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Australia
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AMP CIRCULAR QUAY PRECINCT MASTER PLAN_ ADDITIONAL SHADOW AND SUN ACCESS REPORT

Prepared for AMP Capital
18 December 2012

Contact

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14 April
21 June
31 August

Introduction

This shadow and sun access report has been prepared for AMP Capital in support of a formal request to the City of Sydney for an amendment to the Sydney LEP 2012 (SLEP) and Sydney DCP 2012 (DCP) and forms part of the Planning Justification Report submission for the AMP Circular Quay Precinct. The shadow and sun access report should be read in conjunction with the urban design report.

The proposed amendments to the SLEP and DCP seek to facilitate a significant redevelopment of the AMP Circular Quay Precinct by transferring a notional floor space entitlement from the Young and Loftus block to the Bridge and Alfred Street block. This transfer of floor space from a constrained site to another more able to accommodate it will enable a significant transformation, reinforcing the economic viability and amenity of one of the key parts of the city.

The Precinct

The AMP Circular Quay Precinct is made up of the area bounded by Loftus, Bridge, Phillip and Alfred Streets (but excluding land to the north of Customs House Lane and south of the east-west leg of Loftus Lane), it comprises the following buildings under the control of AMP Capital Investors:

The Bridge and Alfred Block

- _50 Bridge Street Tower (AMP Centre)
- _33 Alfred Street Tower (Sydney Cove Local heritage listed)

The Young and Loftus Block

- _5-7 Young Street (Hinchcliff House , State heritage listed)
- _9-13 Young Street
- _15-17 Young Street
- _2-10 Loftus Street (AMP General House)
- _12 Loftus Street (Gallipoli Club, Local heritage listed)
- _20 Loftus Street

Proposed Built Form Envelope

The overshadowing studies contained within this report illustrate the shadowing impact of the maximum proposed built form envelope. The proposed built form envelope documents the geometric envelope achievable within the constraints of the site.

Methodology

The overshadowing studies contained within this report have been produced by HASSELL using 3D Studio Max, and have been based on the following base information (see appendix):

- _City model supplied by the City of Sydney including city buildings and topography (The supplied model has an accuracy of +/- 300mm)
- _Survey Drawings prepared by Denny Linker & Co:
 - _Plan showing detail and levels at First Government House Place and Macquarie Place Park (22/10/2012)
 - _Plan showing elevations Young Street & Loftus Street (20/07/2012)
- Survey Drawings prepared by Frank M Mason & Co:
 - _Plan showing spot levels and features over AMP property between Young and Loftus Streets (22/02/2001)
- _Survey Drawings prepared by PSN:
 - _Sections showing typical structure north-south
 - _Plan showing location of buildings and structures at 50 Bridge Street (Sheet 1)
 - _Plan showing location of buildings and structures at 50 Bridge Street (Sheet 2)
- The proposed master plan has been based on solar access envelopes described in the 'Solar Impact Report' by PSN Matter (12/09/2011)

The shadow studies contained within this report are accurate to the implied limits of the supplied base information. HASSELL does not accept responsibility for the accuracy of this base information.

Executive Summary

By adopting a precinct-wide approach to the redistribution of floor space the master plan seeks to transfer the unrealised floor space from the Young and Loftus block to the Bridge and Alfred block.

The lower scaled Young and Loftus buildings will provide an increase in morning sunlight to Macquarie Place in mid winter, with the transferred floor space being accommodated within an extension to the 50 Bridge Street tower which whilst projecting through the Botanic Gardens sun access plane does so in a way that ensures no additional overshadowing to the Botanic Gardens at the control time of 2pm on 21st June.

A summary of the shadow and sun access analysis is as follows:

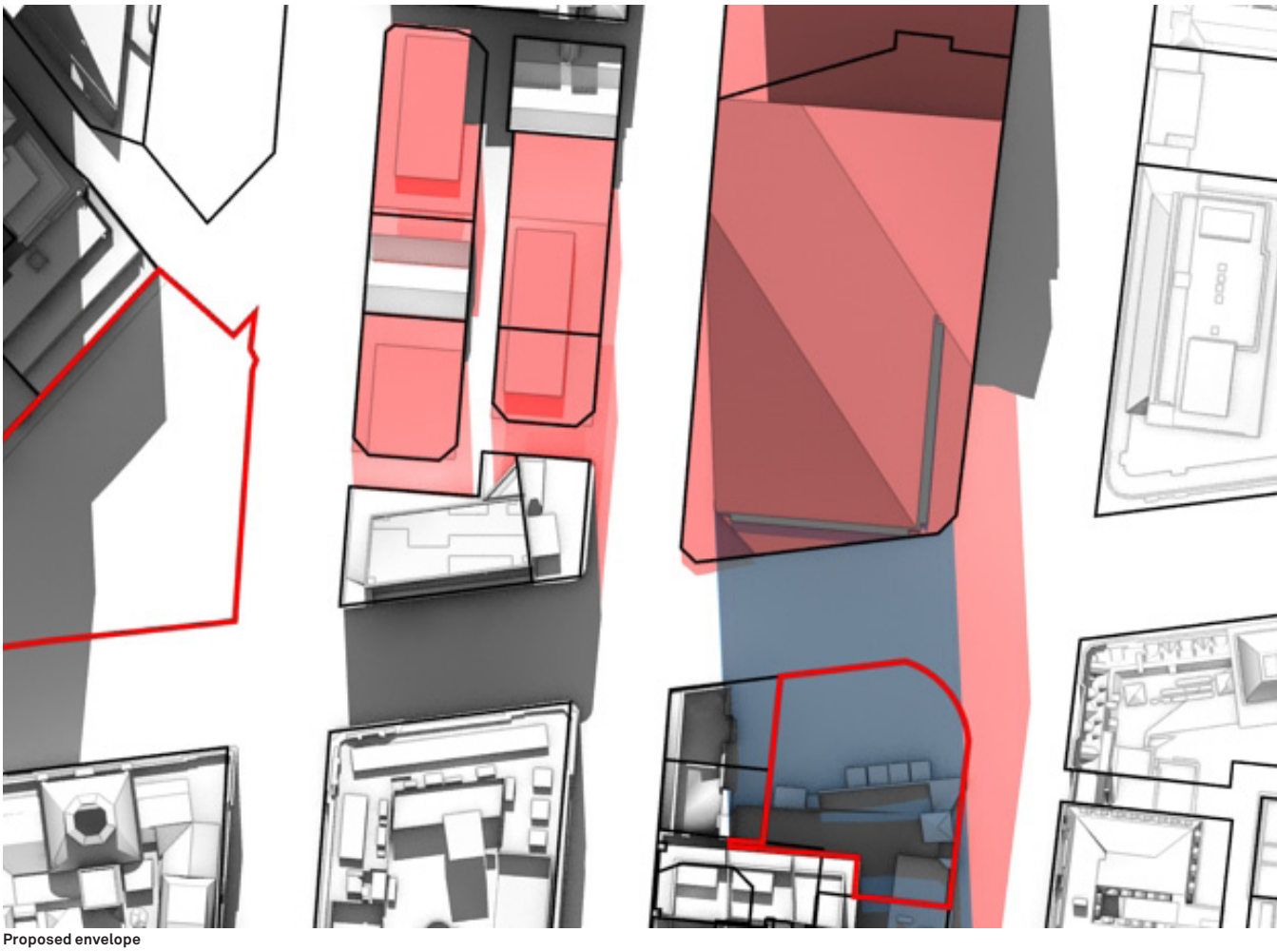
First Government House Place

- _No additional overshadowing of First Government House place.
- _A modest net increase in solar access in mid winter has been achieved by offsetting a small (20 m²) additional shadow at 12pm with a (30 m²) improvement in solar access at 2pm.
- _See appendix A for detailed study.

14 April

Shadow and Sun Access Study

First Government House Place



Legend

- Existing situation
- Proposed envelope



Time
12:00 pm

Date
14 April

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
12:10 pm

Date
14 April

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
12:20 pm

Date
14 April

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

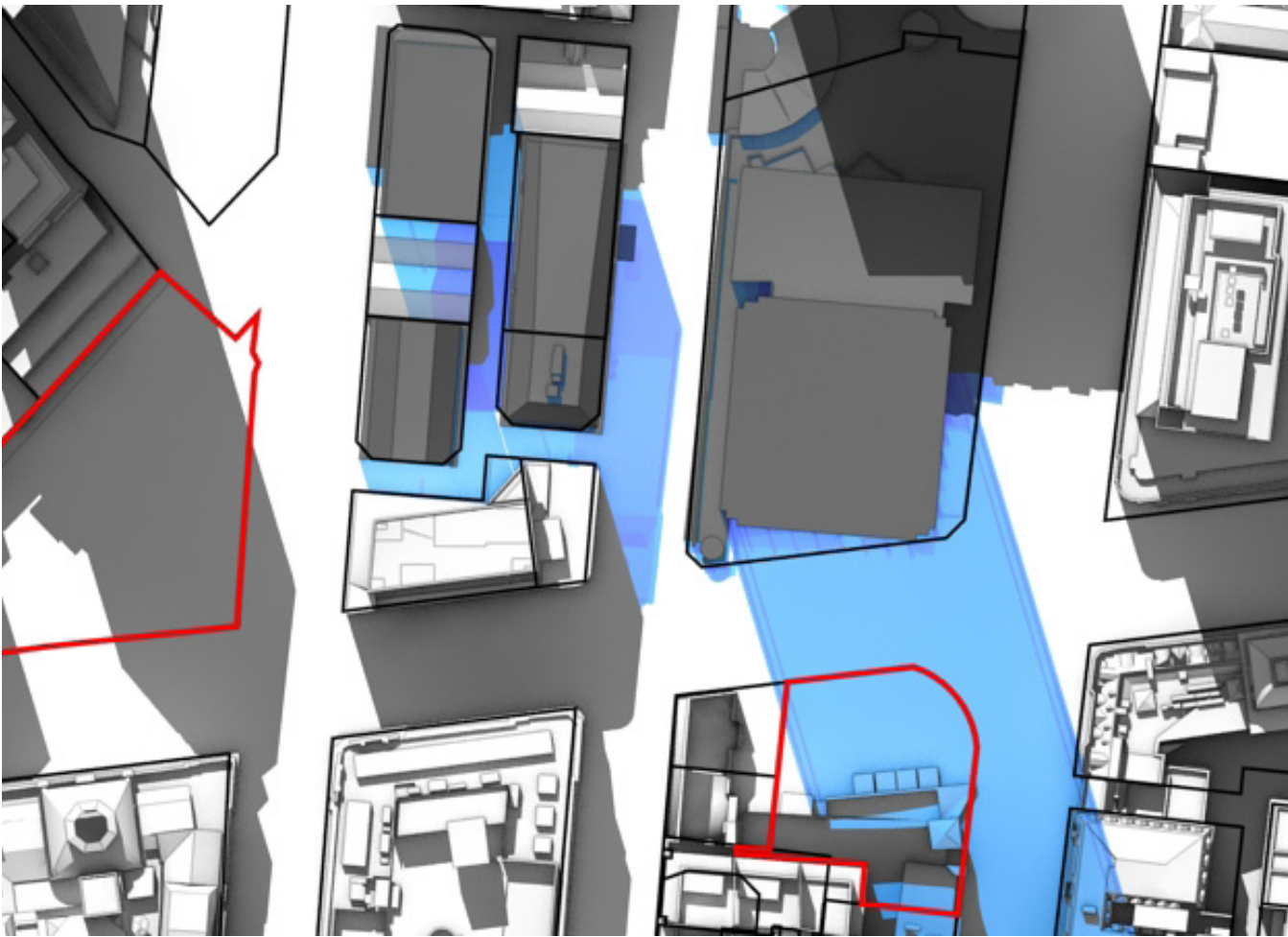


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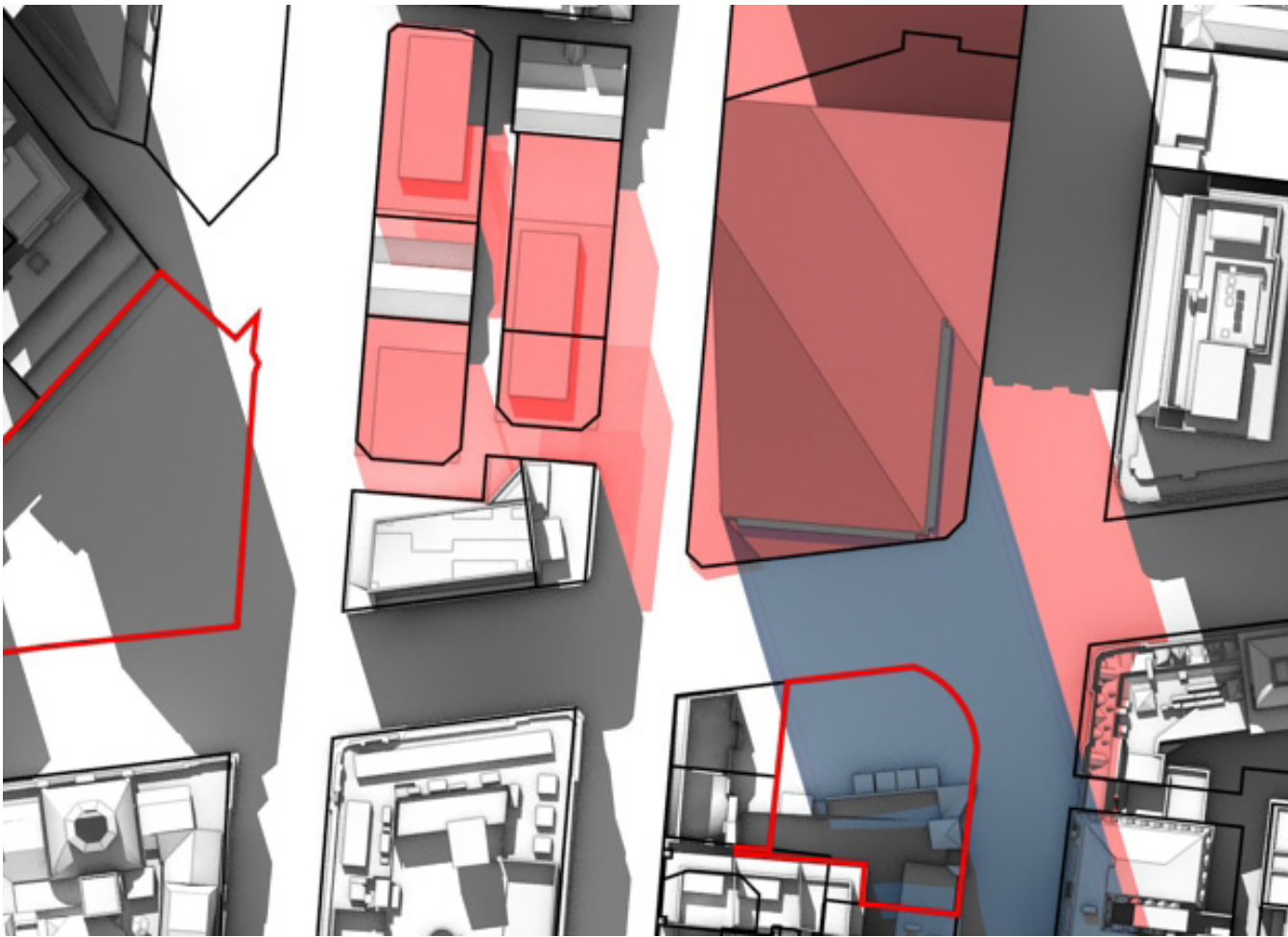
Date
14 April

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



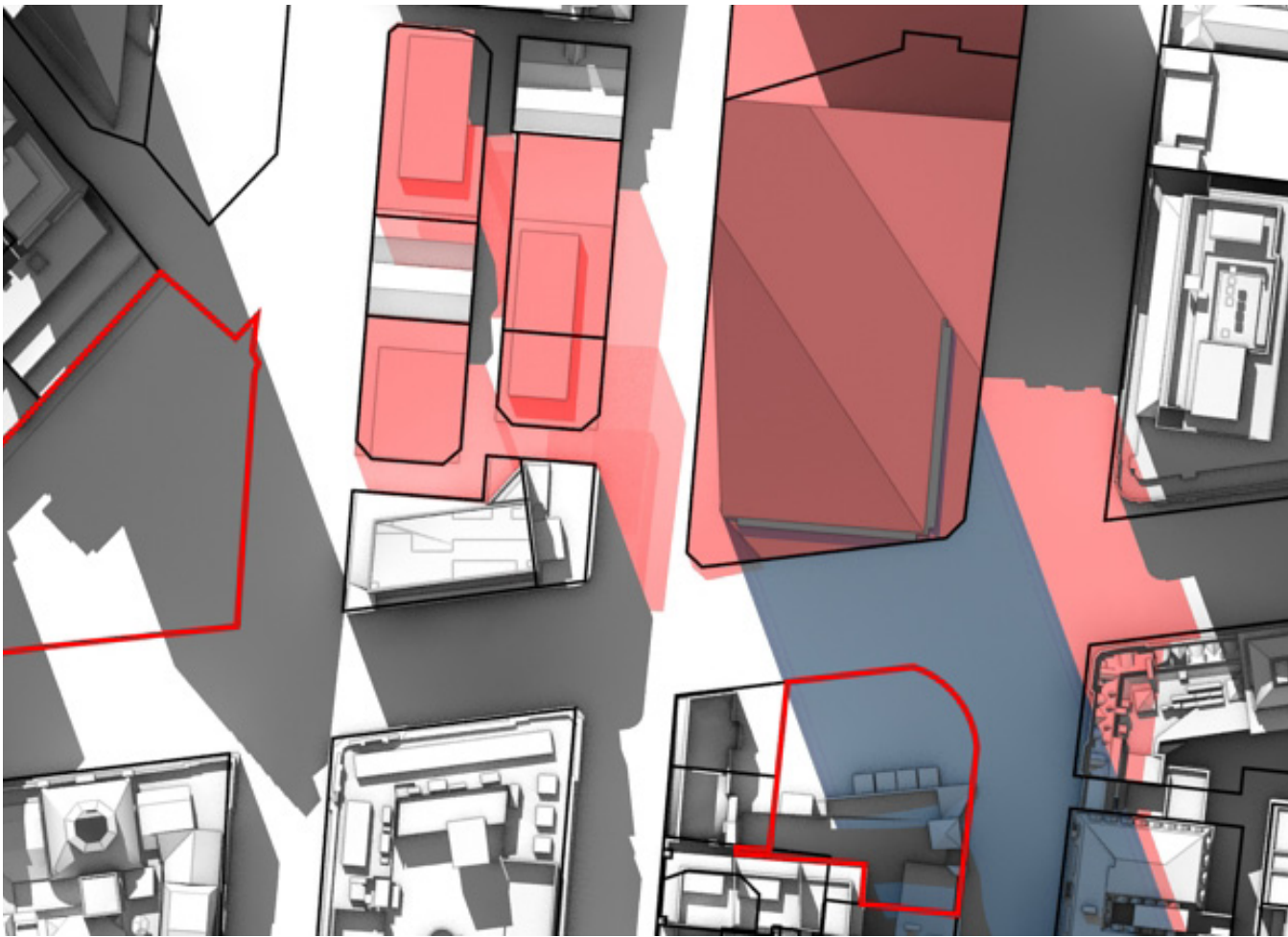
Time
12:40 pm

Date
14 April

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

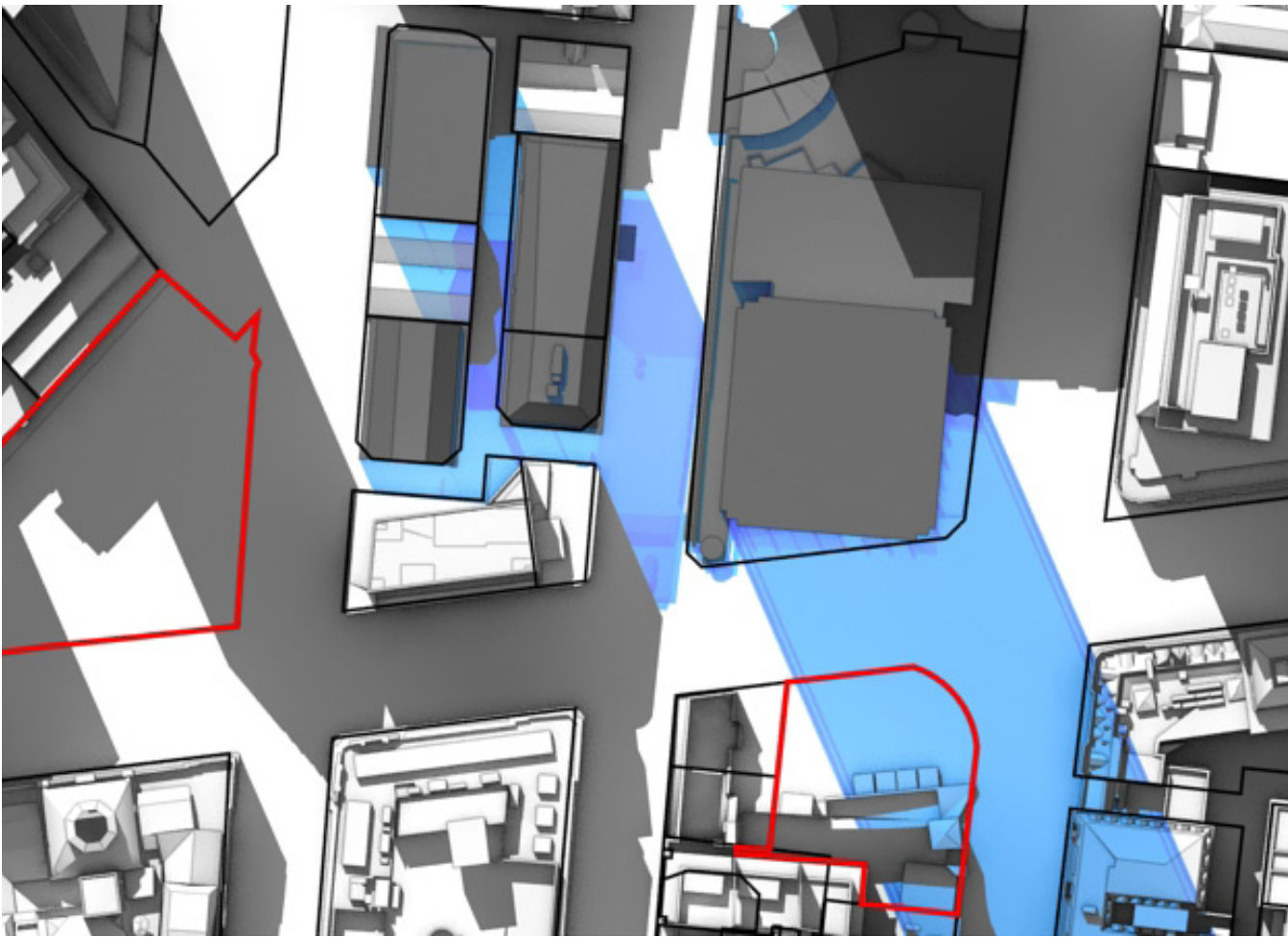


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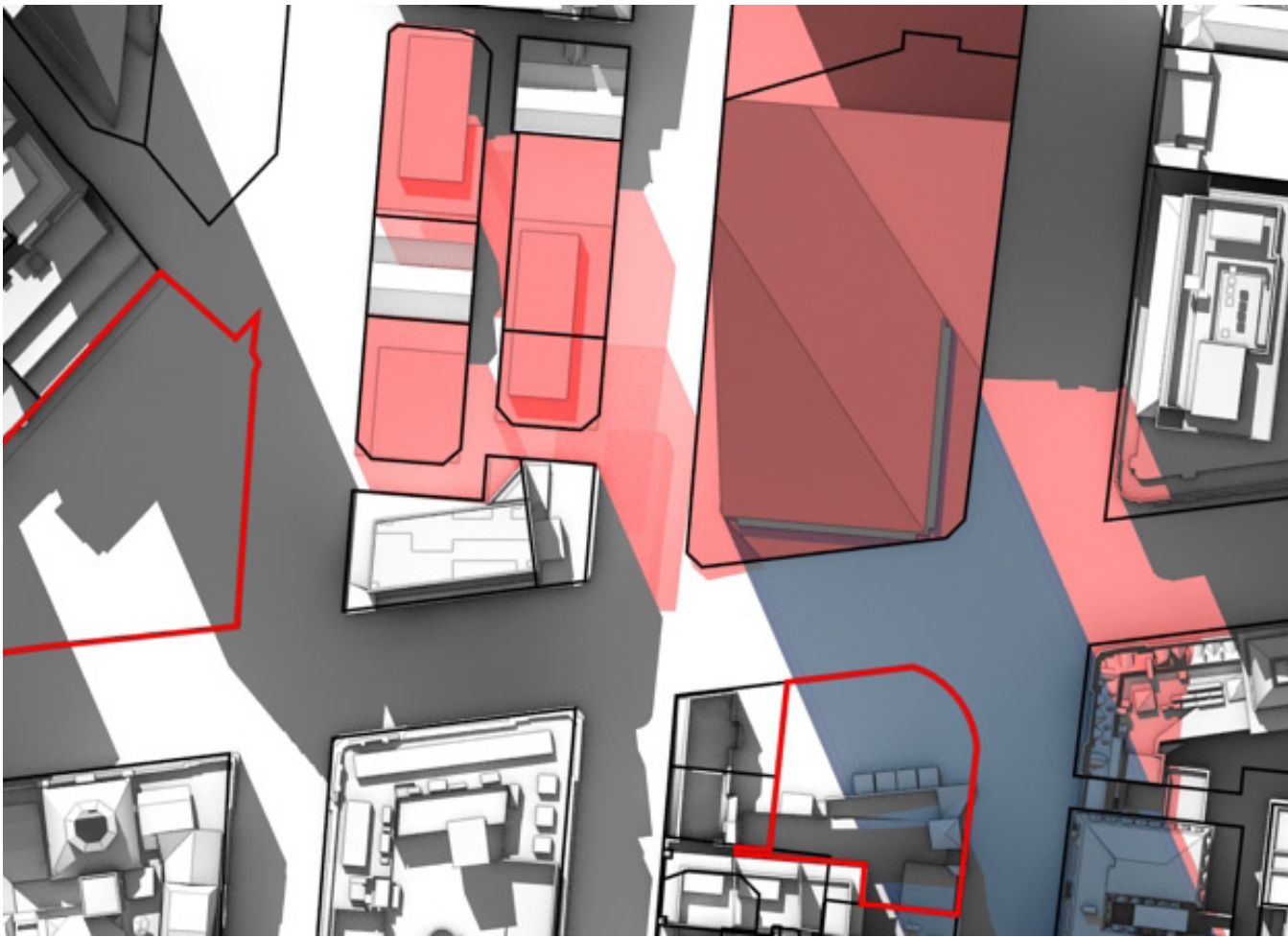
Date
14 April

