

SOLAR IMPACT ANALYSIS – ADJOINING BUILDINGS

APPENDIX J

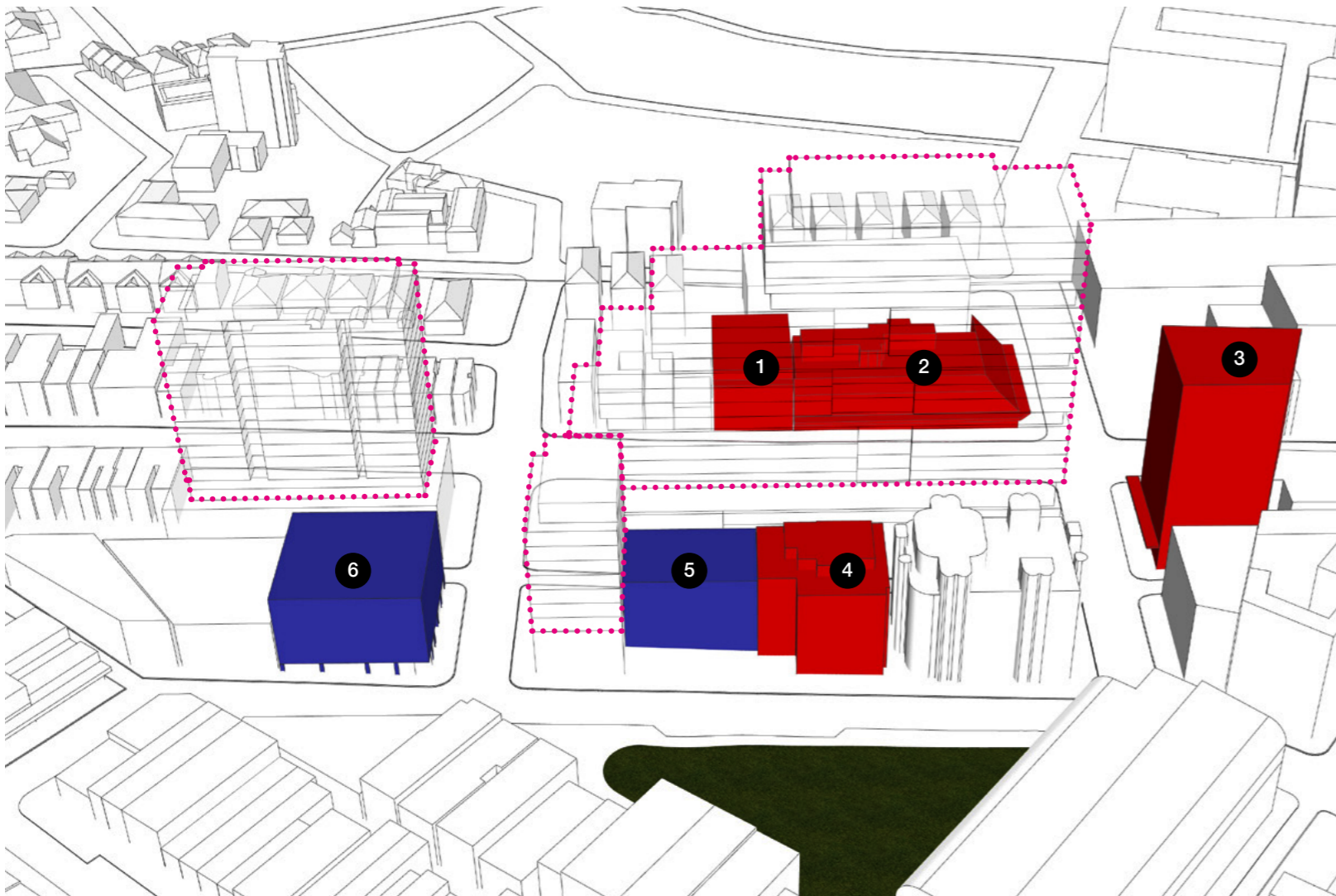
Crows Nest - Over Station Development

Appendix J - Solar Impact Analysis - Adjoining Buildings


29 July 2020

Revision E


J.1.1 Solar Impact Analysis - Adjoining Buildings



 Proposed Massing

 Residential Buildings Assessed

- 1. 400 Pacific Highway
- 2. 402-420 Pacific Highway
- 3. 545 Pacific Highway
- 4. 22-26 Clark Street; and
- 7. 29-31 Nicholson Street

 Commercial Buildings Assessed

- 5. 20 Clarke Street
- 6. 10 Clarke Street

Solar Impact Analysis

A detailed solar impact analysis to assess the impact of the proposed development on the surrounding buildings has been carried out for the following key buildings:

Residential Buildings:

- 1. 400 Pacific Highway
- 2. 402-420 Pacific Highway
- 3. 545 Pacific Highway
- 4. 22-26 Clark Street; and
- 7. 29-31 Nicholson Street

Commercial Buildings:

- 5. 20 Clarke Street
- 6. 10 Clarke Street

The analysis considers the impact of the proposed indicative scheme on these buildings, comparing the amount of direct solar access on June 21 between 9:00 am and 3:00 pm.

