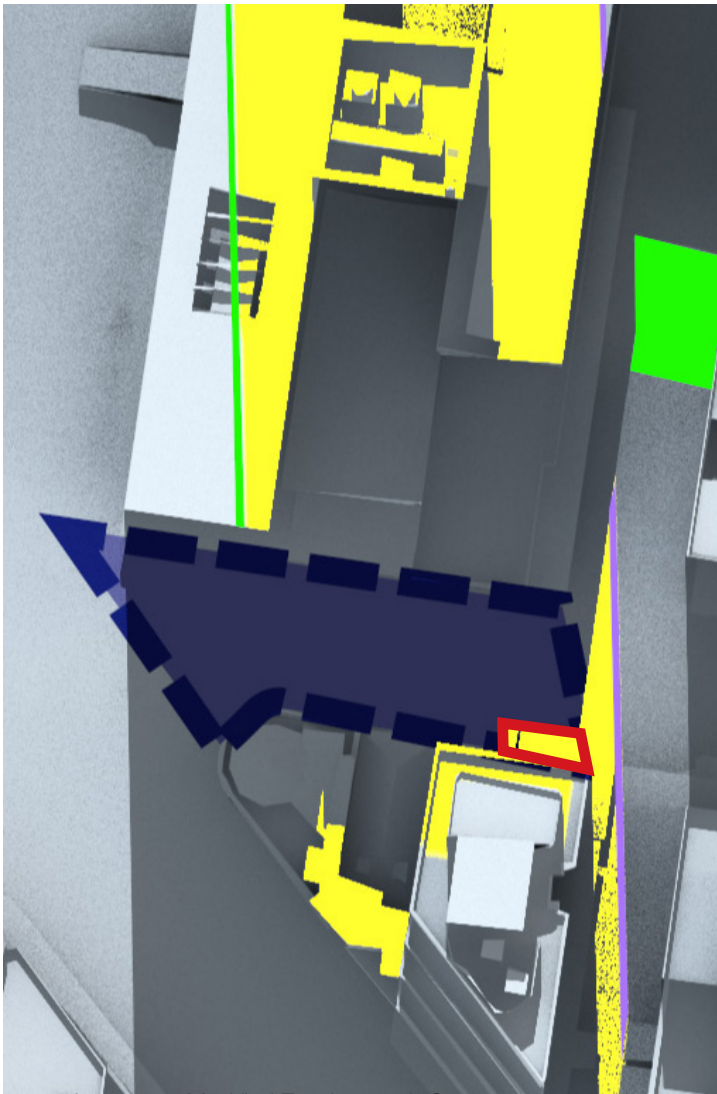
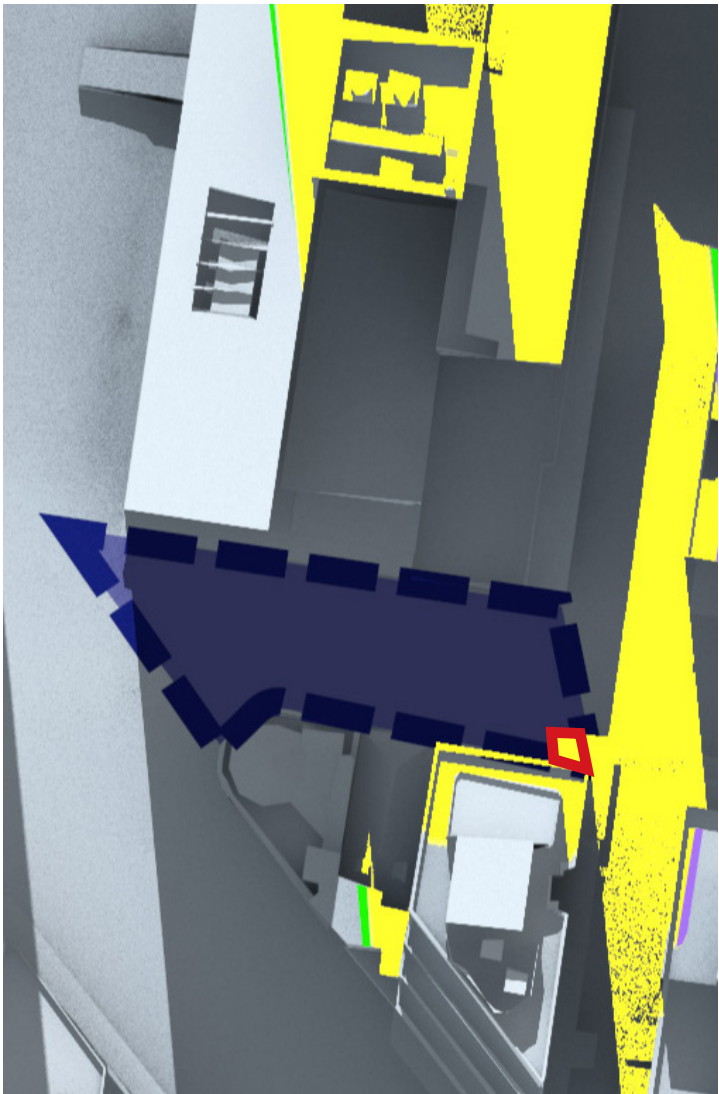


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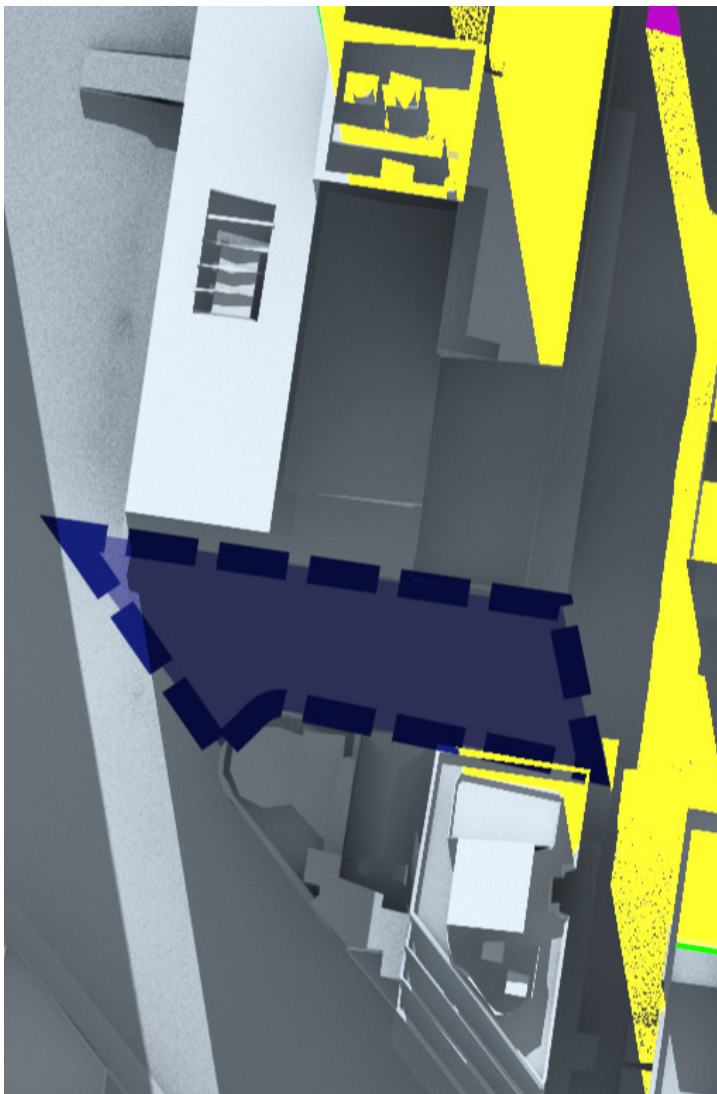
- OSD BUILDING ENVELOPE
- VICTORIA CROSS STATION CSSI ENVELOPE
- SHADOWS CAST BY EXISTING BUILDINGS
- SHADOWS CAST BY OSD ENVELOPE
- SHADOW CAST BY CSSI ENVELOPE
- REDUCTION OF SHADOWS
- INCREASE IN SHADOWS
- BRETT WHITELEY PLAZA



12pm June 21st - Modified Envelope with Comparison



12:15pm June 21st - Modified Envelope with Comparison



12:30pm June 21st - Modified Envelope with Comparison

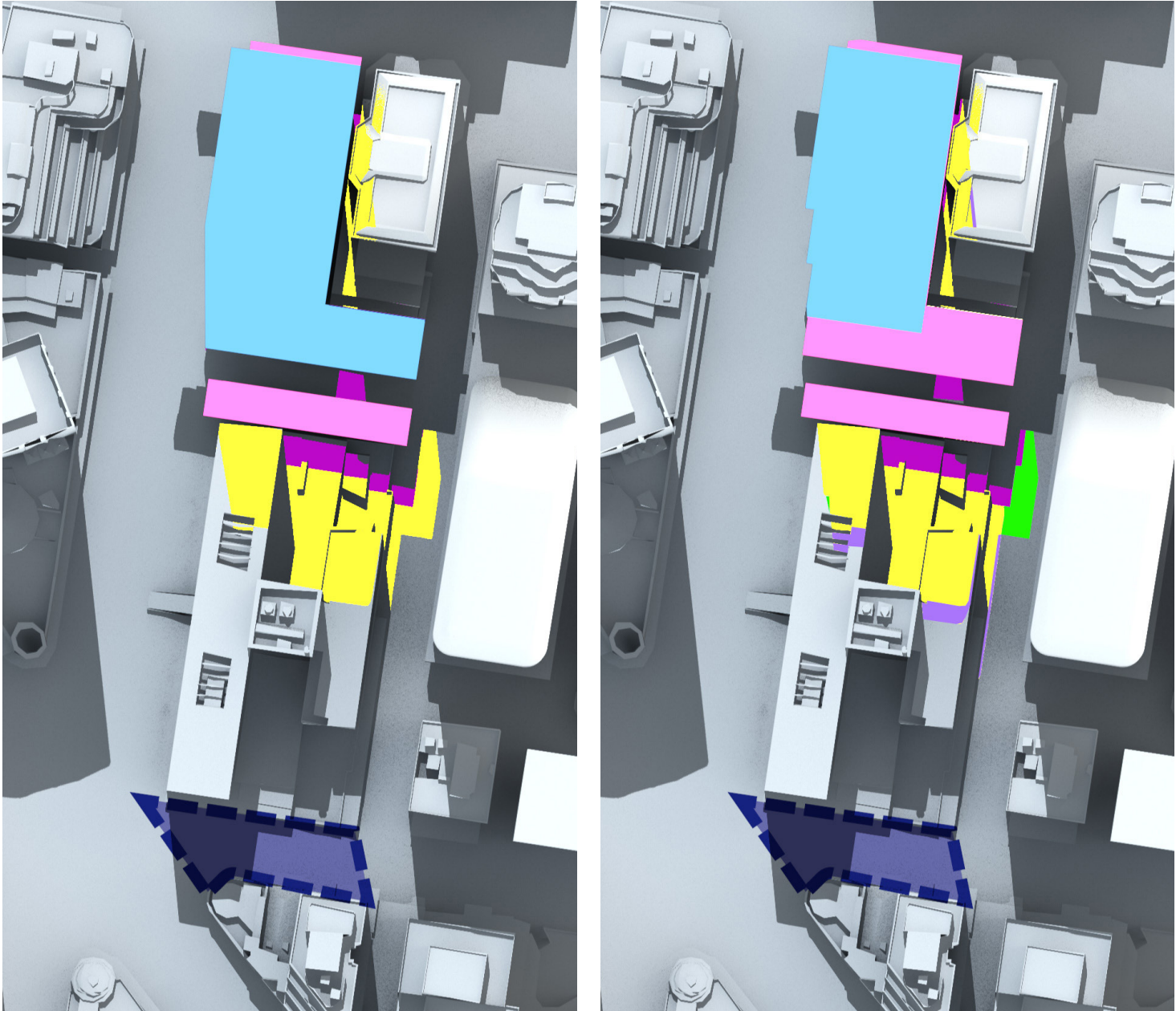
A.3.3 SHADOW ANALYSIS BRETT WHITELEY SPECIAL AREA

