Waipapa Taumata Rau
University of Auckland
Student Centre and Library

FTAA Substantive Application
Appendix C: Shading Analysis

Prepared for:
Waipapa Taumata Rau, University of Auckland

Document Revision Status:
FTAA Substantive Application
28 October 2026

WARREN AND MAHONEY®

Waipapa Taumata Rau University of Auckland

Notes & Methodology Statement
Shading Analysis

Shading diagrams have been prepared by Warren and Mahoney Architects New Zealand Ltd. in accordance with UDIA (S-SAM) Practice note 1: Shading Description.

Software Used:

- Autodesk Revit
- Revit Plug-in: Shadow Colour

Building form context has been assembled from a range of available sources, including Auckland Council. Neighbouring building forms are approximate representations and are not based on surveyed data.

Inputs and advice from others:

- Surveying: BECA
- Planning: Barker & Associates
- Urban design assessment: Boffa Miskell

Study parameters and assumptions:

- New shadows resulting from the proposed development are shown in colour and projected onto the ground plane and surrounding built form.
- Existing shadows, including those generated by plan-enabled but unimplemented massing envelopes, are shown in grey to assist legibility of incremental shading effects.
- Existing and proposed trees and planting have been excluded from 3D modelling.

Special Height Controls
Albert Park Sunlight Admission Control

Preliminary shading studies have been undertaken to review sunlight admission to Rangipuke Albert Park and the expanded ātea. This diagram outlines the sunlight requirements applying to Rangipuke Albert Park under the Auckland Unitary Plan.

The following pages show the proposed massings shading during selected dates:

- March 15th (End of Albert Park sunlight period)
- June 21st (Winter Solstice)
- September 22nd (Spring Equinox)
- October 1st (Beginning of Albert Park sunlight period)
- December 22nd (Summer Solstice)

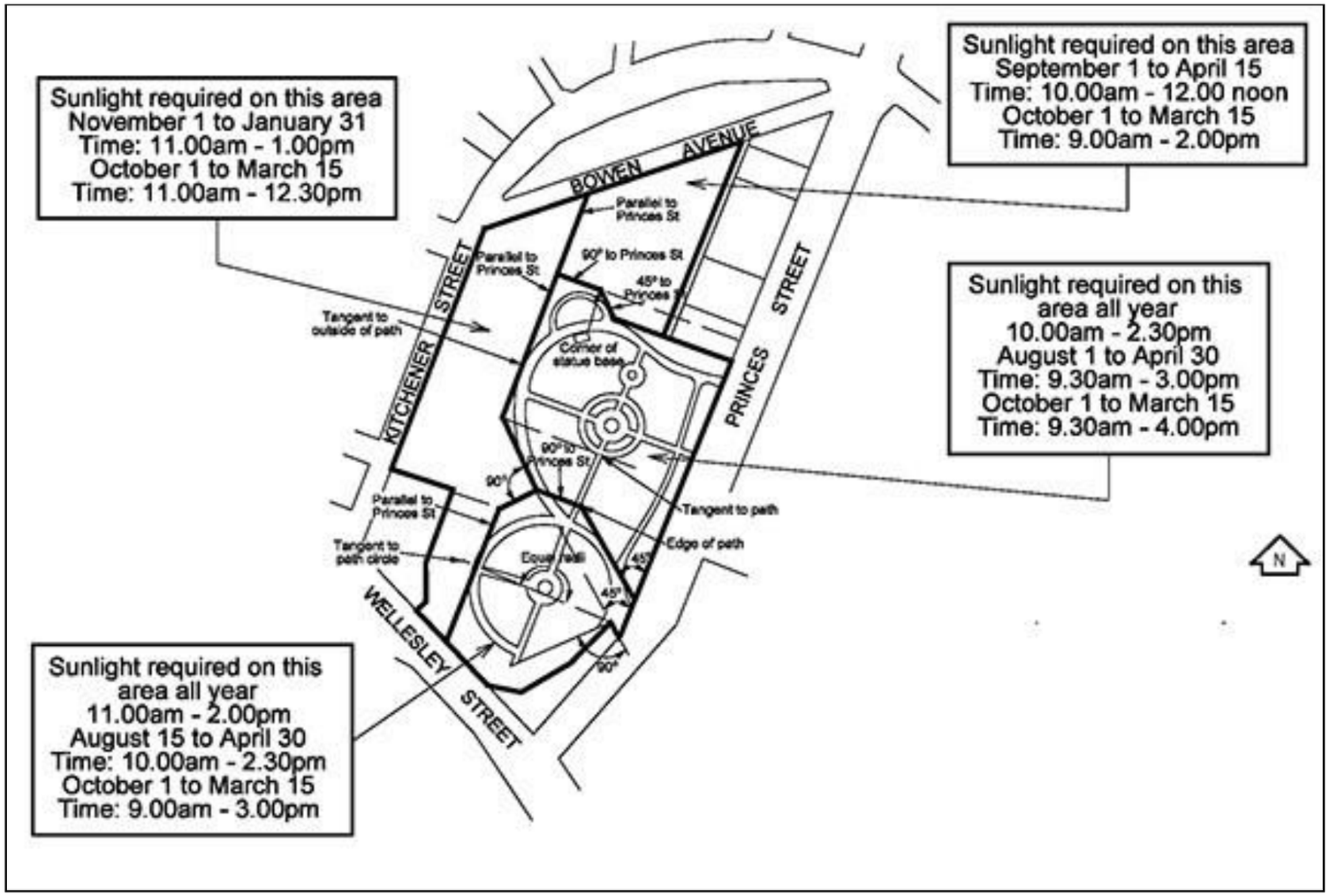
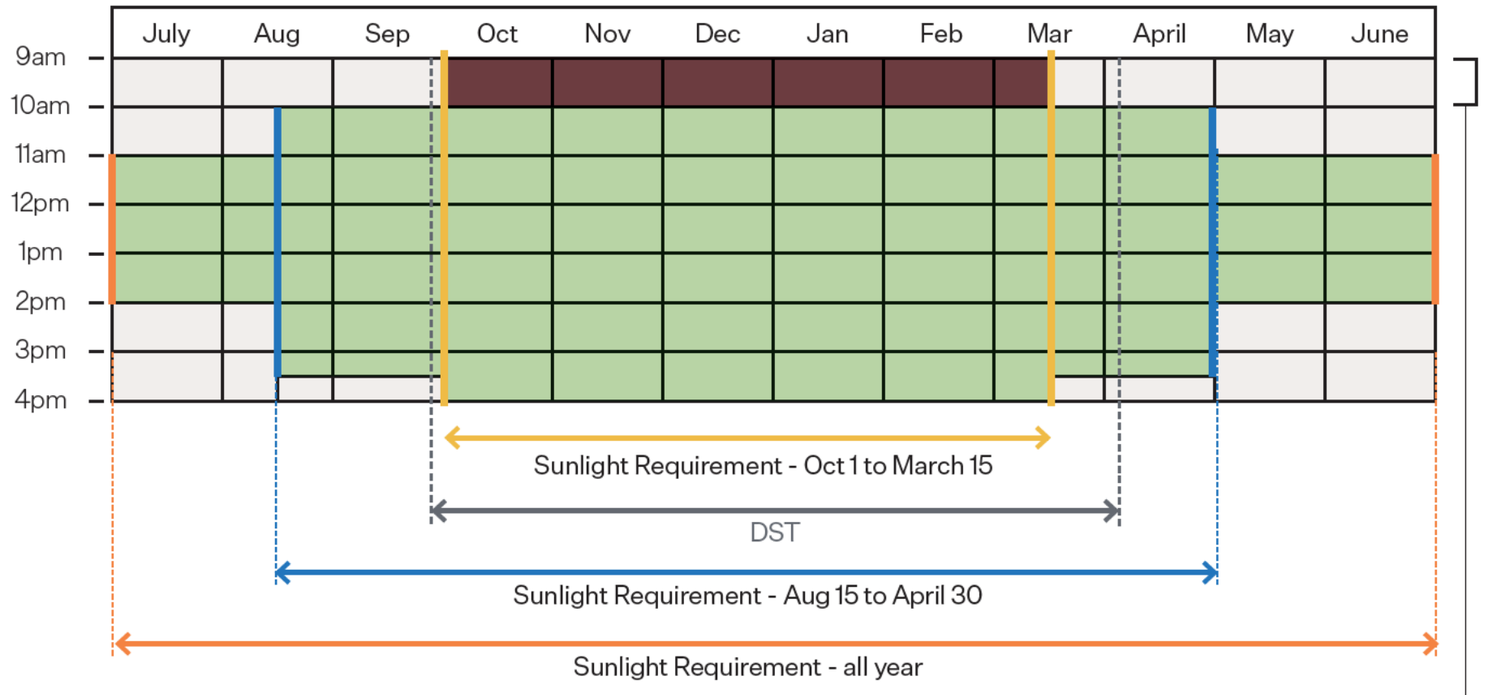


Figure 6: Admission of sunlight to Albert Park as required under the Auckland Unitary Plan.

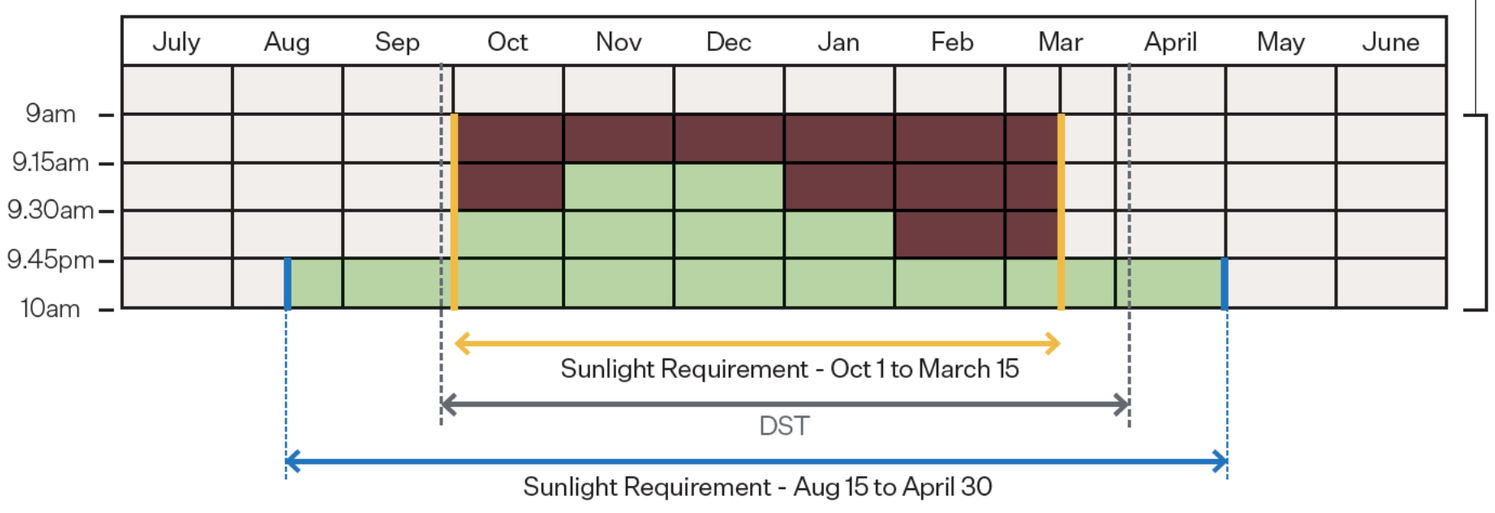
Monthly Summary

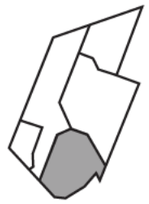
Albert Park Rangipuke Sunlight Admission Control - South Segment

Hourly Year Summary



15 Minute Interval Year Summary (9am-10am)





Albert Park Rangipuke Shading Legend

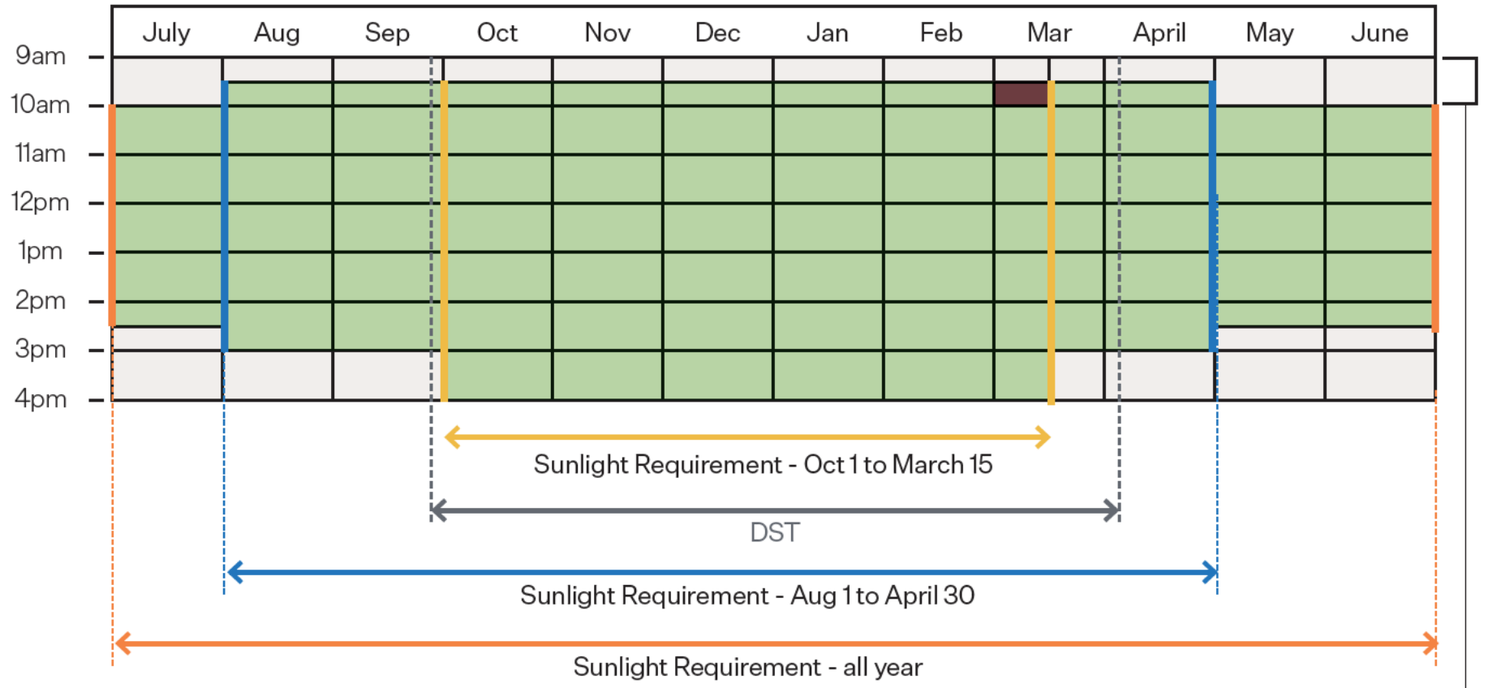
- Shading control applies, no shading generated from proposed scheme
- Shading generated from proposed scheme
- No shading control applies

Note: Shading analysis has been taken from the 15th of each month to inform each summary table.

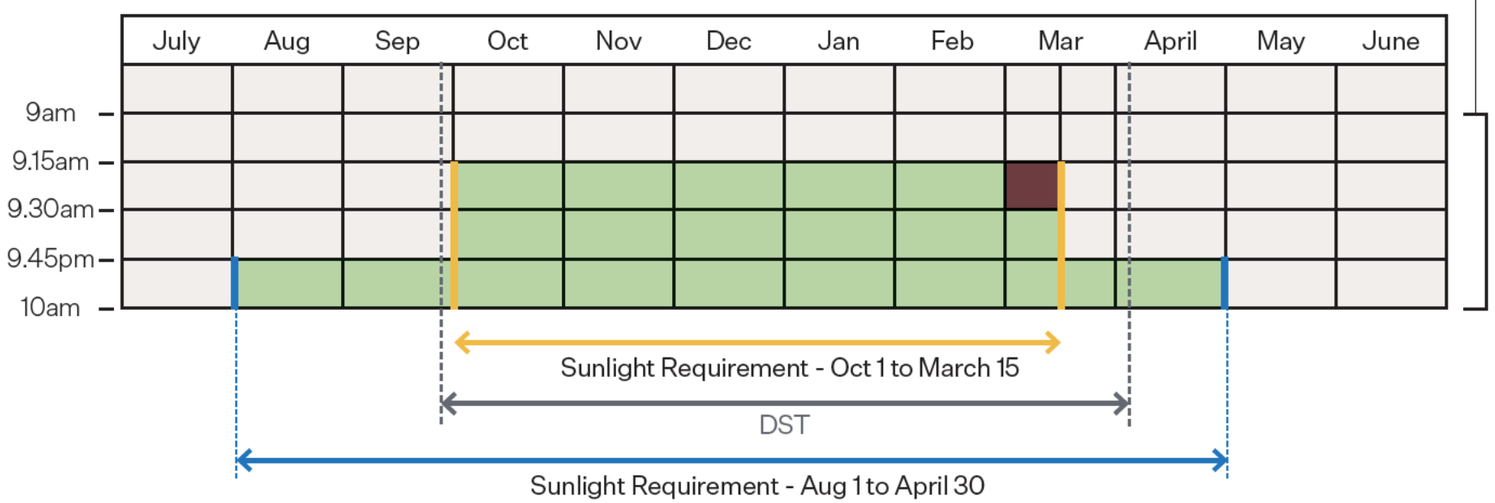
Monthly Summary

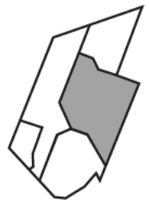
Albert Park Rangipuke Sunlight Admission Control - East Segment

Hourly Year Summary



15 Minute Interval Year Summary (9am-10am)





Albert Park Rangipuke Shading Legend

- Shading control applies, no shading generated from proposed scheme
- Shading generated from proposed scheme
- No shading control applies

Note: Shading analysis has been taken from the 15th of each month to inform each summary table.

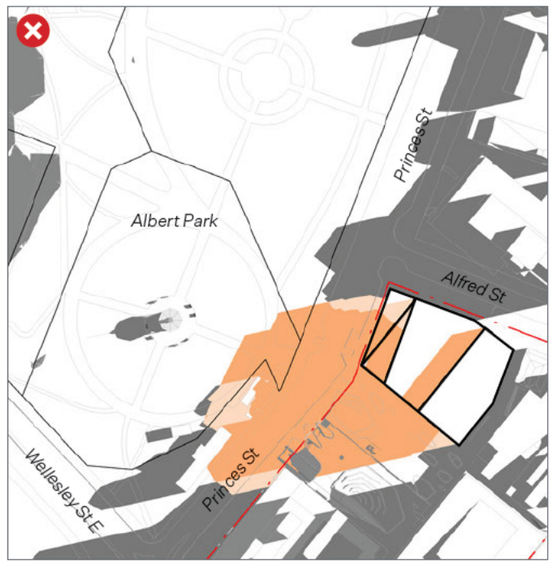
Shading Studies - Hourly

March 15, June 21, September 23, October 1 and December 22

Shading Analysis

Autumn - March 15 (DST)
9am to 4pm (Hourly)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.