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

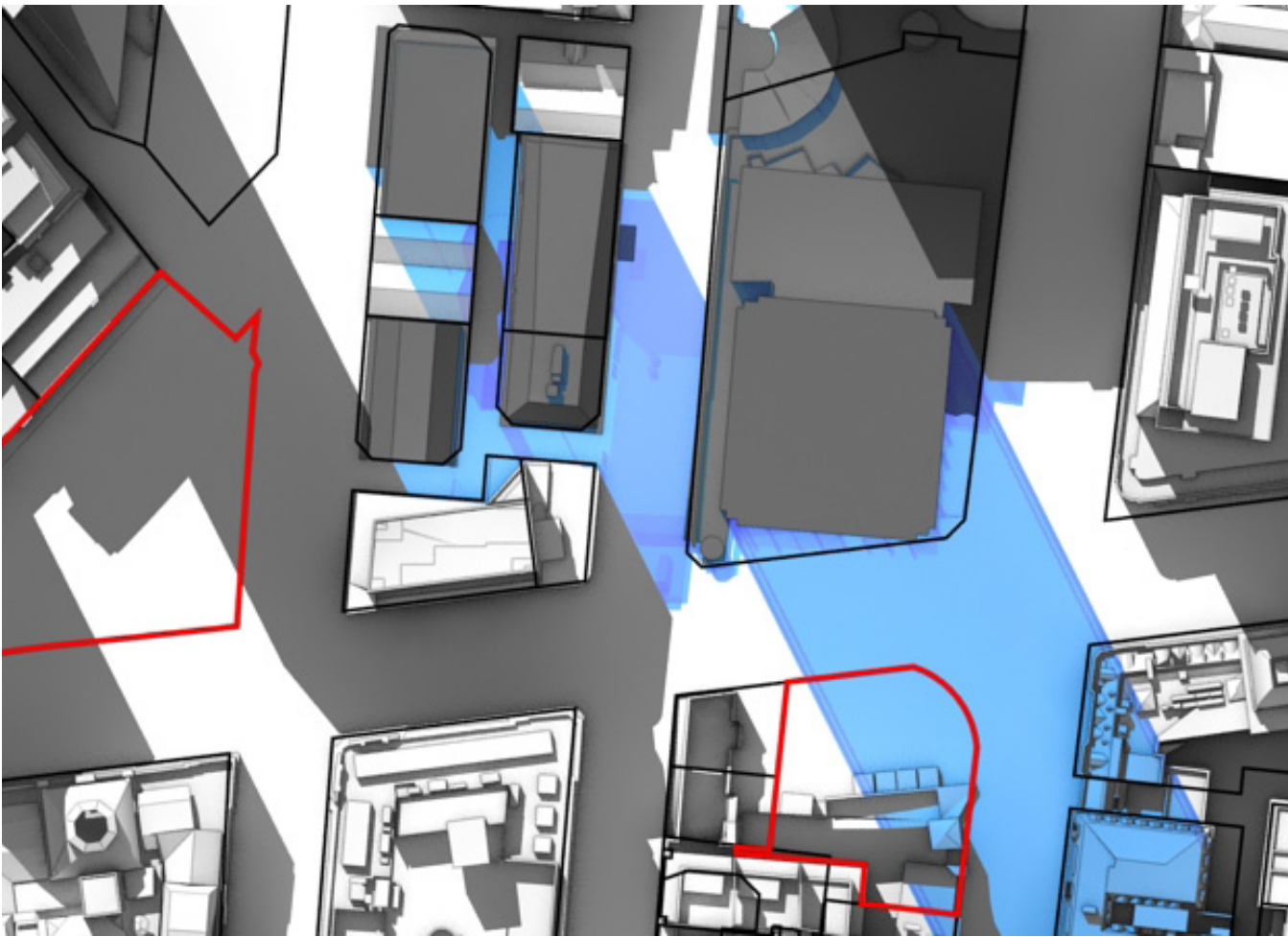
- Existing situation
- Proposed envelope



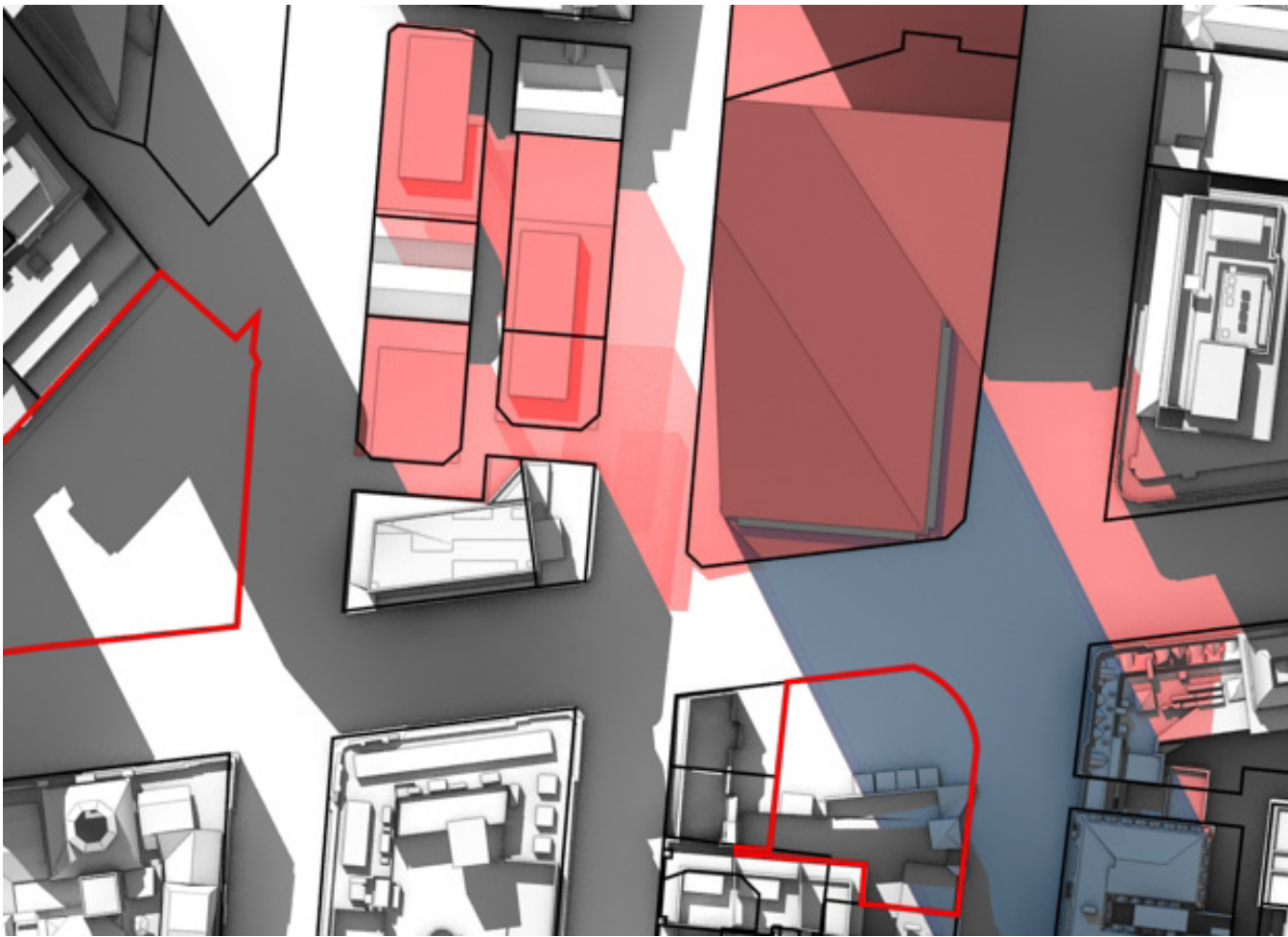
Time
01:00 pm

Date
14 April

First Government House Place



Existing



Proposed envelope

Legend

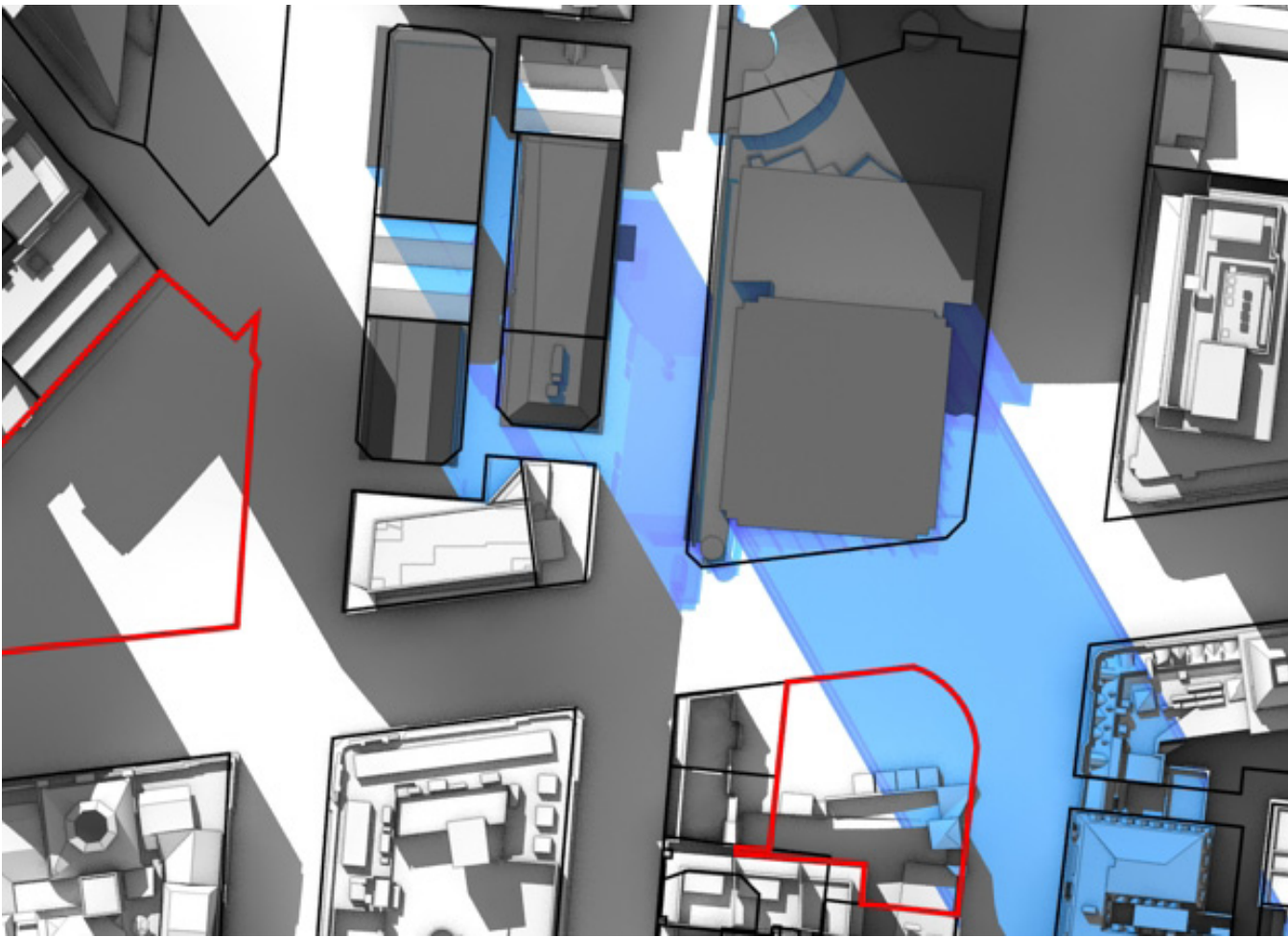
- Existing situation
- Proposed envelope



Time 01:10 pm Date 14 April

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

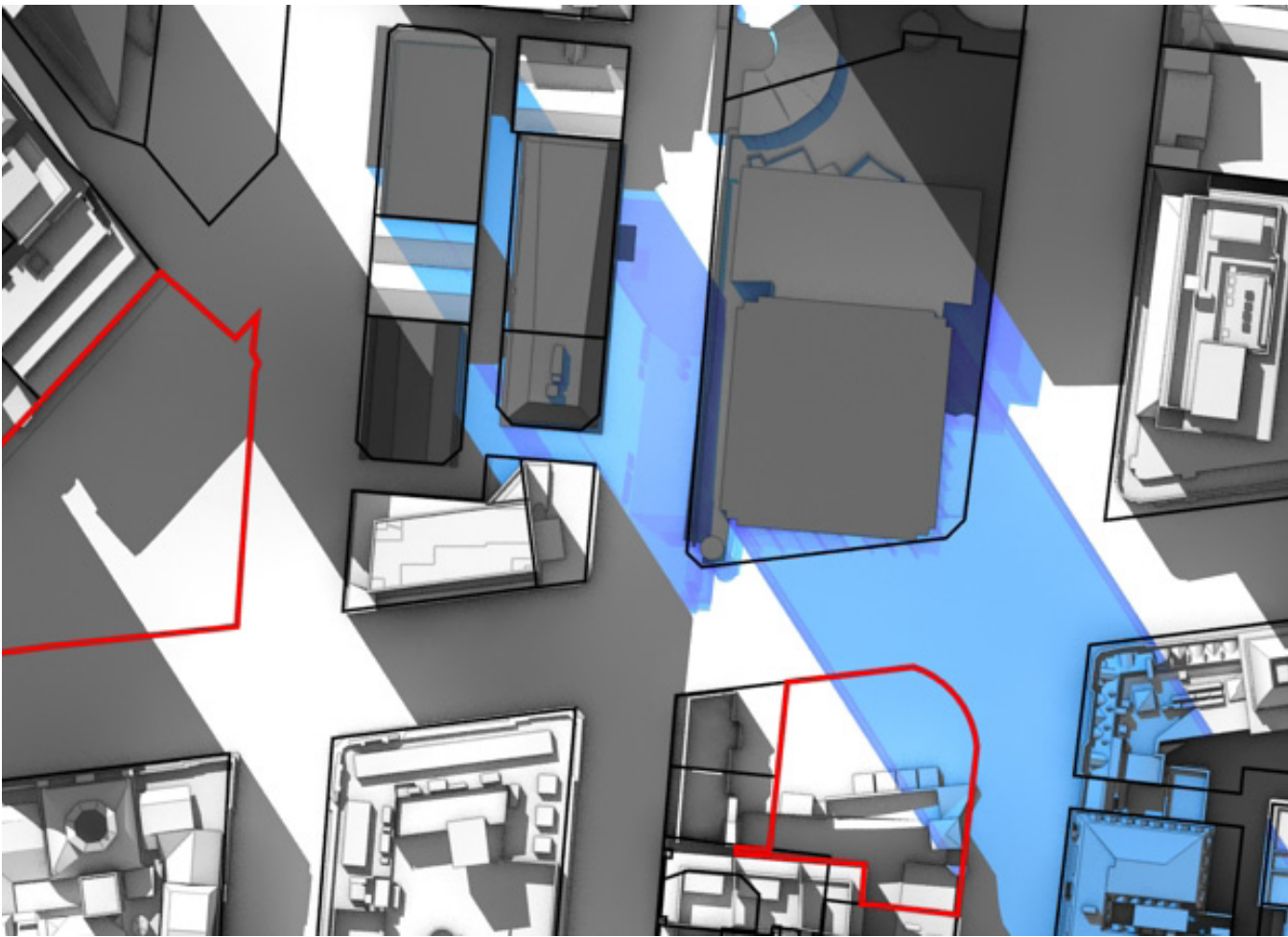
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- Proposed envelope



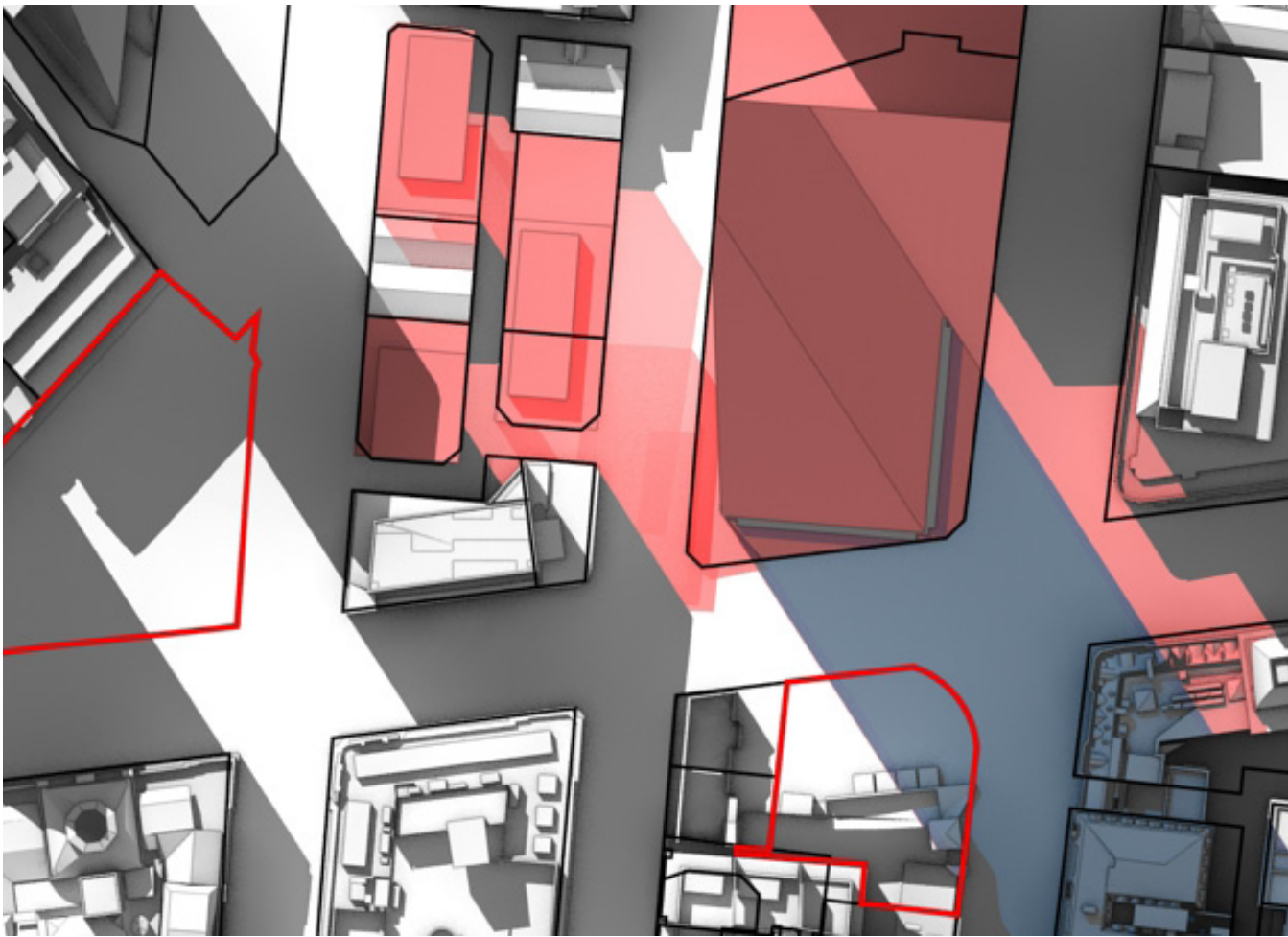
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01:20 pm

Date
14 April

First Government House Place



Existing



Proposed envelope

Legend

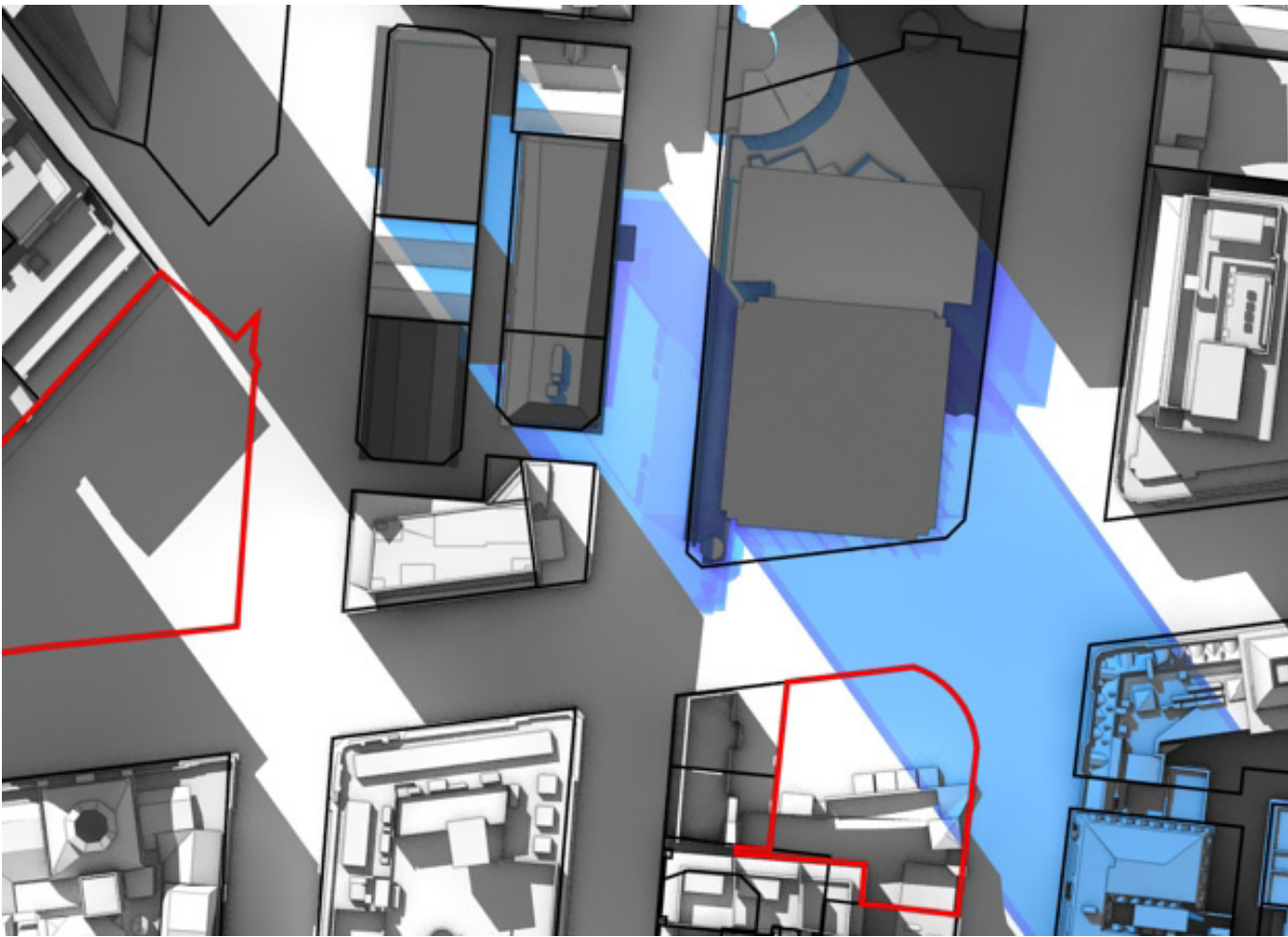
- Existing situation
- Proposed envelope



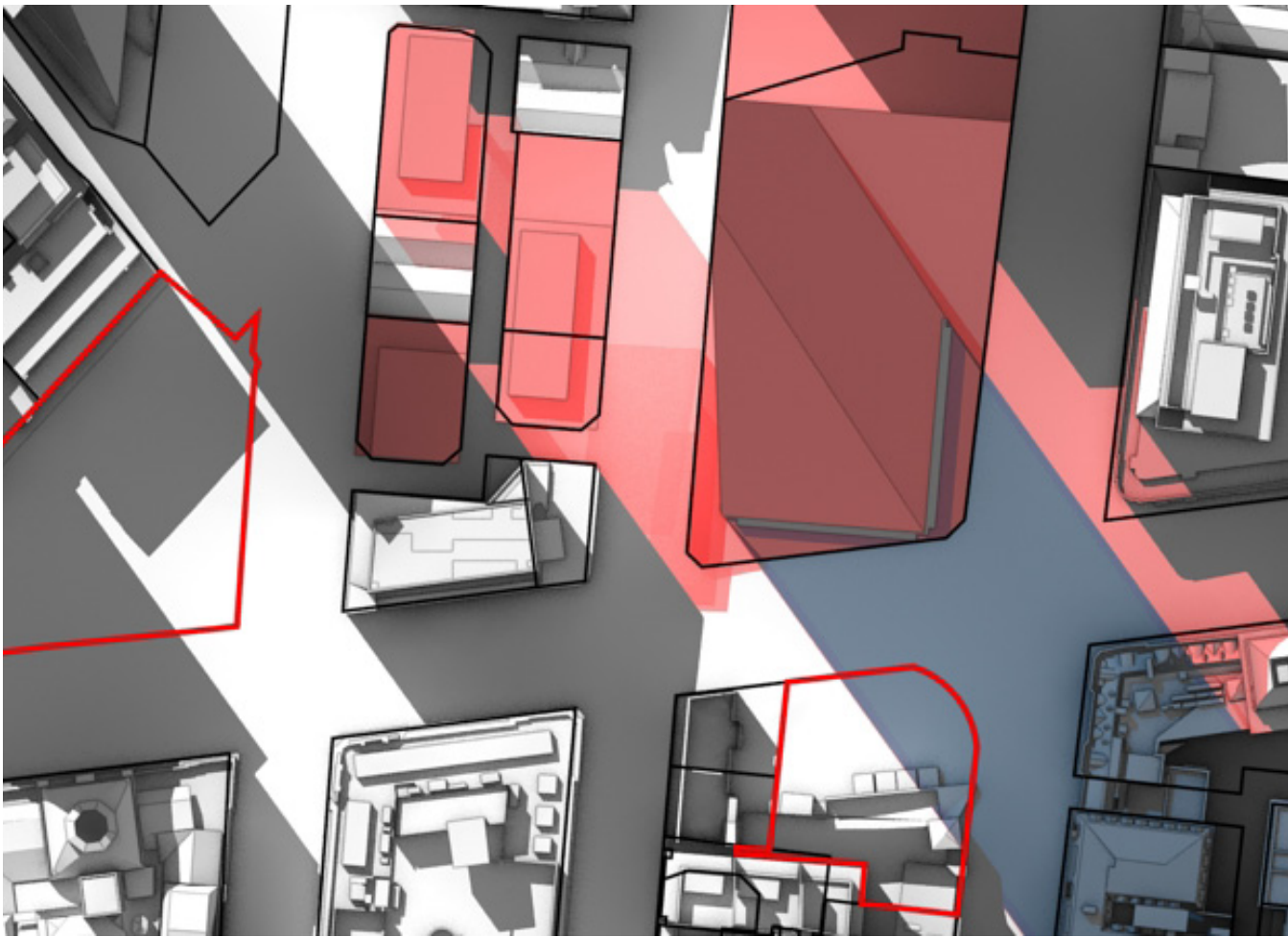
Time 01:30 pm Date 14 April

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

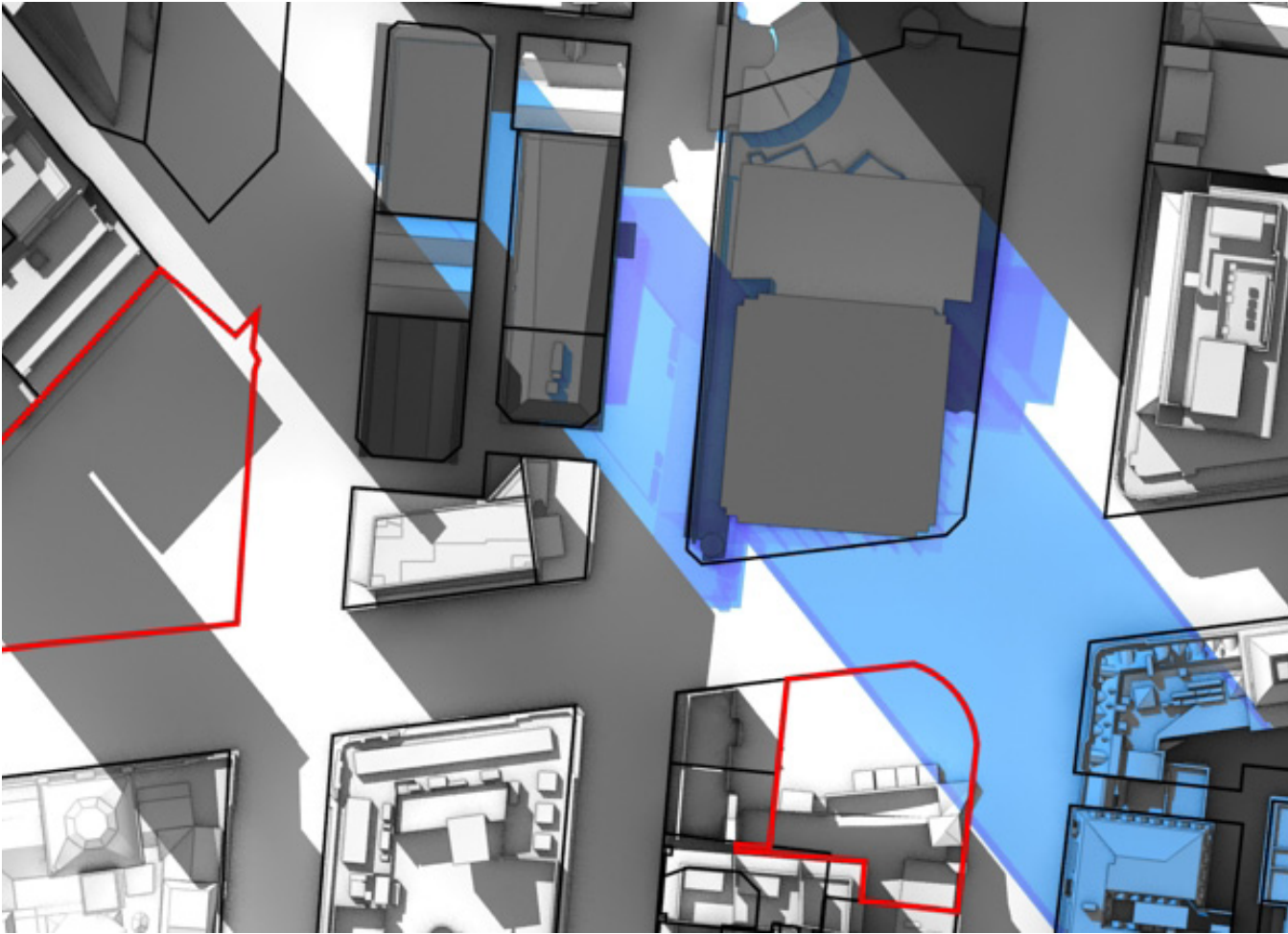
- Existing situation
- Proposed envelope