Given the relative position of the different sites, the impacts vary accordingly. Three sites, 545 Pacific Highway, 22-26 Clarke Street and 20 Clarke Street, are not impacted by the proposed indicative design due to their position with respect to the site. Due to their position with respect to the site, 400 Pacific Highway, 402-420 Pacific Highway and 10 Clarke Street are overshadowed by the proposed development.

At 400 Pacific Highway, solar access is reduced by approximately four to five hours on the NE facade and roof, due to overshadowing caused by the proposed development between 9:00 am and 1:00 pm. The building receives less than 2 hours of solar access throughout the day.

At 402-420 Pacific Highway, solar access is reduced by approximately one to two hours on the NE facade and roof, due to overshadowing caused by the proposed development between 9:00 am and 12:00 pm. The building however still receives more than 2 hours of solar access in the afternoon.

At 10 Clarke Street, solar access is reduced by approximately two to three hours on the NW facade and roof, due to overshadowing caused by the proposed development between 12:30 pm and 3:00pm. The building however still receives more than 2 hours in the morning.

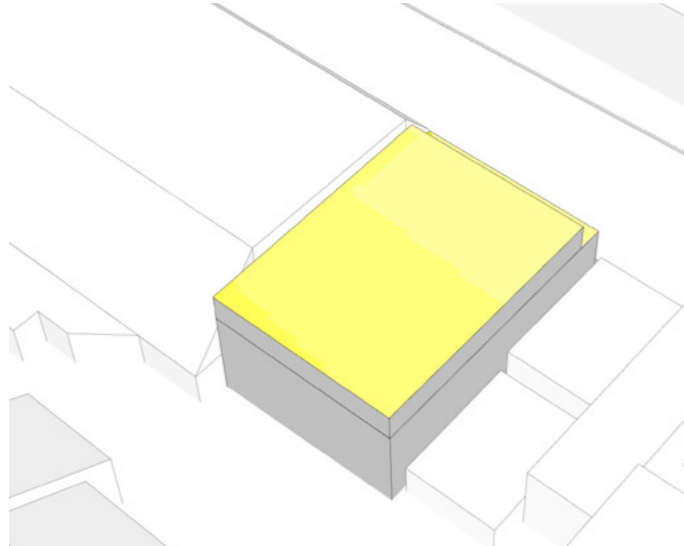
Note

The level of accuracy of this result may vary from the studies undertaken by previous design teams. Discrepancies may be found due to the non-identical testing environments. The discrepancies found here are within an acceptable range that does not impact on the interpretation of the overall results.