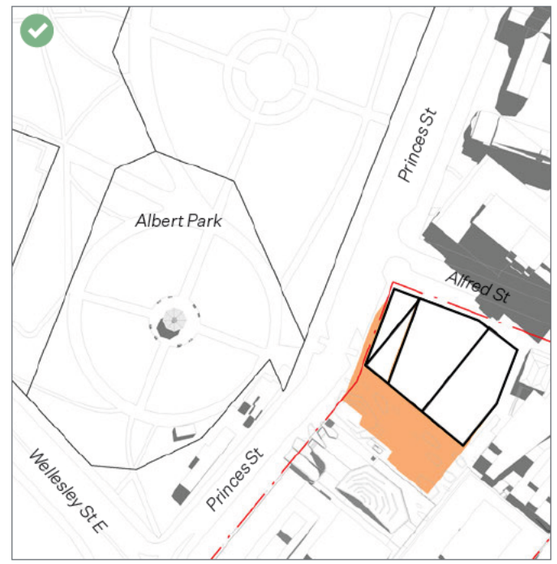
9:00



10:00



11:00



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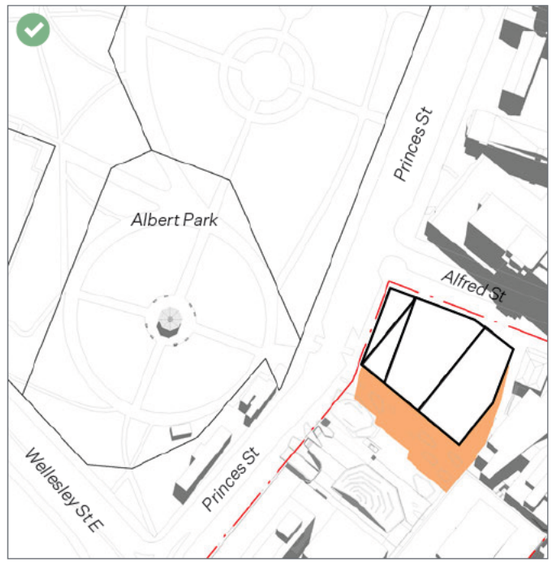

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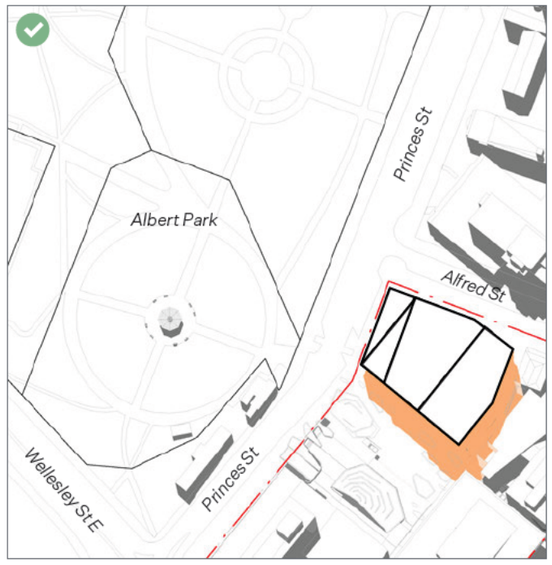

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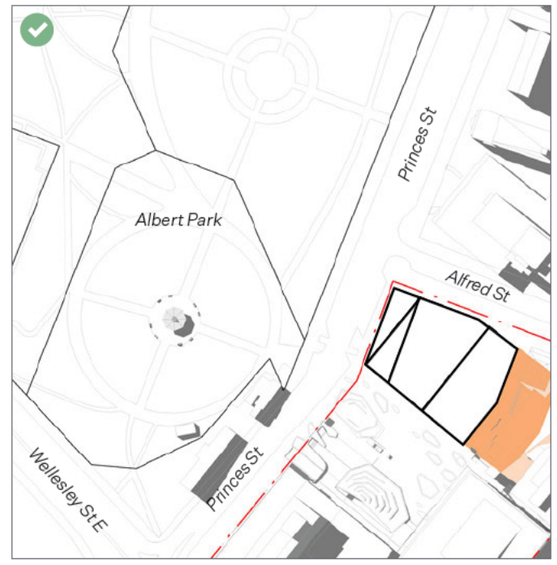
15:00



16:00

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant

Shading Analysis

Winter Solstice - June 21
9am to 4pm (Hourly)

NOTE:
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9:00



10:00



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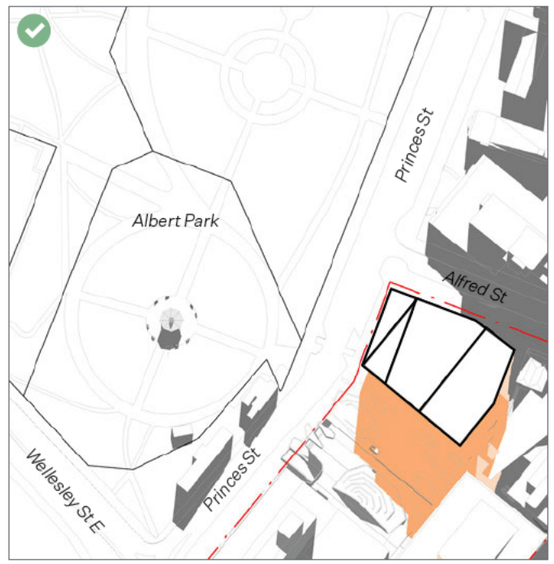

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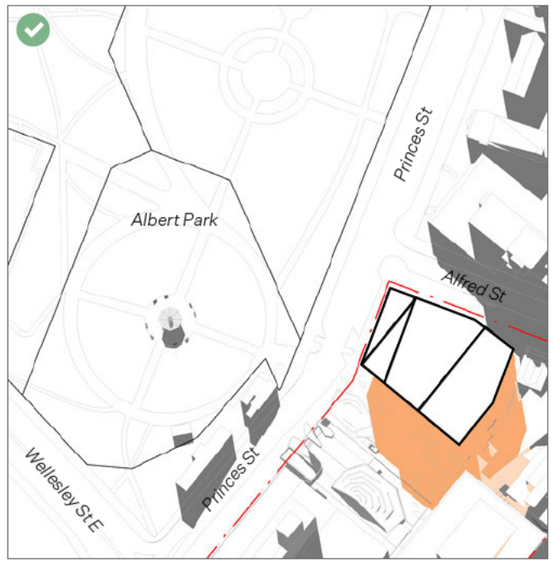

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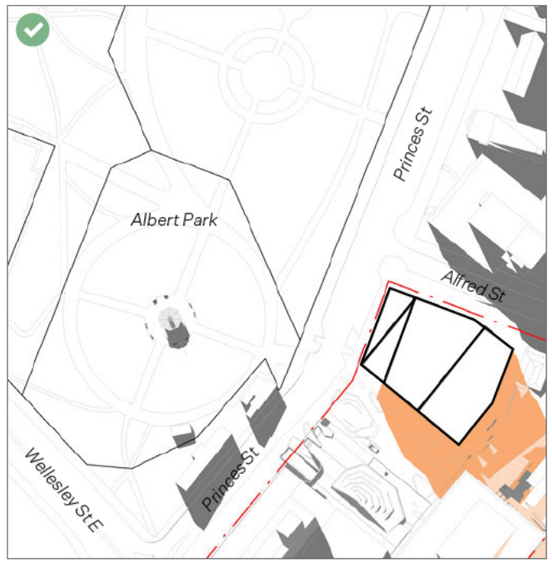

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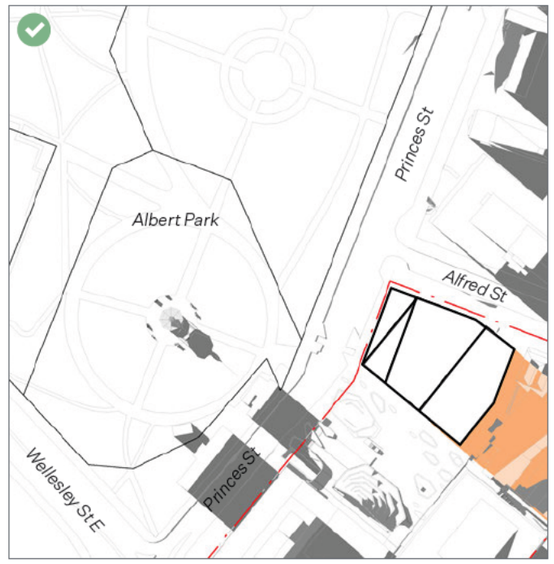

16:00

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant

Shading Analysis

Spring Equinox - September 23
9am to 4pm (Hourly)

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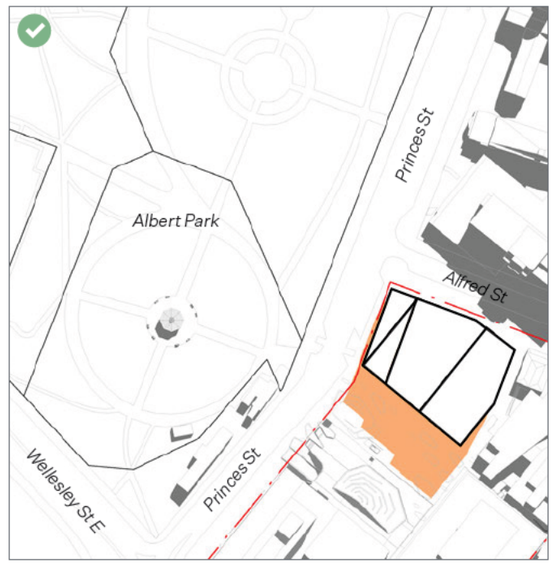
9:00



10:00



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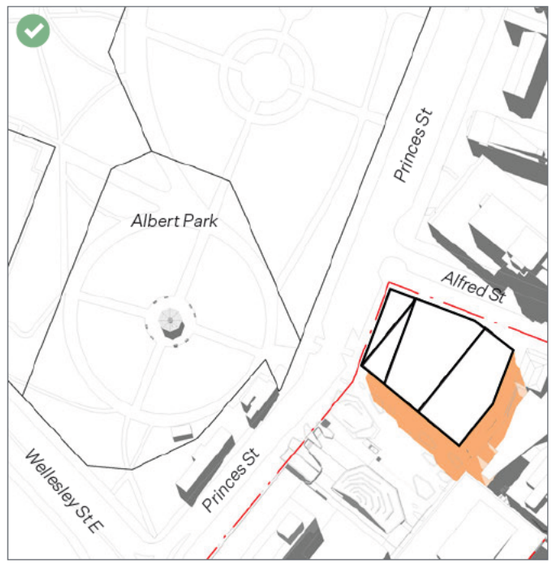

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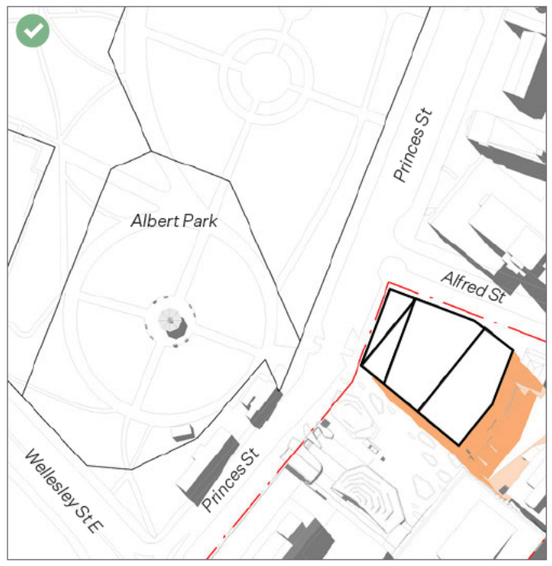

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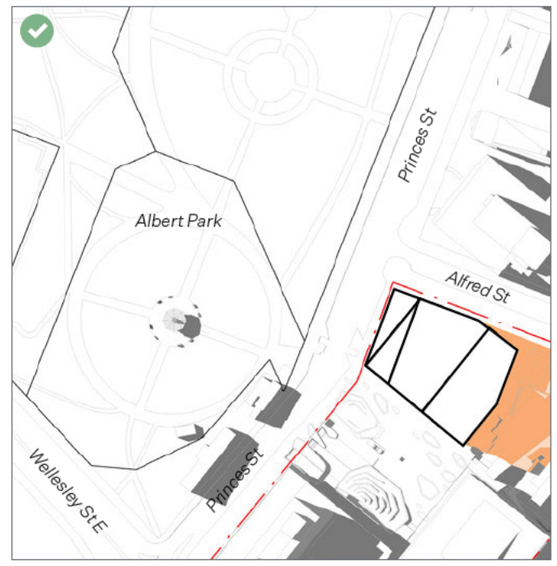

16:00

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant

Shading Analysis

Spring - October 1 (DST)
9am to 4pm (Hourly)

NOTE:
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9:00



10:00



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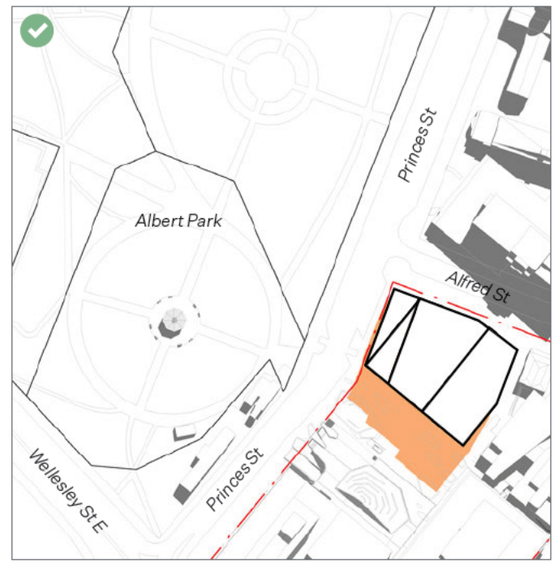

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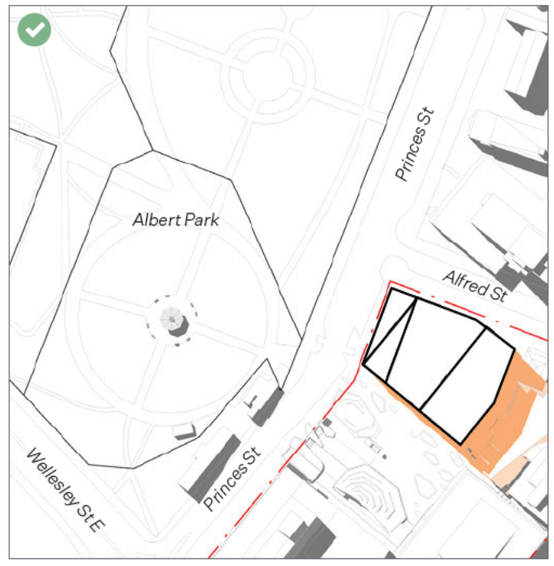

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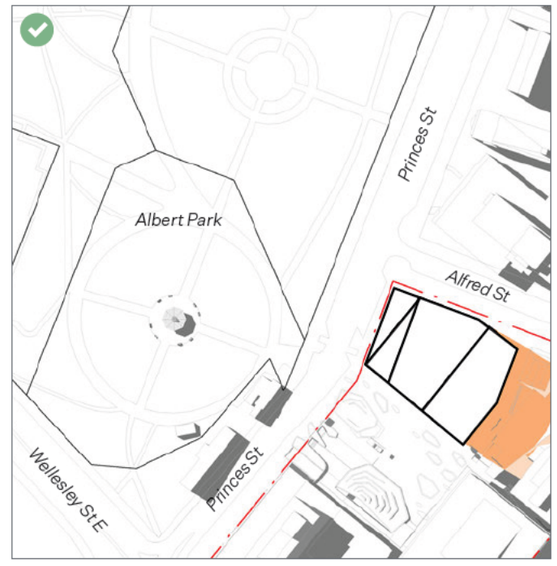

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Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant

Shading Analysis

Summer Solstice - December 22 (DST)
9am to 4pm (Hourly)

NOTE:
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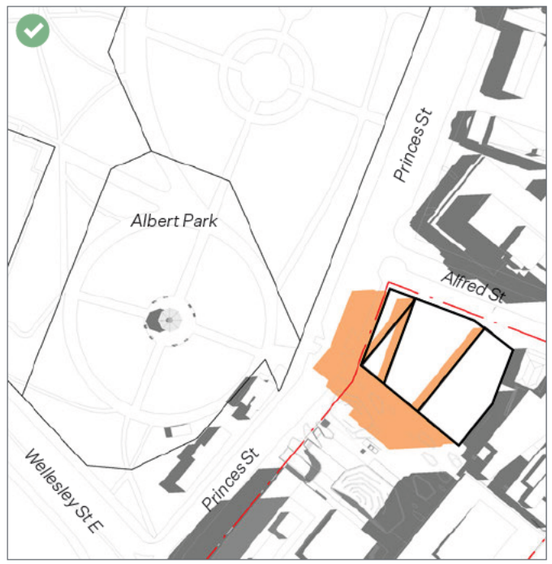
9:00



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11:00



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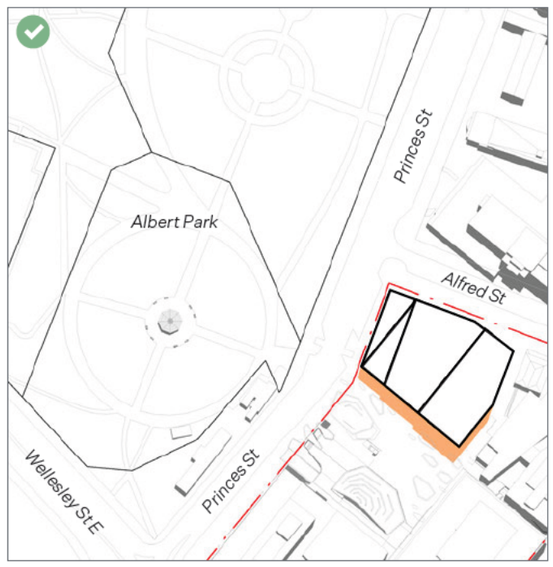

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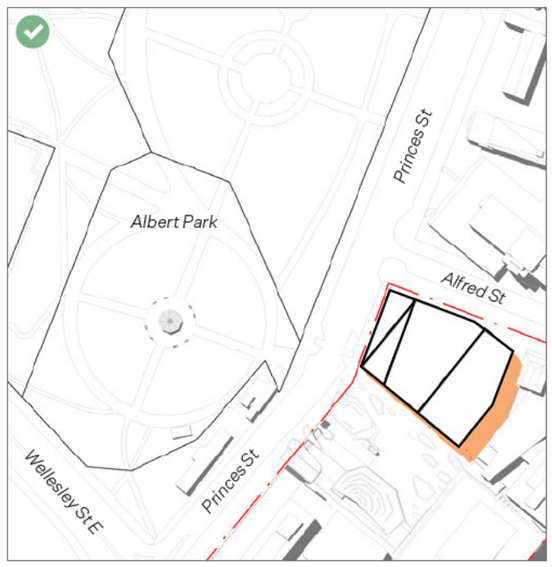