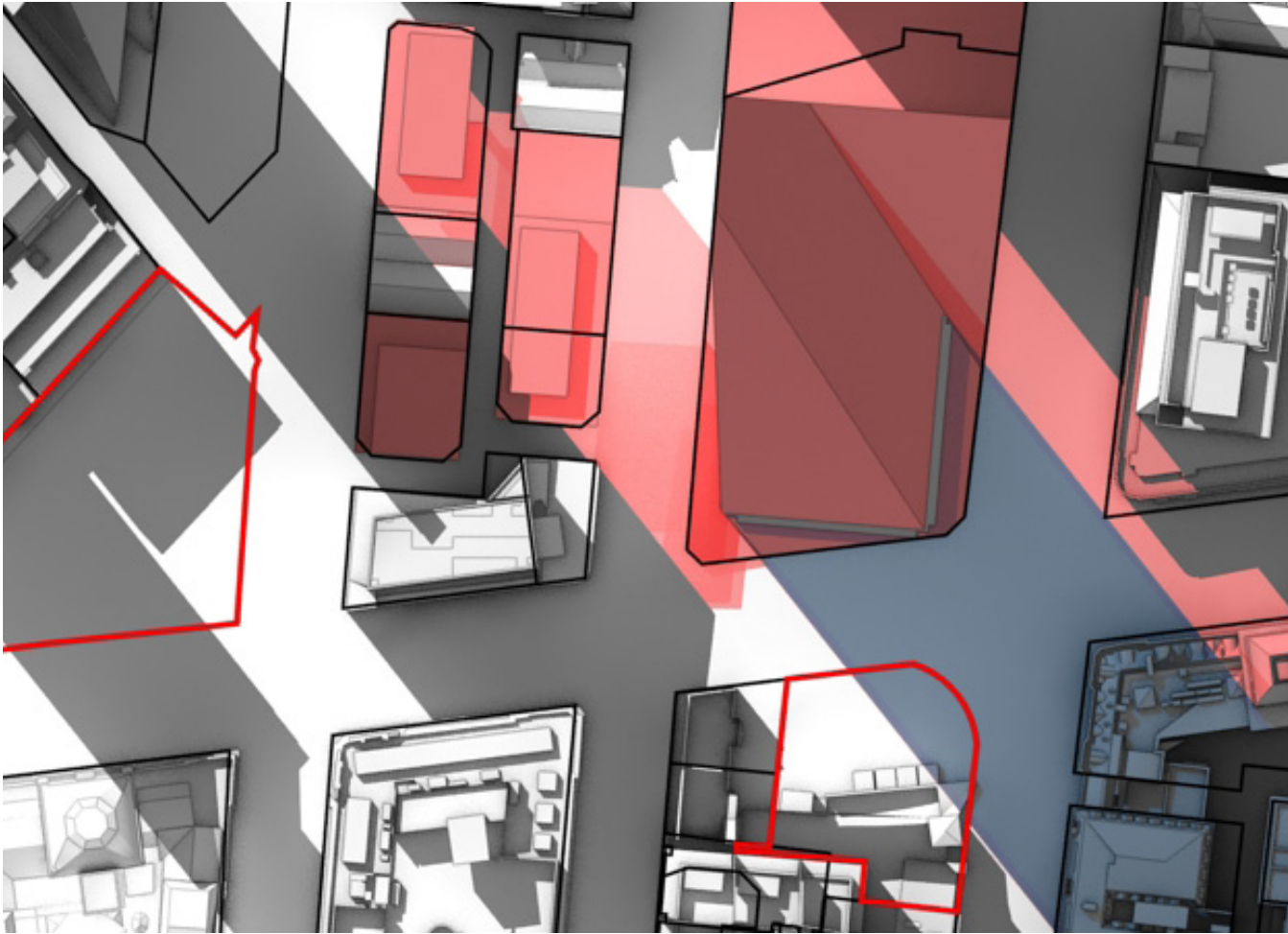
Time
01:40 pm

Date
14 April

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

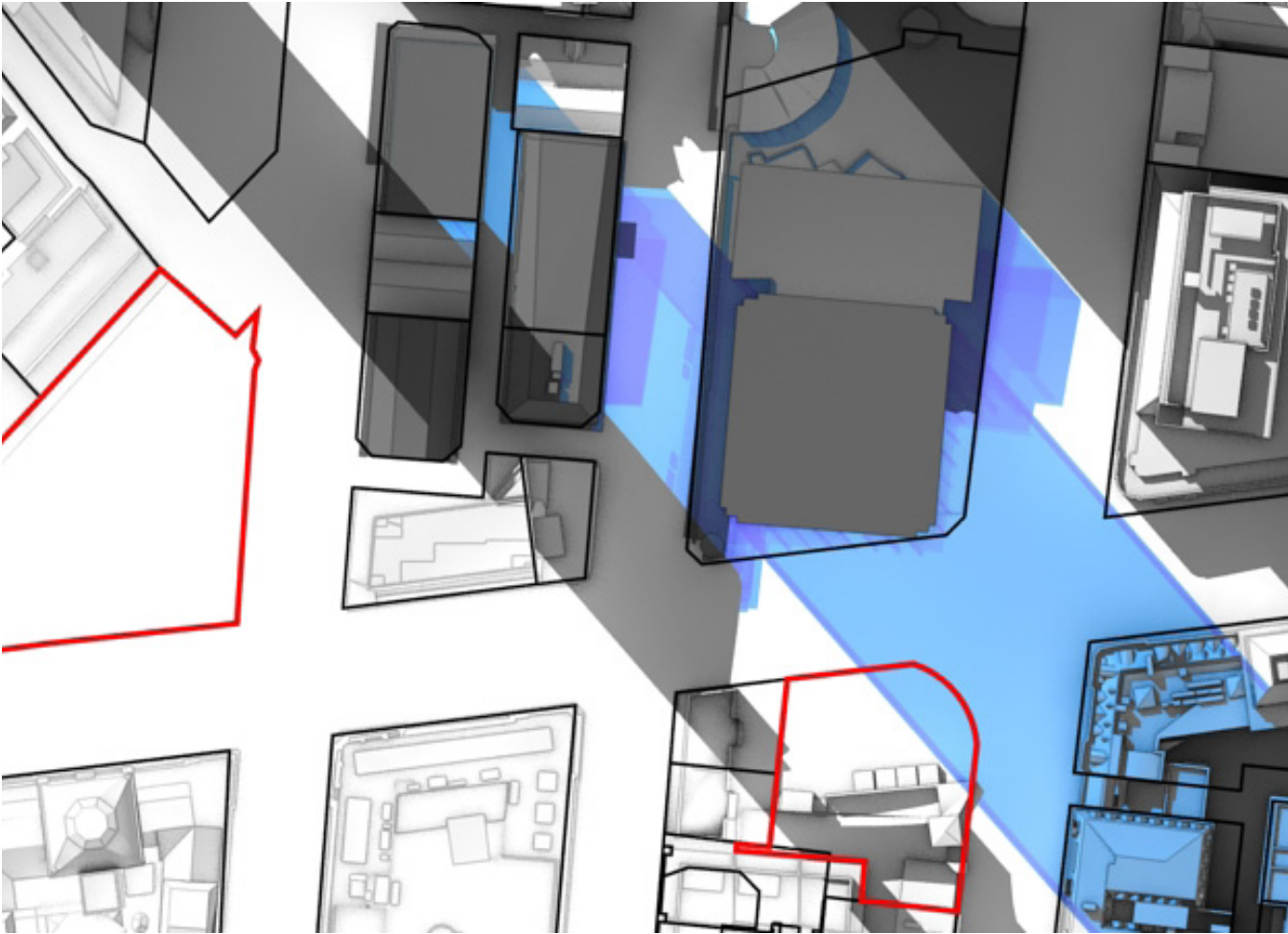


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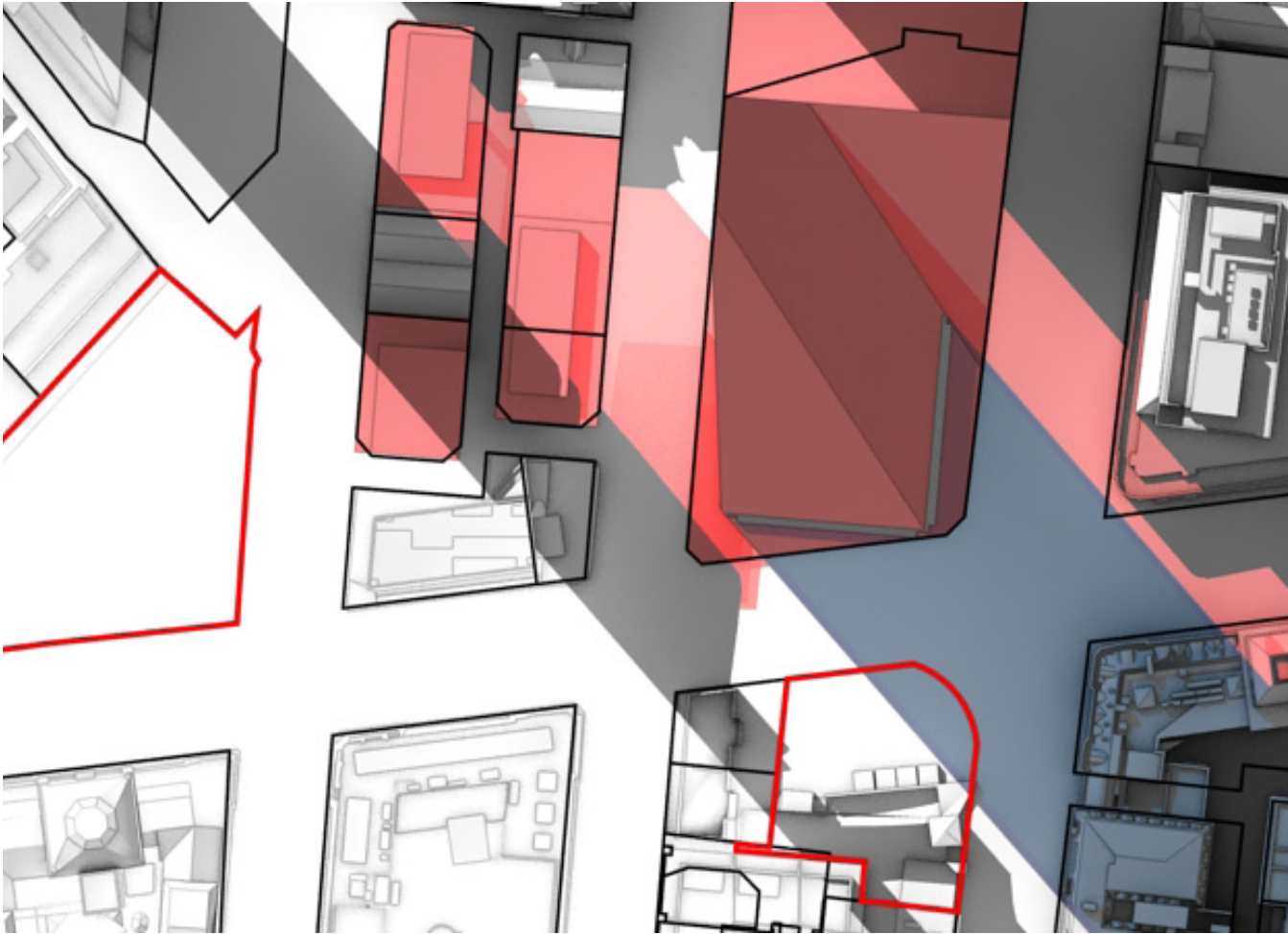
Date
14 April

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
02:00 pm

Date
14 April

21 June

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
12:00 pm

Date
21 June

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
12:10 pm

Date
21 June

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
12:20 pm

Date
21 June

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

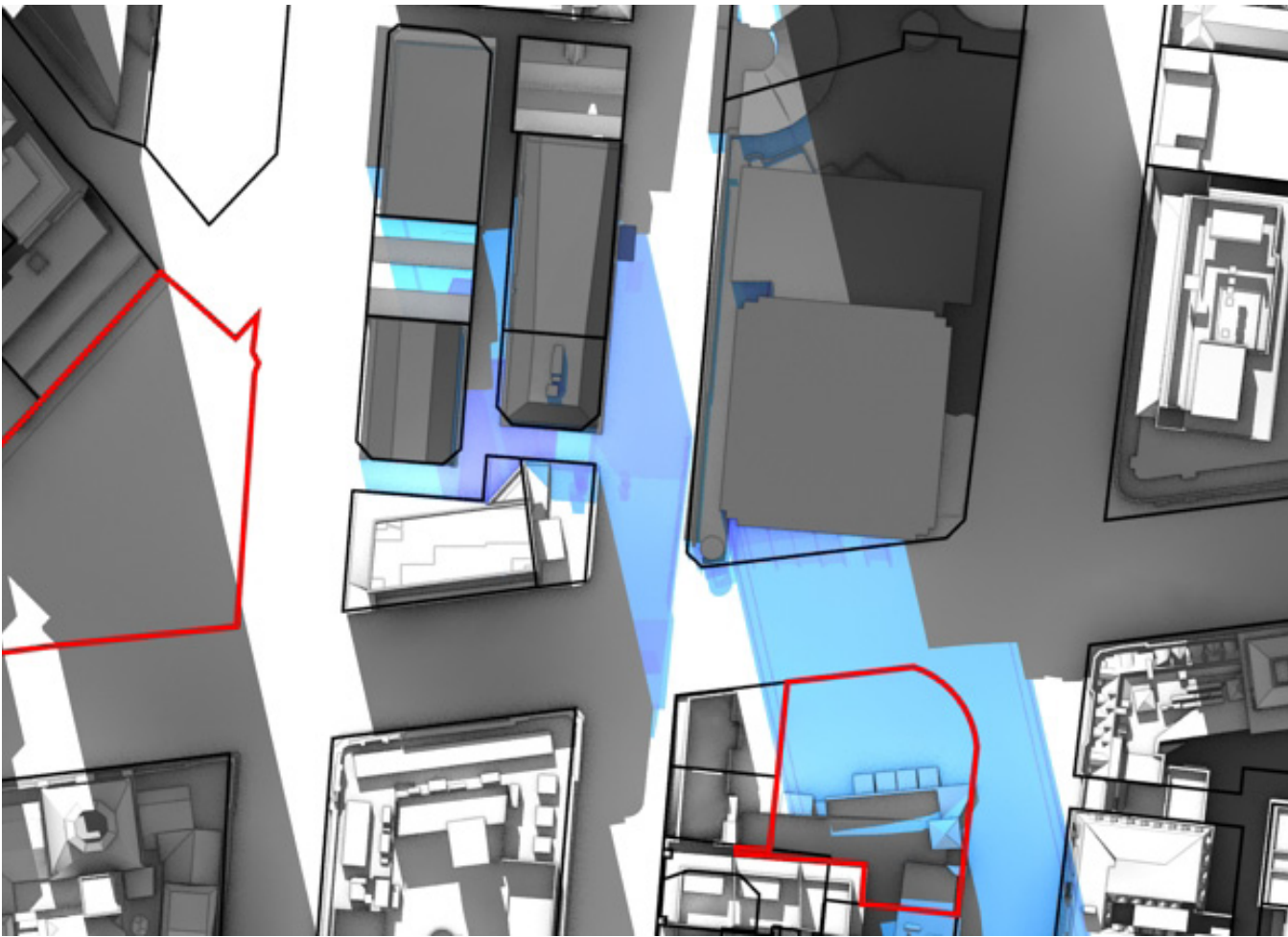


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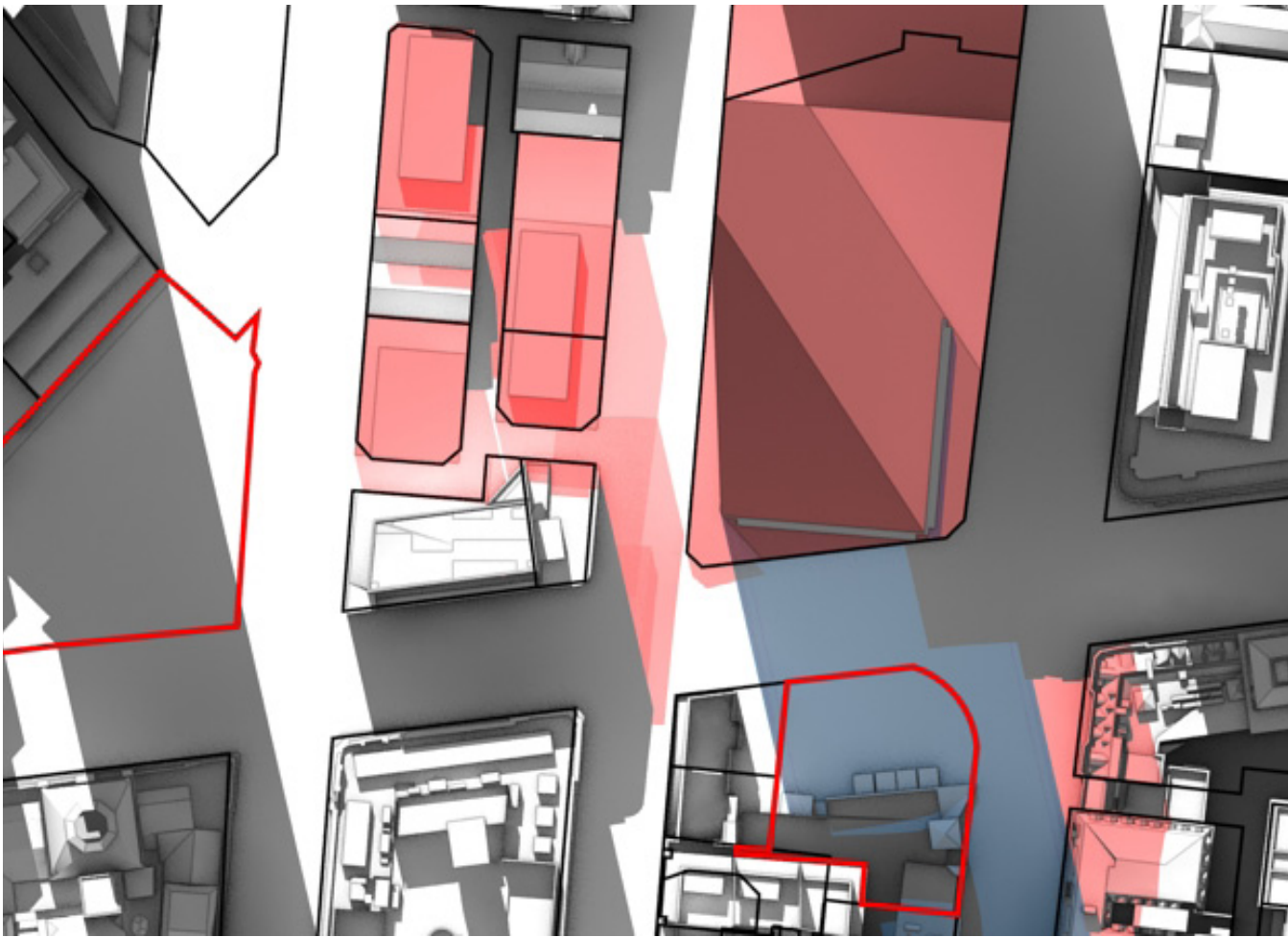
Date
21 June

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

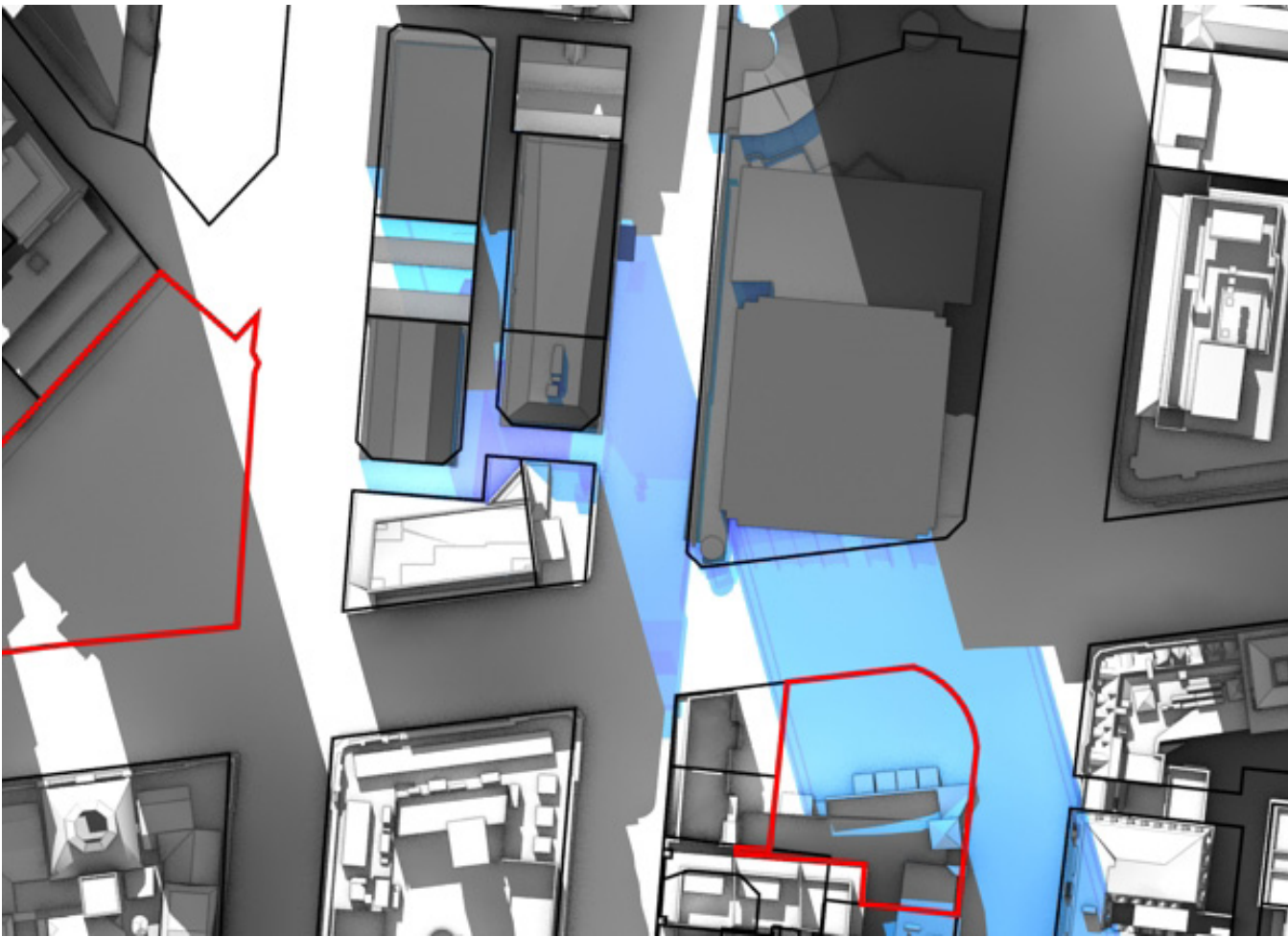
- Existing situation
- Proposed envelope