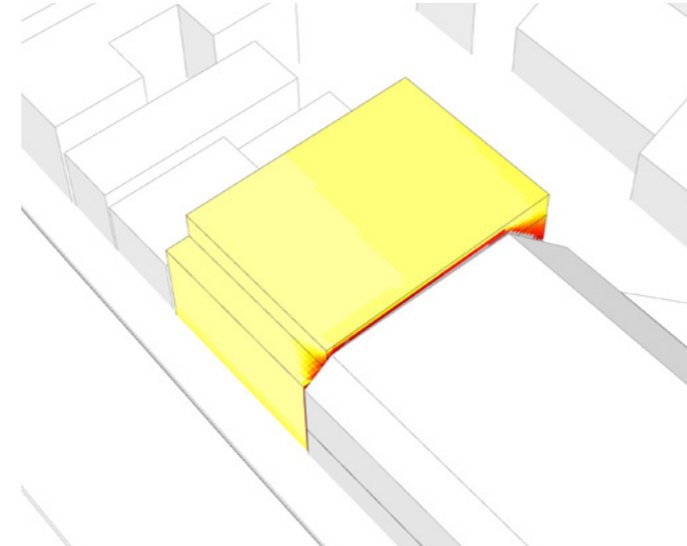


400 Pacific Highway

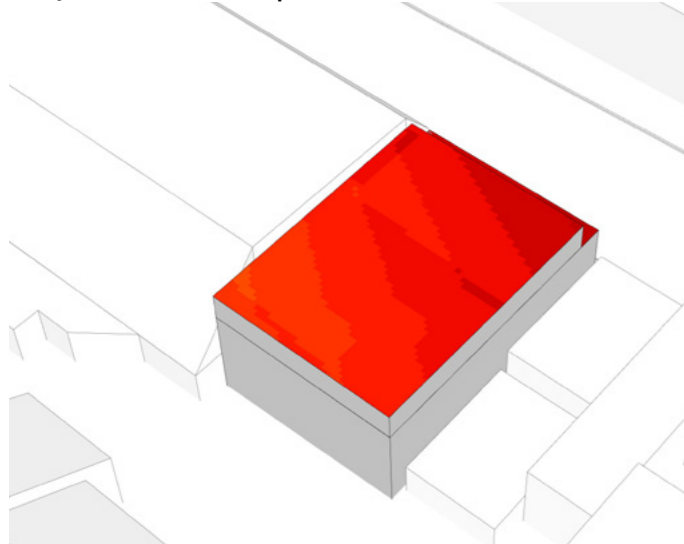
Existing Scenario | South View



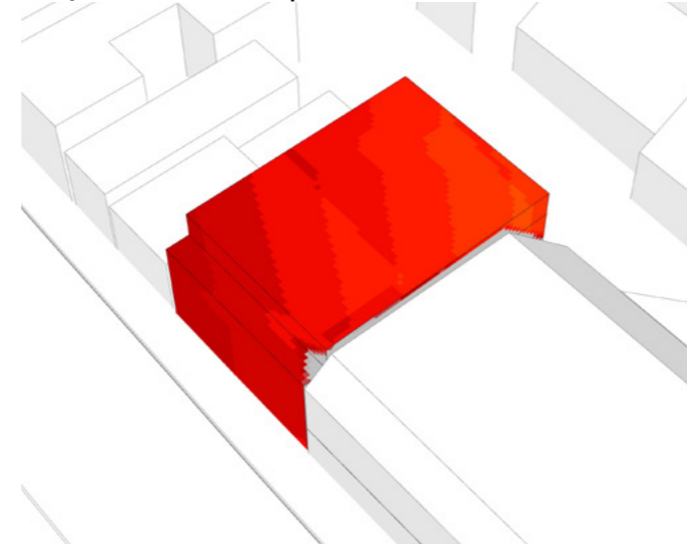
Existing Scenario | North View



Proposed Scenario | South View



Proposed Scenario | North View

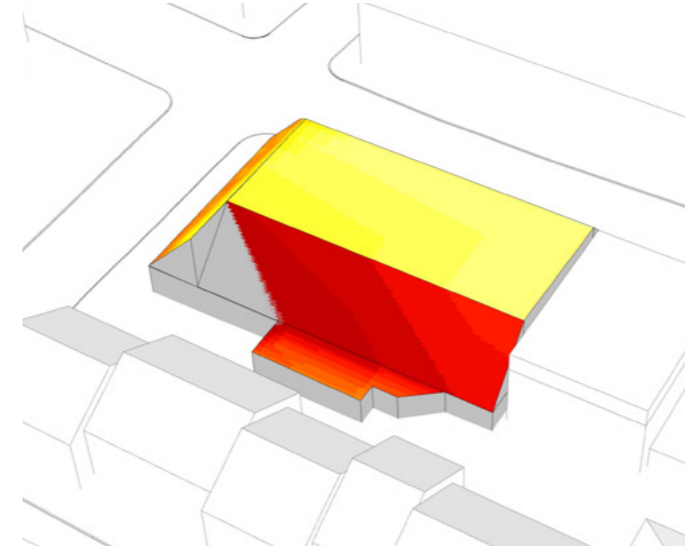


Solar access is reduced to approximately 1-2 hours on the NE facade and 1 -3 hours on the roof of the building.

