

# **Attachment E**

## **Overshadowing Analysis**

# St Vincent's College

## Council RFI - Overshadowing Analysis

Prepared by Ethos Urban  
Prepared for St Vincent's College  
Issue B — August 2024 | 2220271






**'Gura Bulga'**

Liz Belanjee Cameron  
 'Gura Bulga' – translates to Warm Green Country, Representing New South Wales. By using the green and blue colours to represent NSW, this painting unites the contrasting landscapes. The use of green symbolises tranquility and health. The colour cyan, a greenish-blue, sparks feelings of calmness and reminds us of the importance of nature, while various shades of blue hues denote emotions of new beginnings and growth. The use of emerald green in this image speaks of place as a fluid moving topography of rhythmic connection, echoed by densely layered patterning and symbolic shapes which project the hypnotic vibrations of the earth, waterways and skies.

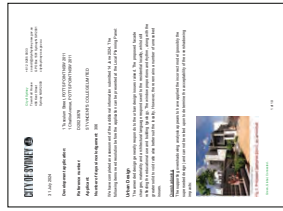
Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We acknowledge the Gadigal people, of the Eora Nation, the Traditional Custodians of the land where this document was prepared, and all peoples and nations from lands affected.

We pay our respects to their Elders past, present and emerging.

|   |   |                                       |
|---|---|---------------------------------------|
| <b>Contact</b>  | Jacob Dwyer<br>Principal  | jdwyer@ethosurban.com<br>0429 089 504 |
| This document has been prepared by:   |   |                                       |
|    |  |                                       |
| Evelyn Ho   | 13/08/2024  | Chee Heng Tan<br>13/08/2024           |
| <b>Version No.</b>  | <b>Date of issue</b>  | <b>Revision by</b>                    |
| A   | 07/06/2024  | CT                                    |
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|  Ethos Urban Pty Ltd   ABN 13 615 087 931   +61 2 9956 6962<br>Level 4, 180 George Street, Sydney (Gadigal Land) NSW 2000   ethosurban.com   |   |                                       |

# Response to Council RFI Letter



This report has been prepared in response to City of Sydney's RFI letter dated 31 July 2024 for DA Reference Number D/2023/878.

The relevant section of the letter is shown on this first page.

The purpose of this report is to address queries outlined on page 1 to 4 of Council's RFI letter specifically around the use of superseded model for the overshadowing study. This report and the overshadowing analysis was conducted using 3D model issued by Leaf Architecture dated 7 August 2024. The overshadowing analysis undertaken in this report includes:

- Ladybug Solar Analysis of Private Open Space (POS) on 6-20 Rockwall Crescent, demonstrating area with at least 2 hours of solar access (excluding carpark)
- Shadow Diagrams Plans with existing solar access and solar access reduction measurements (if any)
- Elevational shadows, demonstrating the extent of overshadowing to the northern facade of the terraces on 6-20 Rockwall Crescent
- Elevational shadows, demonstrating the extent of overshadowing to the western facade of the adjoining Hotel Challis building
- Half hourly views from the sun diagrams, demonstrating impact on the terraces on 6-20 Rockwall Crescent

**CITY OF SYDNEY**

City of Sydney  
 Council Offices  
 100 Phillip Street  
 Sydney NSW 2000

Development application:  
 1 Tuzum Street, POTTS POINT NSW 2011  
 1 Challis Avenue, POTTS POINT NSW 2011

Reference number:  
 D/2023/878

Applicant:  
 ST VINCENTS COLLEGE LIMITED

Number of days since lodgment: 300

We have completed a reassessment of the additional information submitted 14 June 2024. The following items need resolution before the application can be presented at the Local Planning Panel:

**Urban Design**

The amended design generally responds to the urban design issues raised. The proposed facade changes, consistency and architectural language responds well to the residential locality, whilst still being able to distinguish the building from the locality. However, there remains a number of unresolved issues.


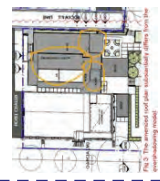



Fig 1: Proposed Barbara Block, un-amended

Fig 2: The Barbara Block has a different form and facade to the existing building structure. The second storey is also deeper into the site than the existing building. This is a larger setback from the boundary.




The amended design generally responds to the urban design issues raised. The proposed facade changes, consistency and architectural language responds well to the residential locality, whilst still being able to distinguish the building from the locality. However, there remains a number of unresolved issues.

Fig 3: The amended design generally responds to the urban design issues raised. The proposed facade changes, consistency and architectural language responds well to the residential locality, whilst still being able to distinguish the building from the locality. However, there remains a number of unresolved issues.



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# Private Open Space of Neighbouring Terraces

6-20 Rockwall Crescent is located south / southeast of the Subject Site across Rockwall Lane and consists of a total of 8 terraces. Information from SixMap cadastre and Nearmap have identified that those 8 terraces are part of a total of 4 different lots as below:

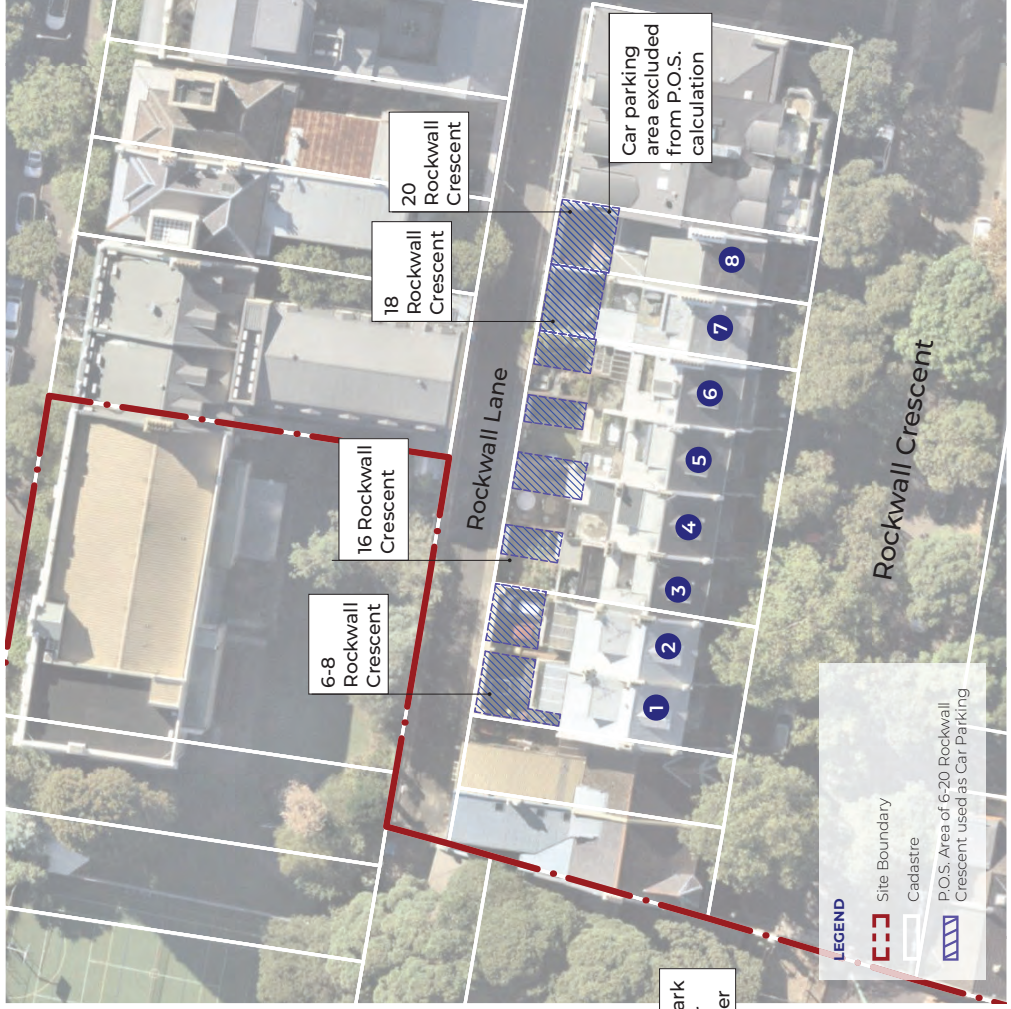
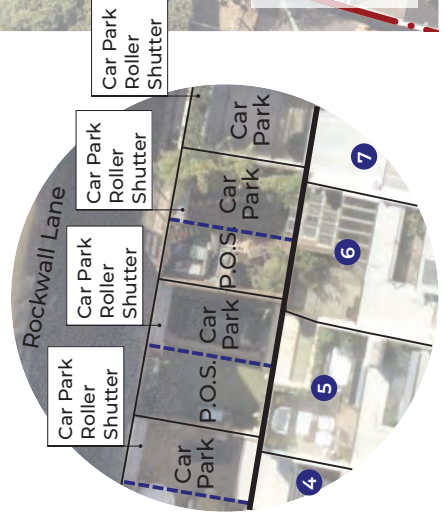
| No.     | Address               | Plan    |
|---------|-----------------------|---------|
| 1 2     | 6-8 Rockwall Crescent | SP45495 |
| 3 4 5 6 | 16 Rockwall Crescent  | SP21615 |
| 7       | 18 Rockwall Crescent  | SP22536 |
| 8       | 20 Rockwall Crescent  | 91810   |

These terraces have private open space to the north along Rockwall Lane facing the southern boundary of the Subject Site. While some of these spaces consist of outdoor seating area or landscaping, the majority of those are currently being used as car parking space by the residents of 6-20 Rockwall Crescent.

For the purpose of this overshadowing study, EU are in the opinion that the portion of the private open space (POS) used as car parking does not fit the definition of a private open space and hence have been excluded from the calculation (in sqm) of the existing and proposed available solar access (to private open space) of 6-20 Rockwall Crescent.

High resolution aerial extract from Nearmap and Google Streetview have been used to determine the extent of private open space currently used as car parking for each of the terraces along 6-20 Rockwall Crescent. As these private open spaces are open to sky, the roller shutter of the car parking entry is visible from the aerial and have been used to delineate the usable portion of the private open space and parking space (blue dotted line below).

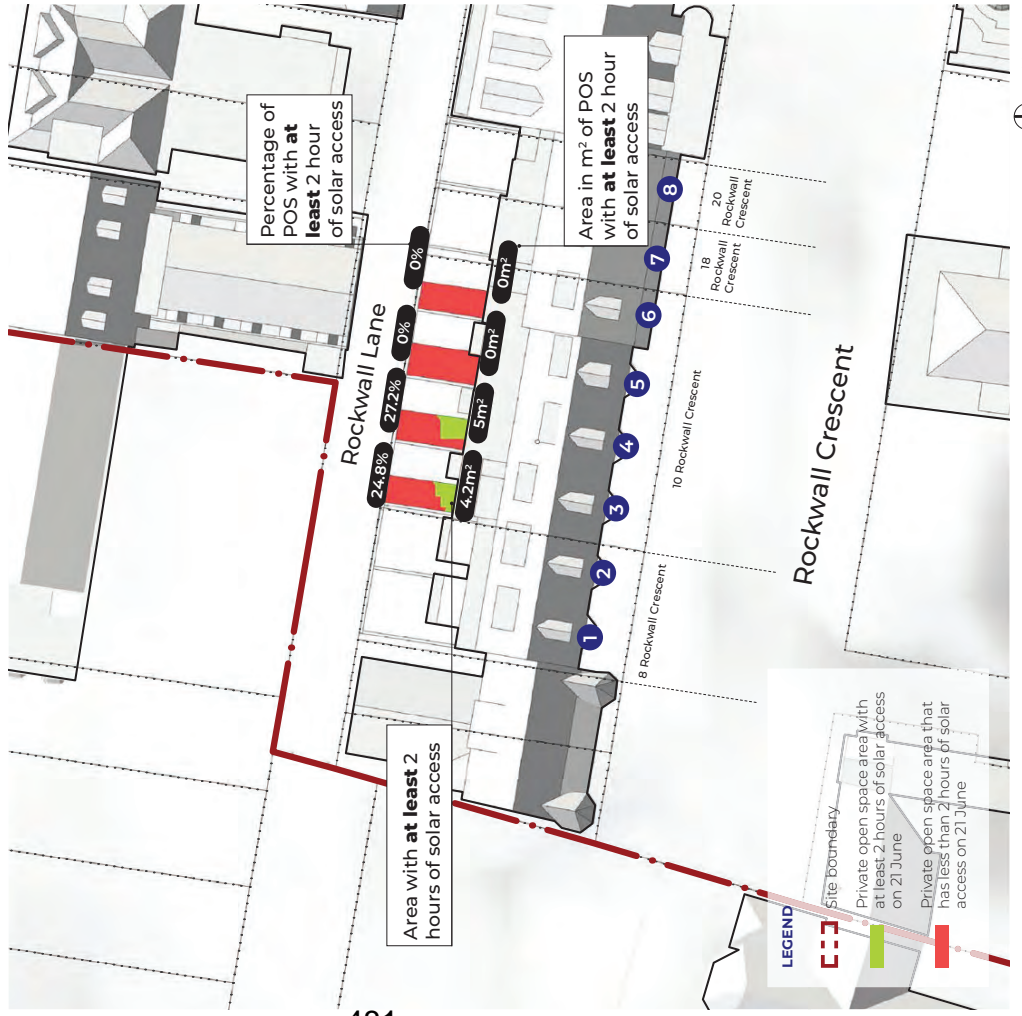
The redefined private open spaces have been used in this study to quantify the overshadowing impact to the private open space as a result of proposed development.



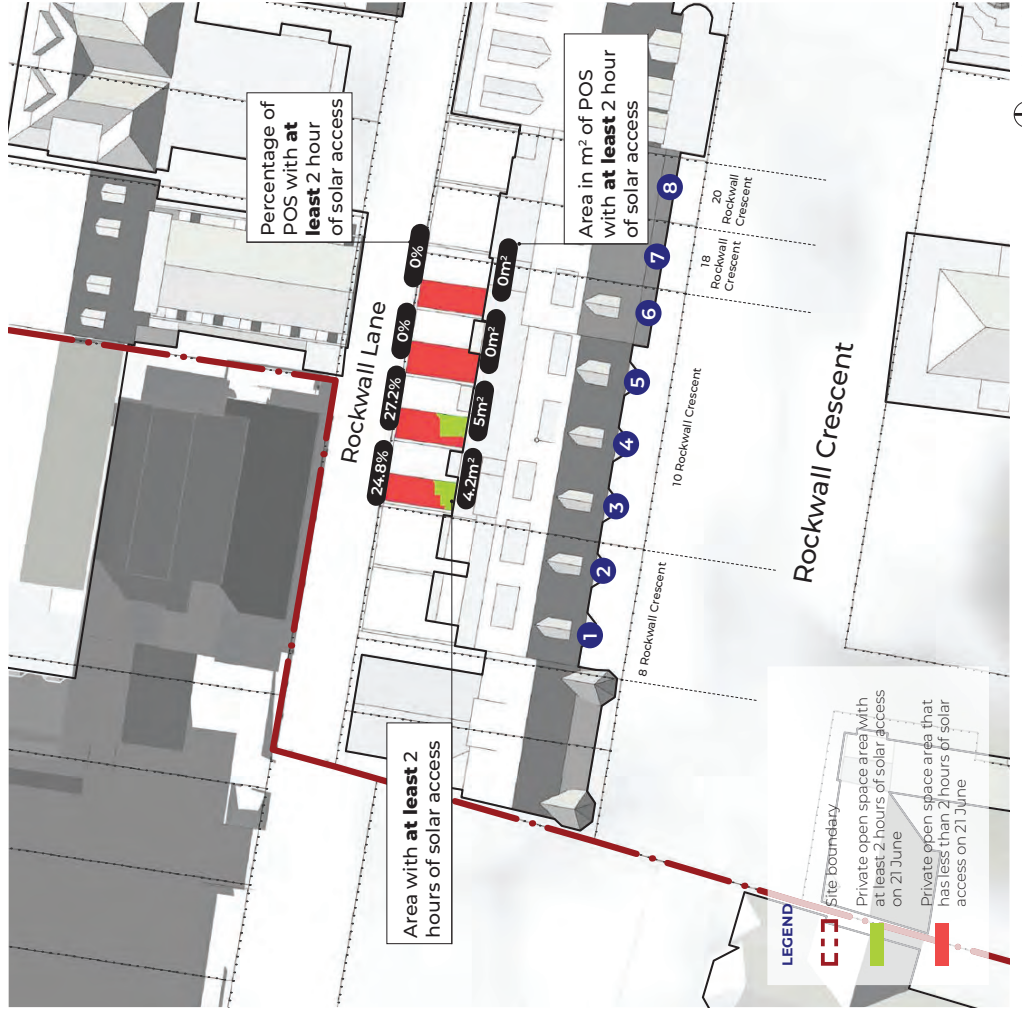
01 Terraces along 6-20 Rockwall Crescent

