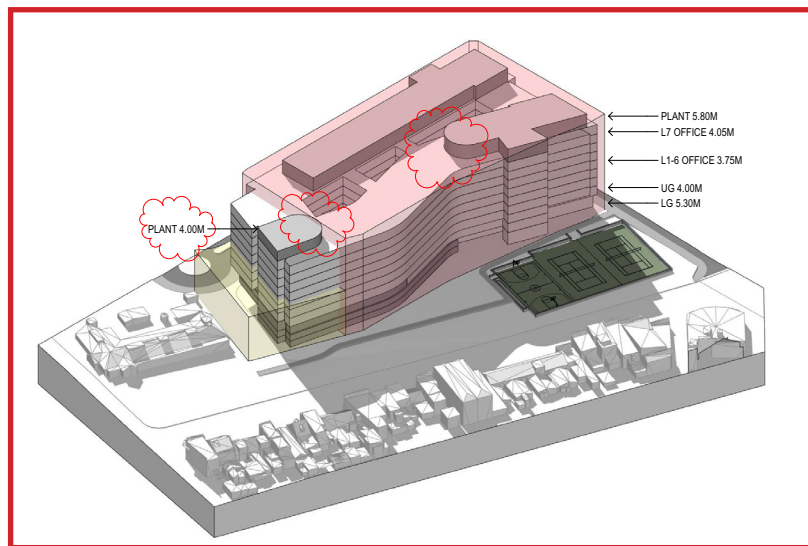
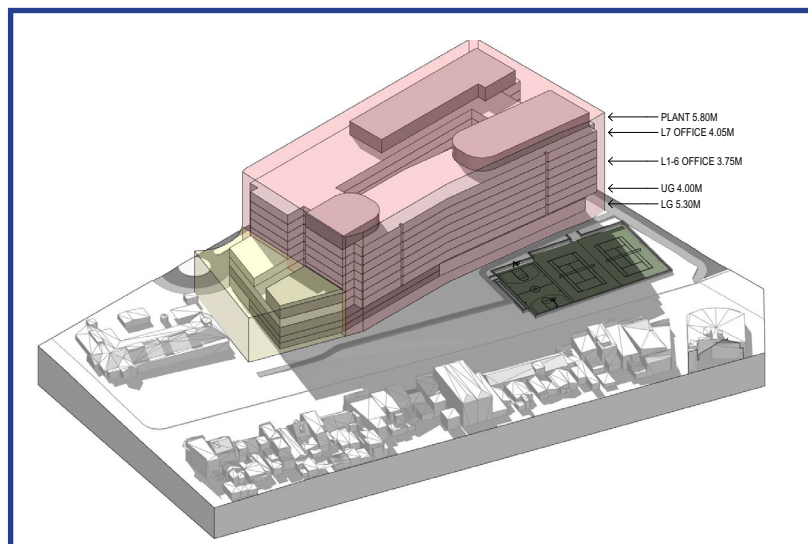




SSDA scheme as modified.



GFA and Height compliant 'Refined Base' scheme.



June 21 : 1.00pm

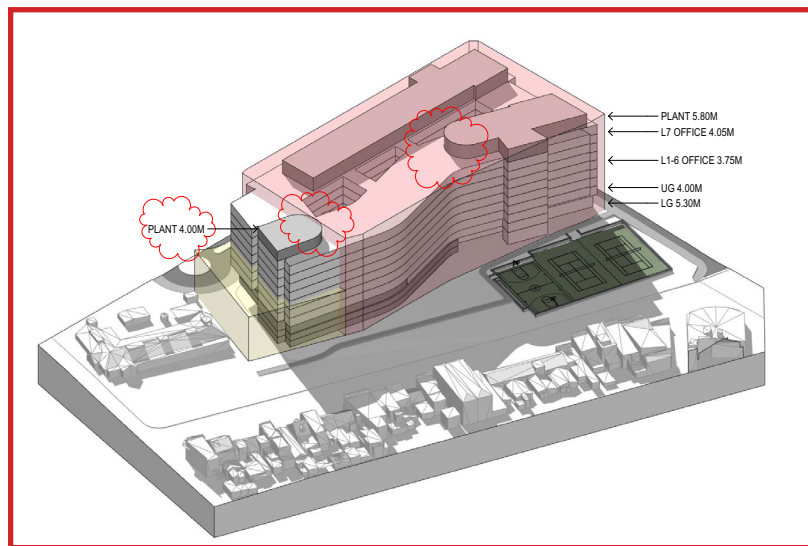
- Shadow cast by the GFA & Height compliant 'Refined Base' scheme
- Shadow cast by the GFA & Height compliant 'Refined Base' scheme & proposed SSDA scheme as modified
- Shadow cast by proposed SSDA scheme as modified
- Existing Shadows

