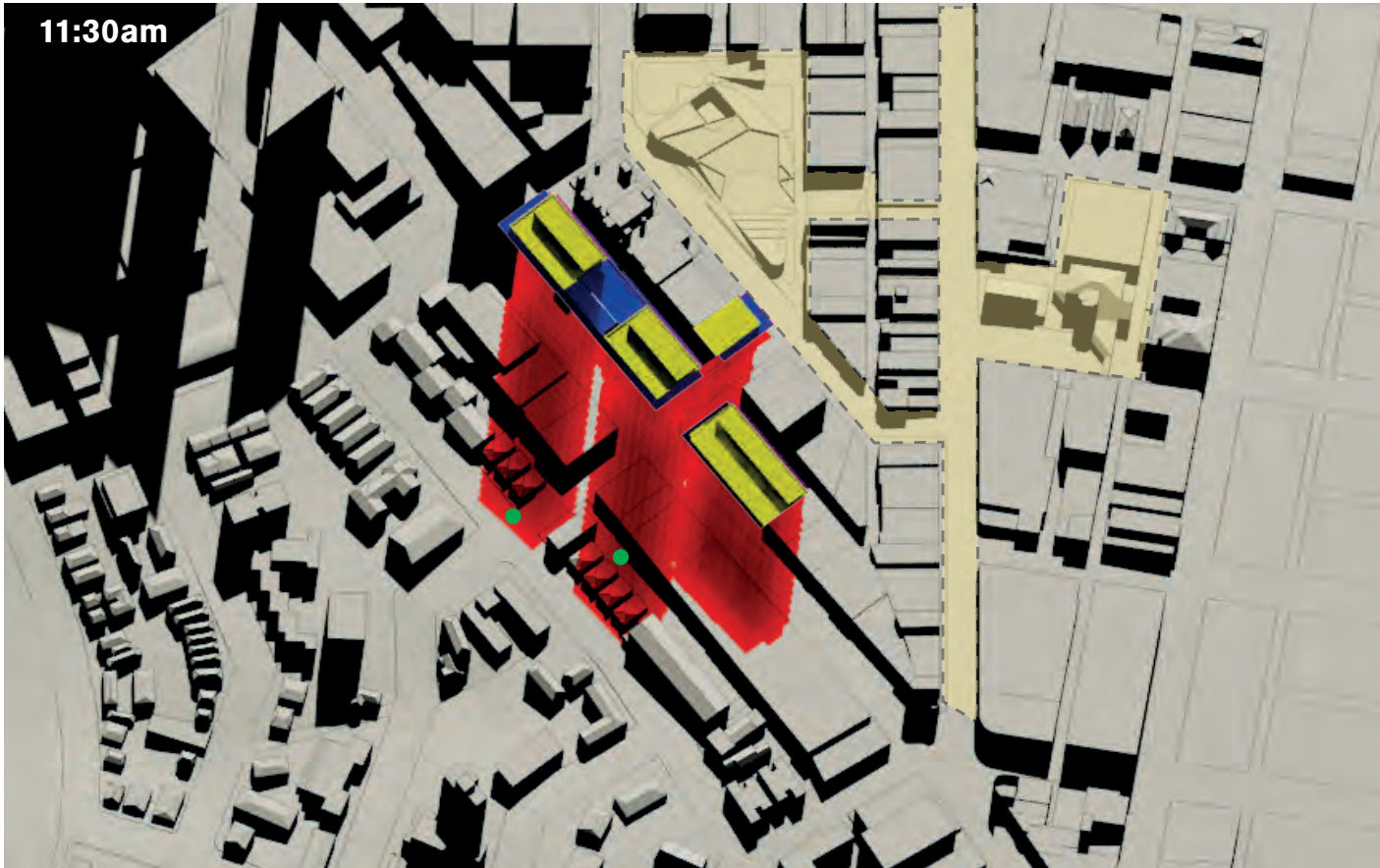
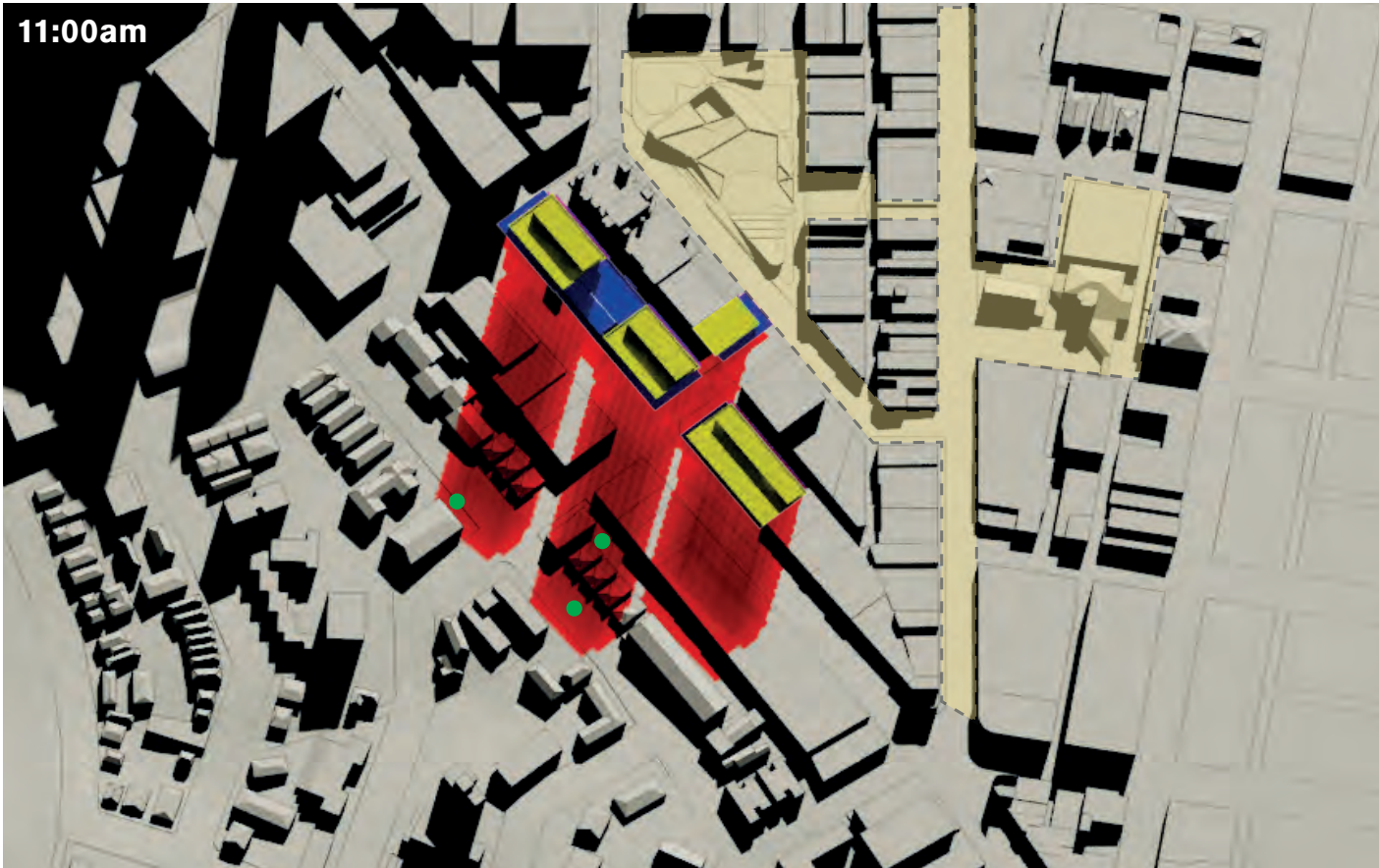


5.0 SEPP 65 Analysis
5.3 Shadow Analysis
June 11:00AM - 11:30AM



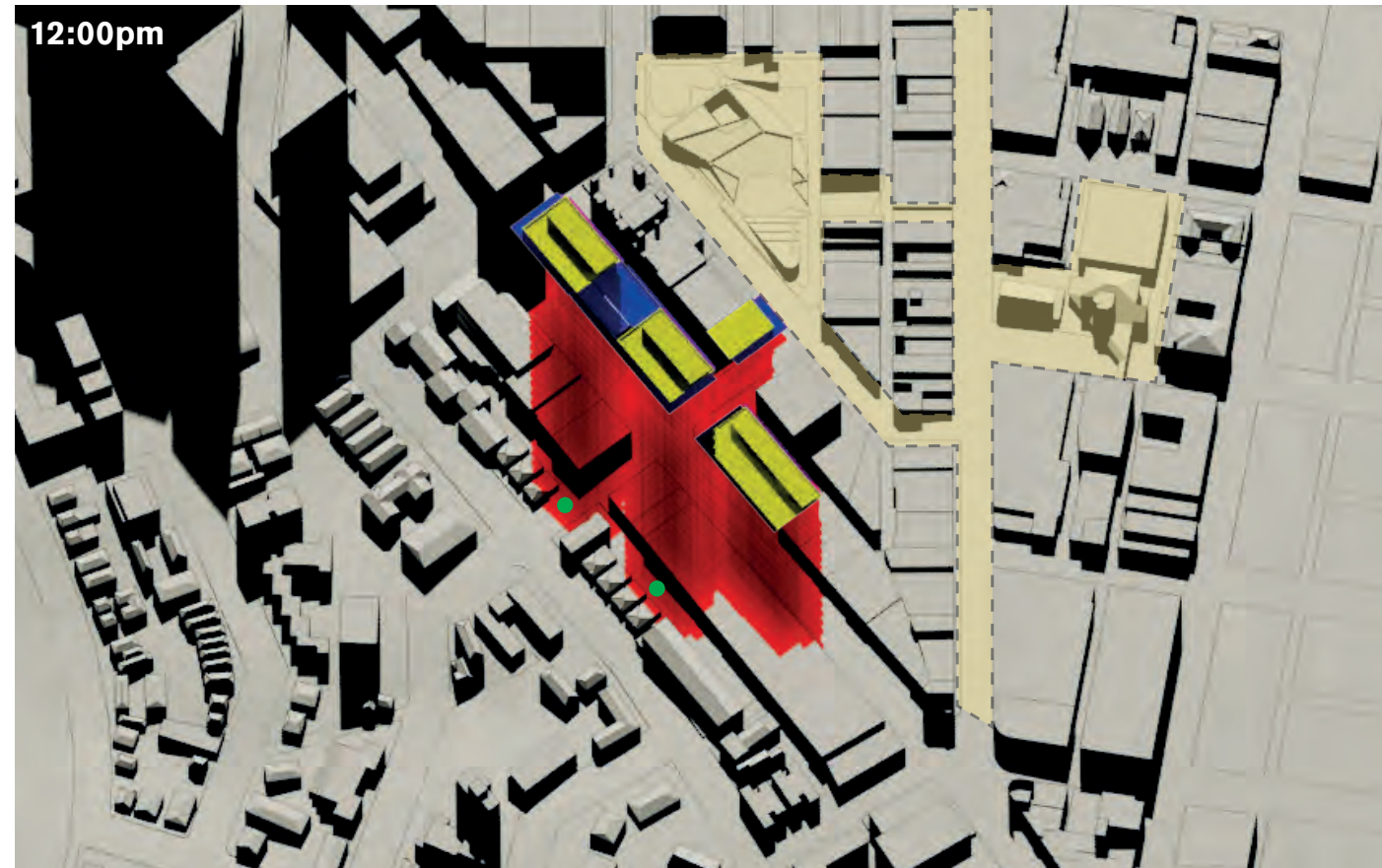
Some additional shading of private open areas occurs to the properties to the south west of the development, though none of these occasions are long enough to prevent compliance.

- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

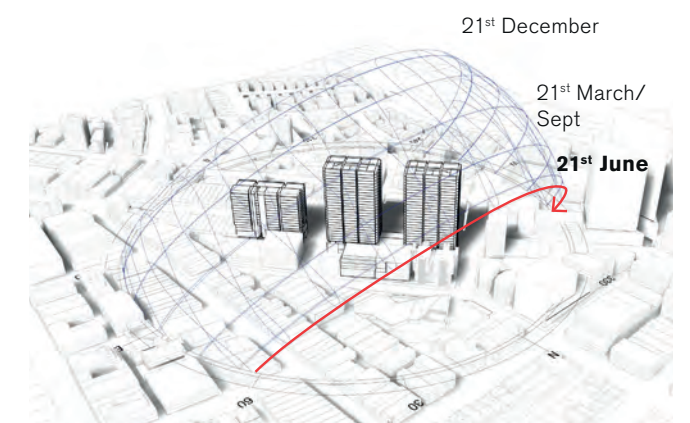
5.0 SEPP 65 Analysis

5.3 Shadow Analysis

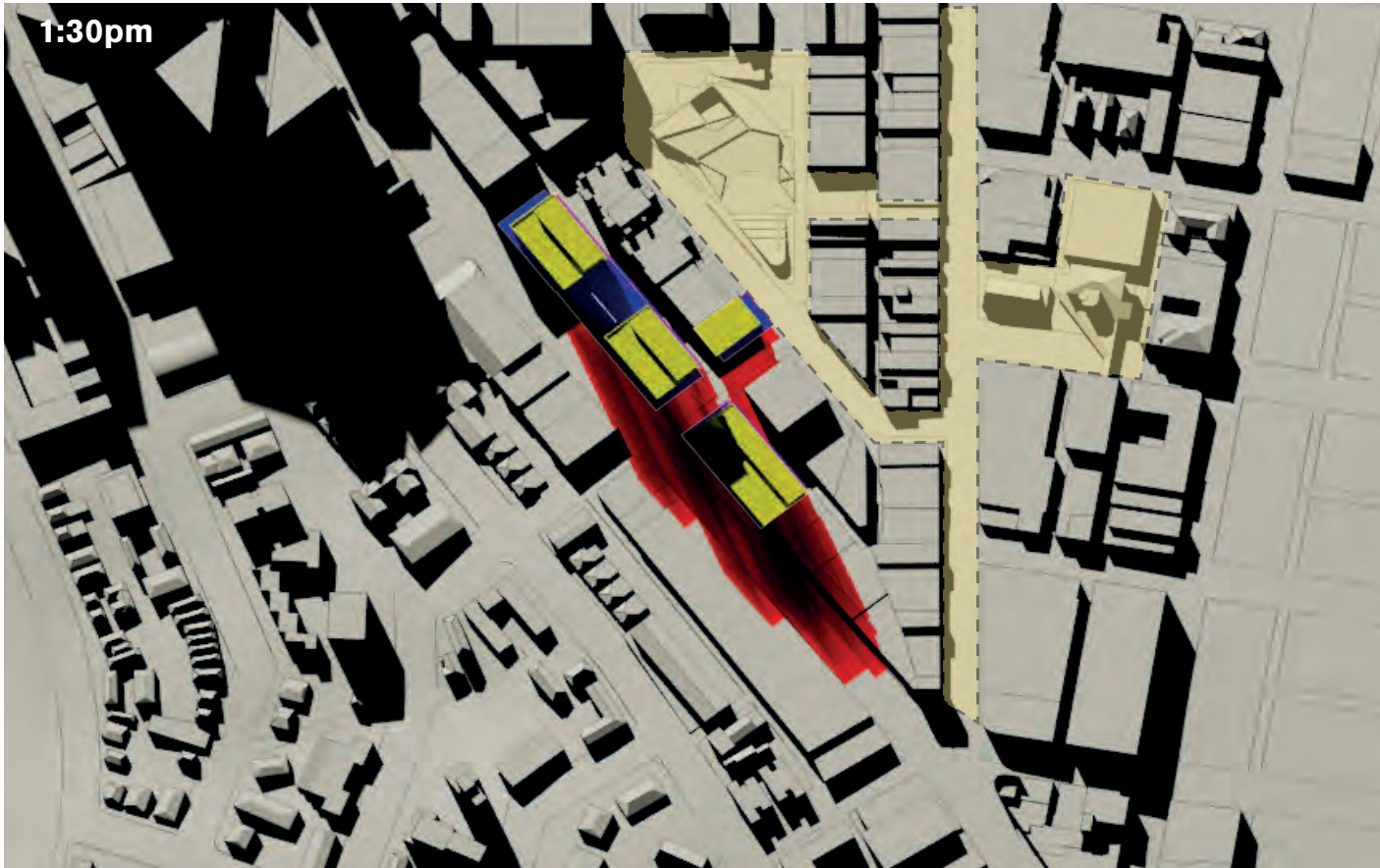
June 12:00PM - 12:30PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
June 1:00PM - 1:30PM

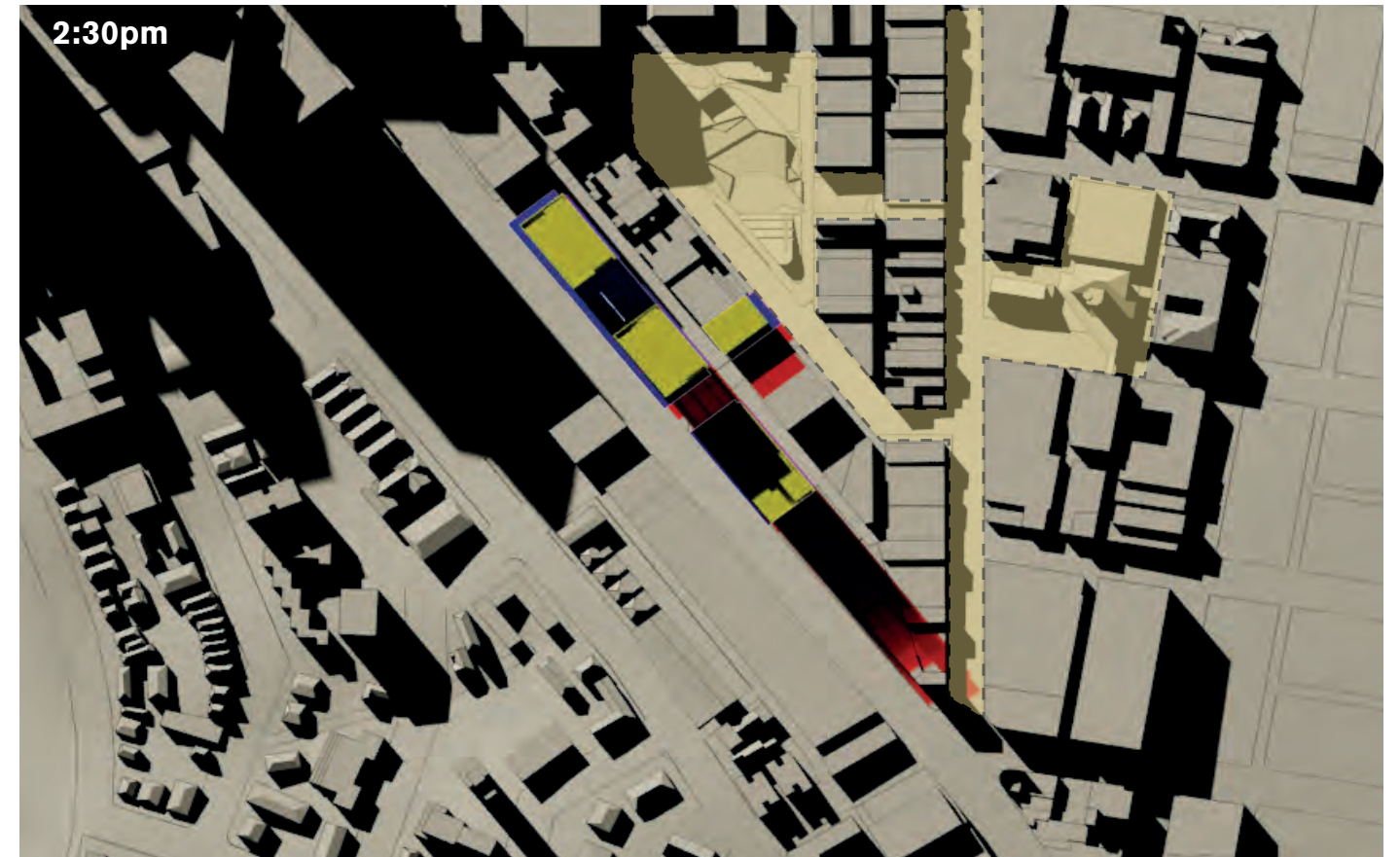


- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

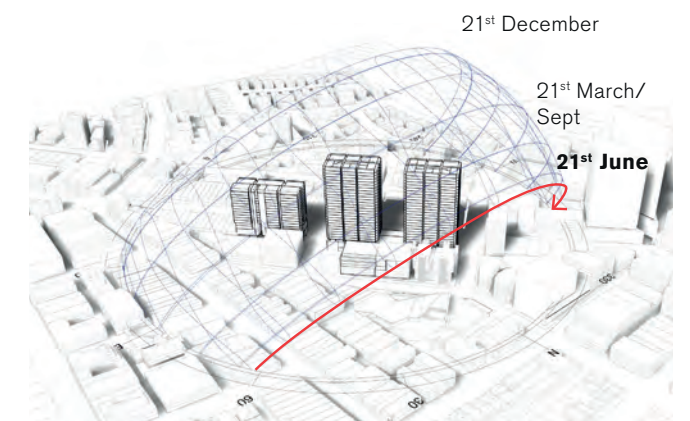
5.0 SEPP 65 Analysis

5.3 Shadow Analysis

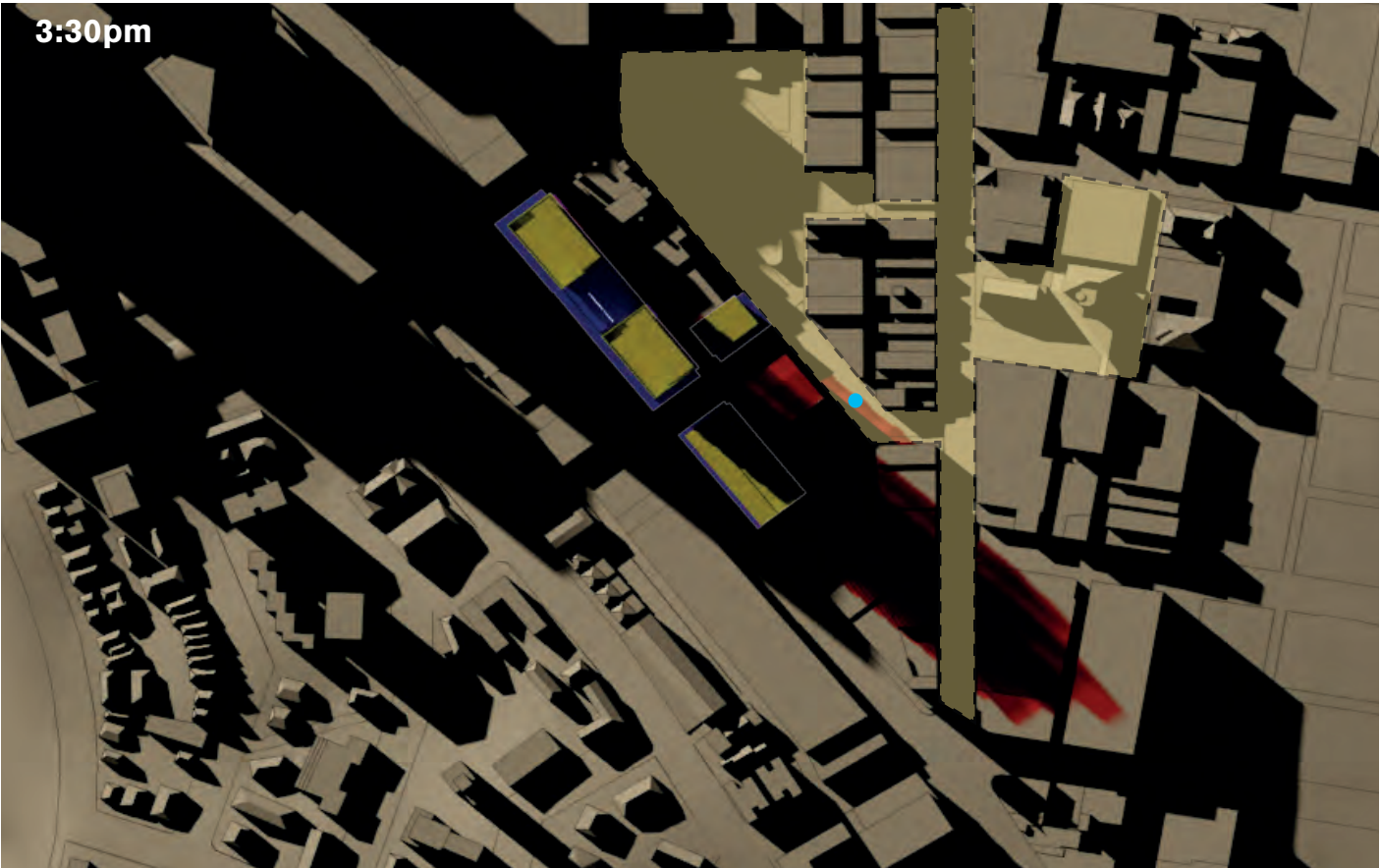
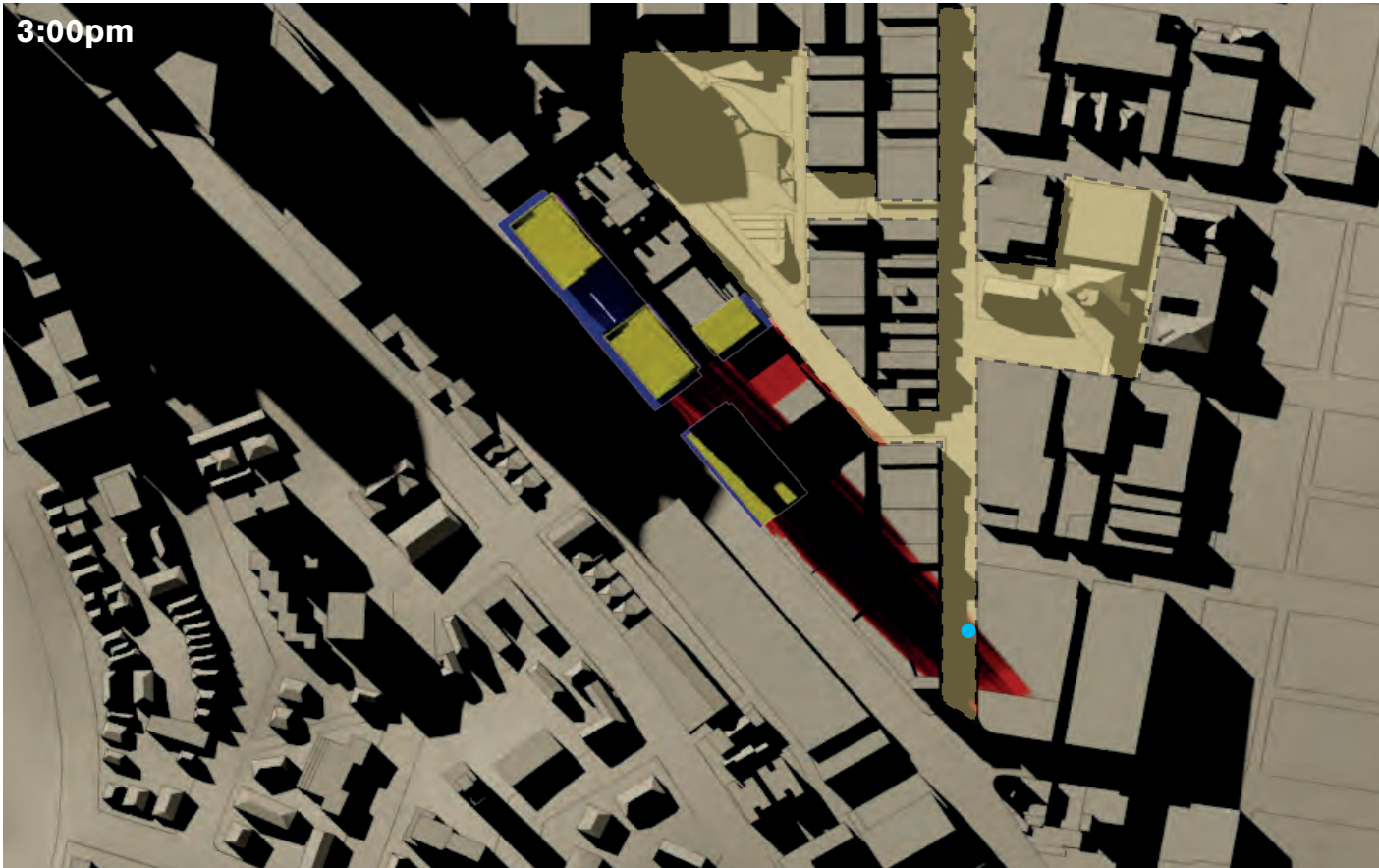
June 2:00PM - 2:30PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
June 3:00PM - 3:30PM