SPRING EQUINOX
SEPTEMBER 22ND

BRETT WHITELEY SPECIAL AREA
The Brett Whiteley Special Area indicated in blue is not overshadowed by either the approved OSD Concept SSD building envelope or the modified building envelope.

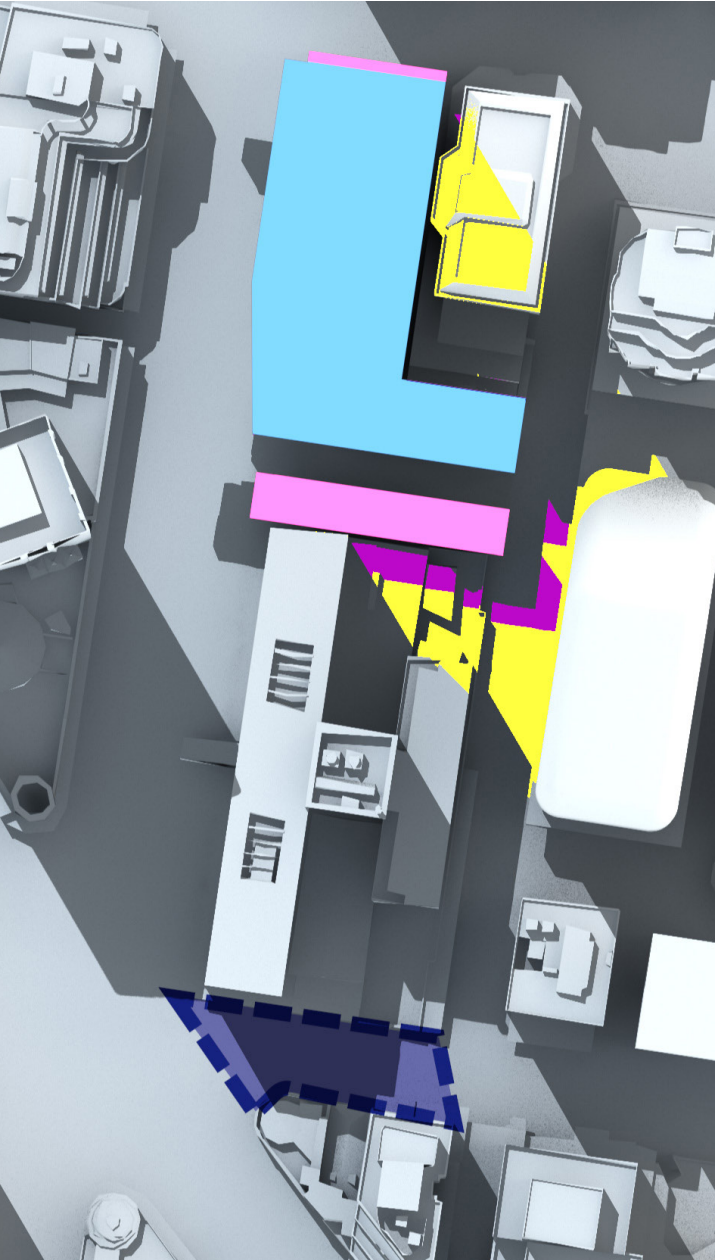
- KEY:
- OSD BUILDING ENVELOPE
 - VICTORIA CROSS STATION CSSI ENVELOPE
 - SHADOWS CAST BY EXISTING BUILDINGS
 - SHADOWS CAST BY OSD ENVELOPE
 - SHADOW CAST BY CSSI ENVELOPE
 - REDUCTION OF SHADOWS
 - INCREASE IN SHADOWS
 - BRETT WHITELEY PLAZA

Clause 6.3 (2) of the North Sydney Local Environment Plan 2013 states that:
“development consent must not be granted for the erection of a building on land to which the Division applies if:
(a) The development would result in a net increase in overshadowing between 12 pm and 2 pm from the March Equinox to the September Equinox (inclusive) on land to which this Division applies that is within Zone RE1 Public Recreation or that is identified as ‘Special Area’ on the North Sydney Centre map.

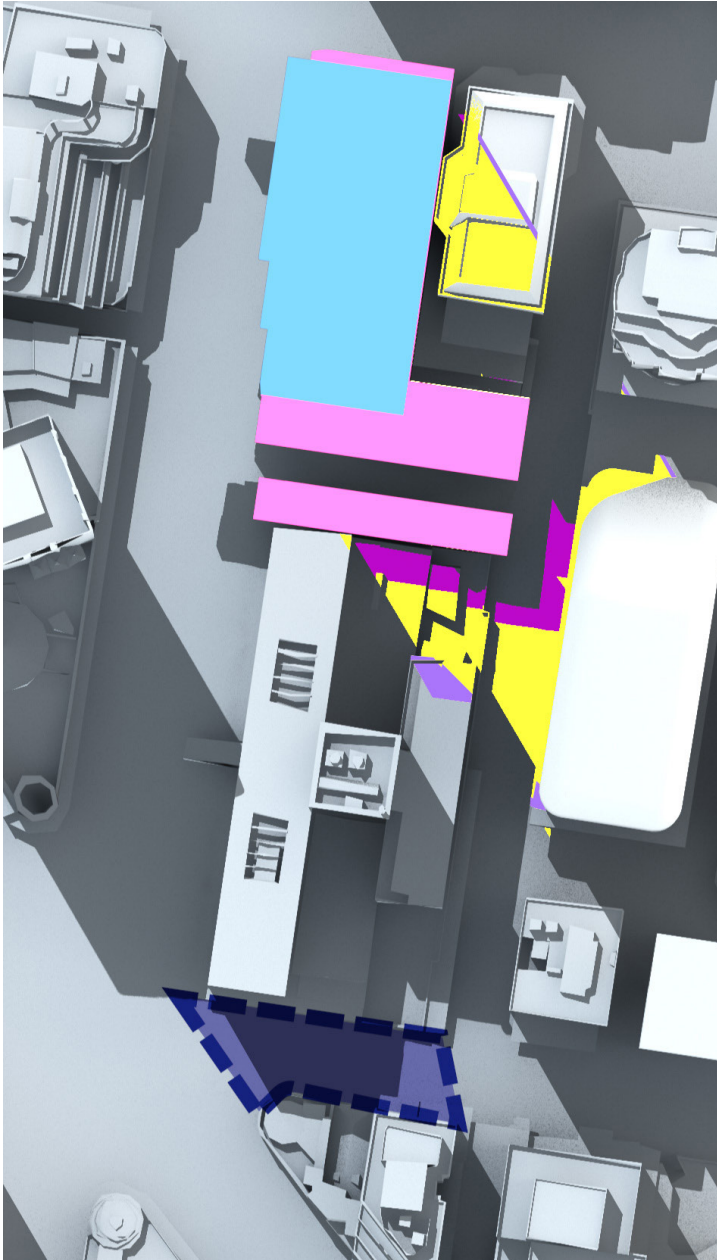


12pm September 21st - Approved Envelope

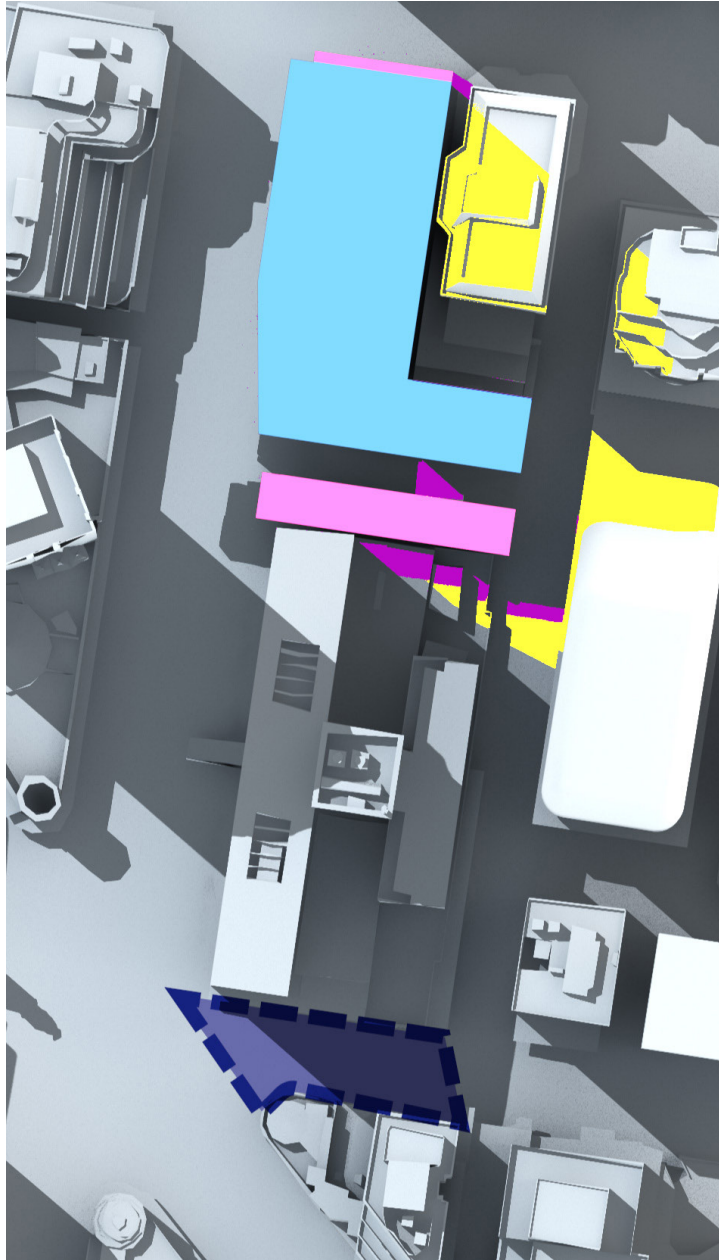
12pm September 21st - Modified Envelope with Comparison