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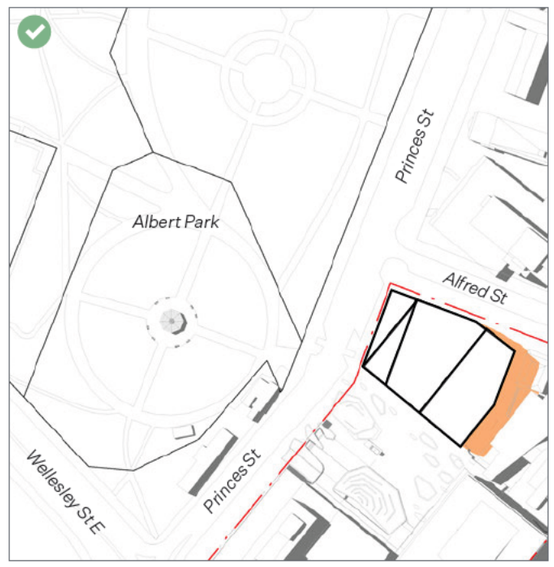

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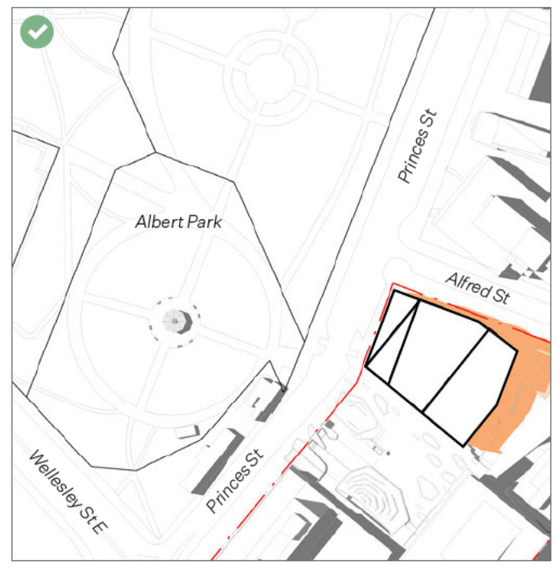

16:00

Shading generated by existing structures

Shading generated by proposed scheme

Proposed shading within existing shadow

Admission of sunlight: Non-compliant

Admission of sunlight: Compliant

Shading Studies - 15 minute Invtervals

March 15, October 1 and December 22

Shading Analysis

Autumn - March 15 (DST)
9:00am (15min Intervals)

NOTE:
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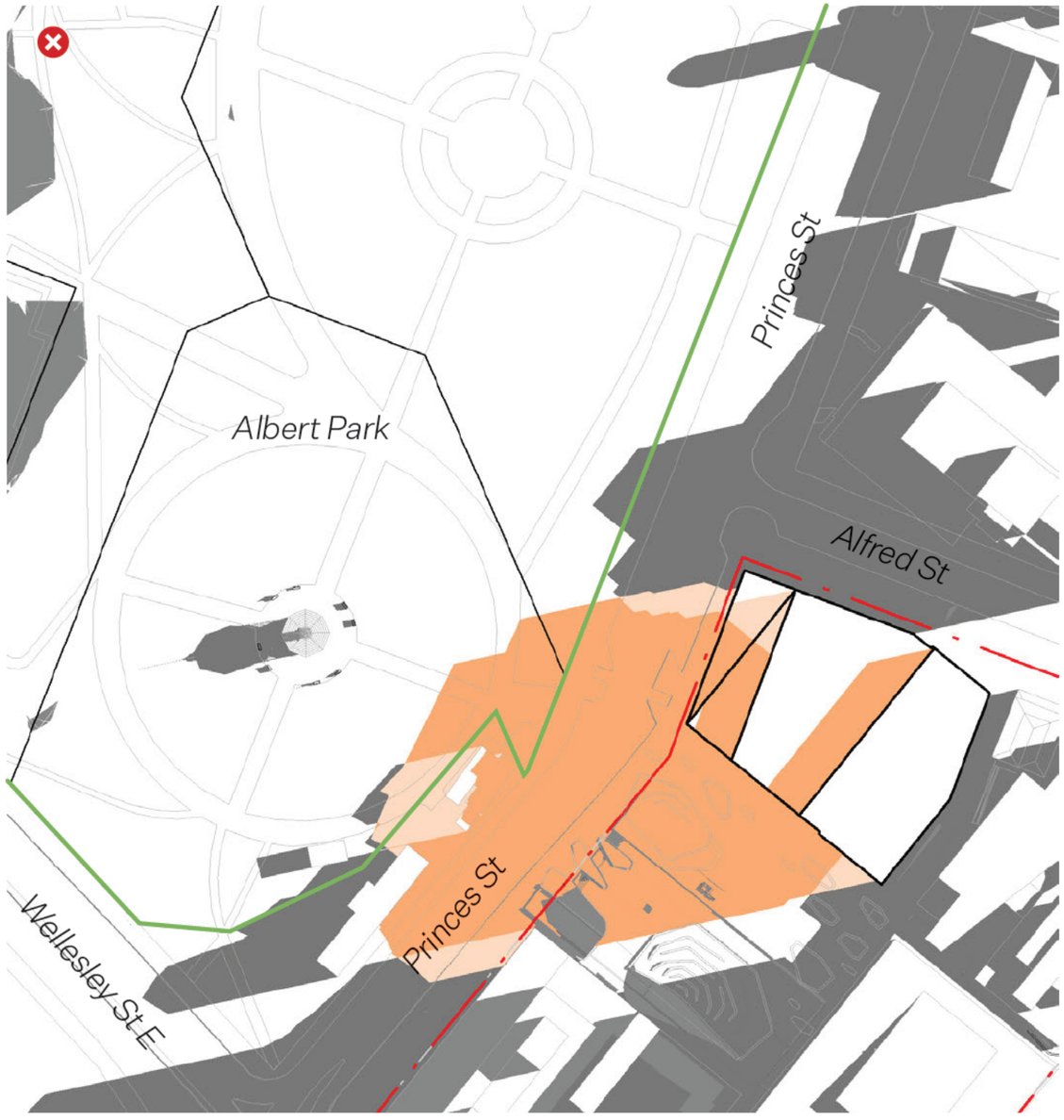

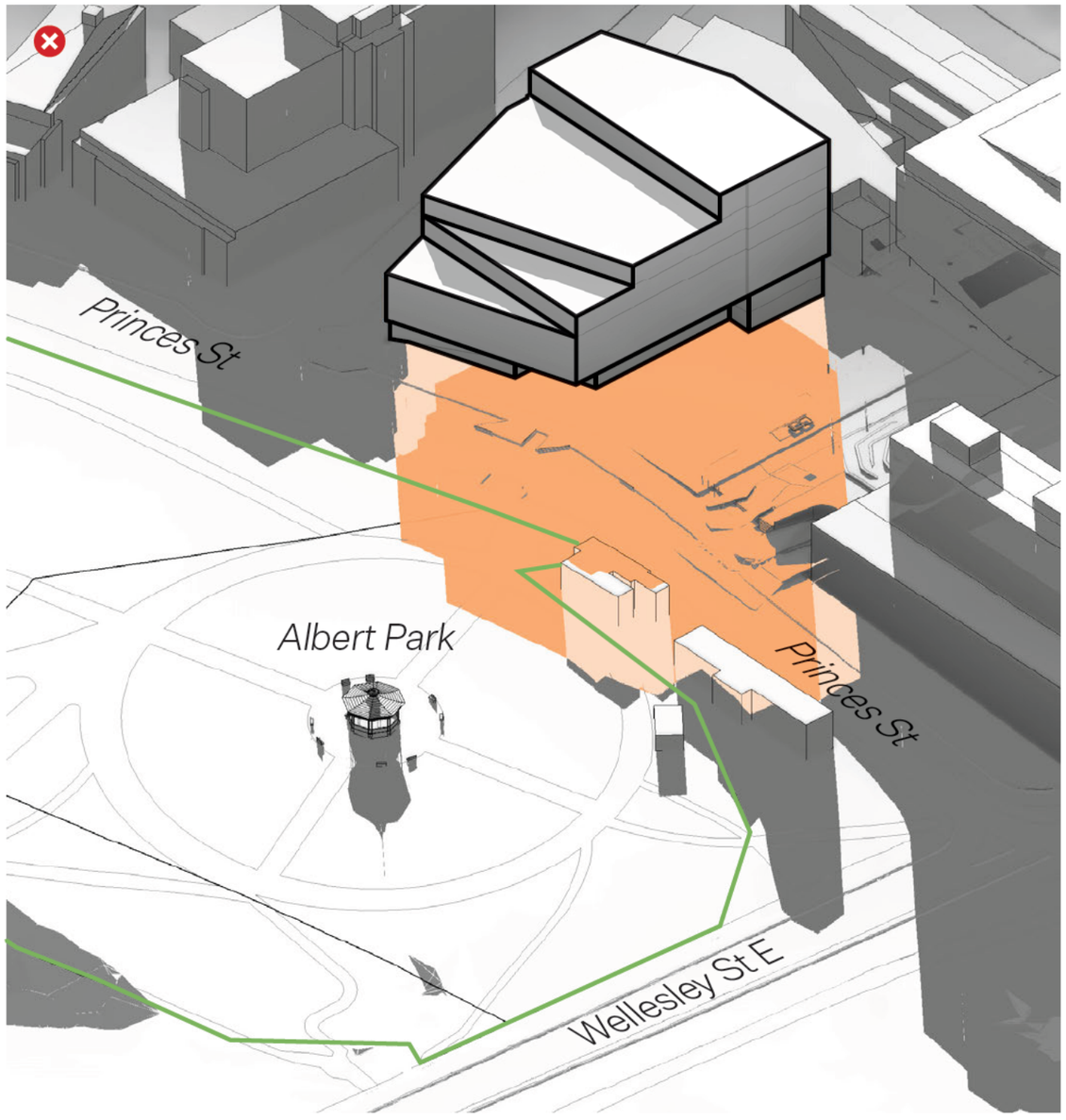

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Autumn - March 15 (DST)
9:15am (15min Intervals)

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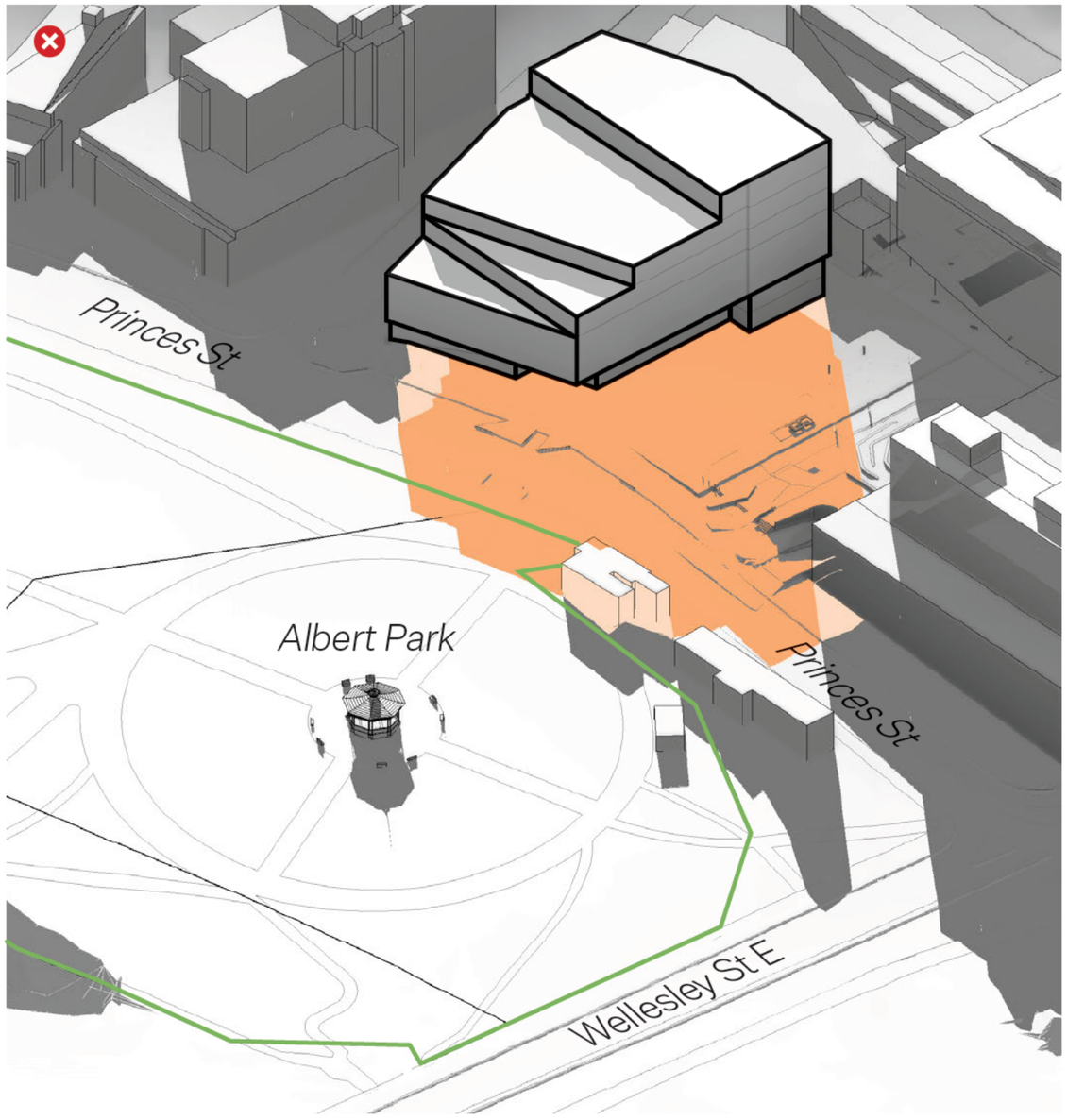

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Autumn - March 15 (DST)
9:30am (15min Intervals)

NOTE:
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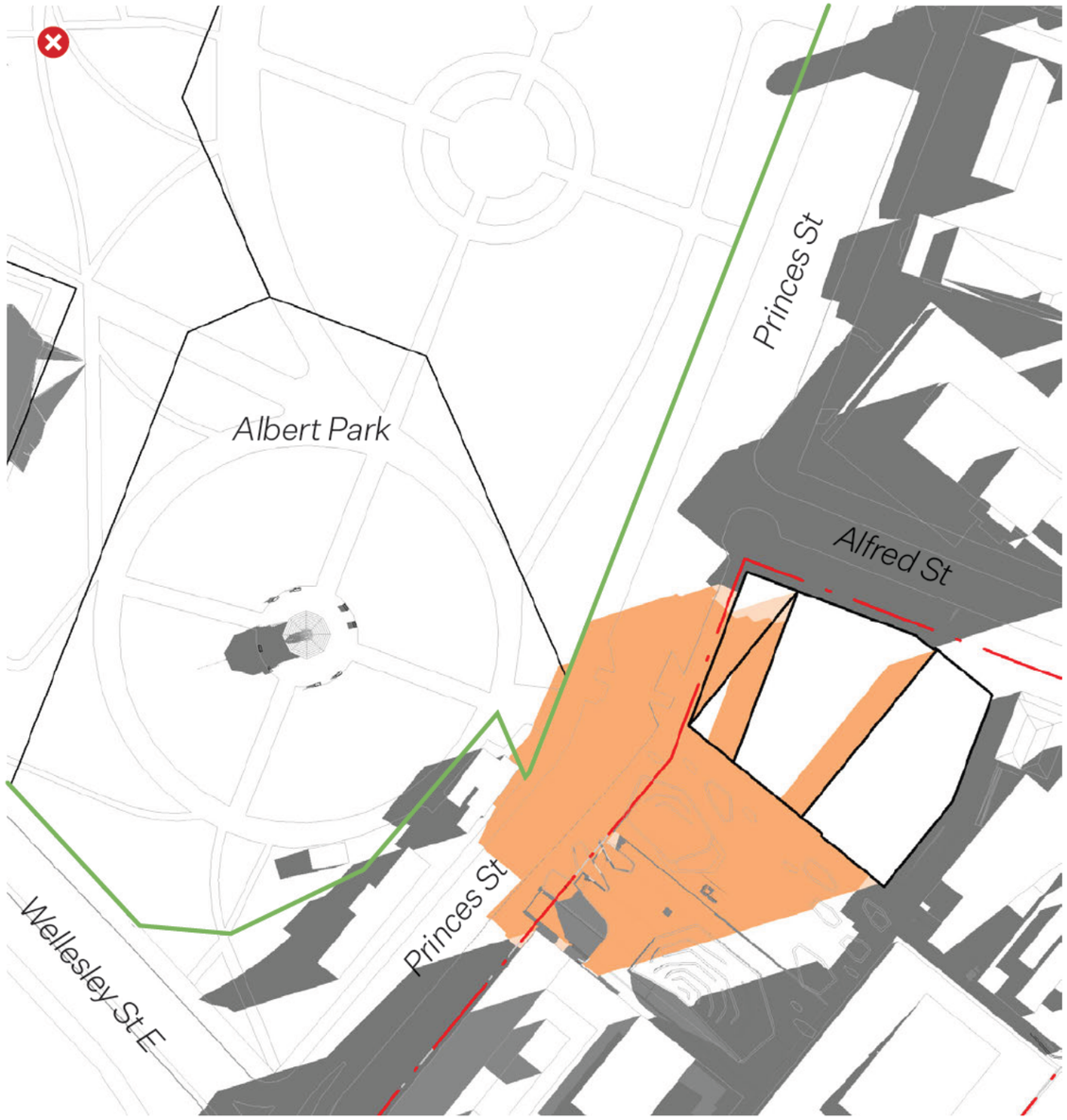