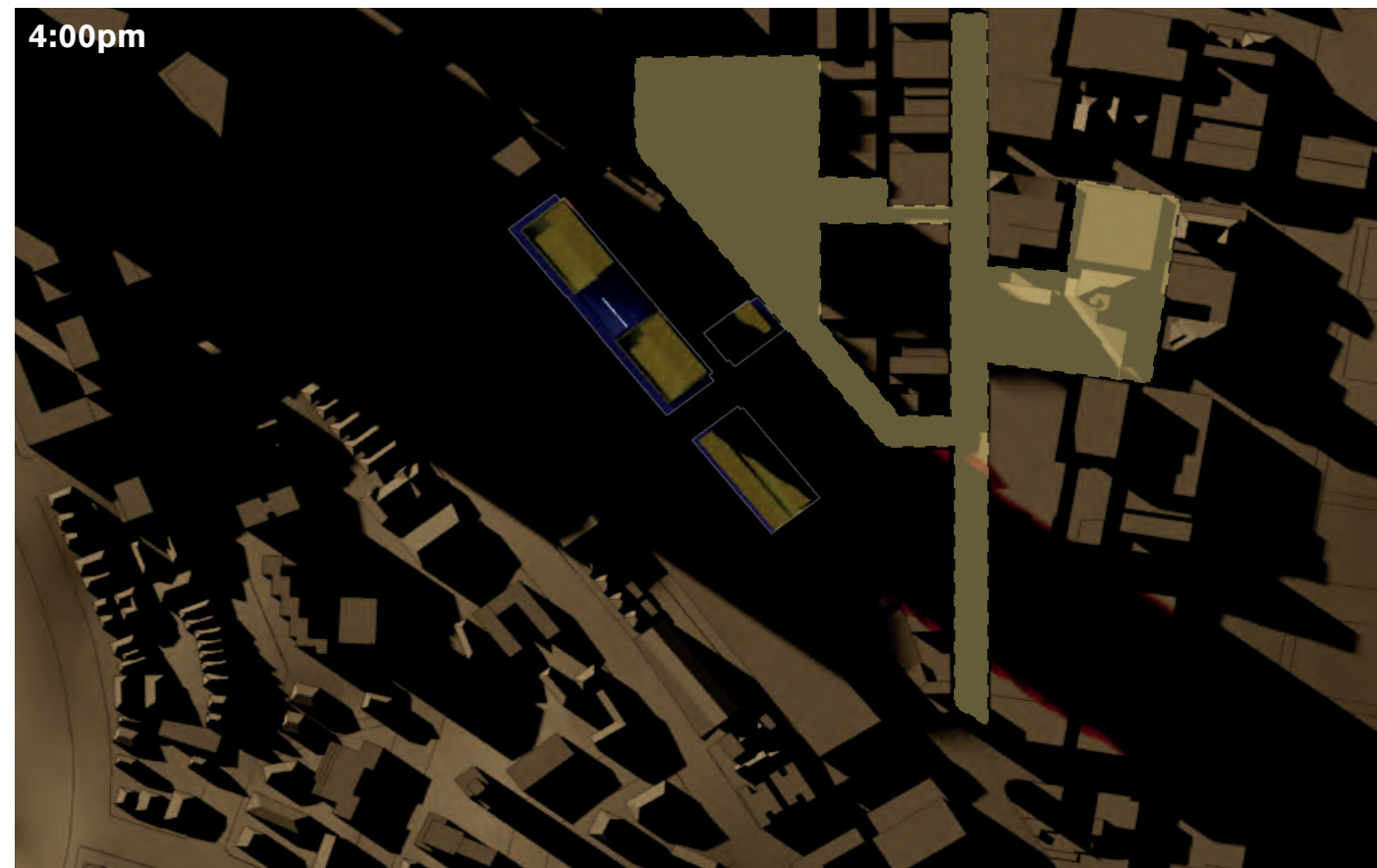
Some additional shading of the southern end of Willoughby road occurs after 3pm, though this is minor as much of the road is shaded by existing buildings

- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

5.0 SEPP 65 Analysis

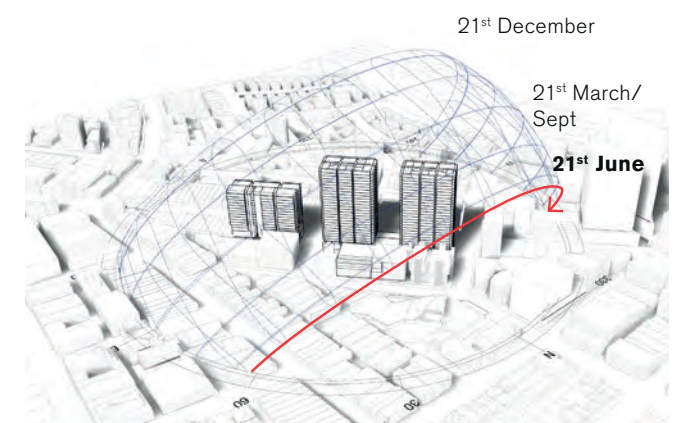
5.3 Shadow Analysis

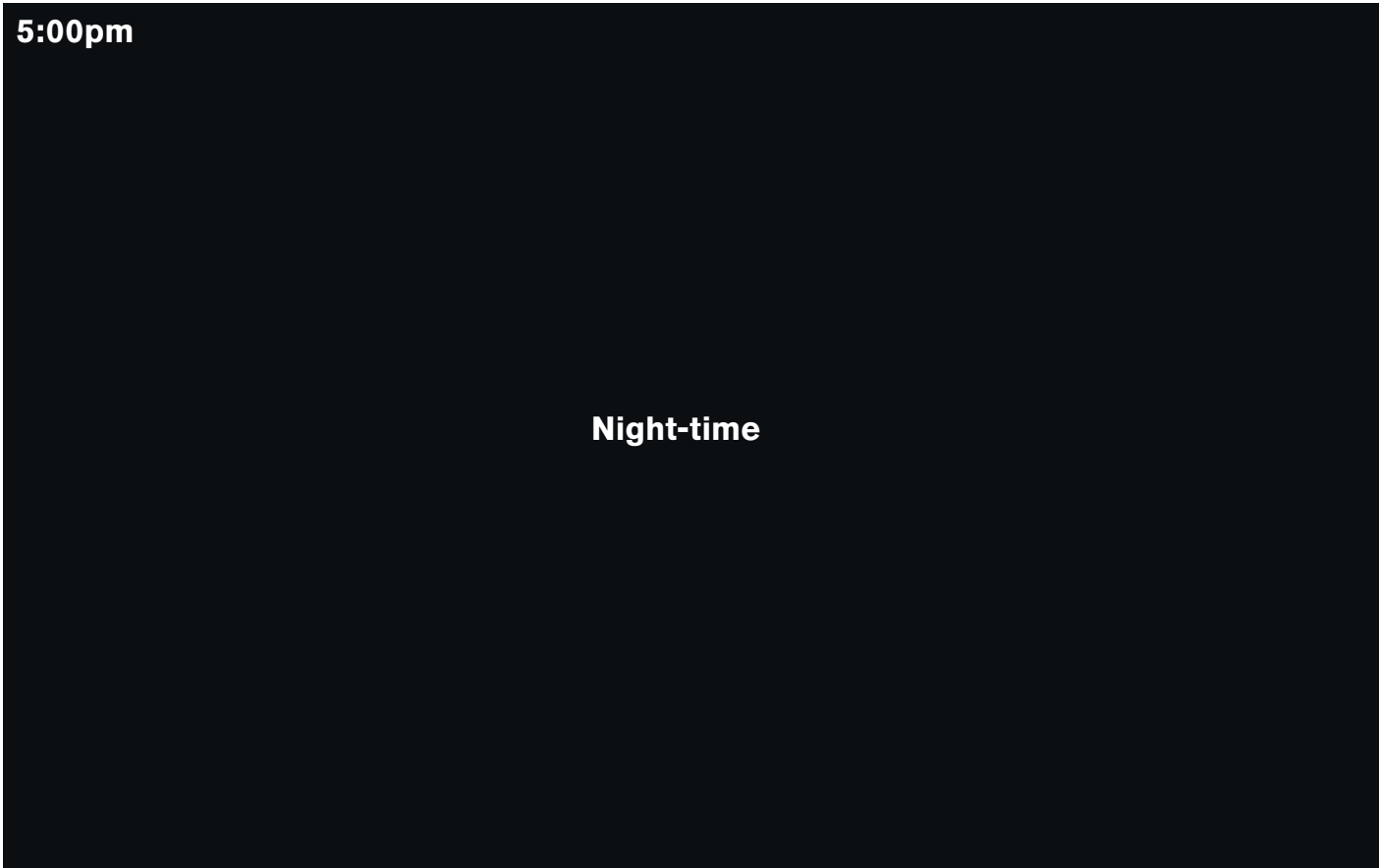
June 4:00PM -4:30PM



At 4:00pm the sun has set

- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces





- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
September 9:00AM - 9:30AM

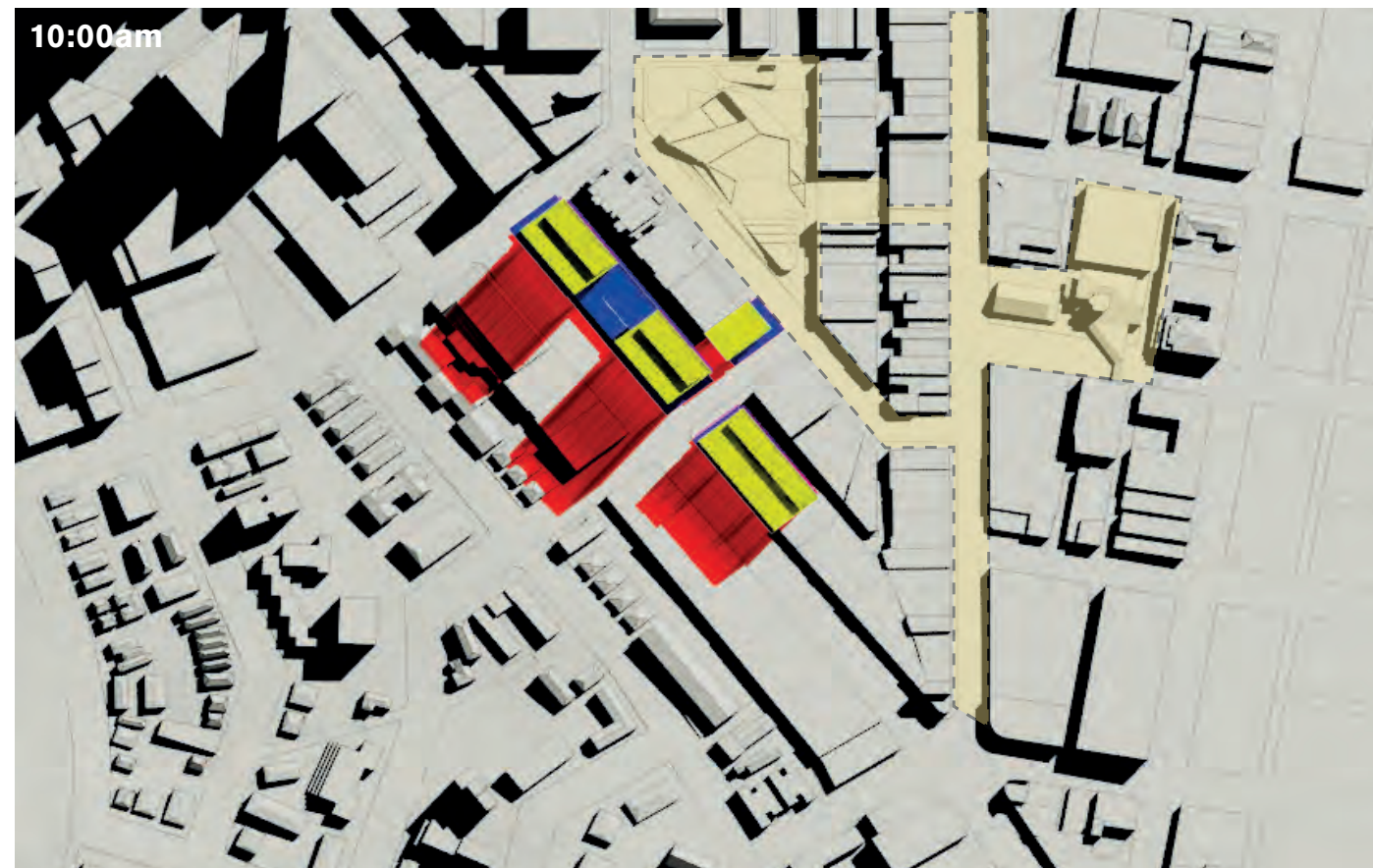


- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

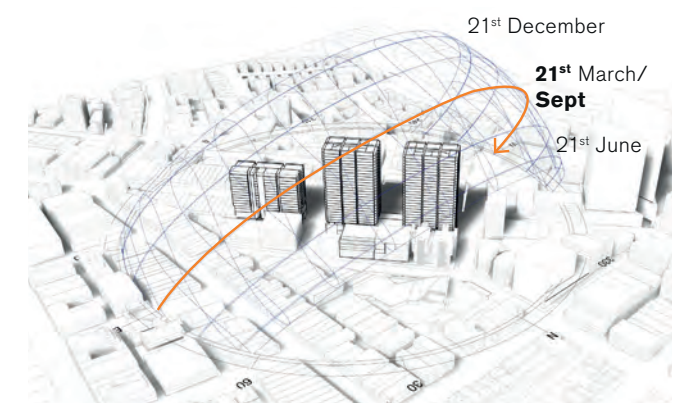
5.0 SEPP 65 Analysis

5.3 Shadow Analysis

September 10:00AM - 10:30AM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis

5.3 Shadow Analysis

September 11:00AM - 11:00AM

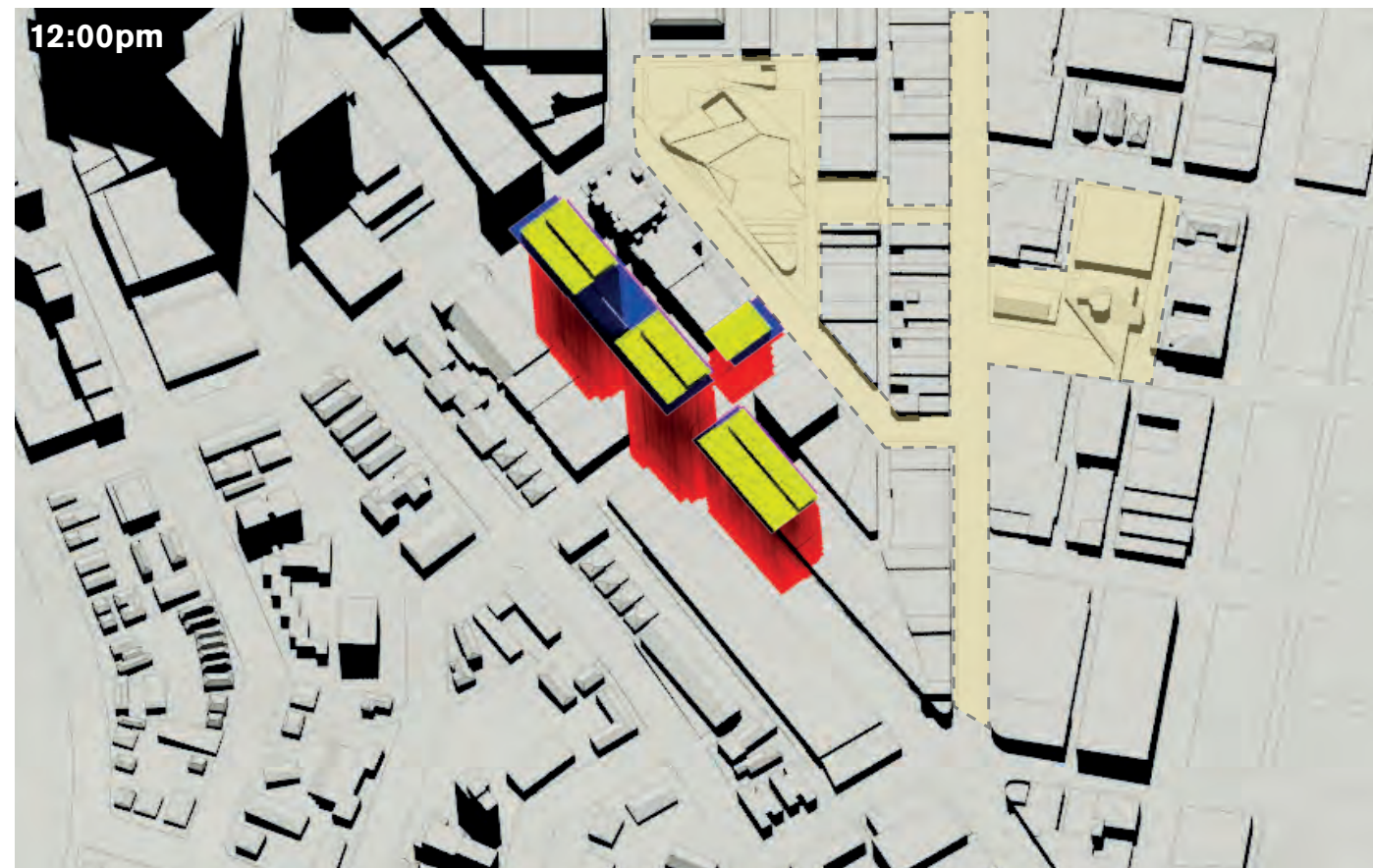


- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

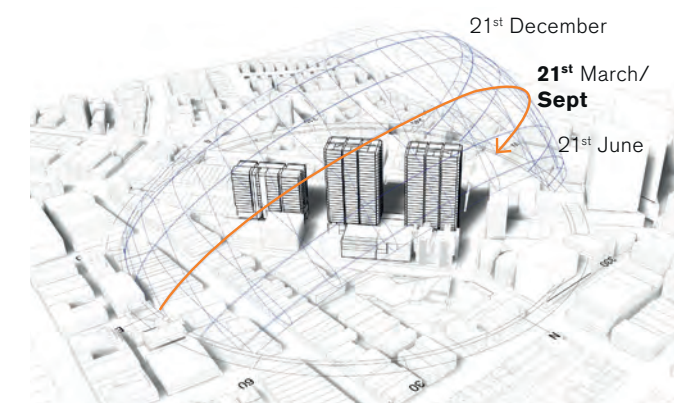
5.0 SEPP 65 Analysis

5.3 Shadow Analysis

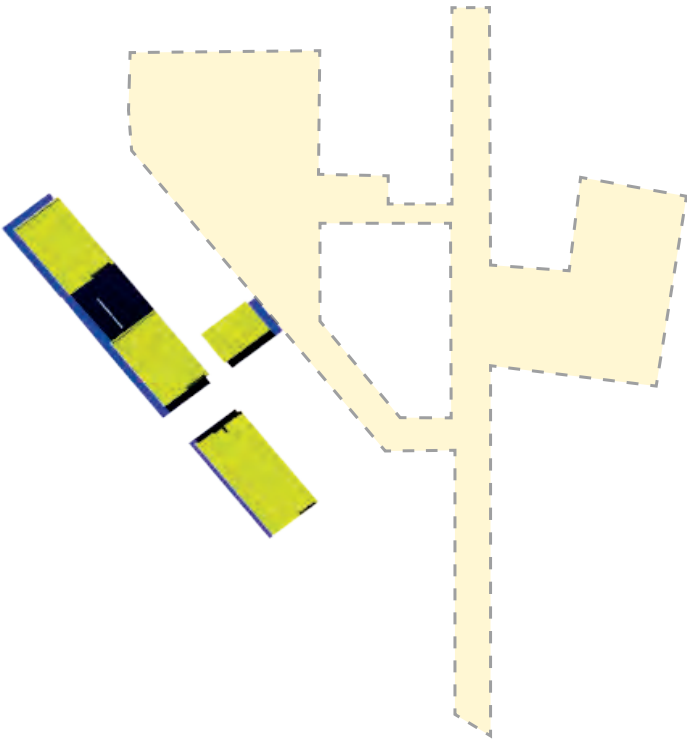
September 12:00PM - 12:00PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
September 1:00PM - 1:30PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

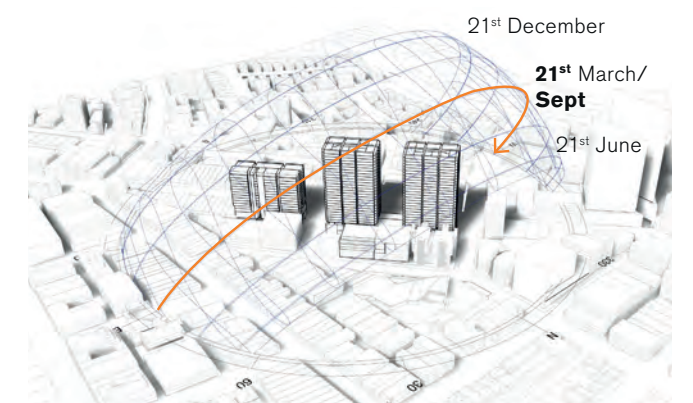
5.0 SEPP 65 Analysis

5.3 Shadow Analysis

September 2:00PM - 2:30PM



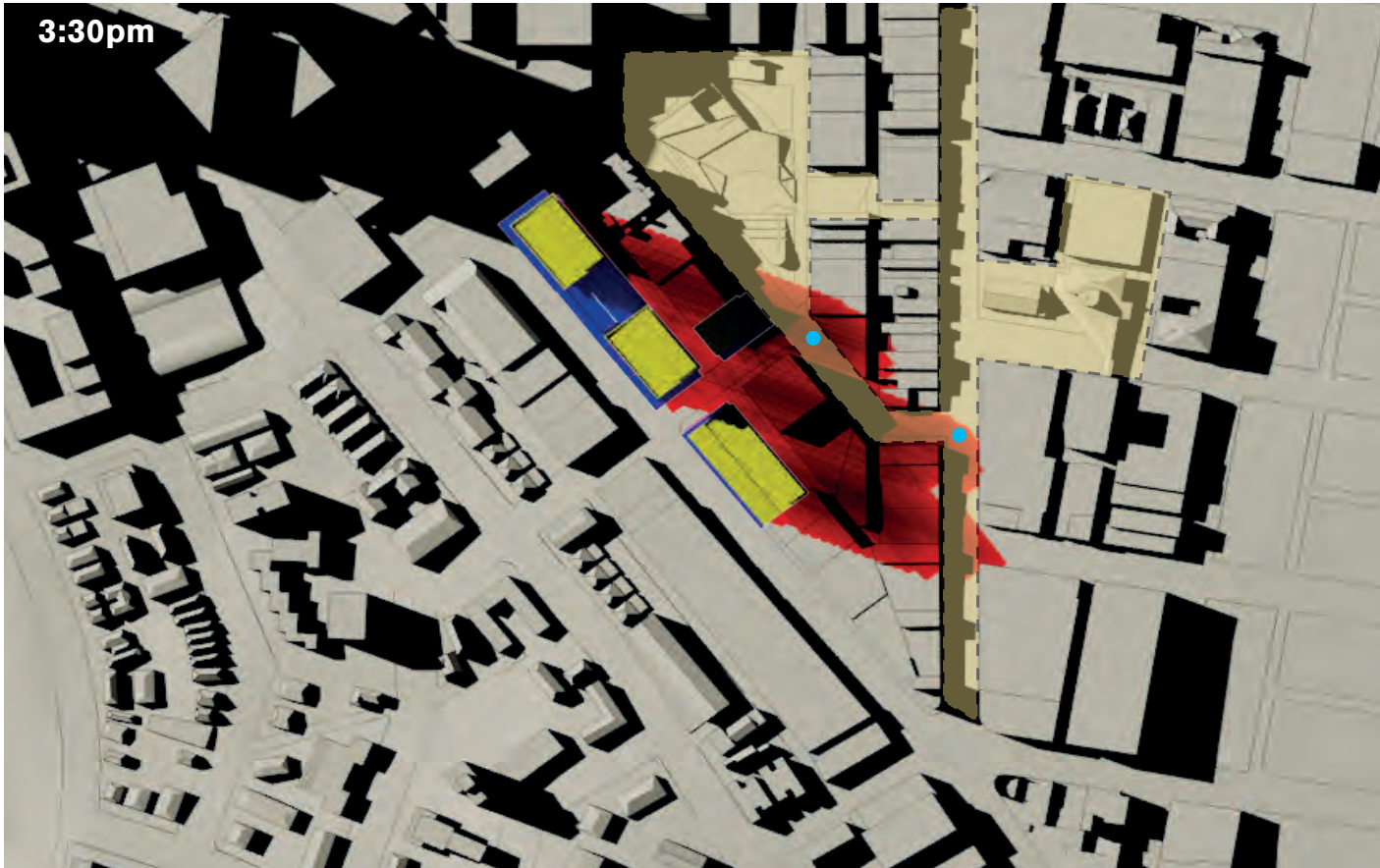
- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
September 3:00PM - 3:30PM



Some additional shading of the southern portion of Clarke Street occurs from 3:00 pm.