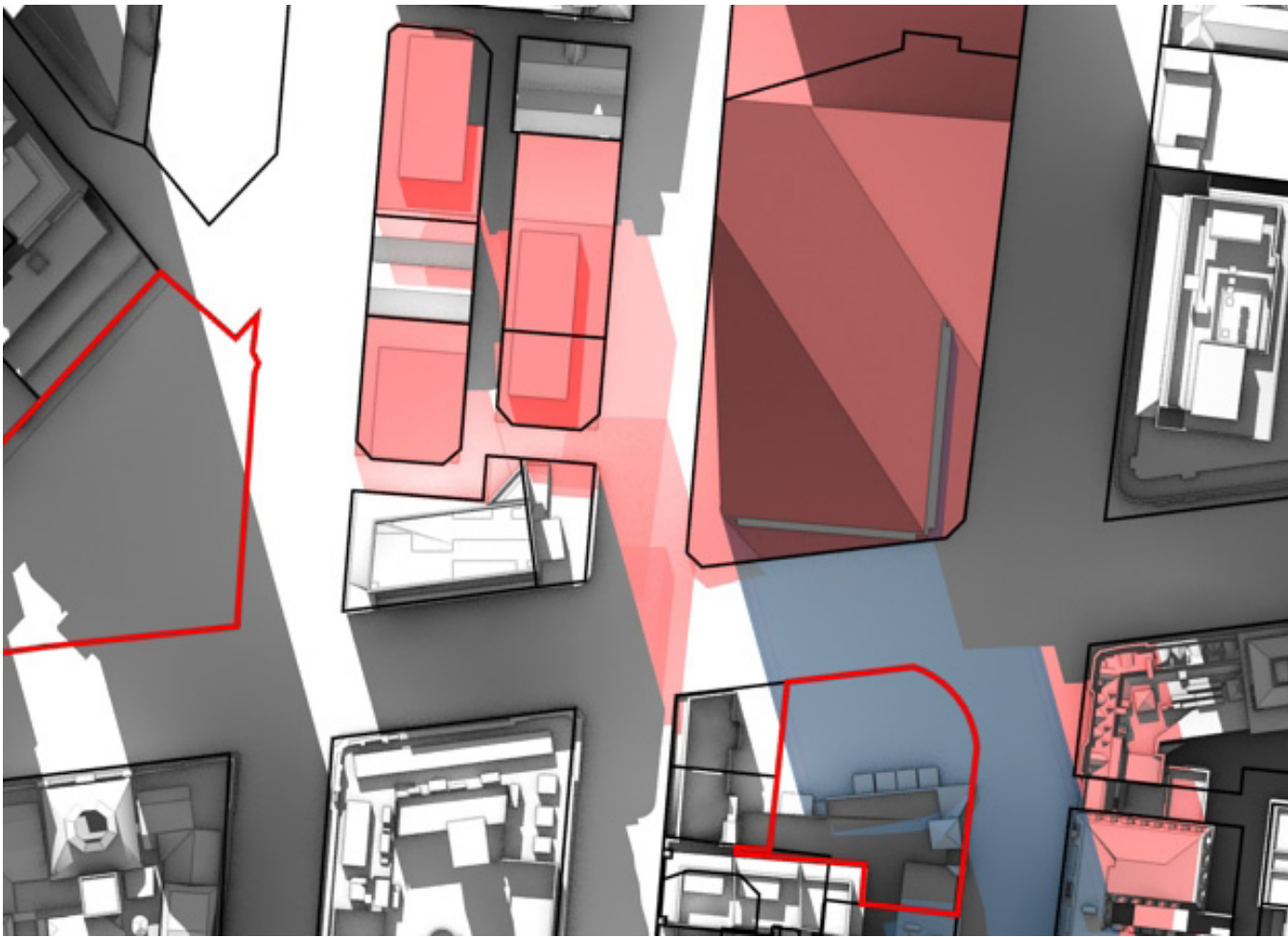
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12:40 pm

Date
21 June

First Government House Place



Existing



Proposed envelope

Legend

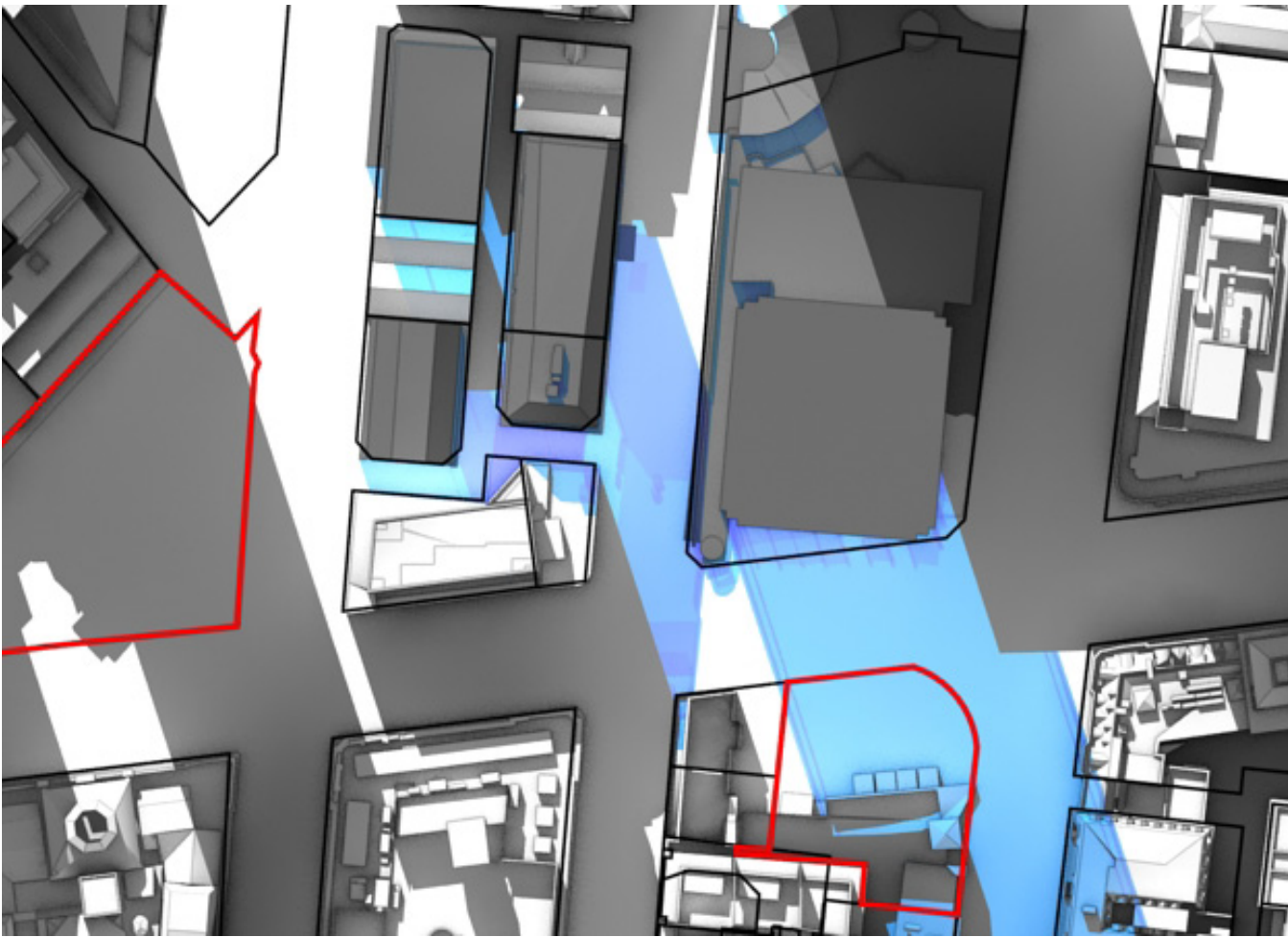
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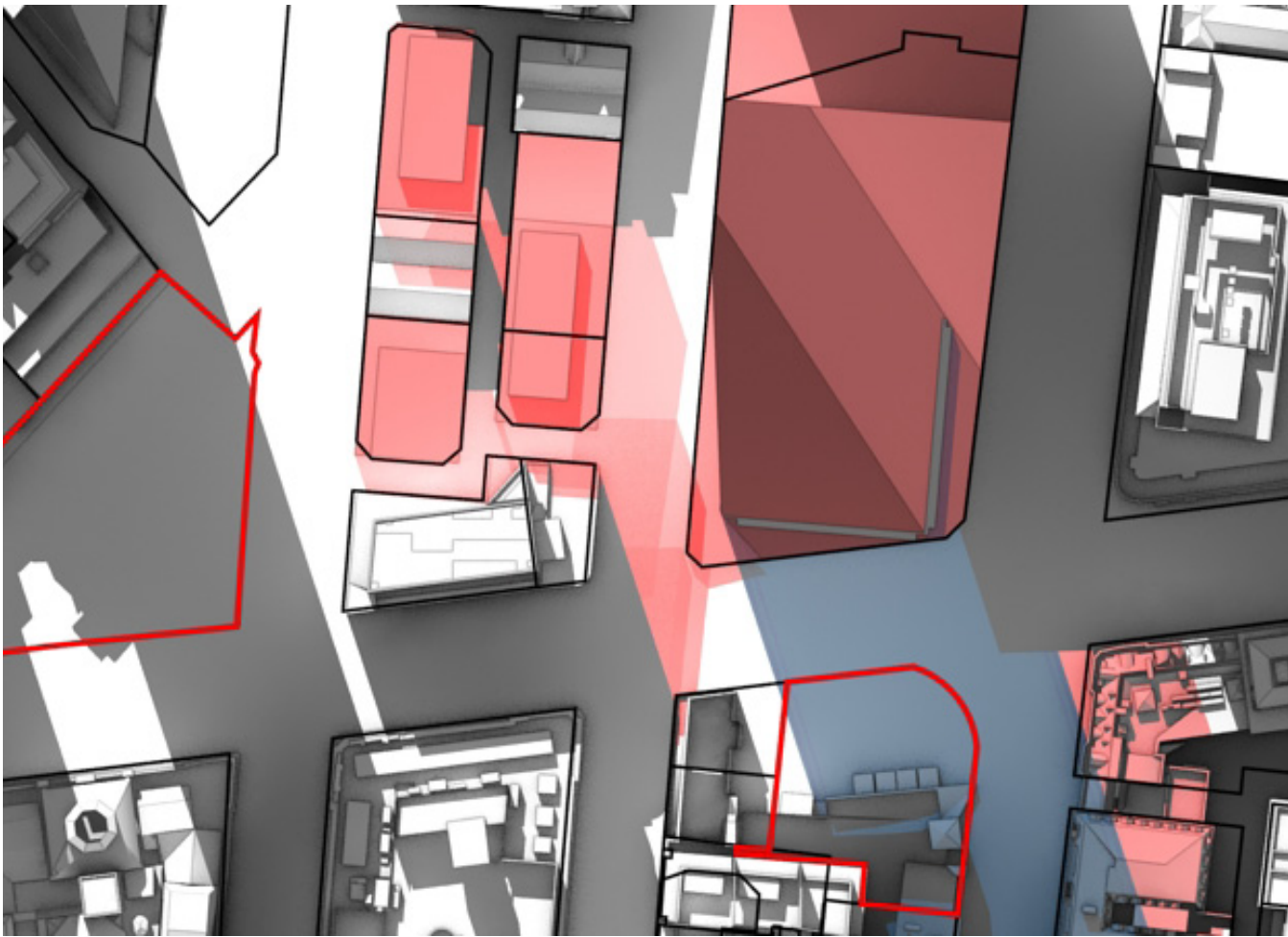
Time 12:50 pm Date 21 June

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

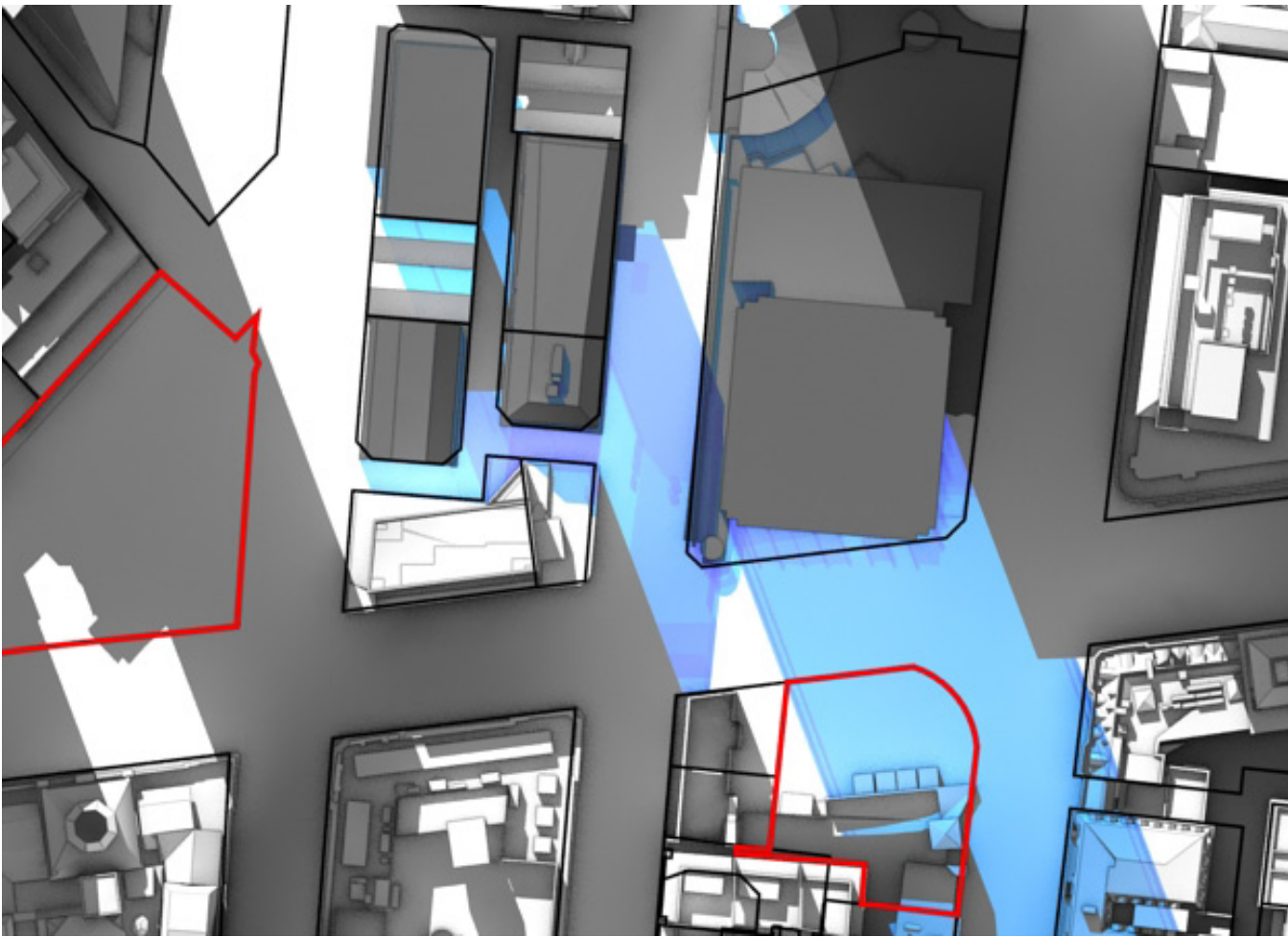
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- Proposed envelope



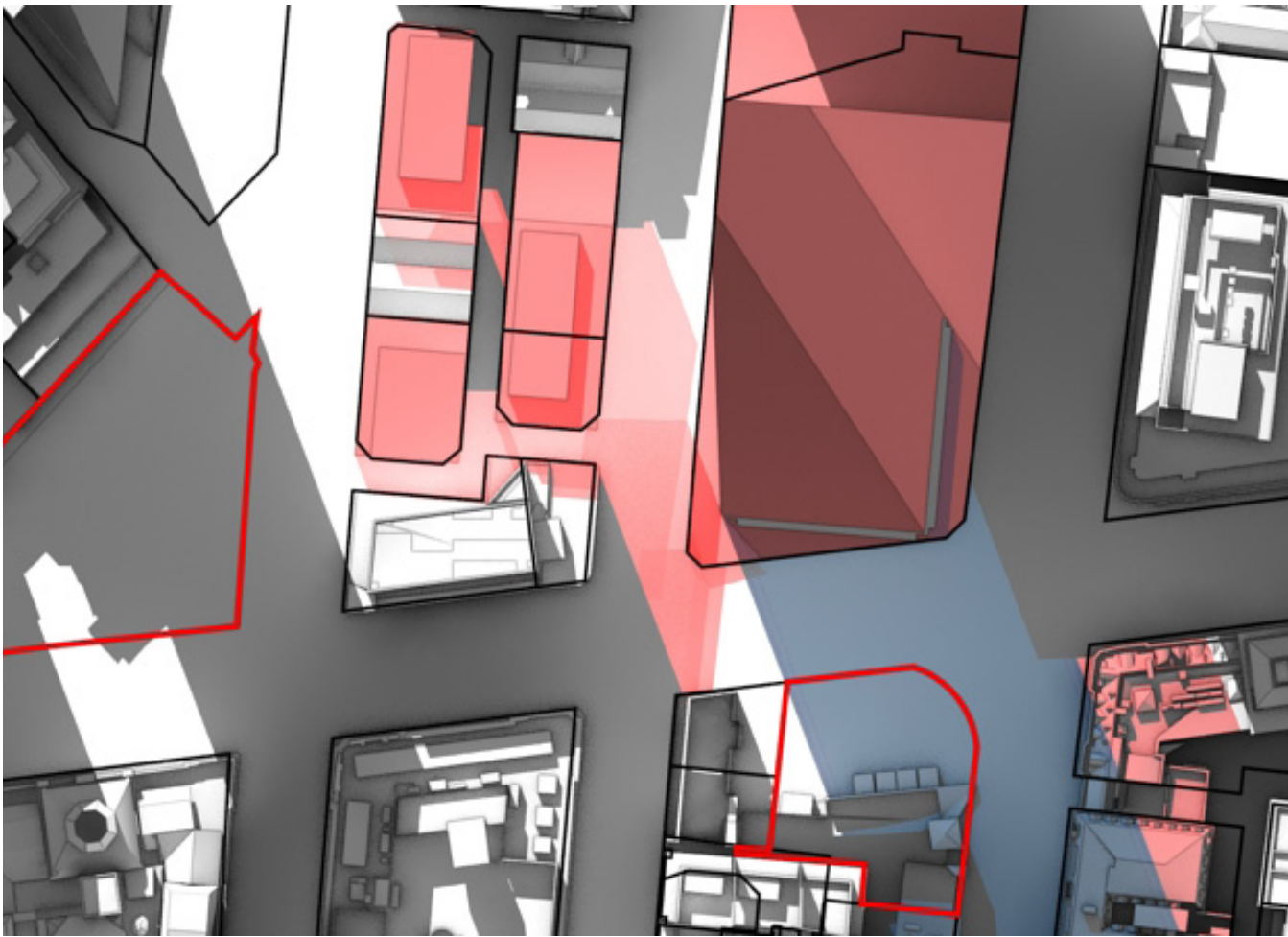
Time
01:00 pm

Date
21 June

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

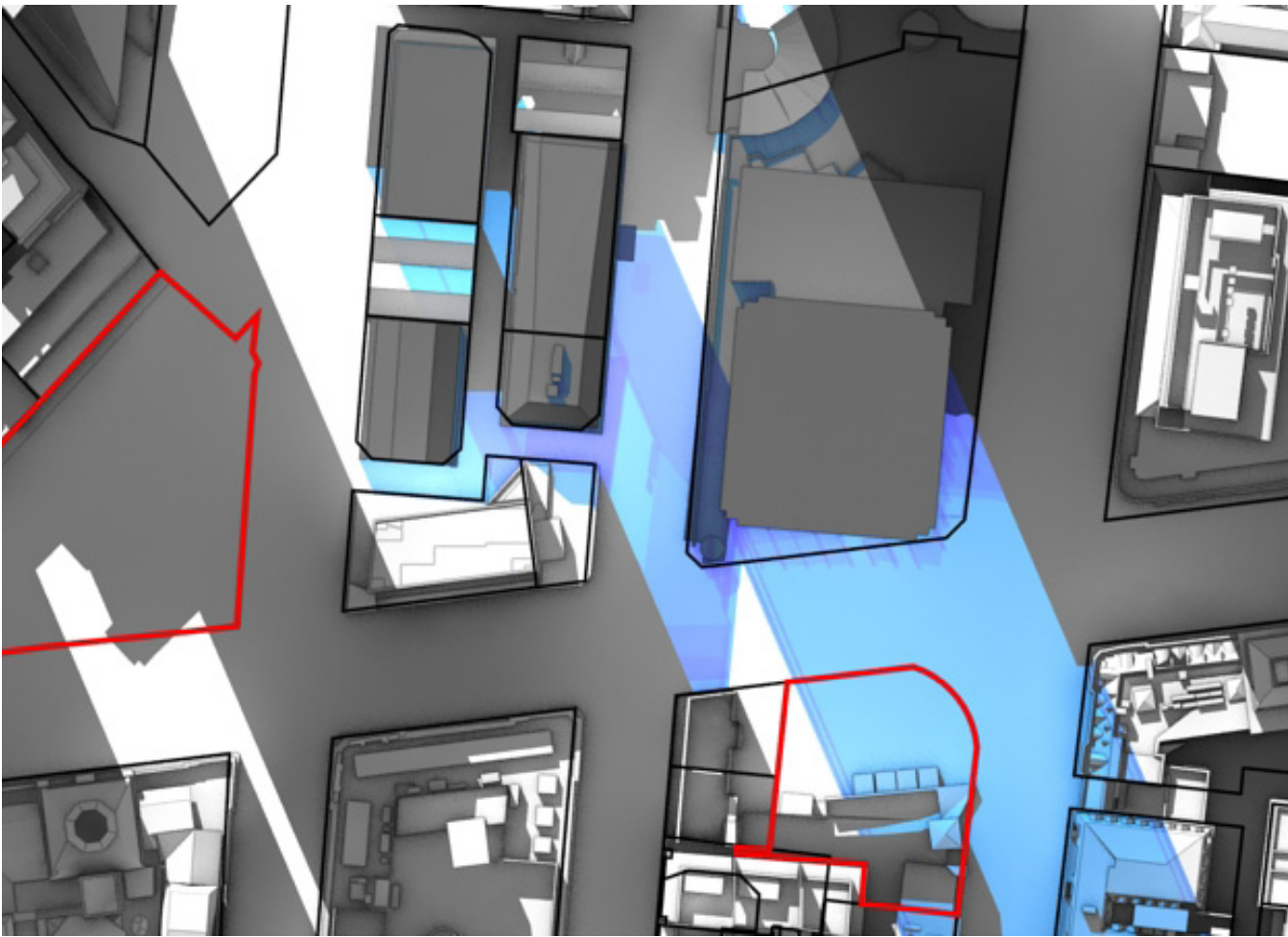


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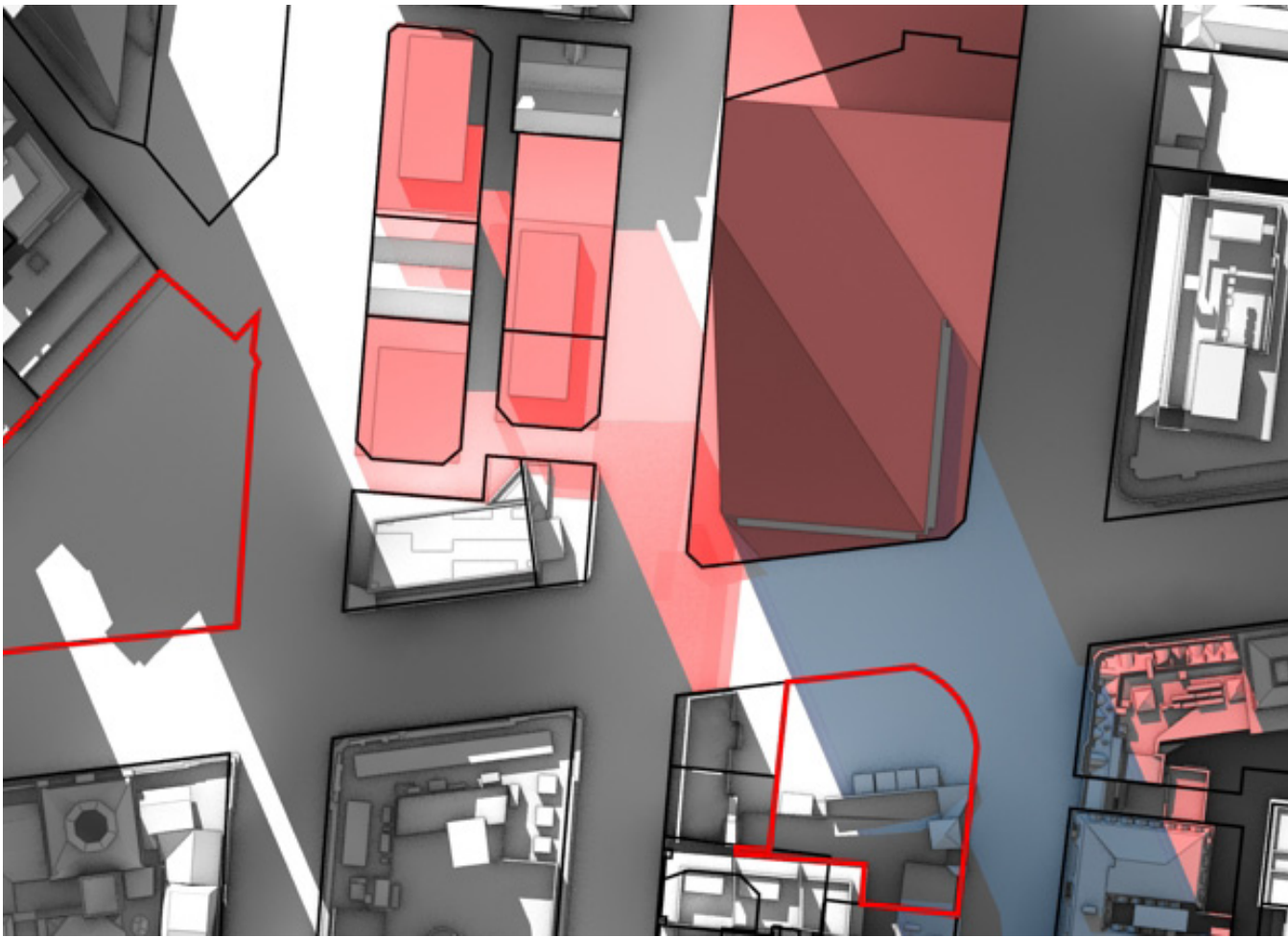
Date
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Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