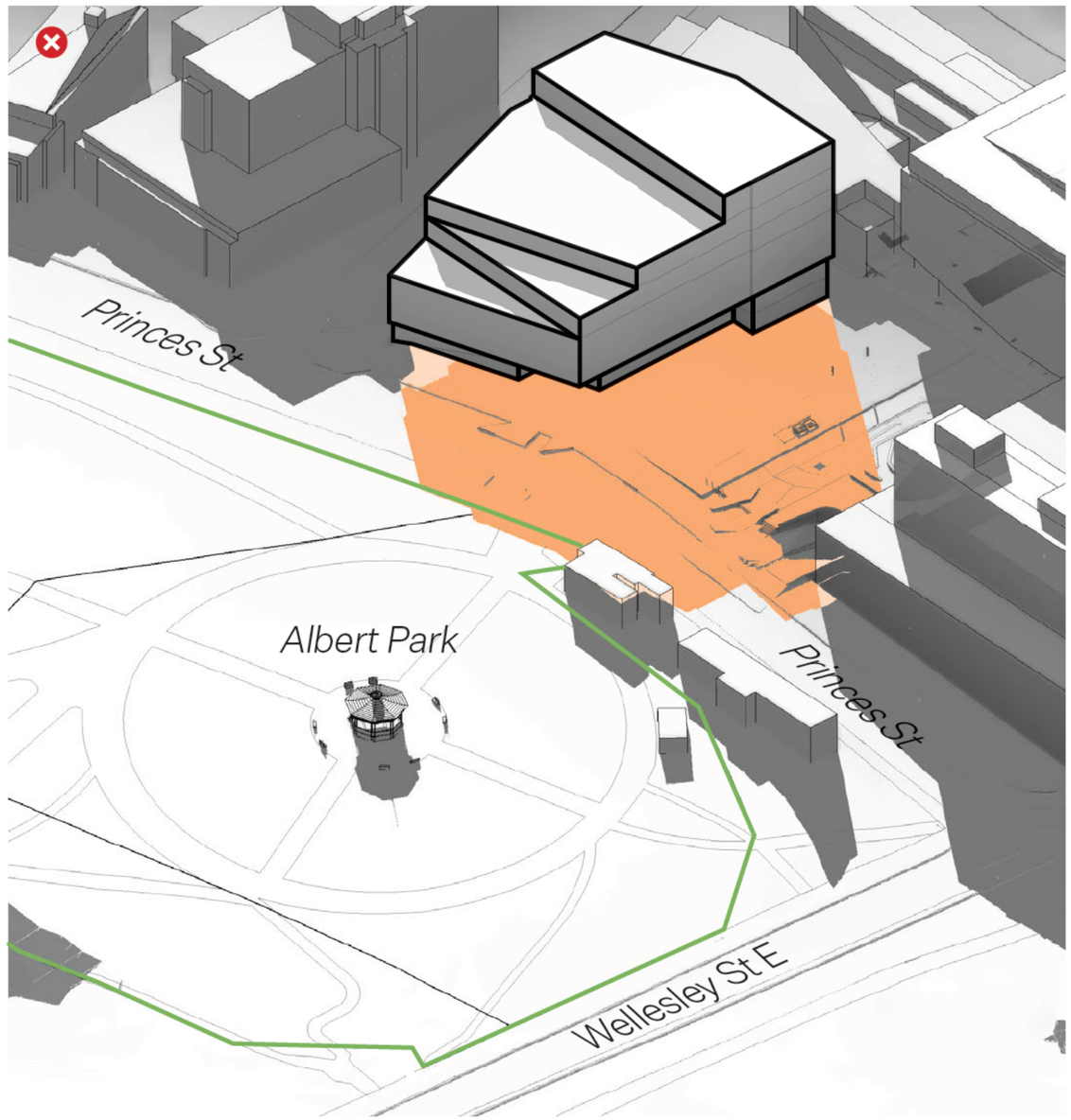

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Autumn - March 15 (DST)
9:45am (15min Intervals)

NOTE:
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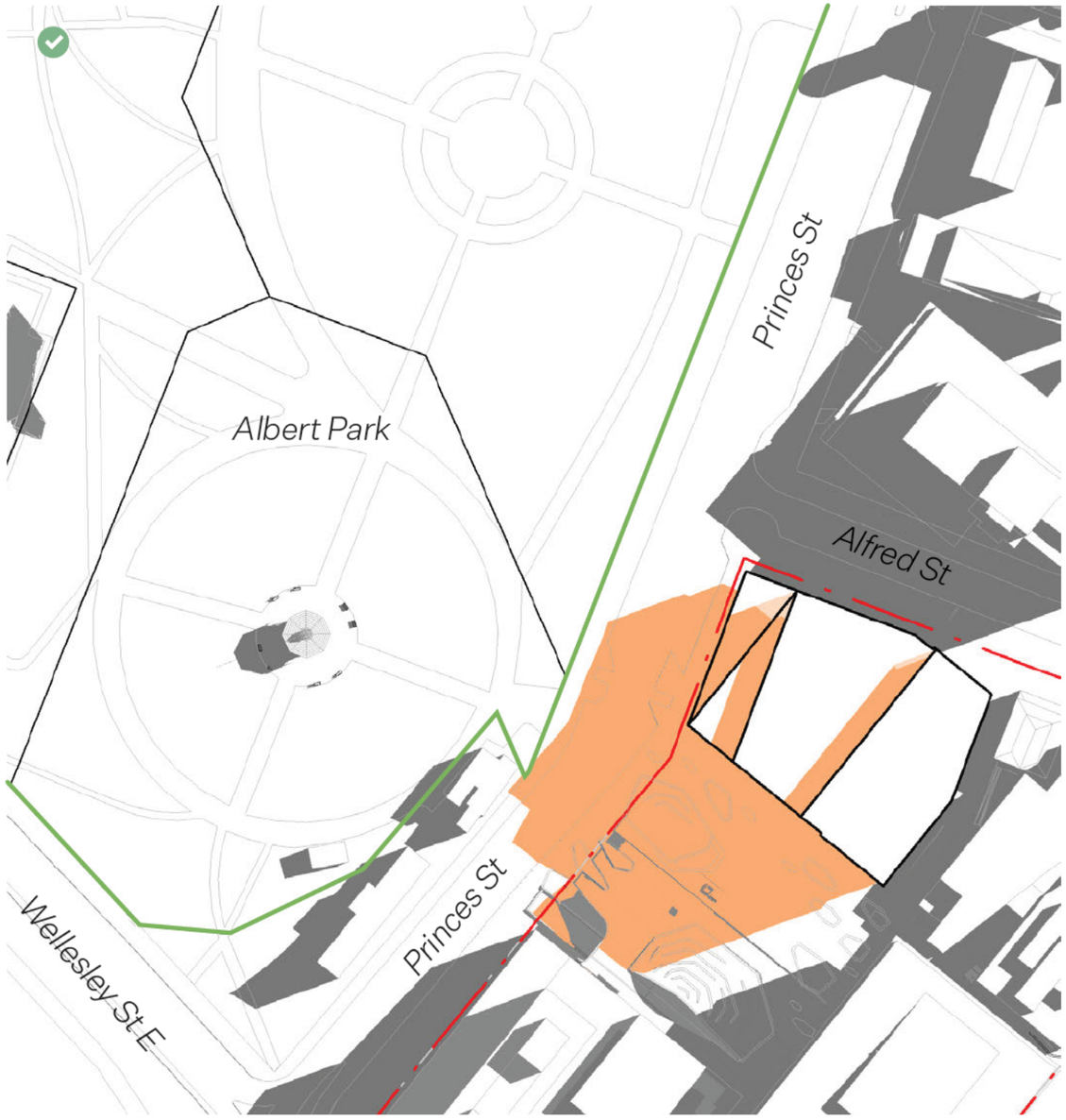

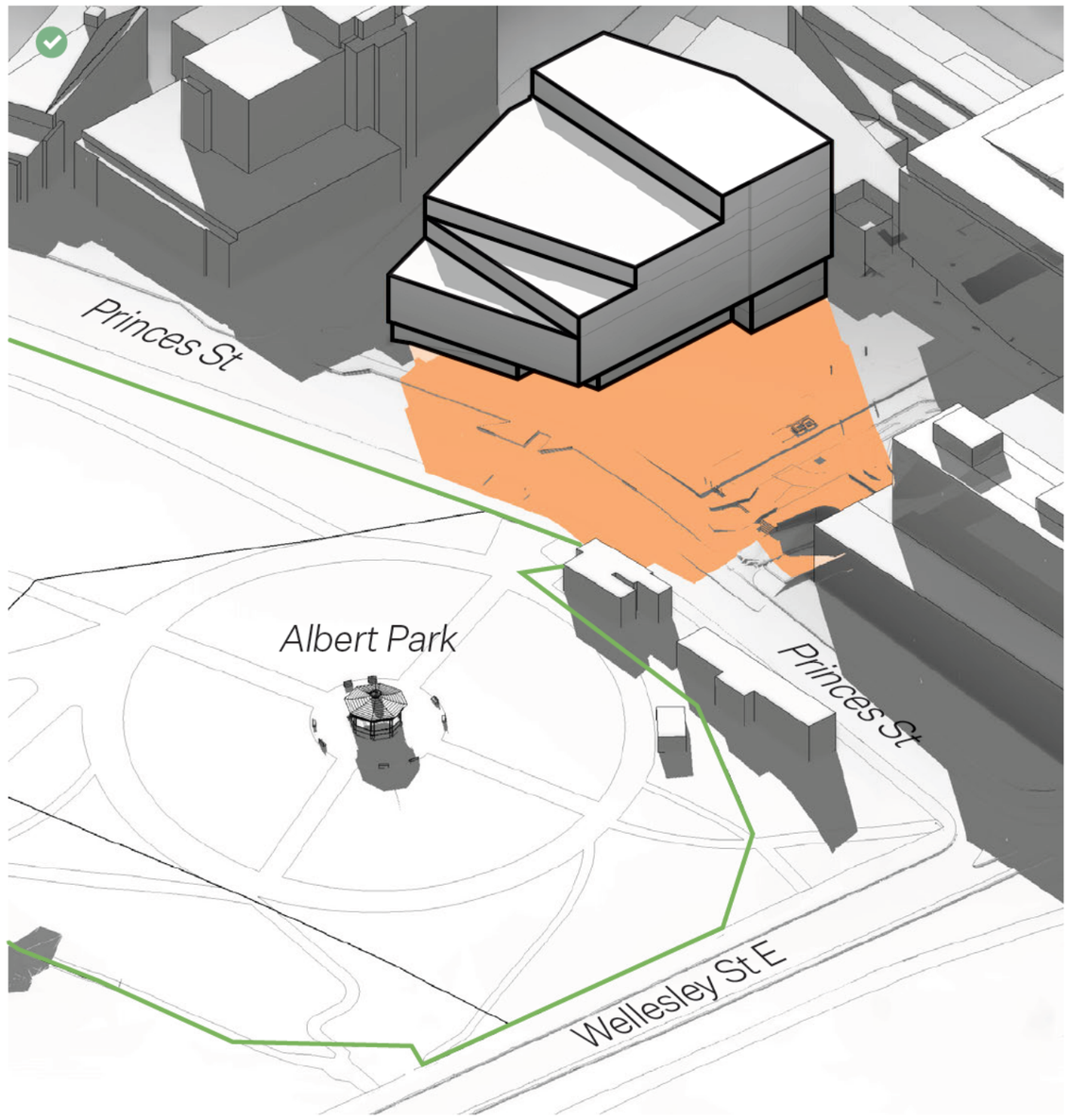

Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Autumn - March 15 (DST)
10:00am (15min Intervals)

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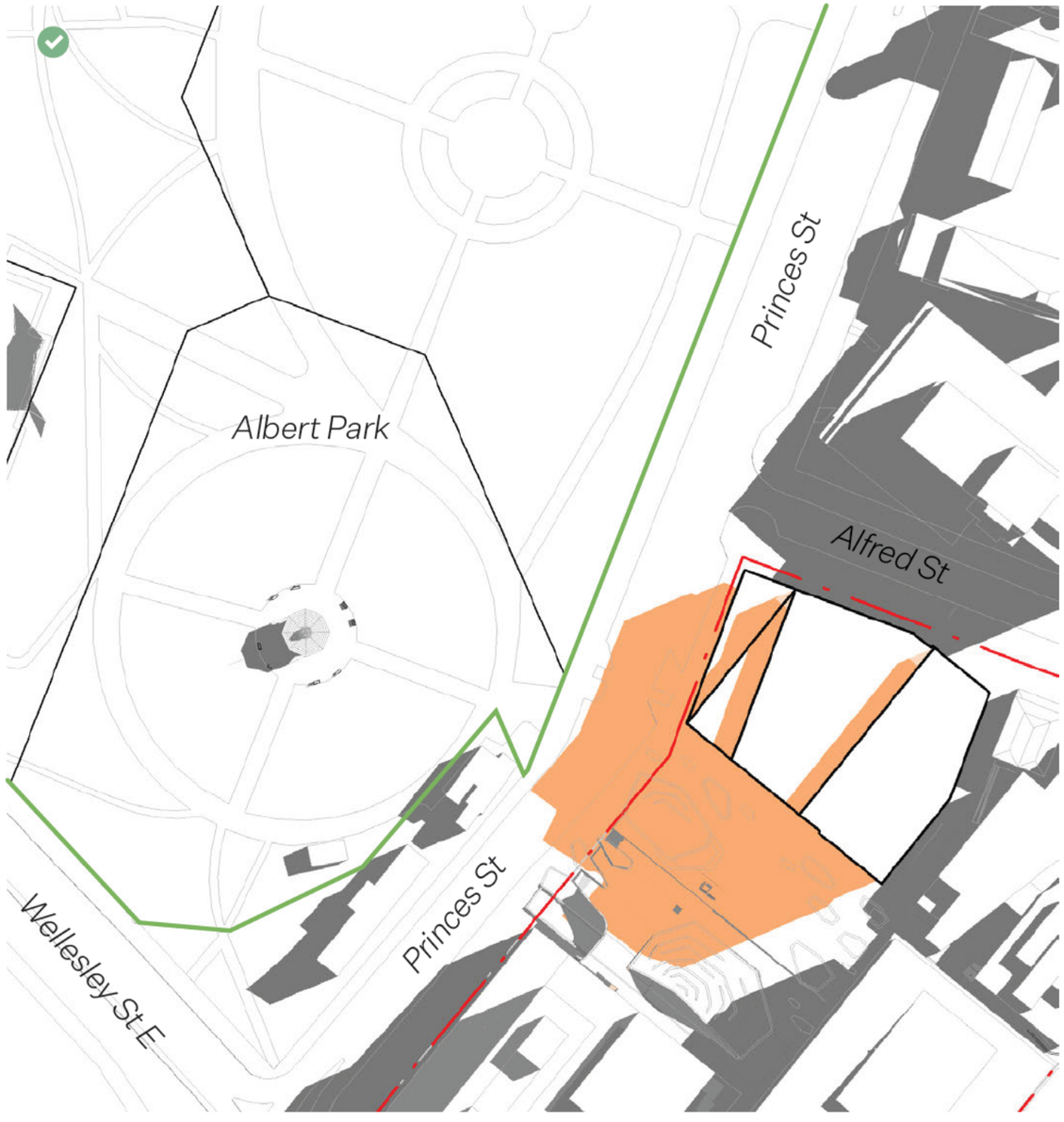

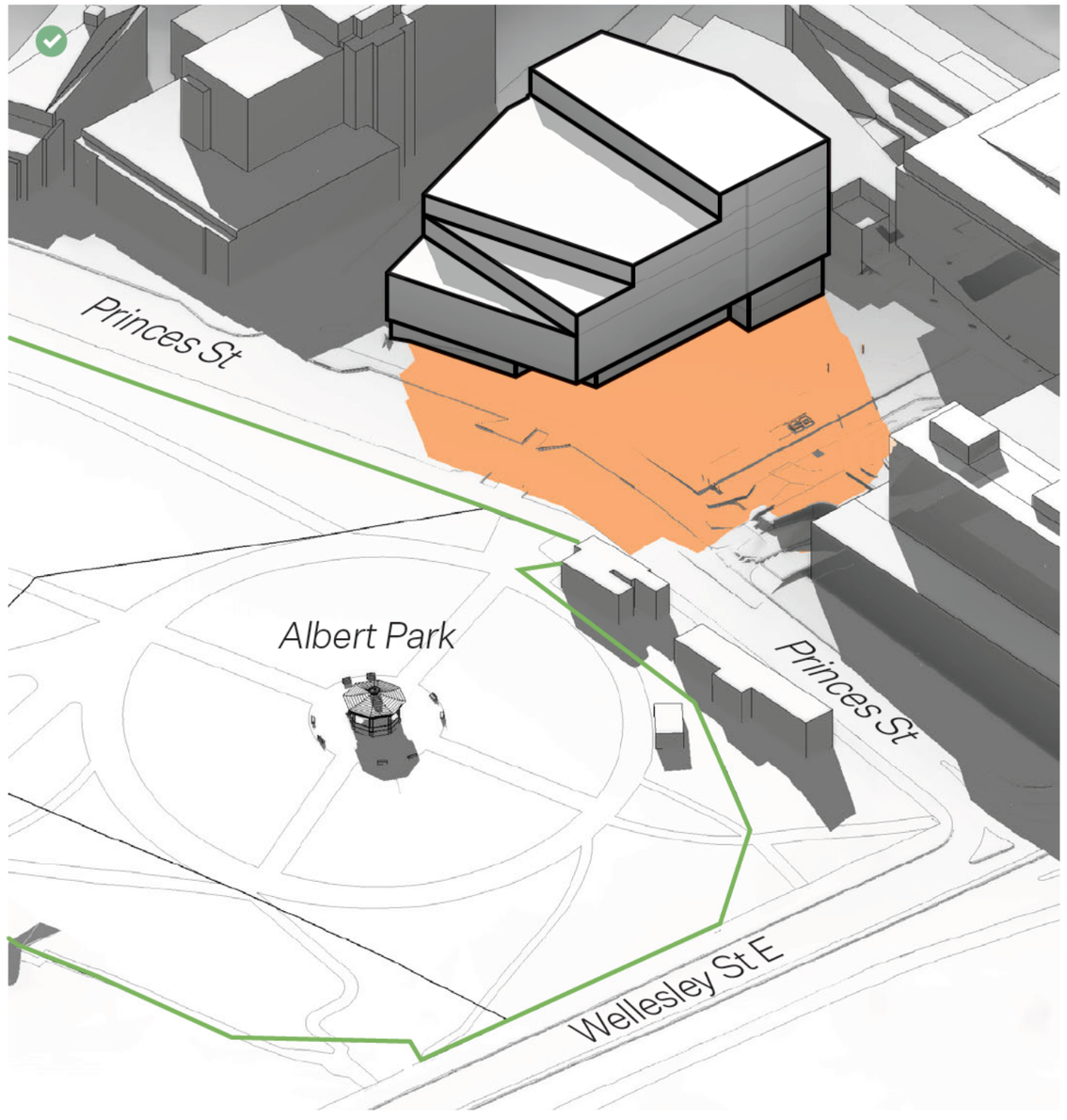

- Shading generated by existing structures
- Shading generated by proposed scheme
- Proposed shading within existing shadow
- Admission of sunlight: Non-compliant
- Admission of sunlight: Compliant
- Albert Park Boundary Line

Shading Analysis

Spring - October 1 (DST)
9:00am (15min Intervals)

