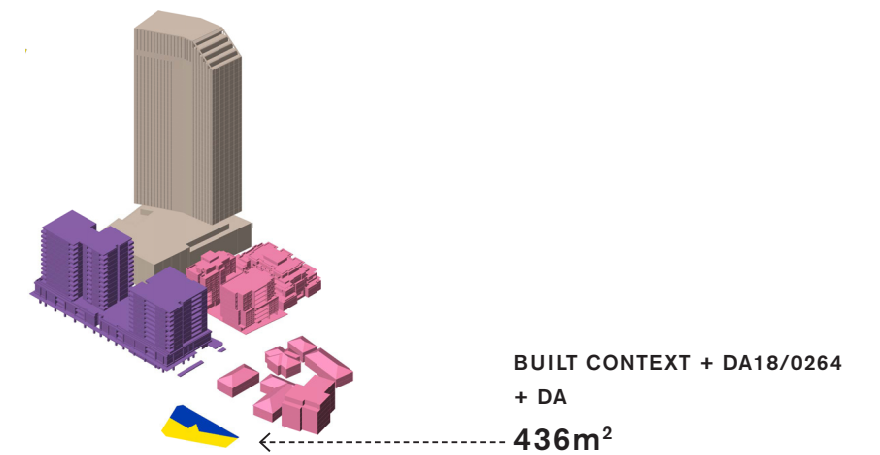
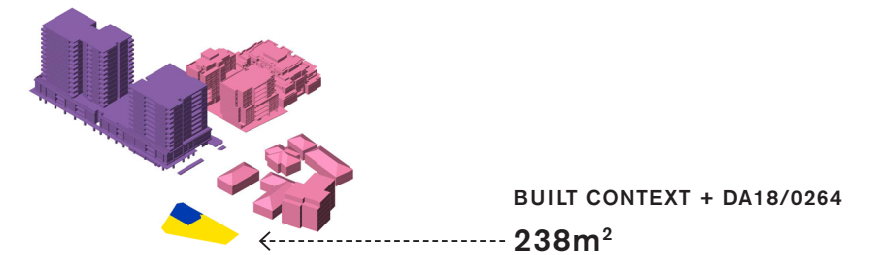
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MARCH 11TH - REDUCE BY 340m<sup>2</sup>



9AM

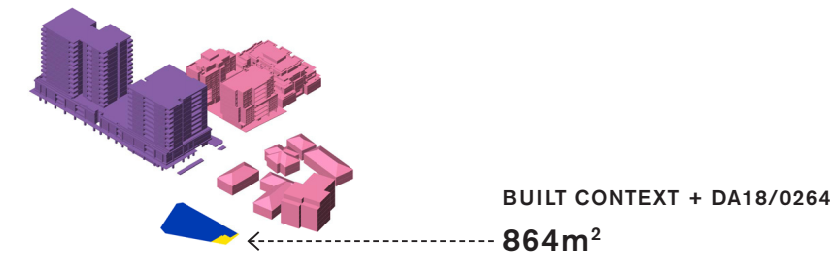
MARCH 16TH - REDUCE BY 198m<sup>2</sup>



## AUTUMN EQUINOX - AMENDED BUILDING HEIGHTS

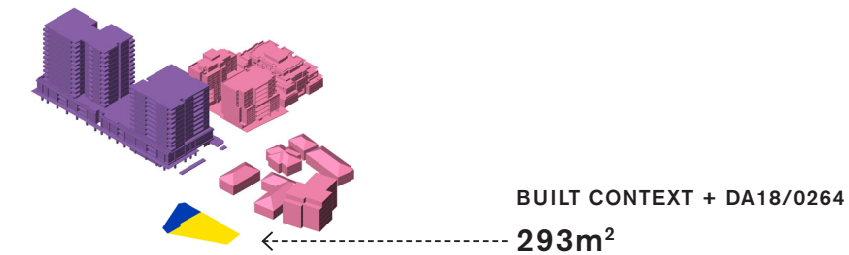
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SEP 17TH - REDUCE BY 13m<sup>2</sup>