Notes:

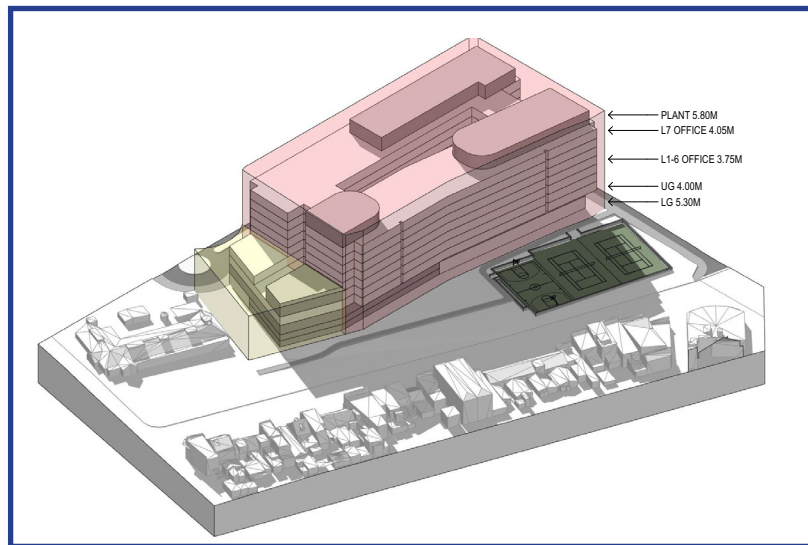
- Varying building heights along Henderson Road influence shadows
- The North-South orientation of existing buildings along Henderson Road cast existing shadows

Skylight Analysis - 24 counted along Henderson Road

Compliant 'Base' Scheme	0 negatively affected
Modified SSDA scheme	2 negatively affected



SSDA scheme as modified.



GFA and Height compliant 'Refined Base' scheme.

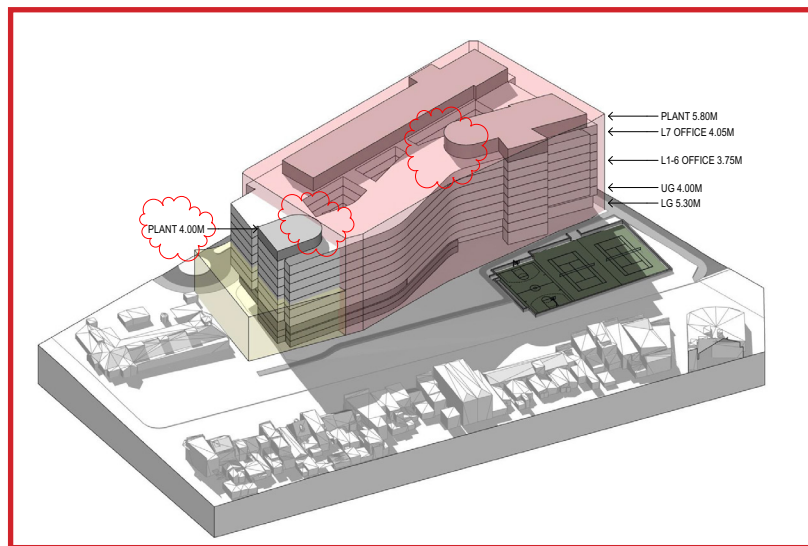


- Shadow cast by the GFA & Height compliant 'Refined Base' scheme
- Shadow cast by the GFA & Height compliant 'Refined Base' scheme & proposed SSDA scheme as modified
- Shadow cast by proposed SSDA scheme as modified
- Existing Shadows