NOTE:
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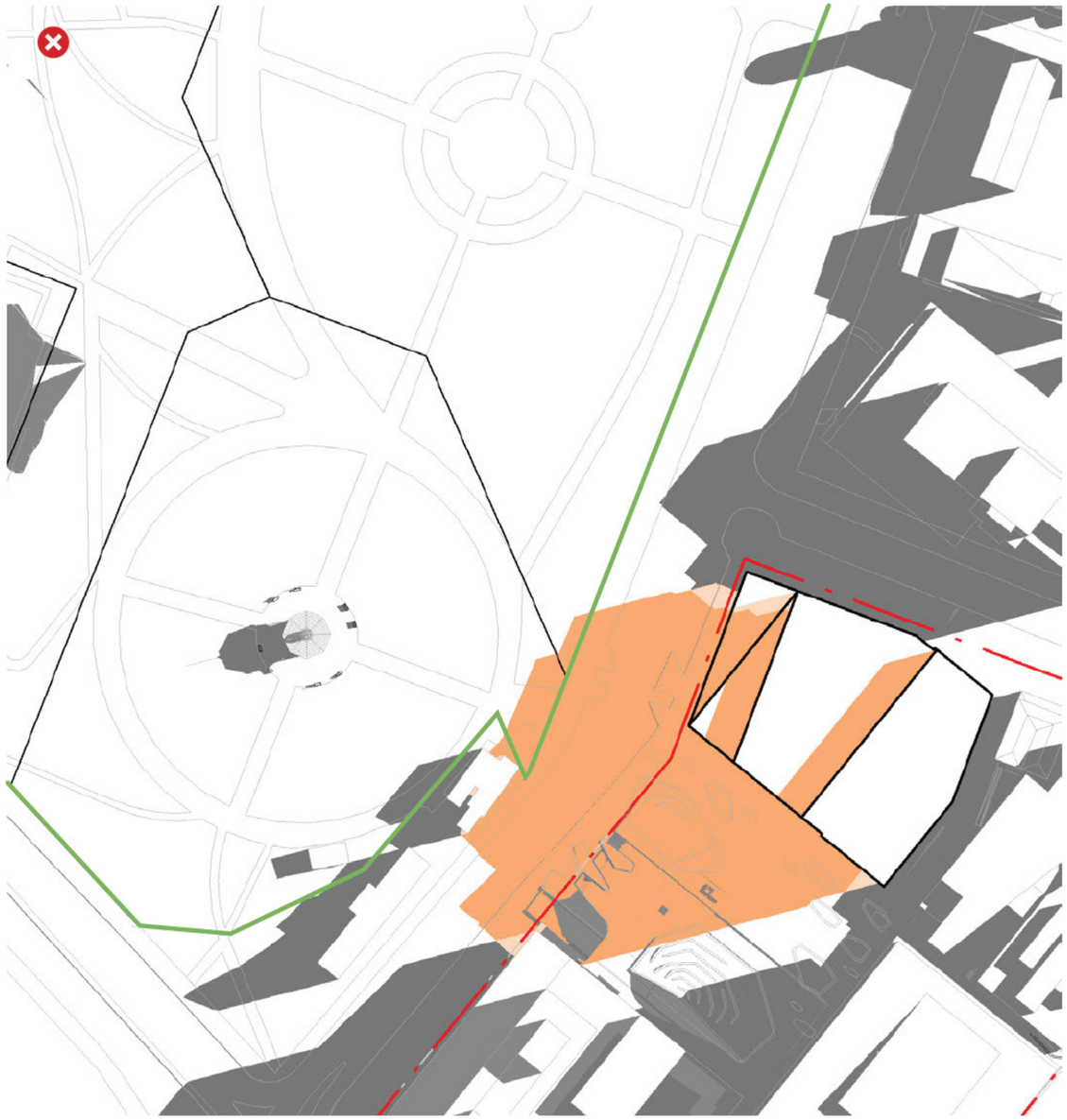

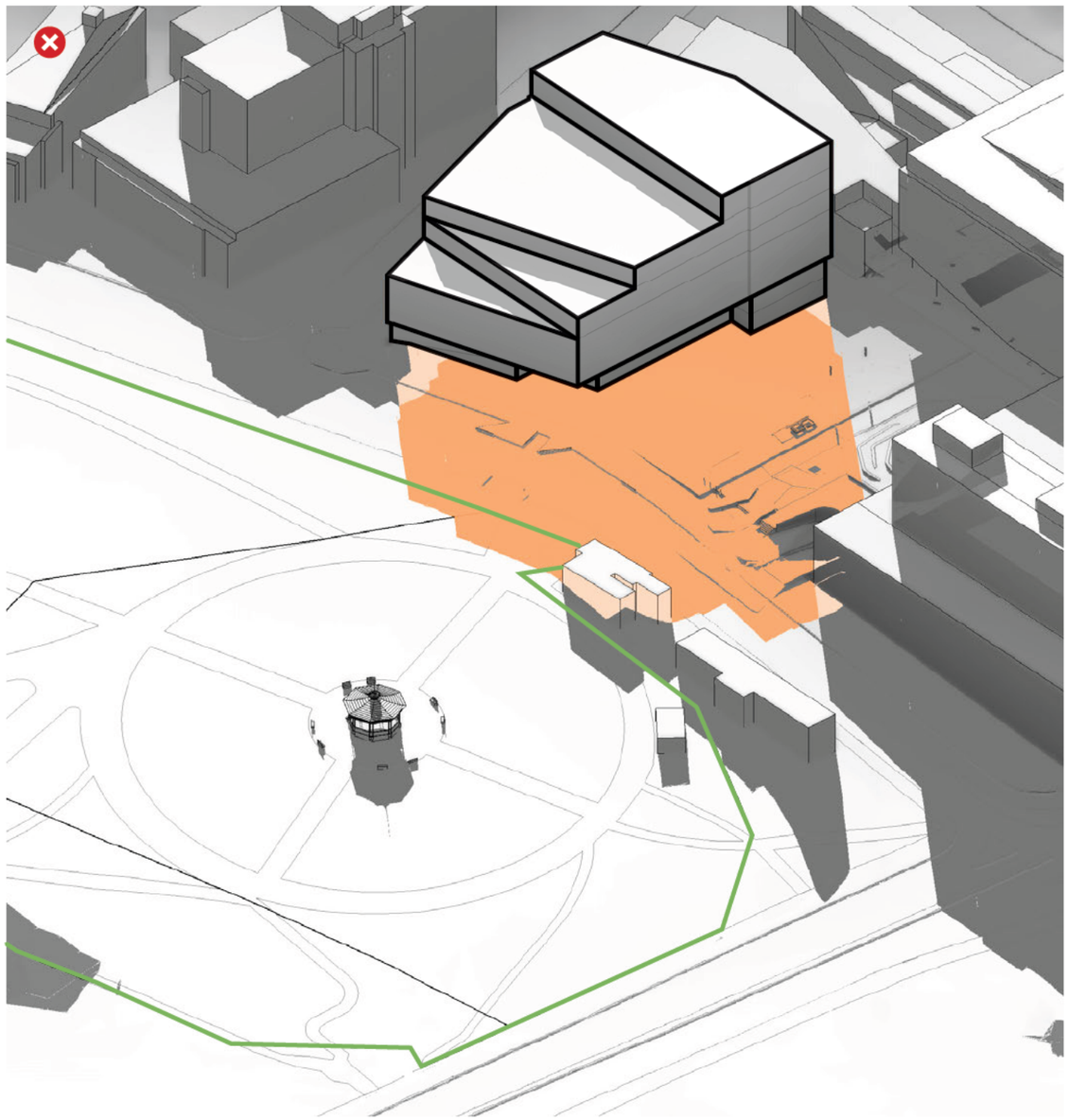

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Albert Park Boundary Line

Shading Analysis

Spring - October 1 (DST)
9:15am (15min Intervals)

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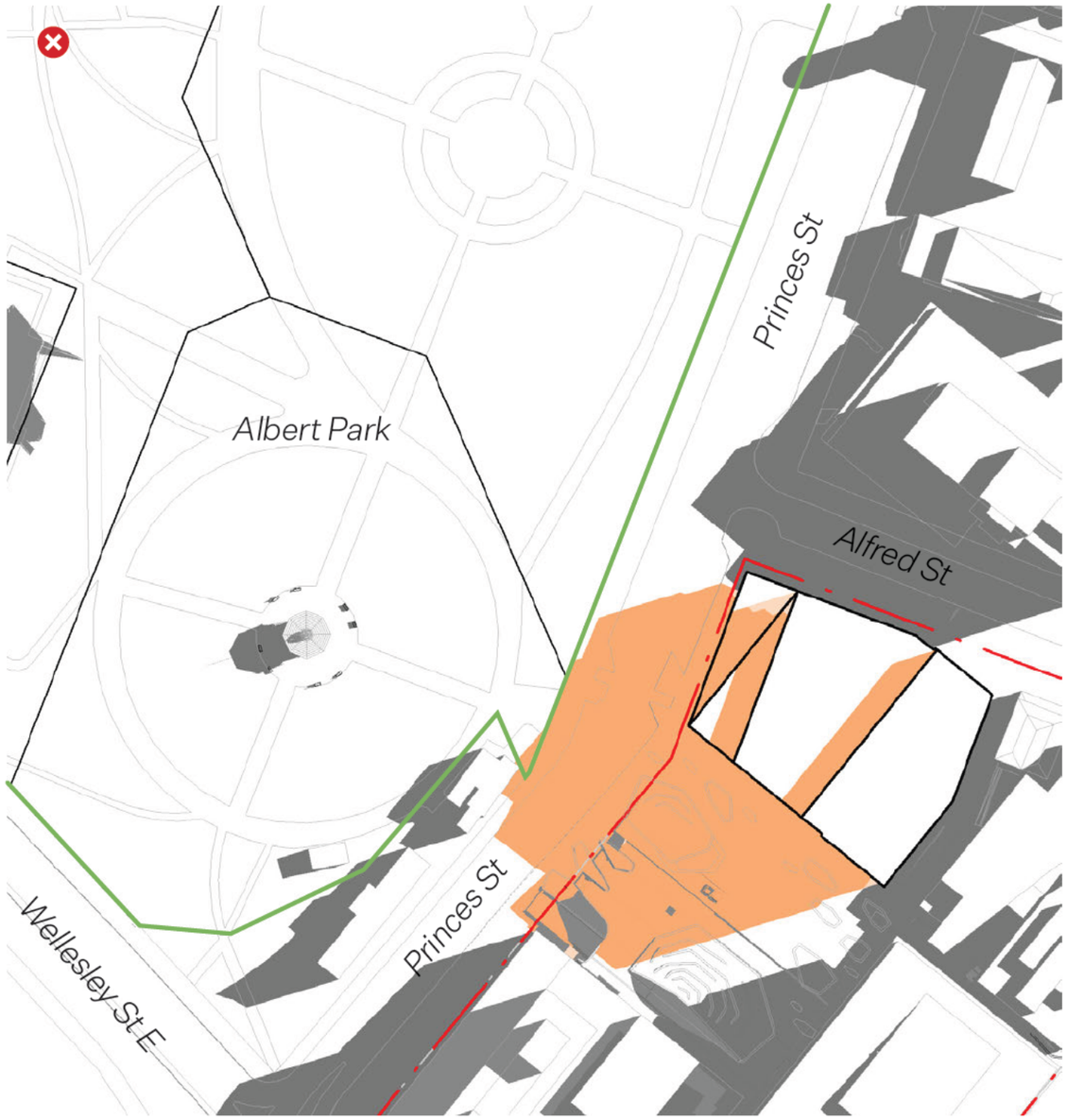

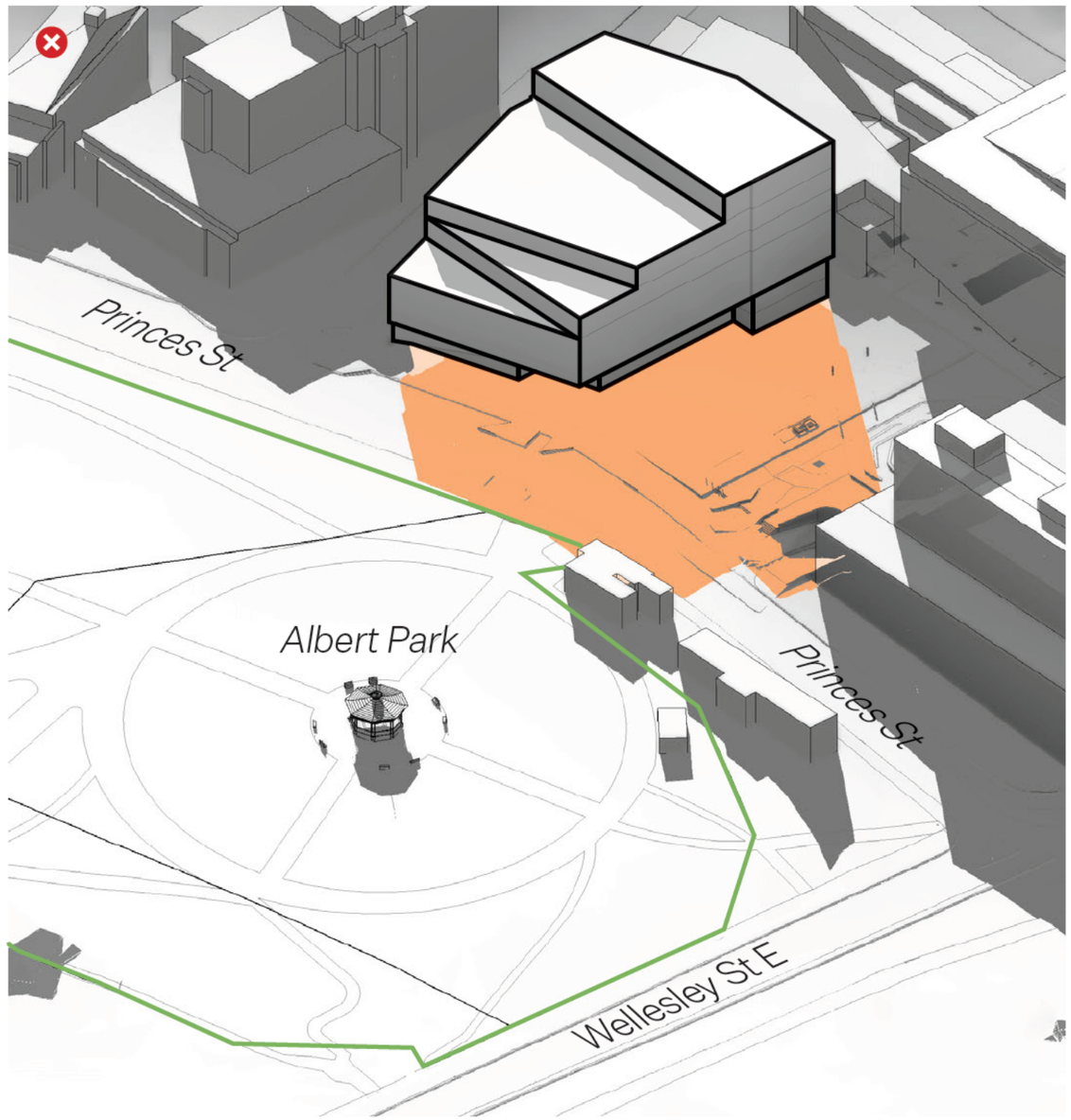

Shading generated by existing structures
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Admission of sunlight: Non-compliant
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Albert Park Boundary Line

Shading Analysis

Spring - October 1 (DST)
9:30am (15min Intervals)

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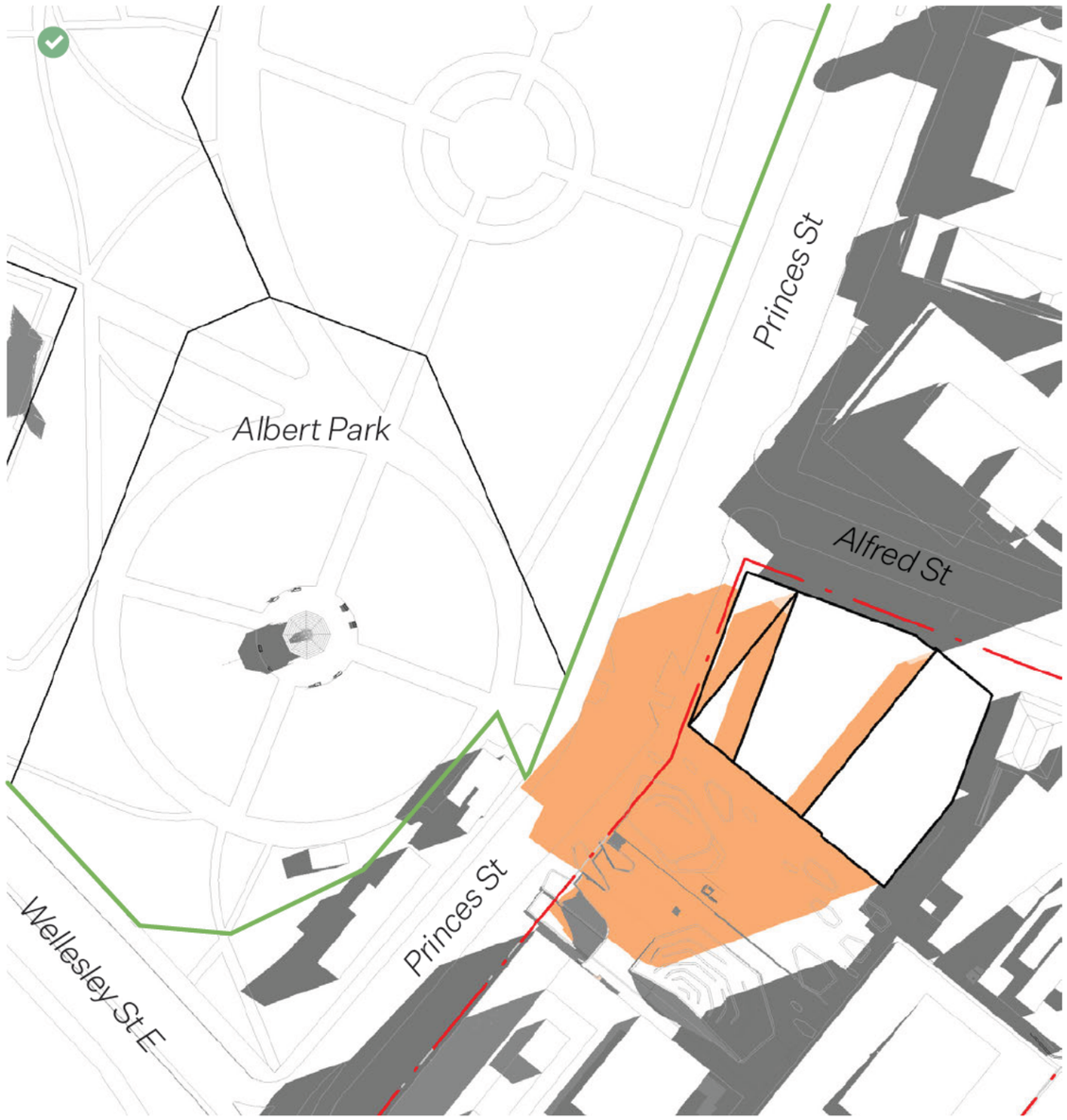