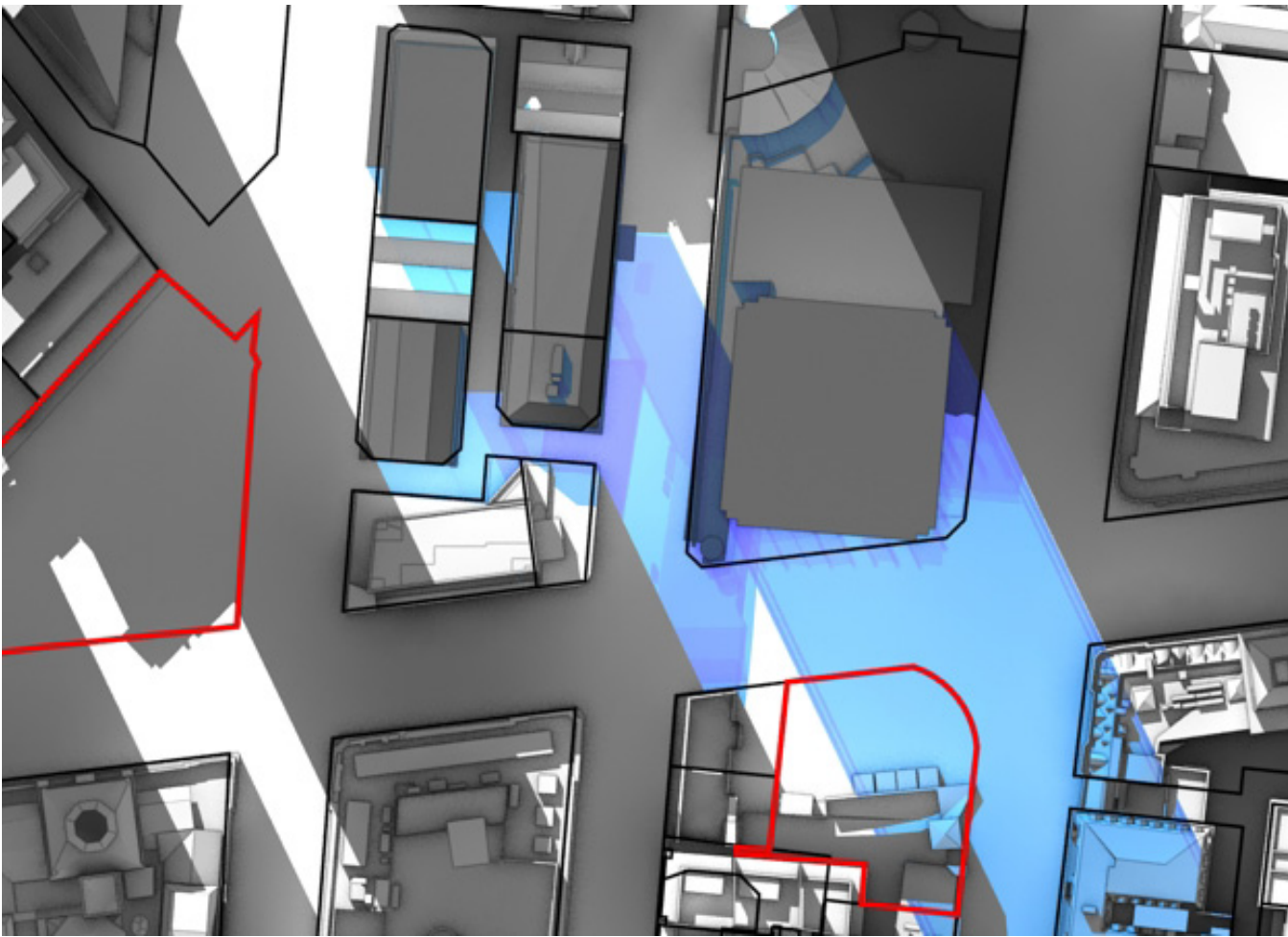
- Existing situation
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Time
01:20 pm

Date
21 June

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

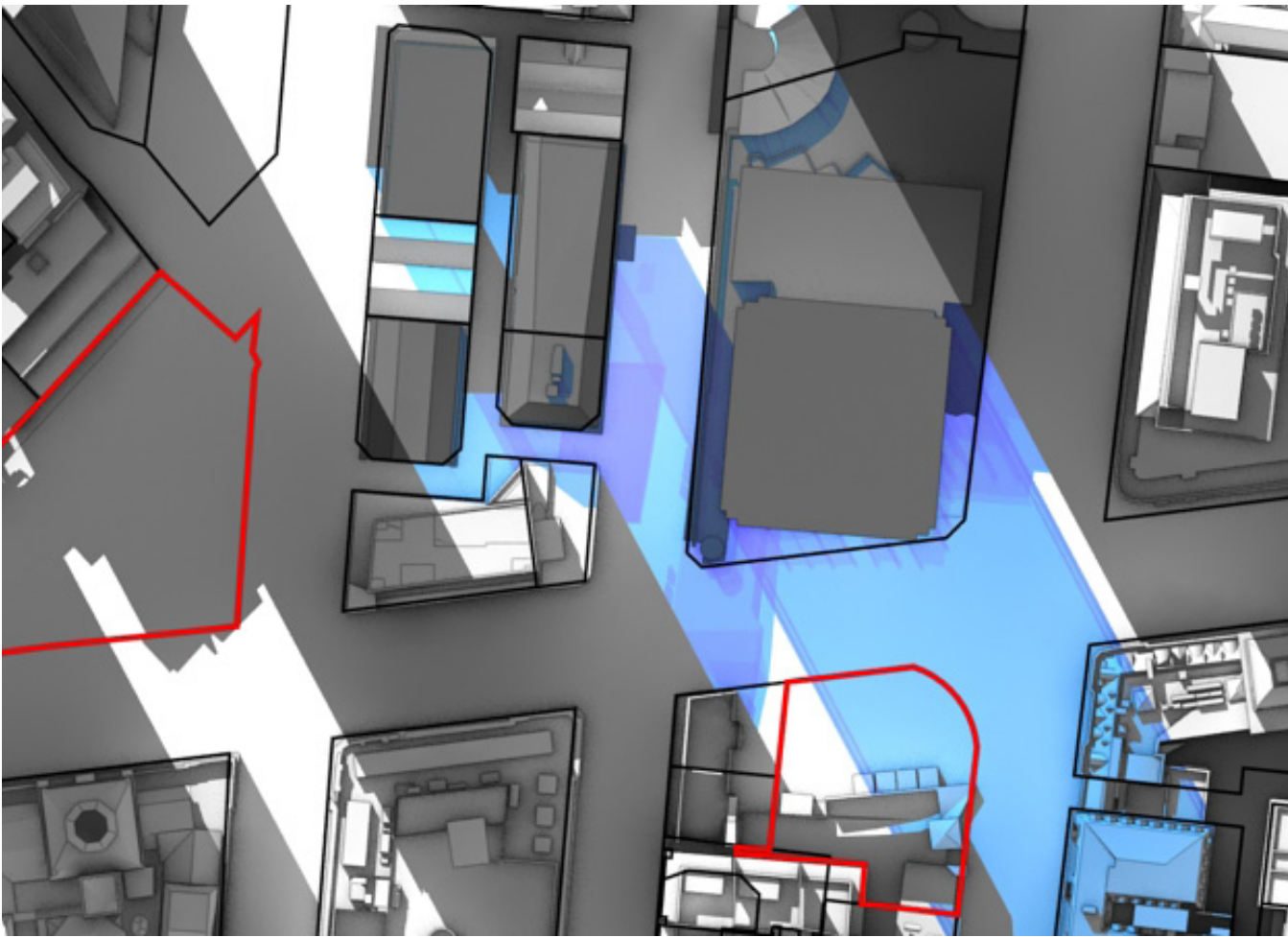


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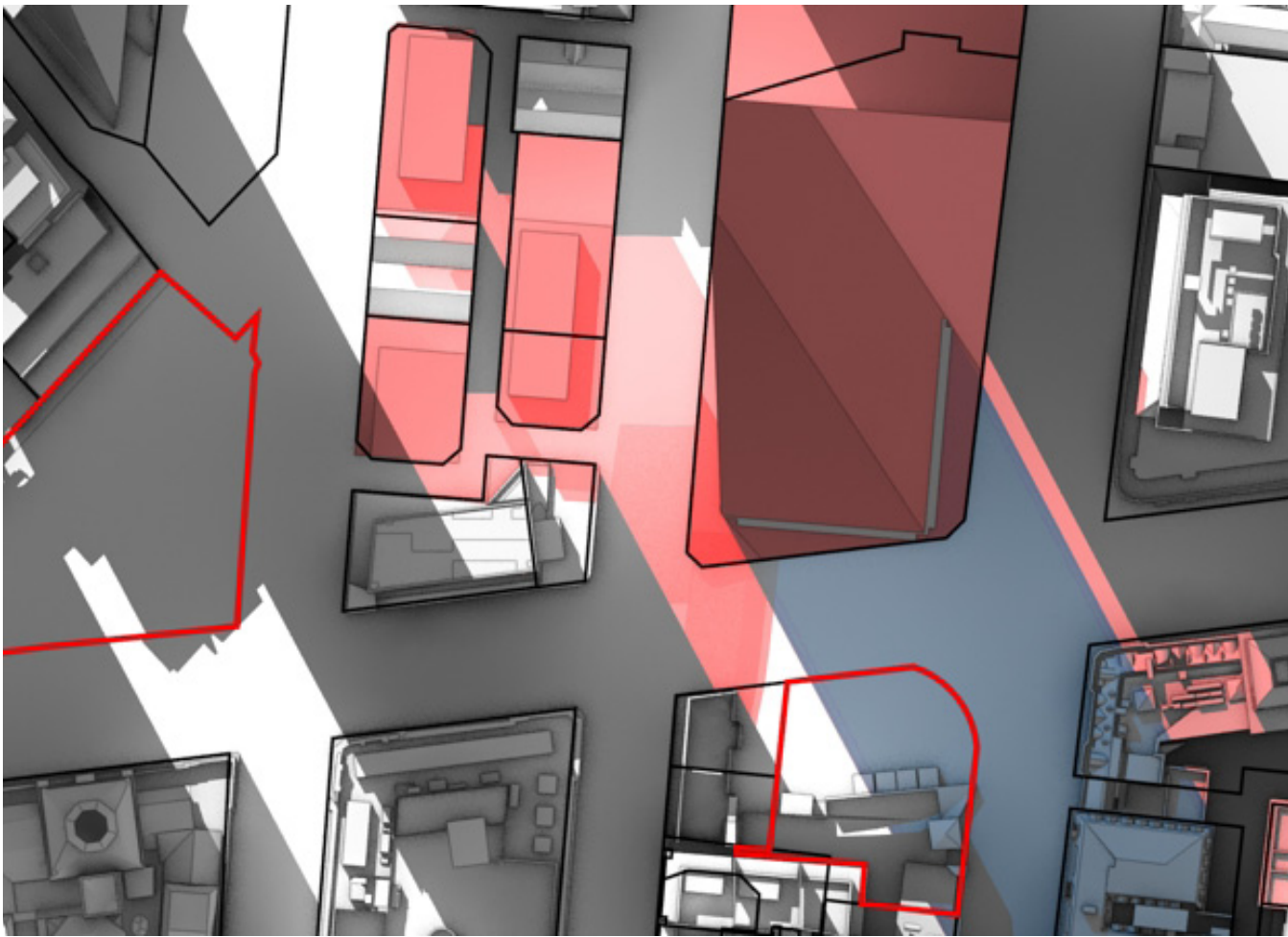
Date
21 June

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

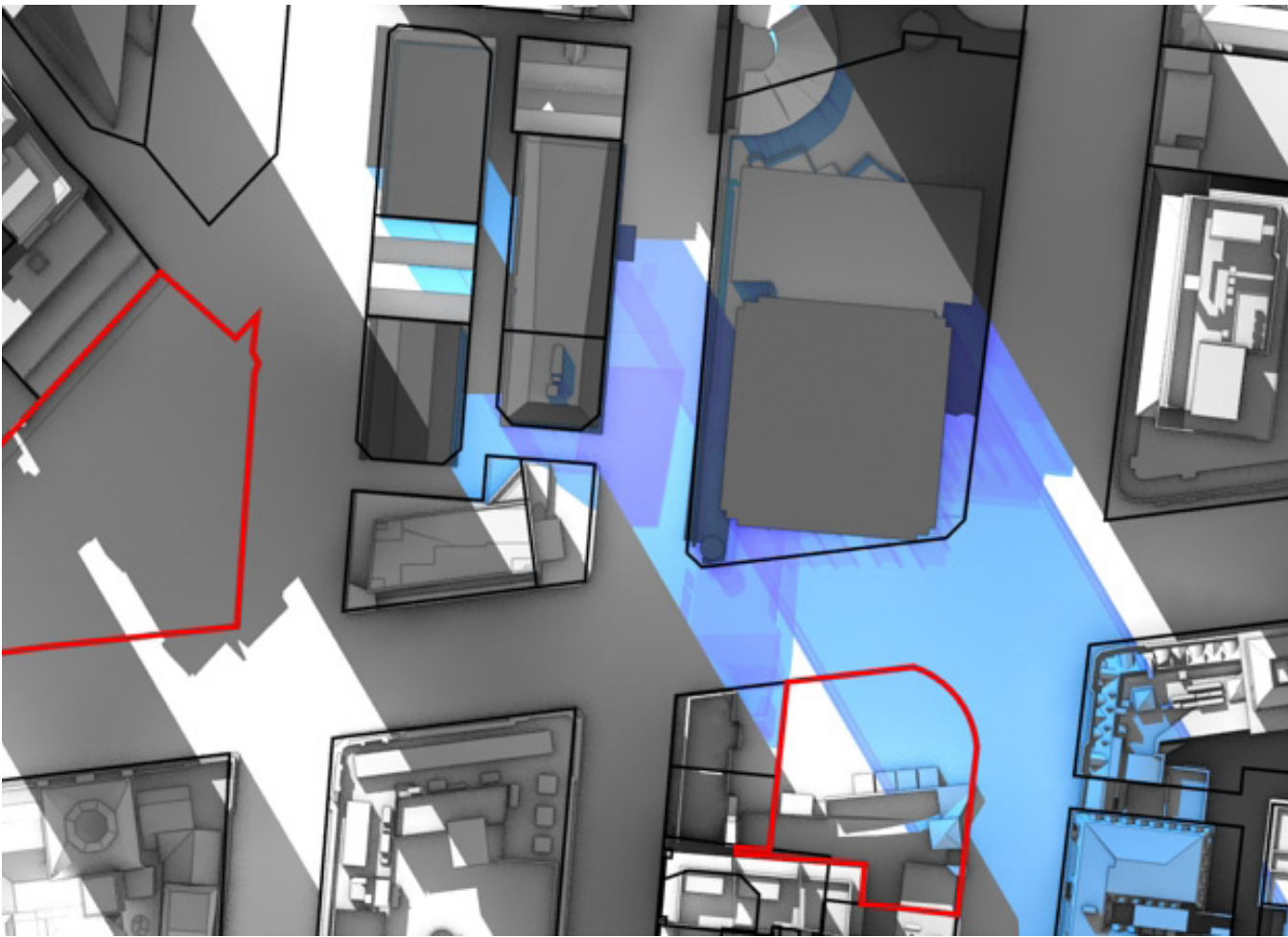
- Existing situation
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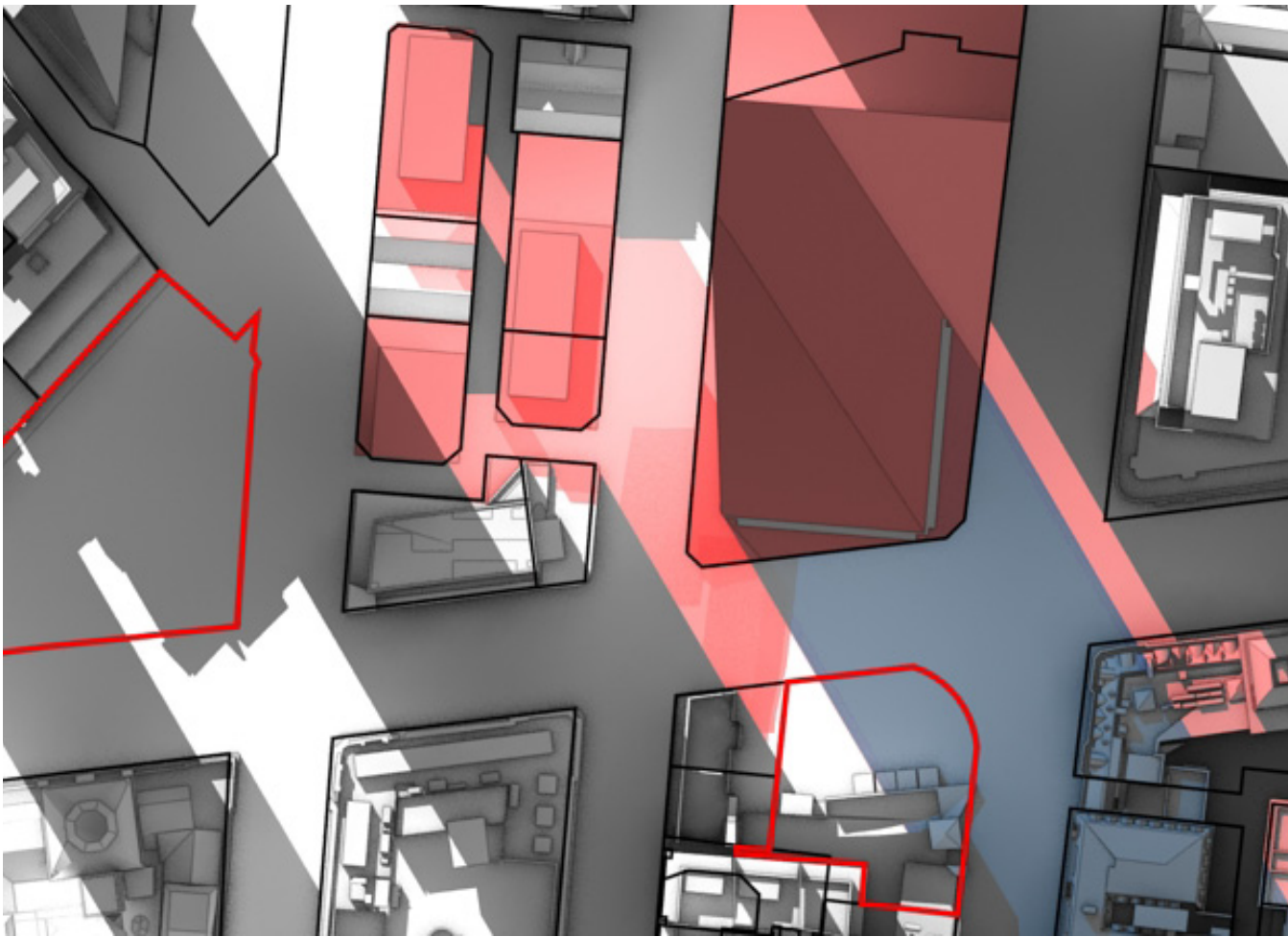
Time
01:40 pm

Date
21 June

First Government House Place



Existing



Proposed envelope

Legend

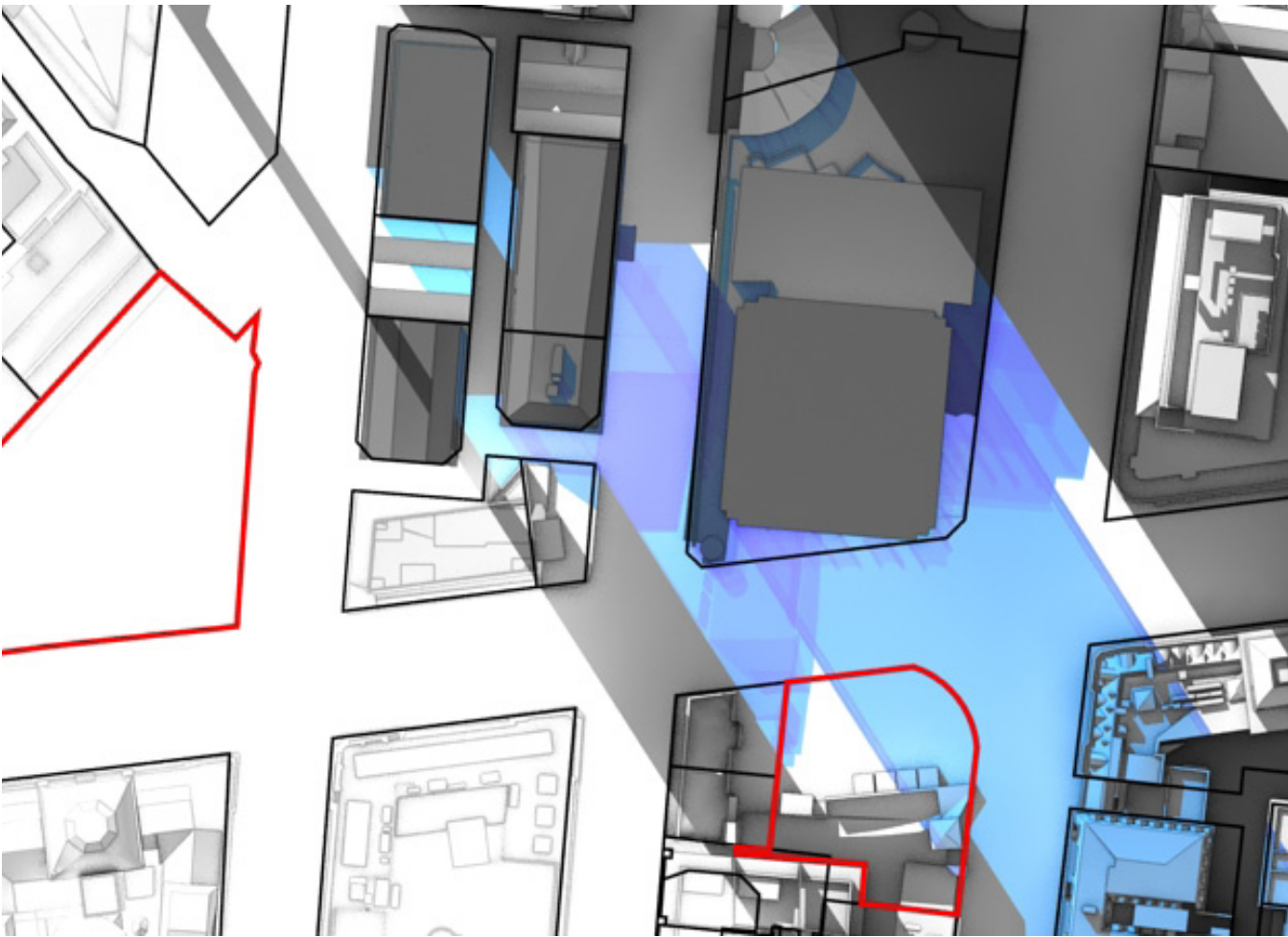
- Existing situation
- Proposed envelope



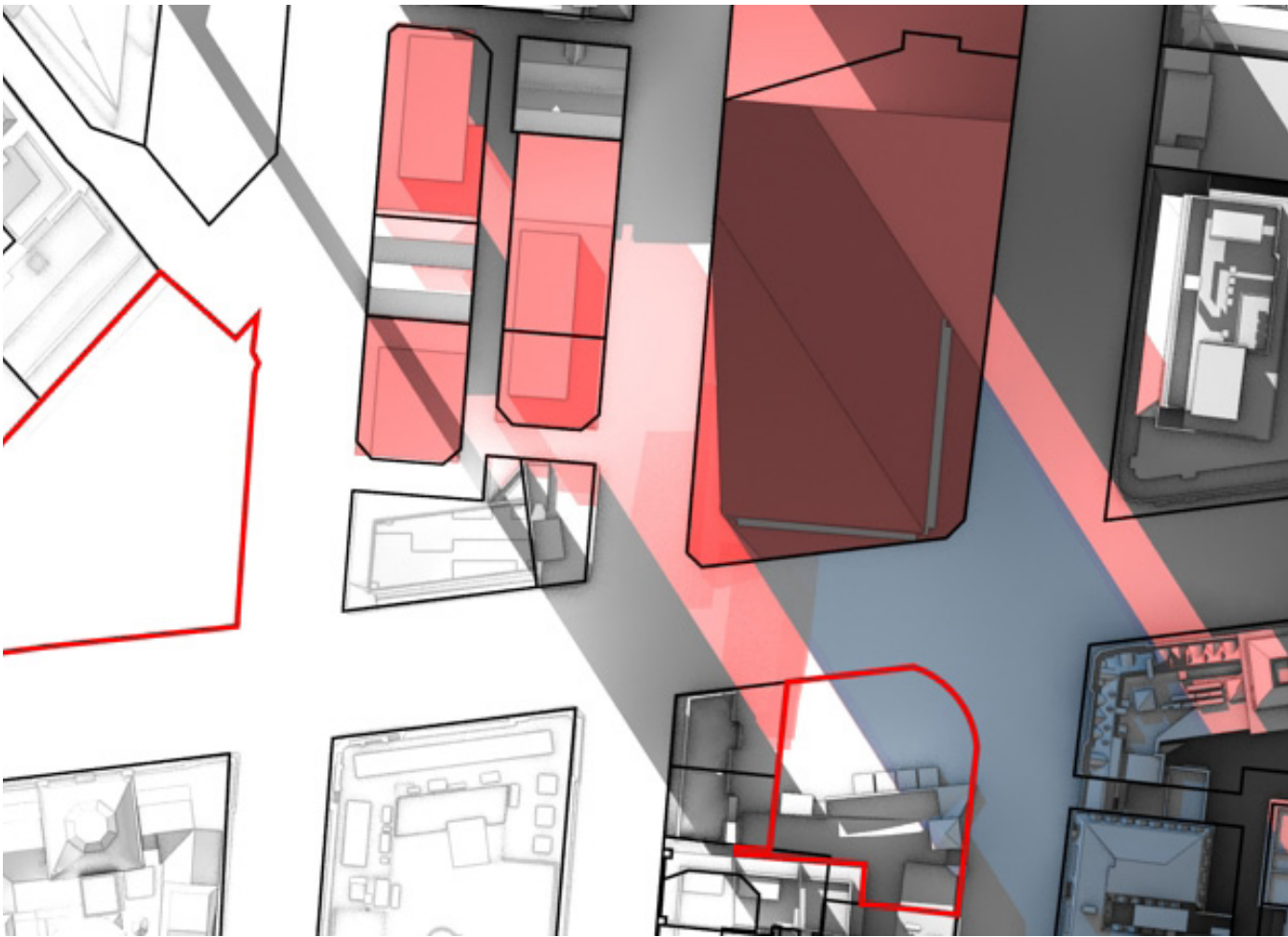
Time 01:50 pm Date 21 June

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
02:00 pm

Date
21 June

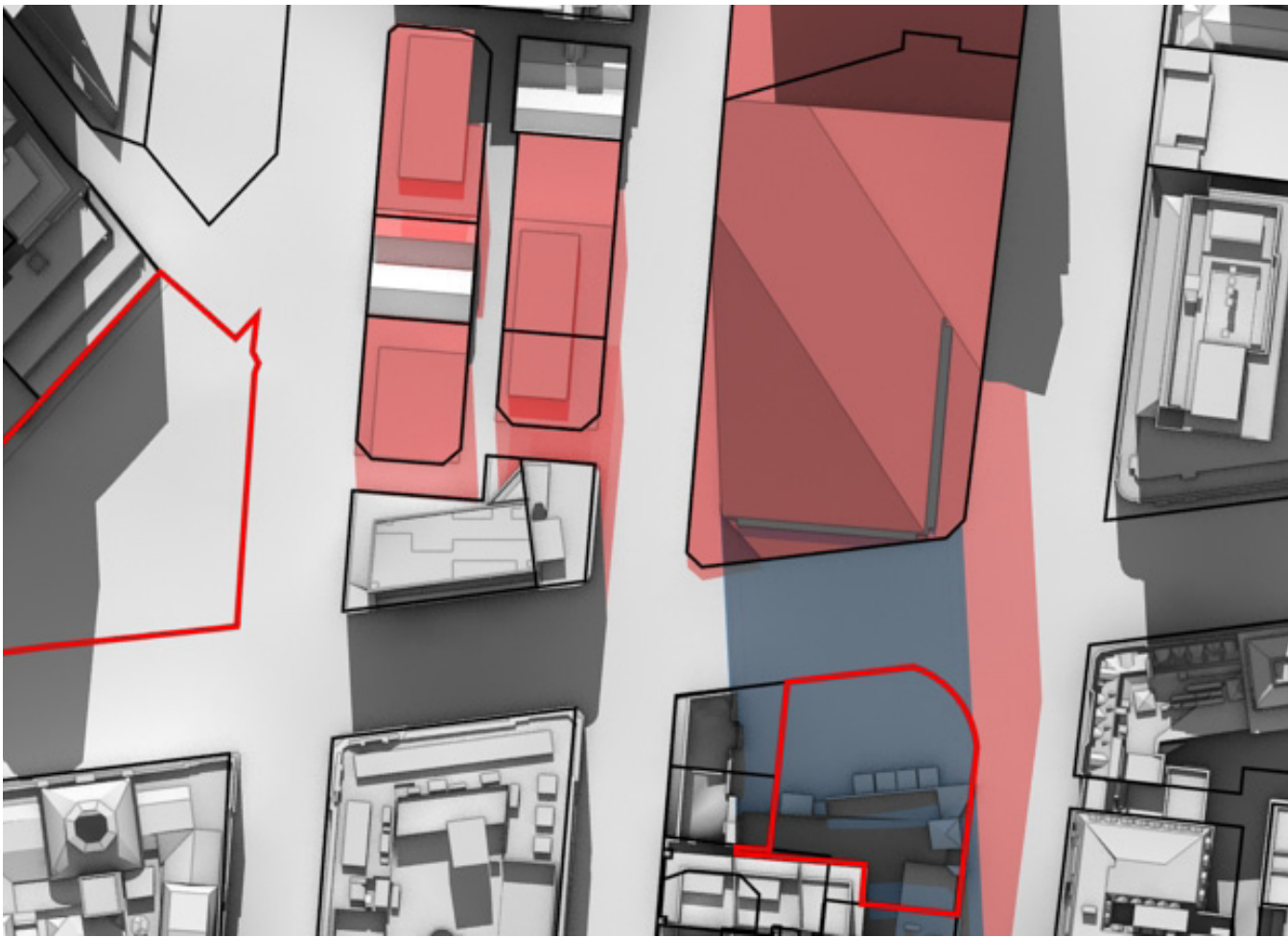
31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