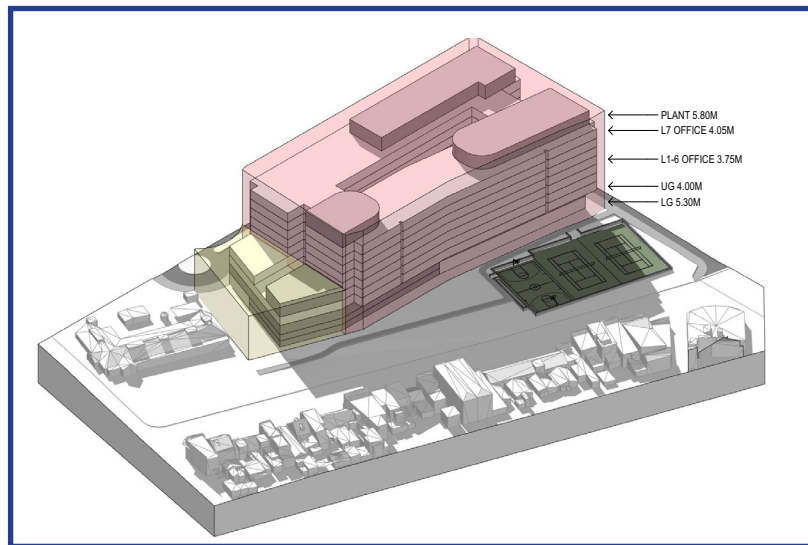
Notes:

- Varying building heights along Henderson Road influence shadows
- The North-South orientation of existing buildings along Henderson Road cast existing shadows

Skylight Analysis - 24 counted along Henderson Road	
Compliant 'Base' Scheme	3 negatively affected
Modified SSDA scheme	2 negatively affected



SSDA scheme as modified.



GFA and Height compliant 'Refined Base' scheme



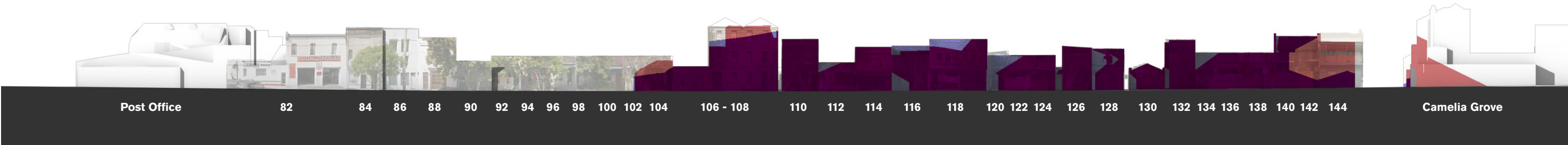
- Shadow cast by the GFA & Height compliant 'Refined Base' scheme
- Shadow cast by the GFA & Height compliant 'Refined Base' scheme & proposed SSDA scheme as modified
- Shadow cast by proposed SSDA scheme as modified
- Existing Shadows

Notes:

- Varying building heights along Henderson Road influence shadows
- The North-South orientation of existing buildings along Henderson Road cast existing shadows

Skylight Analysis - 24 counted along Henderson Road		Daily Total
Compliant 'Base' Scheme	3 negatively affected	17 negatively affected
Modified SSDA scheme	3 negatively affected	21 negatively affected

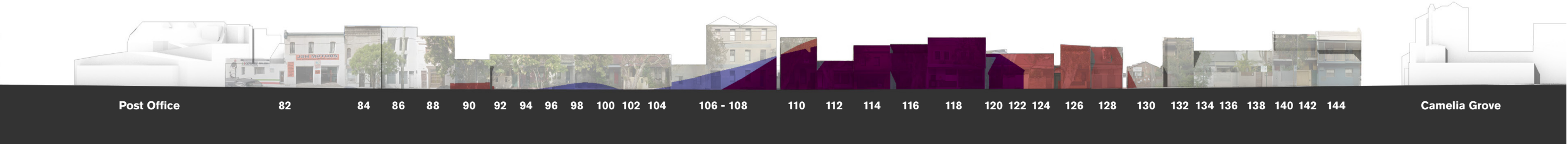
Note : ALL skylights receive over 2 hours of sun under both schemes