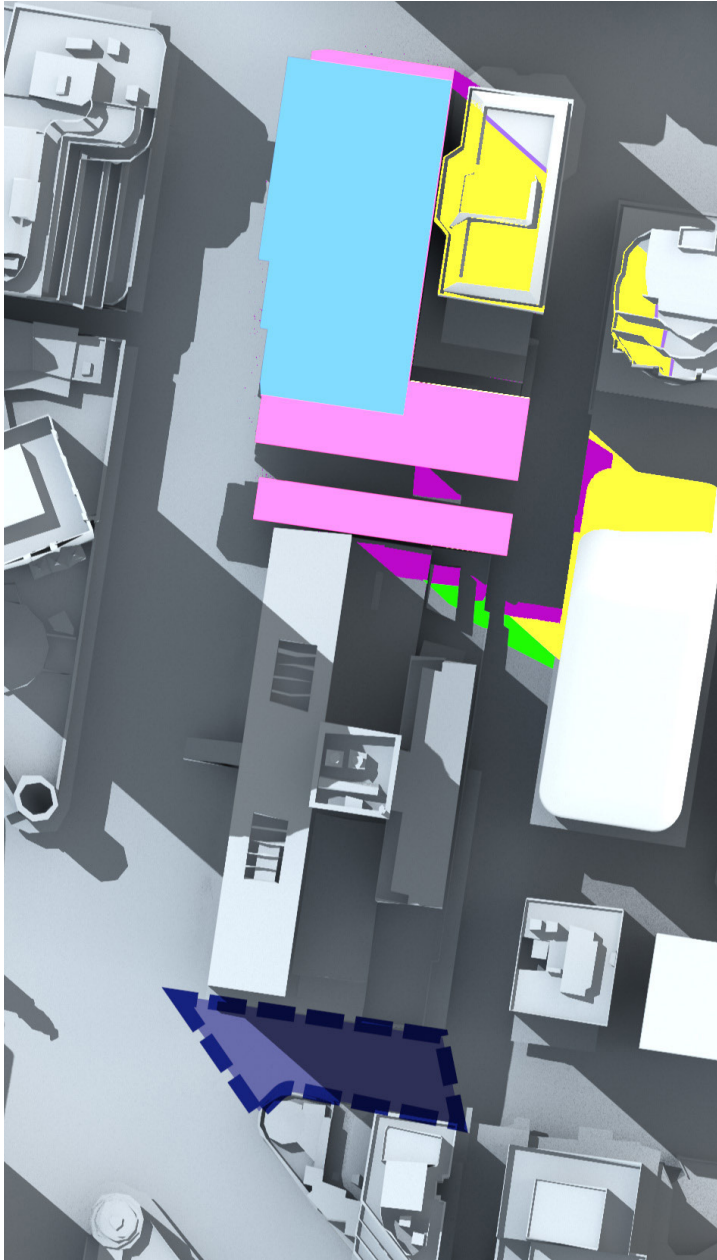
1pm September 21st - Approved Envelope



1pm September 21st - Modified Envelope with Comparison



2pm September 21st - Approved Envelope



2pm September 21st - Modified Envelope with Comparison

A.4.1 SHADOW ANALYSIS RESIDENTIAL AREAS

WINTER SOLSTICE JUNE 21ST

RESIDENTIAL AREAS

The adjacent diagrams demonstrate the shadow impact created by the development to the residential areas outside the North Sydney Centre. Both the approved OSD Concept SSD building envelope (Top row) and the modified building envelope have been analysed.

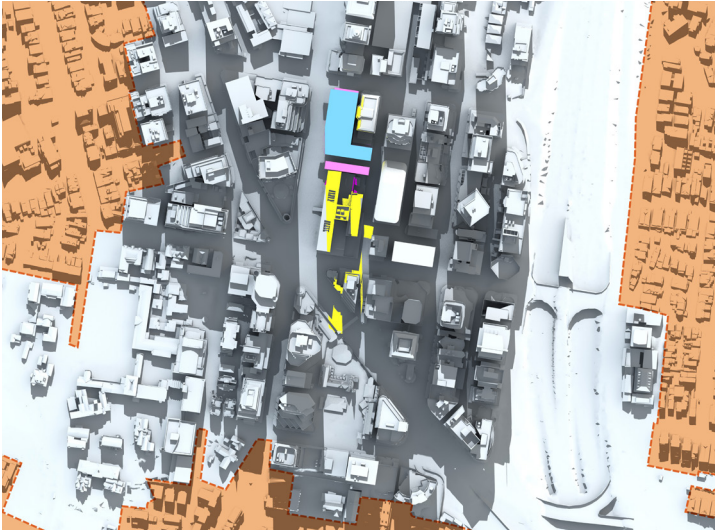
There is no additional shadow created by either the approved or modified building envelope from 9am till 2.30pm. However, at 3pm it is evident that the building envelope creates a shadow on a total of 3 residential properties on Whaling Road. The diagrams in the following section explore this in more detail.

The extents of shadow caused by the modified envelope are consistent with those of the approved envelope. There are no additional impacts to the RE1 zones.

KEY:

- OSD BUILDING ENVELOPE
- VICTORIA CROSS STATION CSSI ENVELOPE
- SHADOWS CAST BY EXISTING BUILDINGS
- SHADOWS CAST BY OSD ENVELOPE
- SHADOW CAST BY CSSI ENVELOPE
- REDUCTION OF SHADOWS
- INCREASE IN SHADOWS
- RE1 RESIDENTIAL AREAS

Clause 6.3 (3.) of the North Sydney Local Environment Plan 2013 (LEP 2013) states that:
The consent authority may grant development consent to a development on Land in the North Sydney Centre that would exceed the maximum height of buildings shown for the land on the Height of Buildings Map if the consent authority is satisfied that any increase in overshadowing between 9am and 3pm from the March Equinox to the September Equinox (inclusive) will not result in any private open space or window to a habitable room, located outside the North Sydney Centre receiving:
(a) if it received 2 hours or more of direct sunlight immediately before the commencement of North Sydney LEP 2013 - Less than 2 hours of sunlight, or
(b) if it received less than 2 hours of direct sunlight immediately before the commencement of North Sydney LEP 2013 - less direct sunlight than it did immediately before that commencement



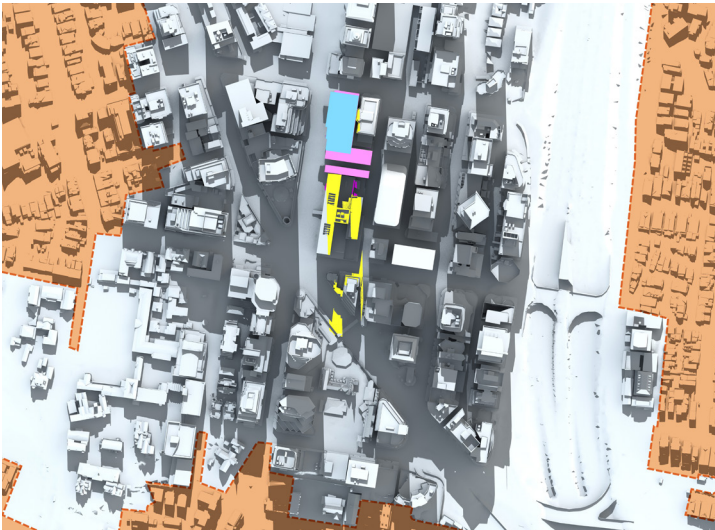
12.00pm June 21st - Approved Envelope



1pm June 21st - Approved Envelope



1.30pm June 21st - Approved Envelope



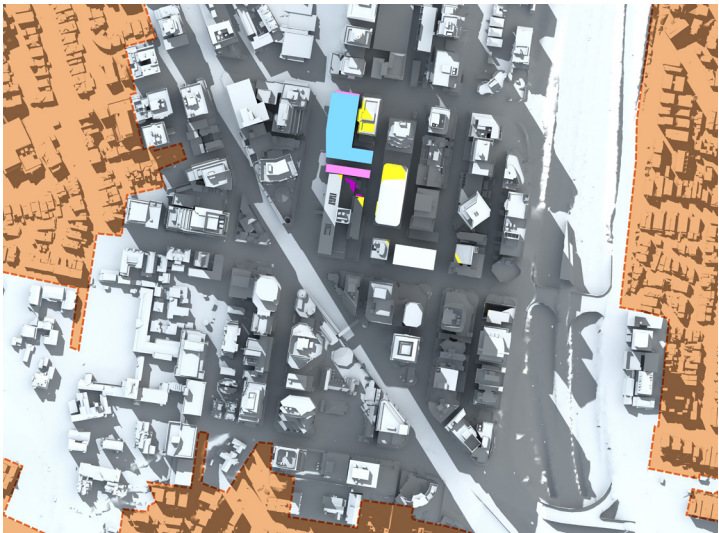
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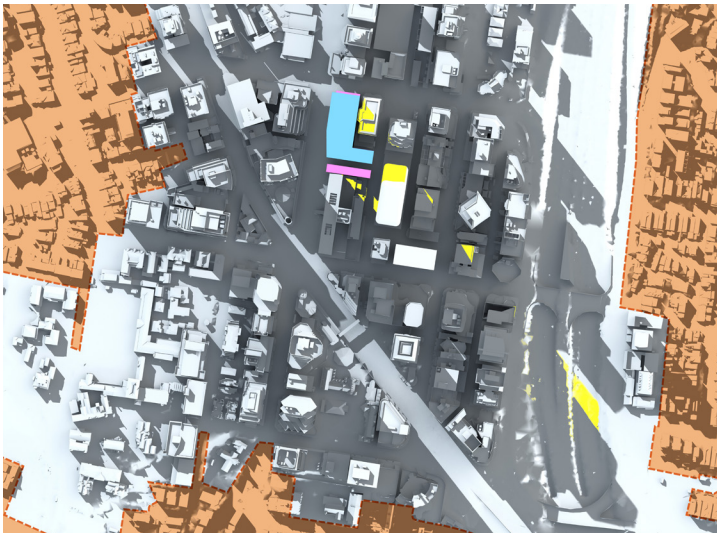
1pm June 21st - Modified Envelope