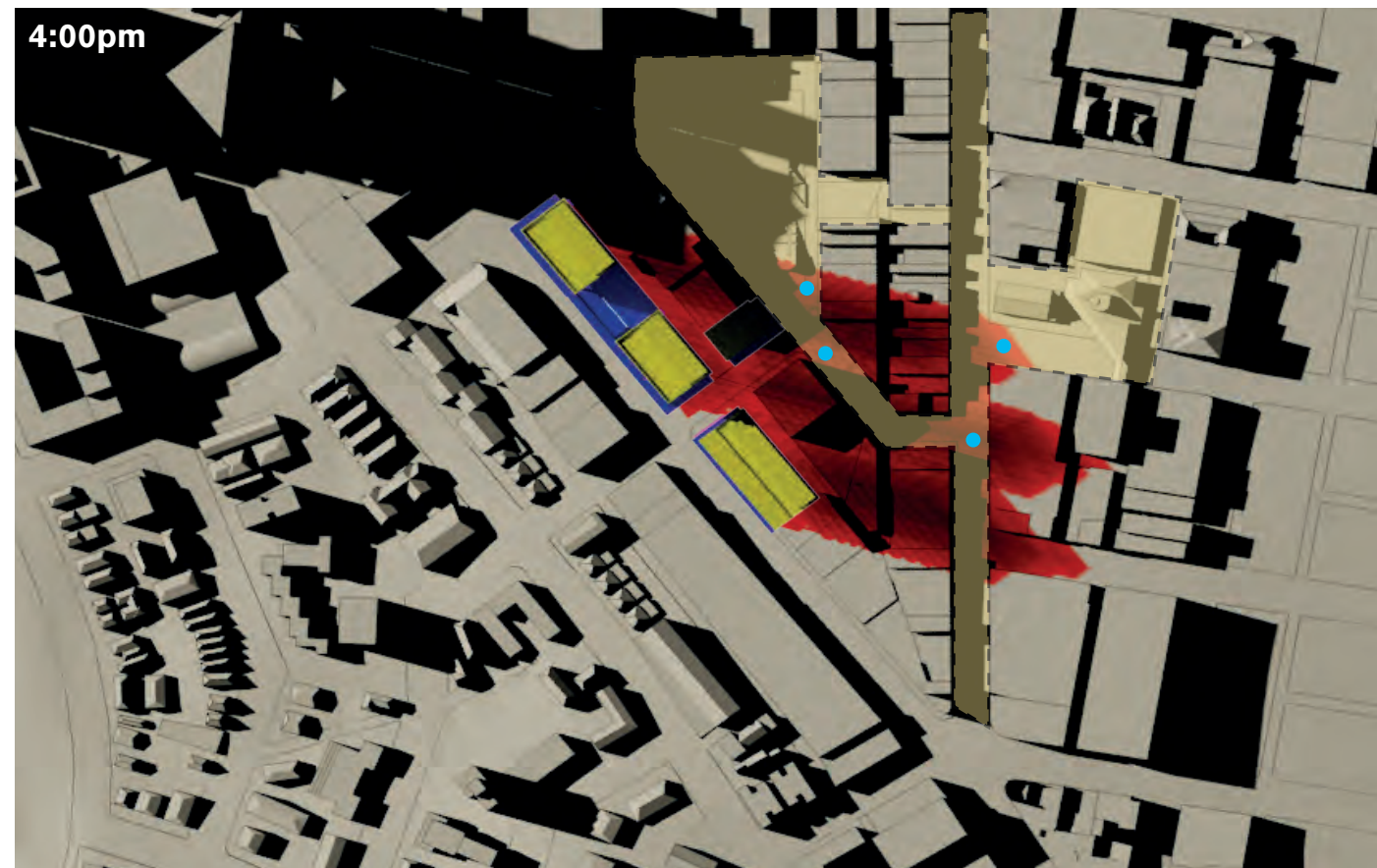
Some additional shading of Willoughby Road occurs from 3:30 pm.

- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

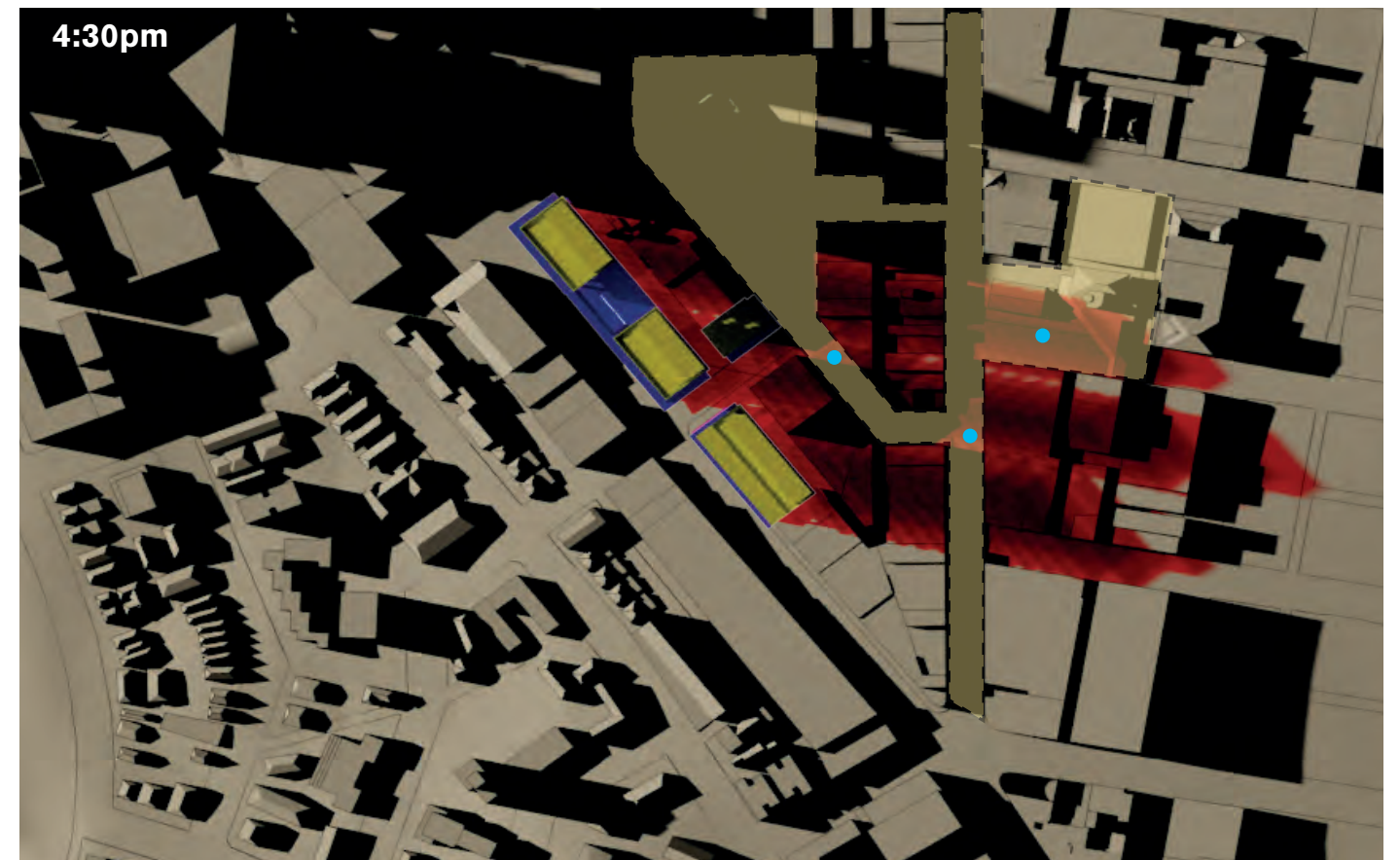
5.0 SEPP 65 Analysis

5.3 Shadow Analysis

September 4:00PM -4:30PM



Some additional shading of Willoughby Road in the afternoon, however this area is already mostly overshadowed by the existing buildings.



Some additional shading of Willoughby Road and Ernest Place in the afternoon, though none of these occasions are long enough to affect compliance.

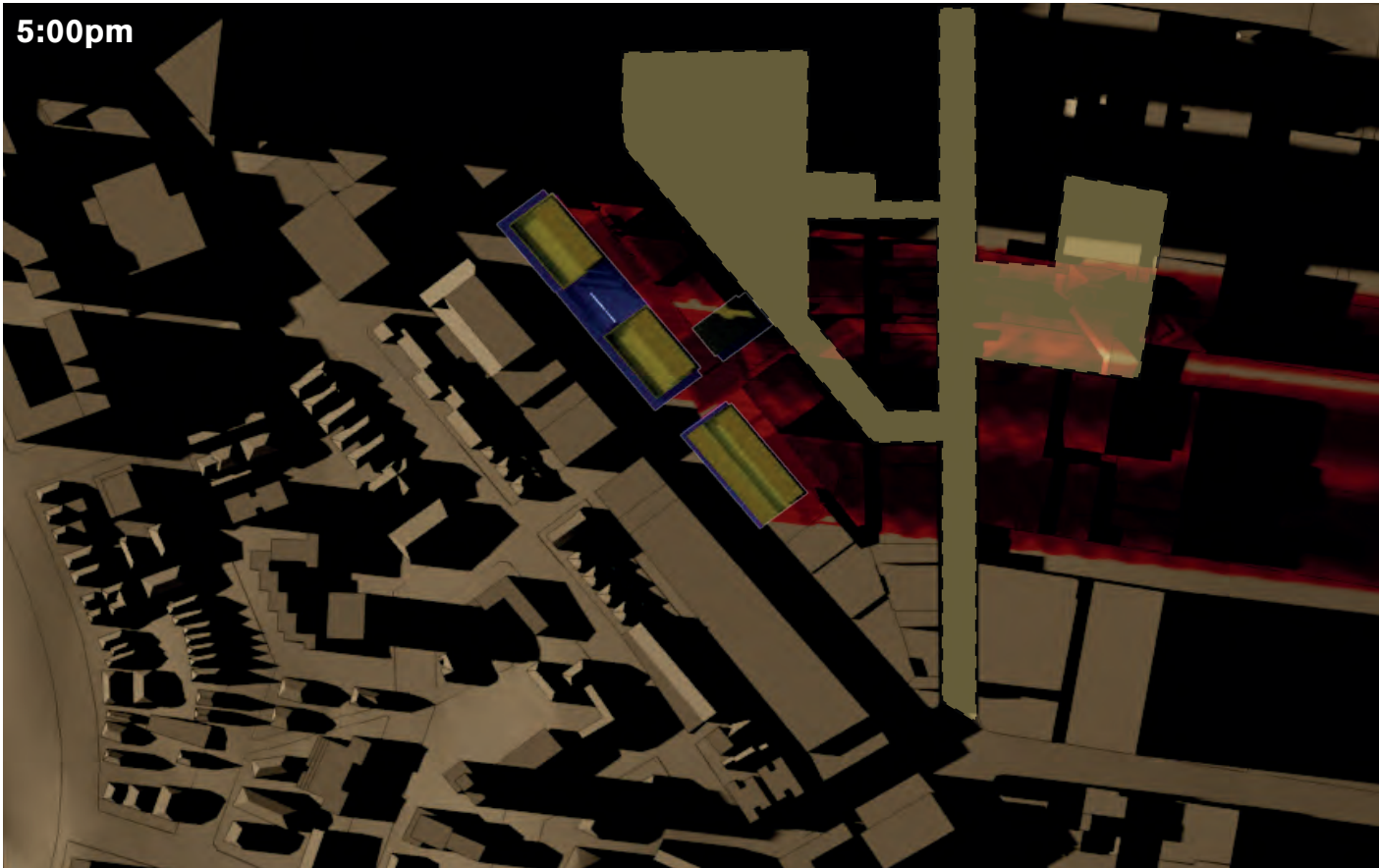
- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis