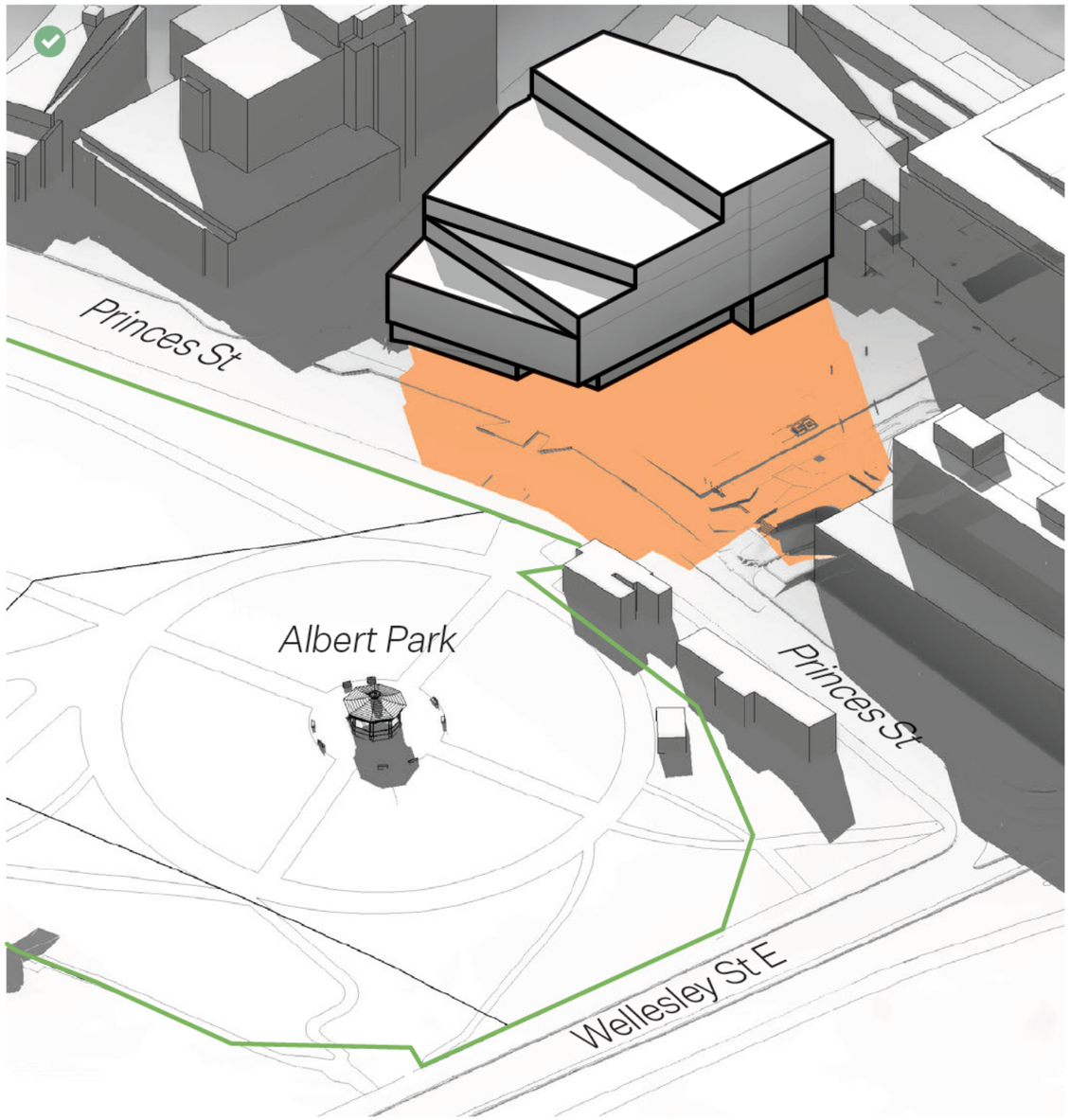

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Shading generated by proposed scheme
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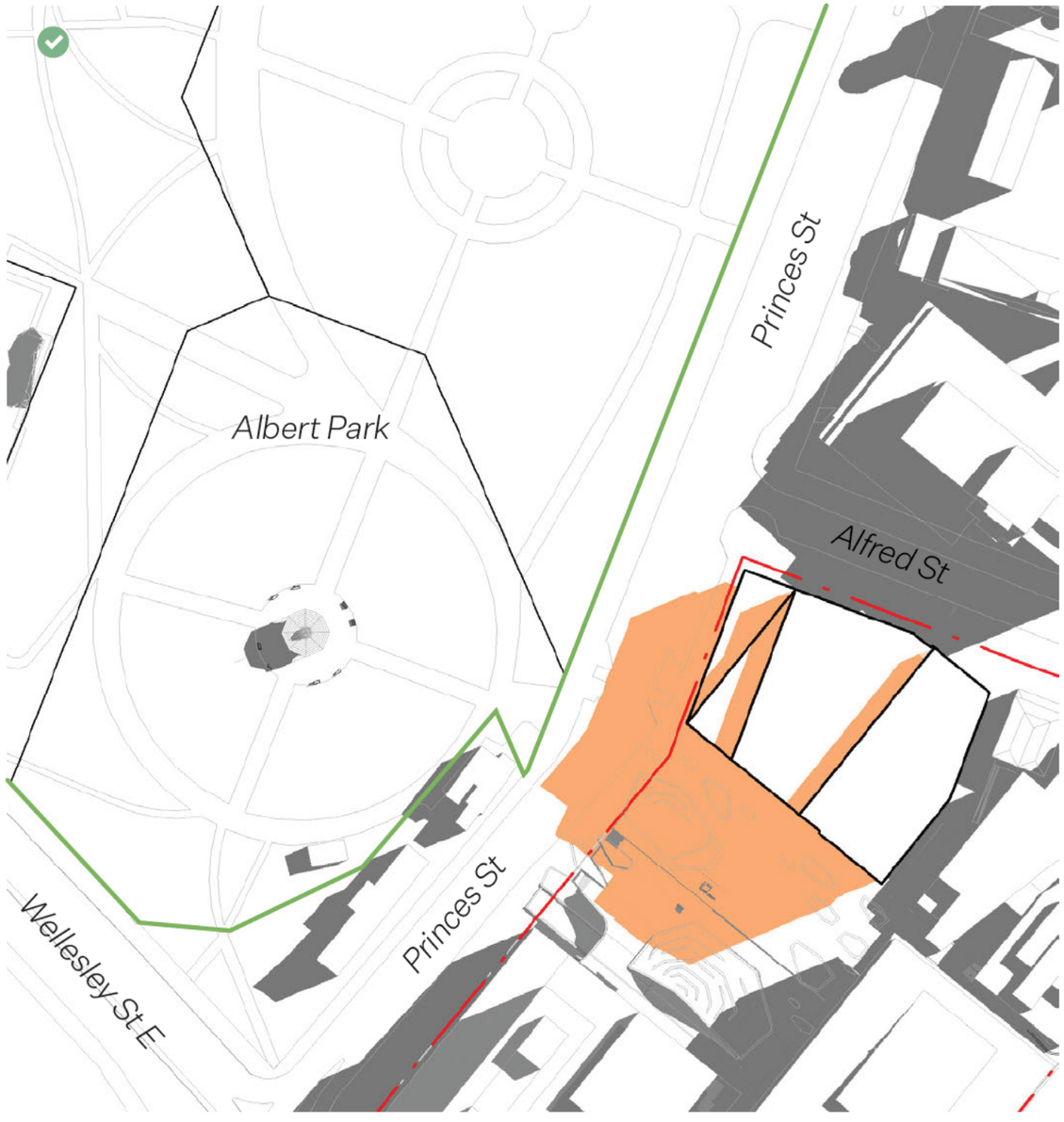
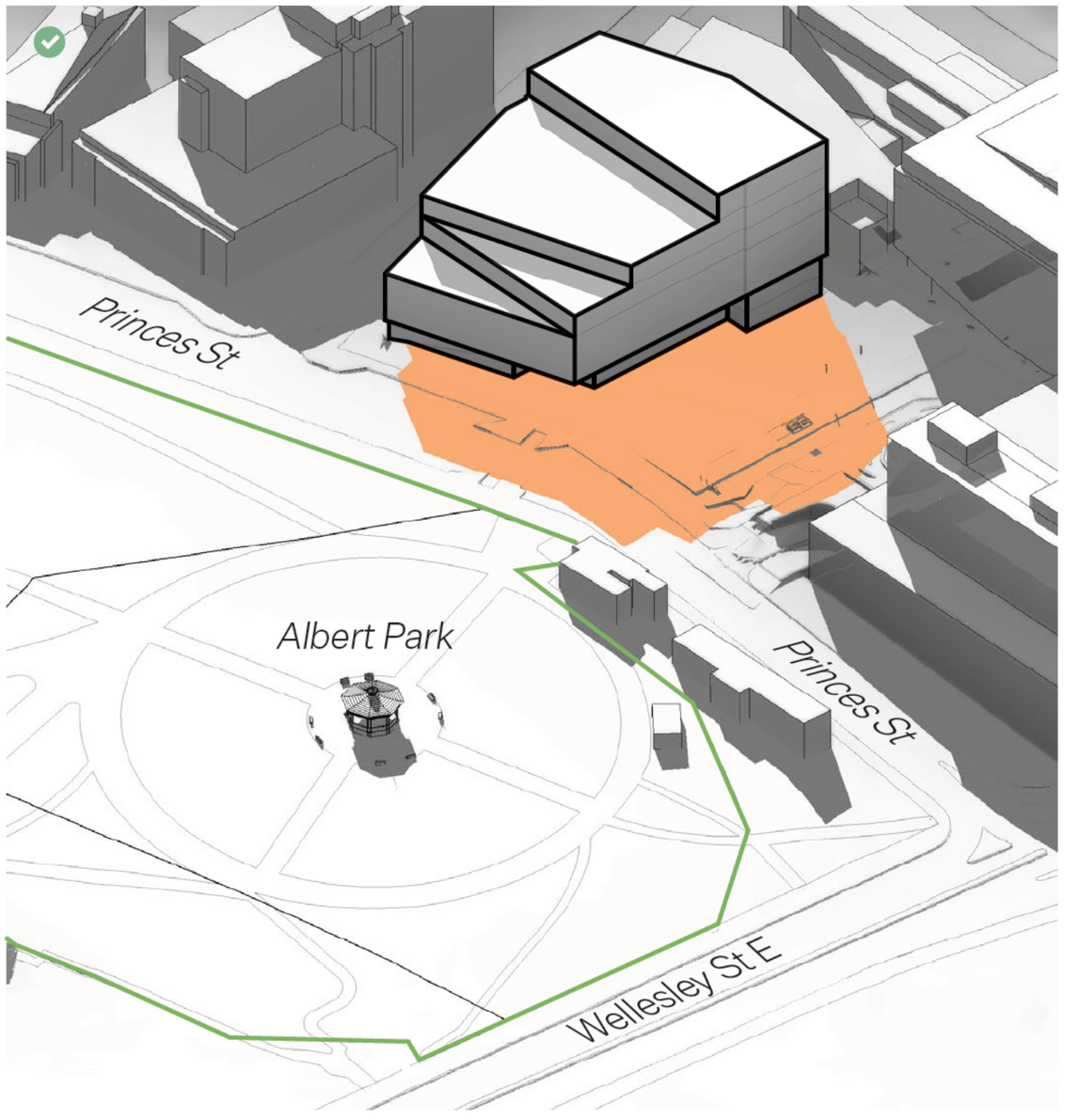
Admission of sunlight: Compliant

Shading Analysis

Spring - October 1 (DST)
9:45am (15min Intervals)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.



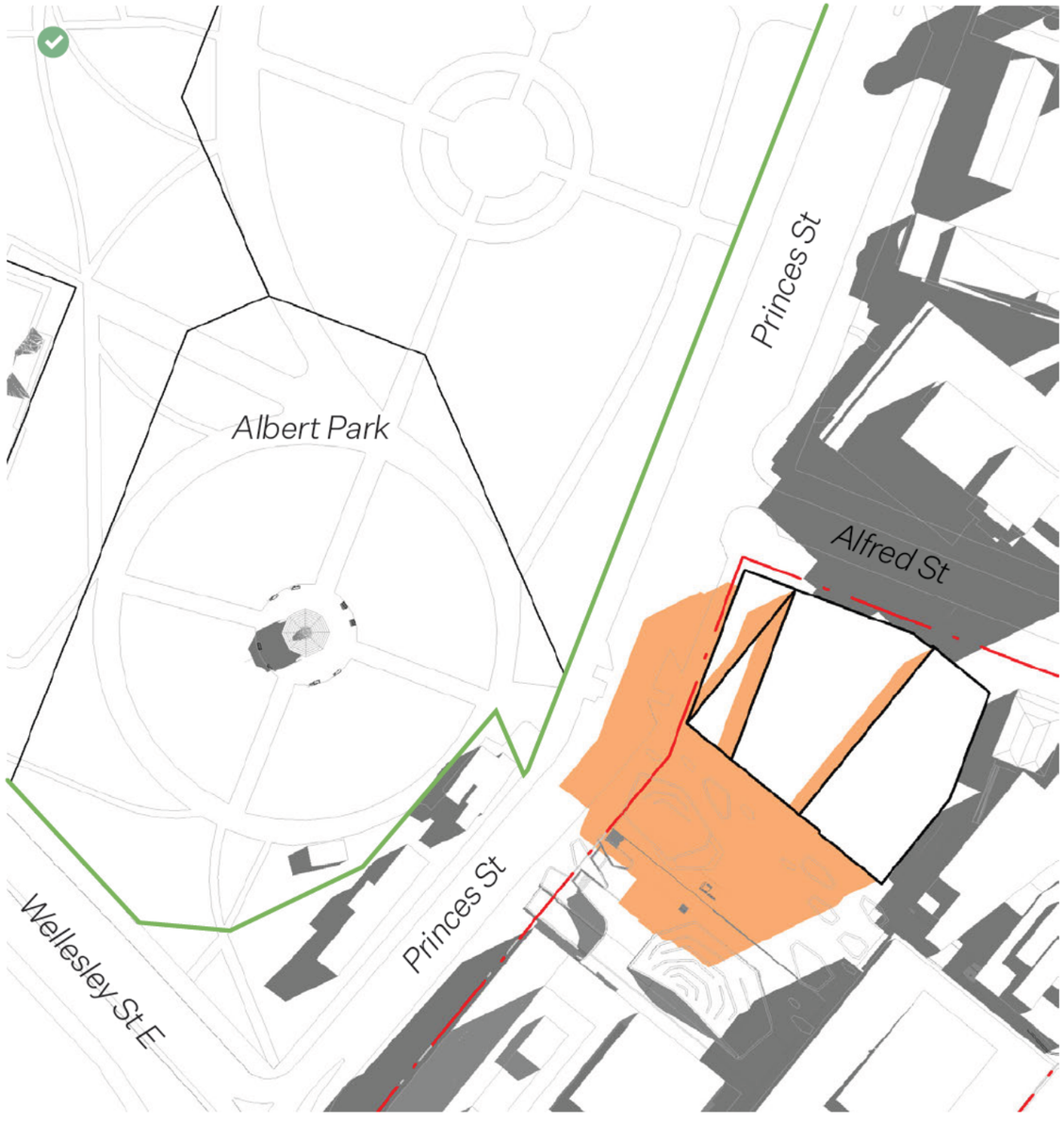


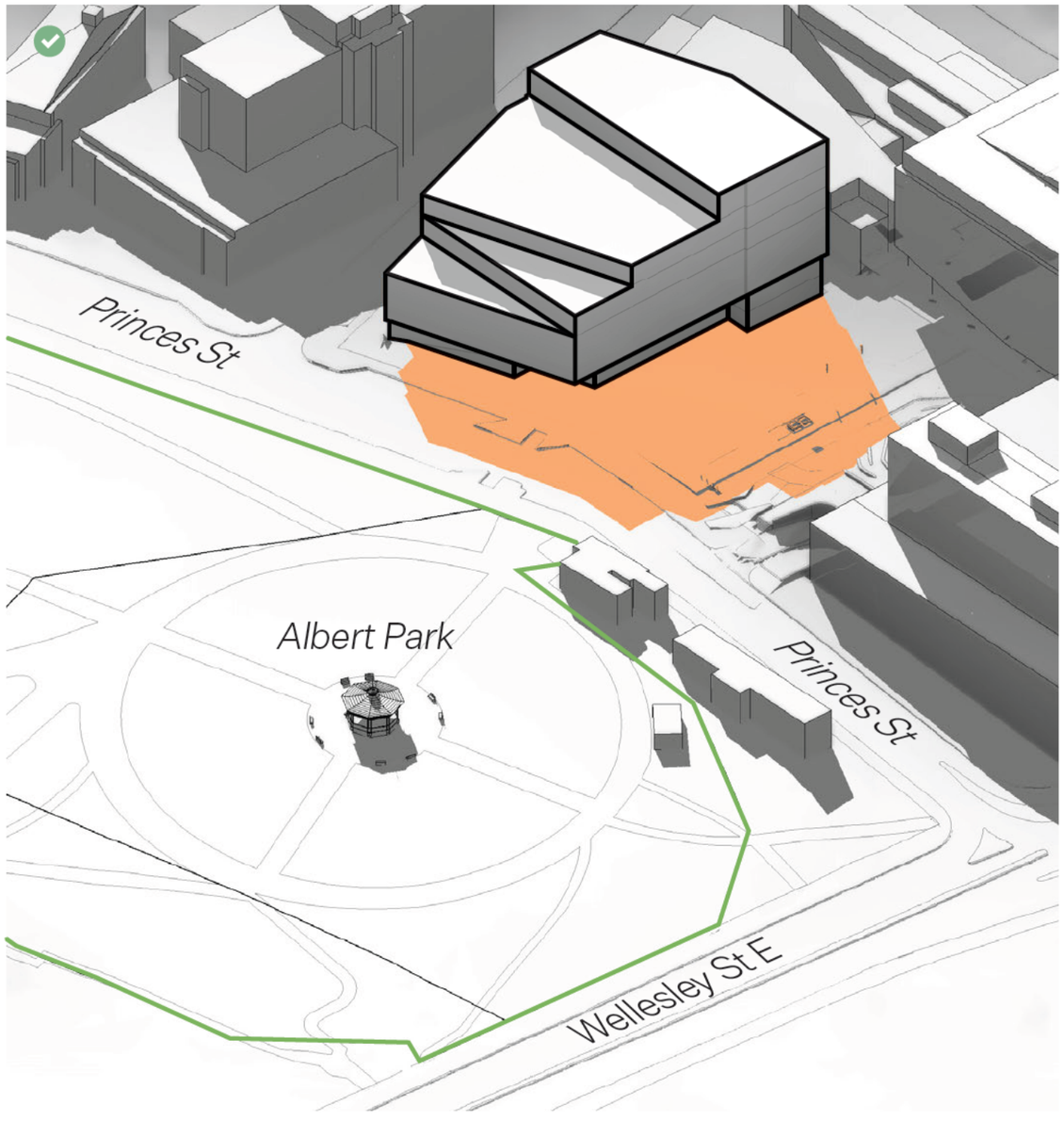
Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Spring - October 1 (DST)
10:00am (15min Intervals)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.