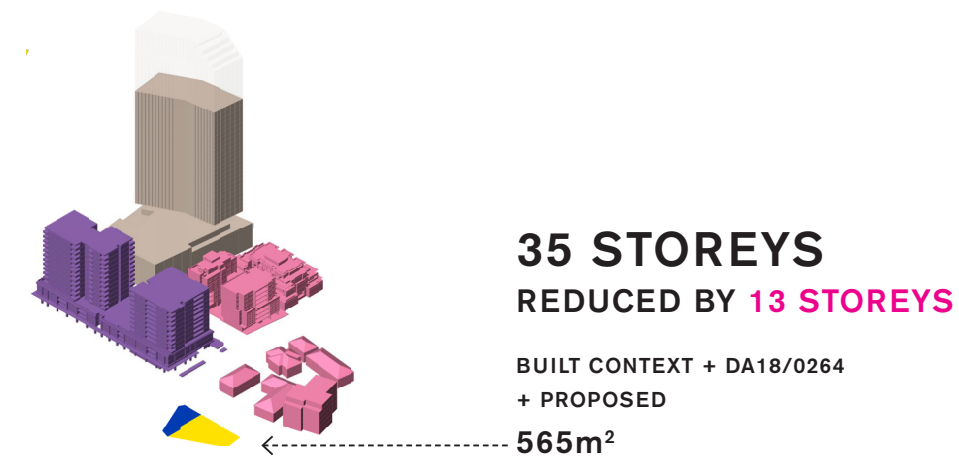
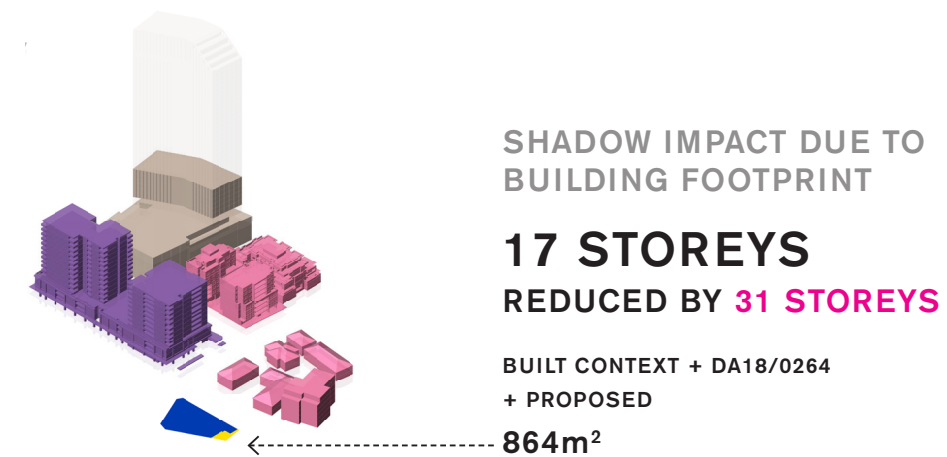
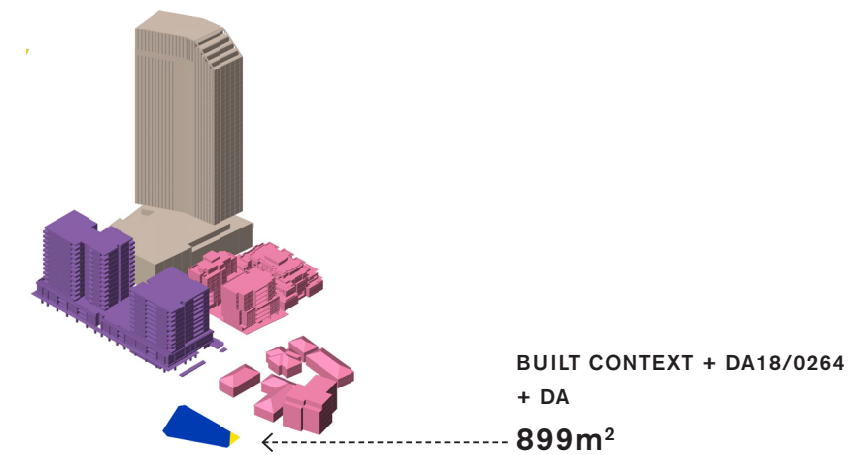
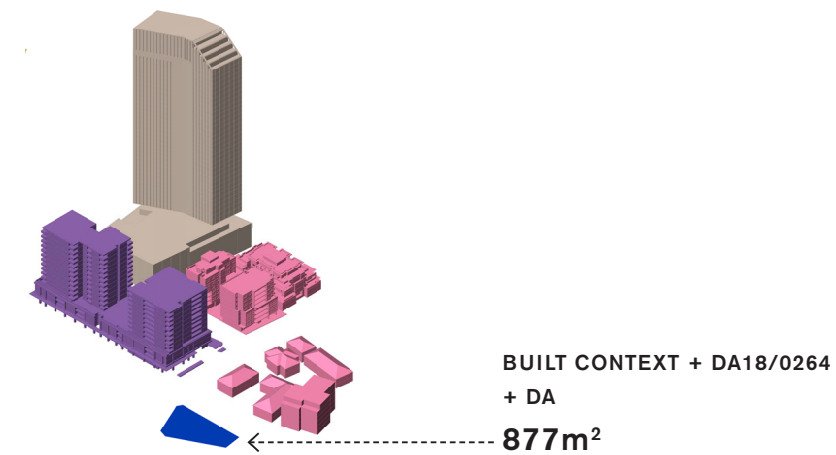
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OCT 14TH - REDUCE BY 606m<sup>2</sup>