# Ladybug Solar Analysis of POS on 6-20 Rockwall Crescent (21 June 9AM-3PM)

## Existing



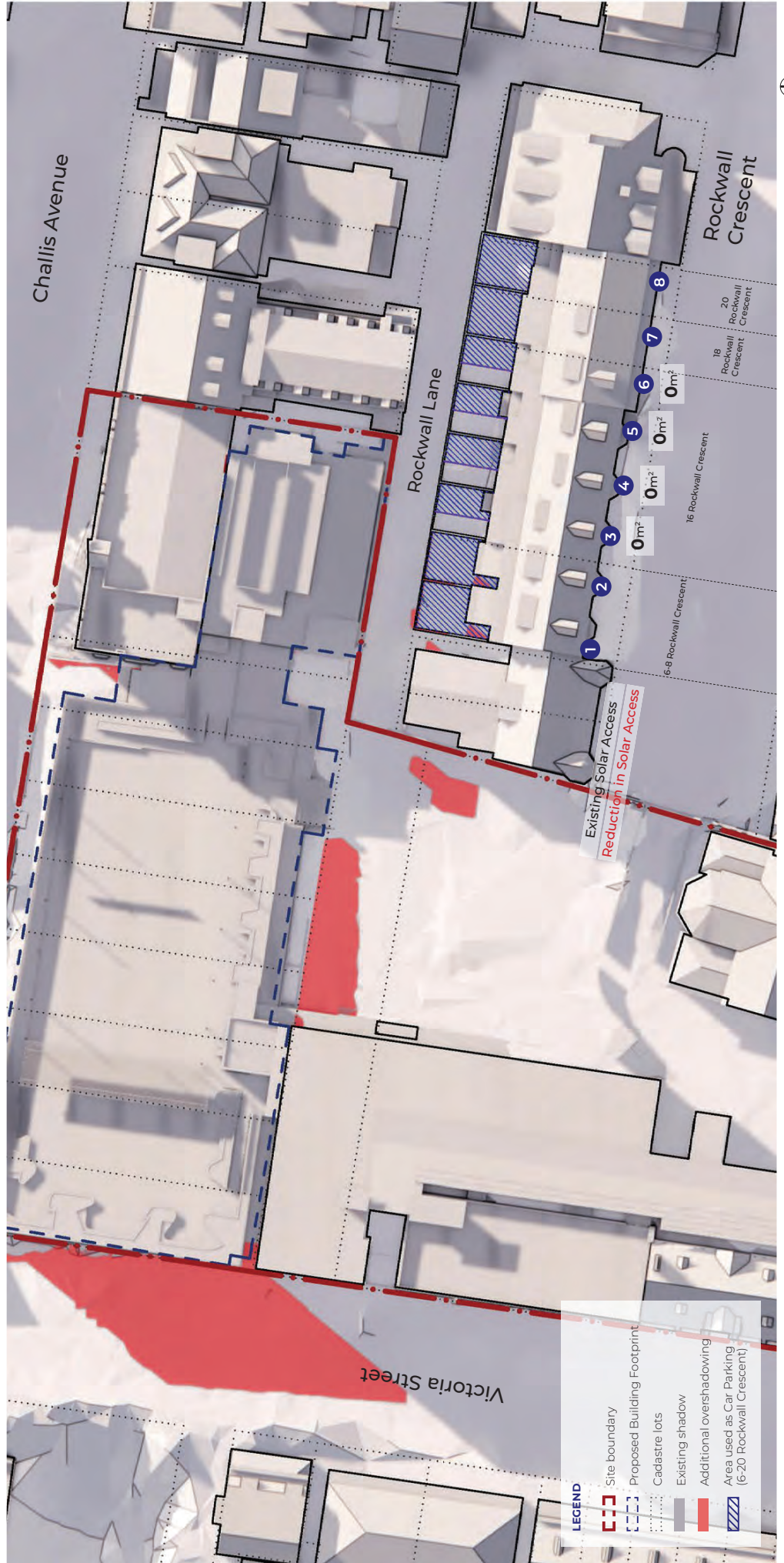
## Proposed



# Shadow Diagram 21 June 09.00AM



# Shadow Diagram 21 June 09.15AM

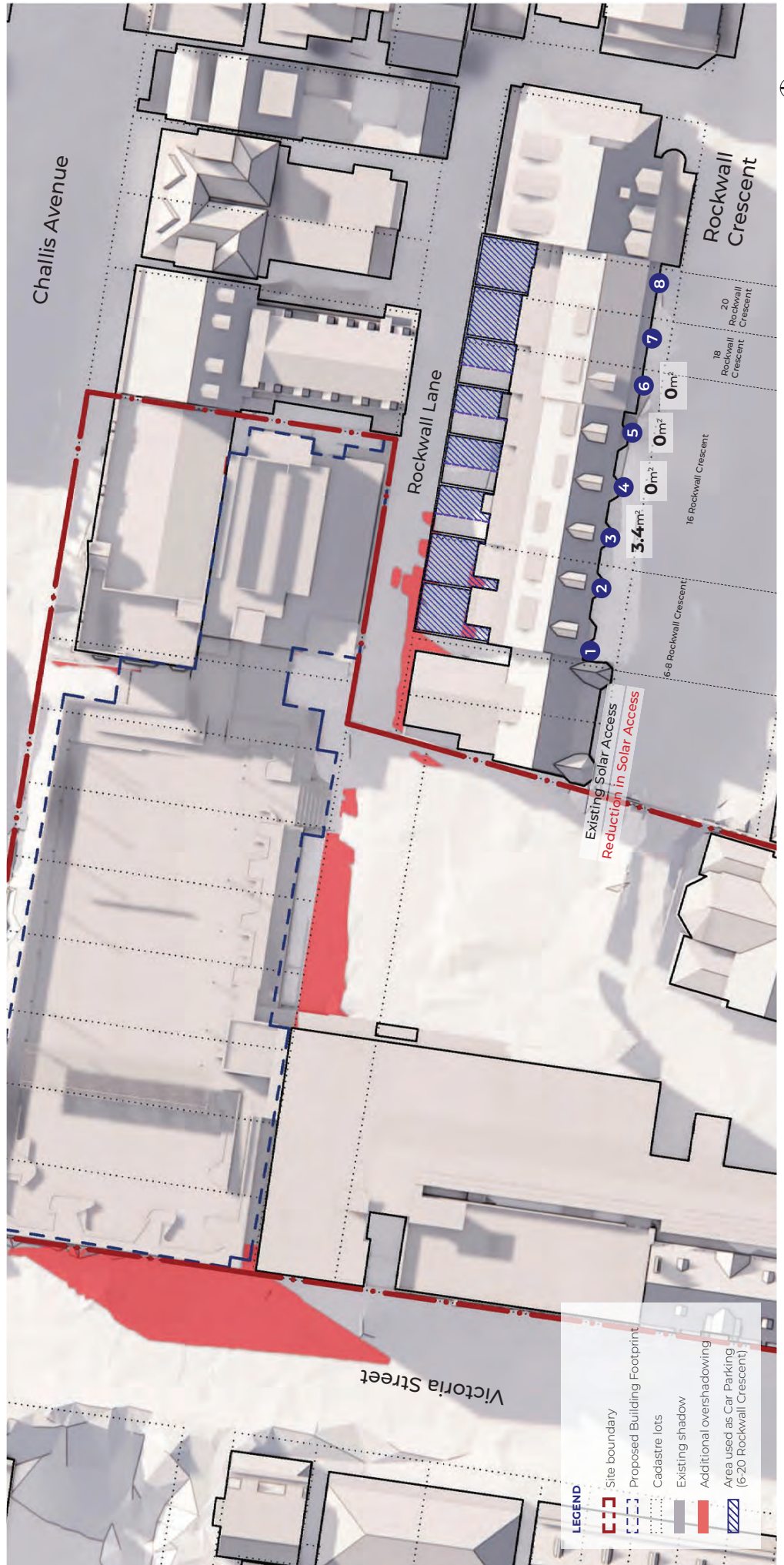




# Shadow Diagram 21 June 09.30AM



# Shadow Diagram 21 June 09.45AM



# Shadow Diagram 21 June 10.00AM



# Shadow Diagram 21 June 10.15AM



# Shadow Diagram 21 June 10.30AM



# Shadow Diagram 21 June 10.45AM



# Shadow Diagram 21 June 11.00AM

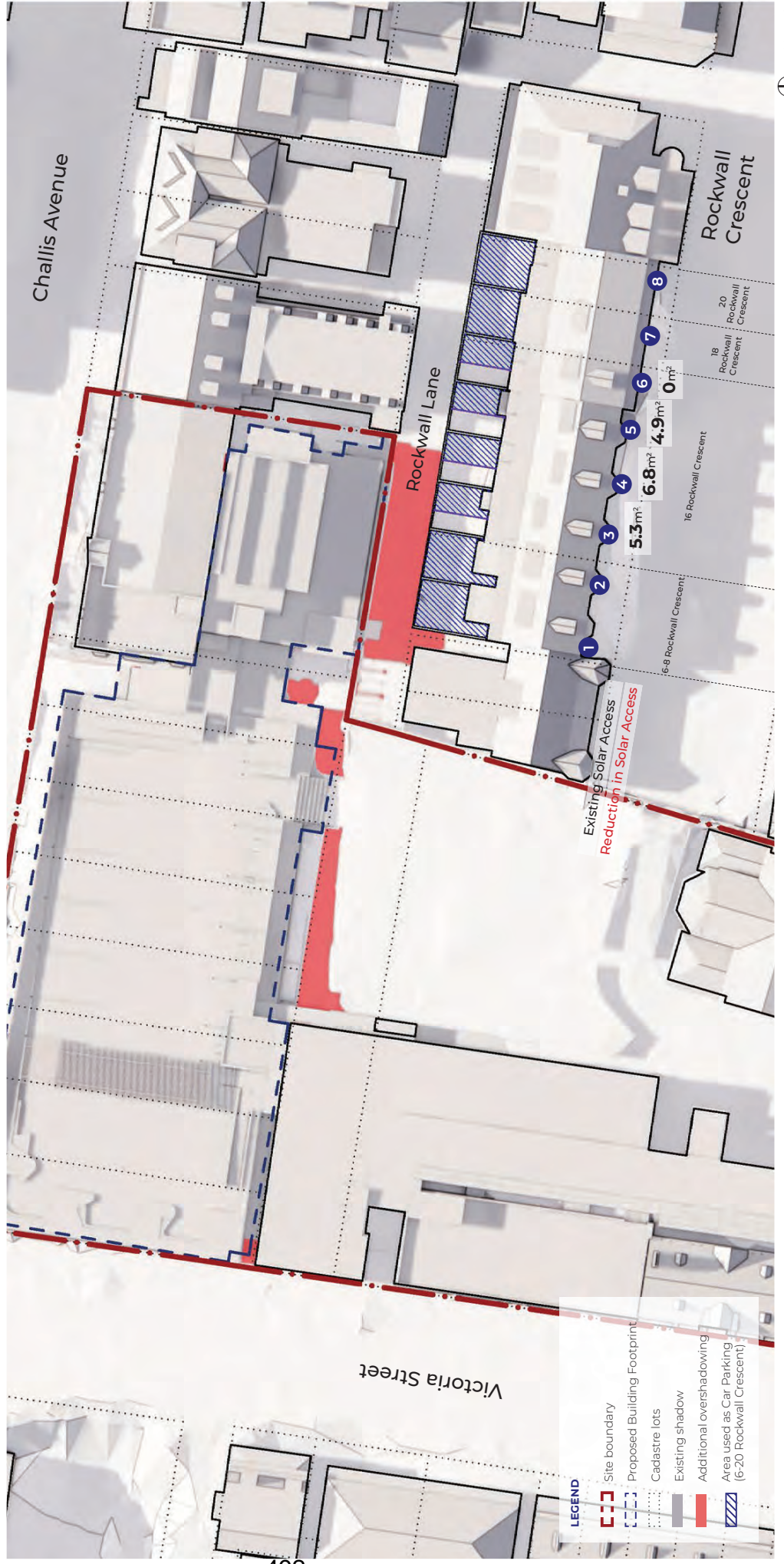


# Shadow Diagram 21 June 11.15AM

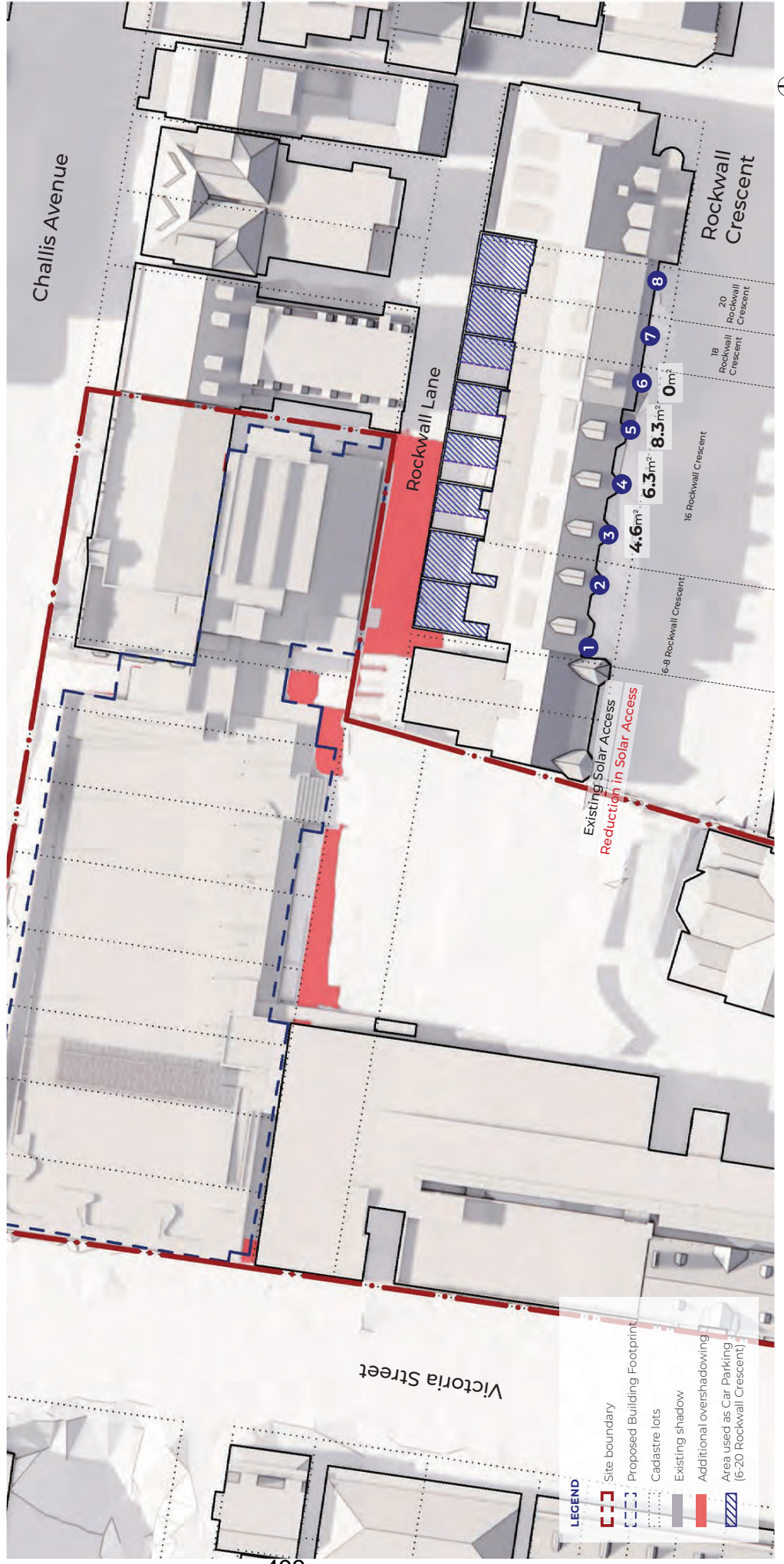




# Shadow Diagram 21 June 11.30AM

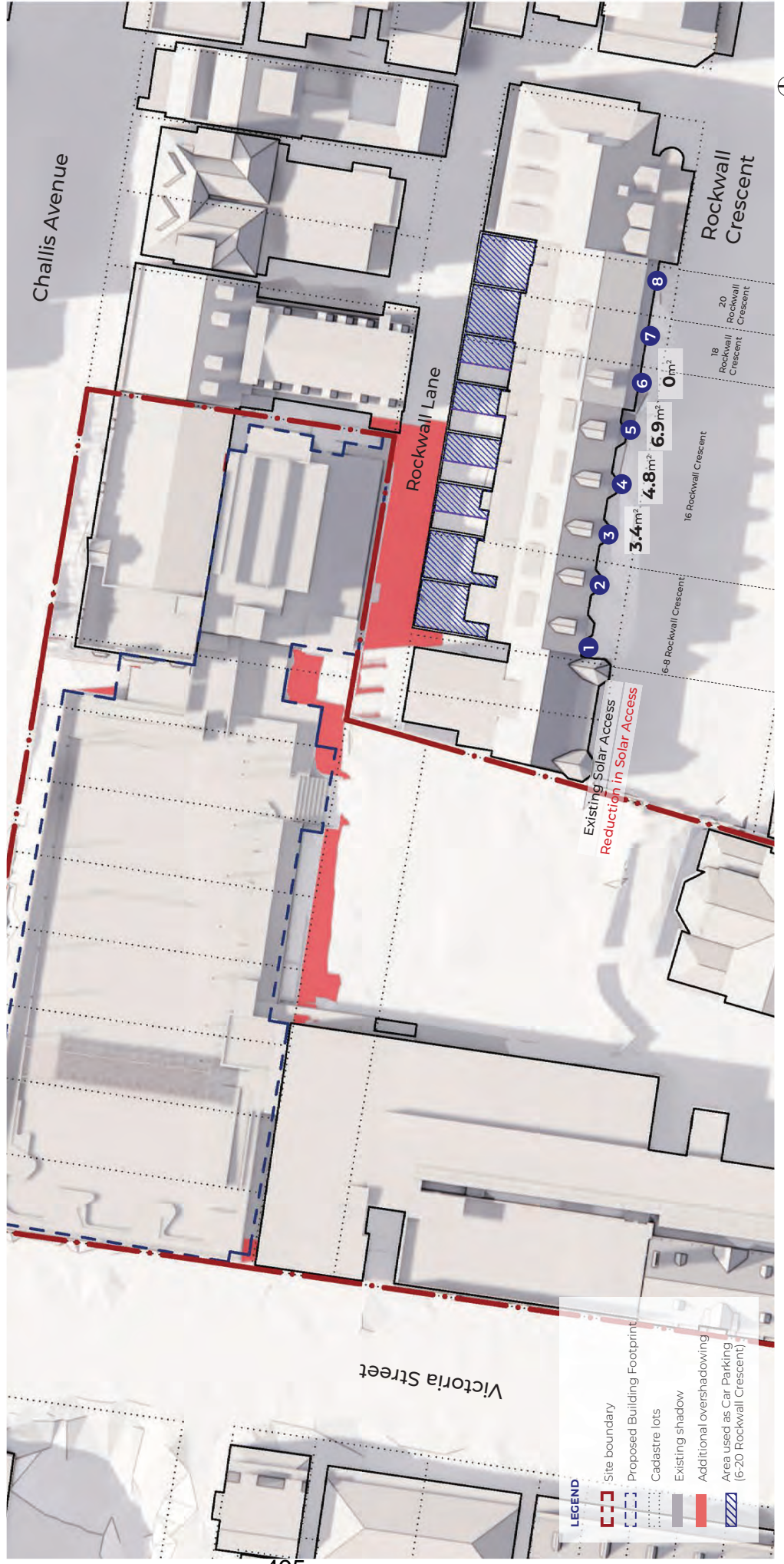


# Shadow Diagram 21 June 11.45AM





# Shadow Diagram 21 June 12.15PM



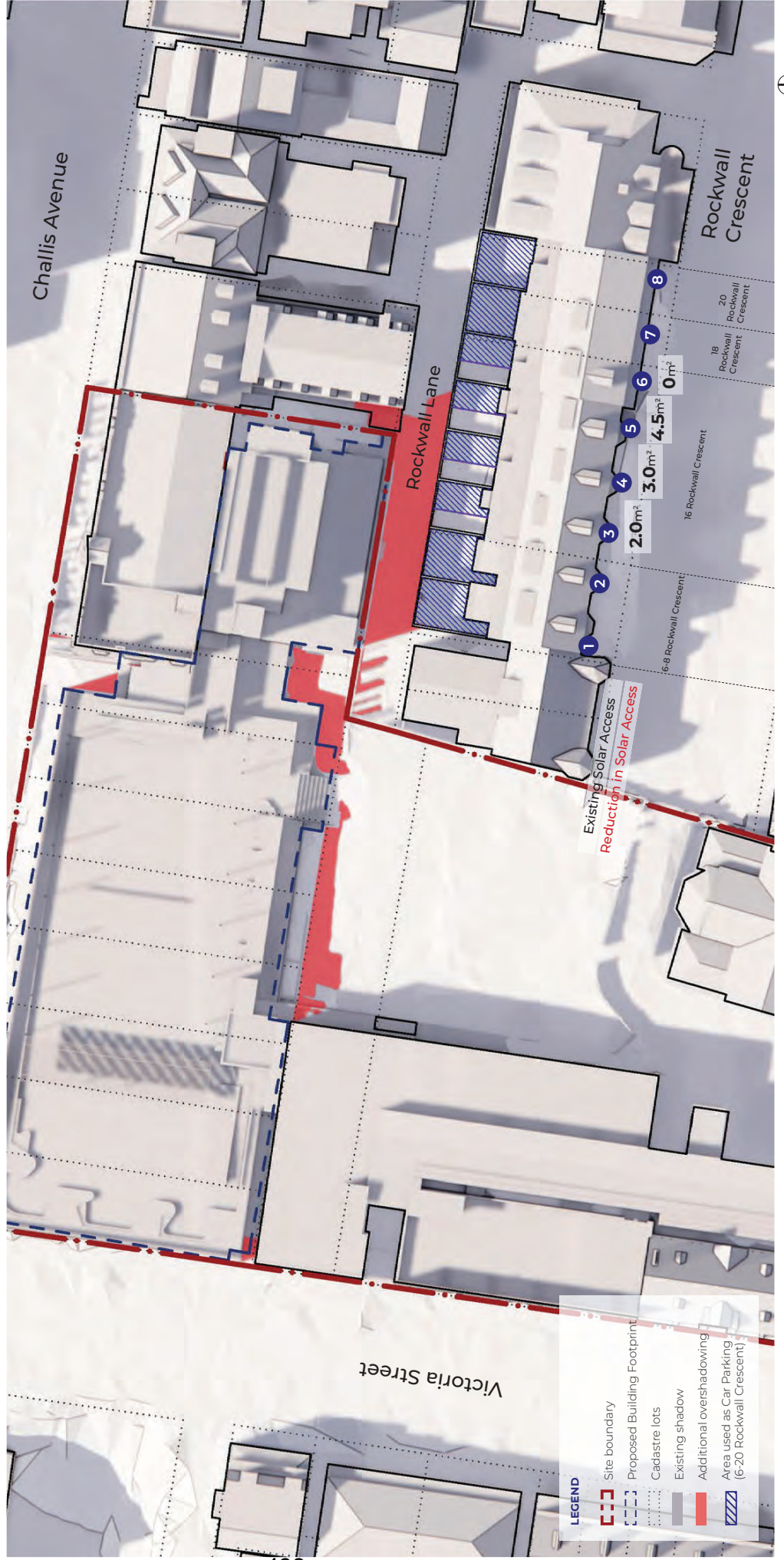
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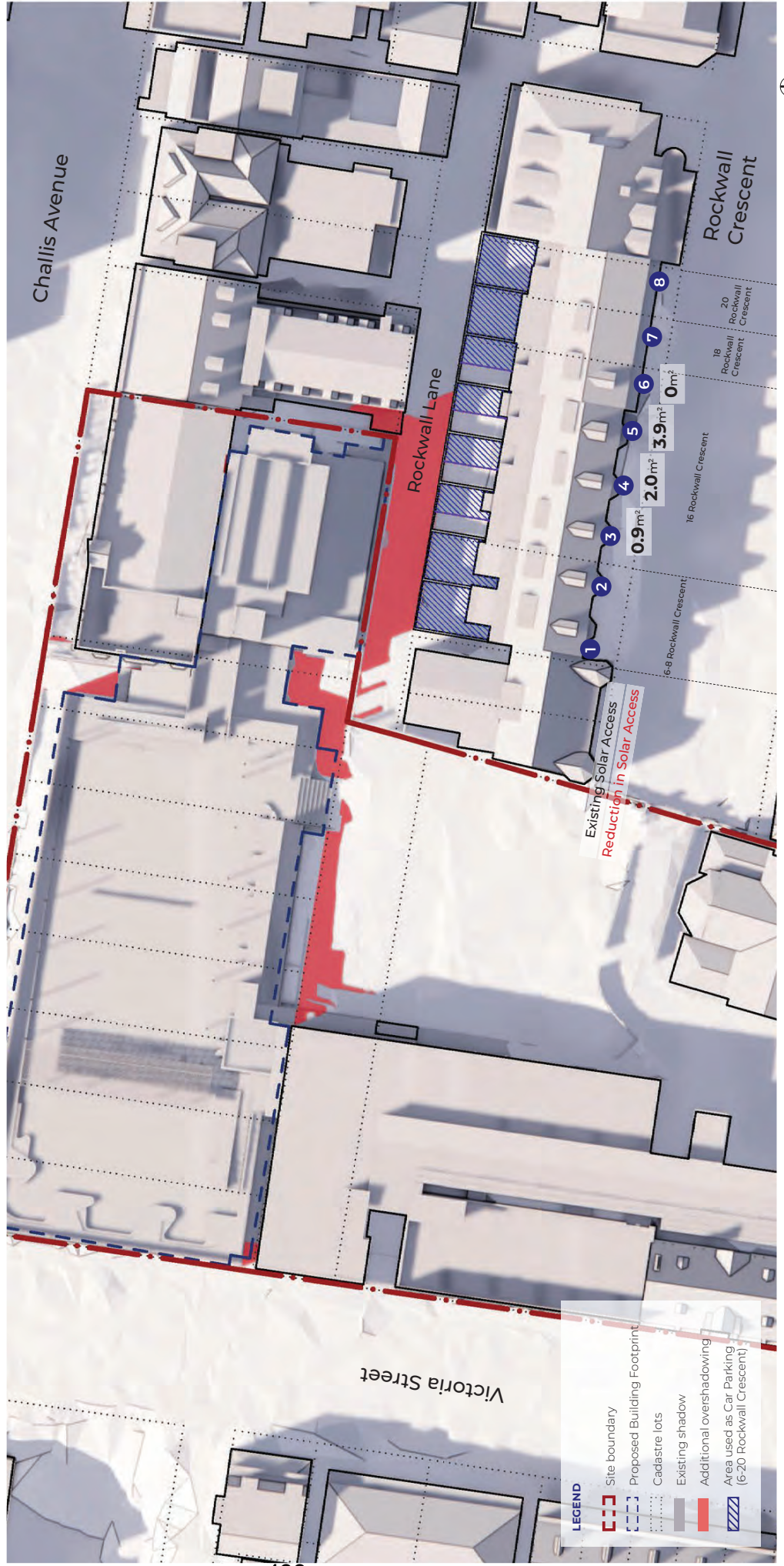
# Shadow Diagram 21 June 12.45PM



