CBD Built Form Analysis

View from Olympic Drive, Kirribilli

View from Farm Cove

CBD Built Form Analysis

View from Circular Quay

View from the Sydney Harbour Bridge

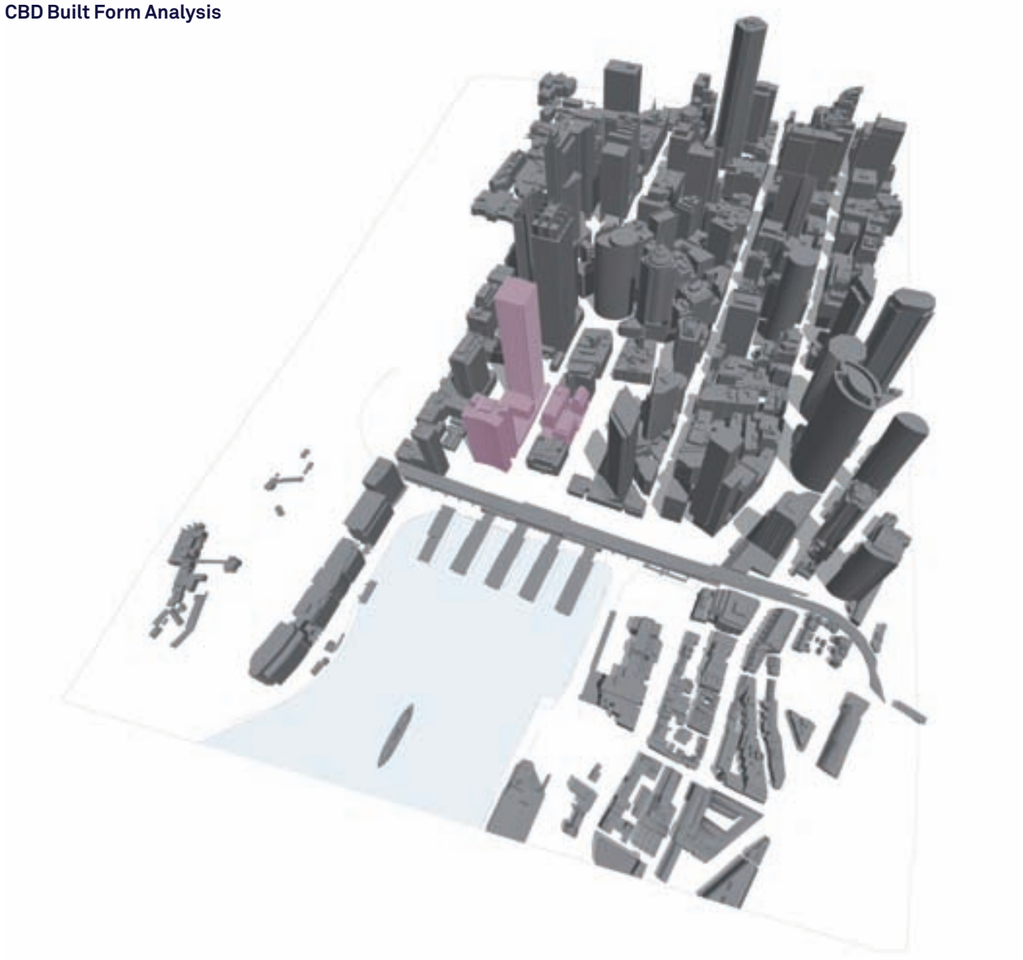
Built Form Strategies

CBD Built Form Analysis

The following diagrams illustrate a contextual urban built form analysis of the existing northern CBD, identifying the location and spread of both taller towers as well as clusters of lower scale buildings and open space.