5.3 Shadow Analysis

September 5:00PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

5.0 SEPP 65 Analysis
5.3 Shadow Analysis
December 9:00AM - 9:30AM

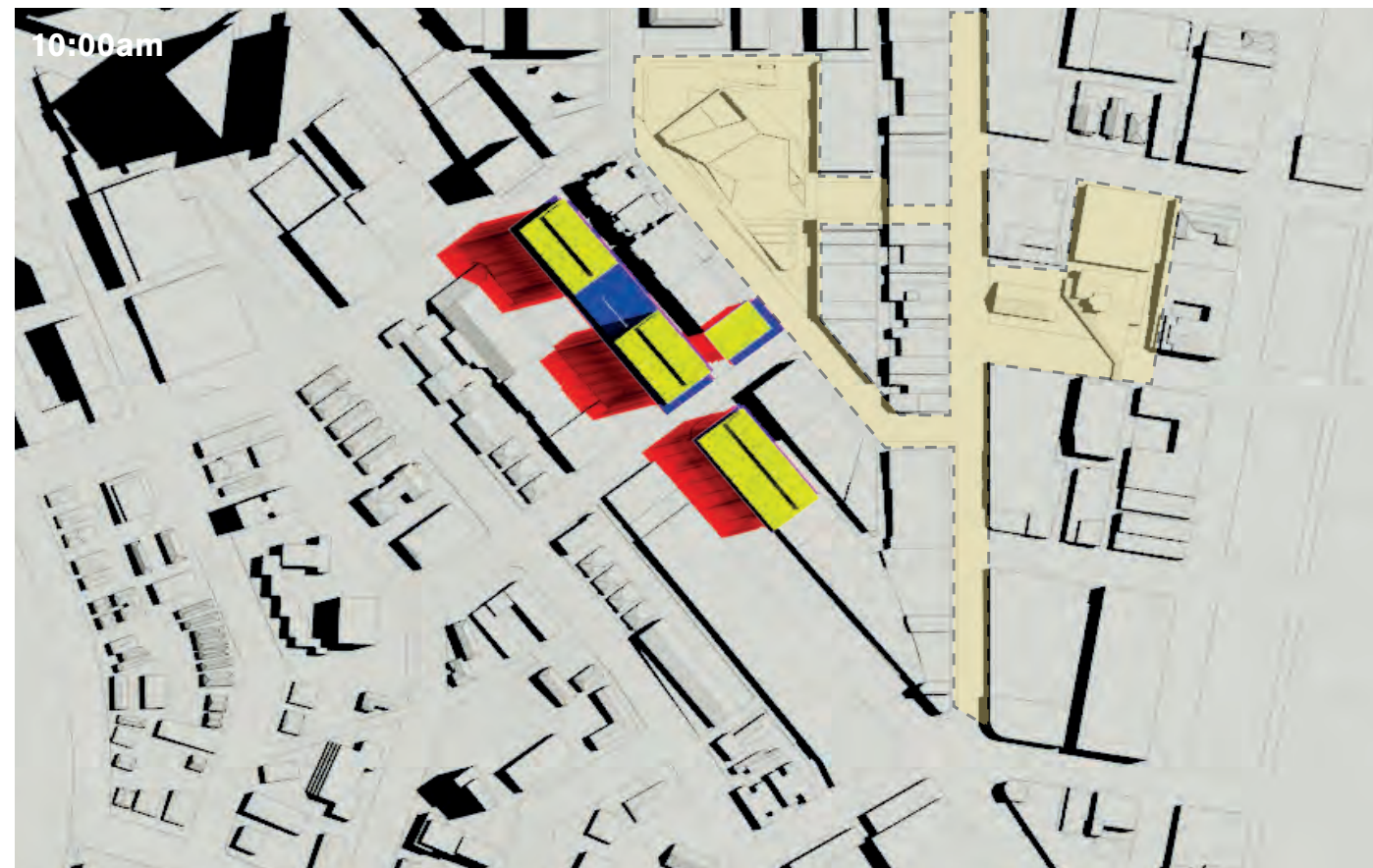


- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

5.0 SEPP 65 Analysis

5.3 Shadow Analysis

December 10:30AM - 10:30AM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis

5.3 Shadow Analysis

December 11:00AM - 11:30AM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

5.0 SEPP 65 Analysis

5.3 Shadow Analysis

December 12:00PM - 12:30PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis

5.3 Shadow Analysis

December 1:00PM - 1:30PM

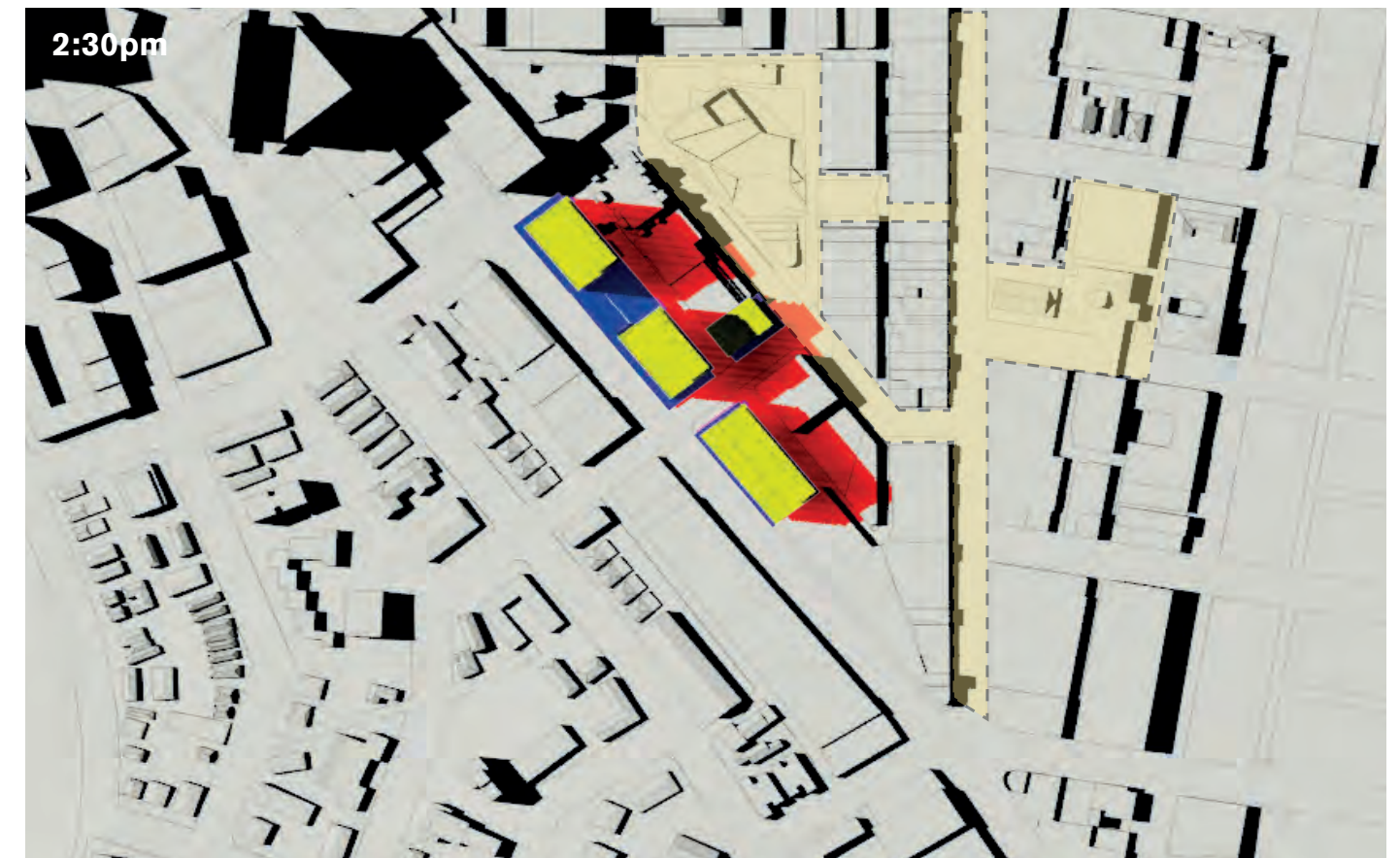
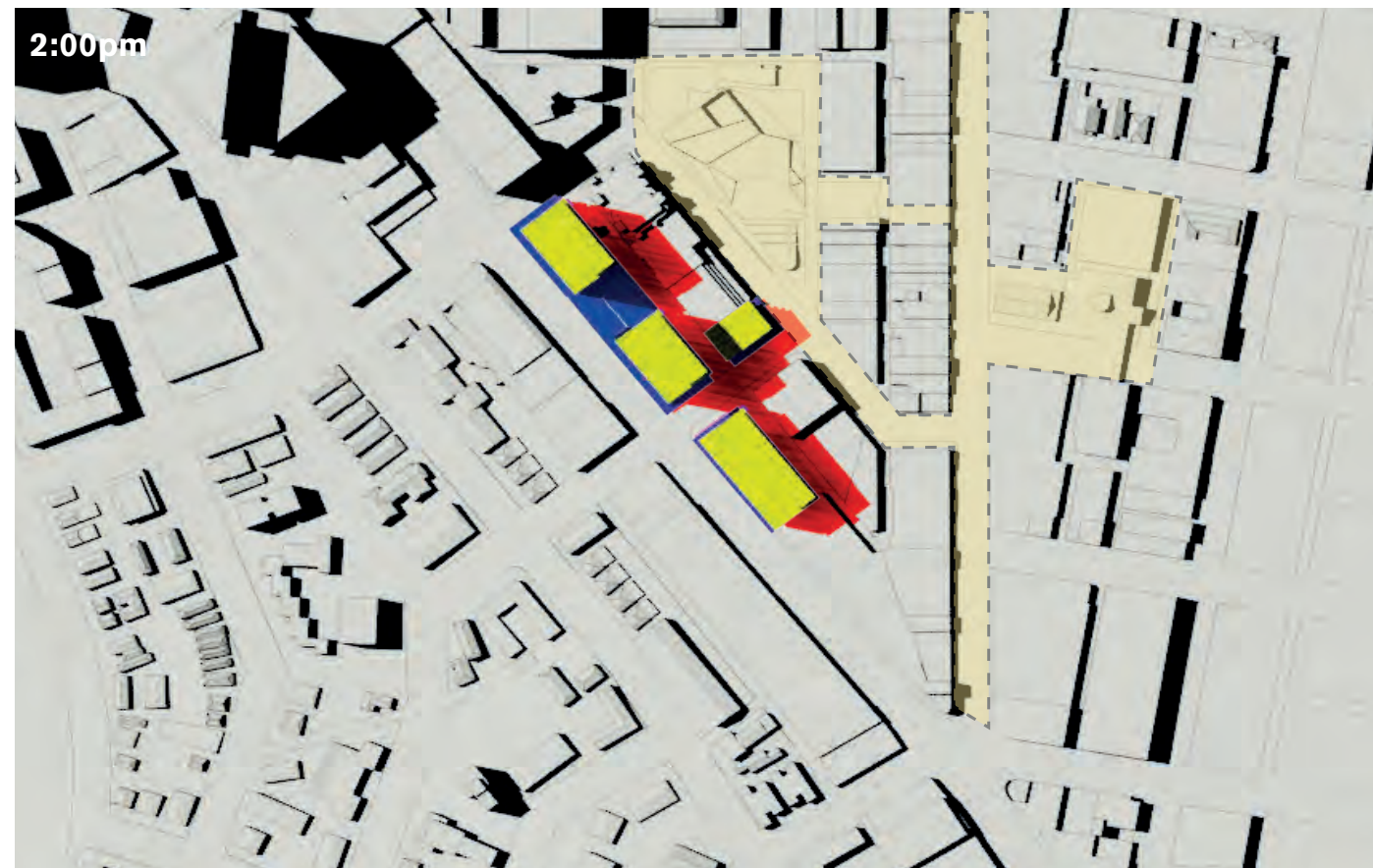


- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

5.0 SEPP 65 Analysis

5.3 Shadow Analysis

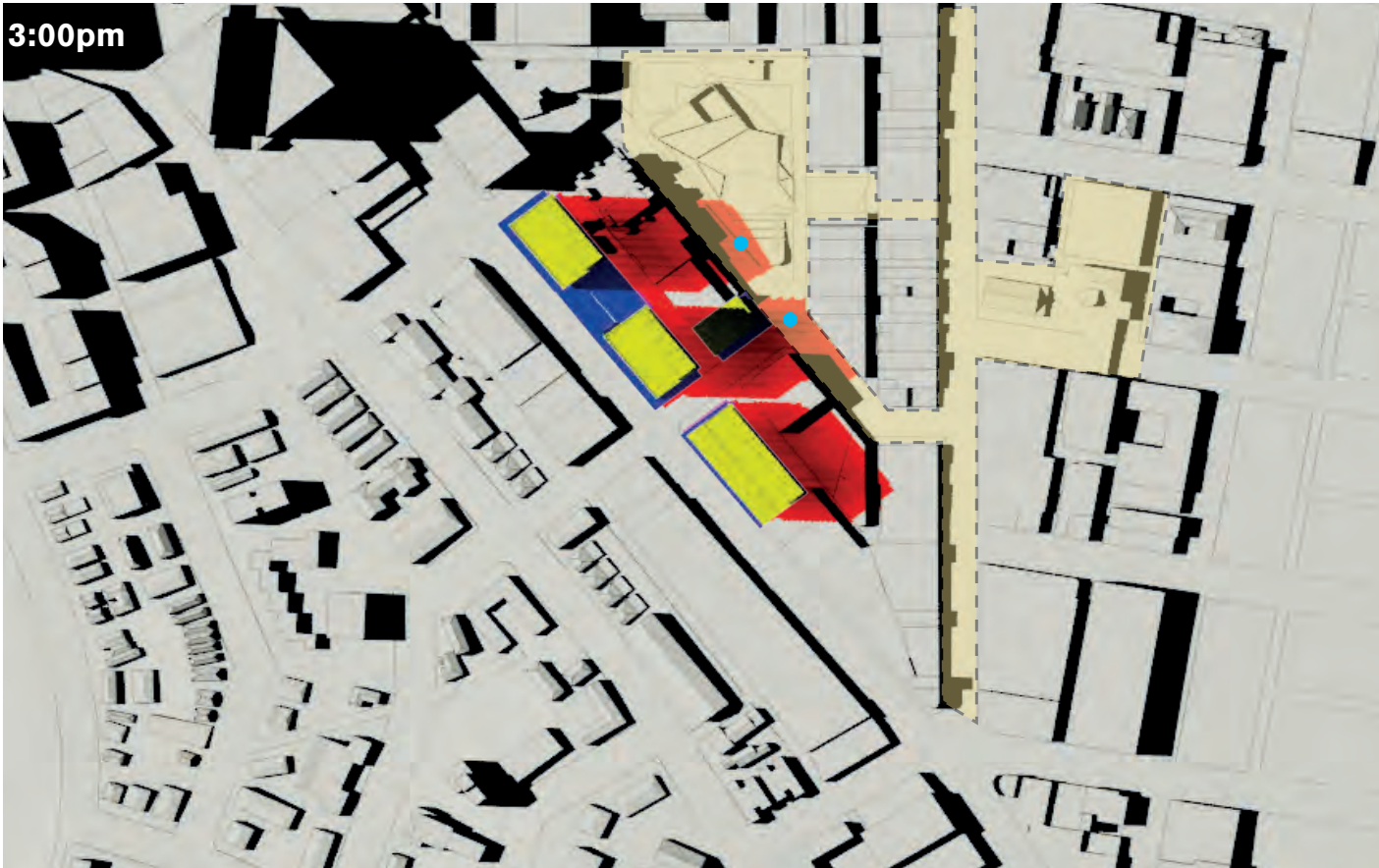
December 2:00PM - 2:30PM



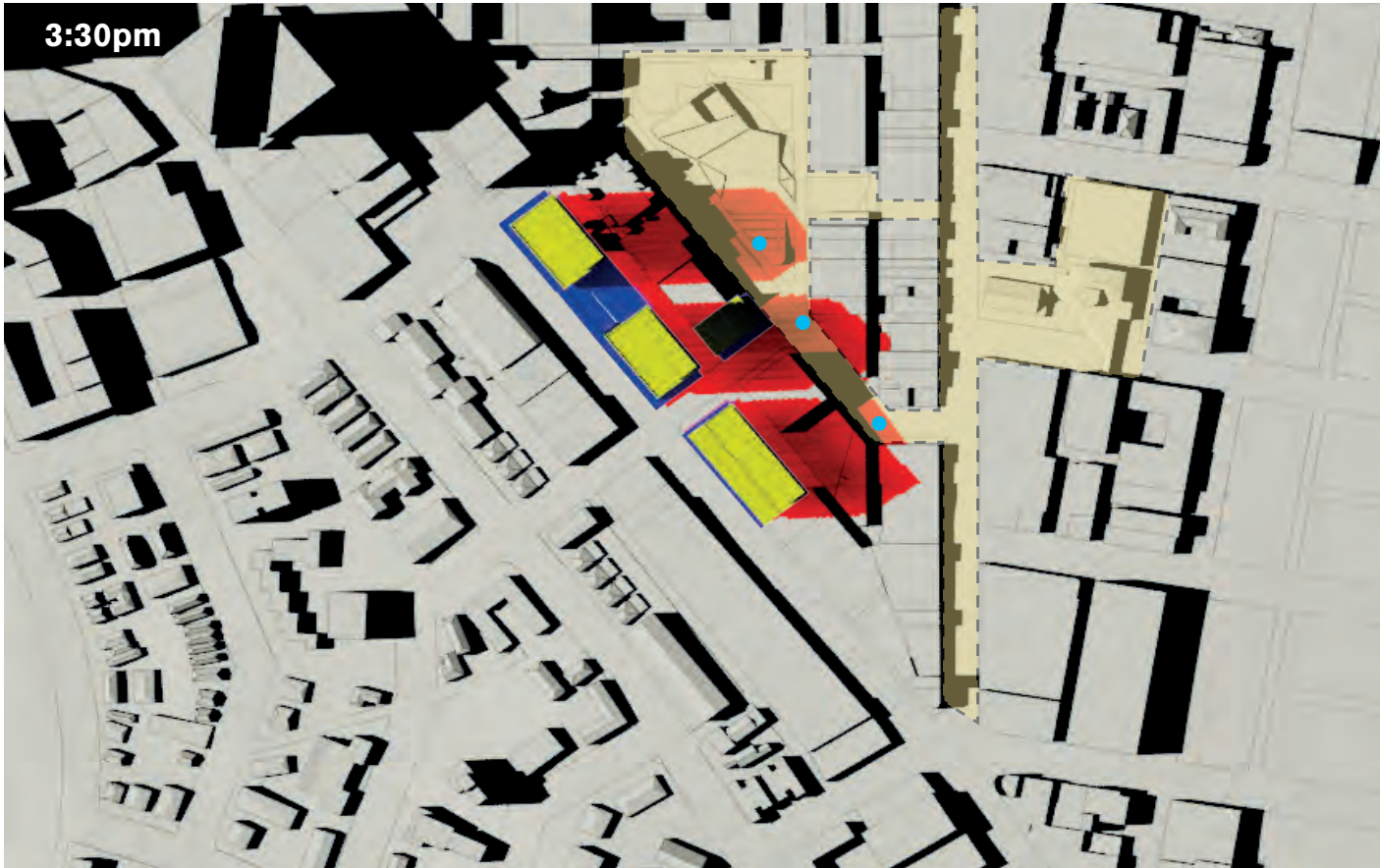
- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
December 3:00PM - 3:30PM



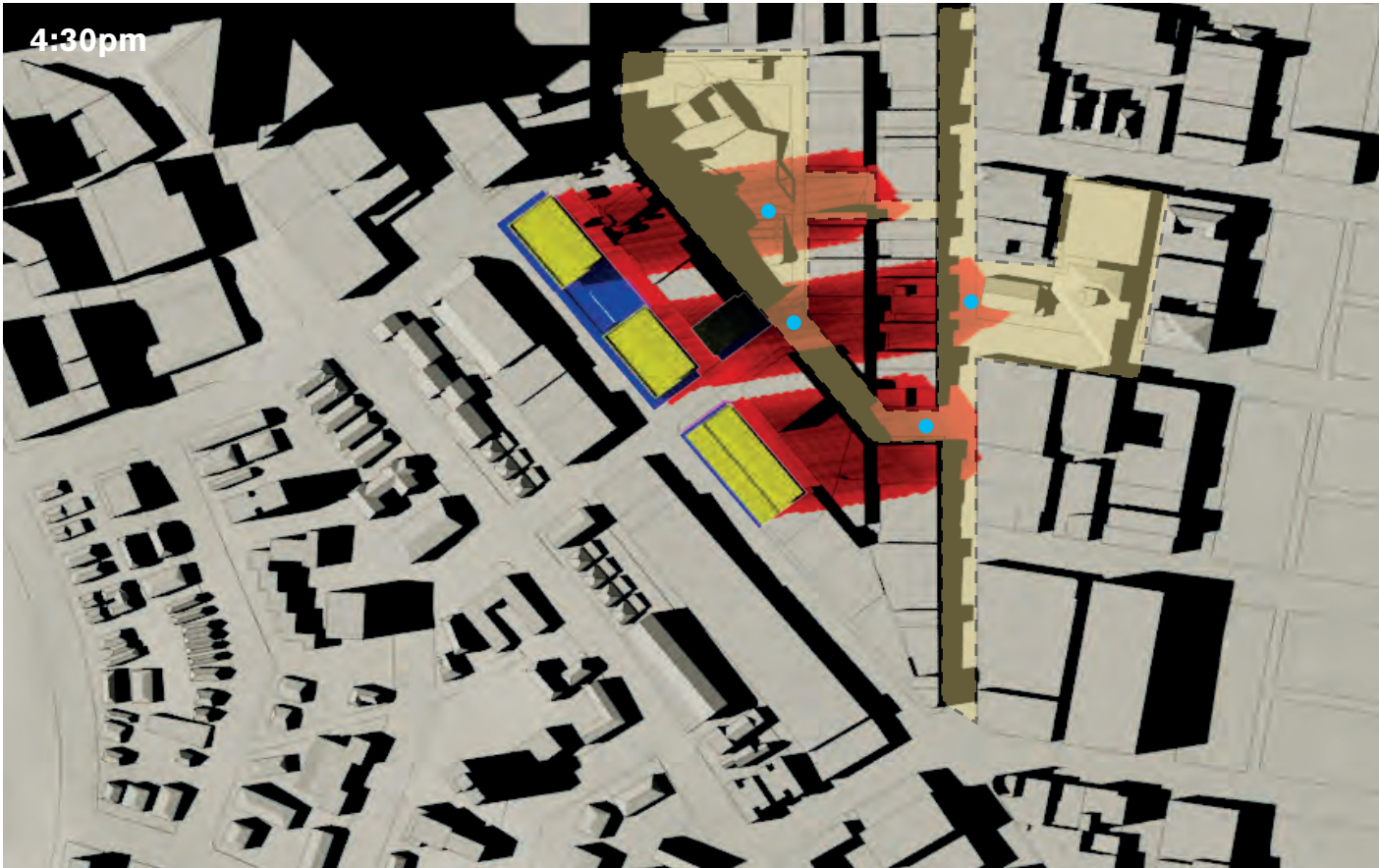
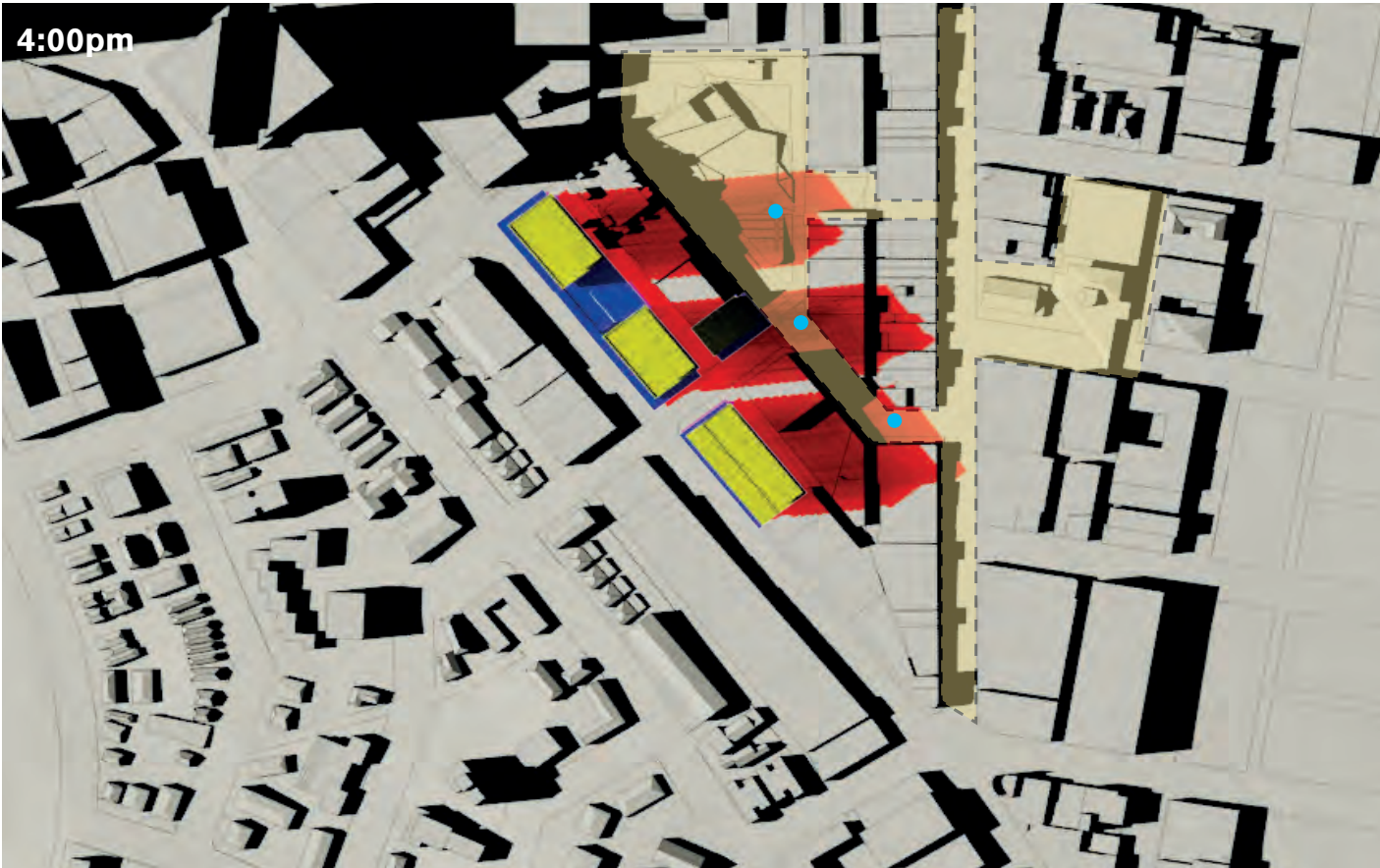
Some additional shading of the southern portion of Clarke Street occurs from 3:00 pm.