# Shadow Diagram 21 June 1.00PM



# Shadow Diagram 21 June 1.15PM

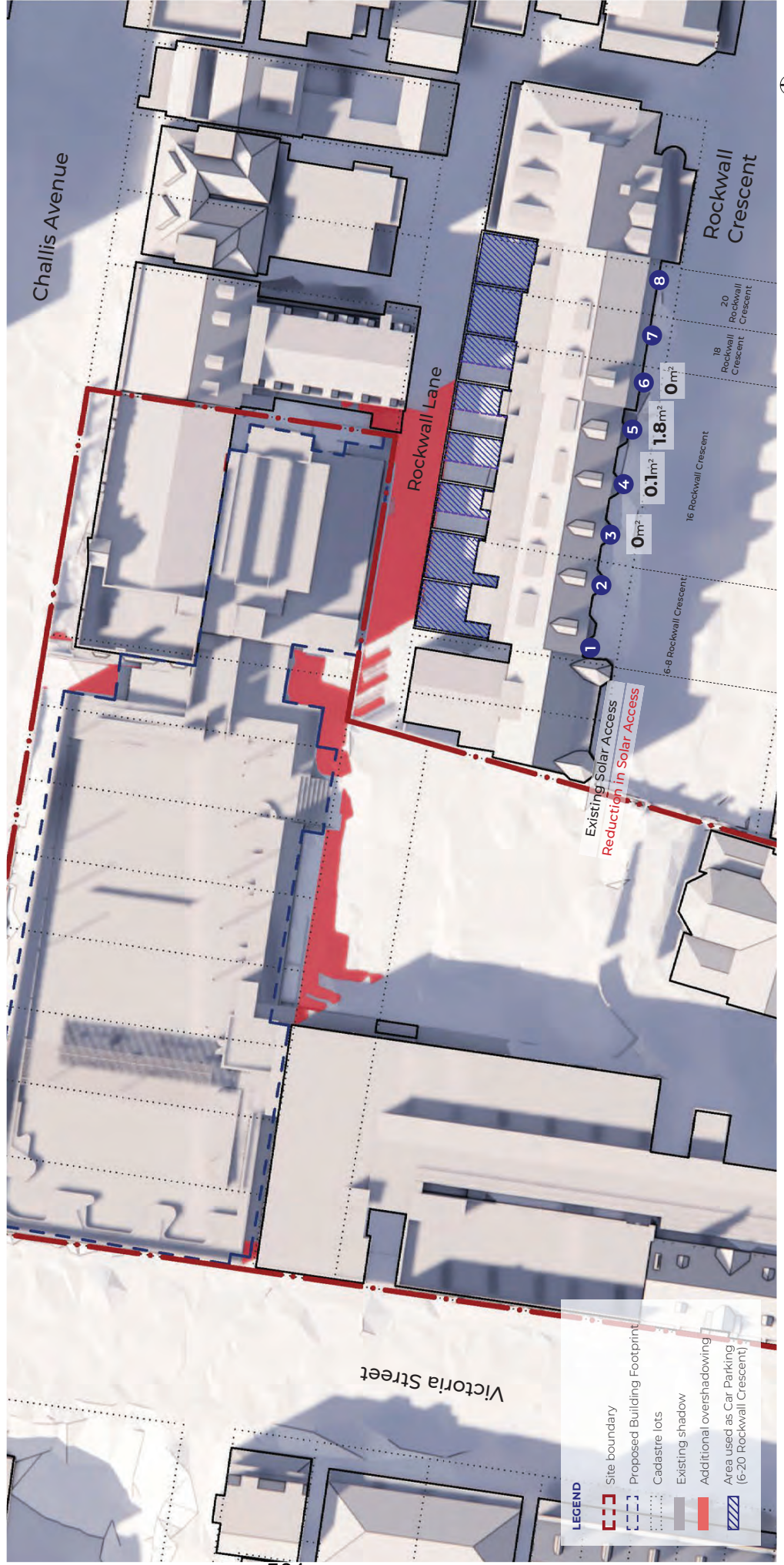




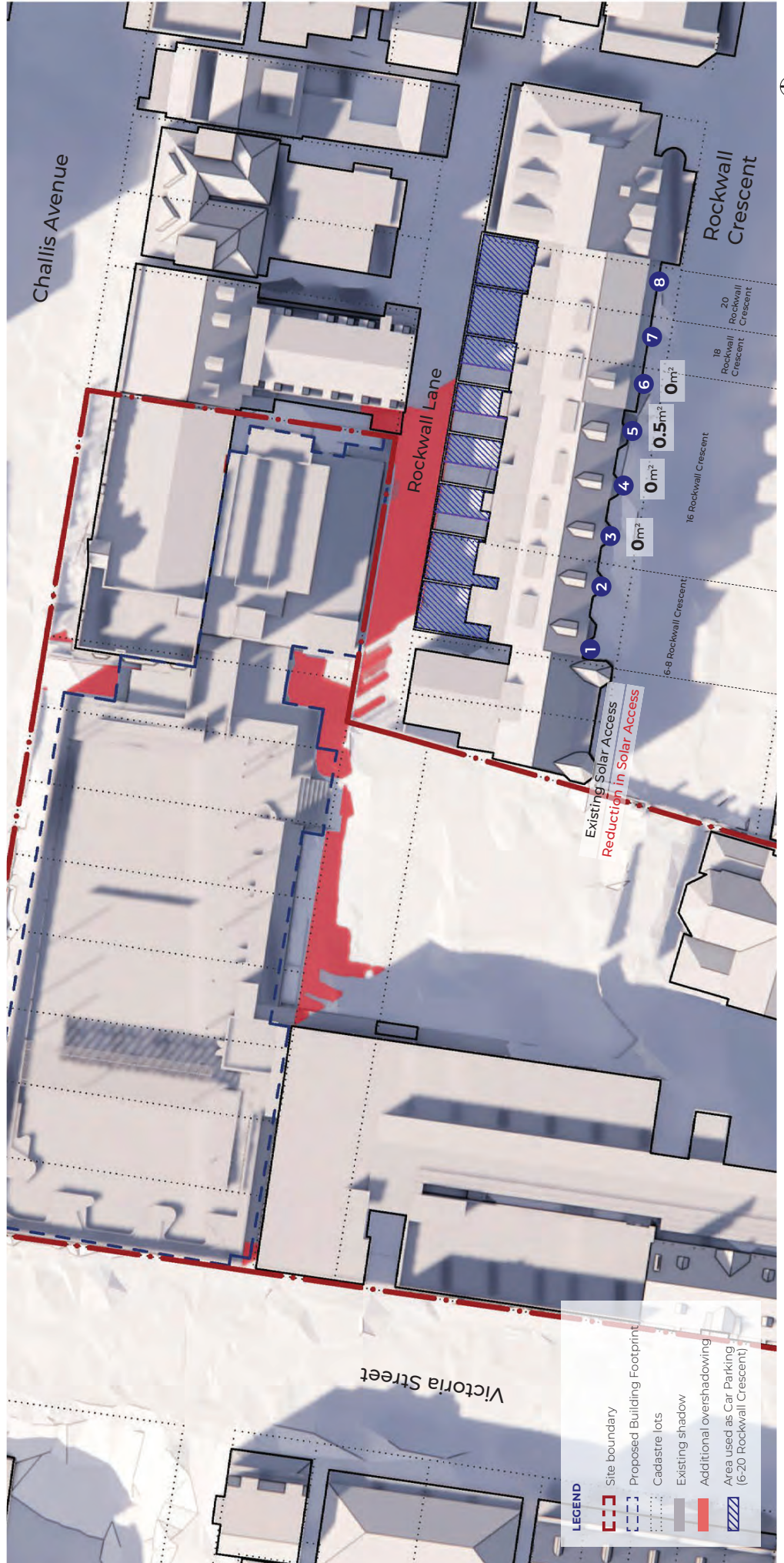
# Shadow Diagram 21 June 1.30PM



# Shadow Diagram 21 June 1.45PM



# Shadow Diagram 21 June 2.00PM



# Shadow Diagram 21 June 2.15PM

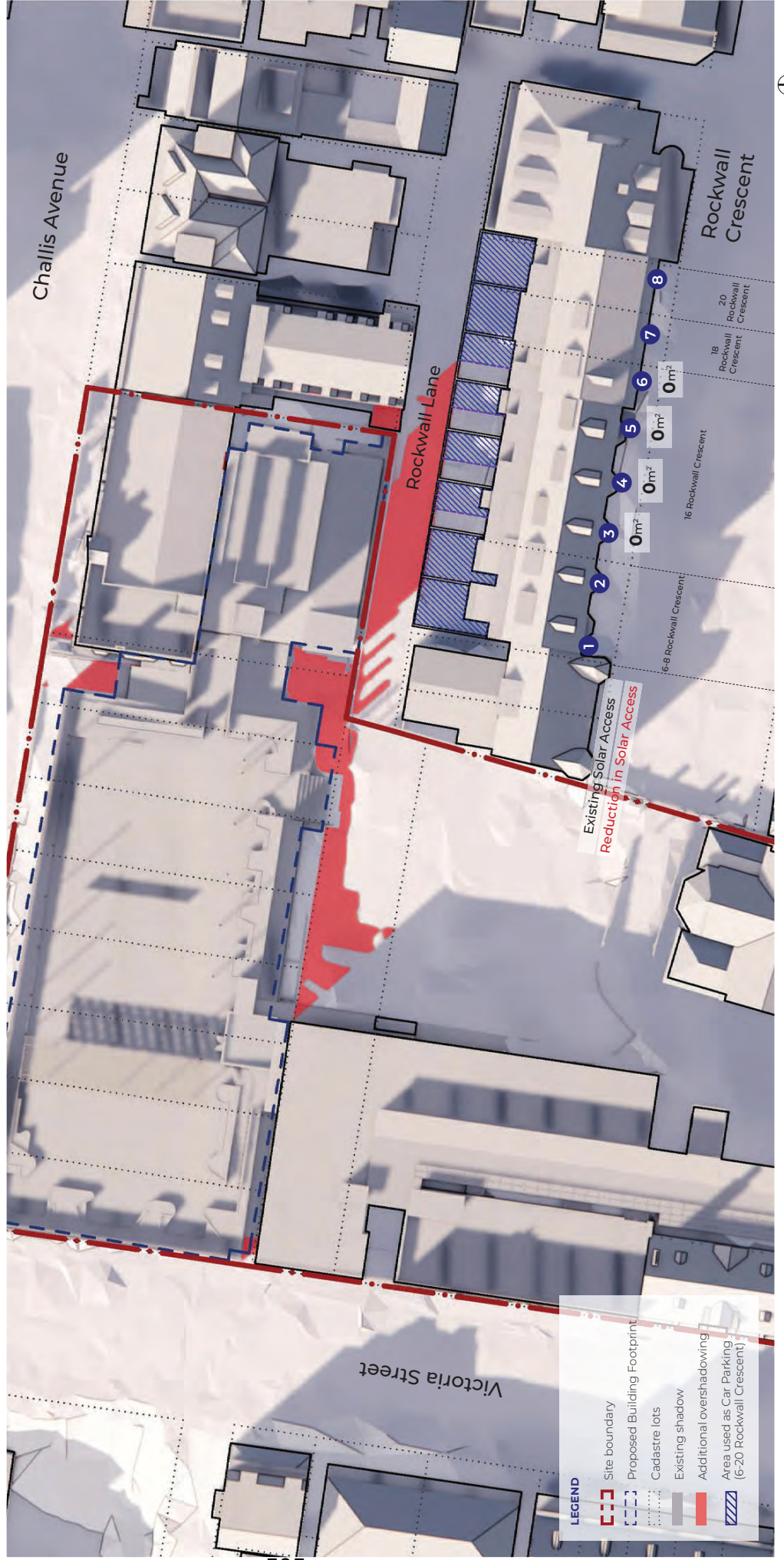


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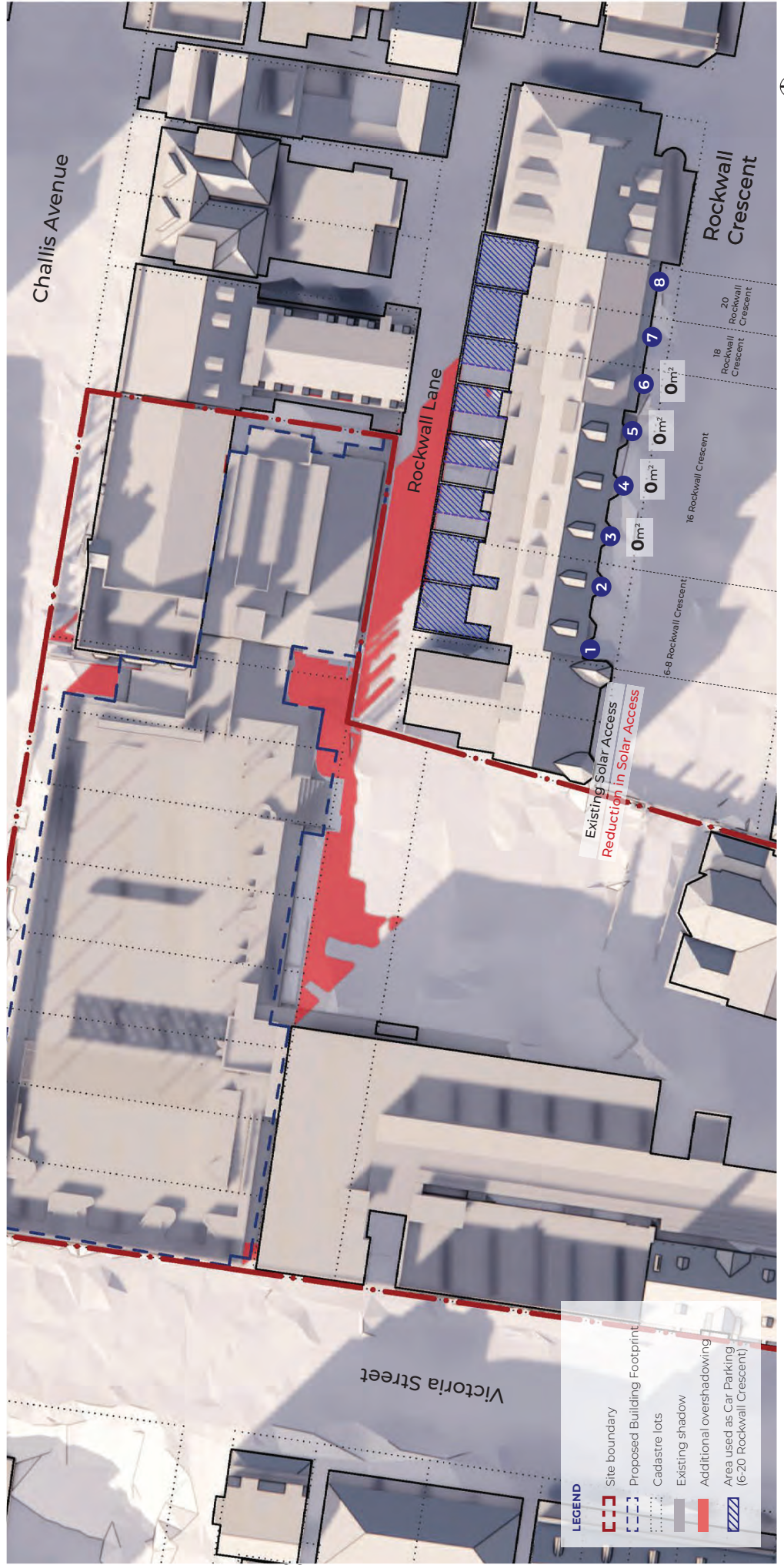


504

# Shadow Diagram 21 June 2.45PM

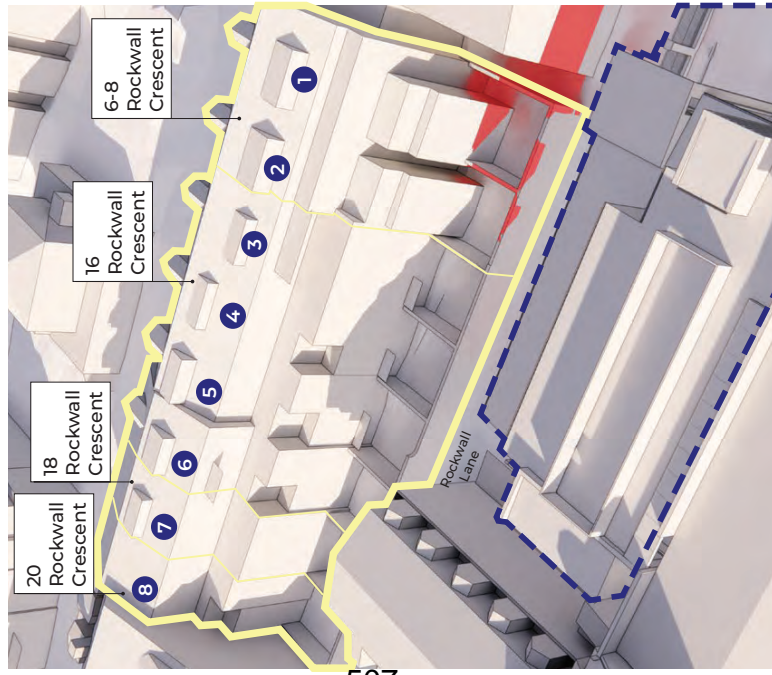


# Shadow Diagram 21 June 3.00PM



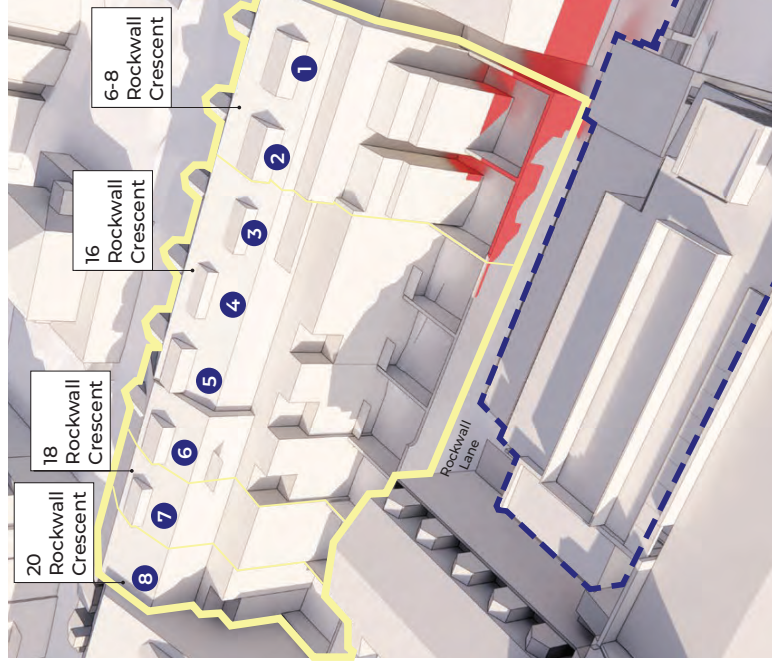
# Overshadowing Impact to Facade of 6-20 Rockwall Crescent (21 June)

9.00AM



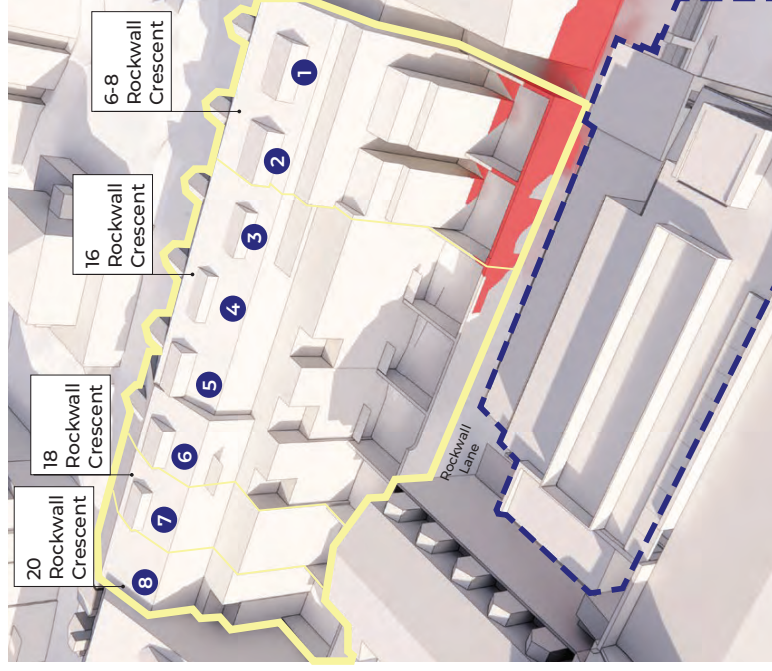
- LEGEND**
- 6-20 Rockwall Crescent
  - Proposal
  - Existing shadow
  - Additional overshadowing