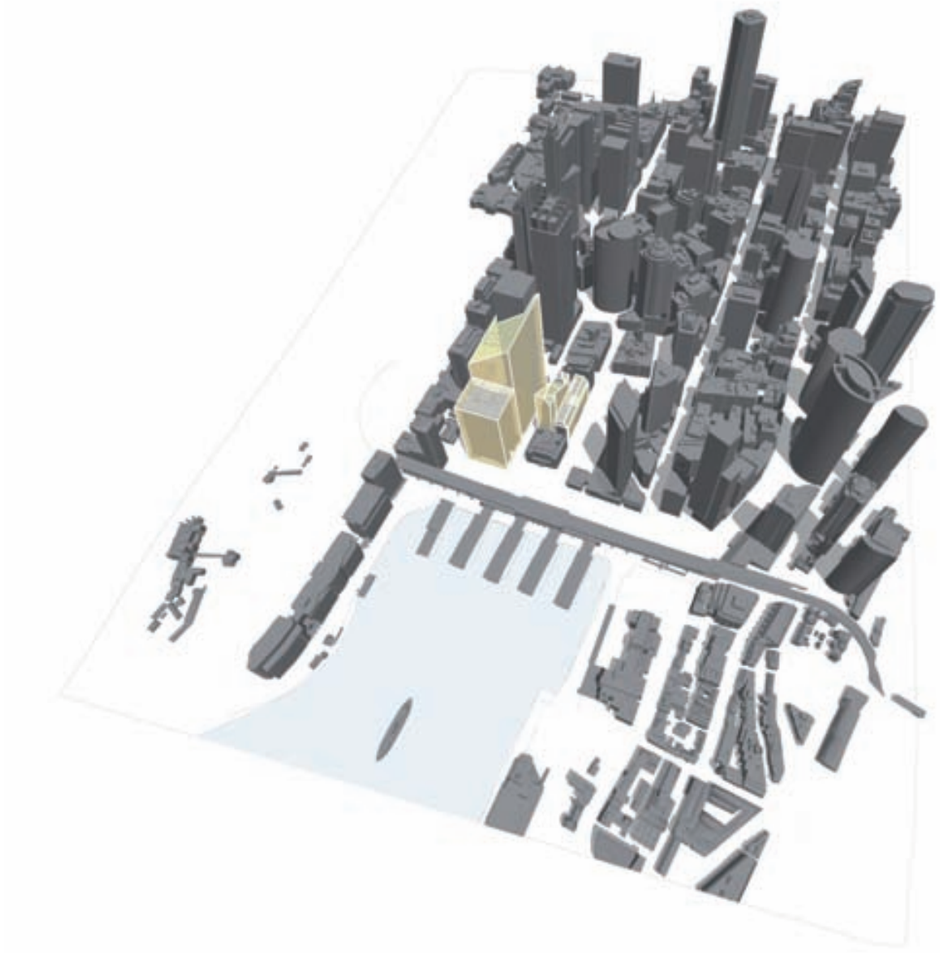
CBD Figure Ground

CBD Built Form Analysis



CBD Built Form

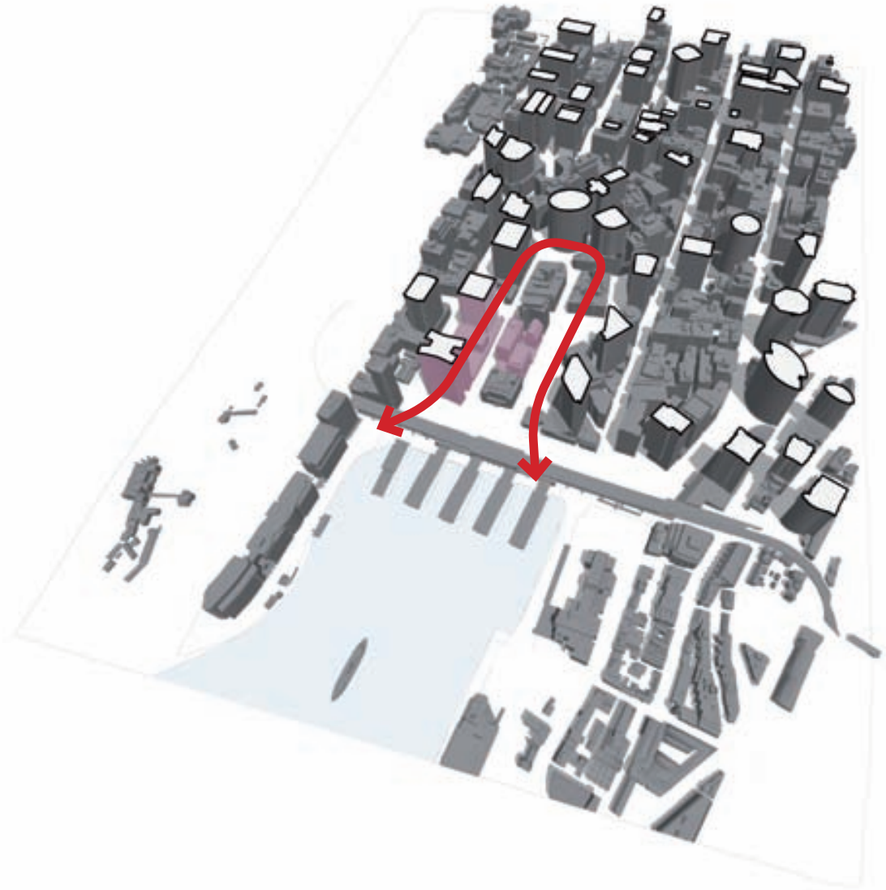
CBD built form highlighting existing precinct buildings