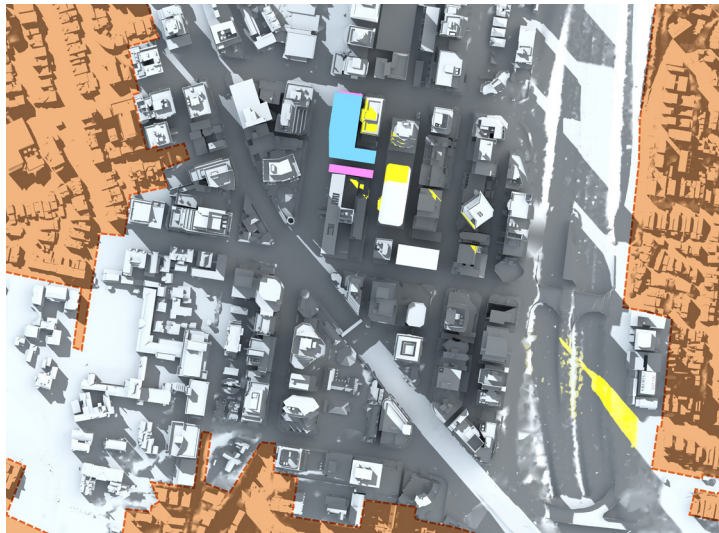
1.30pm June 21st - Modified Envelope



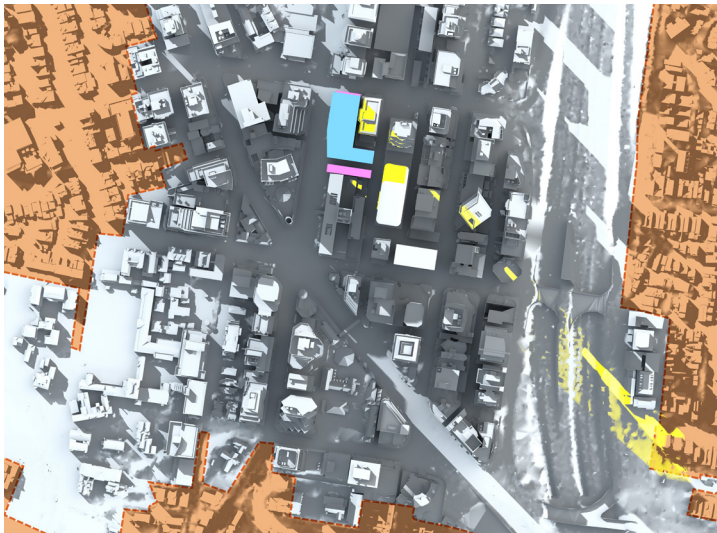
2pm June 21st - Approved Envelope



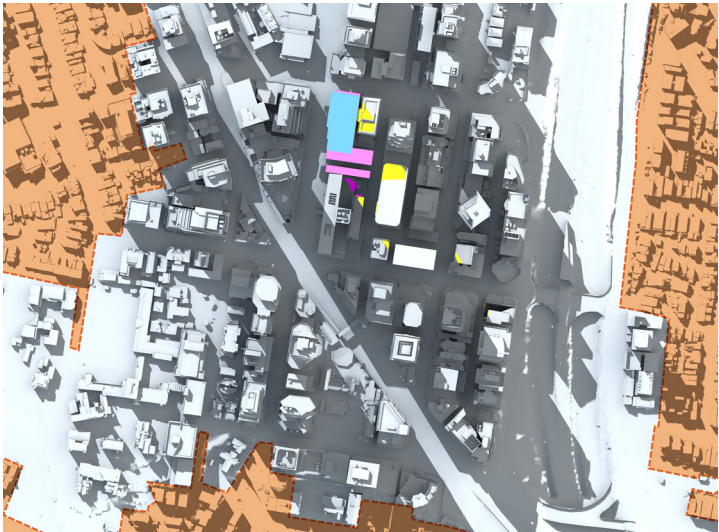
2.30pm June 21st - Approved Envelope



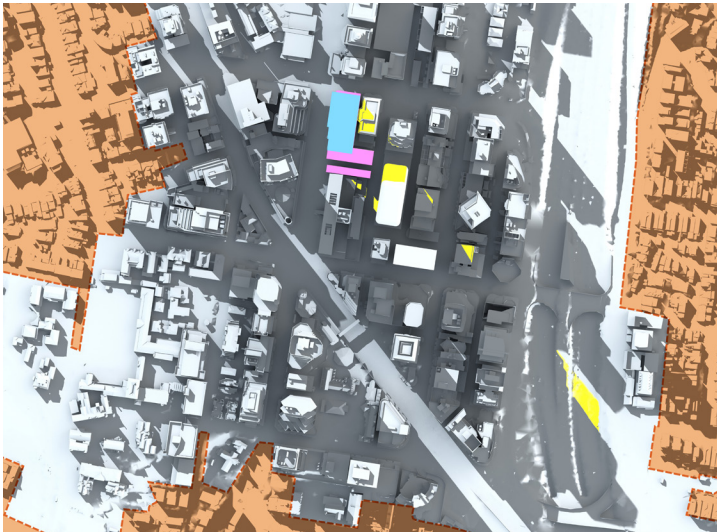
2.45pm June 21st - Approved Envelope



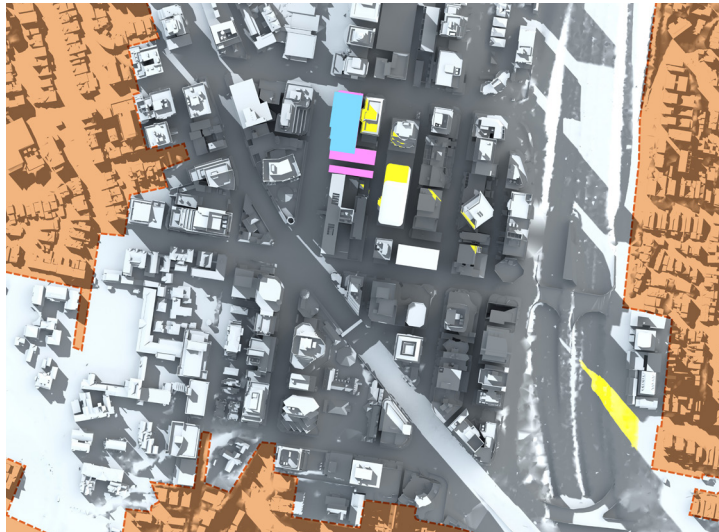
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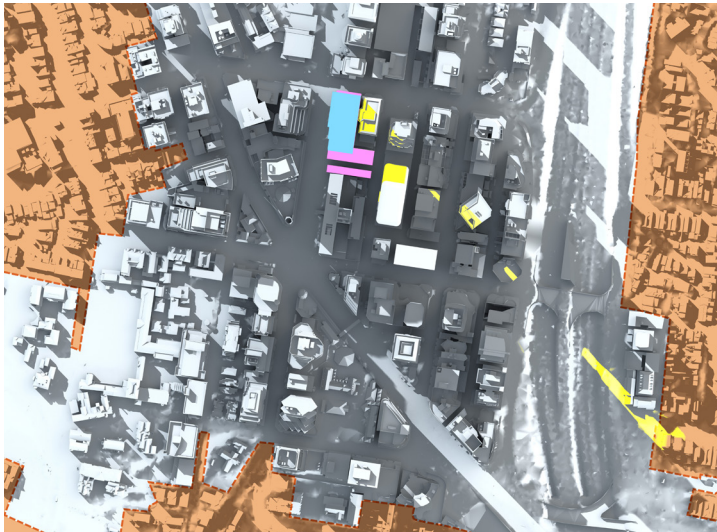
2pm June 21st - Modified Envelope



2.30pm June 21st - Modified Envelope



2.45pm June 21st - Modified Envelope



3pm June 21st - Modified Envelope

A.5.1 SHADOW ANALYSIS RESIDENTIAL PROPERTIES

WINTER SOLSTICE JUNE 21ST

RESIDENTIAL PROPERTIES

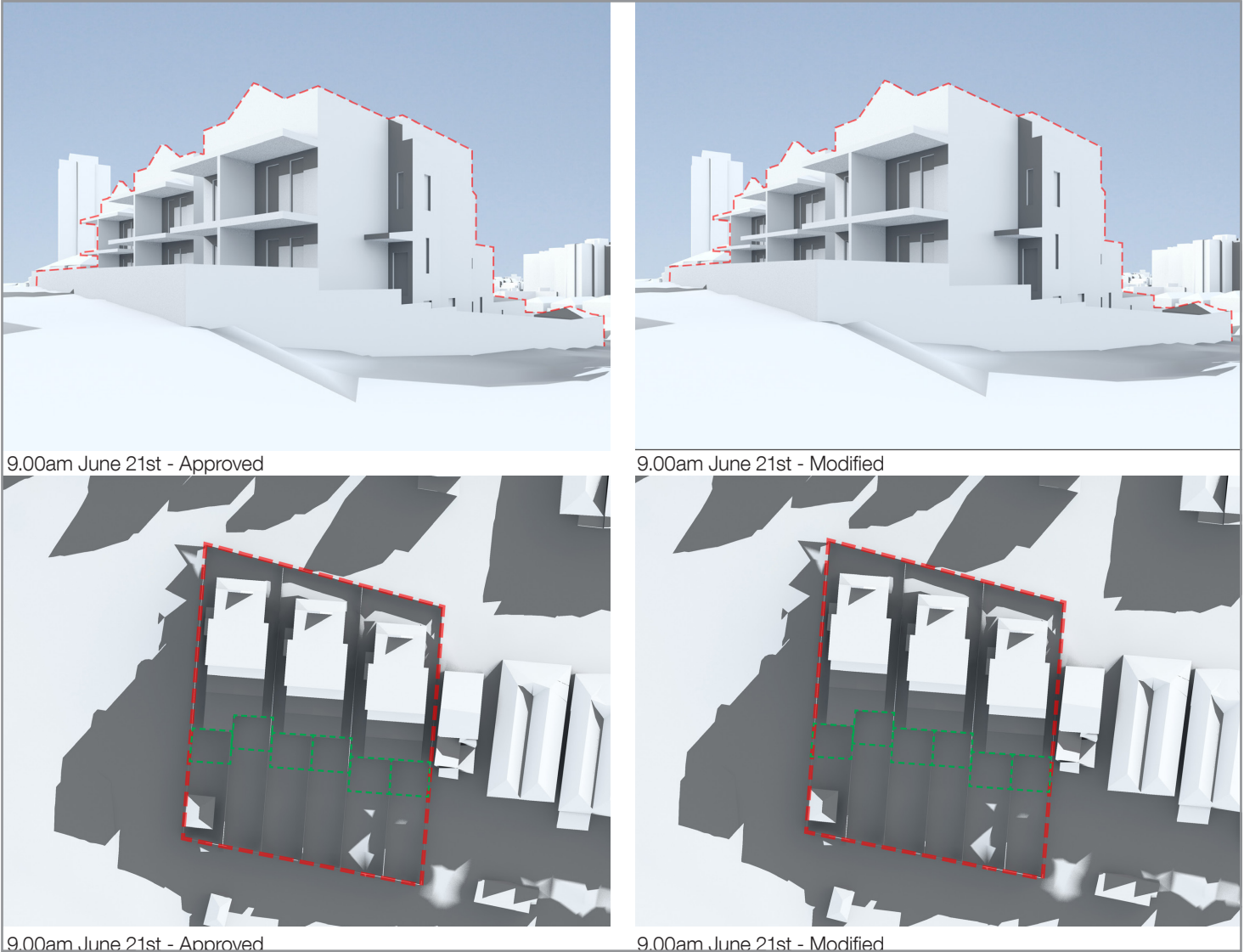
The adjacent diagrams demonstrate the shadow impact created by both the approved OSD Concept SSD building envelope and the modified building envelope in relation to the residential properties on Whaling Road.