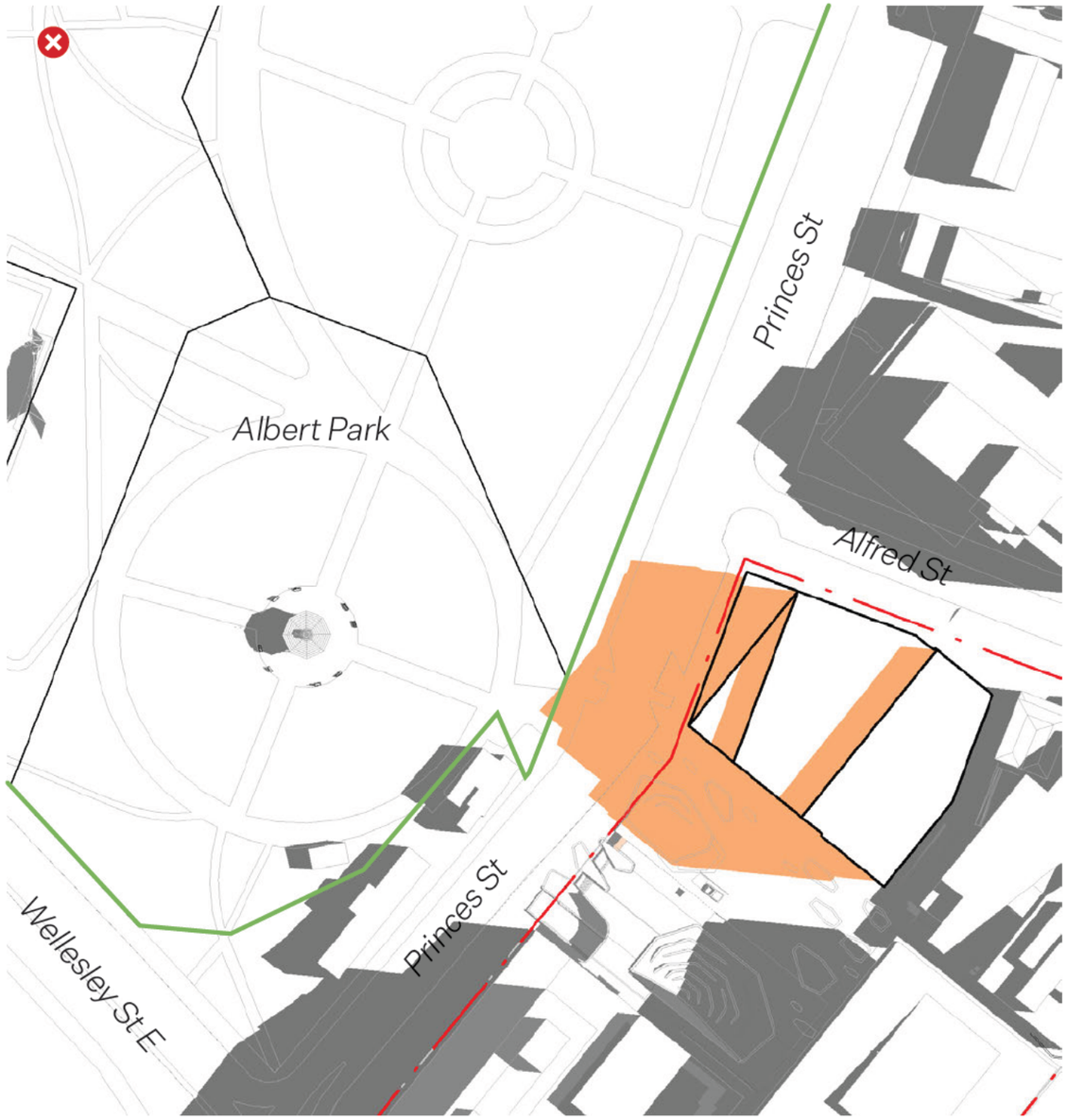


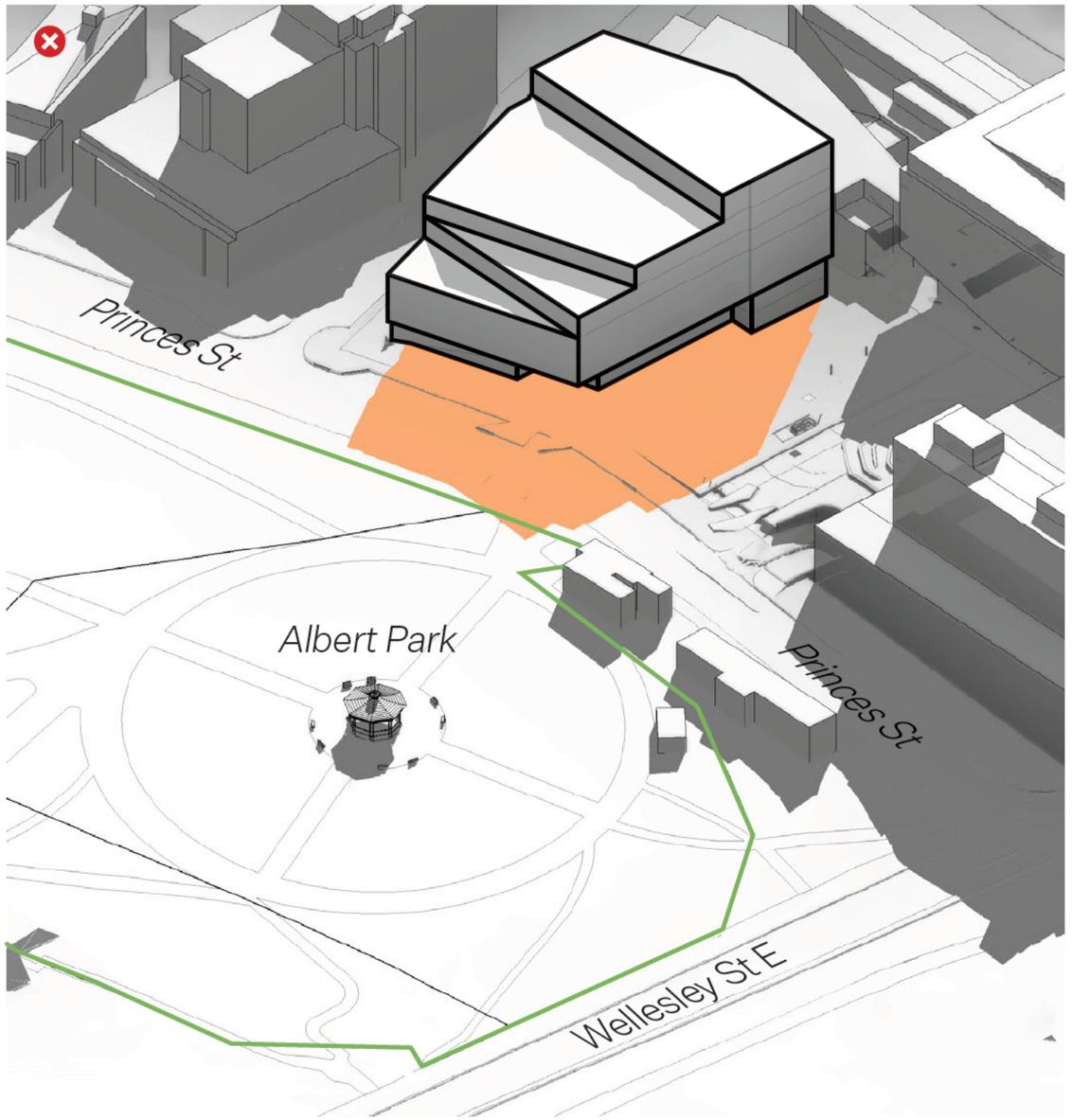
Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Summer Solstice - December 22 (DST)
9:00am (15min Intervals)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.



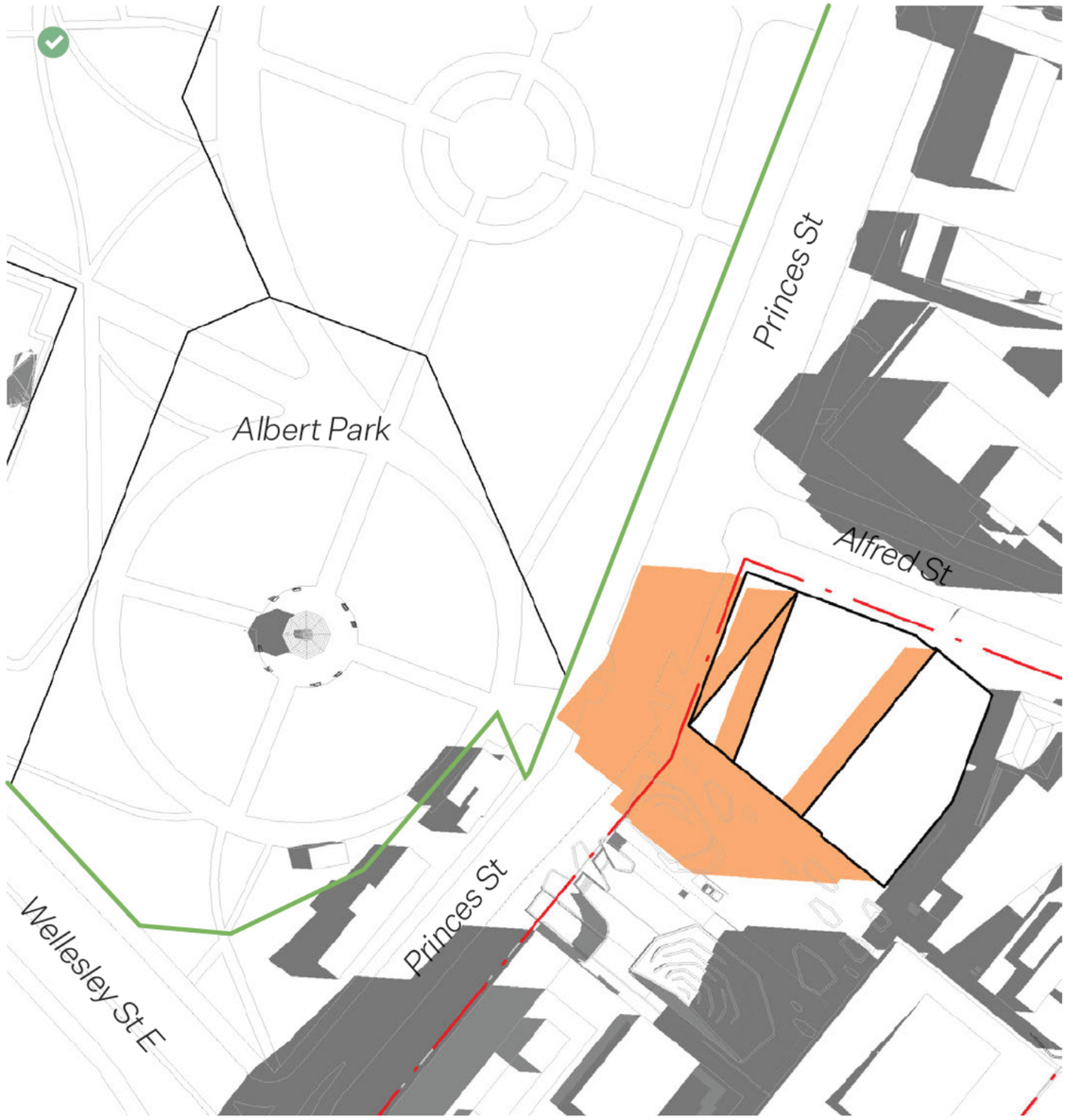


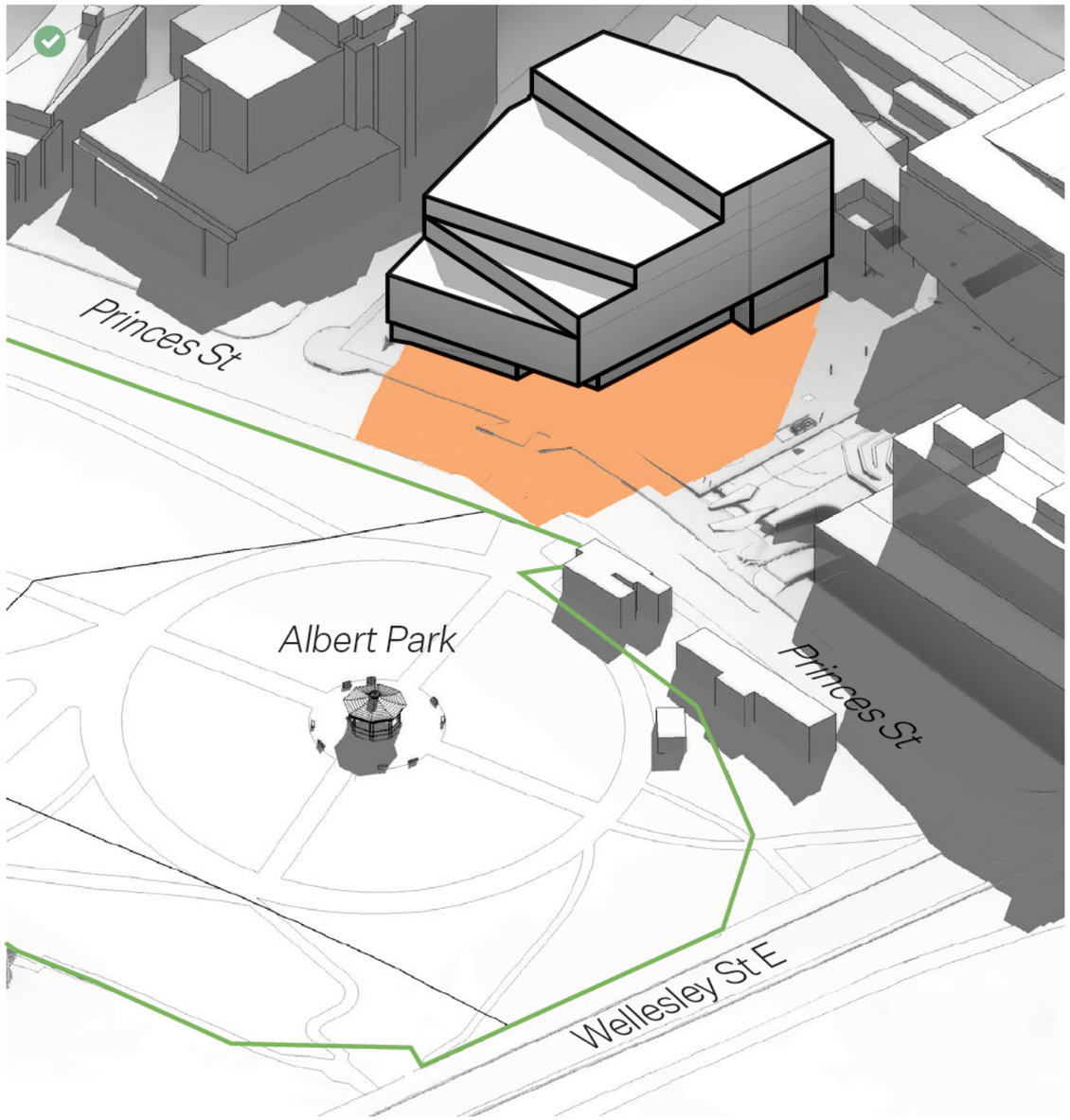
Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Summer Solstice - December 22 (DST)
9:15am (15min Intervals)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.