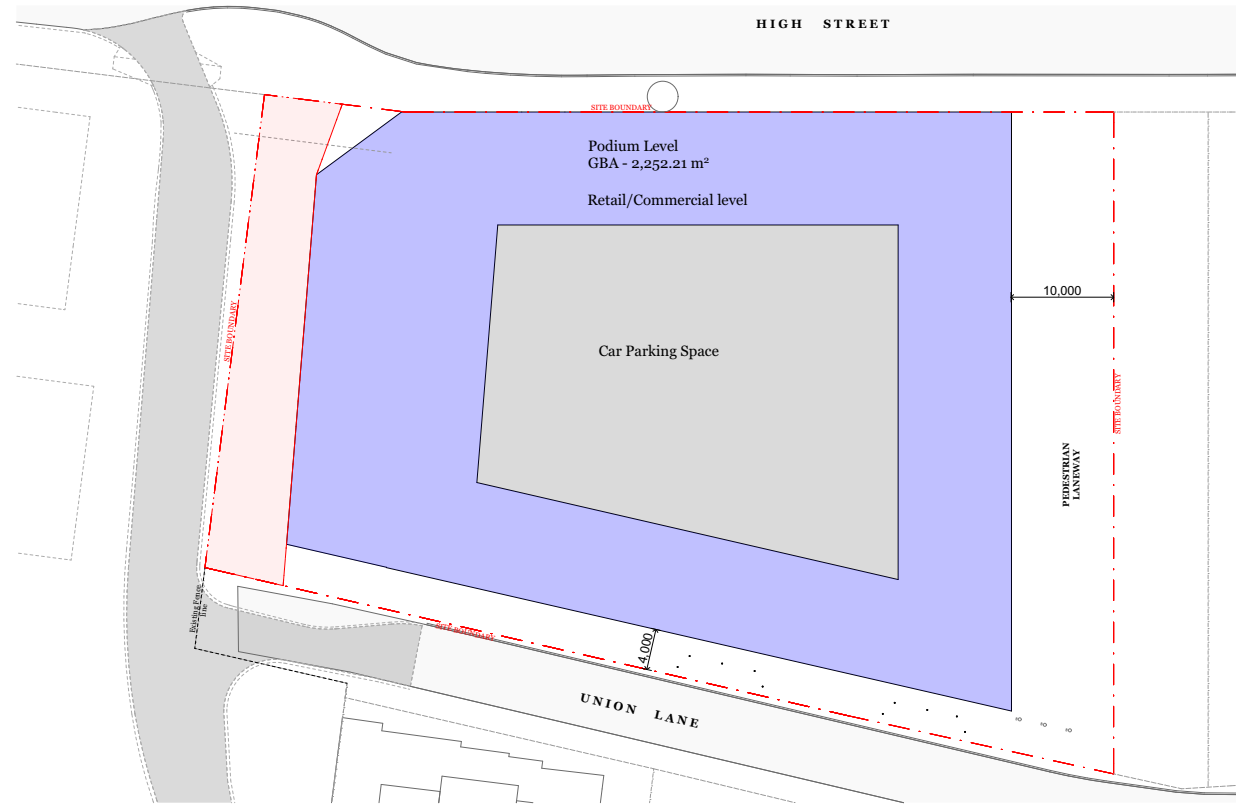
9AM

NO ADDITIONAL SHADOW BY PROPOSED

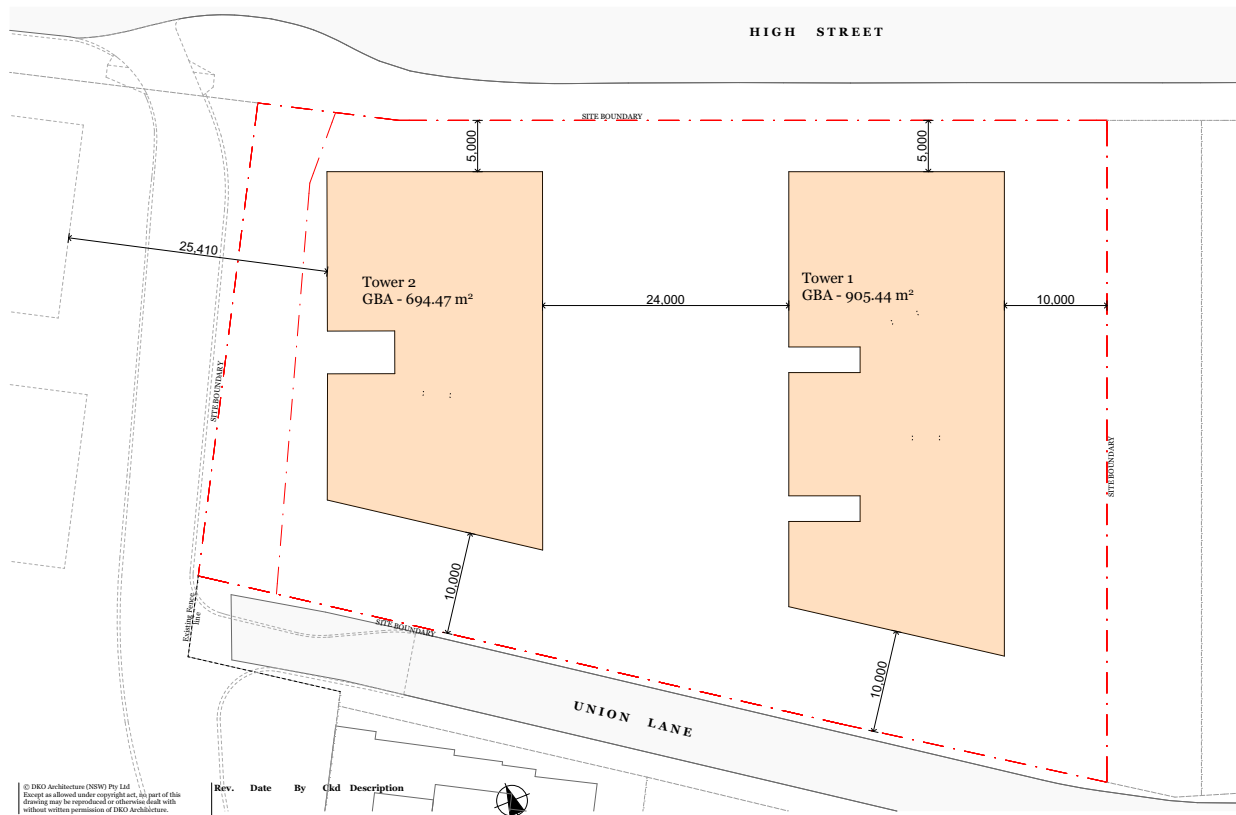


# OVERSHADOW IMPACT

## PROPOSED



Tower Option   Podium Levels



Tower Option \_ Residnetial Tower Levels

## High Street, Penrith

## Development Summary - 6:1 scheme

Site Area:	4,715 m2
Allowable FSR	6.00 :1
Max GFA	28,290 m2
Proposed GFA:	28,423 m2
Proposed FSR:	6.03 :1
GBA to GFA - Res	78%
GBA to GFA - Com Ret	94%