The North Sydney Centre Local Environment Plan prohibits any additional overshadowing to any window or principal private open space that currently receives less than 2 hours of direct sunlight. The diagrams show that the windows of residential properties at No's 1, 3, 5 and 11 Whaling Road receive at least 2 hours of direct sunlight between 12.30pm and 2.30pm on June 21st. The south facing private open spaces (indicated in a green dashed outline) are not affected by the shadow cast by either the approved or the modified building envelope as the shadow falls outside the area defined as the principal private open space.



Residential Property at No.1 Whaling Road - The shows the residential property at No.1 Whaling Road. Directly to the west is Alfred Park. Considerable overshadowing is caused by the mature trees that surround the park. We have not taken these into consideration but they would have an impact on the solar access to the property at 1 Whaling Road.

- KEY:
- EXISTING SHADOW
 - SHADOWS CAST BY OSD ENVELOPE
 - PRINCIPAL PRIVATE OPEN SPACE (INFORMED BY NORTH SYDNEY DCP 2013)





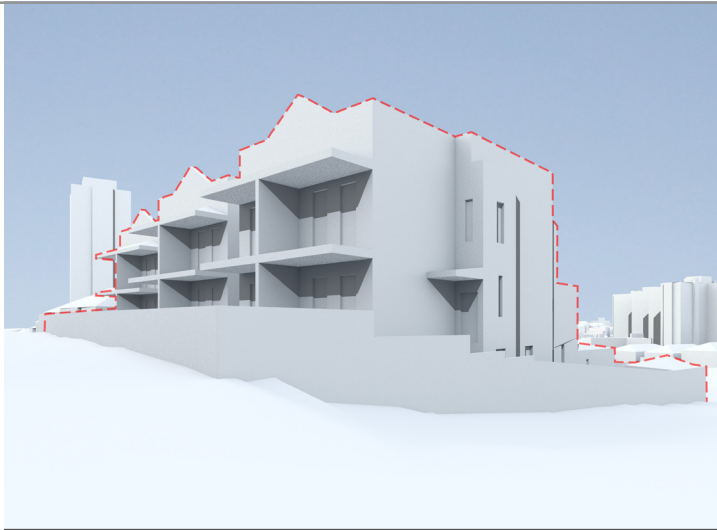
12.00pm June 21st - Approved



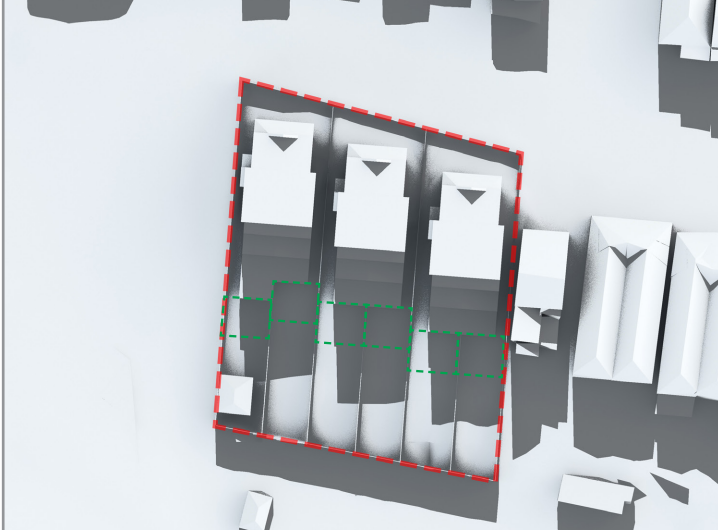
12.00pm June 21st - Modified



1.00pm June 21st - Approved



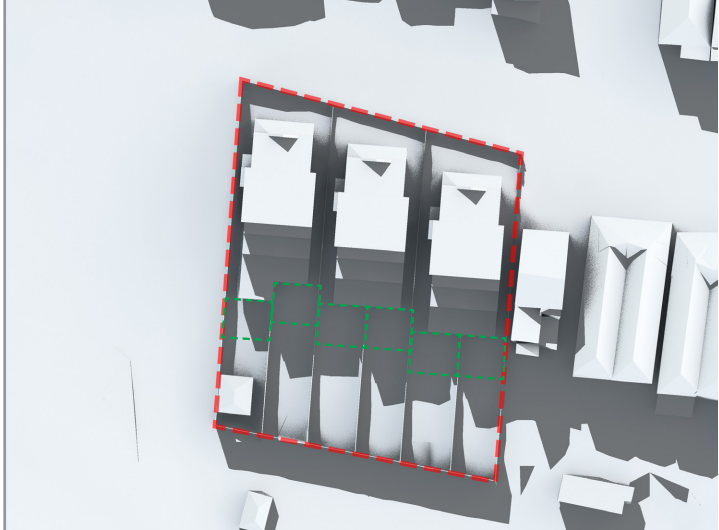
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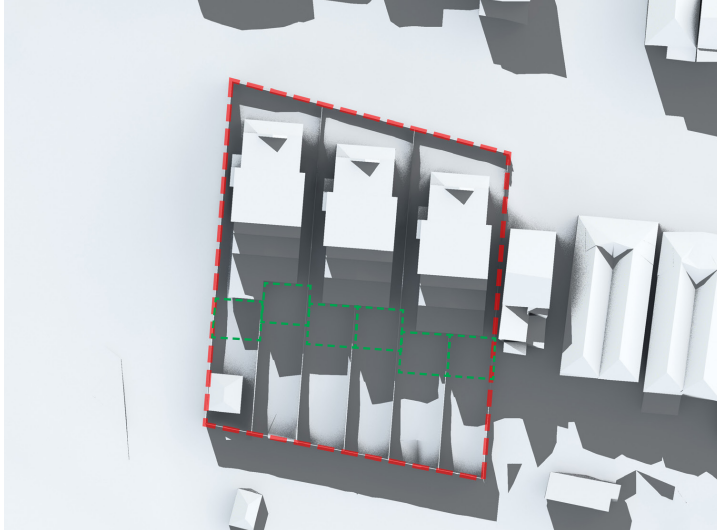
12.00pm June 21st - Approved



12.00pm June 21st - Modified



1.00pm June 21st - Approved



1.00pm June 21st - Modified

A.5.1 SHADOW ANALYSIS RESIDENTIAL PROPERTIES



2.00pm June 21st - Approved



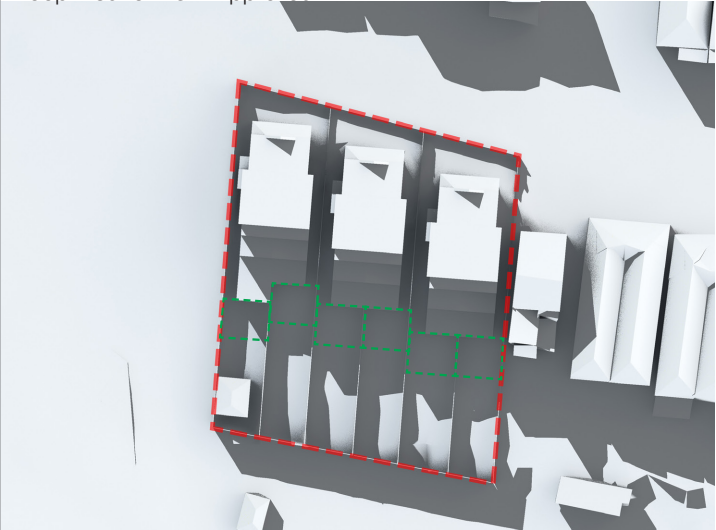
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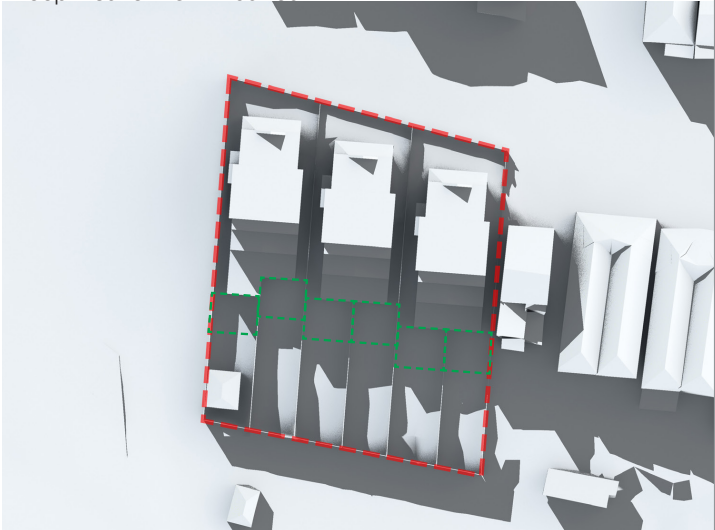
2.30pm June 21st - Approved