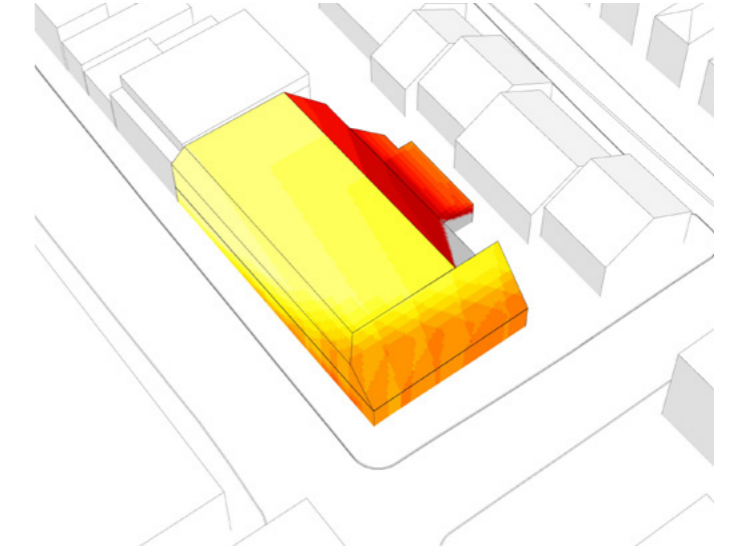


402-420 Pacific Highway

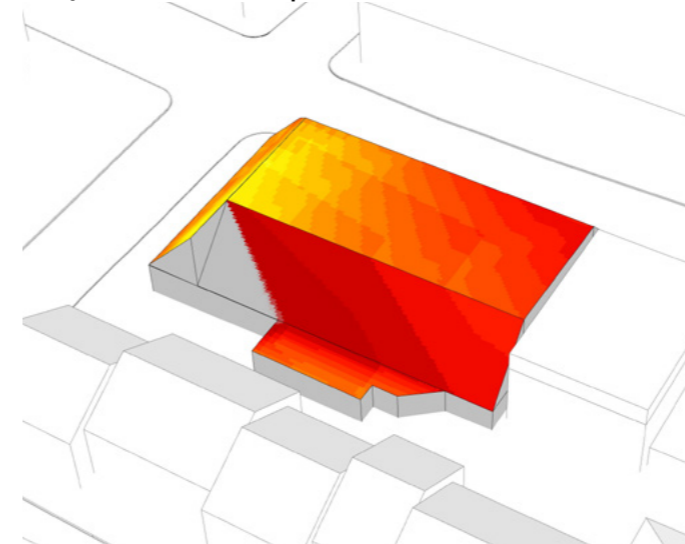
Existing Scenario | South View



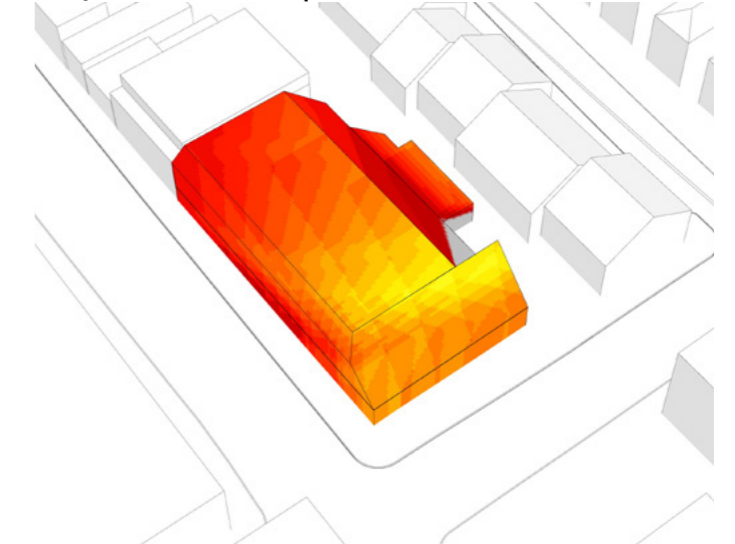
Existing Scenario | North View



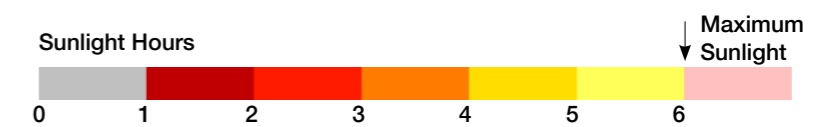
Proposed Scenario | South View



Proposed Scenario | North View



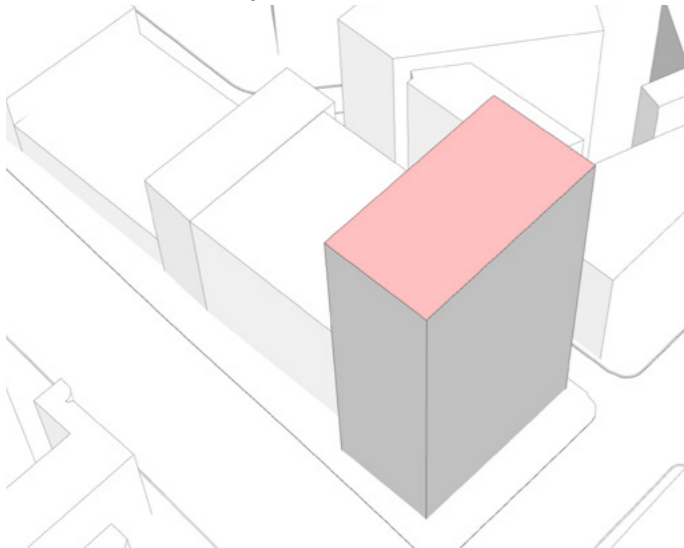
Solar access is reduced by approximately 2-3 hours on the NE facade and roof, however most of the building still receives more than 2 hours of solar access in these areas.