9.15AM



- LEGEND**
- 6-20 Rockwall Crescent
  - Proposal
  - Existing shadow
  - Additional overshadowing

9.30AM

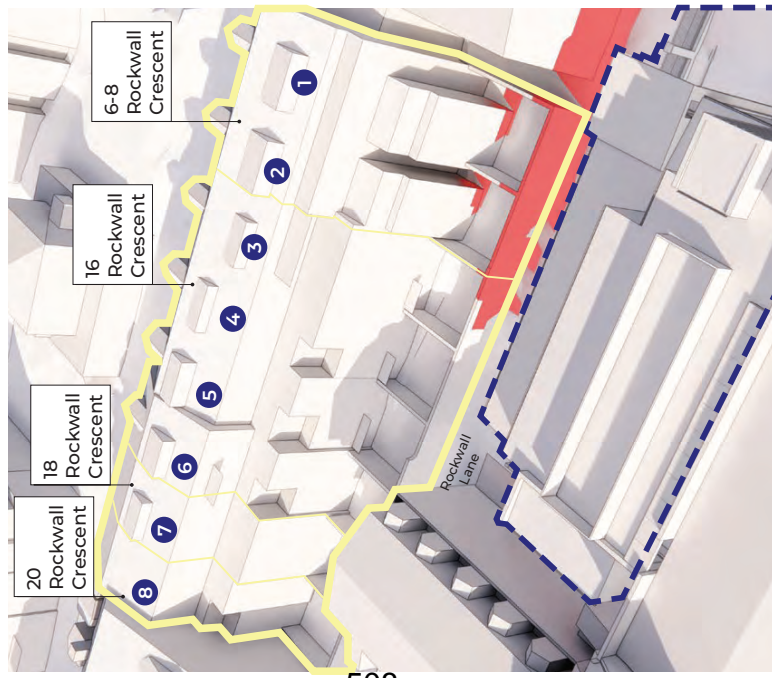


- LEGEND**
- 6-20 Rockwall Crescent
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  - Existing shadow
  - Additional overshadowing



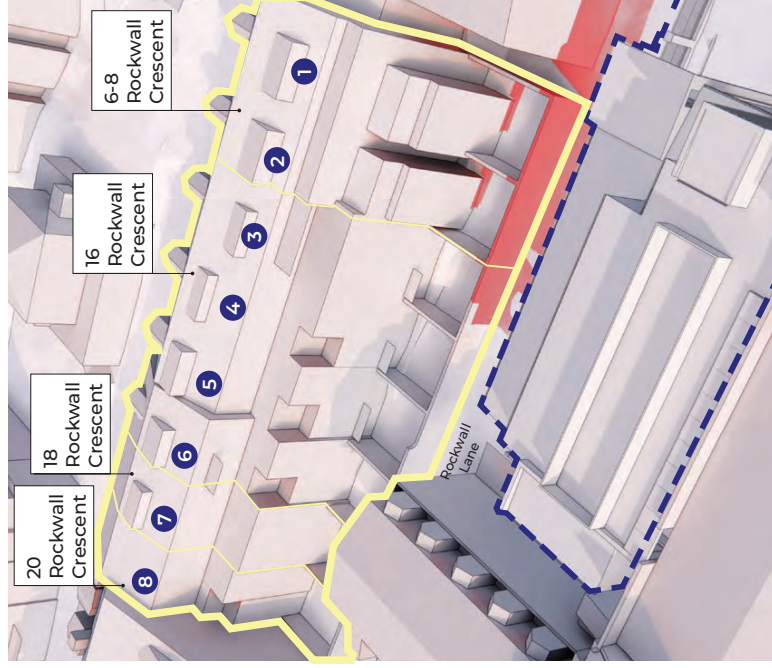
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9.45AM



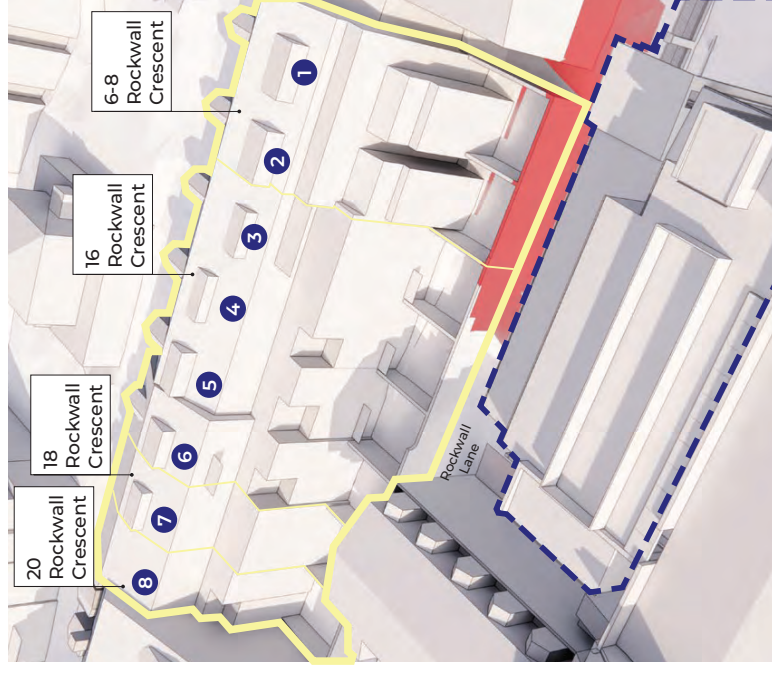
- LEGEND**
- 6-20 Rockwall Crescent
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10.00AM



- LEGEND**
- 6-20 Rockwall Crescent
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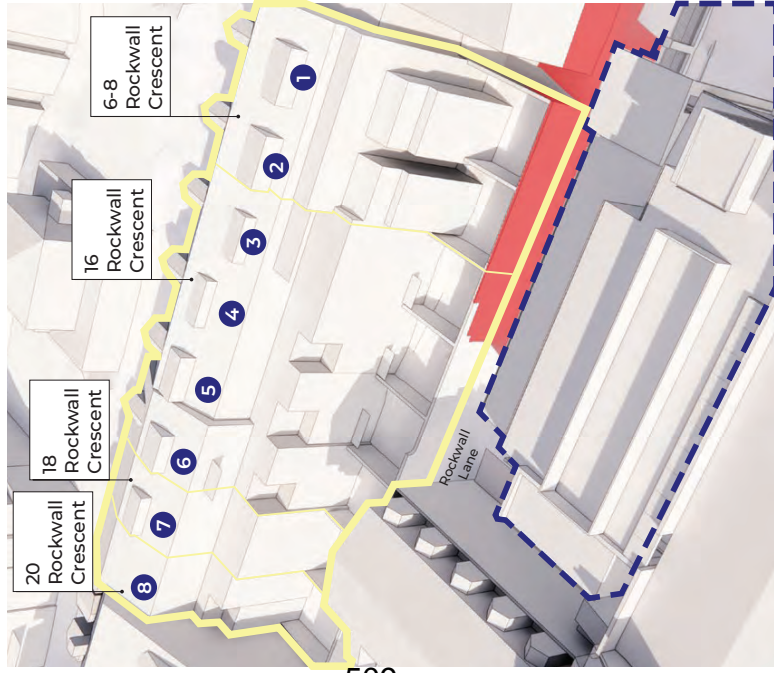
10.15AM



- LEGEND**
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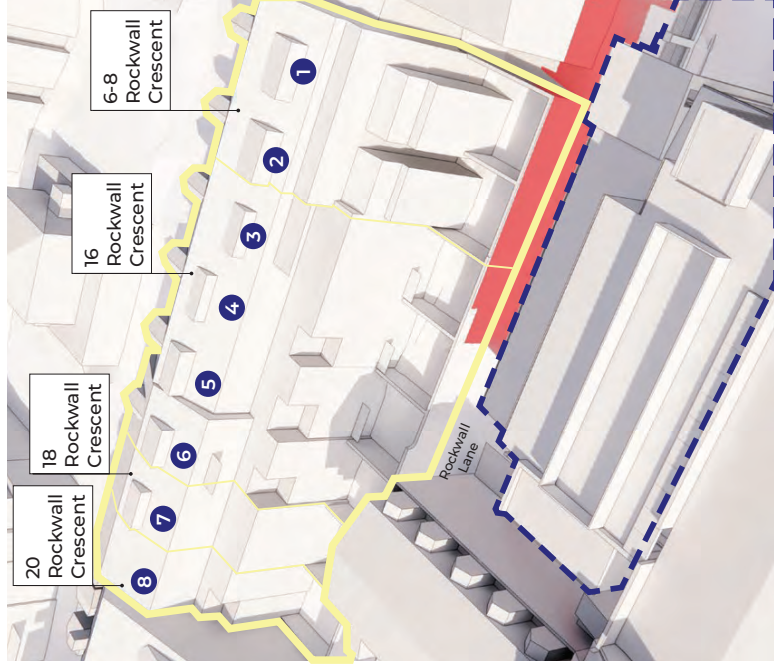
# Overshadowing Impact to Facade of 6-20 Rockwall Crescent (21 June)

10.30AM



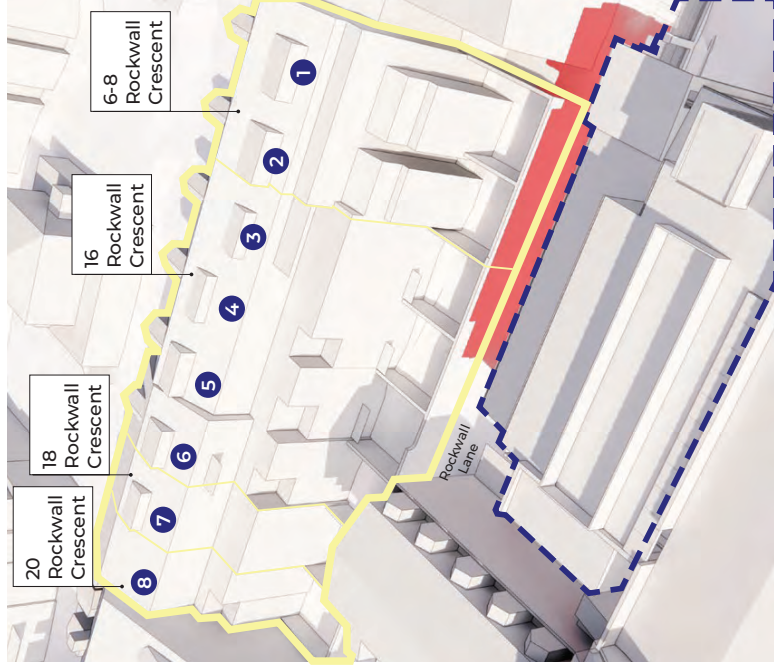
- LEGEND**
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10.45AM



- LEGEND**
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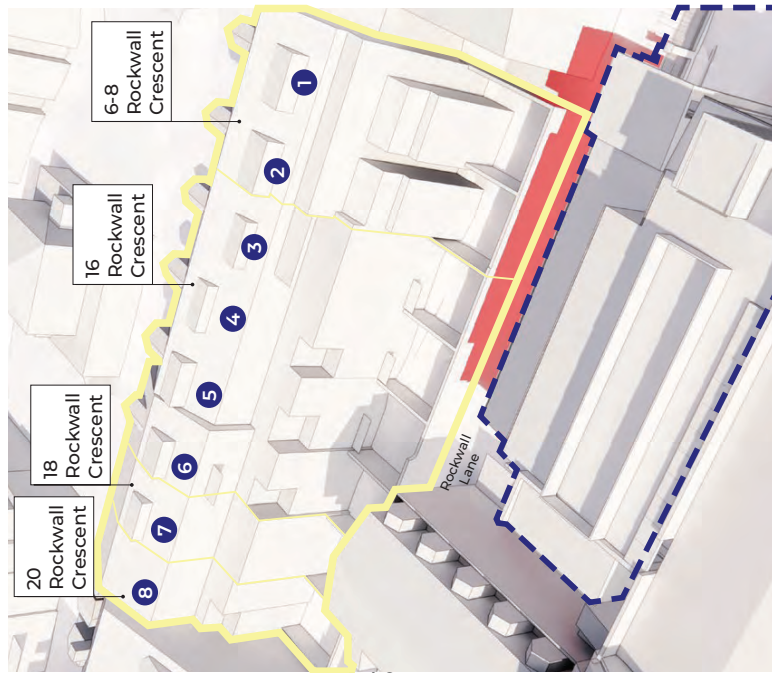
11.00AM



- LEGEND**
- 6-20 Rockwall Crescent
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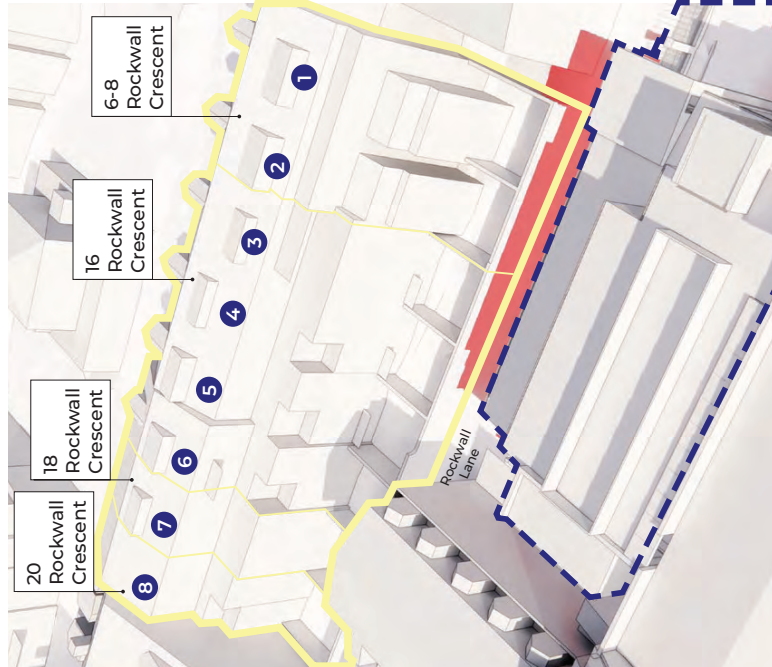
11.15AM



**LEGEND**

- 6-20 Rockwall Crescent
- Proposal
- Existing shadow
- Additional overshadowing

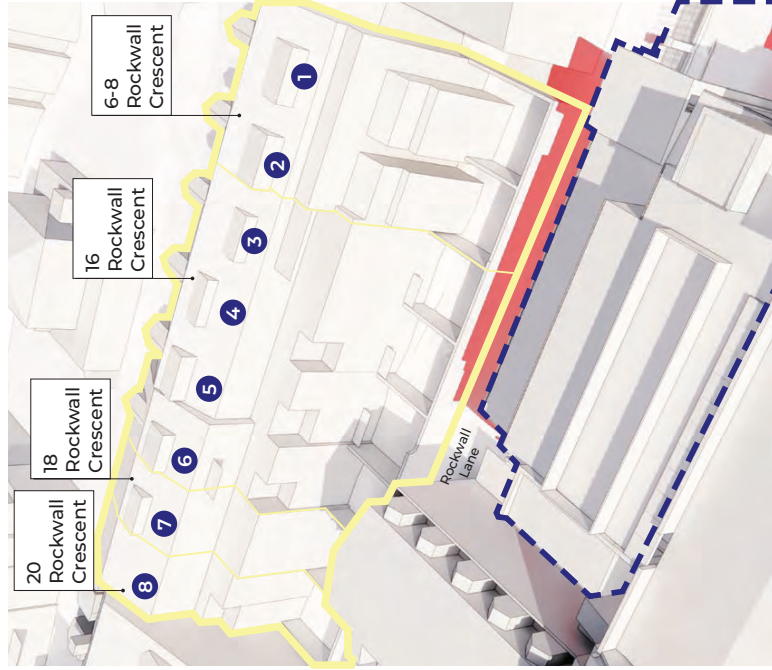
11.30AM



**LEGEND**

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11.45AM

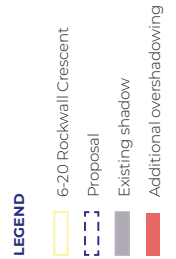
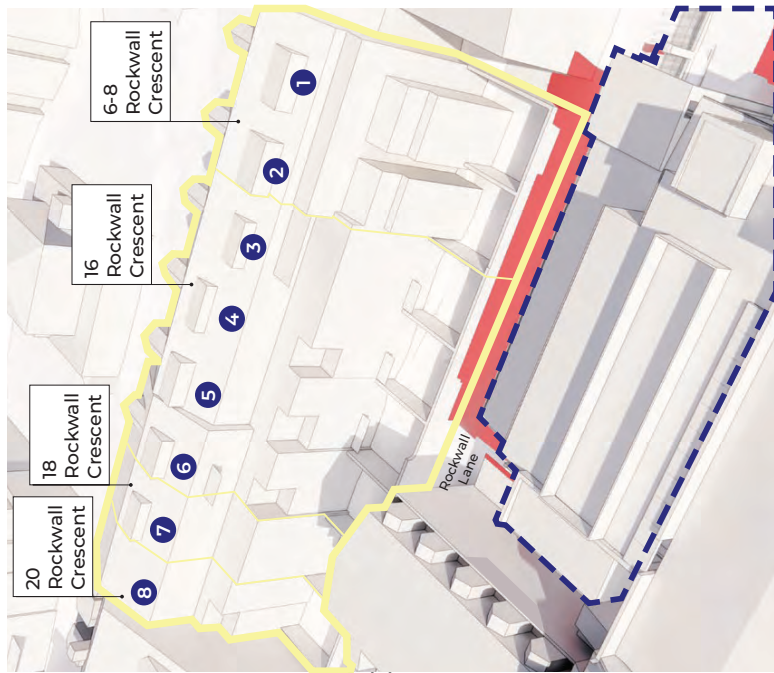


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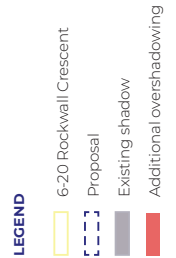
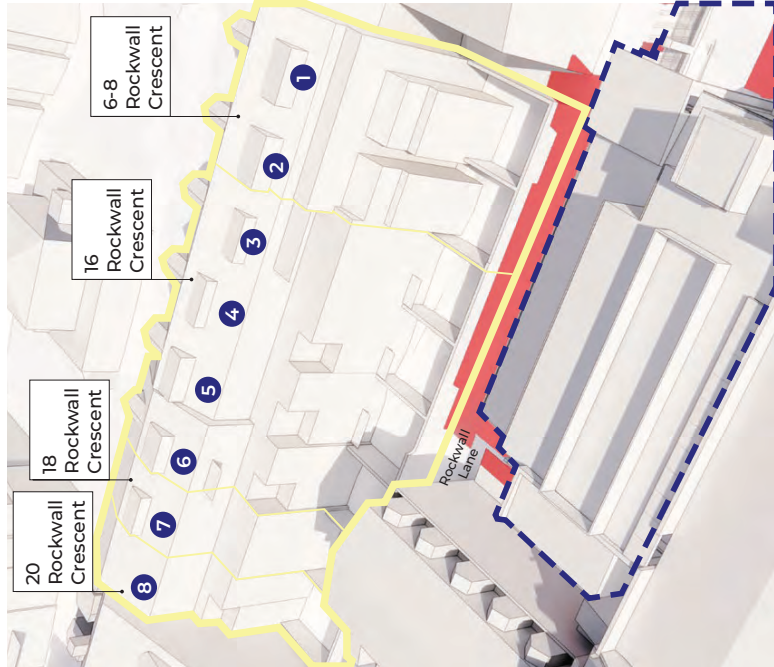
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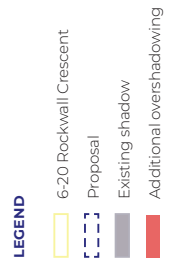
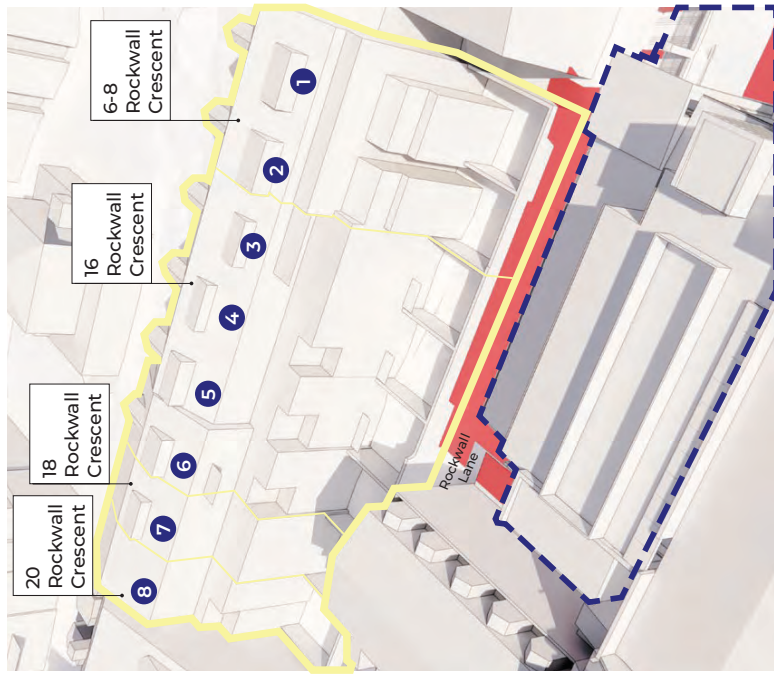
12.00PM