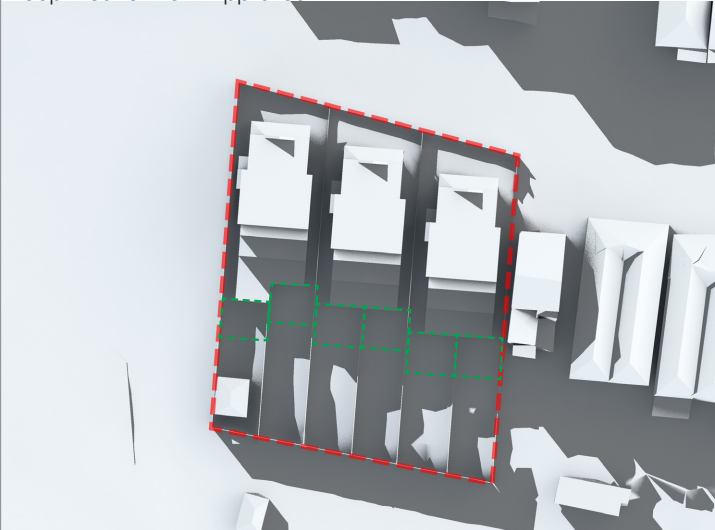
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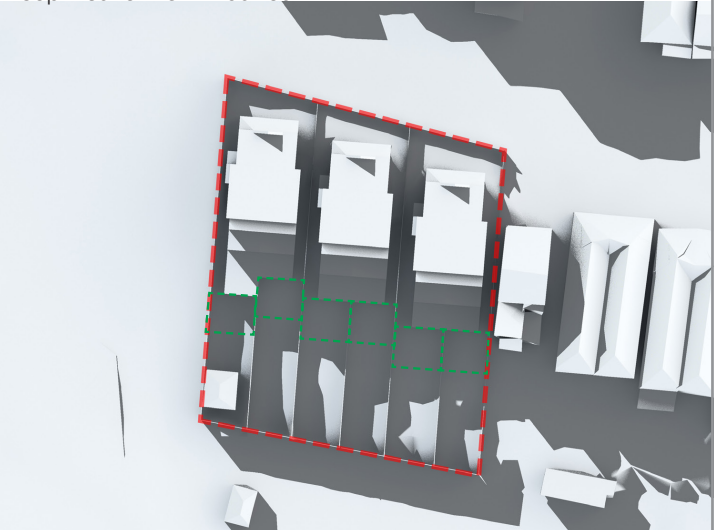
2.00pm June 21st - Approved



2.00pm June 21st - Modified



2.30pm June 21st - Approved



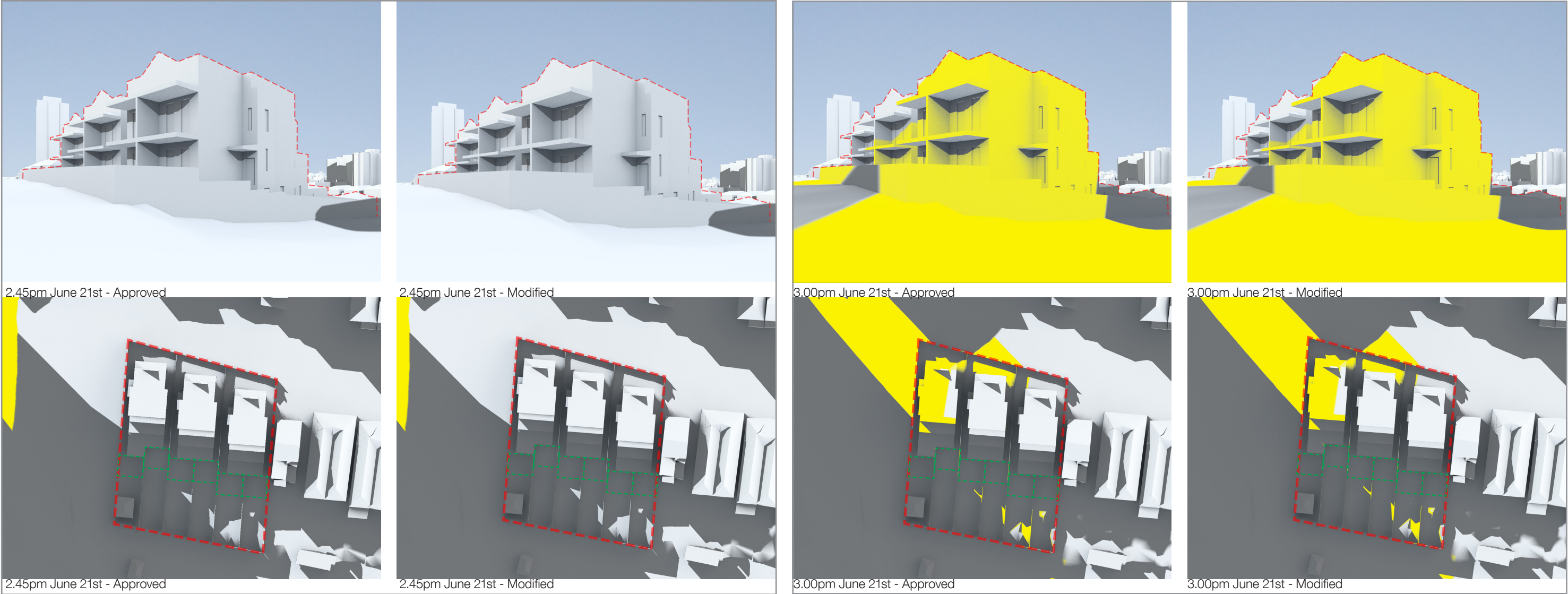
2.30pm June 21st - Modified

KEY:

EXISTING SHADOW

SHADOWS CAST BY OSD ENVELOPE

PRINCIPAL PRIVATE OPEN SPACE
(INFORMED BY NORTH SYDNEY DCP 2013)



2:45PM IMPACT
The impact to the Whaling Road Terraces is the same when comparing the approved and modified envelopes.

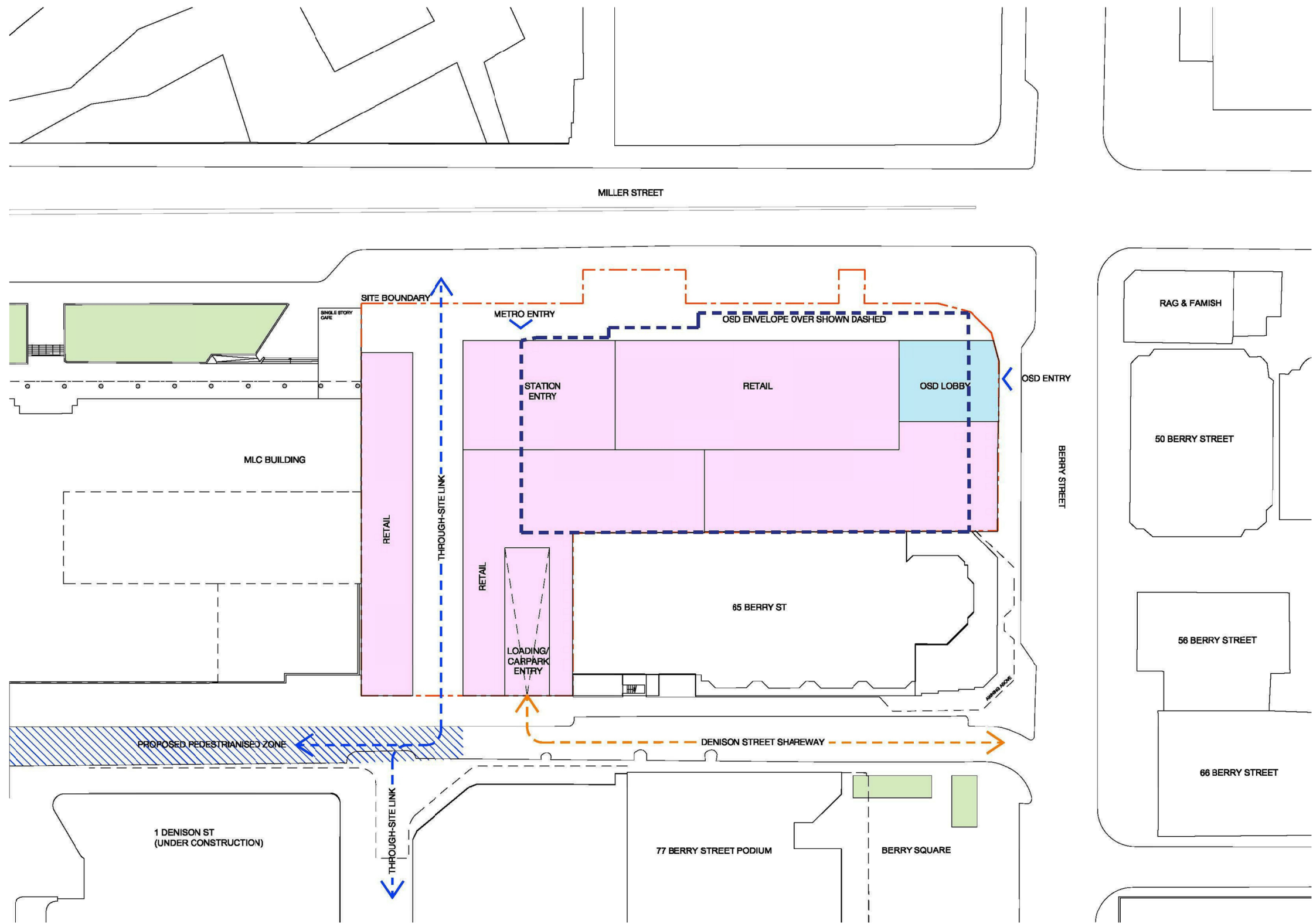
3PM IMPACT
The impact to the Whaling Road Terraces is the same when comparing the approved and modified envelopes.



ARTIST'S IMPRESSION OF THE SOUTHERN METRO ENTRY AND LANEWAY FROM DENISON STREET



APPENDIX B ENVELOPE DRAWINGS



- KEY:
- VICTORIA CROSS STATION CSSI APPROVAL - INCLUDES STRUCTURE AND BUILDING INFRASTRUCTURE AND SPACE FOR LIFT CORES, ACCESS, PARKING, RETAIL AND BUILDING SERVICES FOR THE FUTURE OSD.
 - OSD CONCEPT SSD BUILDING ENVELOPE INCLUDES OSD USES. APPROXIMATE OSD LOBBY LOCATION.
 - PEDESTRIANISED ZONE.
 - PEDESTRIAN THROUGH SITE LINK.
 - VEHICULAR MOVEMENT
 - APPROXIMATE LOCATION OF BUILDING ENVELOPE OVER

\\b-07\project\11000-12099\1201_1\Draw_VictoriaCross\10_Bldg\Arch\10017.rvt

Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.