Tower 1				Tower 2		TOTAL
GBA	GFA Res	GFA COM/RET	Total GFA	GBA	GFA Res	GFA

LEI	Ground	2252		2117	2117			2117
	Mezzanine			0	0			0
	Level 1	2252		2117	2117			2117
	Level 2	2252		2117	2117			2117
	Level 3	2252		2117	2117			
	Level 4	905	706		706	694	541	1247
	Level 5	905	706		706	694	541	1247
	Level 6	905	706		706	694	541	1247
	Level 7	905	706		706	694	541	1247
	Level 8	905	706		706	694	541	1247
	Level 9	905	706		706	694	541	1247
	Level 10	905	706		706	694	541	1247
	Level 11	905	706		706	694	541	1247
	Level 12	905	706		706	694	541	1247
	Level 13	905	706		706	694	541	1247
	Level 14	905	706		706	694	541	1247
	Level 15	905	706		706	694	541	1247
	Level 16	905	706		706	694	541	1247
	Level 17	905	706		706	694	541	1247
	Level 18	905	706		706	694	541	1247
Level 19	905	706		706	694	541	1247	
	Subtotal	18963	11294	8468	19762	7634	8661	28423

## DISCLAIMER

These areas are schematic only and subject to council and other requisite approval. Areas are not to be used for marketing purposes.

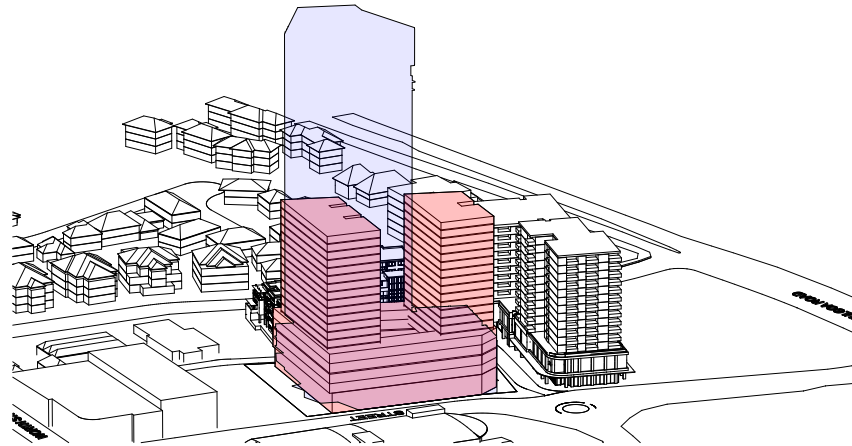
This scheme has been prepared generally within the bounds of the current site dimensions however is subject to detailed discussion with council, hence may be subject to change once advice is received.

This design has been prepared without structural or services engineering input hence is subject to change once advice is received.