LEP Solar Access Envelopes at precinct

CBD Built Form Analysis

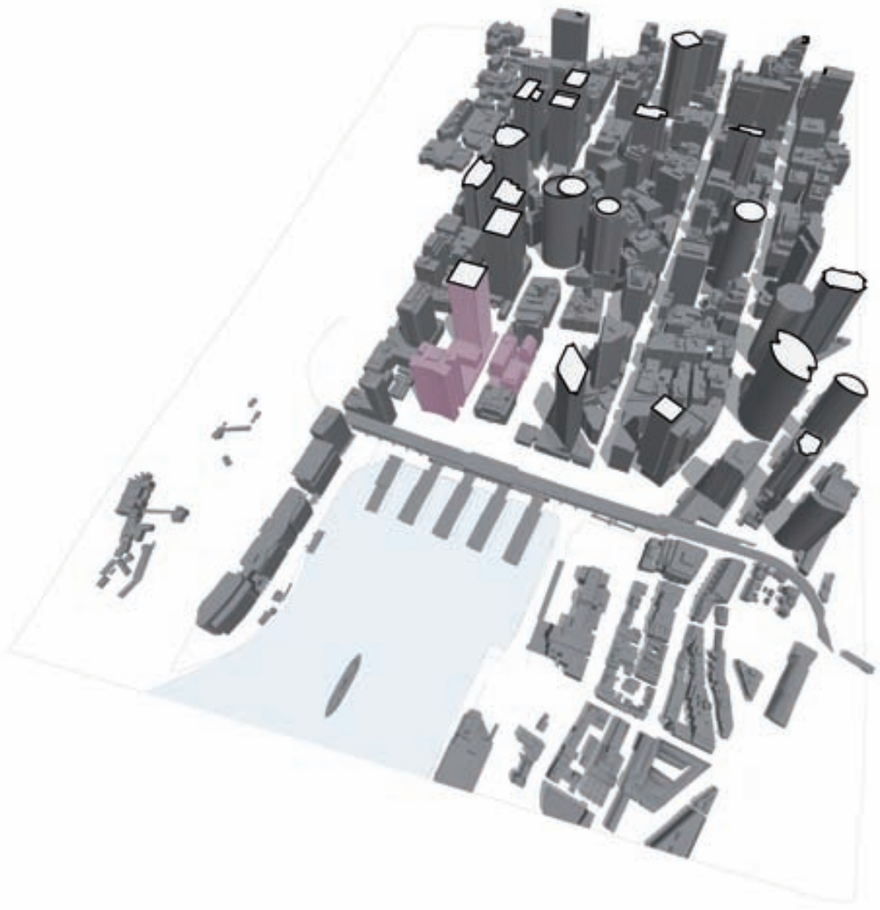
50m AHD



100m AHD

The Loftus Street ‘valley’ is clearly evident, extending from Circular Quay back to the Education Department building and the Lands Departments building on Bridge Street and terminated by the 1 Bligh Street Tower.