June 21 : 9.00am

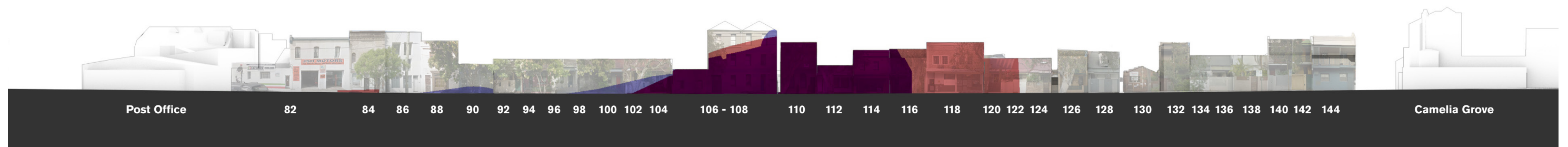


June 21 : 10.00am

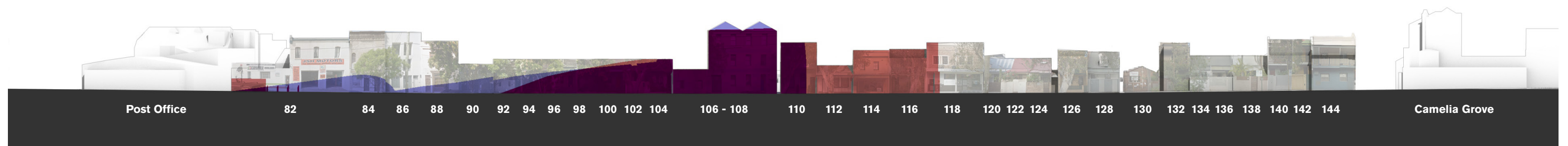


June 21 : 11.00pm

- Shadow cast by the GFA & Height compliant 'Refined Base' scheme
- Shadow cast by the GFA & Height compliant 'Refined Base' scheme & proposed SSDA scheme as modified.
- Shadow cast by proposed SSDA scheme as modified.



June 21 : 12.00pm



June 21 : 1.00pm



June 21 : 2.00pm



June 21 : 3.00pm

2.11 Summary of shadowing impacts

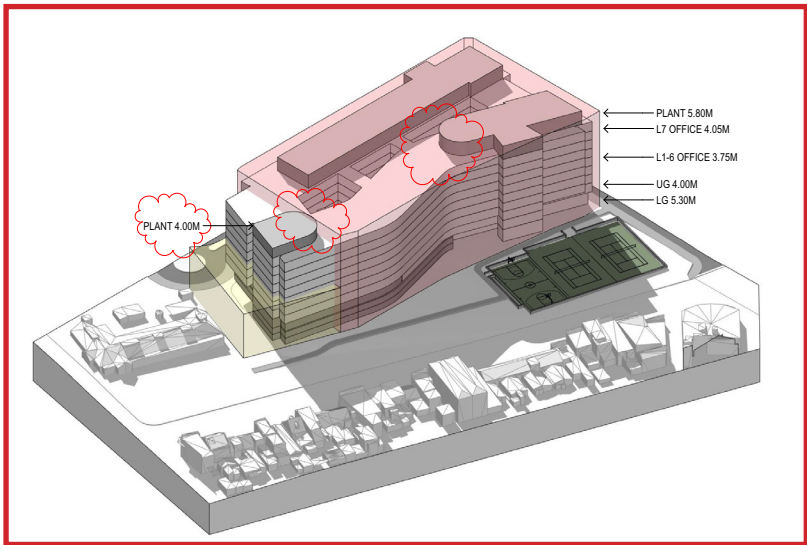
The detail shadow analysis as outlined on the preceding pages of this report illustrate that the shadow impacts of the modified SSDA B1 proposal are no greater than that associated with the GFA & Height compliant 'Refined' scheme.

The modified SSDA B1 proposal has been bench marked against this GFA & Height compliant 'Refined' scheme to ensure a reasonable and fair comparison. As illustrated in the original SSDA submission the shadow impacts associated with the permissible height envelope are greater than those of the modified SSDA B1 proposal.