*\*Further Studies Required*



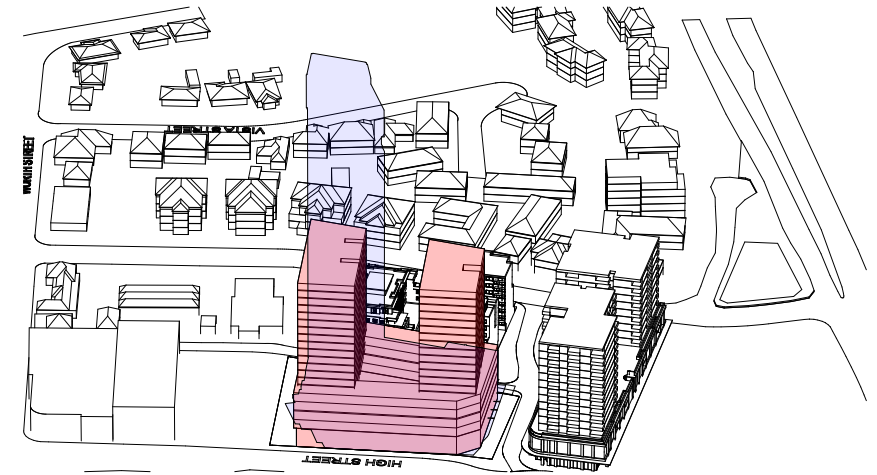
# OVERSHADOW IMPACT PROPOSED



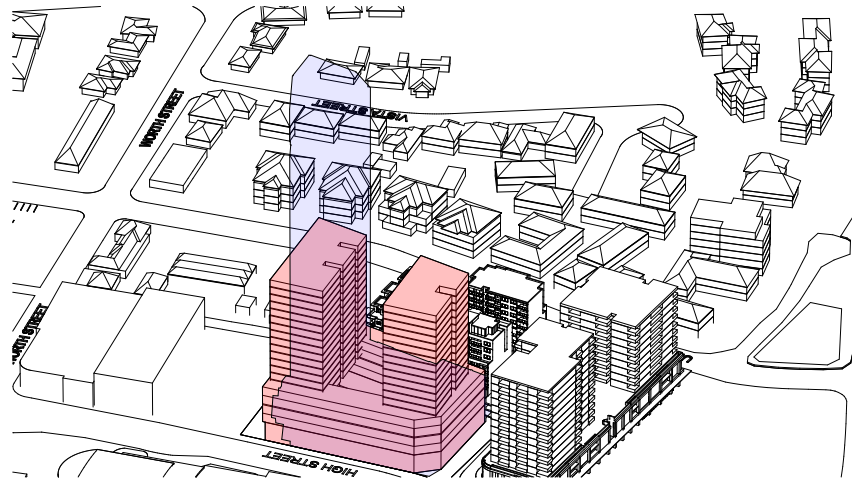
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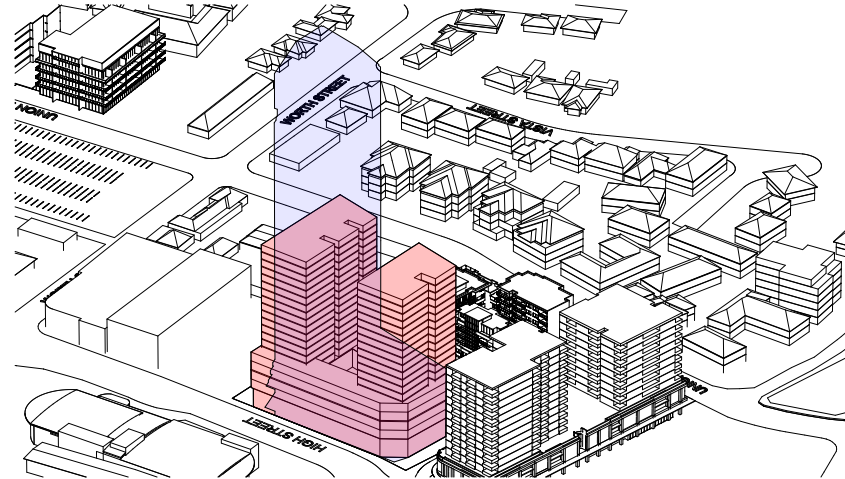
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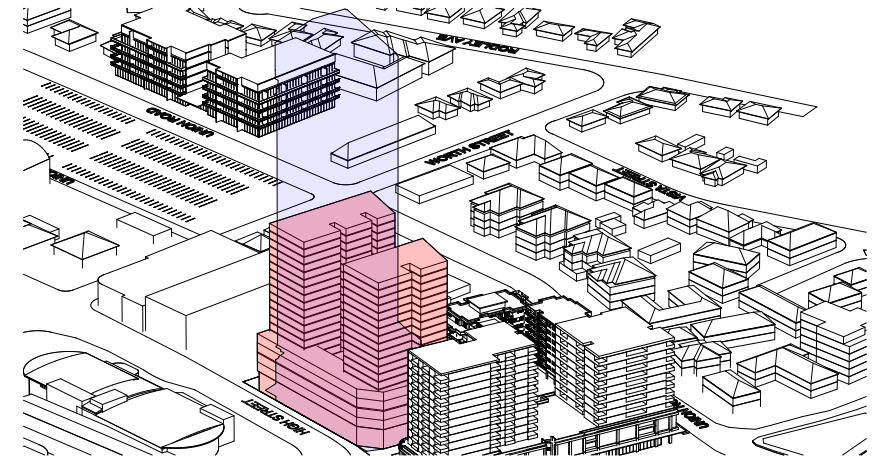
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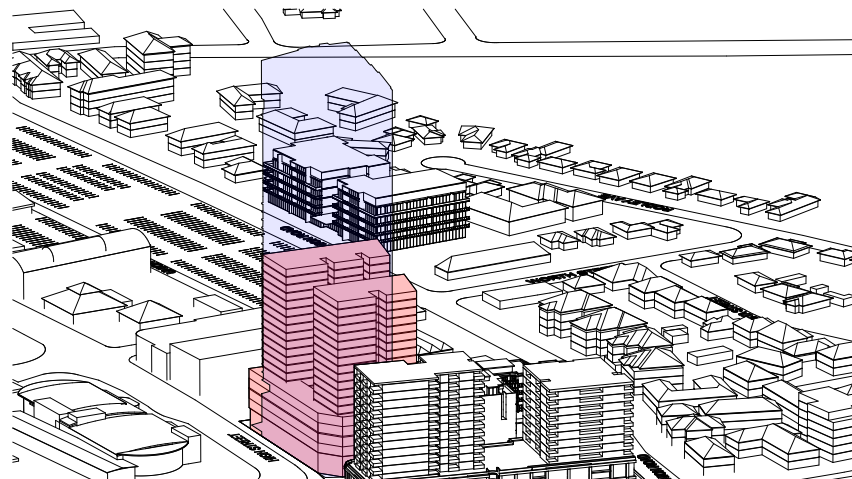
12pm