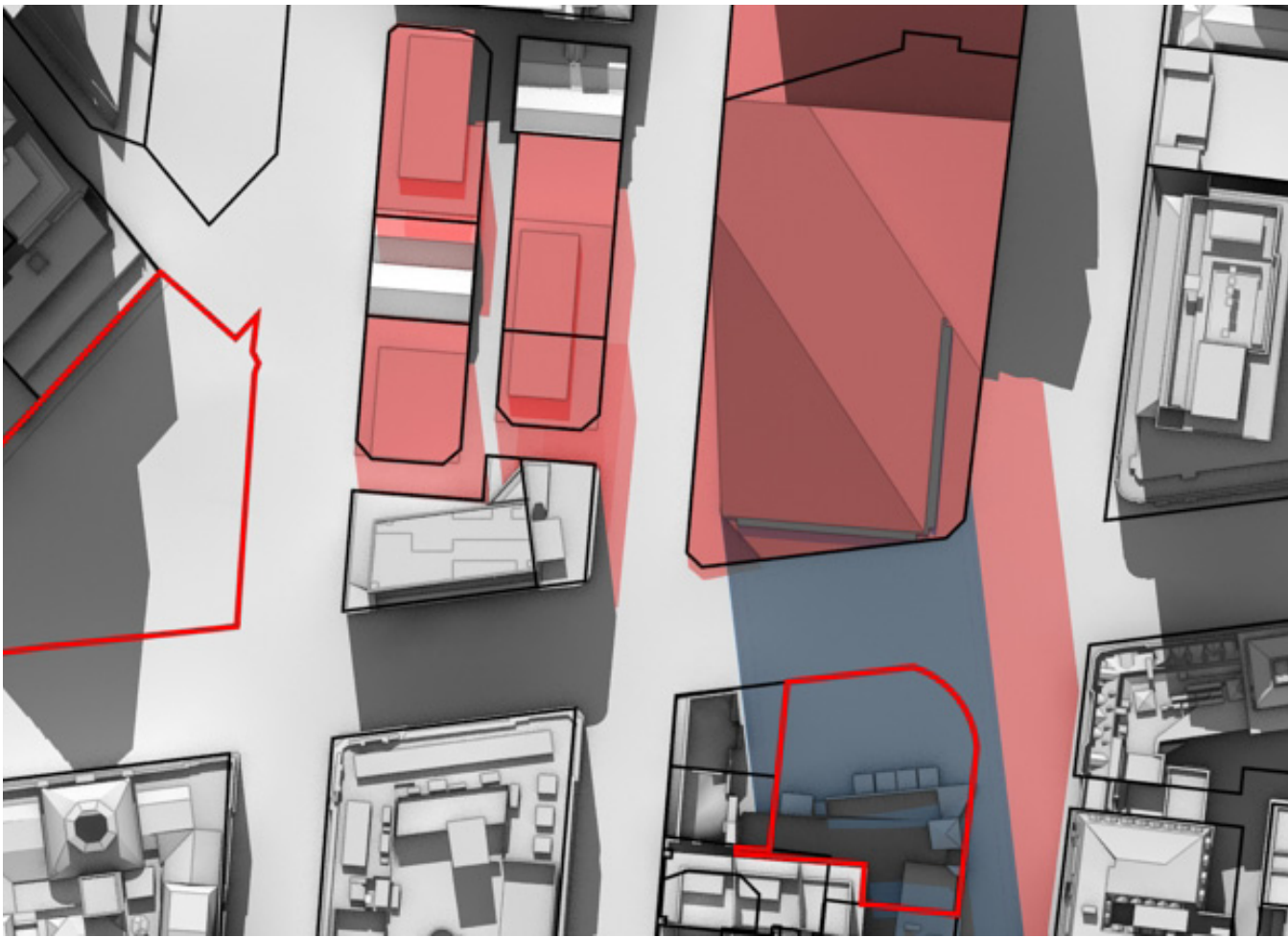
Time
12:00 pm

Date
31 August

First Government House Place



Existing



Proposed envelope

Legend

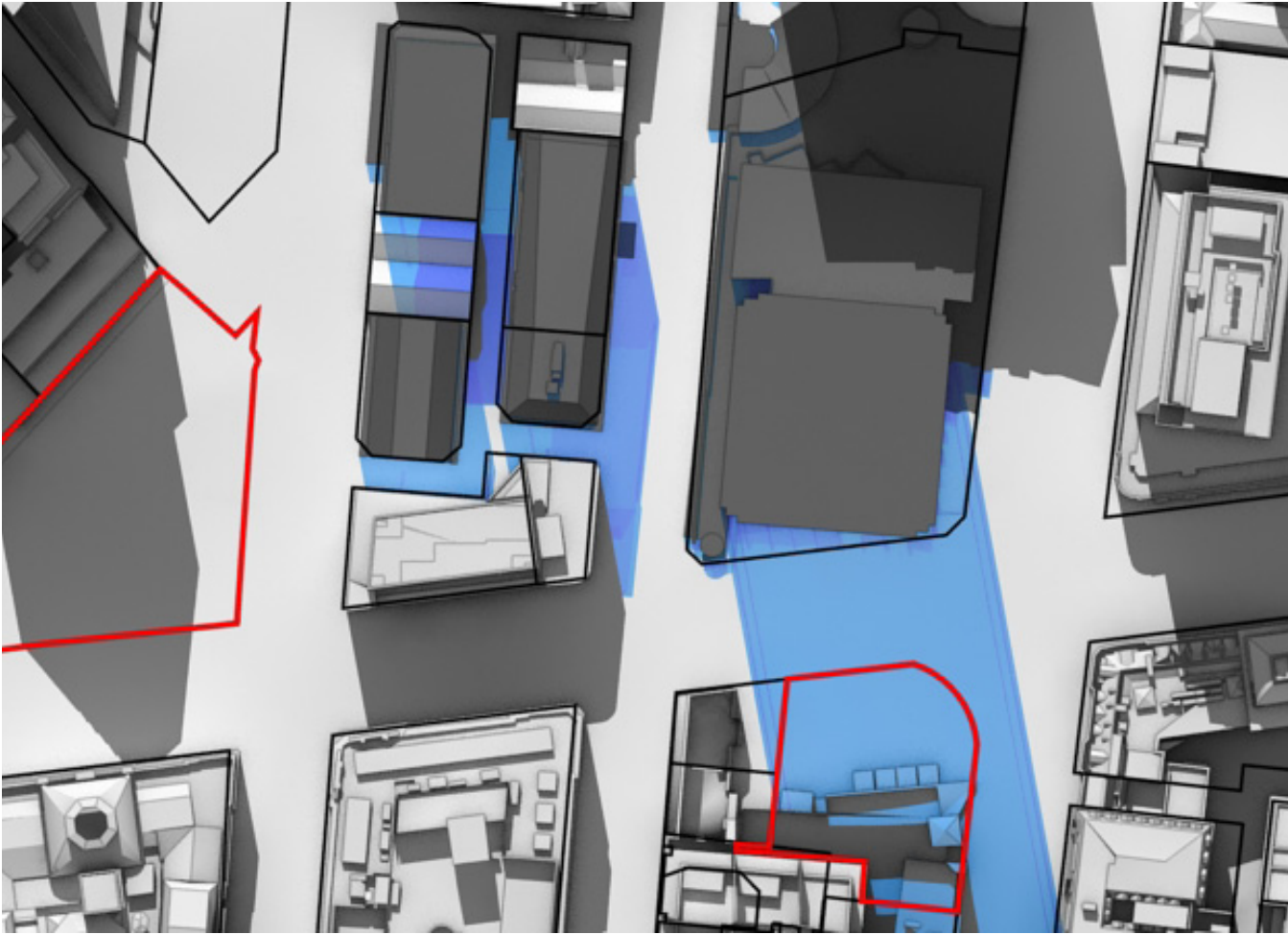
- Existing situation
- Proposed envelope



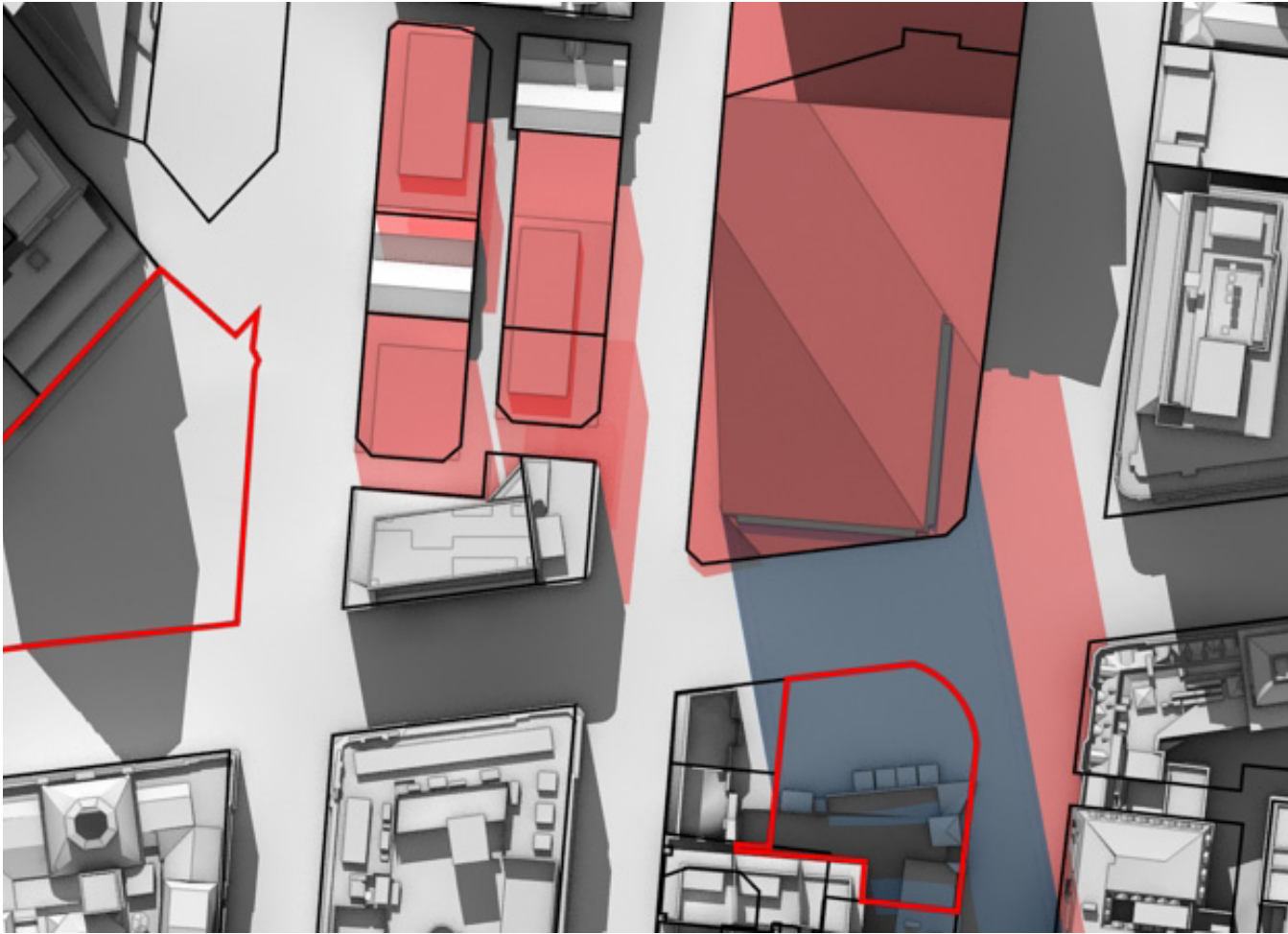
Time 12:10 pm
Date 31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



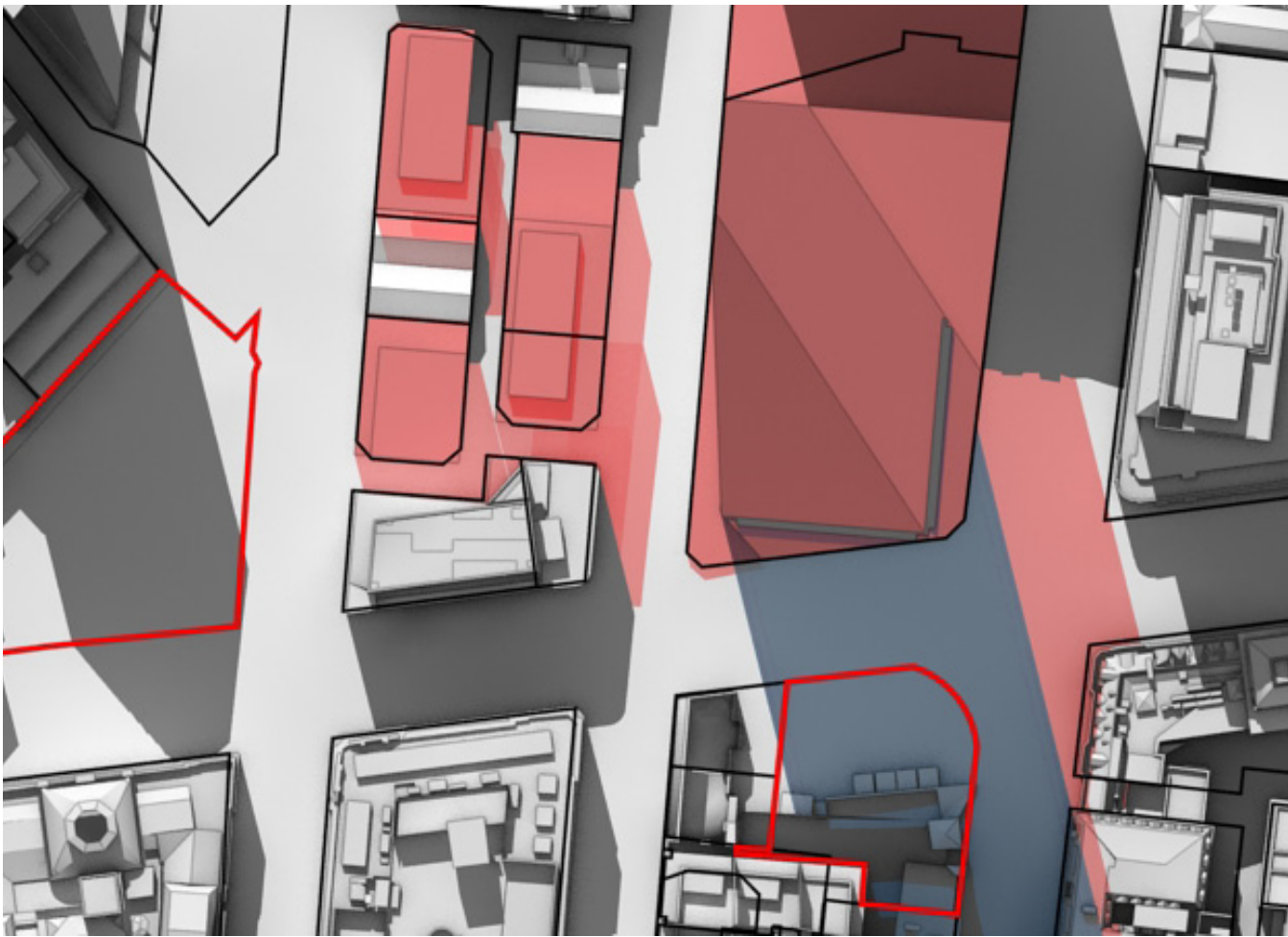
Time
12:20 pm

Date
31 August

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

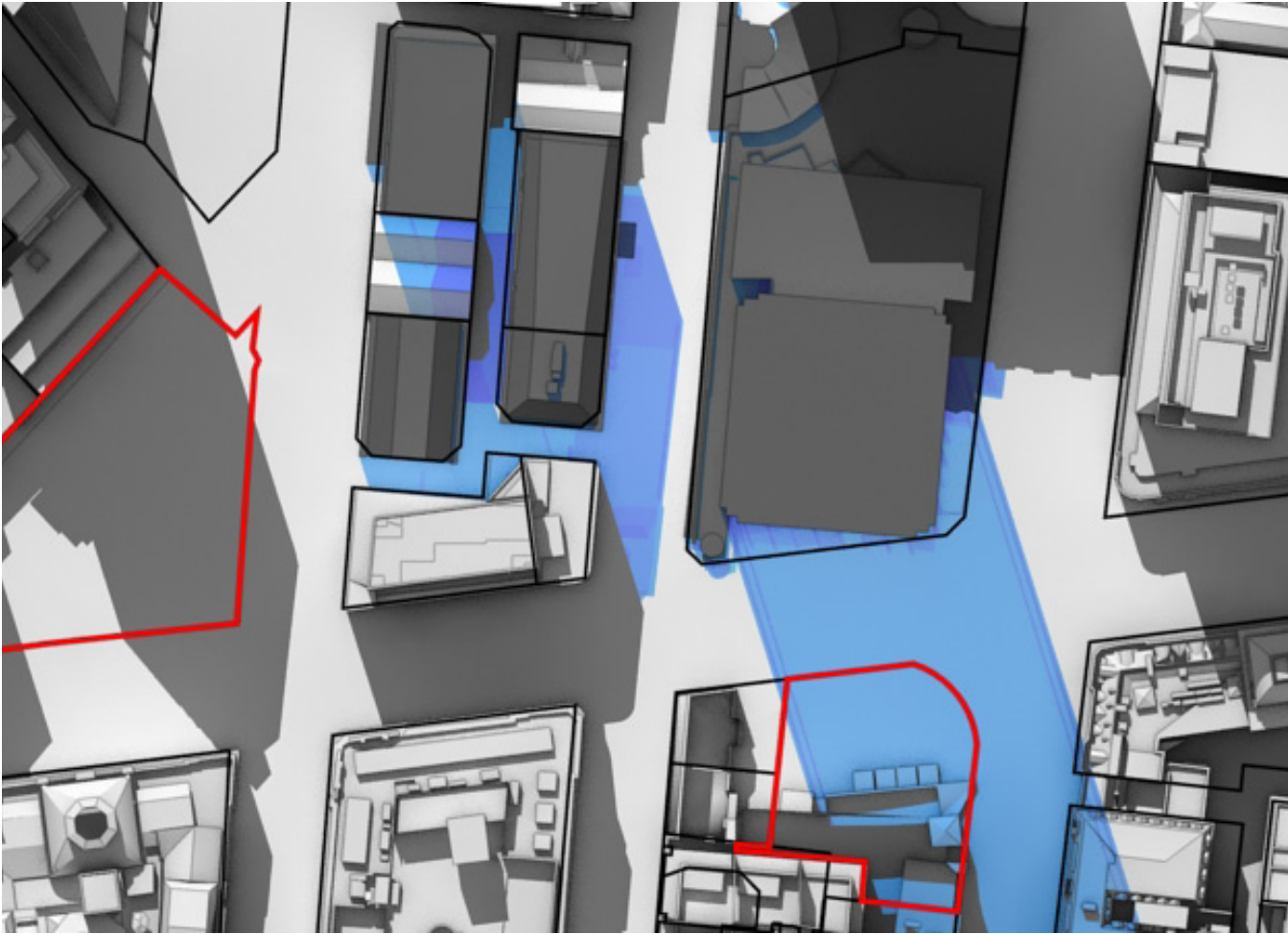


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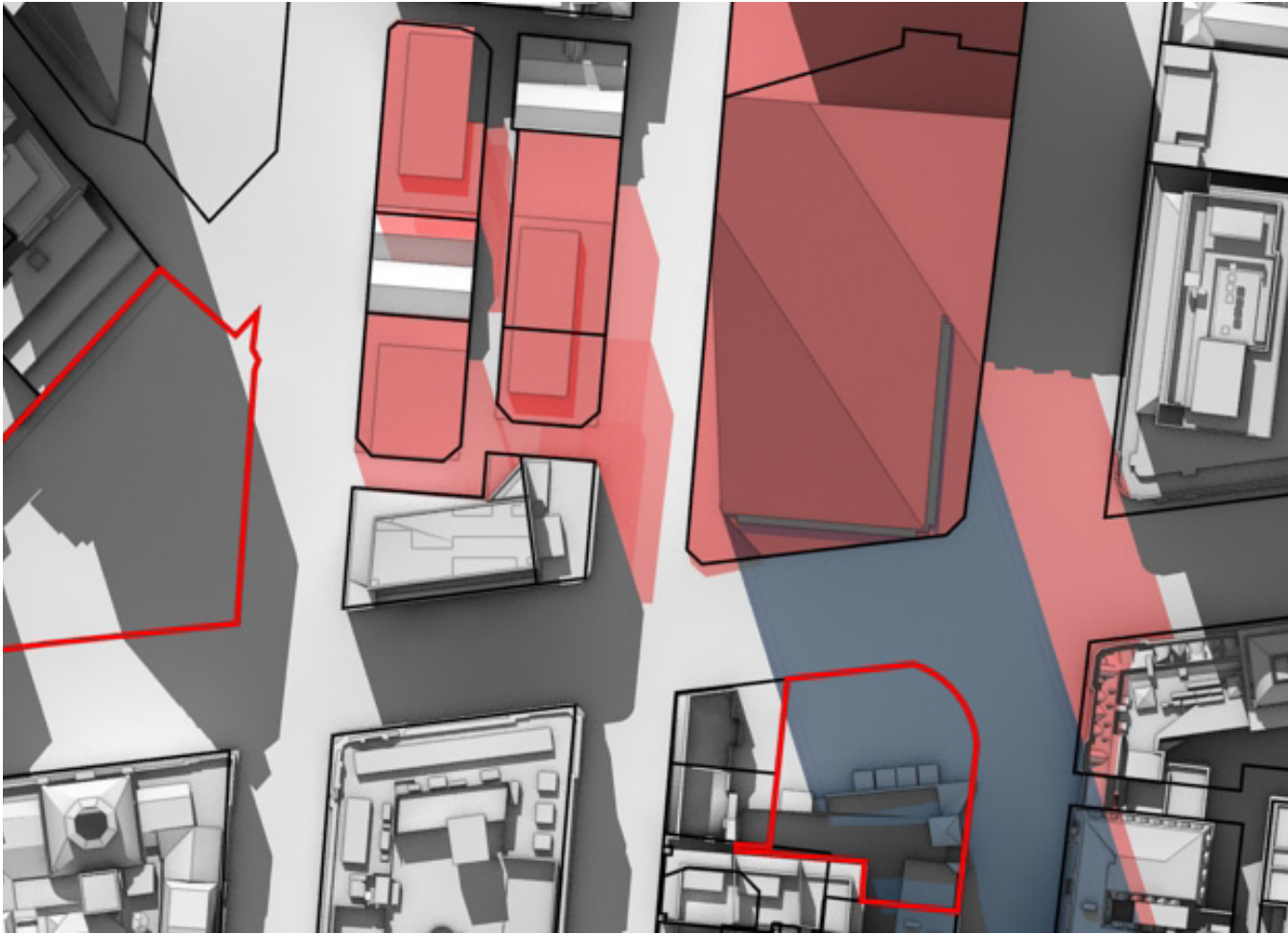
Date
31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

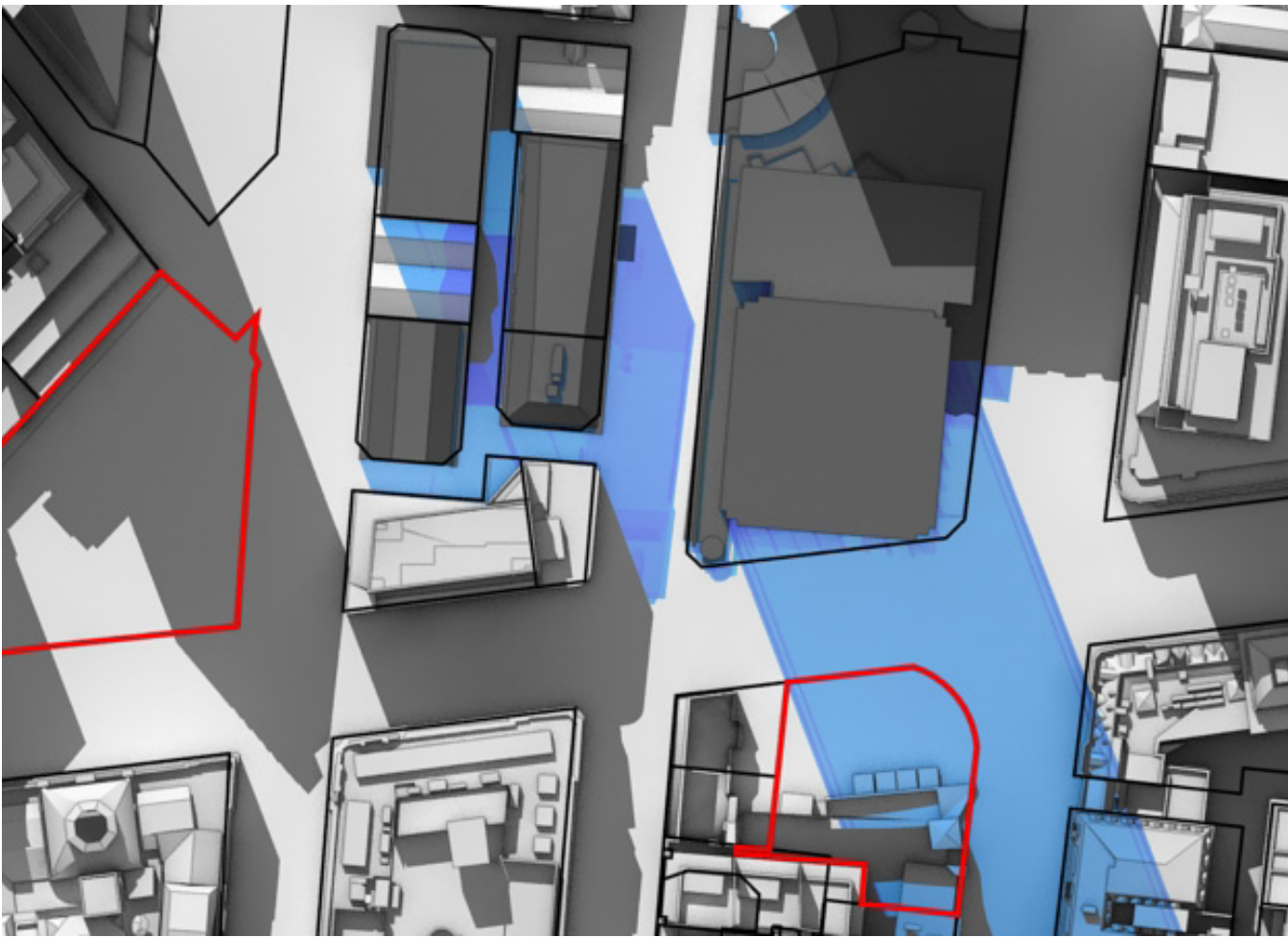
- Existing situation
- Proposed envelope