CBD Built Form Analysis



150m AHD

200m AHD

The cluster of large towers is clearly evident along the eastern edge of the CBD and financial district, culminating in the 50 Bridge Street tower at the northern end.

Built Form Controls

Clause 6.16 - Sun access planes

Sydney Local Environment Plan (LEP) 2011 - Draft
The objective of this clause is to ensure that buildings maximise sunlight access to the public places set out in this clause.

The consent authority must not grant consent to development on land if the development will result in any building on the land projecting higher than any part of a sun access plane taken to extend over the land under this clause.

_Macquarie Place
Approximately 35 metres above the junction of the eastern alignment of Loftus Street and the northern alignment of Loftus Lane and approximately 35 metres above the junction of the eastern alignment of Loftus Street and the southern alignment of Customs House Lane.

_Royal Botanic Gardens
Approximately 45 metres above the western alignment of Macquarie Street where that alignment is directly below the southern alignment of the Cahill expressway and approximately 45 metres above the western alignment of Macquarie Street 94 metres roughly north from the junction of the western alignment of Macquarie Street and the northern alignment of Bent Street.

Clause 6.18 - Overshadowing of certain public places

Sydney Local Environment Plan (LEP) 2011 - Draft
The consent authority must not grant consent to development that results in any part of a building causing additional overshadowing between 14 April and 31 August in any year of any of the following locations during the times specified below:

_First Government House Place—between 12.00–14.00

_Macquarie Place (beyond the shadow that would be cast by a wall with a 35 metre street frontage height on the eastern alignment of Loftus Street) between 10.00–14.00

A development causes additional overshadowing if the total overshadowing ofthe relevant location during the specified times is greater after the development is carried out than the overshadowing of that location during the specified times caused by buildings existing as at 1 January 2010.