12.15PM

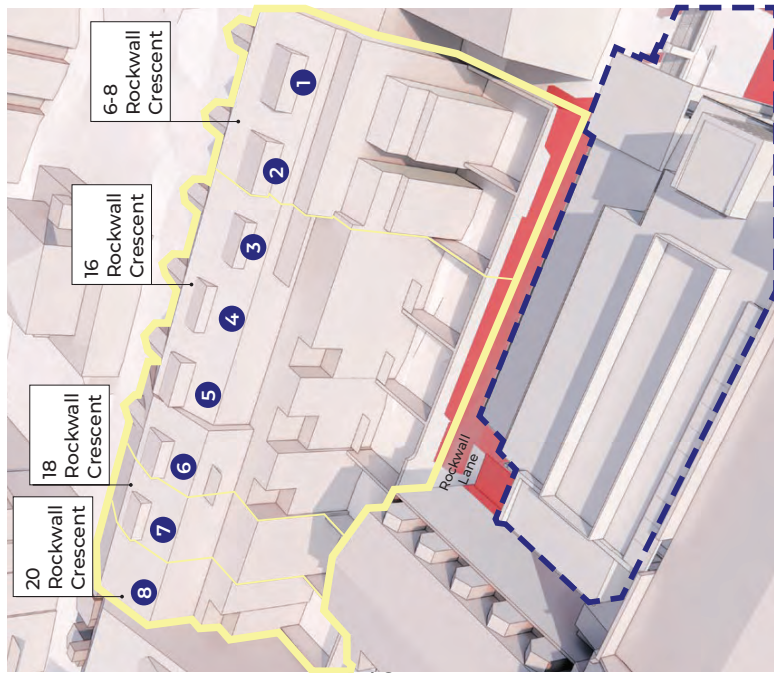


12.30PM



# Overshadowing Impact to Facade of 6-20 Rockwall Crescent (21 June)

12.45PM



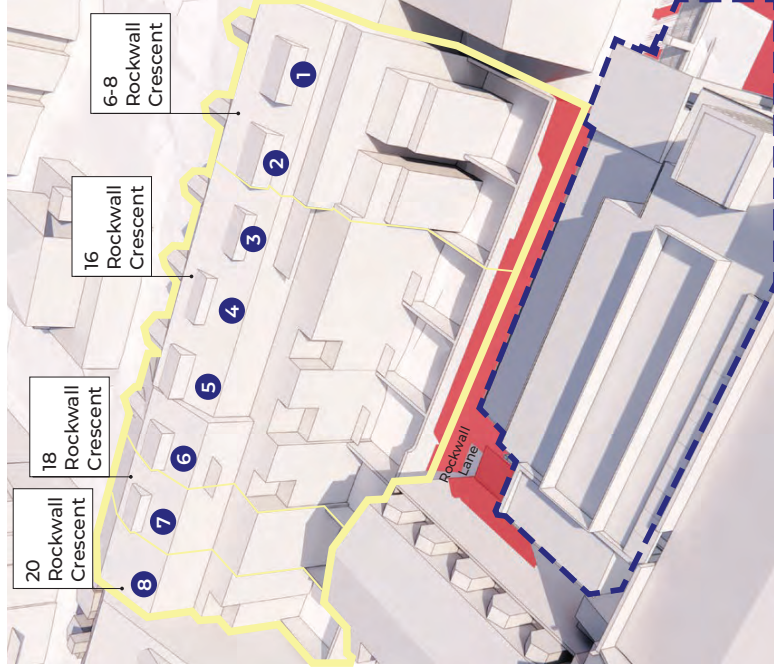
- LEGEND**
- 6-20 Rockwall Crescent
  - Proposal
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1.00PM



- LEGEND**
- 6-20 Rockwall Crescent
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  - Additional overshadowing

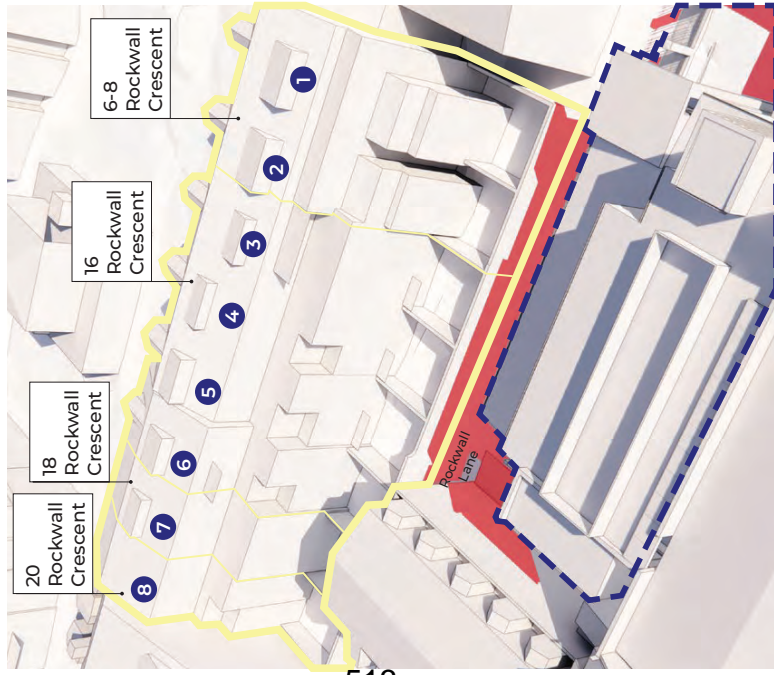
1.15PM



- LEGEND**
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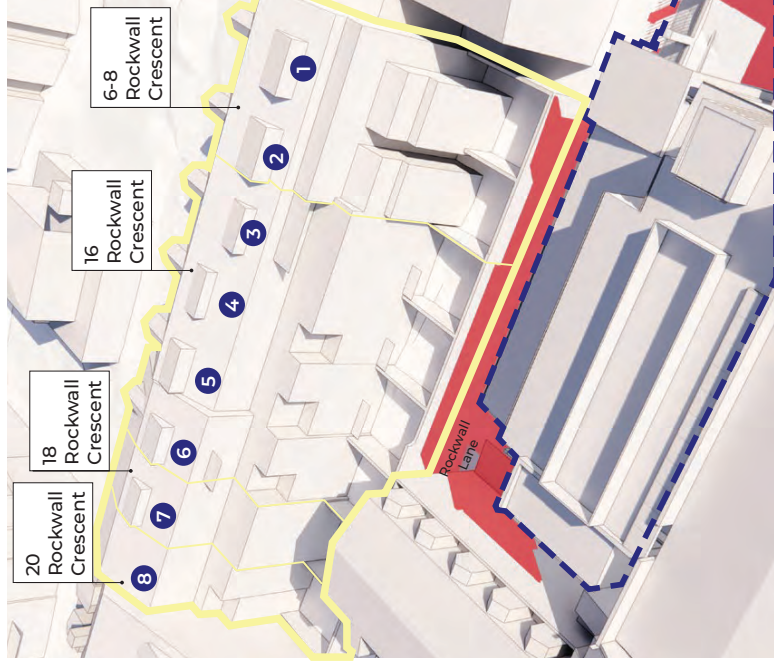
# Overshadowing Impact to Facade of 6-20 Rockwall Crescent (21 June)

1.30PM



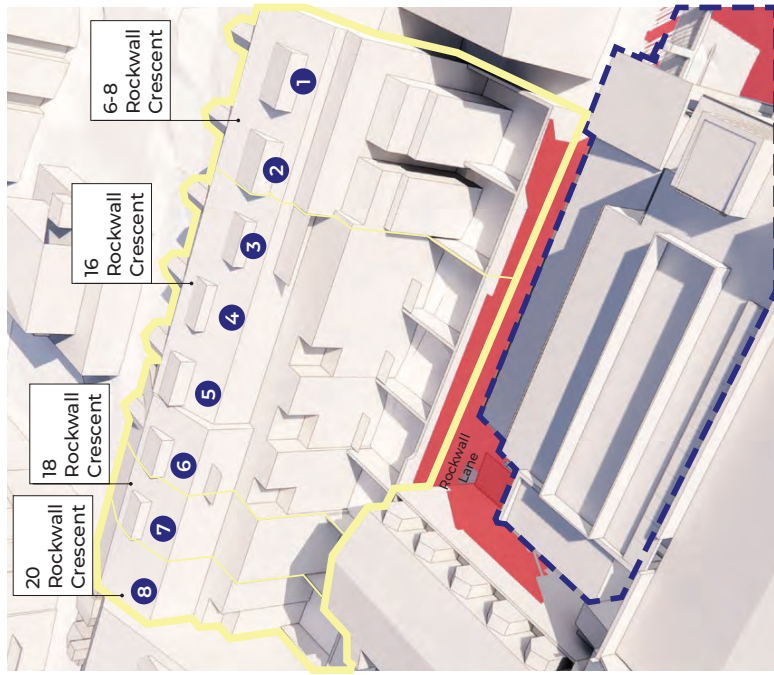
- LEGEND**
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1.45PM



- LEGEND**
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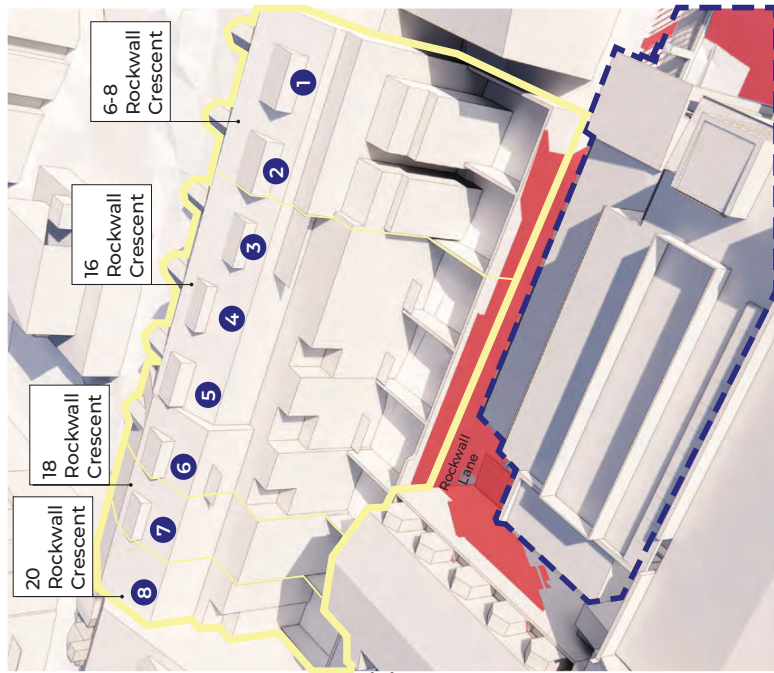
2.00PM



- LEGEND**
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  - Proposal
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  - Additional overshadowing

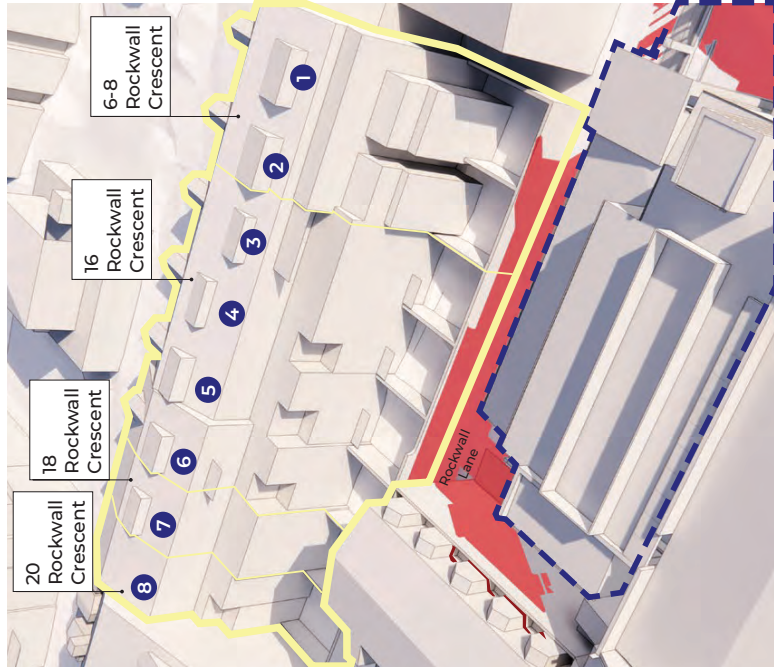
# Overshadowing Impact to Facade of 6-20 Rockwall Crescent (21 June)

2.15PM



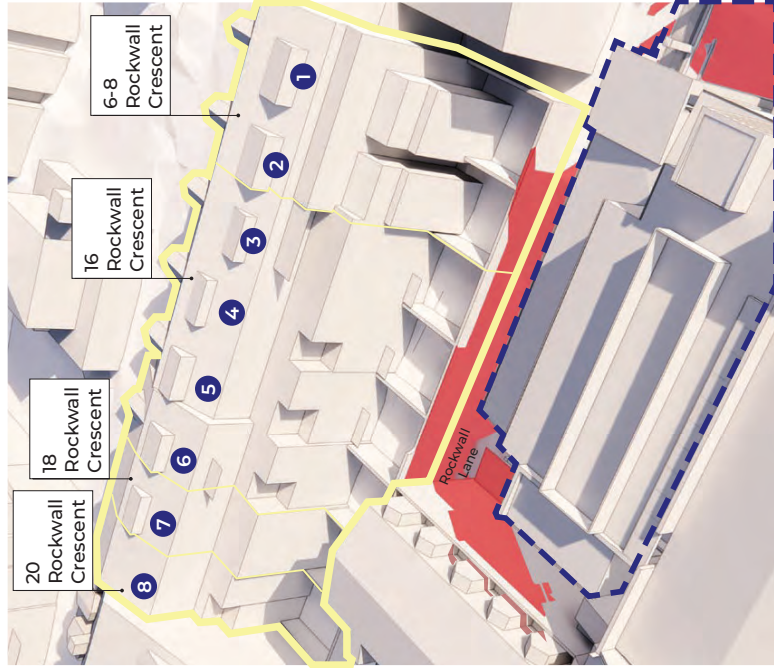
**LEGEND**  
 6-20 Rockwall Crescent  
 Proposal  
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2.30PM



**LEGEND**  
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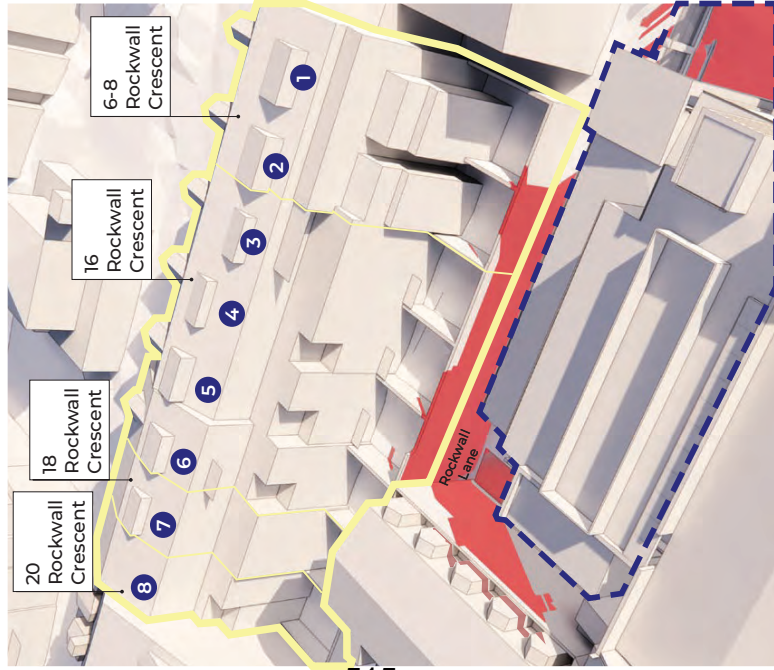
2.45PM



**LEGEND**  
 6-20 Rockwall Crescent  
 Proposal  
 Existing shadow  
 Additional overshadowing

# Overshadowing Impact to Facade of 6-20 Rockwall Crescent (21 June)

3.00PM



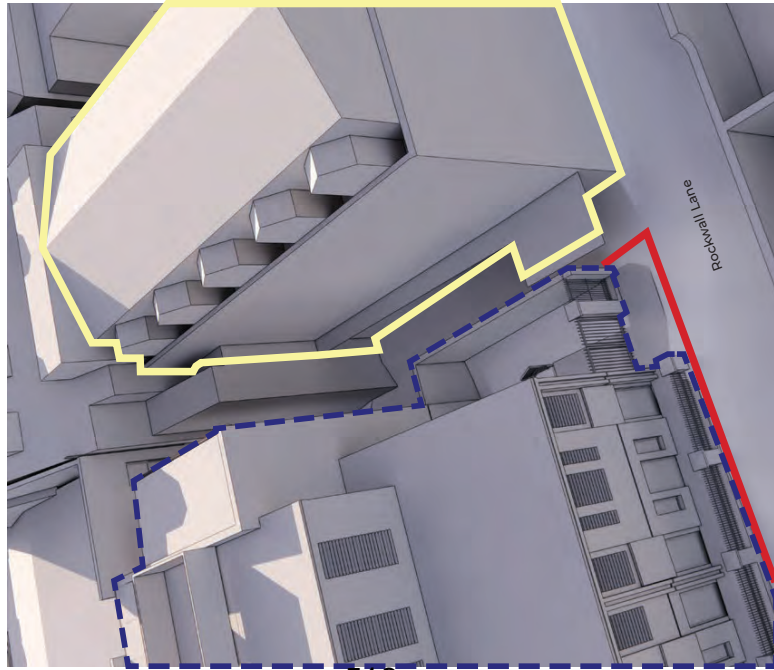
## LEGEND

- 6-20 Rockwall Crescent
- Proposal
- Existing shadow
- Additional overshadowing



# Overshadowing Impact to Hotel Challis (21 June)

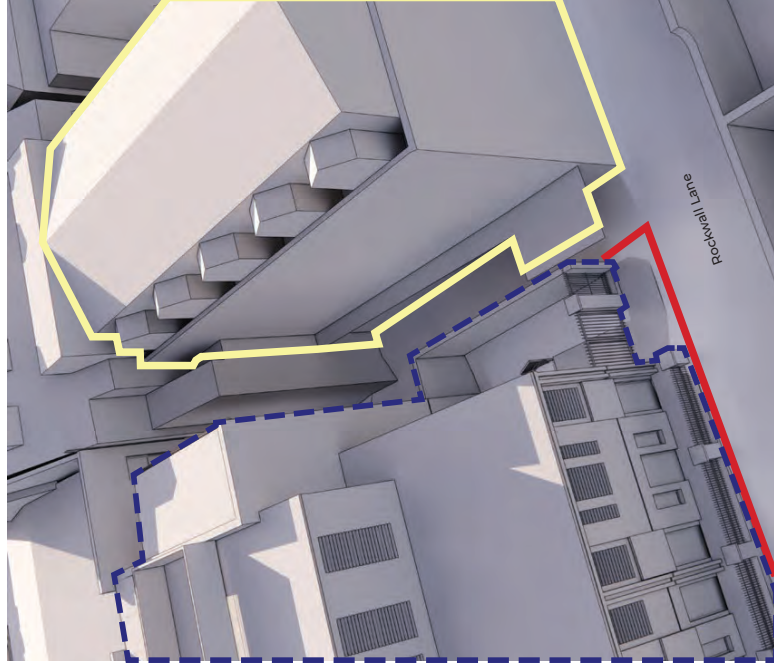
9.00AM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

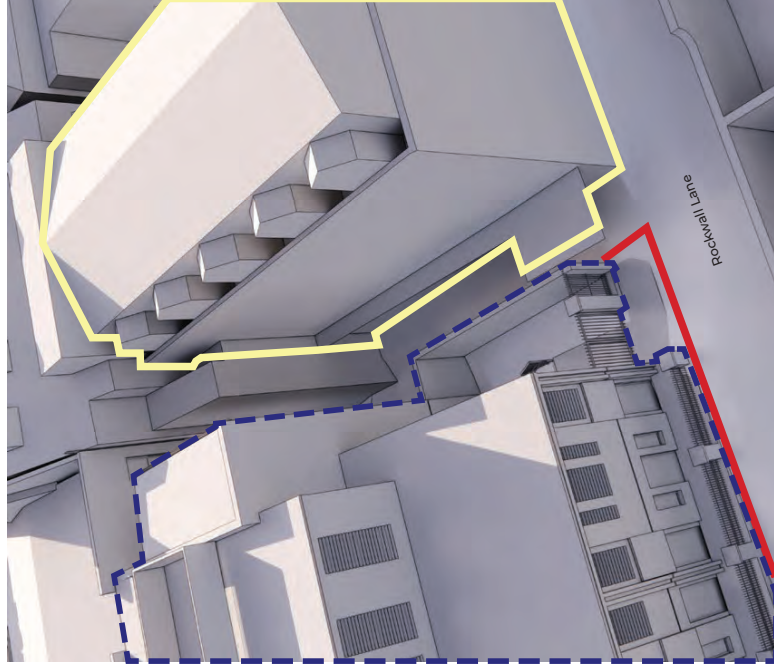
9.15AM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