Time
12:40 pm

Date
31 August

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

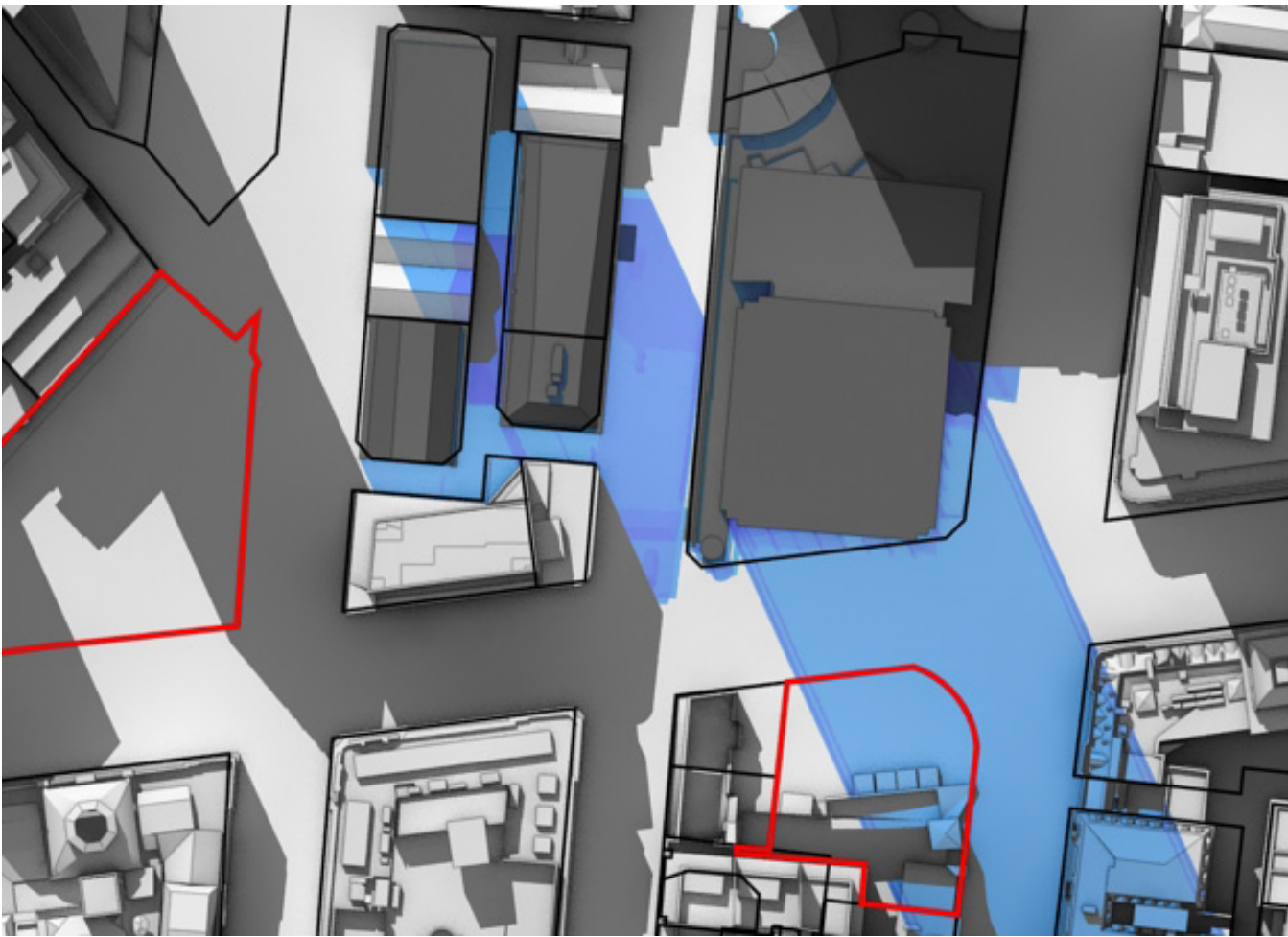


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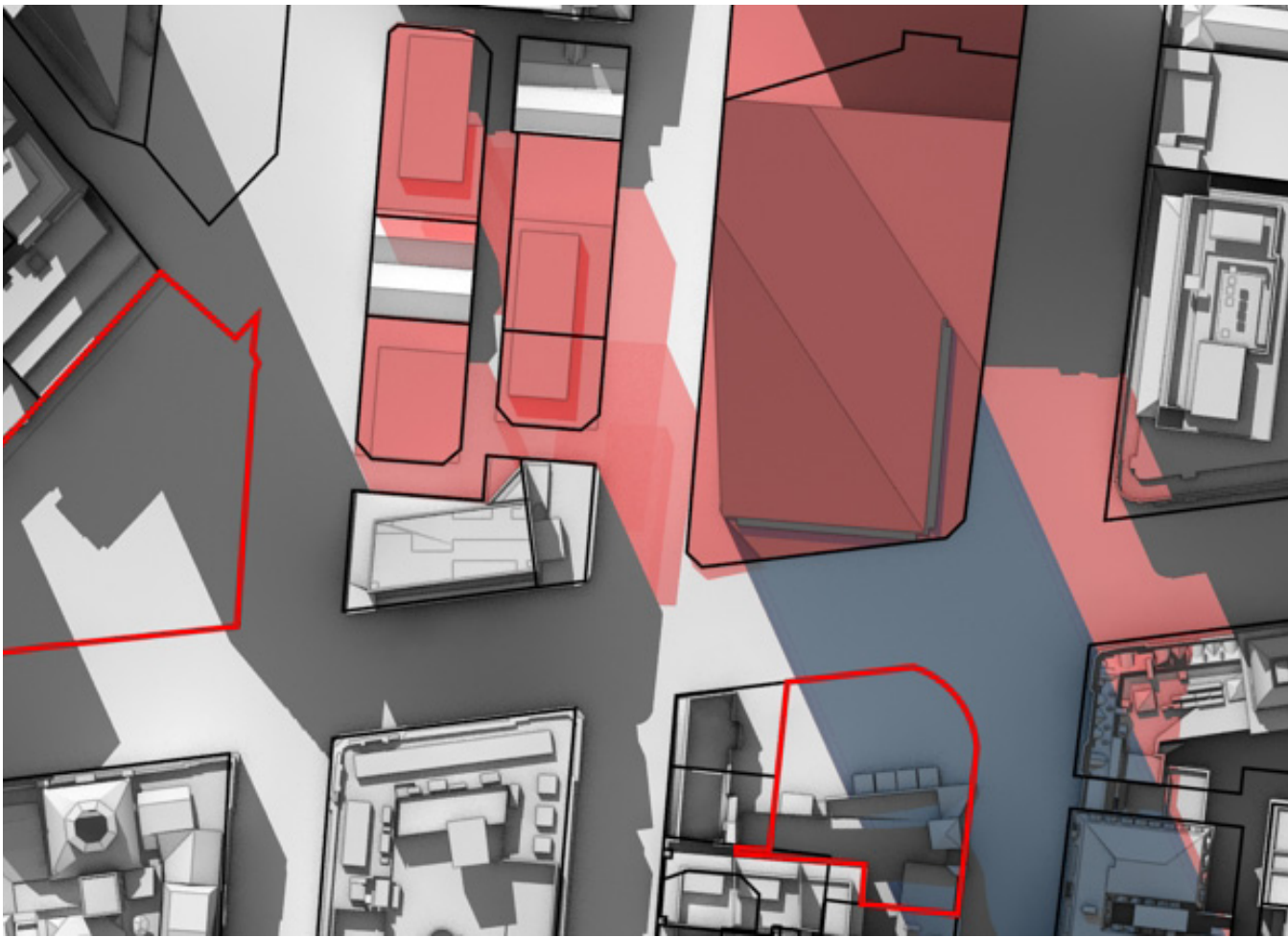
Date
31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

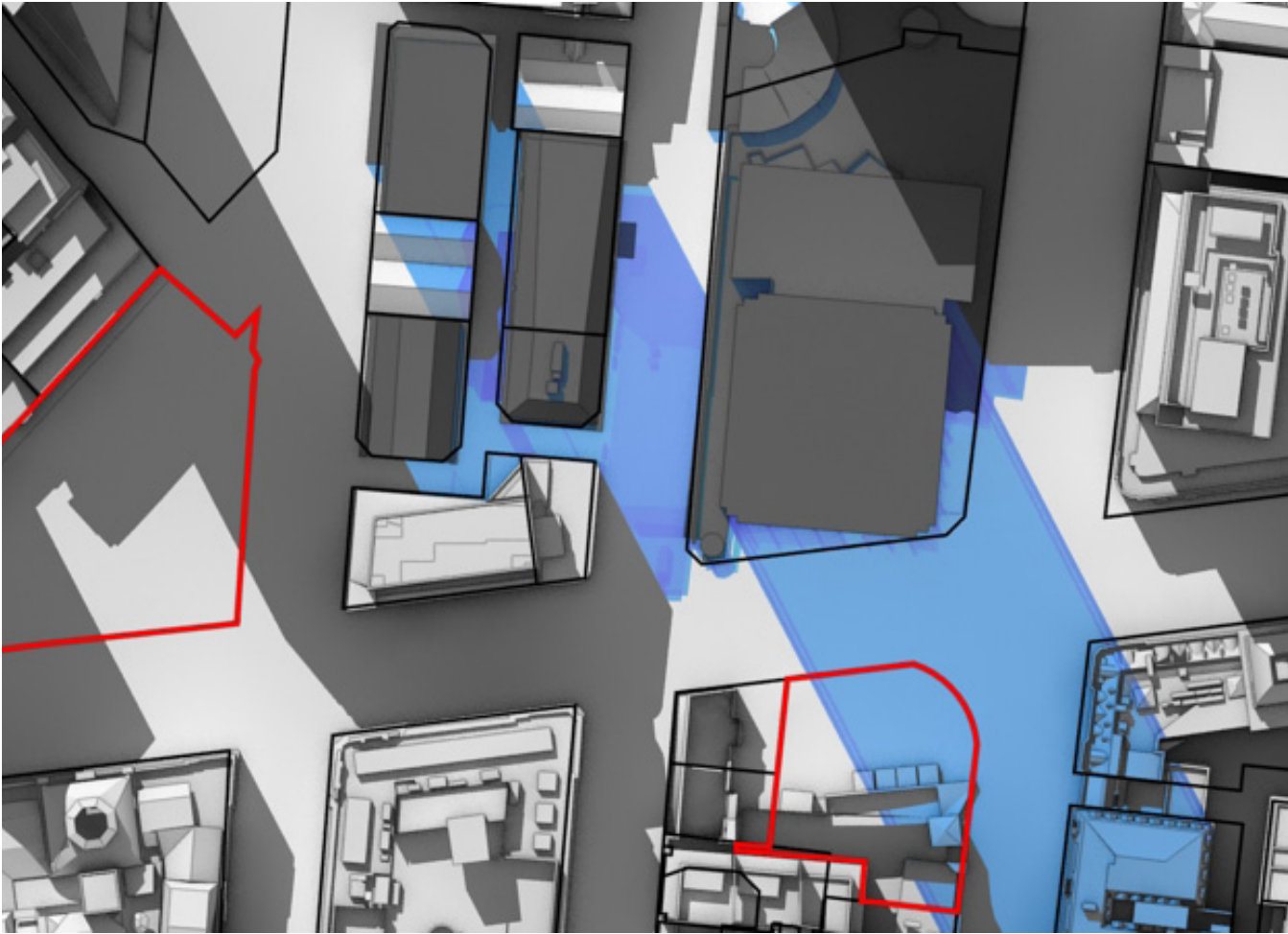
- Existing situation
- Proposed envelope



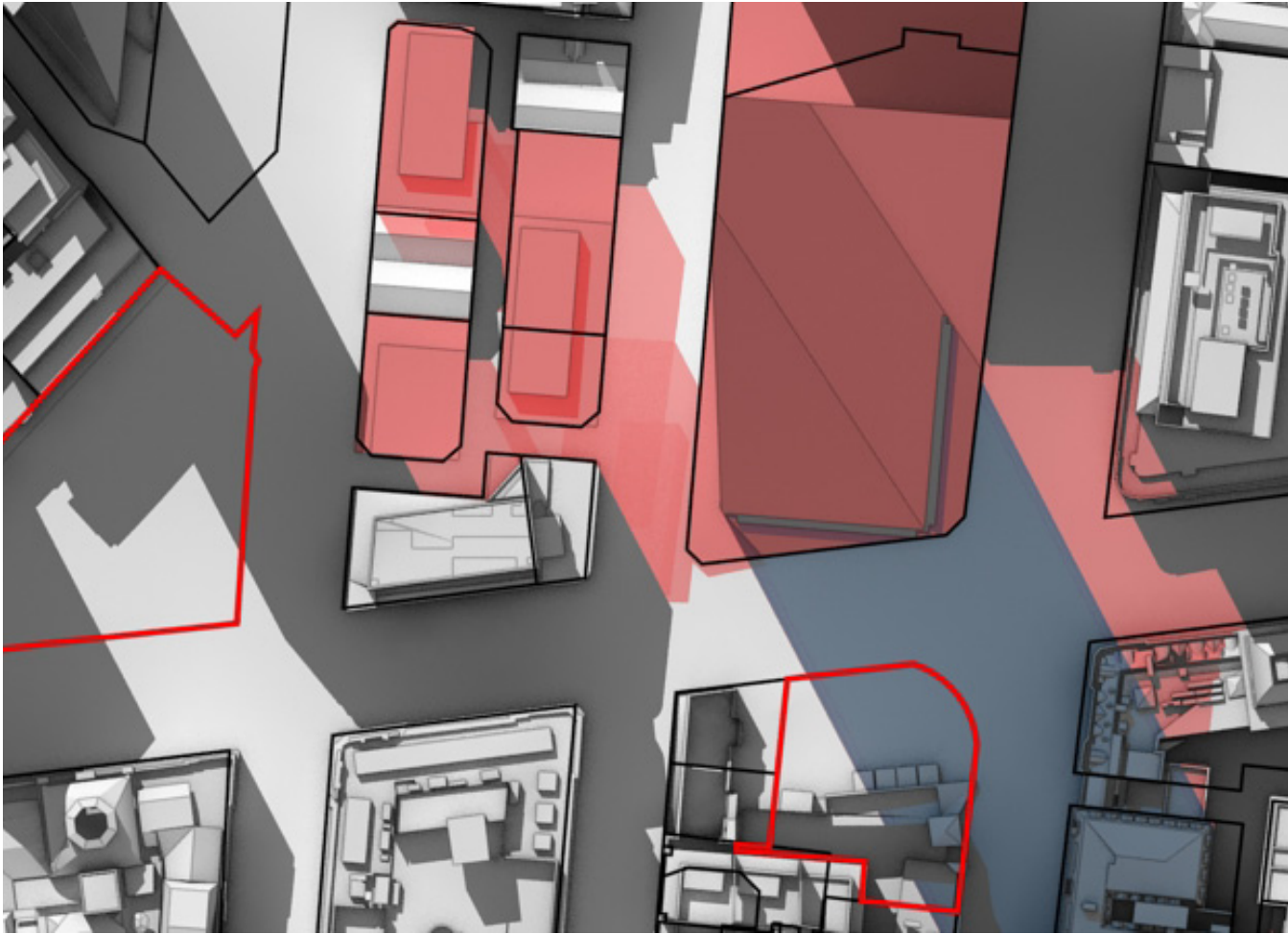
Time
01:00 pm

Date
31 August

First Government House Place



Existing



Proposed envelope

Legend

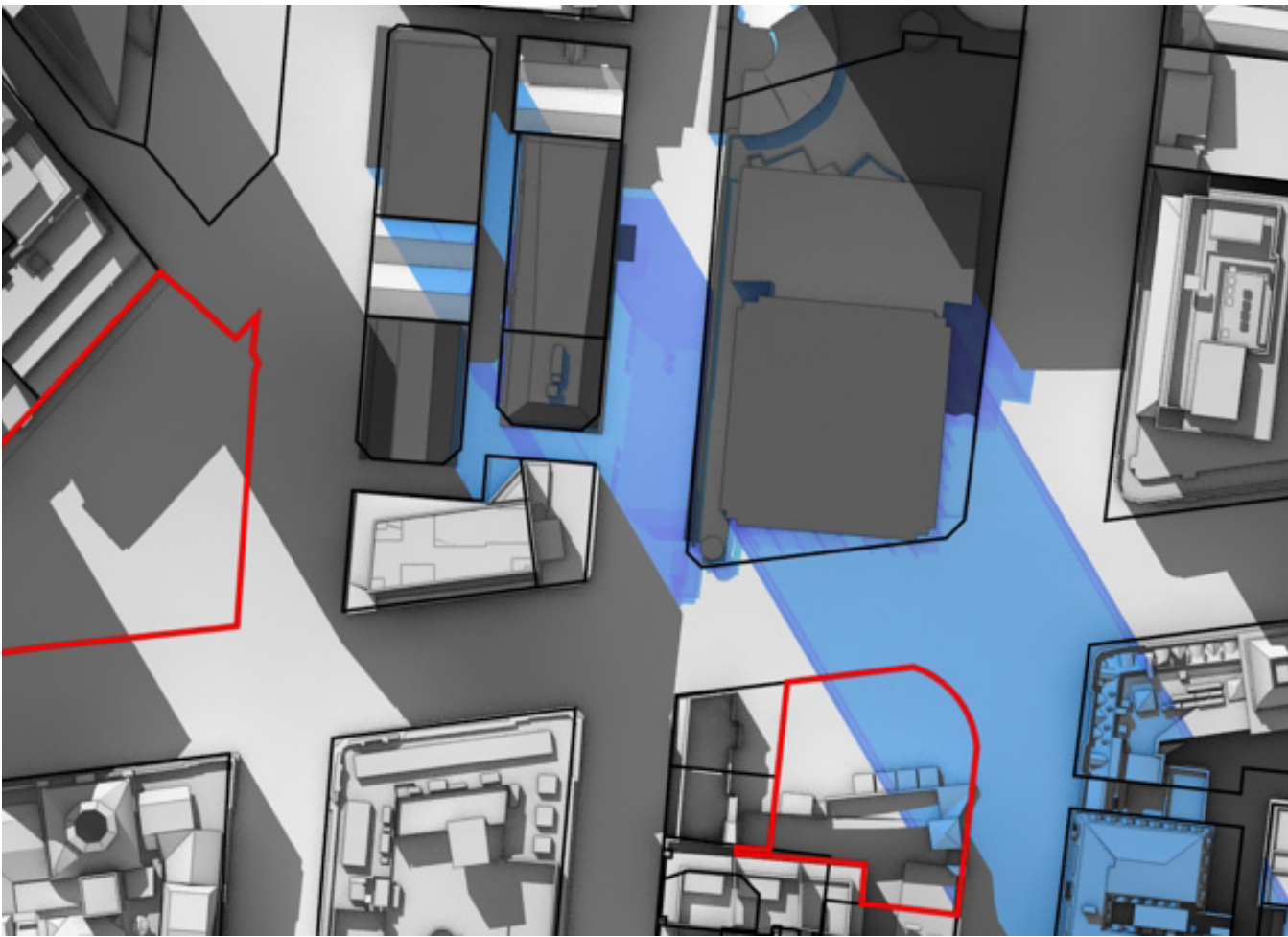
- Existing situation
- Proposed envelope



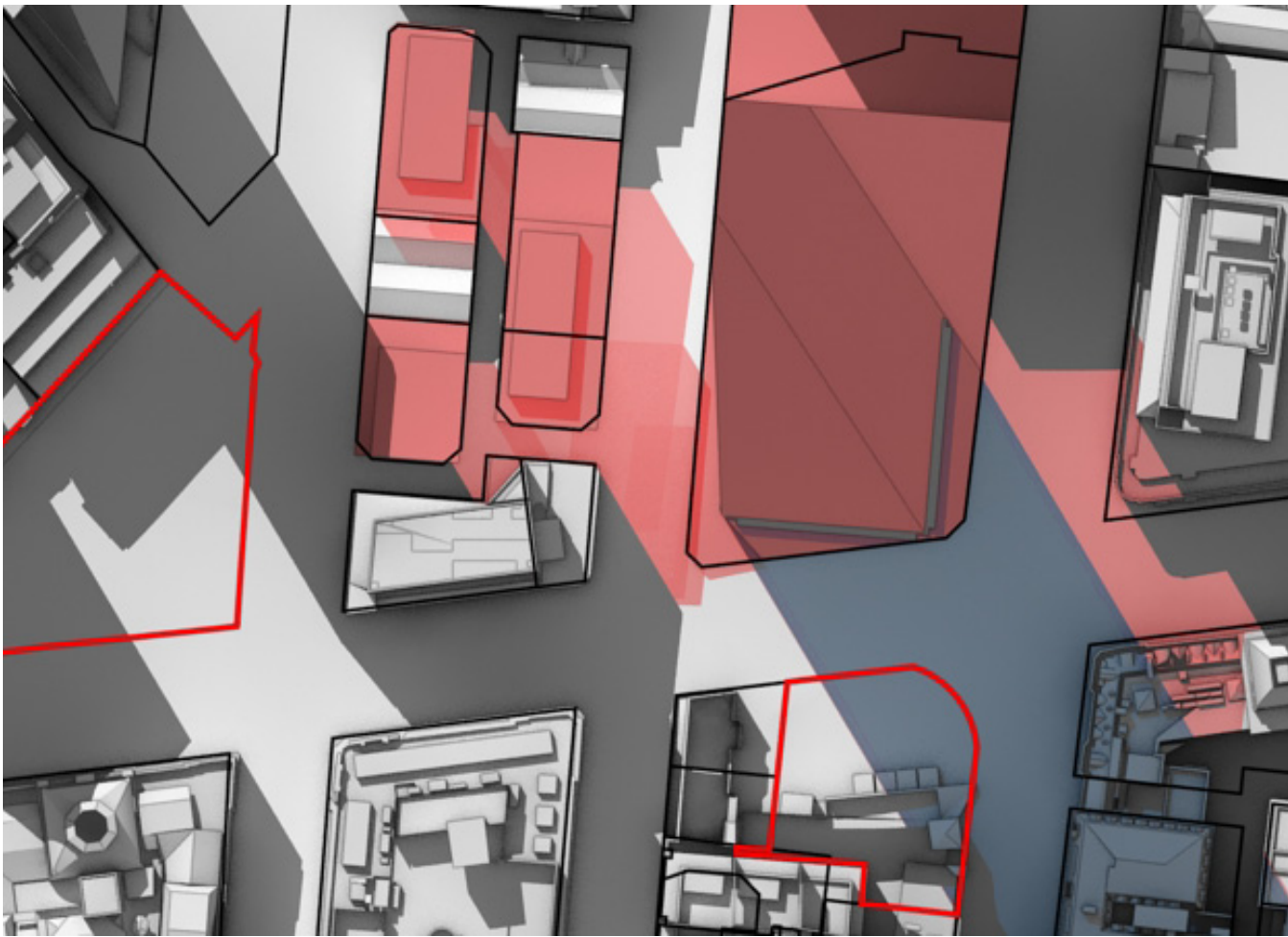
Time 01:10 pm Date 31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

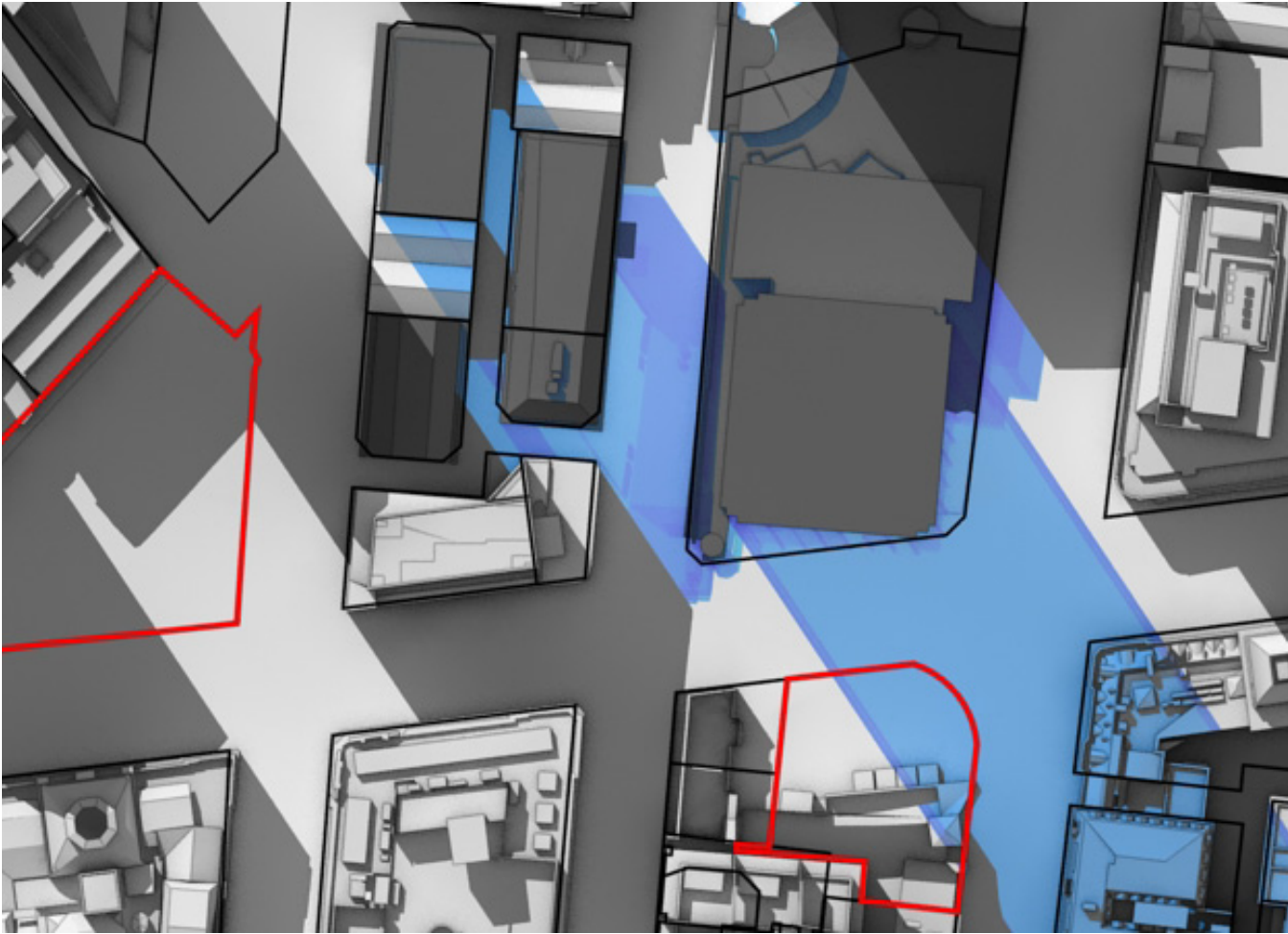
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- Proposed envelope