Some additional shading of Willoughby Road occurs from 3:30 pm.

- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces

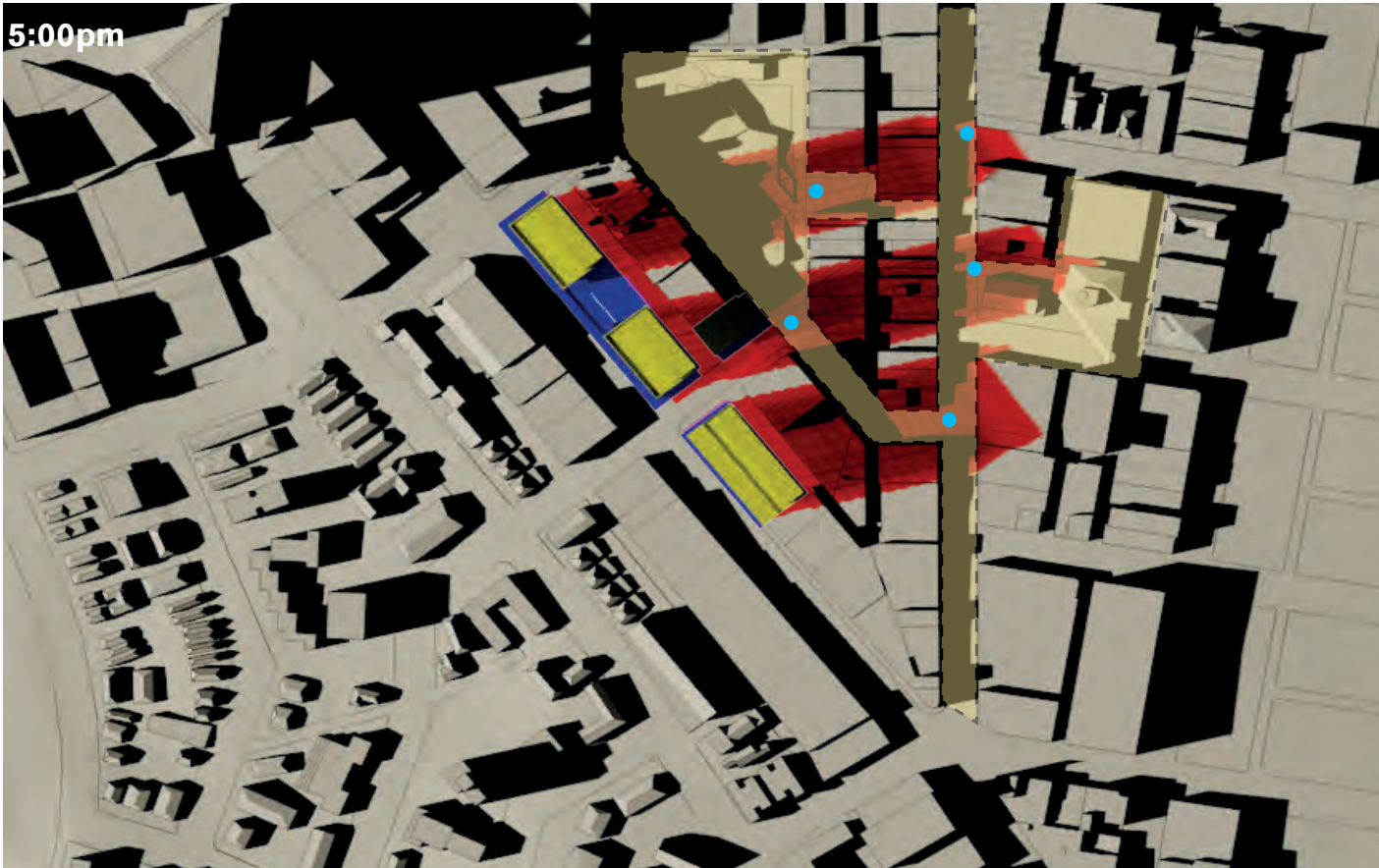
5.0 SEPP 65 Analysis
5.3 Shadow Analysis
December 4:00PM - 4:30PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis
5.3 Shadow Analysis
December 5:00PM



- Existing Shadows
- Proposed Buildings
- Proposed Podium
- Proposed Massing Shadow
- Key Public areas
- Overshadowing of Private Spaces
- Overshadowing of Public Spaces



5.0 SEPP 65 Analysis

5.4 Diffused Public Domain Luminosity

Existing Scenario | Plan View



Proposed Scenario | Plan View



Diffused Public Domain Luminosity

A diffused public domain luminosity analysis has been carried out to assess the impact of the proposed development on the daylight available at the surrounding public spaces. The following roads have been assessed:

1. Pacific Highway;
2. Clarke Lane
3. Clarke Street;
4. Oxley Street;
5. Hume Street.

The analysis has been carried out for the baseline and the proposed scenario, the model includes all existing buildings and in the correct orientation and geolocation. The simulation has been carried out considering a diffused sky with specialist modelling software.

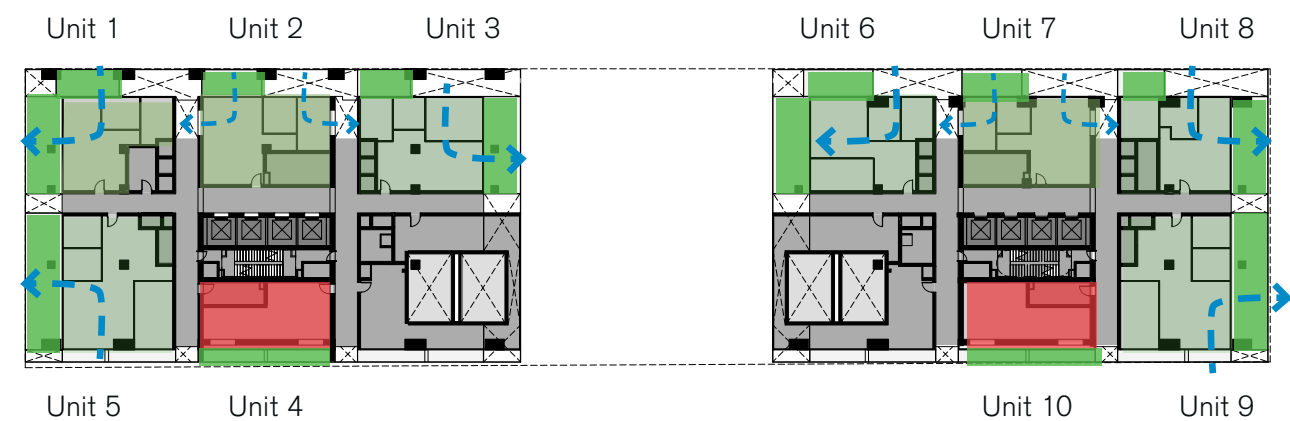
The results indicate that the proposed development will reduce the luminosity available to the surrounding streets.

Clarke Lane will be the most impacted due to its size and the proximity between the proposed and the existing buildings. Pacific Highway, Clarke Street, Oxley Street and Hume Street will be affected at a lesser degree.

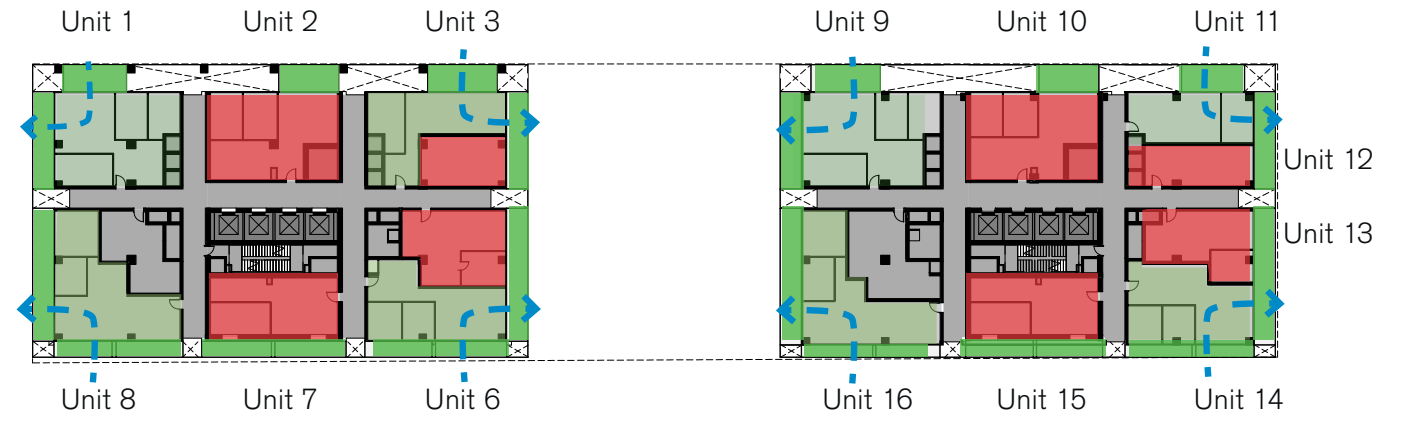


5.0 SEPP 65 Analysis

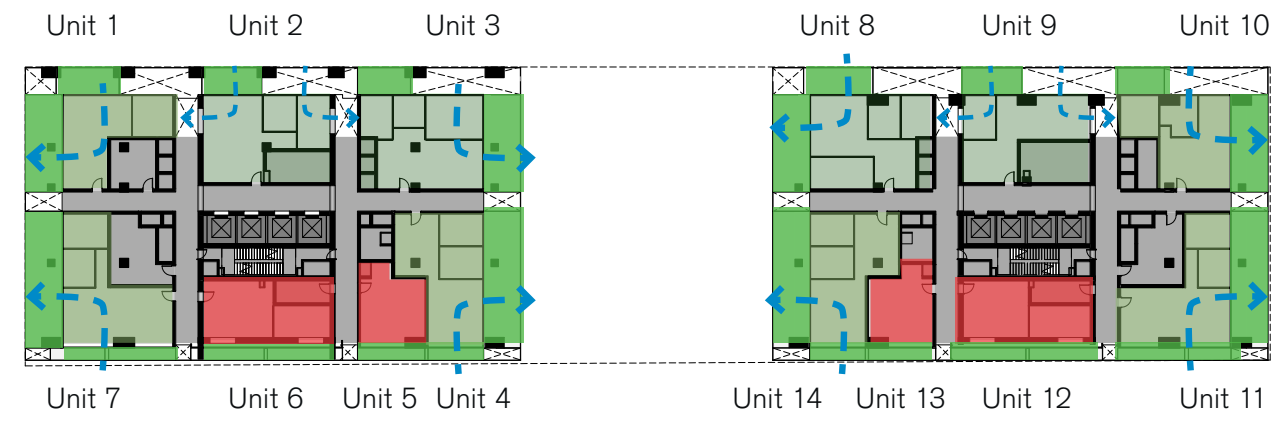
5.5 Natural Ventilation Analysis



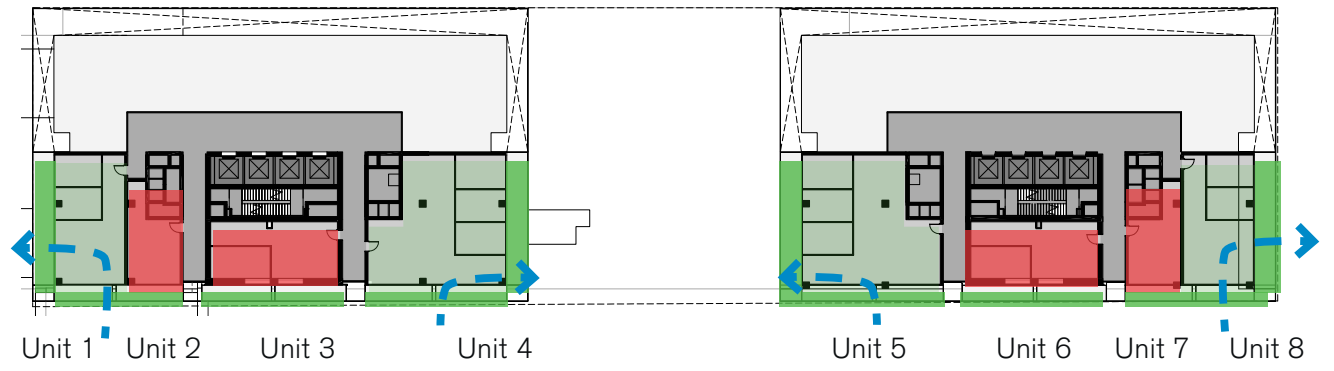
Floor Plan-Level 06 - 10 Units



Floor Plan-Level 09-25 - 16 Units



Floor Plan-Level 07/08 - 14 Units



Floor Plan-Level 26 - 8 Units



4B-3 The number of apartments with natural cross ventiaItion is maximised to create a comfortable indoor environment for residents.

1a. ≥60% of apartments are naturally cross ventilated in the first nine storeys of the buildings; and
67% of the apartments at floors 6-9 have operable windows on double aspects and are therefore cross ventilated.

1b. Aparments at ten storeys or greater are deemed to be crossed ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.
All apartments have balconies which allow adequate natural ventilation.

- Crossed ventilated apartments
- Path of cross ventilation
- Balconies
- Single-aspect apartments