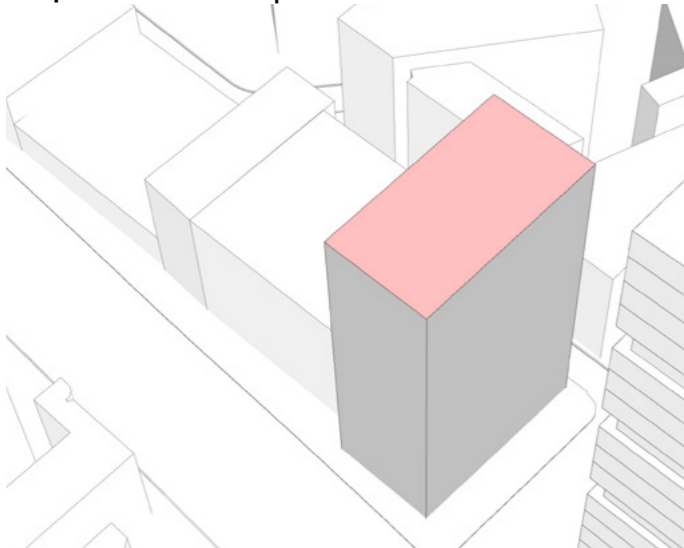


545 Pacific Highway

Existing Scenario | South View

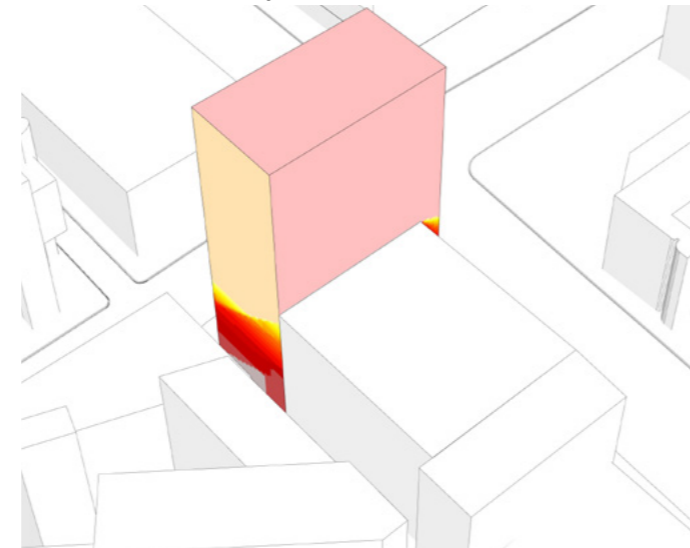


Proposed Scenario | South View

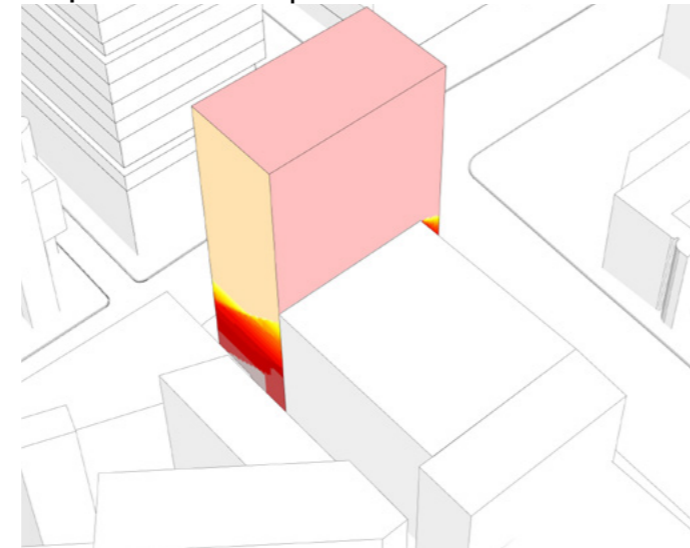


No impact

Existing Scenario | North View

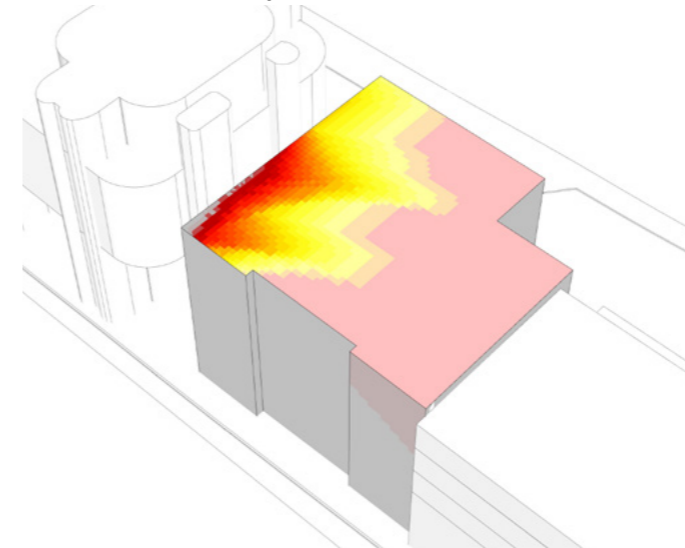