9.30AM

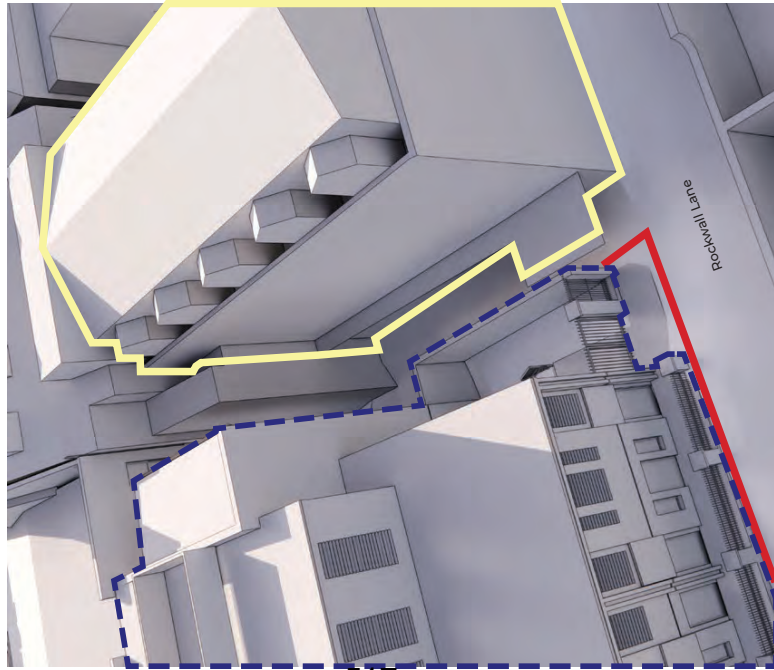


**LEGEND**

- Site Boundary
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- Proposal
- Existing shadow
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# Overshadowing Impact to Hotel Challis (21 June)

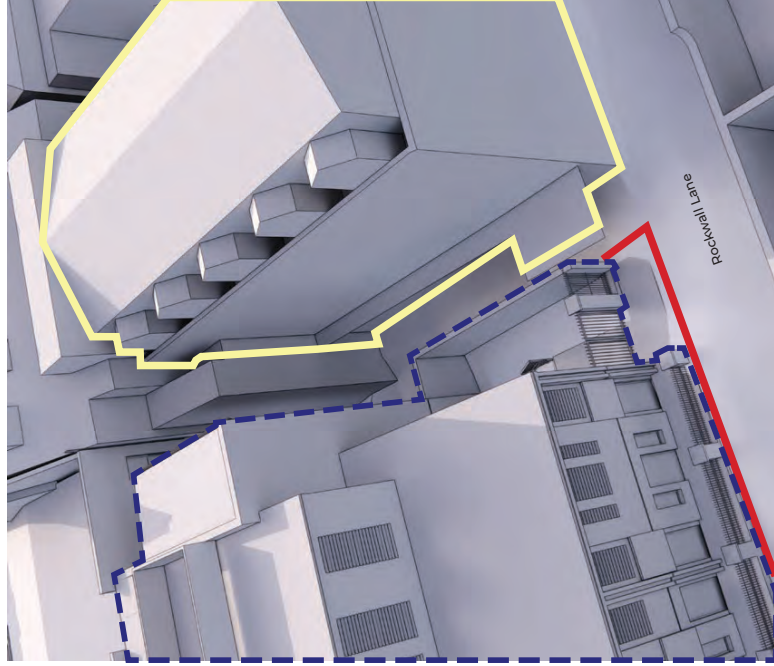
9.45AM



**LEGEND**

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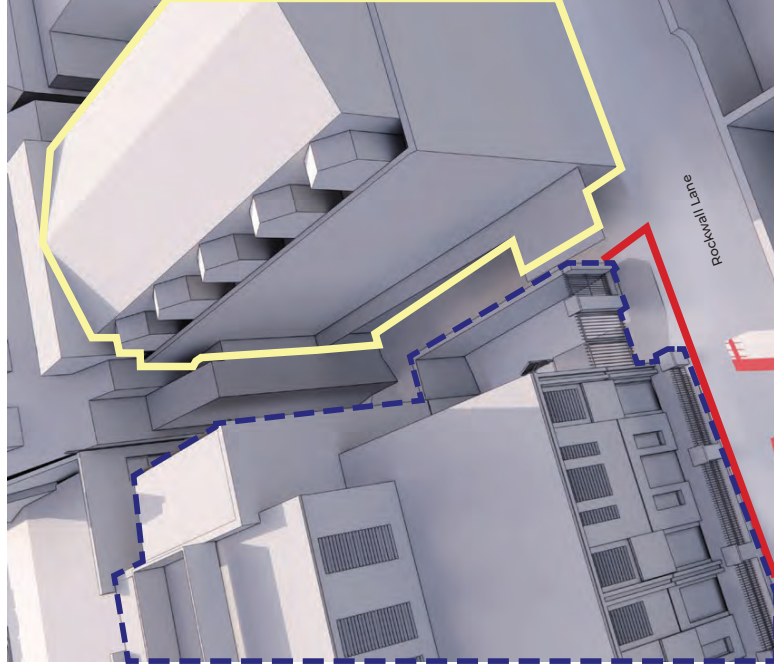
10.00AM



**LEGEND**

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10.15AM

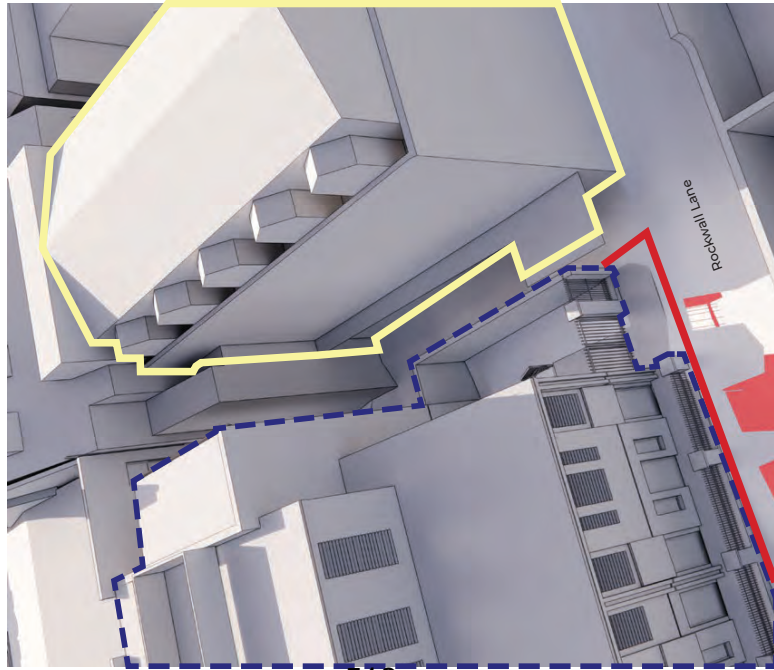


**LEGEND**

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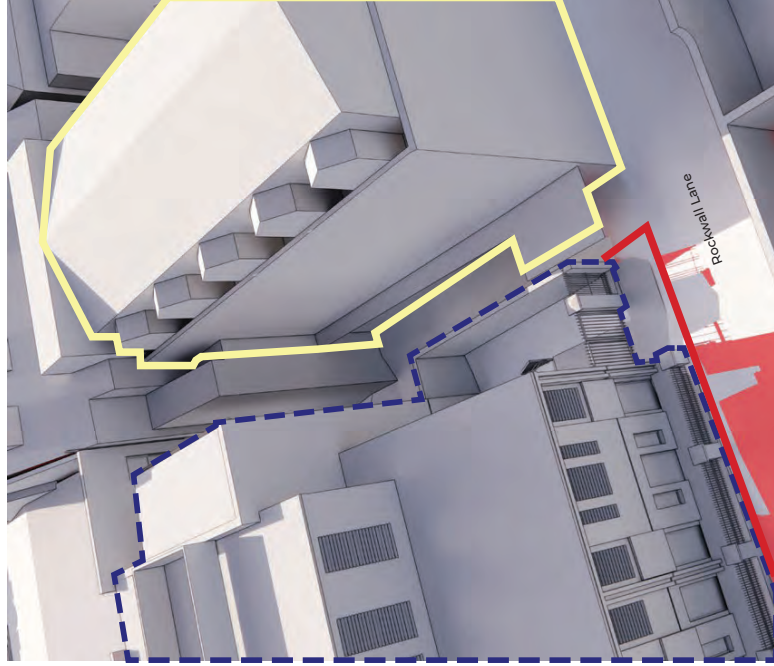
# Overshadowing Impact to Hotel Challis (21 June)

10.30AM



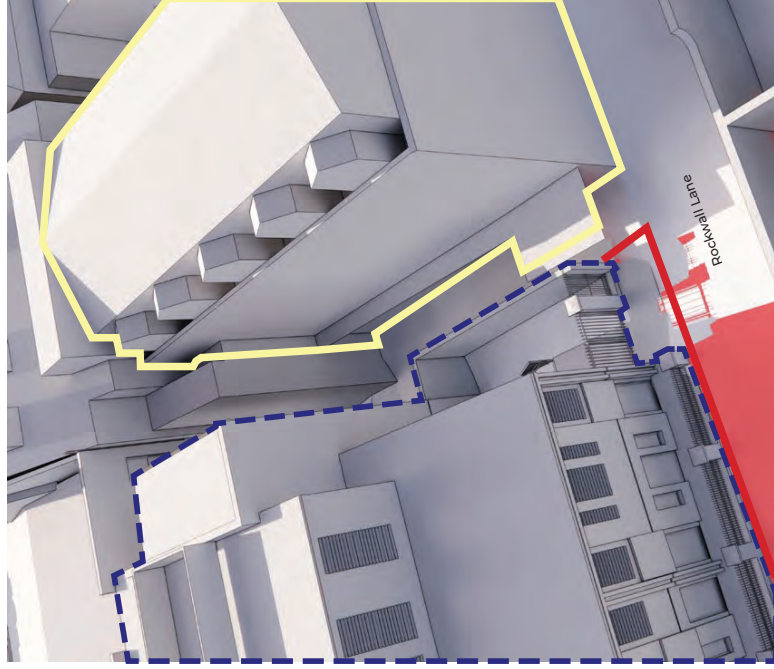
- LEGEND**
- Site Boundary
  - Hotel Challis
  - Proposal
  - Existing shadow
  - Additional overshadowing

10.45AM



- LEGEND**
- Site Boundary
  - Hotel Challis
  - Proposal
  - Existing shadow
  - Additional overshadowing

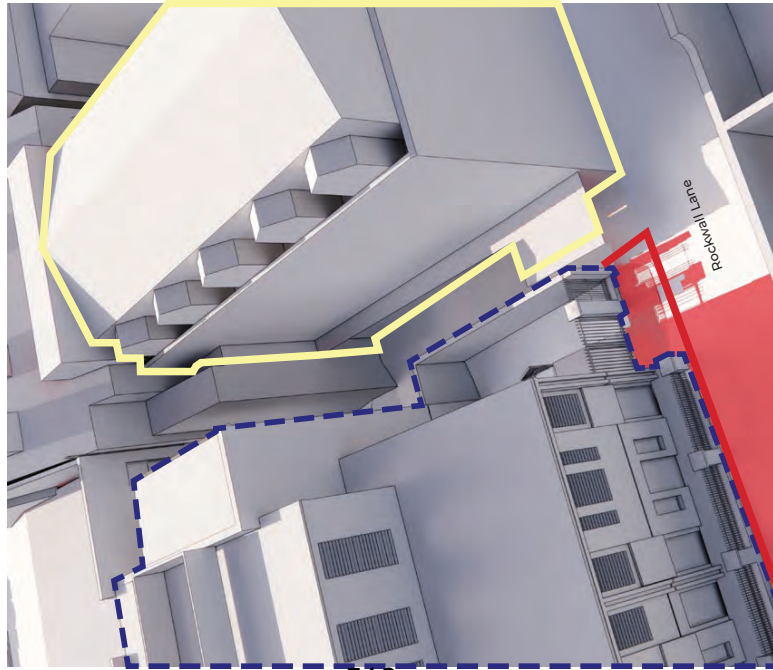
11.00AM



- LEGEND**
- Site Boundary
  - Hotel Challis
  - Proposal
  - Existing shadow
  - Additional overshadowing

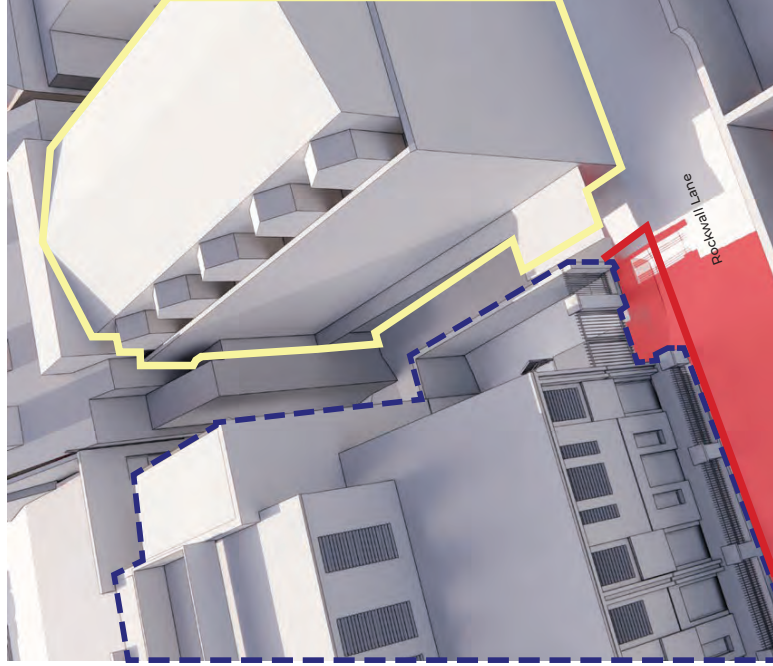
# Overshadowing Impact to Hotel Challis (21 June)

11.15AM



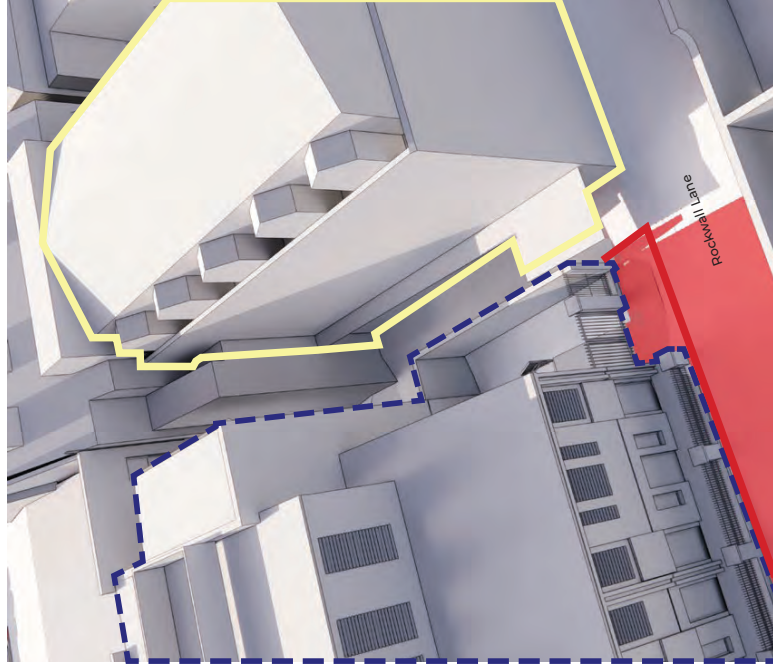
- LEGEND**
- Site Boundary
  - Hotel Challis
  - Proposal
  - Existing shadow
  - Additional overshadowing

11.30AM



- LEGEND**
- Site Boundary
  - Hotel Challis
  - Proposal
  - Existing shadow
  - Additional overshadowing

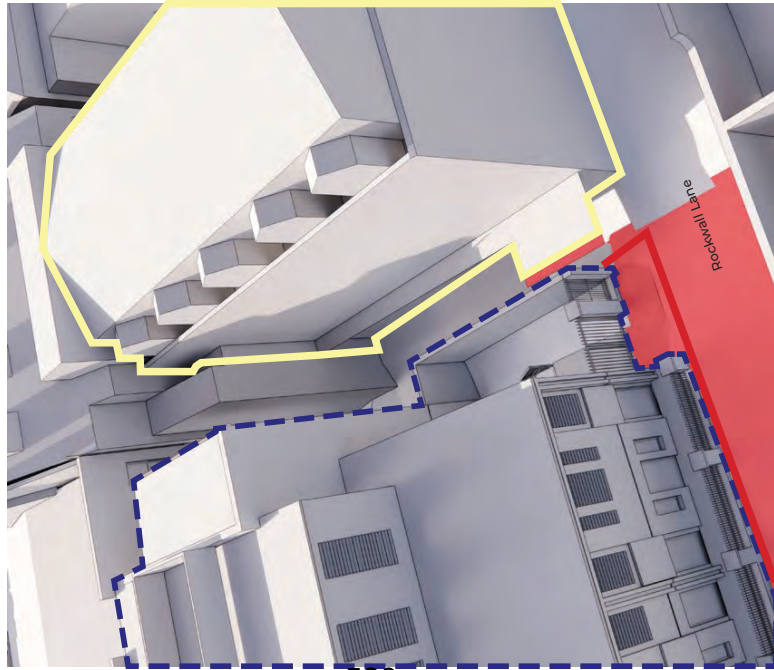
11.45AM



- LEGEND**
- Site Boundary
  - Hotel Challis
  - Proposal
  - Existing shadow
  - Additional overshadowing

# Overshadowing Impact to Hotel Challis (21 June)

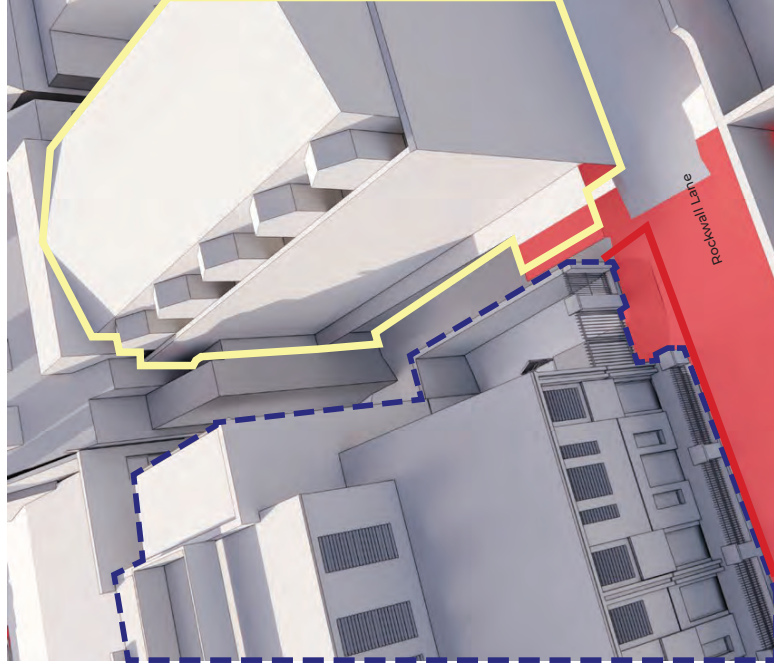
12.00PM



LEGEND

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

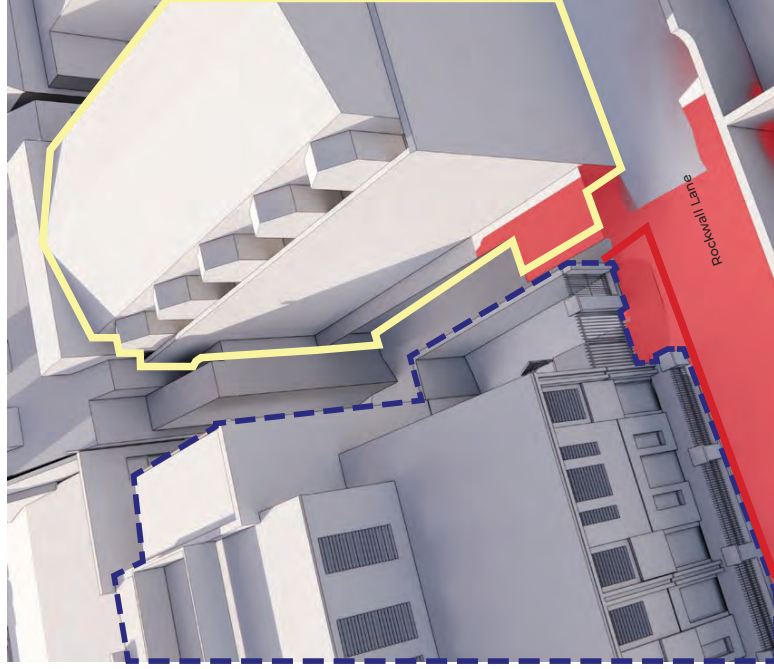
12.15PM



LEGEND

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

12.30PM

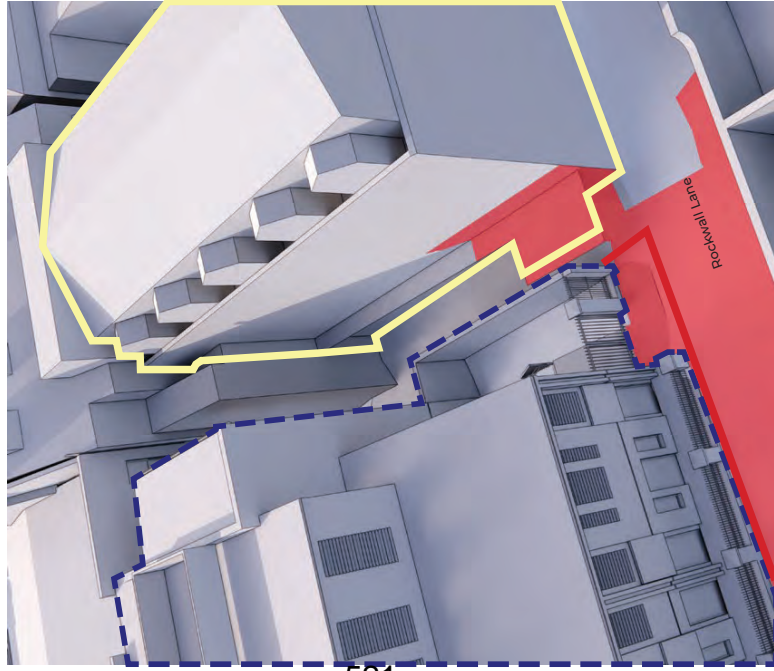


LEGEND

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

# Overshadowing Impact to Hotel Challis (21 June)

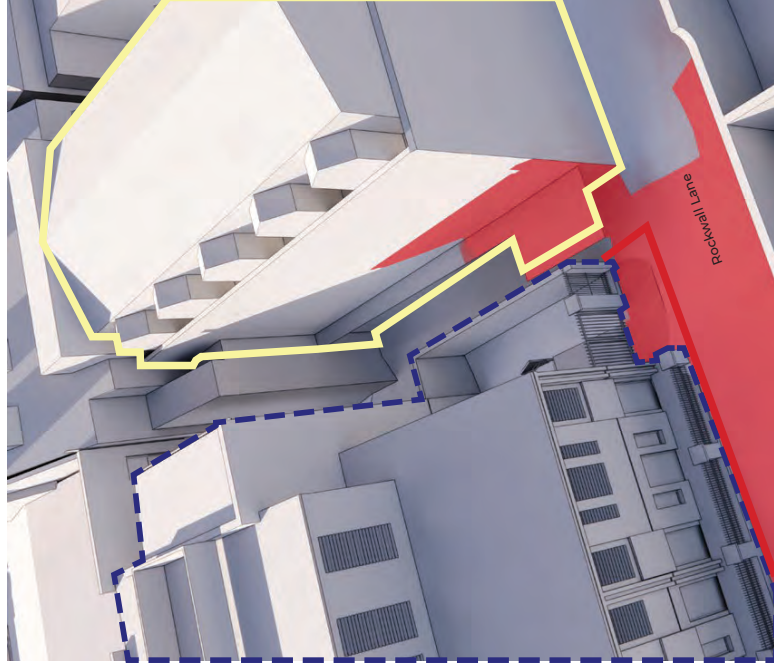
12.45PM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