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7	05.07.19	ISSUE FOR S4.55 MODIFICATION	JWC	MLS
6	2.05.19	ISSUE FOR S4.55 MODIFICATION	JWC	MLS
5	12.04.19	ISSUE FOR S4.55 MODIFICATION	JWC	MLS
4	01.03.19	ISSUE FOR S4.55 MODIFICATION	JWC	MLS
3	08.08.18	ISSUE FOR SSDA	TG	TG
2	16.04.18	ISSUE FOR SSDA	TG	FJM
1	22.02.18	ISSUE FOR SSDA	GH	GH
Revision	Date	Description	Initial	Checked

TFNSW
Victoria Cross OSD

Building Envelope
Indicative Ground Floor
Plan



Scale	Not to scale	@ A0
Drawn	Author	Checked
Project no.	12188	
Status	S4.55 Modification	
Plot Date	5/07/2019 12:42:59 PM	
Plot File		
Drawing no.	Revision	
A01.001	7	

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\\na-fs-01\projects\12000-12099\12011_12011_01\new_victoriacross\B0_BattModel\VCOSD_B0_ARCH_020717.rvt

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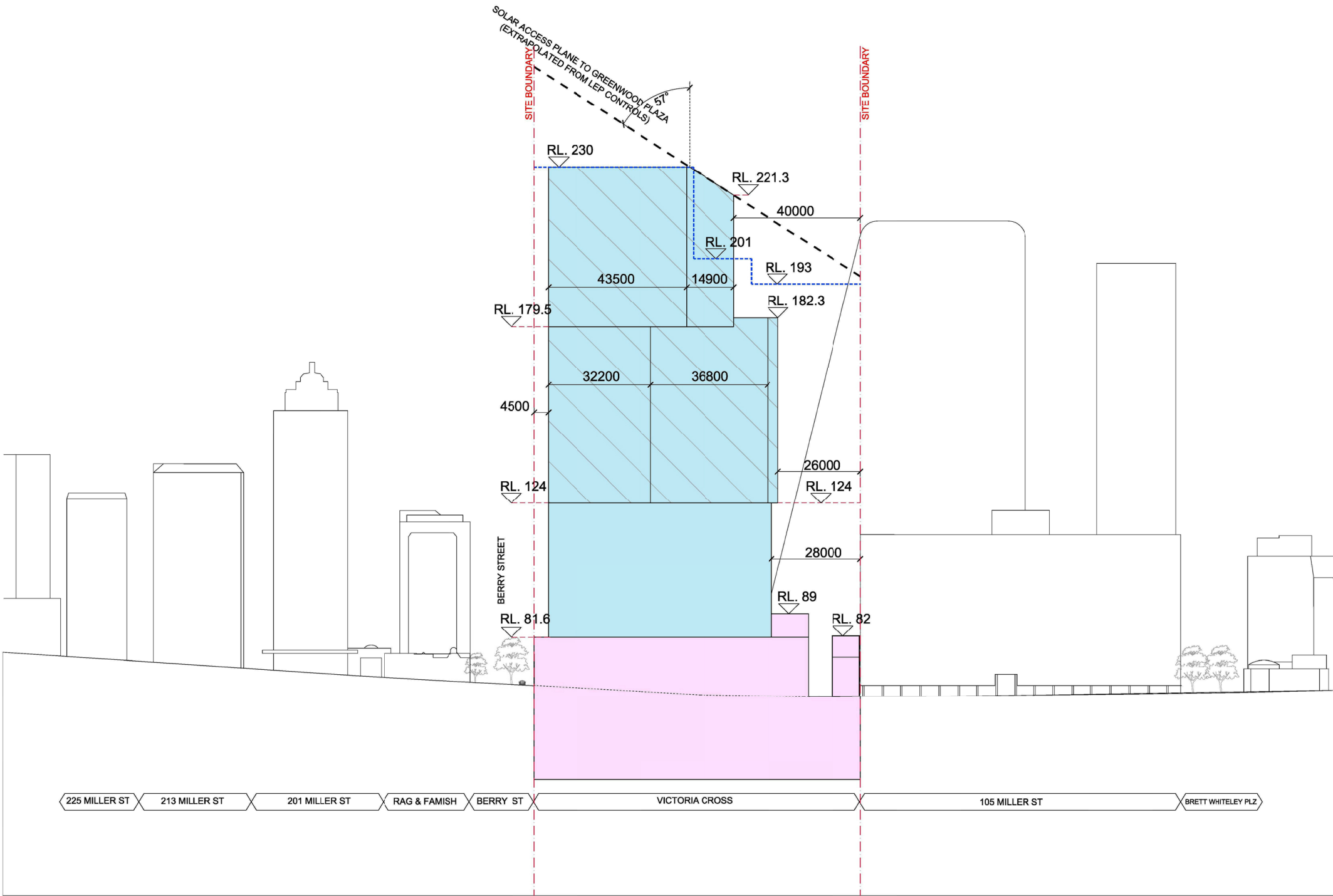
--- MAXIMUM BUILDING HEIGHT
(NORTH SYDNEY LOCAL
ENVIRONMENT PLAN 2013)

VICTORIA CROSS STATION
CSSI APPROVAL - INCLUDES
STRUCTURE AND BUILDING
INFRASTRUCTURE AND
SPACE FOR LIFT CORES,
ACCESS, PARKING, RETAIL
AND BUILDING SERVICES
FOR THE FUTURE OSD.

OSD CONCEPT SSD
BUILDING ENVELOPE
INCLUDES OSD USES.

ARTICULATION ZONE -
0-4.5M WIDE.

Note: A 500mm flexible zone is presumed on the Northern
elevation of the building envelope, and a 250mm flexible zone is
presumed on the Southern elevation of the building envelope, to
allow for non-habitable architectural detailing and expression
such as sunshades.



FOR INFORMATION

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Do not scale drawings - refer to figured dimensions only. Any discrepancies
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7	05.07.19	ISSUE FOR S4.55 MODIFICATION	JWC	MLS
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2	16.04.18	ISSUE FOR SSDA	TG	FJM
1	22.02.18	ISSUE FOR SSDA	GH	GH
Revision	Date	Description	Initial	Checked

TFNSW
Victoria Cross OSD

Building Envelope
Miller Street Elevation

Scale	Not to scale	@ A0
Drawn	Author	Checked
Project no.	12188	
Status	S4.55 Modification	
Plot Date	5/07/2019 12:46:11 PM	
Plot File		
Drawing no.		Revision
A01.002		7

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KEY:

--- MAXIMUM BUILDING HEIGHT
(NORTH SYDNEY LOCAL
ENVIRONMENT PLAN 2013)

VICTORIA CROSS STATION
CSSI APPROVAL - INCLUDES
STRUCTURE AND BUILDING
INFRASTRUCTURE AND
SPACE FOR LIFT CORES,
ACCESS, PARKING, RETAIL
AND BUILDING SERVICES
FOR THE FUTURE OSD.

OSD CONCEPT SSD
BUILDING ENVELOPE
INCLUDES OSD USES.

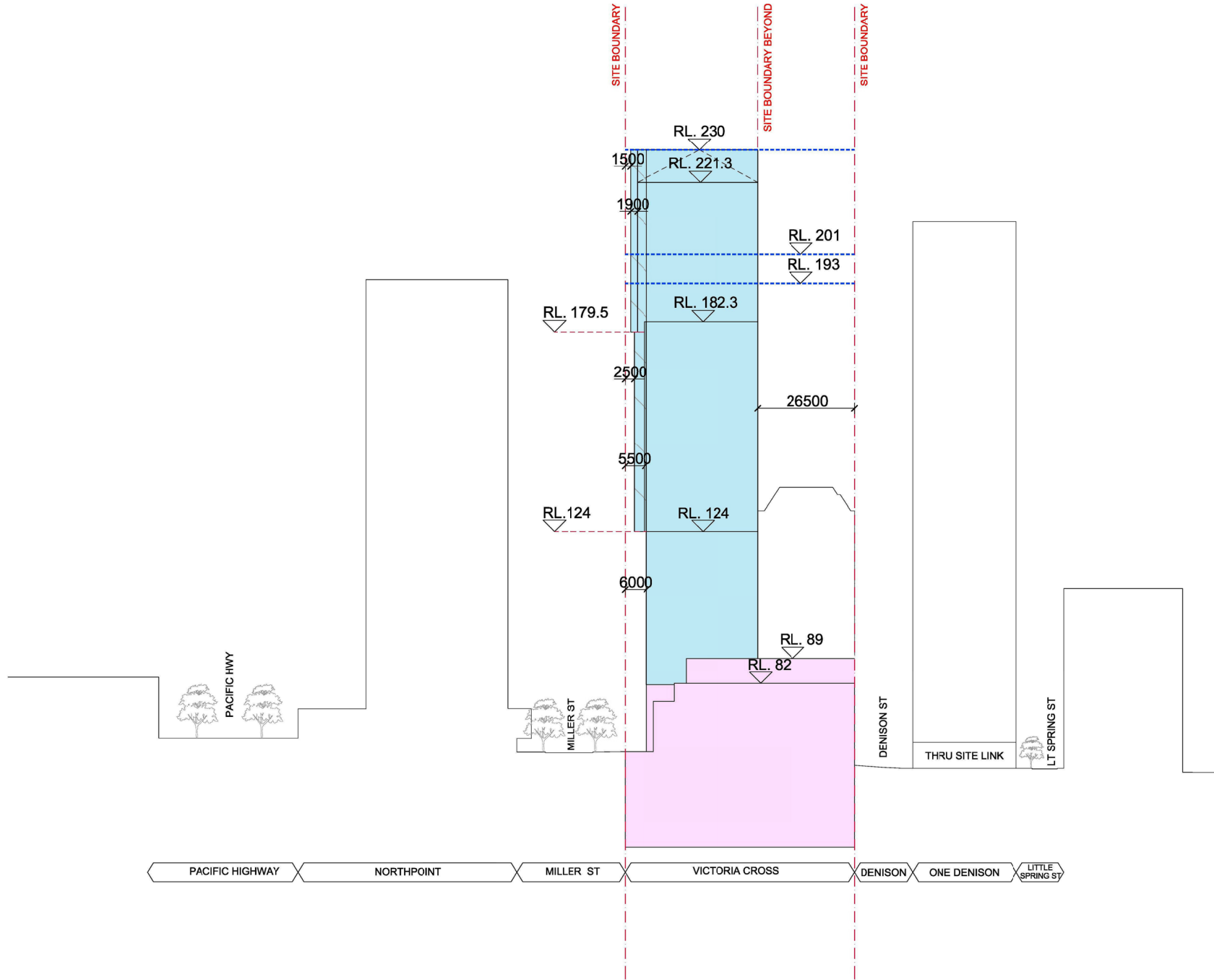
ARTICULATION ZONE -
0-4.5M WIDE.