Proposed Scenario | North View

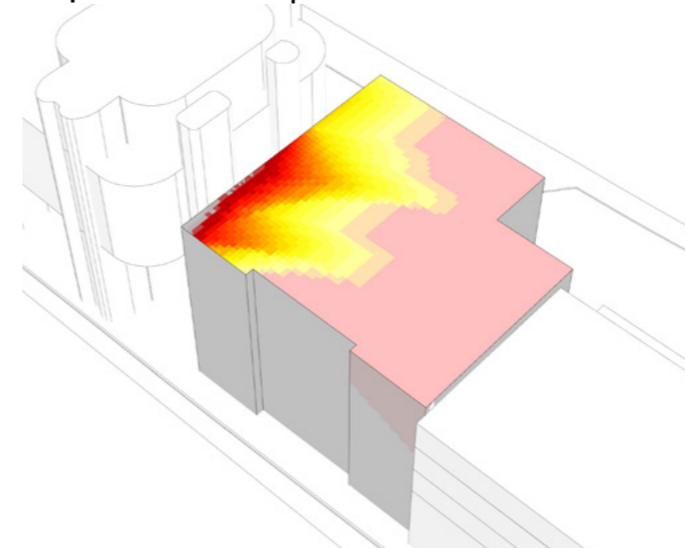


22-26 Clarke Street

Existing Scenario | South View

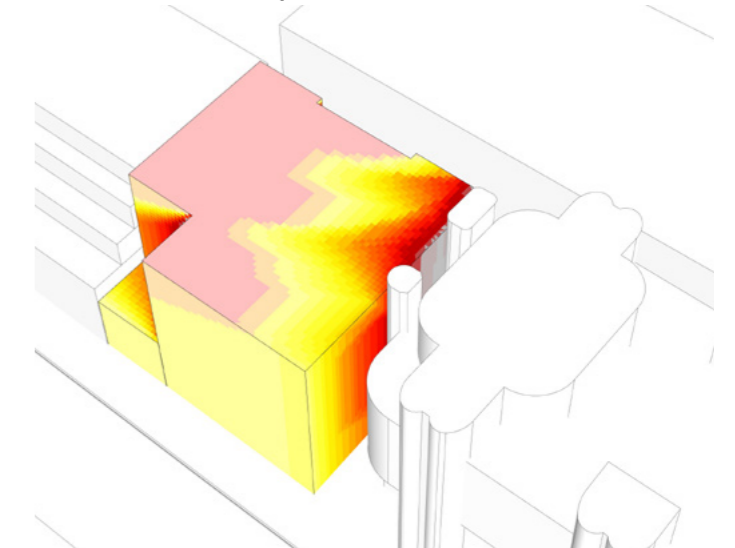


Proposed Scenario | South View

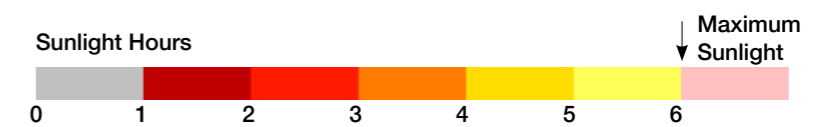
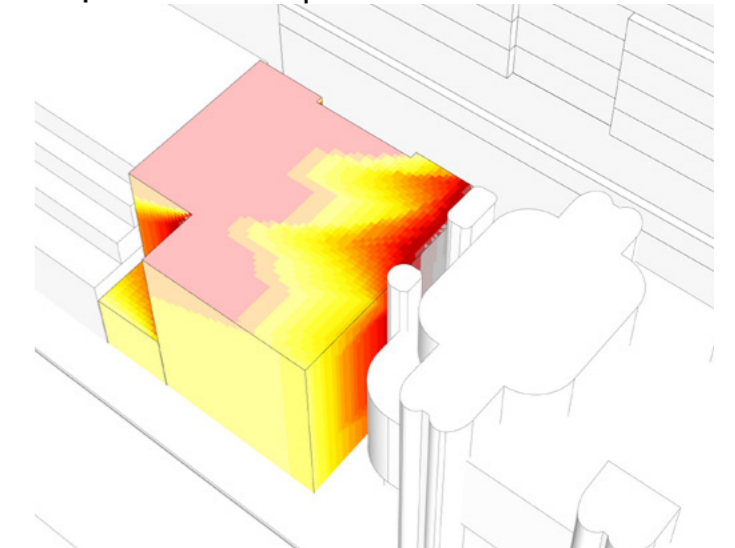