Section 5 - Specific Areas

Sydney Development Control Plan (DCP) 2010 - Draft

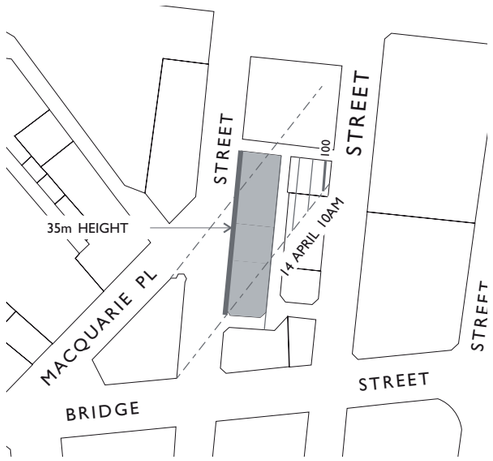


Figure 5.27 - Macquarie Place Controls 14 April 10am

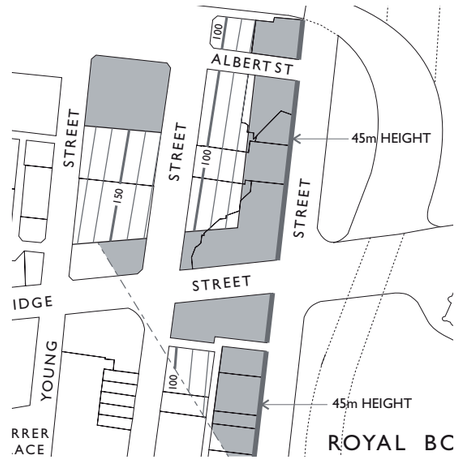


Figure 5.31 - Royal Botanic Gardens Controls 21 June 2pm

Built Form Strategies

Built Form Controls

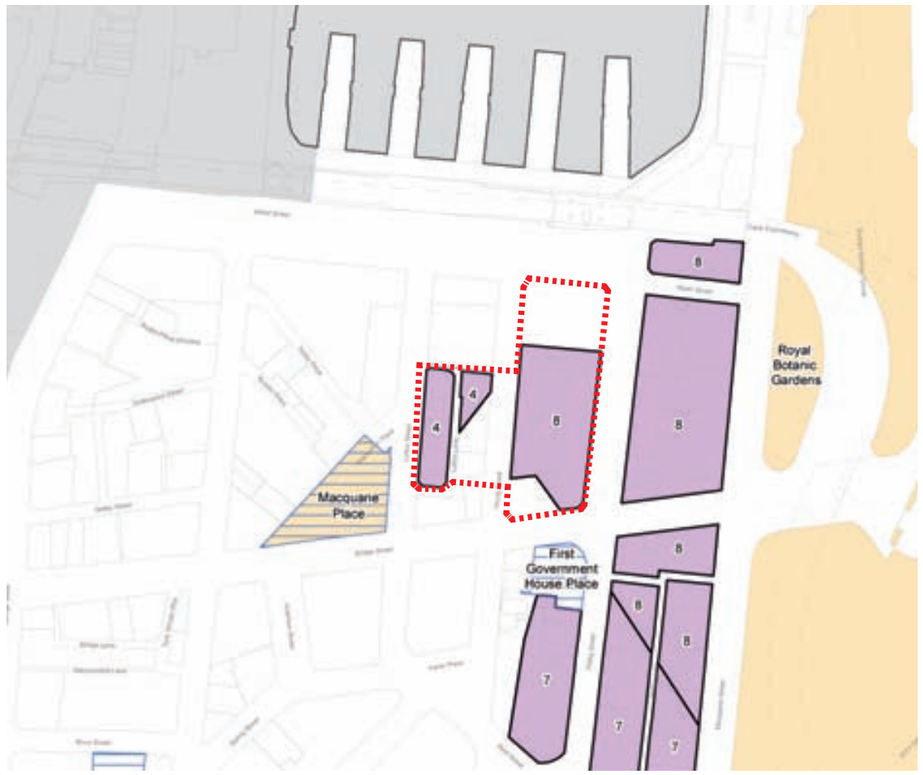
Height of Buildings Map (Sydney Local Environment Plan 2011 Draft)

Maximum Building Height (m)

X 45
Z 55
AC 110
AH 235
Area 1 - Existing height
Area 2 - Exisitng height under sun access plane - refer to clause 6.16
Area 3 - Sun access plane - refer to clause 6.16

Sun Access Protection Map (Sydney Local Environment Plan 2011 Draft)

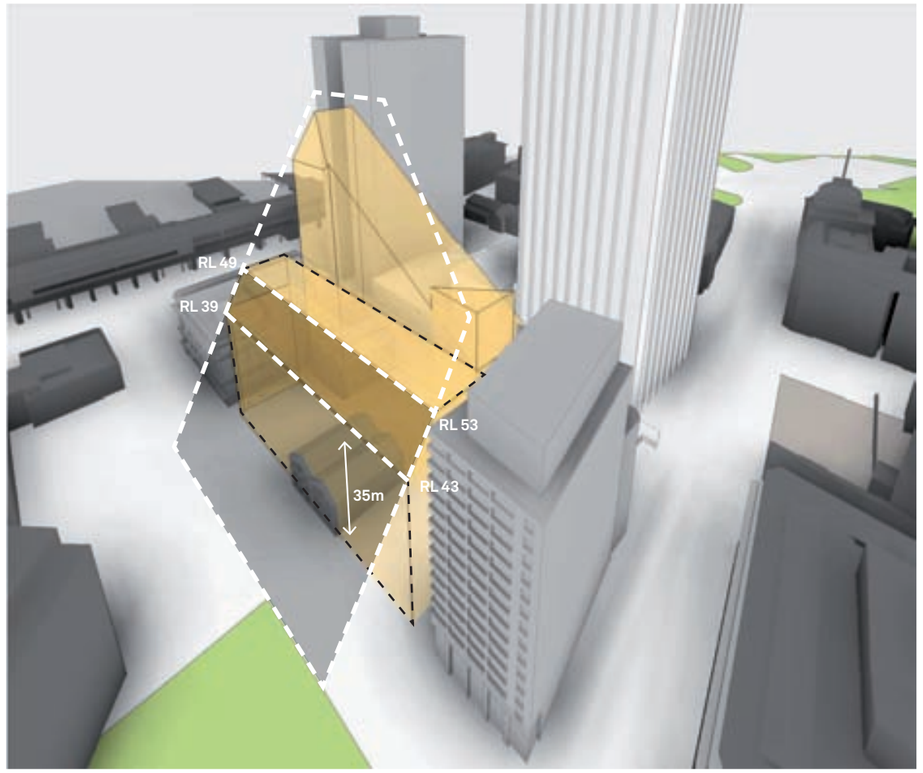
Land Affected by Sun Access Planes



4 Macquarie Place 4
7 The Domain 7
8 Royal Botanic Gardens 8
Protected Area - refer to clauses 6.16 to 6.18
No Additional Overshadowing - Refer to clause 6.18