1pm



2pm



3pm

Proposed building  
6:1:2 Tower envelope



204 Clause 8.2 of the PLEP operates to set a jurisdictional precondition to the grant of development consent insofar as development consent is not to be granted to development on specified land if a specified jurisdictional fact is established (Toga, at [37]).

Subclause (3) operates to set a jurisdictional precondition to the grant of development consent. It is a negative rather than a positive jurisdictional precondition. Development consent is not to be granted to development on specified land if a specified jurisdictional fact is established. The specified land is “land to which this Part applies”. This land is land identified as Penrith City Centre on the Clause Application Map. The specified jurisdictional fact is that development on this specified land “would result in overshadowing of public open space to a greater degree than would result from adherence to the controls indicated for the land on the Height of Buildings Map.”

229 Strict compliance with the standard at cl 8.2 is unnecessary in this case when regard is had to the objectives of cl 4.3, and to cl 8.7 which seeks greater density and height that necessarily produces longer shadows. In general terms, the written request sets out five grounds as to why strict compliance is unreasonable or unnecessary:

(1) The purpose of the standard is to protect public open space within the Penrith City Centre from overshadowing. Penrith City Centre contains a number of areas of public open space and the proposal impacts a small parcel of land outside the Penrith City Centre, to a limited area, for a limited part of the day, on around 40% of the days of the year (notwithstanding the figure of 53% at [221]).

(2) The development has been designed to follow the setback controls applying to a key site, which concentrates the building mass in a podium and single tower that is intended to limit the footprint of the building on the site, reduce the breadth of shadow impact to residences on the southern side of Union Lane, and express the gross floor area in a tall slender tower. As a nominated key site, the bulk and scale of the development is intentionally to be distinct to surrounding development, and the proposal meets the bulk and scaled intended by the control.

(3) The density and height are consistent with the character sought for the locality and has been guided by a Design Integrity process that has included design experts representation from the Government Architect NSW, Penrith City Council and the Applicant. The proposal represents a high quality outcome, confirmed through the Design Integrity process.

(4) The overall design scheme, bulk, scale and height of the development is compatible with the intended character sought through the provisions for Key Sites that increase the FSR for the site and removes the applicable height control, that has led to a single tall tower with a narrow and fast moving shadow.

(5) The built form, including its departure from the sun access control, is compatible with the desired role of the site in the Penrith CBD as a Key Site.

264 I accept the statement made by the written request that beyond the contravention of cl 8.2, no material adverse environmental impacts arise from the single, taller tower on the site.

265 However, as the written request fails to establish grounds on which compliance with the control at cl 8.2 are unreasonable or unnecessary, it is the impact caused by the breach of cl 8.2 that is the subject of the written request, and it cannot be said that an absence of other impacts, beyond the impact the subject of the breach, are environmental planning grounds sufficient to justify the contravention.

269 Accordingly, the Court is unable to uphold the written request. As such, the power to grant consent is not enlivened.

DKO