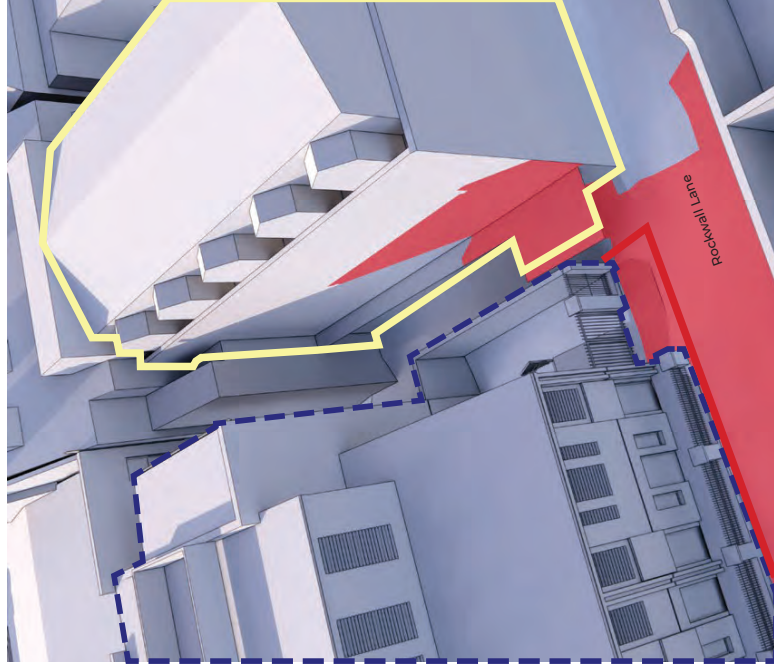
1.00PM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

1.15PM

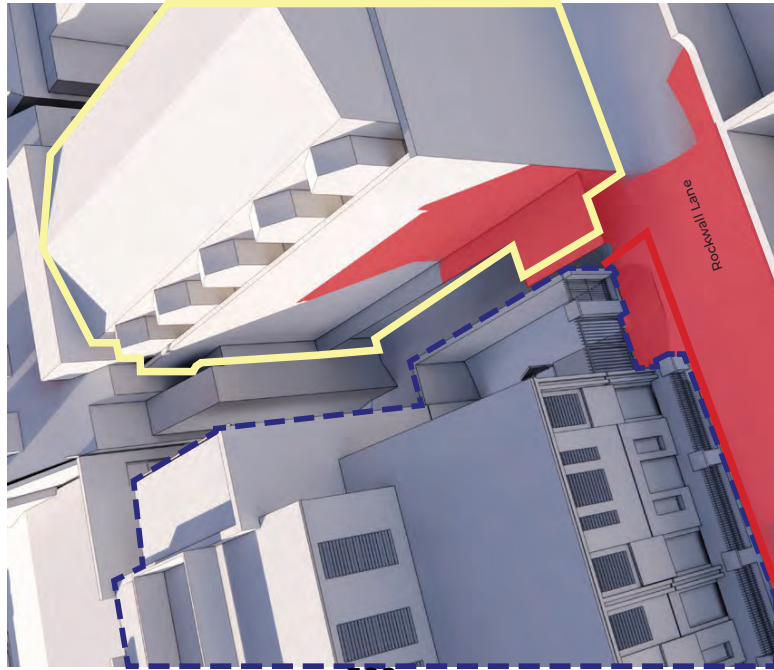


**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

# Overshadowing Impact to Hotel Challis (21 June)

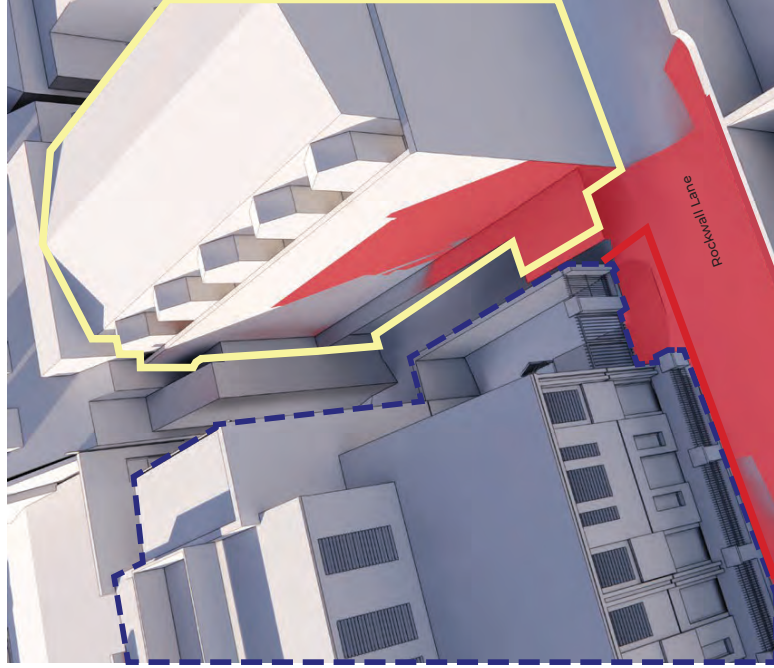
1.30PM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

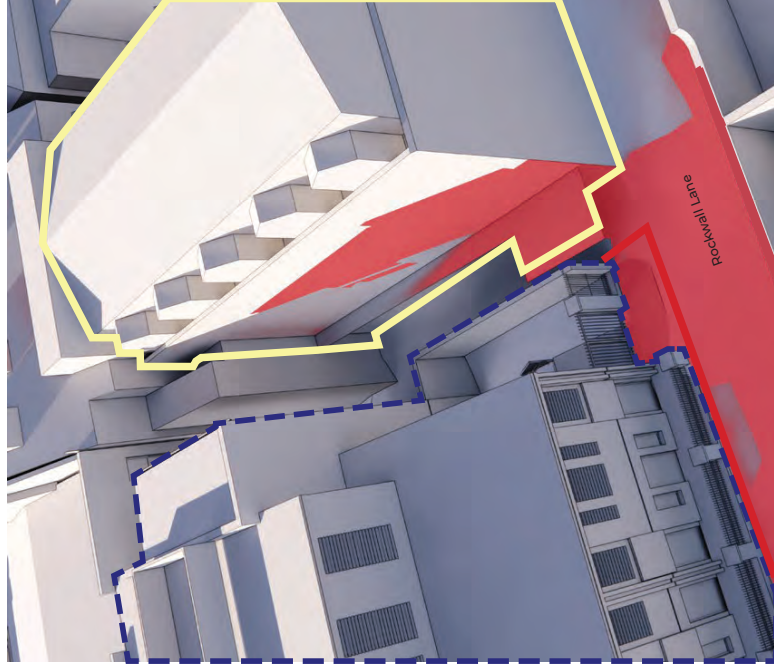
1.45PM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

2.00PM

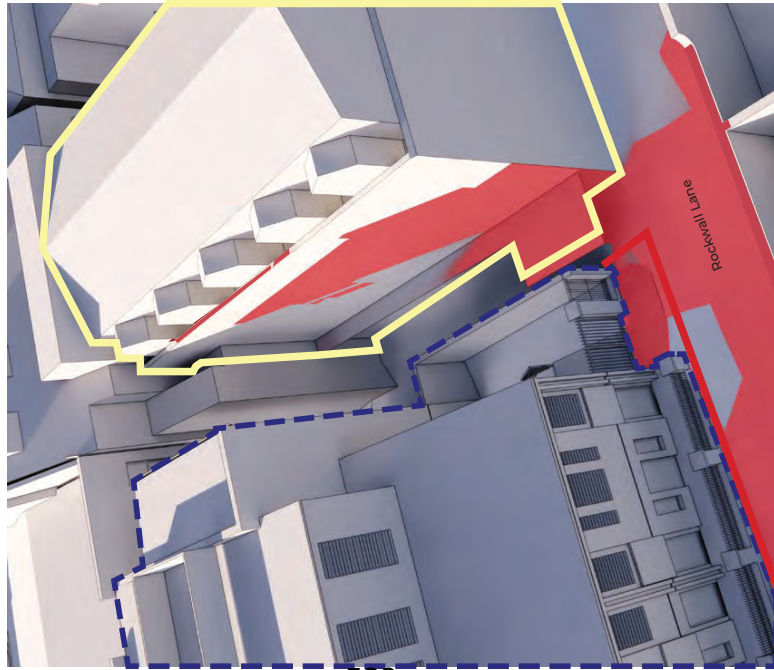


**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

# Overshadowing Impact to Hotel Challis (21 June)

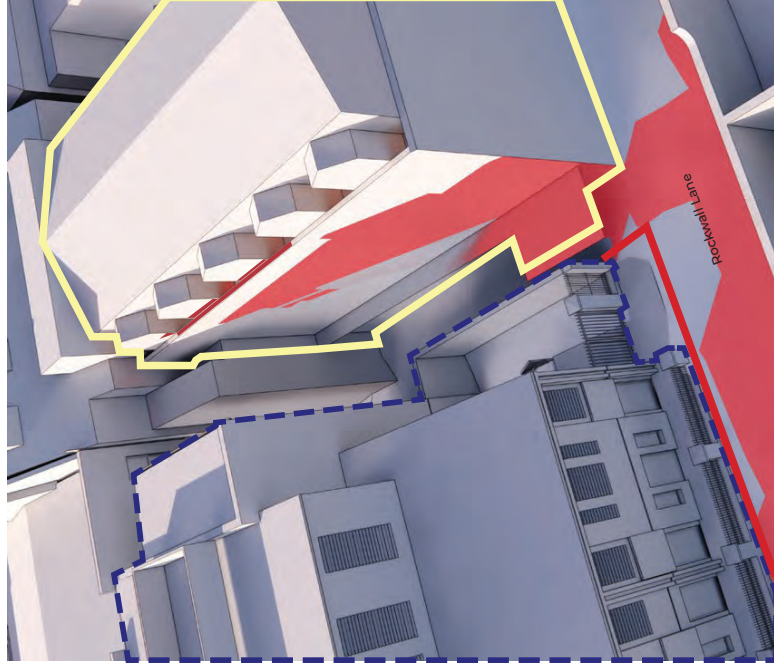
2.15PM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

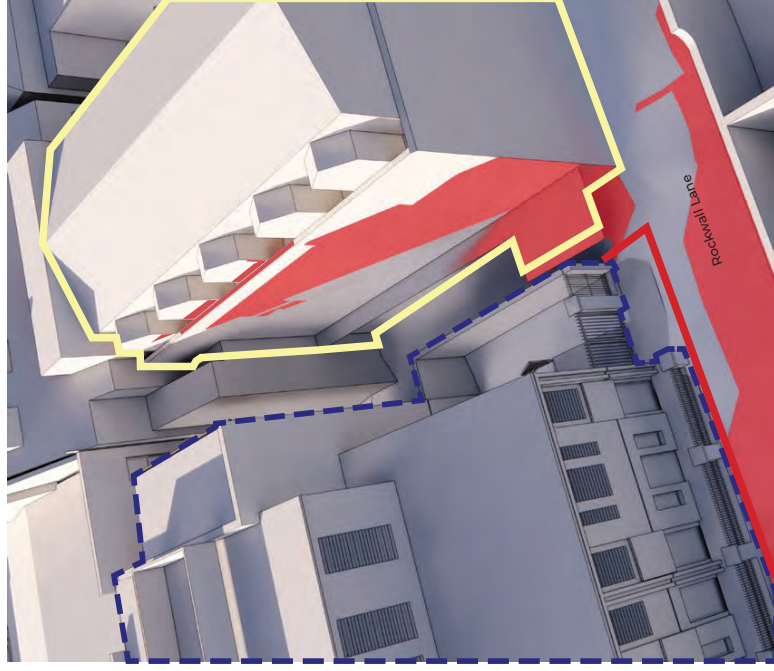
2.30PM



**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

2.45PM



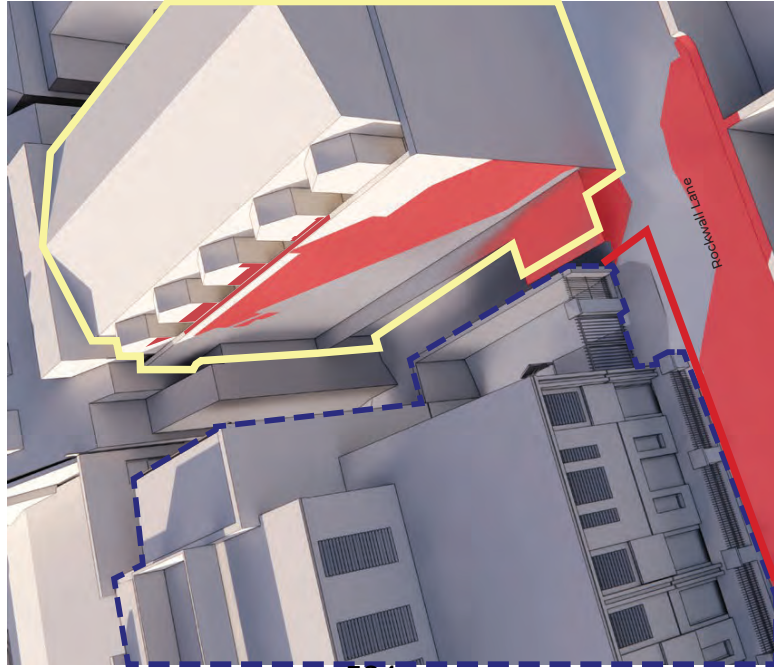
**LEGEND**

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing



# Overshadowing Impact to Hotel Challis (21 June)

3.00PM



524

## LEGEND

- Site Boundary
- Hotel Challis
- Proposal
- Existing shadow
- Additional overshadowing

# Sun Eye View - 21 June 9.00AM

## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal

# Sun Eye View - 21 June 9.30AM

## Existing



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings

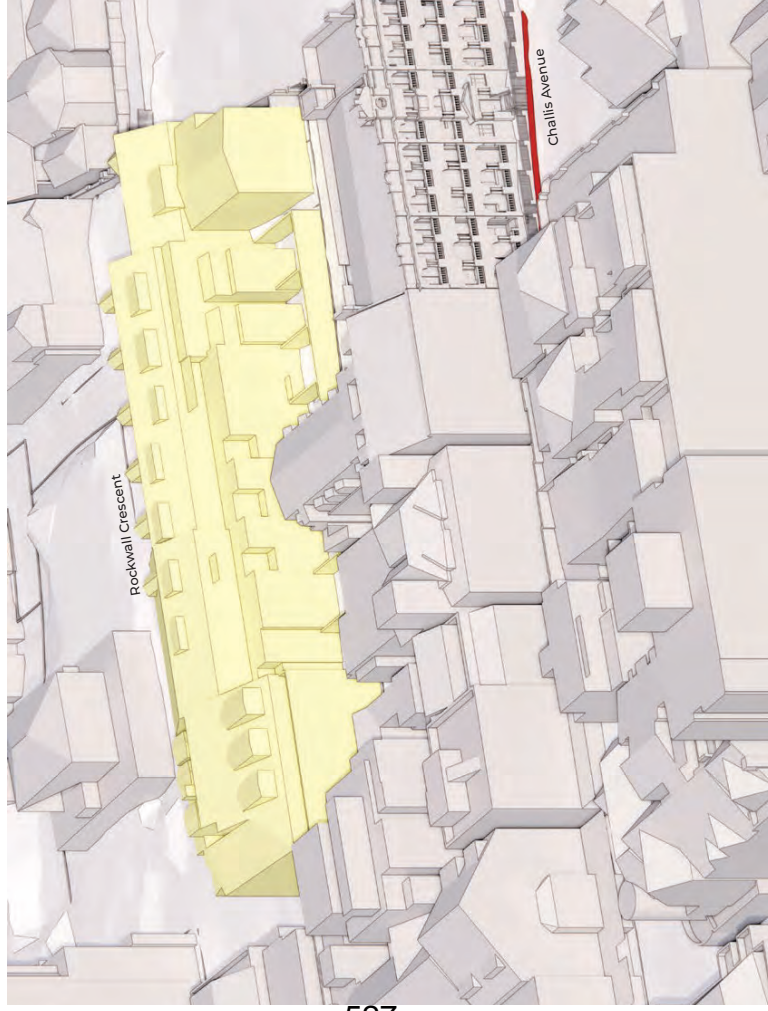
## Proposed



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings
  - Proposal

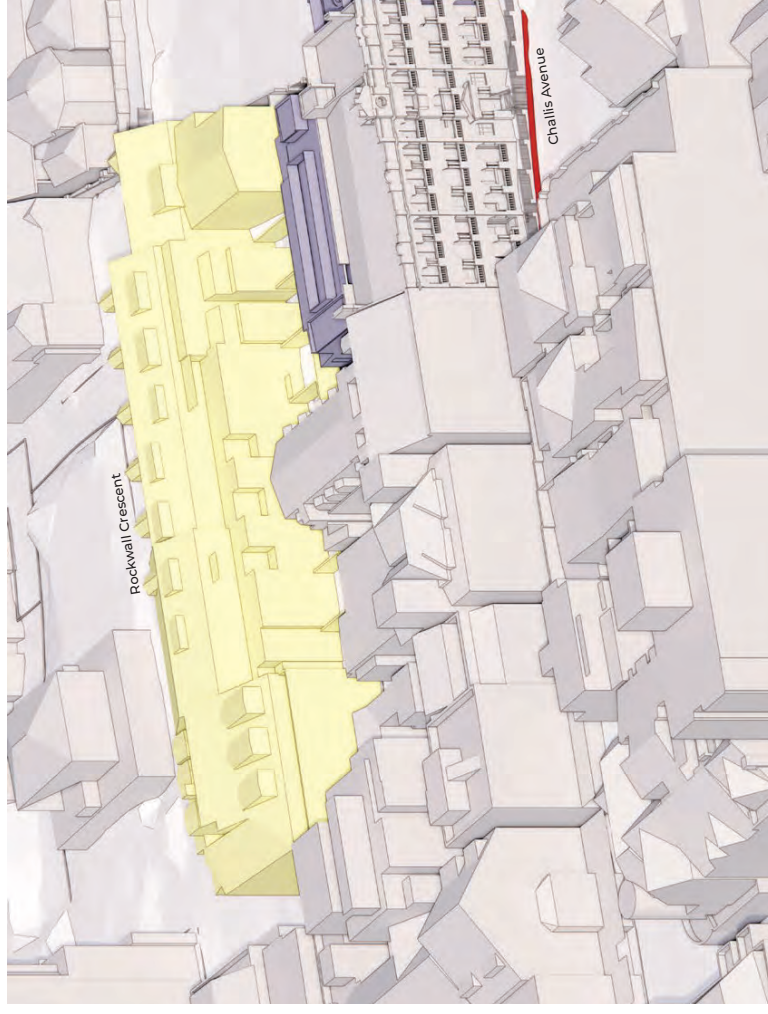
# Sun Eye View - 21 June 10.00AM

## Existing



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings

## Proposed



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings
  - Proposal

# Sun Eye View - 21 June 10.30AM

## Existing



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings

## Proposed



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings
  - Proposal

# Sun Eye View - 21 June 11.00AM

## Existing



## Proposed



# Sun Eye View - 21 June 11.30AM

## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal

# Sun Eye View - 21 June 12.00PM

## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal



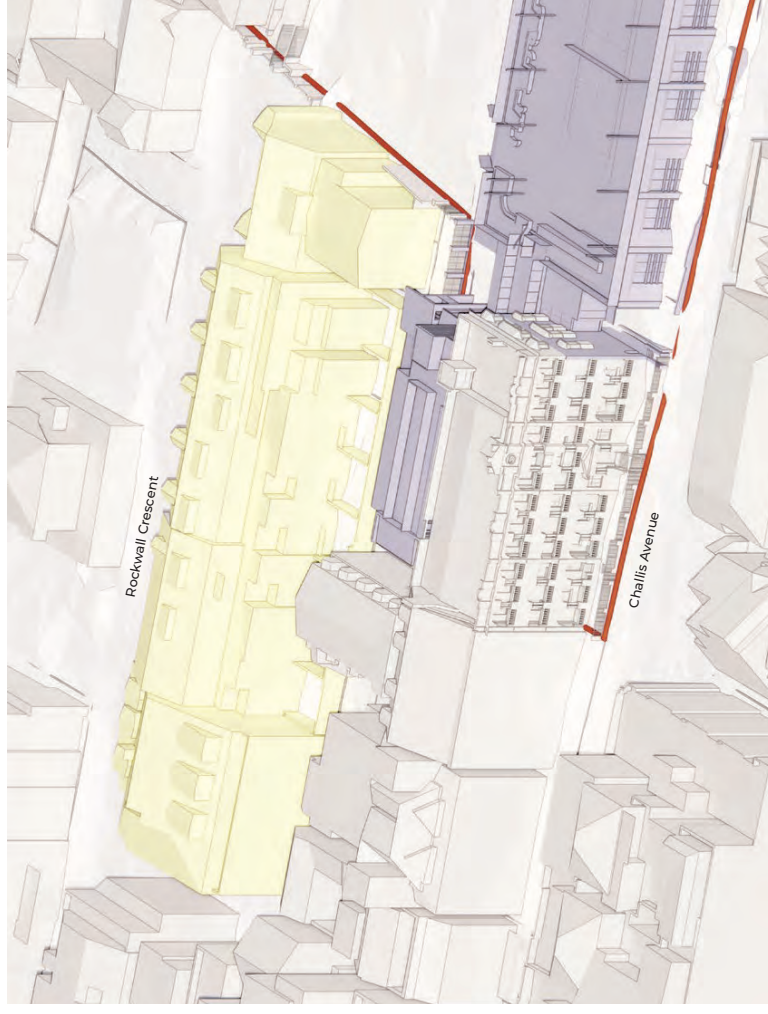
# Sun Eye View - 21 June 12.30PM

## Existing



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwell Crescent
  - Context buildings