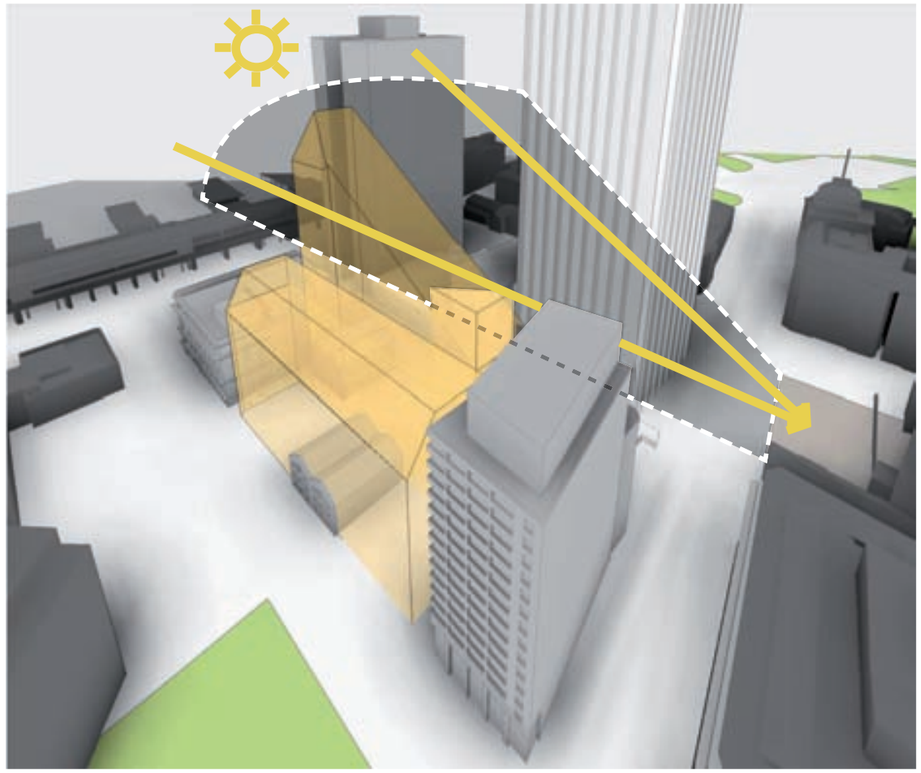
LEP Solar Access Plane

Young and Loftus Block



Macquarie Place

No overshadowing to the Macquarie Place on 14 April 10am, beyond that of a street wall height of 35 m on the eastern alignment of Loftus Street.