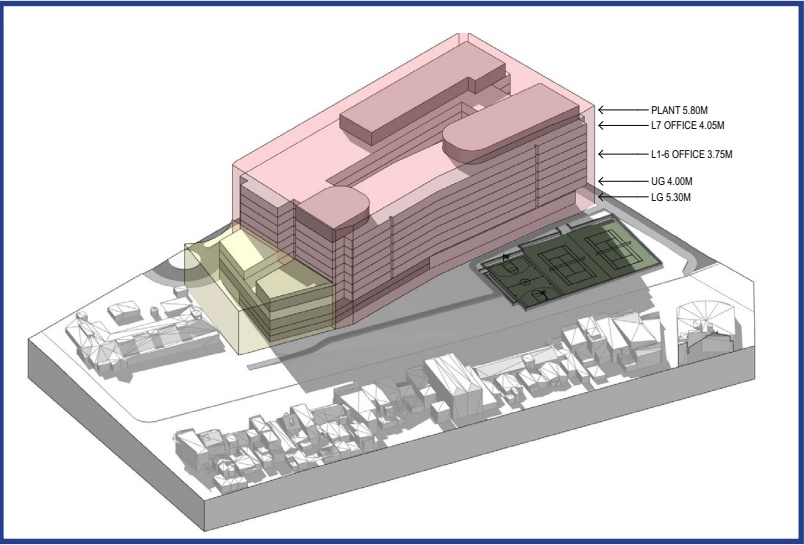
The shadow analysis shows that the modified SSDA B1 proposal has nil over-shadowing impact on the existing adjacent childcare centre during mid winter. Prior to 10.00am the childcare centre is in the shadow of the existing Channel 7 building. After 10.00am the new shadow associated with the modified SSDA B1 proposal has moved beyond the childcare centre.



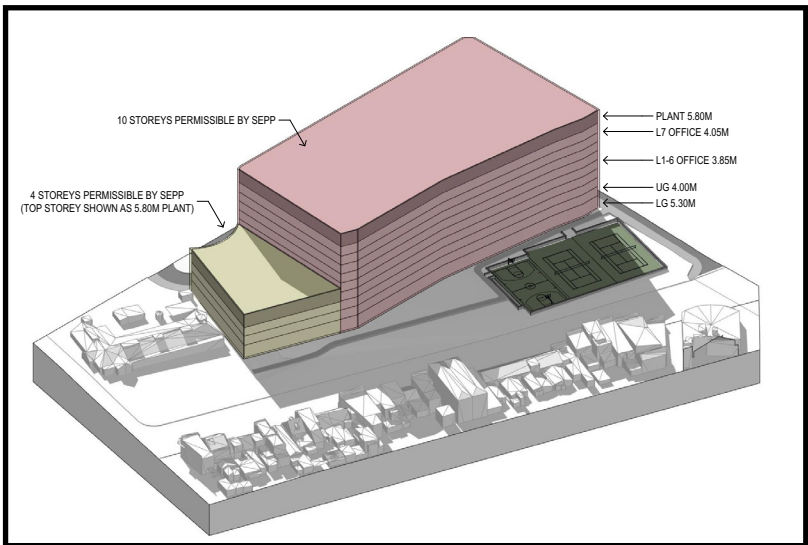
Context photographs: Henderson Road residences & commercial premises



SSDA scheme as modified.