## Proposed



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwell Crescent
  - Context buildings
  - Proposal

# Sun Eye View - 21 June 1.00PM

## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed

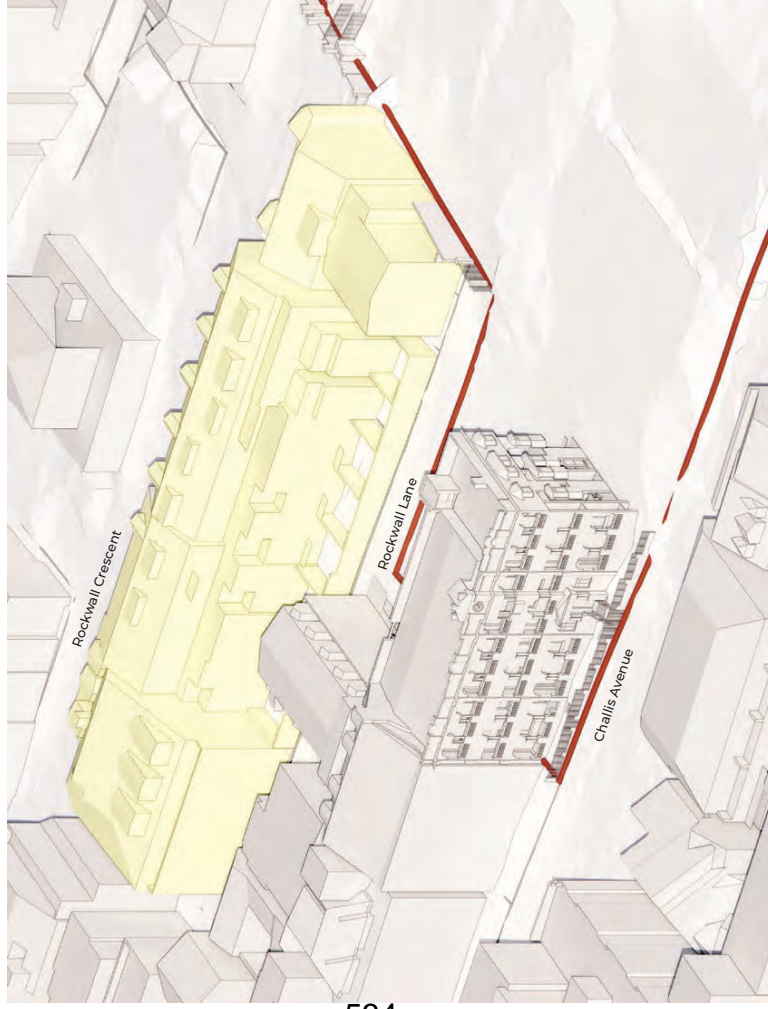


### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal

# Sun Eye View - 21 June 1.30PM

## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed

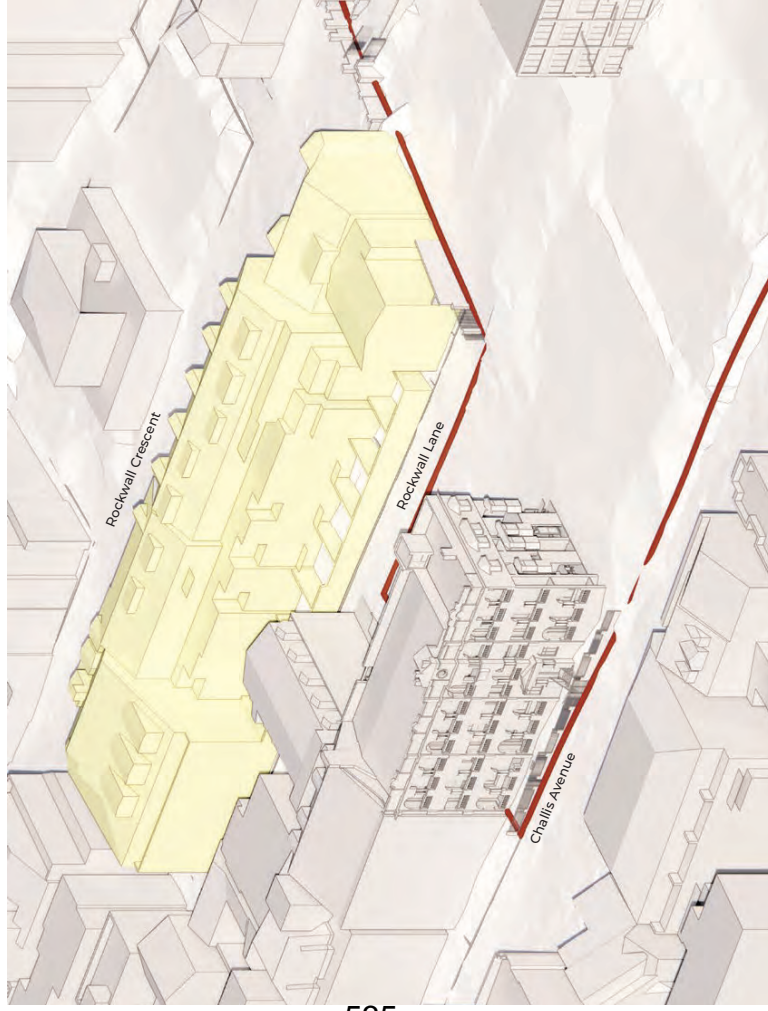


### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal

# Sun Eye View - 21 June 2.00PM

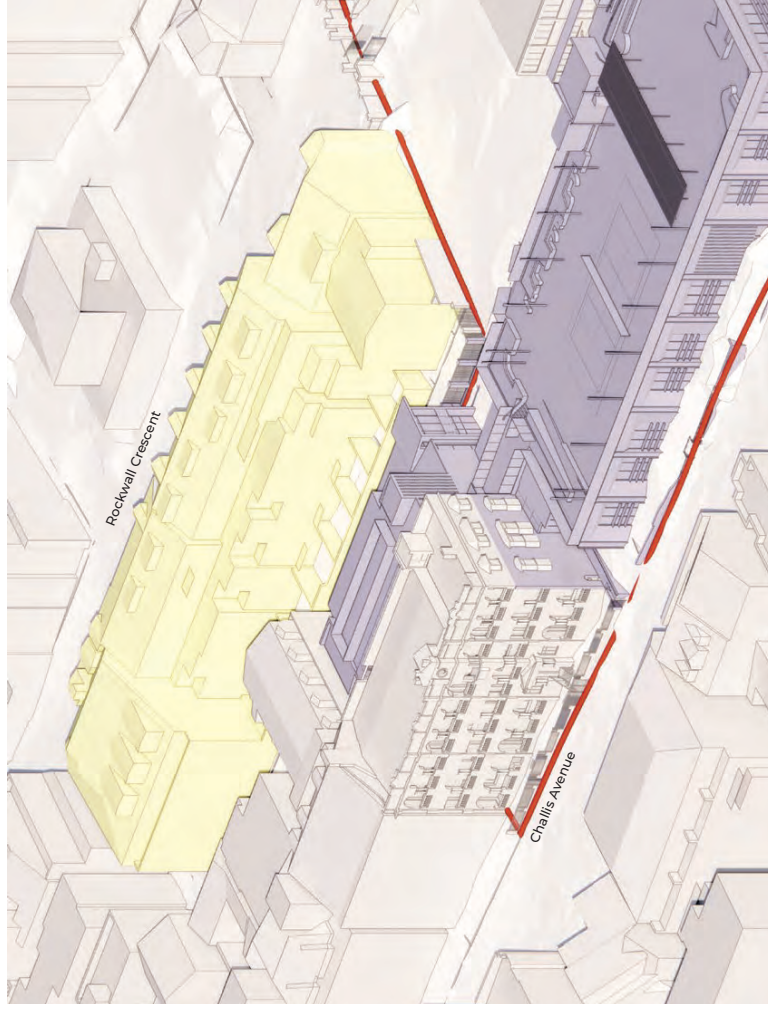
## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed

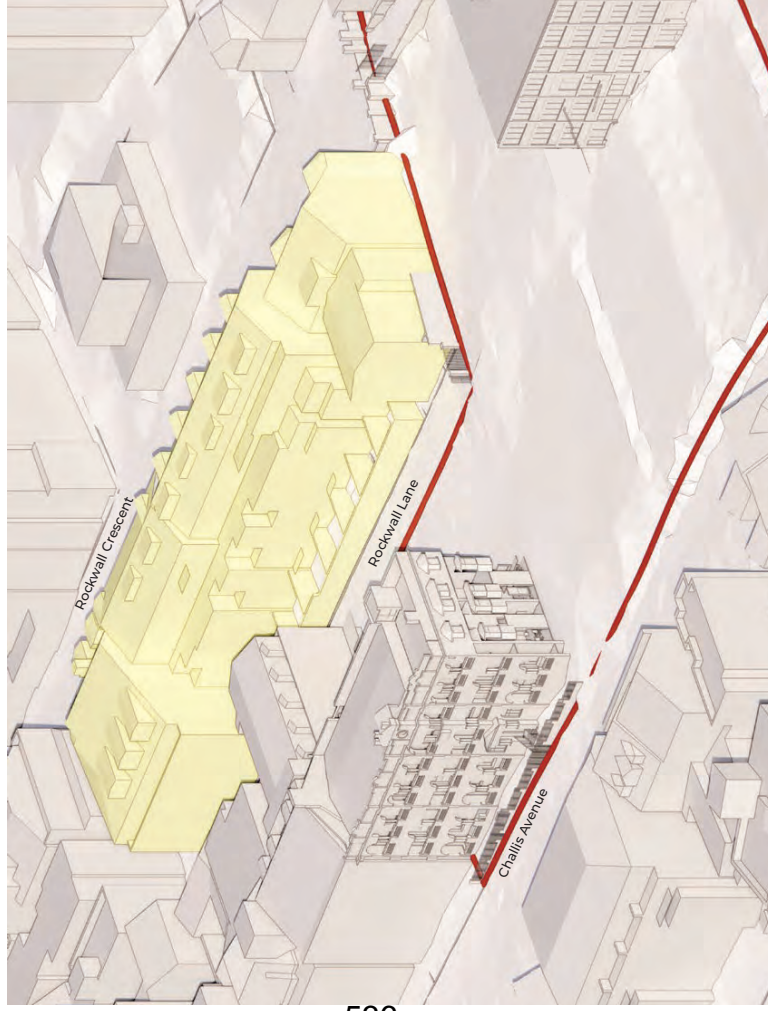


### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal

# Sun Eye View - 21 June 2.30PM

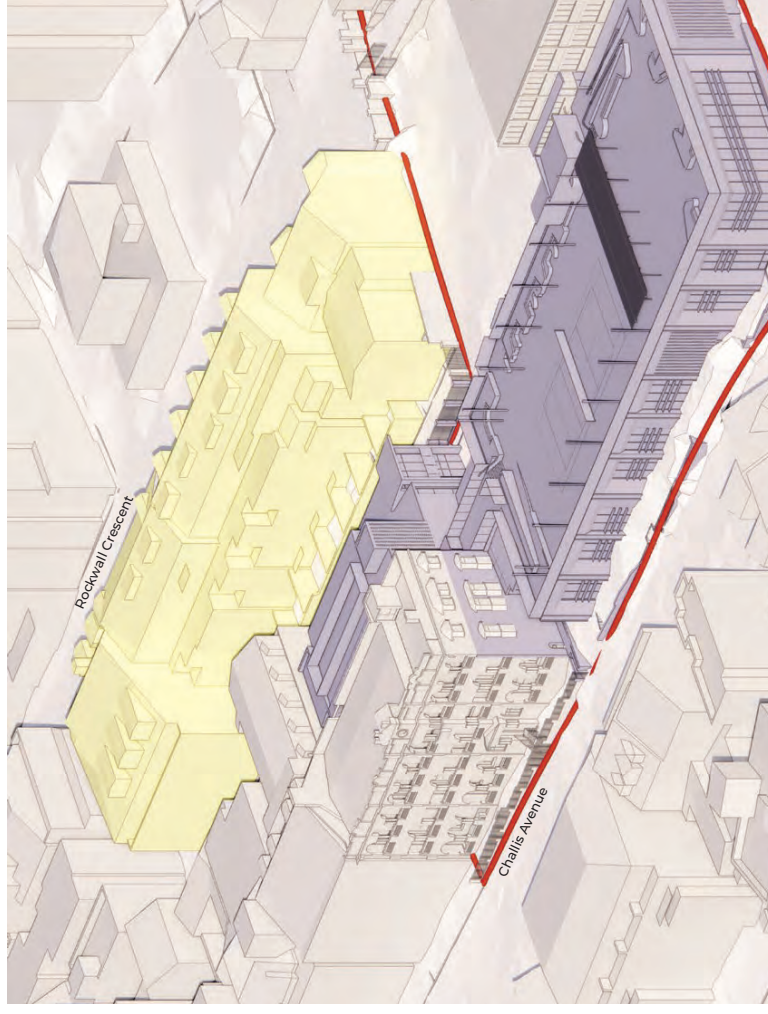
## Existing



### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings

## Proposed

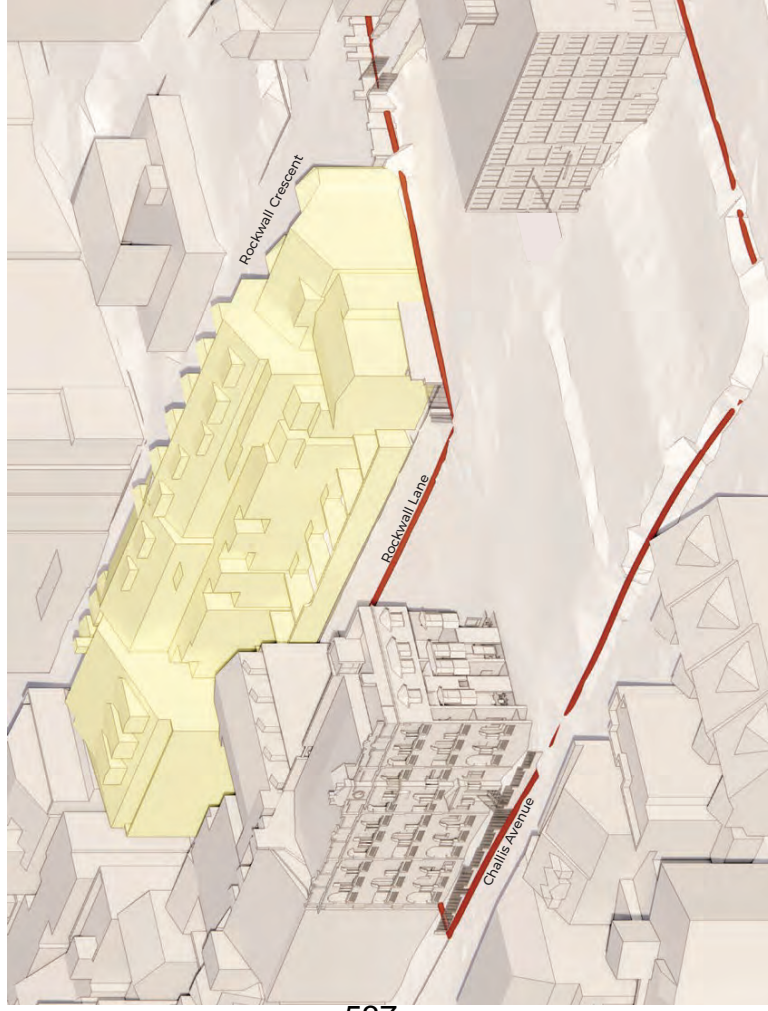


### LEGEND

- Site Boundary
- Terraces on 6-20 Rockwall Crescent
- Context buildings
- Proposal

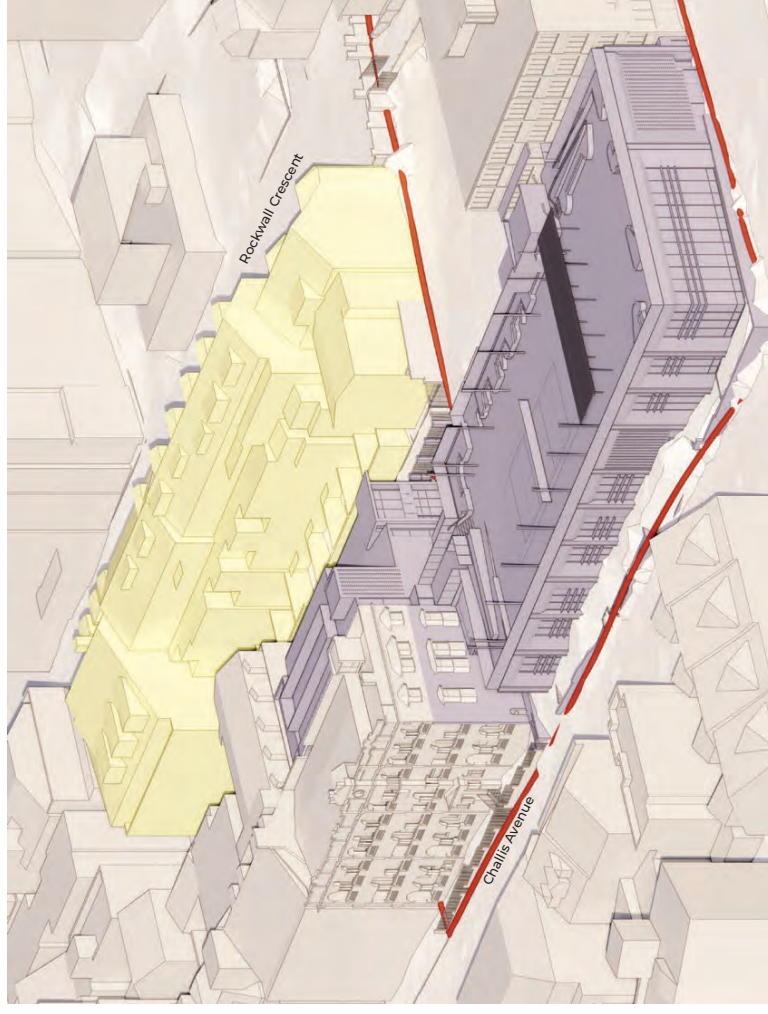
# Sun Eye View - 21 June 3.00PM

## Existing



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings

## Proposed



- LEGEND**
- Site Boundary
  - Terraces on 6-20 Rockwall Crescent
  - Context buildings
  - Proposal