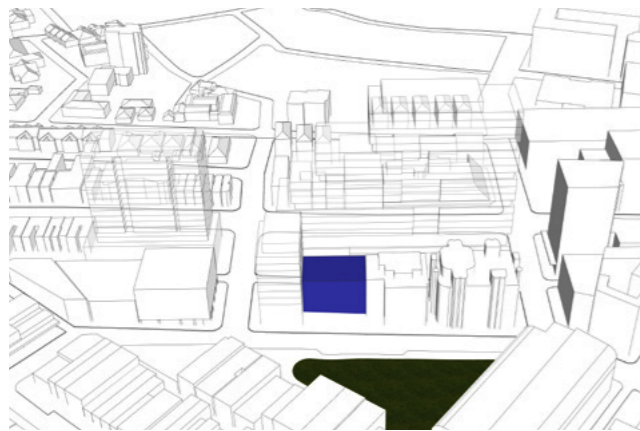
No impact

Existing Scenario | North View



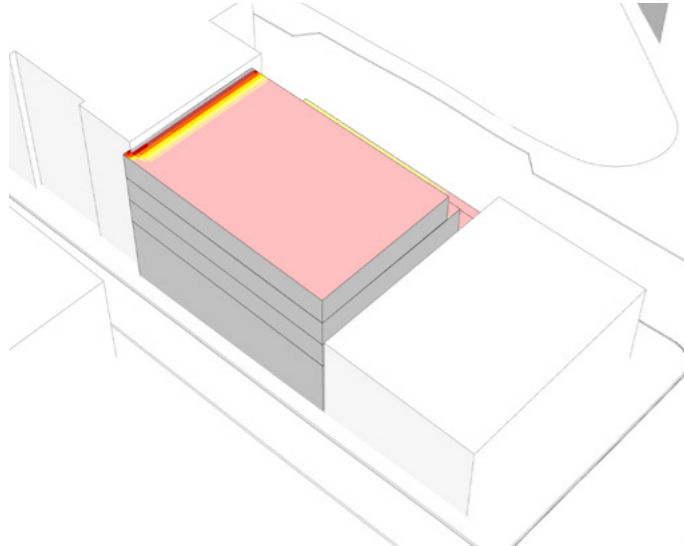
Proposed Scenario | North View



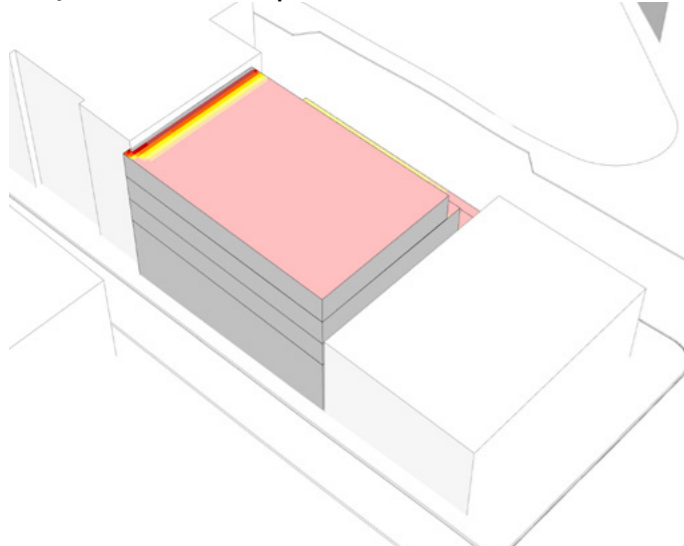


545 Pacific Highway

Existing Scenario | South View

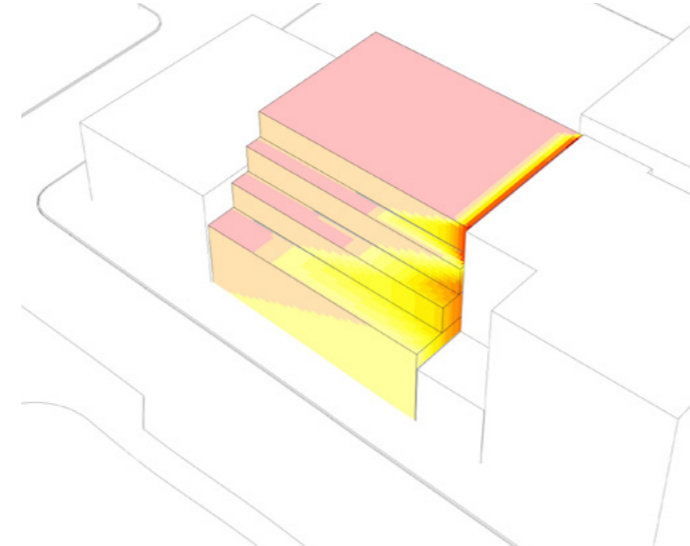


Proposed Scenario | South View

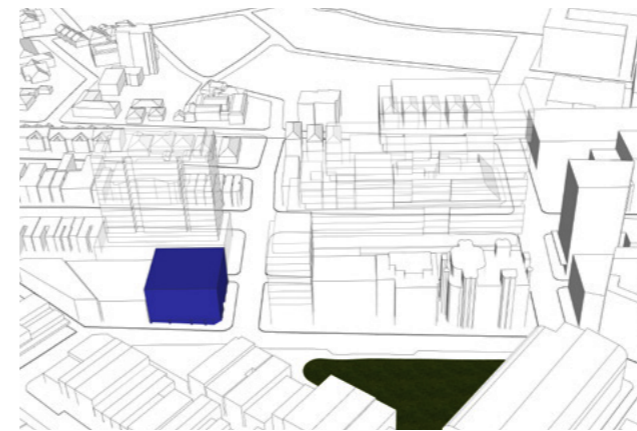
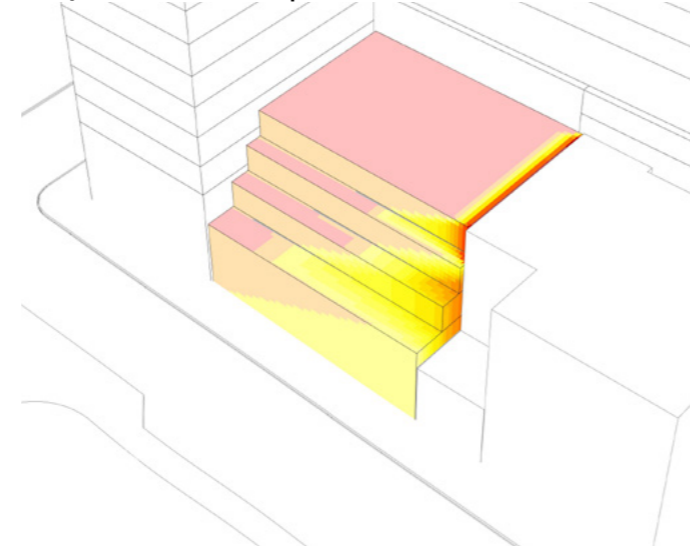