GFA and Height compliant 'Refined Base' scheme



Height complaint envelope

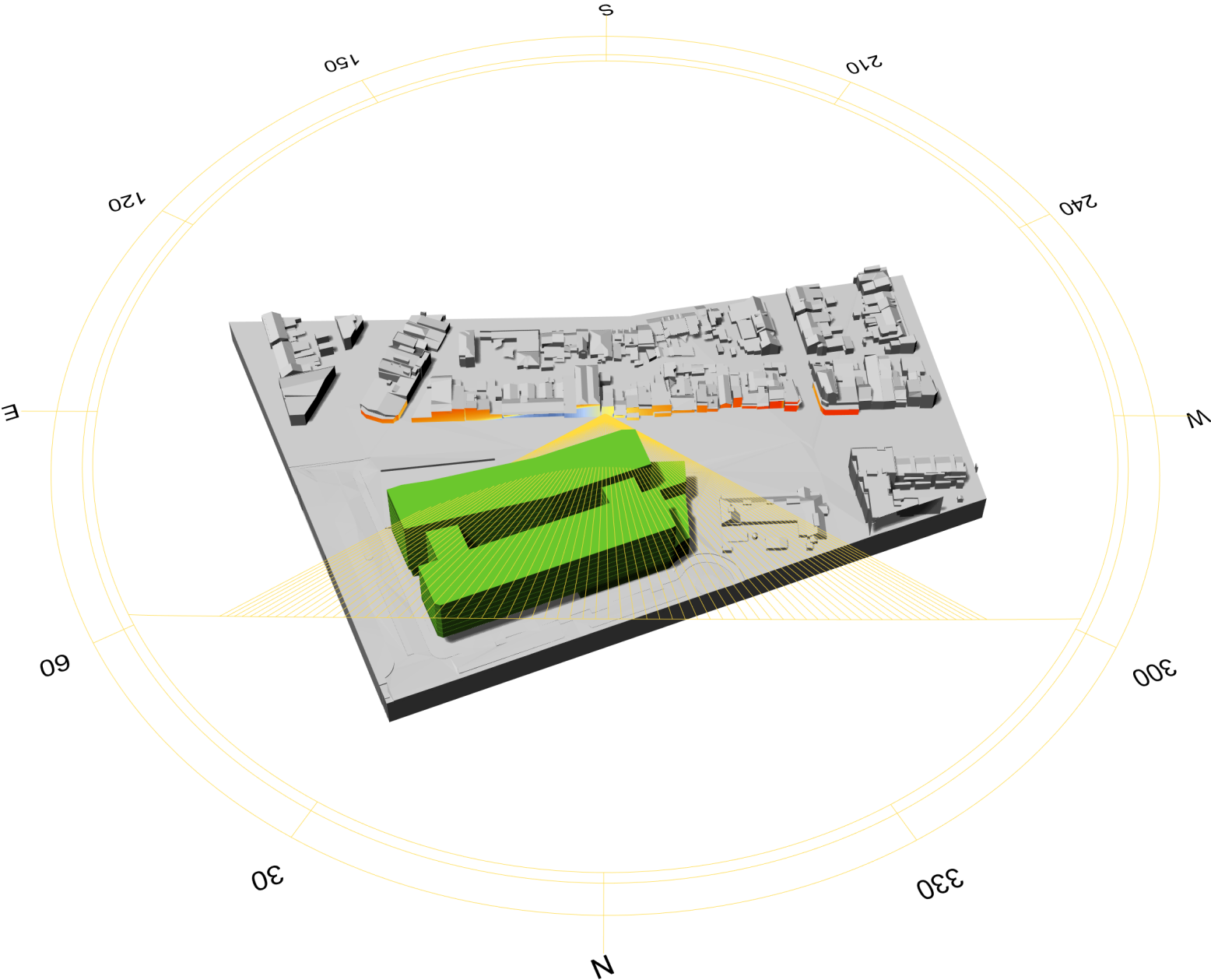
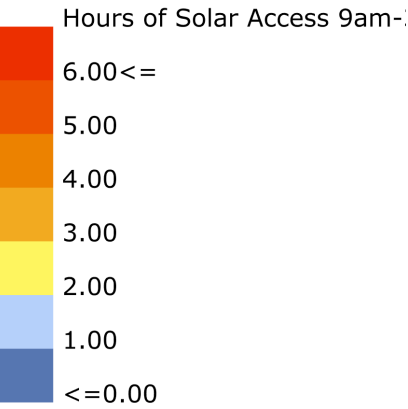
2.12 Solar access to Henderson Road residences.

The following analysis compares solar access to the Henderson Road residences as achieved with the modified SSDA B1 proposal against the GFA & Height compliant refined 'Base' scheme.

The analysis adopts the solar access Provisions of Sydney DCP 2012, Section 4.1.3.1 Solar Access, ie:

- Development sites and neighbouring dwellings are to achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21 June onto at least 1sqm of living room windows and at least 50% of the minimum amount of private open space.
- New development must not create any additional overshadowing where solar access is less than two hours between 9am and 3pm on 21 June. This control does not apply to windows on a side boundary or windows only separated from a side boundary or passageway.

The following study adopts 2 hours direct sunlight between 9am and 3pm at mid winter across the north facade of the Henderson Road Elevation as the target. Specialist software (Grasshopper for Rhino with specialist plug-ins) has been used to determine hours of direct sunlight across the facades.



Methodology diagram



Henderson Road - Study area