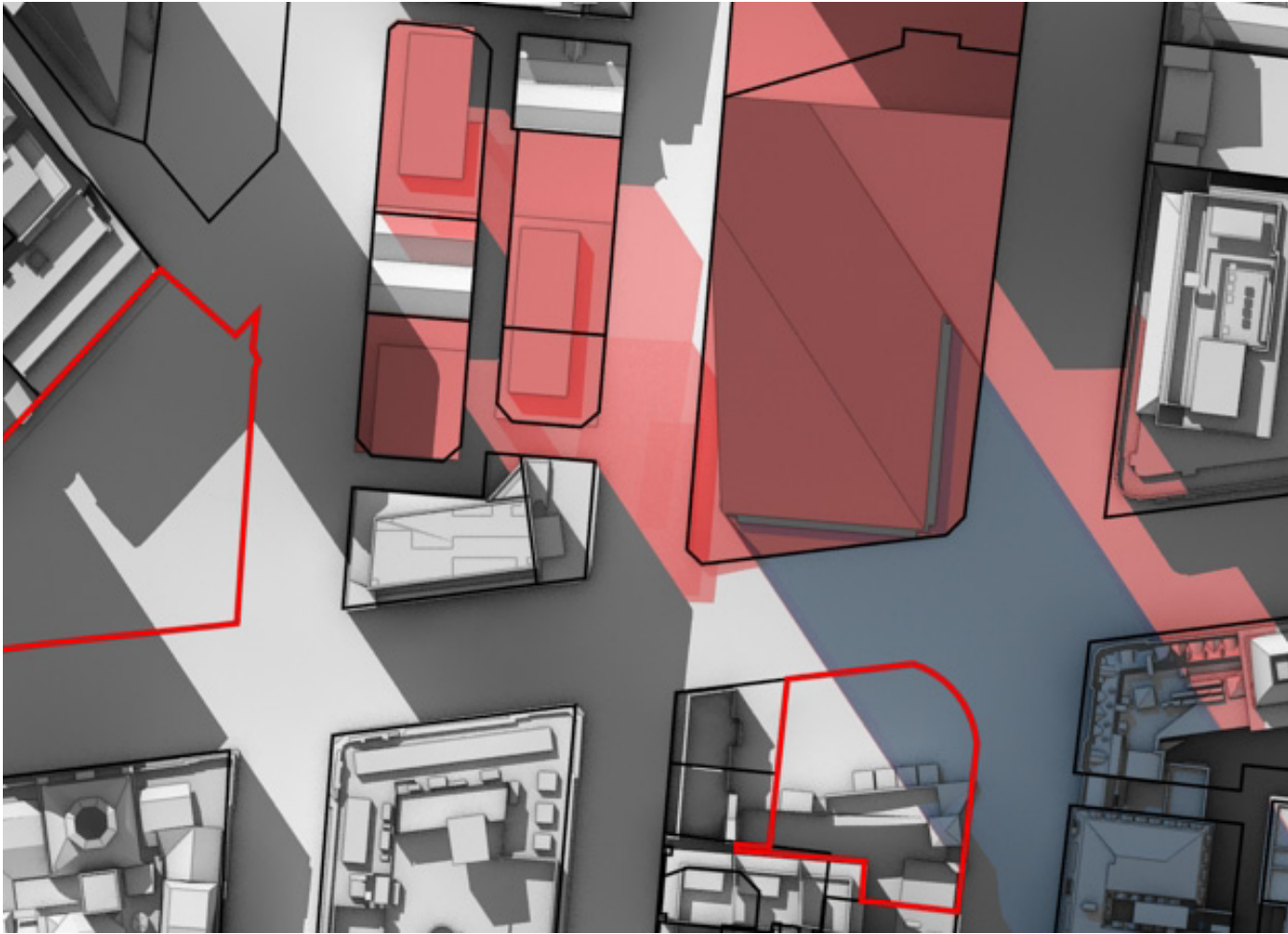
Time
01:20 pm

Date
31 August

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

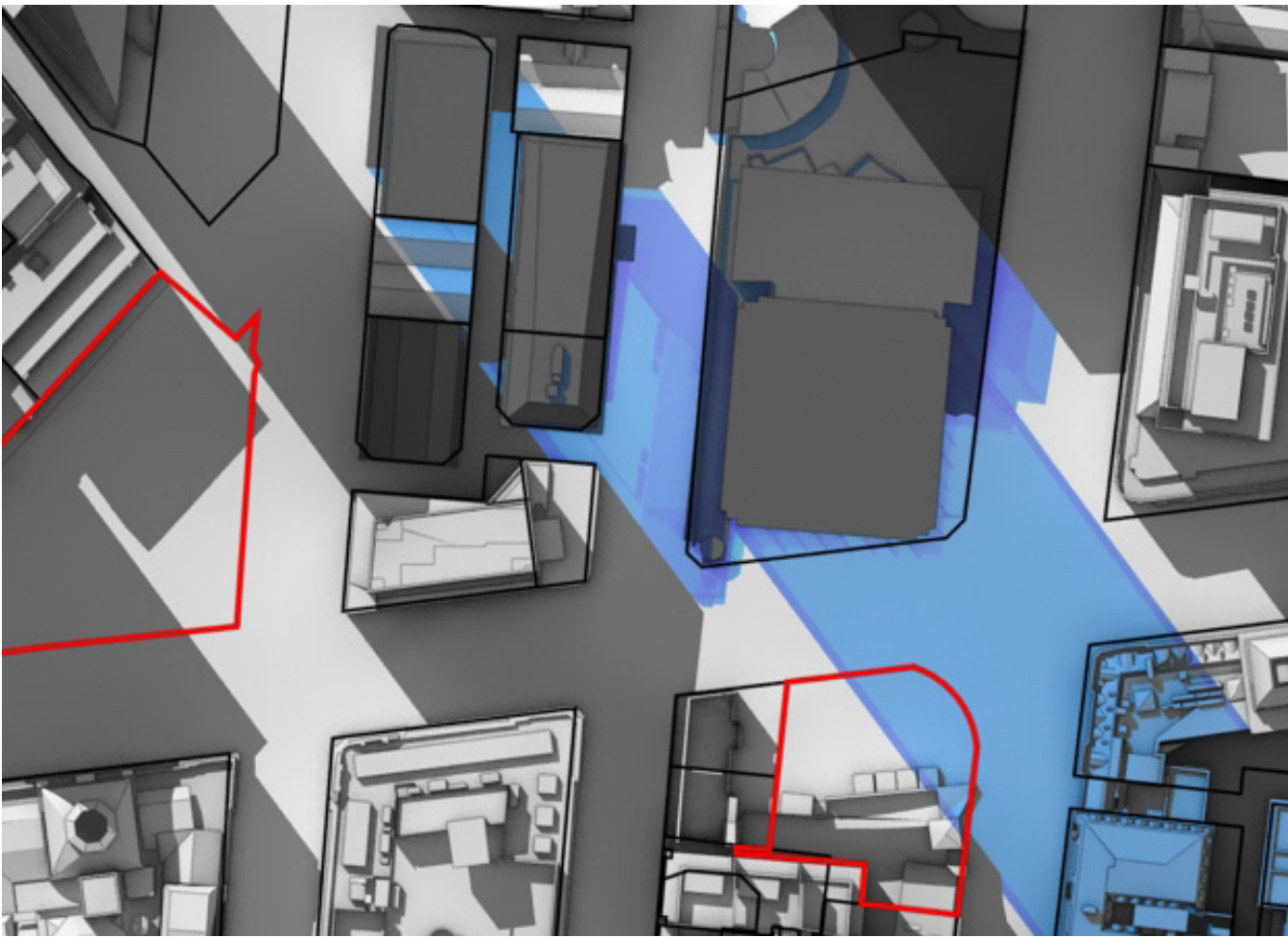


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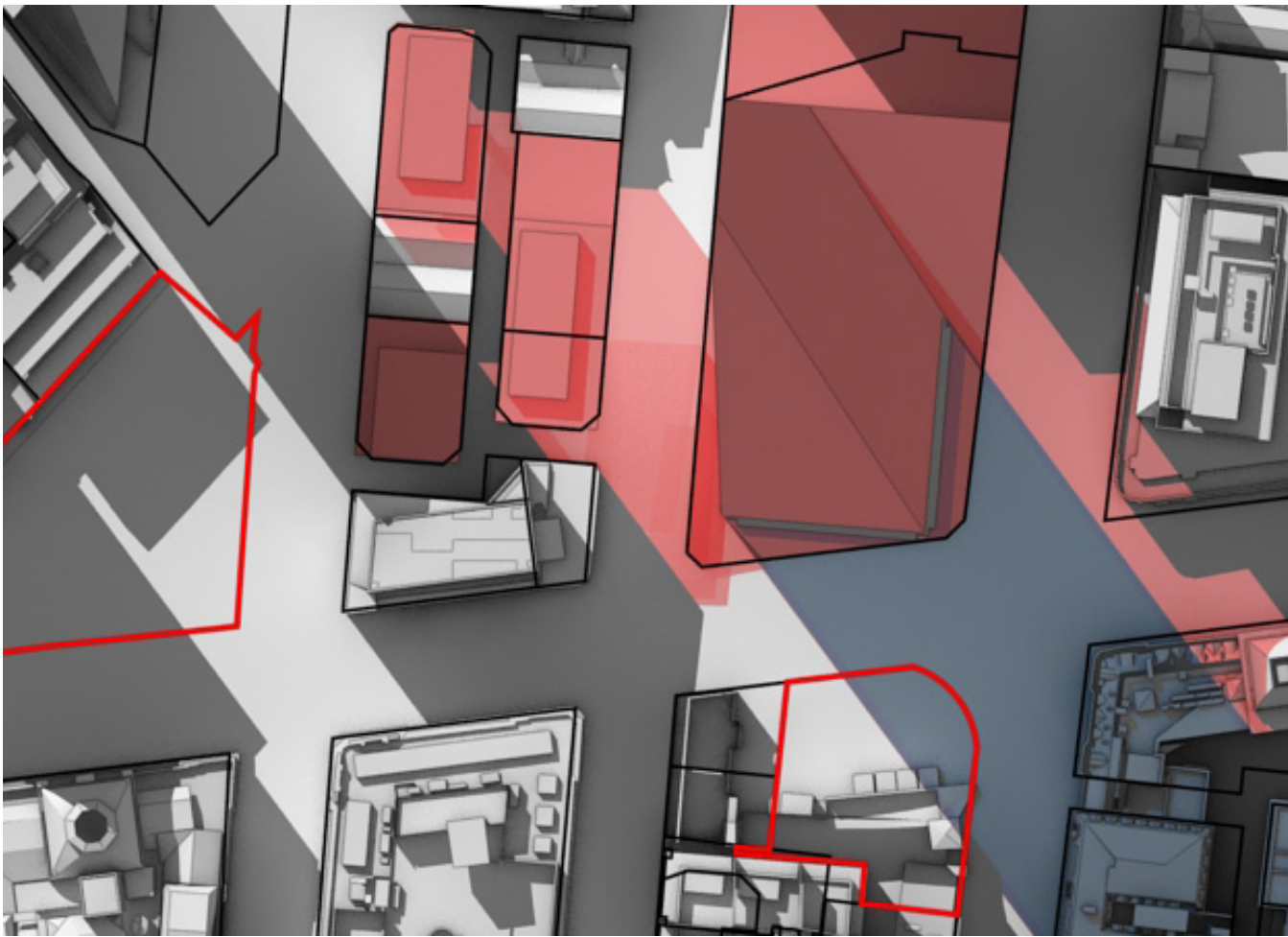
Date
31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

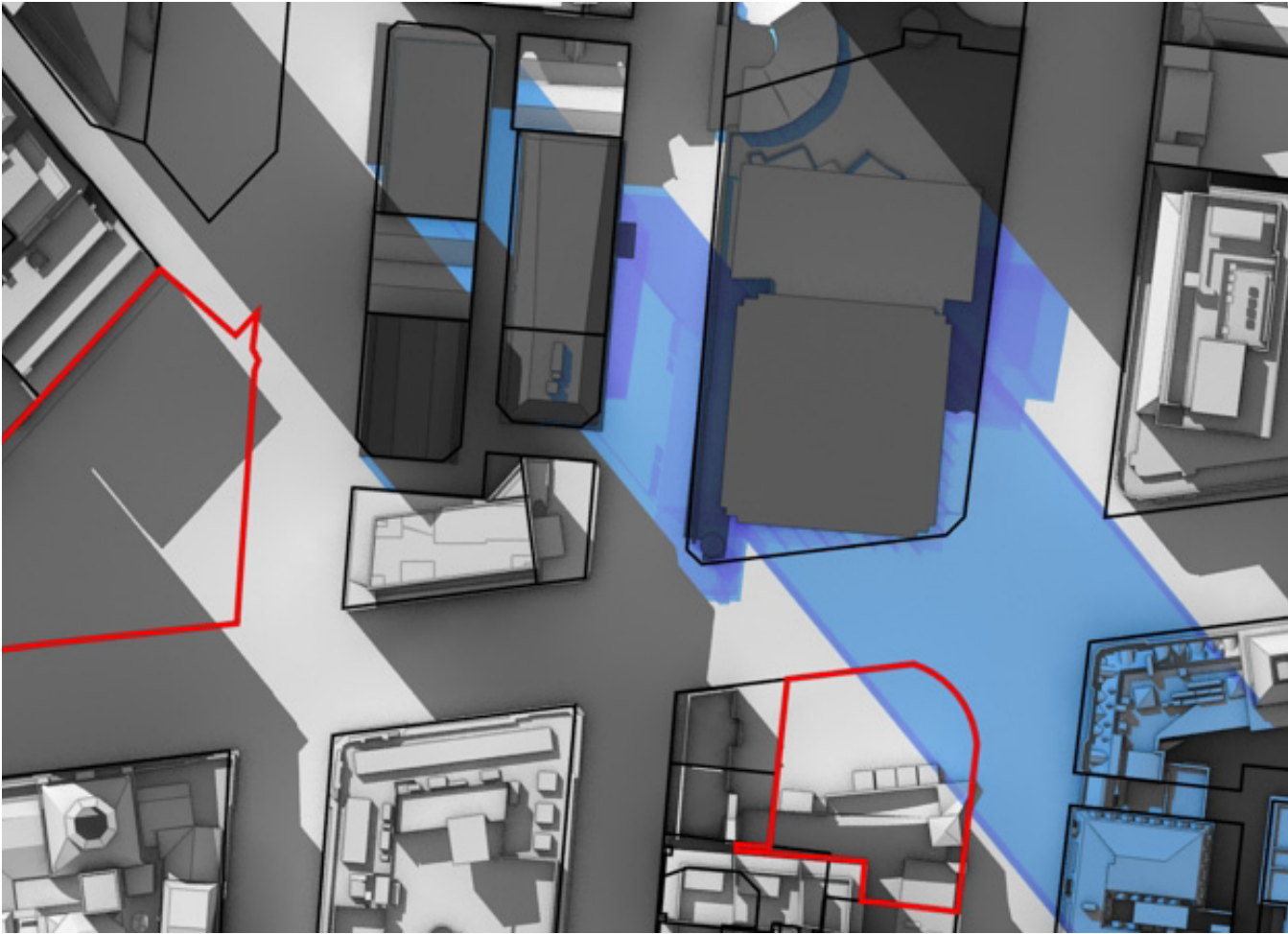
- Existing situation
- Proposed envelope



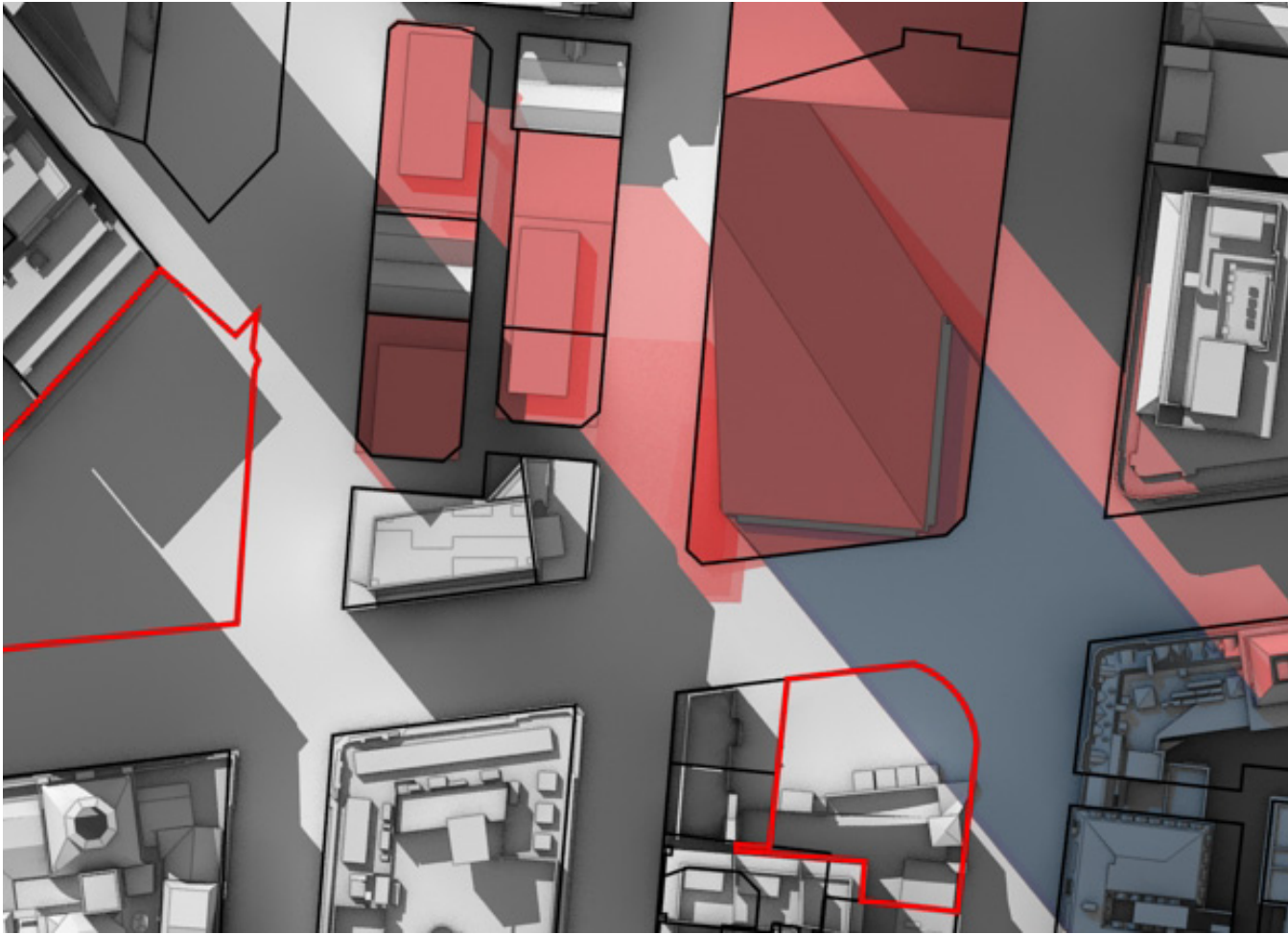
Time
01:40 pm

Date
31 August

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope

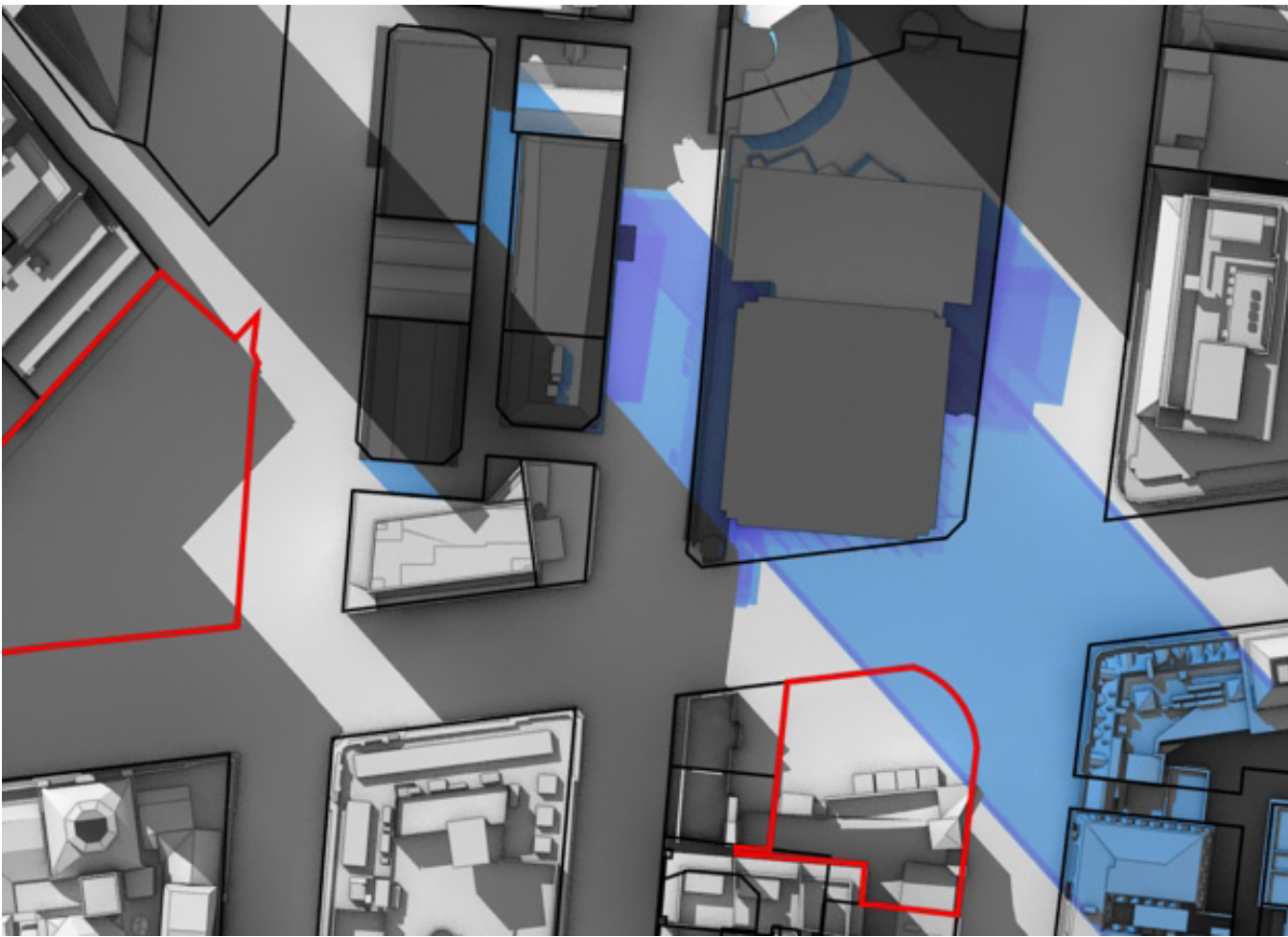


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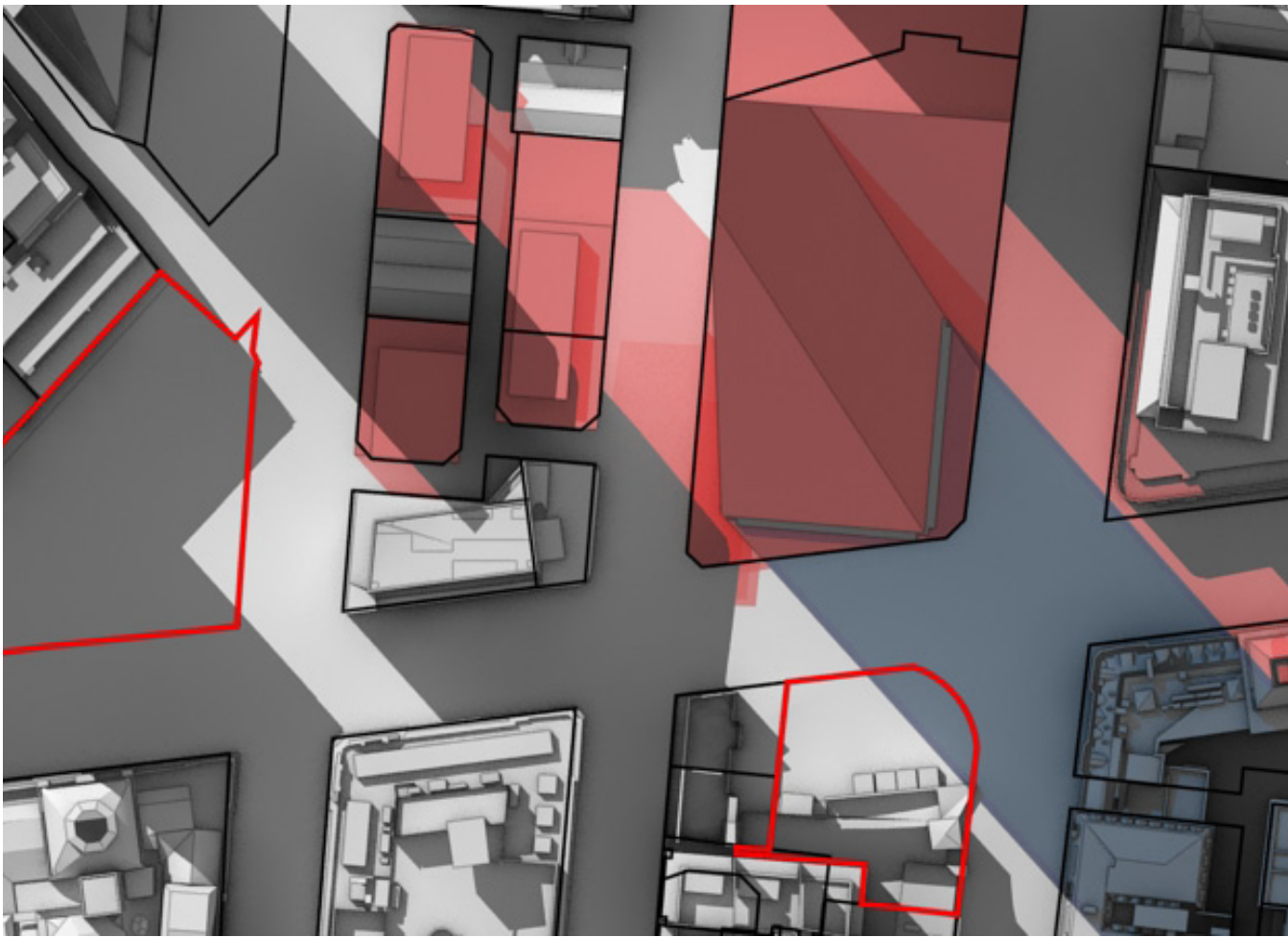
Date
31 August

Shadow and Sun Access Study

First Government House Place



Existing



Proposed envelope

Legend

- Existing situation
- Proposed envelope



Time
02:00 pm
Date
31 August

Australia

Adelaide
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Level 5
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