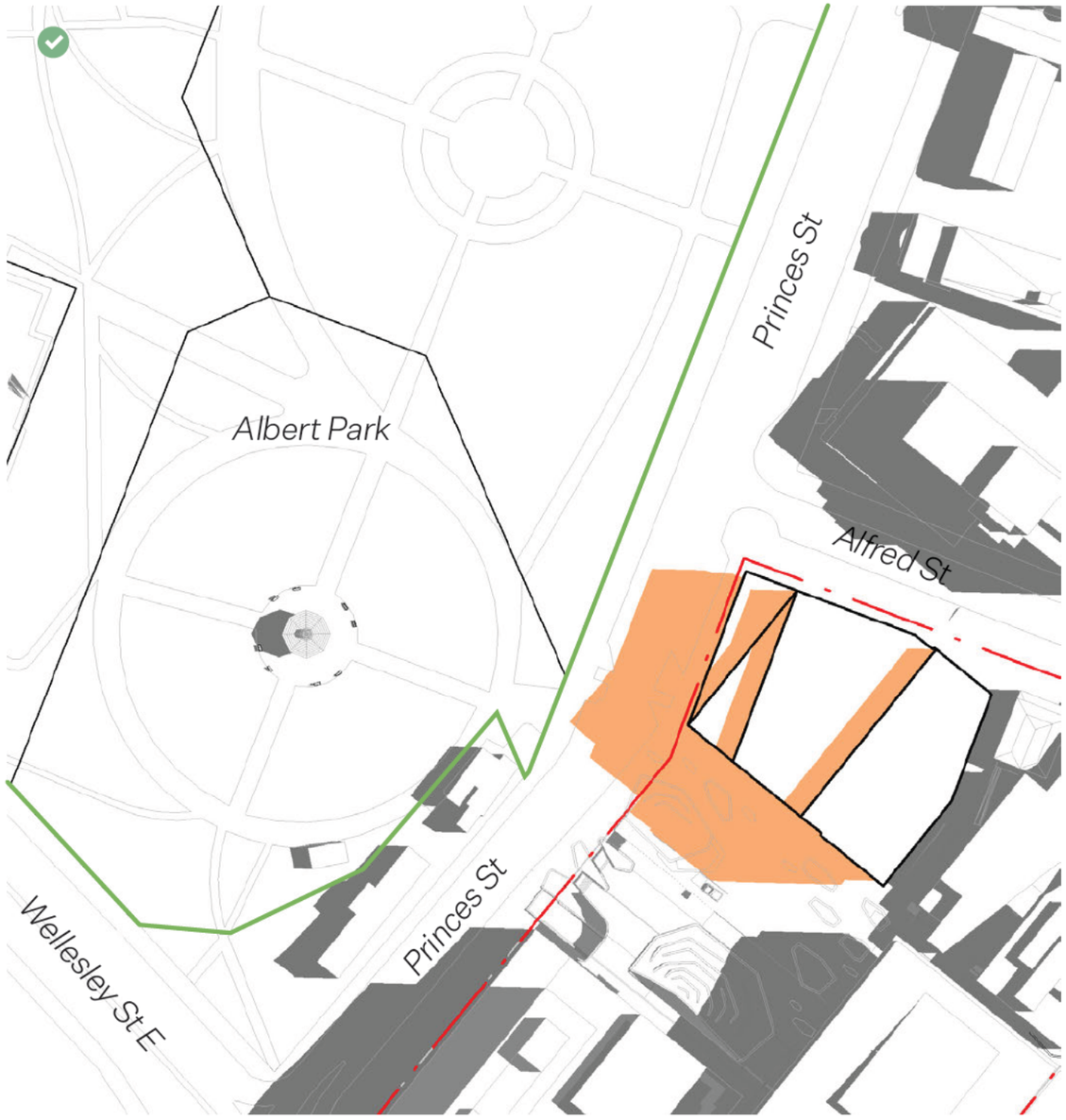


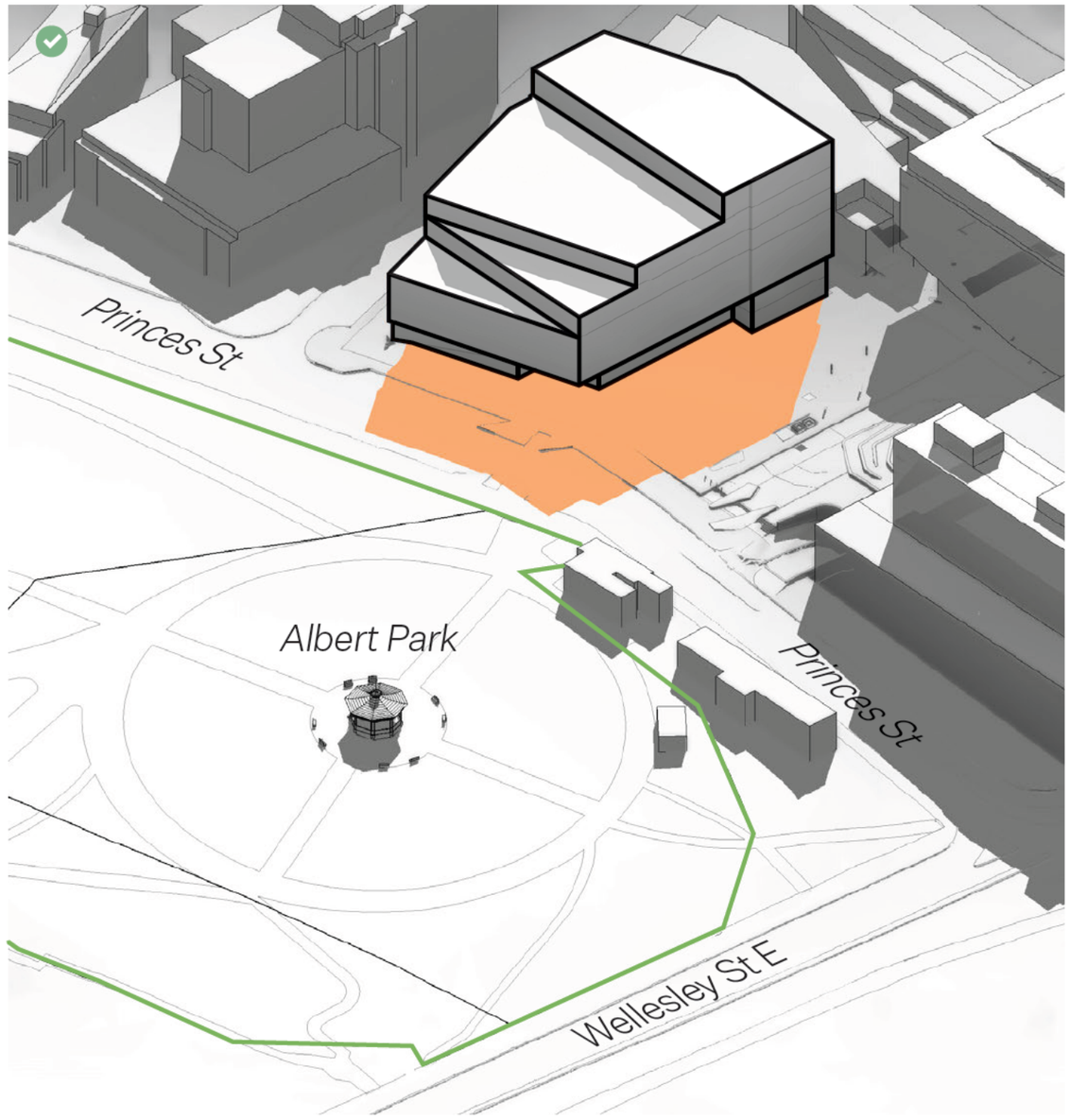
Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Summer Solstice - December 22 (DST)
9:30am (15min Intervals)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.





- Shading generated by existing structures
- Shading generated by proposed scheme
- Proposed shading within existing shadow
- Admission of sunlight: Non-compliant
- Admission of sunlight: Compliant
- Albert Park Boundary Line

Shading Analysis

Summer Solstice - December 22 (DST)
9:45am (15min Intervals)

NOTE:
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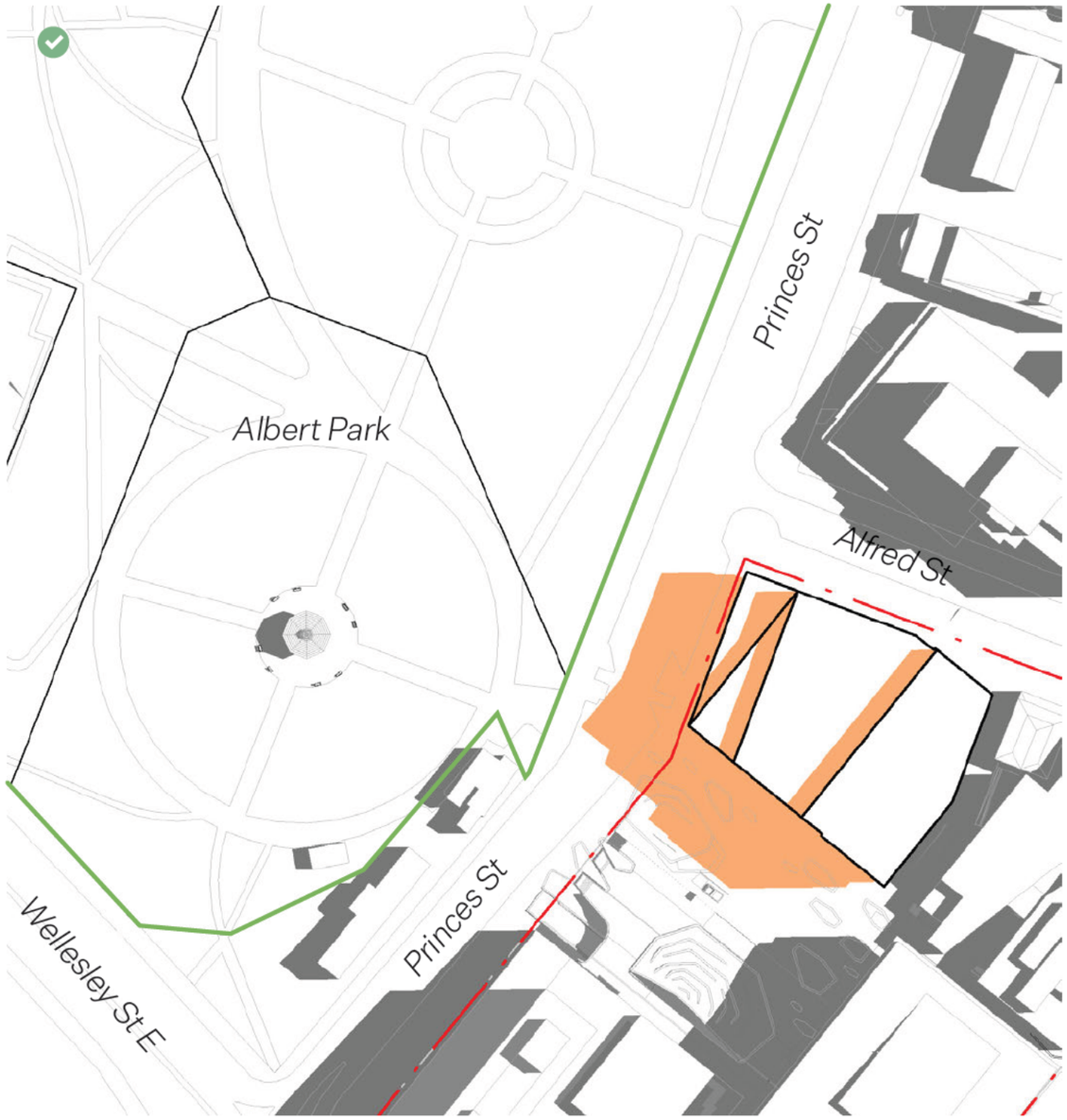
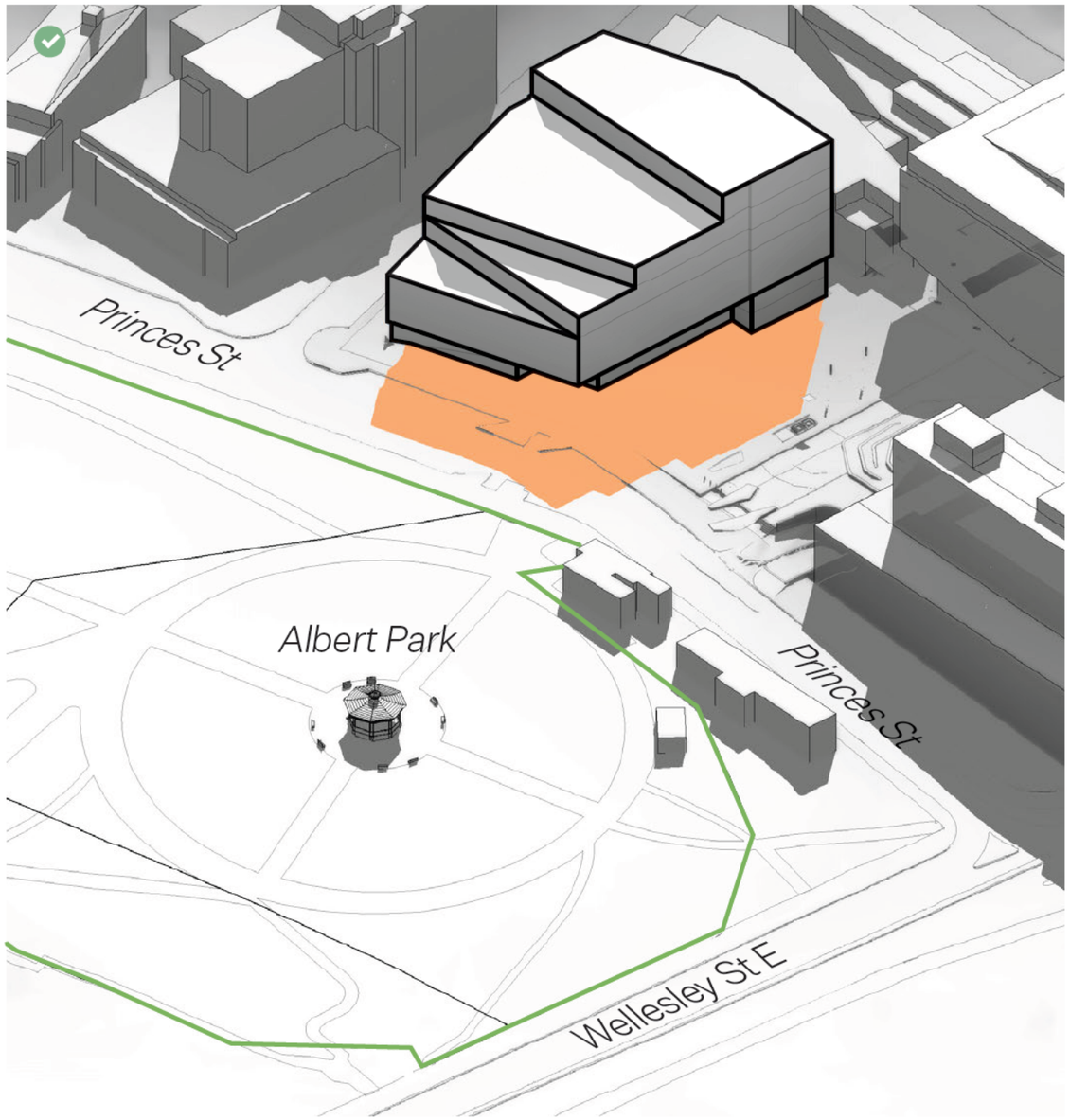


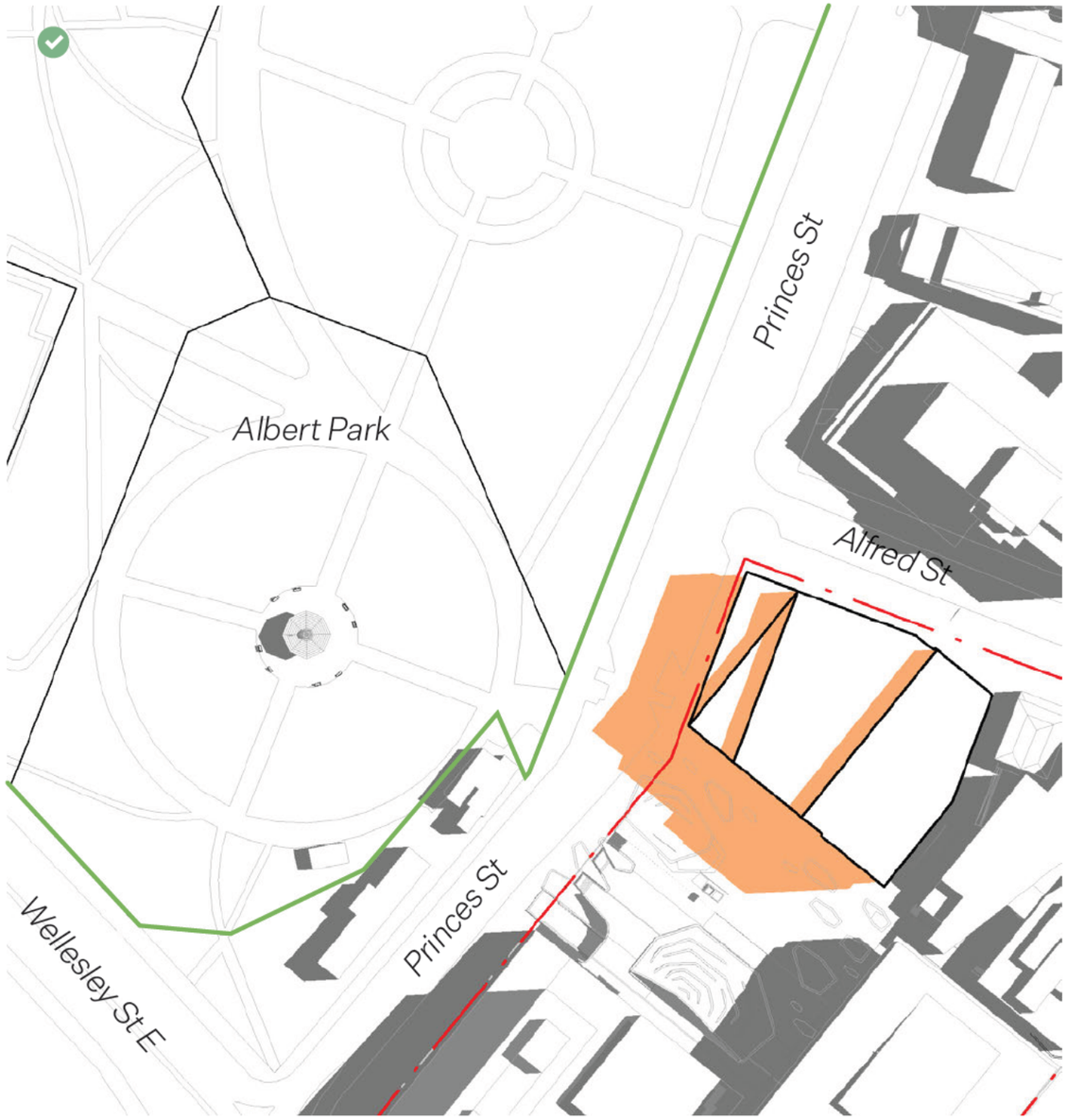


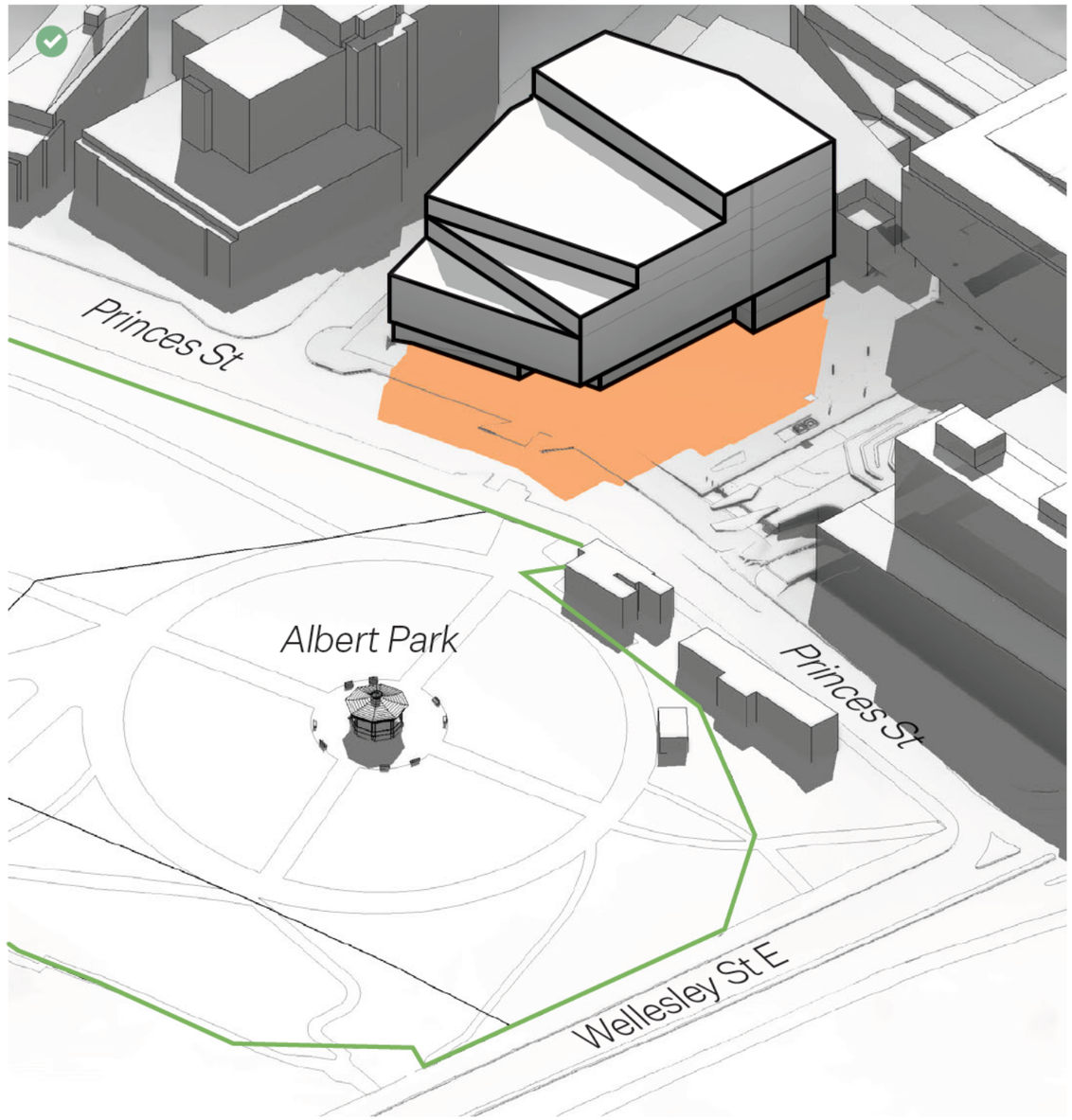
Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

Shading Analysis

Summer Solstice - December 22 (DST)
10:00am (15min Intervals)

NOTE:
Diagrams represent draft outputs and are subject to minor refinement of the proposed massing. These are provided to enable preliminary assessment of the proposal.





Shading generated by existing structures
Shading generated by proposed scheme
Proposed shading within existing shadow
Admission of sunlight: Non-compliant
Admission of sunlight: Compliant
Albert Park Boundary Line

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