Note: A 500mm flexible zone is presumed on the Northern elevation of the building envelope, and a 250mm flexible zone is presumed on the Southern elevation of the building envelope, to allow for non-habitable architectural detailing and expression such as sunshades.

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3	08.08.18	ISSUE FOR SSDA	TG	TG
2	16.04.18	ISSUE FOR SSDA	TG	FJM
1	22.02.18	ISSUE FOR SSDA	GH	GH
Revision	Date	Description	Initial	Checked

TFNSW
Victoria Cross OSD
Building Envelope
East West Section

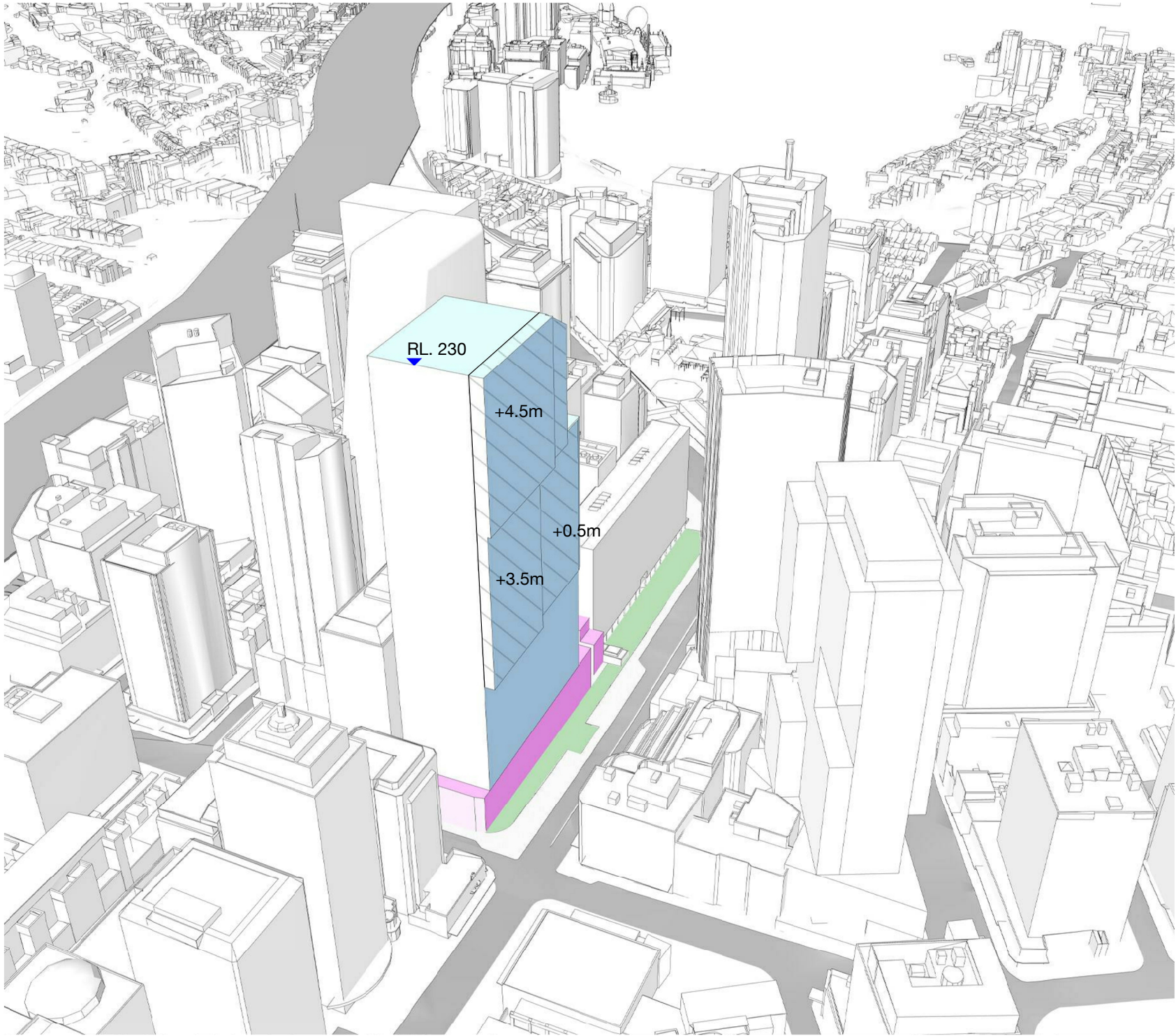
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Drawing no.	Revision	
A01.003	7	

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KEY:



VICTORIA CROSS STATION
CSSI APPROVAL - INCLUDES
STRUCTURE AND BUILDING
INFRASTRUCTURE AND
SPACE FOR LIFT CORES,
ACCESS, PARKING, RETAIL
AND BUILDING SERVICES
FOR THE FUTURE OSD



OSD CONCEPT SSD
BUILDING ENVELOPE
INCLUDES OSD USES.



ARTICULATION ZONE -
0-4.5M WIDE

Note: A 500mm flexible zone is presumed on the Northern elevation of the building envelope, and a 250mm flexible zone is presumed on the Southern elevation of the building envelope, to allow for non-habitable architectural detailing and expression such as sunshades.

FOR INFORMATION

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2	16.04.18	ISSUE FOR SSDA	TG	FJM
1	22.02.18	ISSUE FOR SSDA	GH	GH
Revision	Date	Description	Initial	Checked

TFNSW
Victoria Cross OSD

Building Envelope
North West Axonometric

Scale	Not to scale	@ A0
Drawn	Author	Checked
Project no.	12188	
Status	S4.55 Modification	
Plot Date	5/07/2019 12:49:20 PM	
Plot File		
Drawing no.		Revision
A01.004		7


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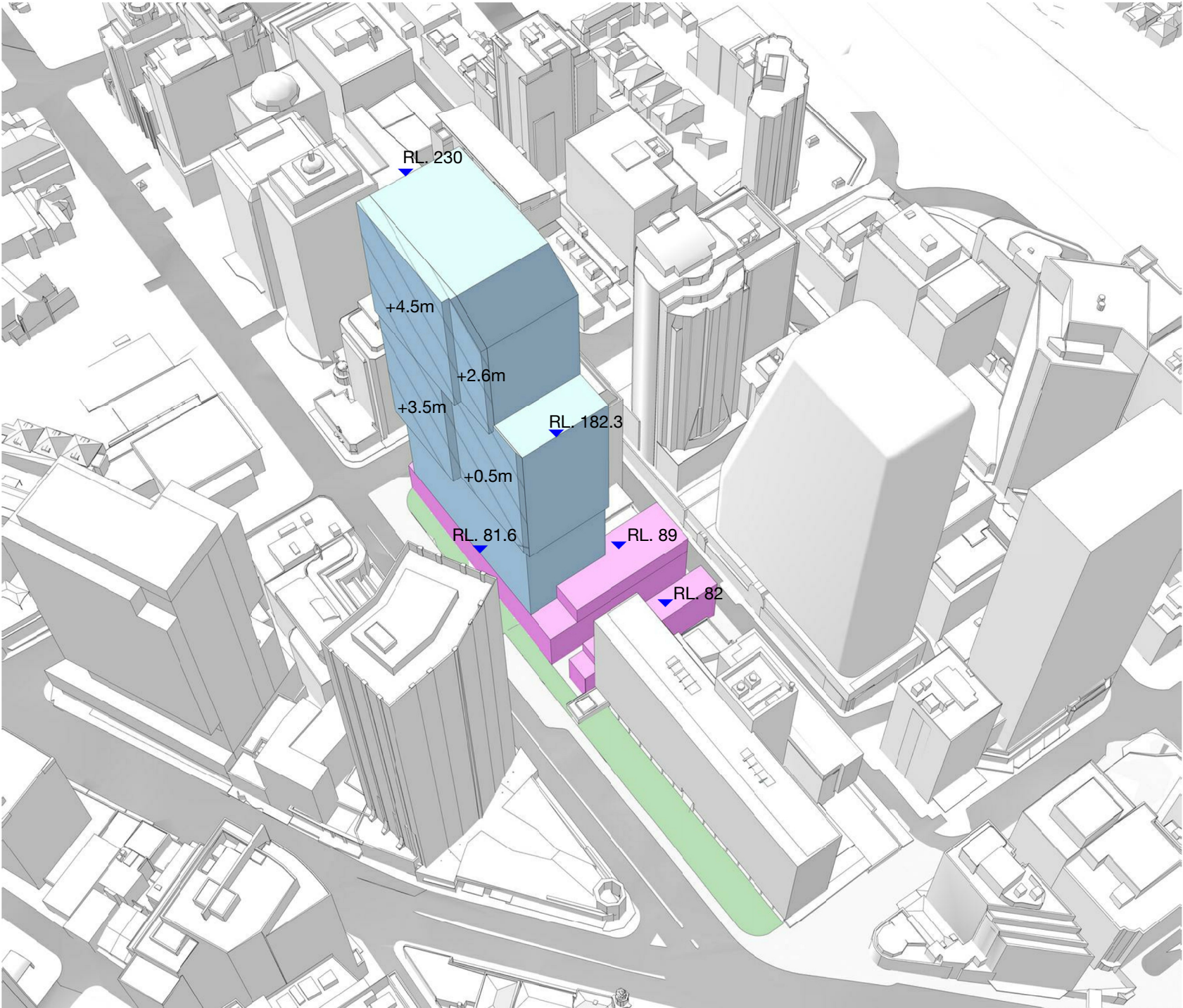
KEY:

 VICTORIA CROSS STATION
CSSI APPROVAL - INCLUDES
STRUCTURE AND BUILDING
INFRASTRUCTURE AND
SPACE FOR LIFT CORES,
ACCESS, PARKING, RETAIL
AND BUILDING SERVICES
FOR THE FUTURE OSD

 OSD CONCEPT SSD
BUILDING ENVELOPE
INCLUDES OSD USES.

 ARTICULATION ZONE -
0-4.5M WIDE

Note: A 500mm flexible zone is presumed on the Northern elevation of the building envelope, and a 250mm flexible zone is presumed on the Southern elevation of the building envelope, to allow for non-habitable architectural detailing and expression such as sunshades.



Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and or the fabrication of any components.

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6	2.05.19	ISSUE FOR S4.55 MODIFICATION	JWC	MLS	
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Revision		Date	Description	Initial	Checked

TFNSW
Victoria Cross OSD

Building Envelope
South West
Axonometric

Scale	Not to scale	@ A0
Drawn	Author	Checked
Project no.	12188	
Status	S4.55 Modification	
Plot Date	5/07/2019 12:38:11 PM	
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Drawing no.	Revision	
A01.005	7	

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