No impact

Existing Scenario | North View

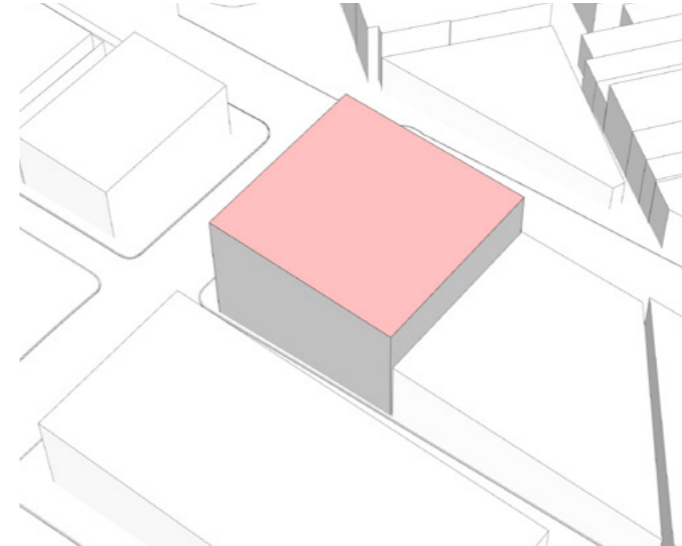


Proposed Scenario | North View

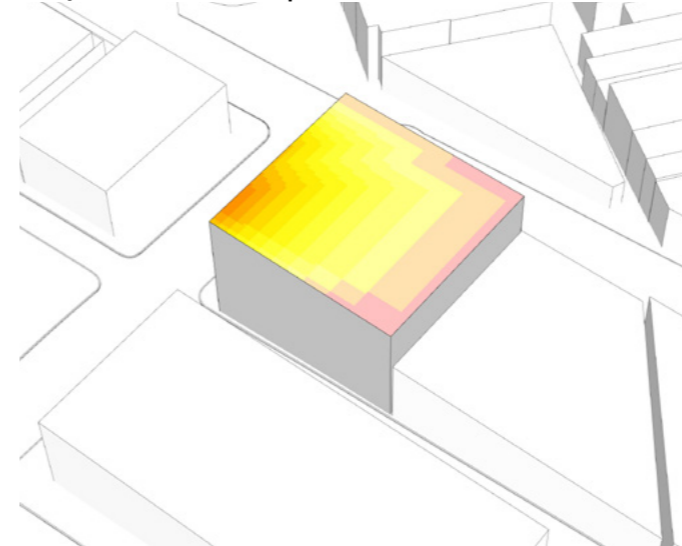


22-26 Clarke Street

Existing Scenario | South View

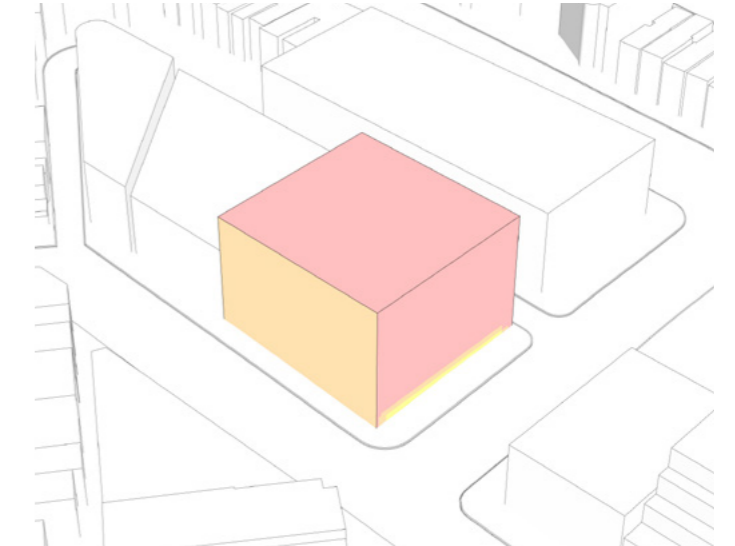


Proposed Scenario | South View



Solar access is reduced by approximately 2-3 hours on the NE facade and roof, however the building still receives more than 2 hours of solar access in these areas.

Existing Scenario | North View



Proposed Scenario | North View