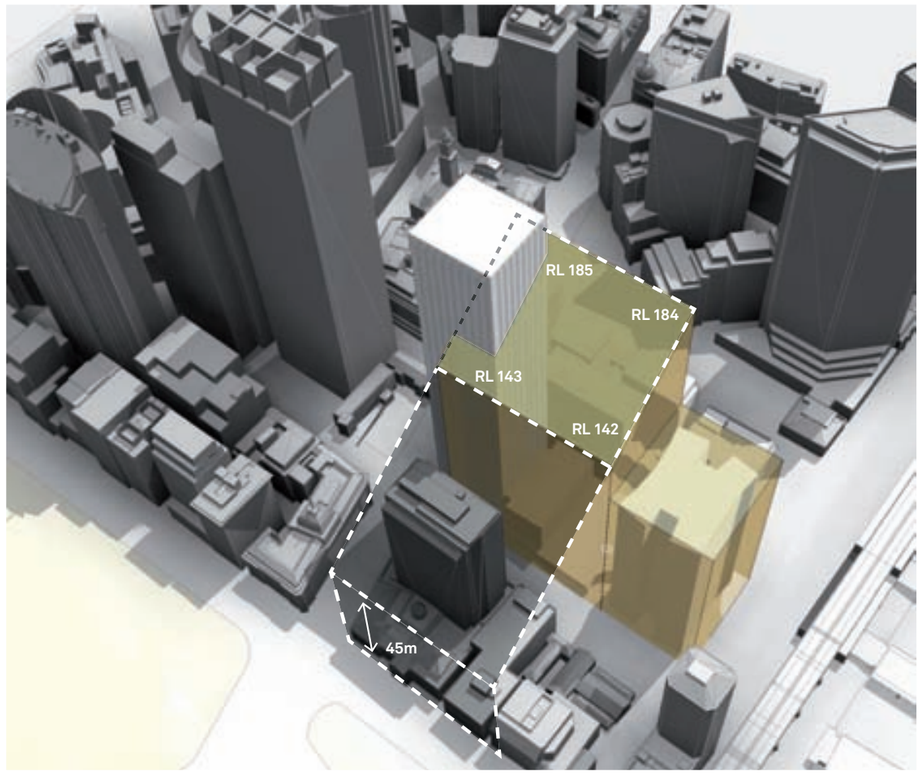


First Government House Place

No overshadowing to the First Government House Place, in addition to that existing, between 14 April 31 August 12pm-2pm

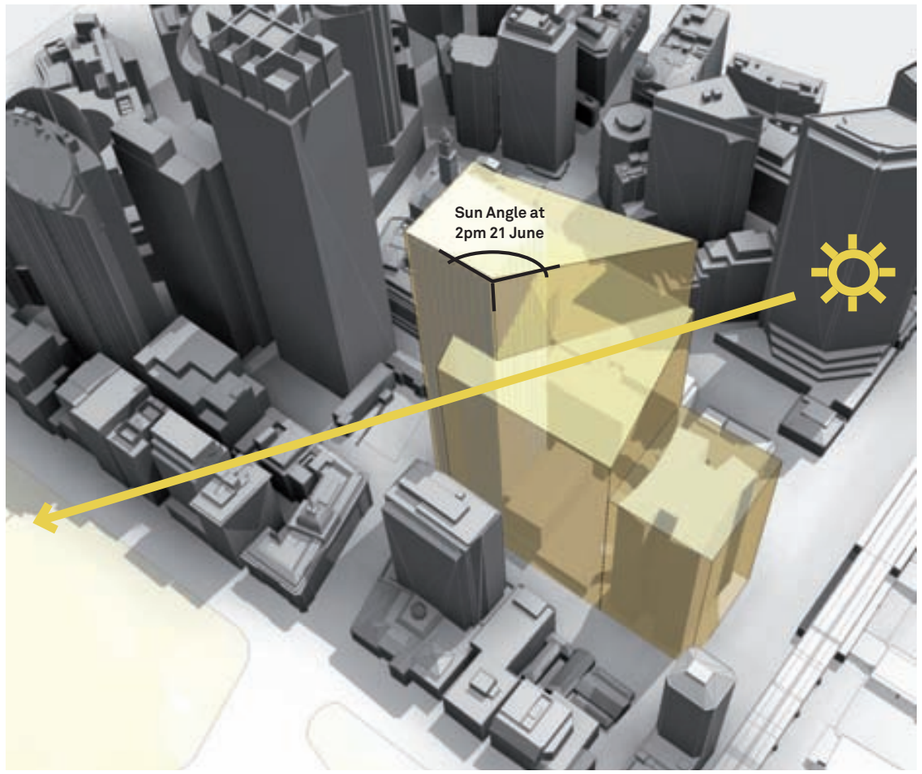
LEP Solar Access Plane

Bridge and Alfred Block



Botanic Gardens

No overshadowing to the Botanic Gardens on 21 June 2pm, beyond that of a street wall height of 45 m on the western alignment of Macquarie Street.



Botanic Gardens

Given the retention of the existing Bridge Street tower, the interpreted solar access plane would cast no additional shadows onto the Botanic Gardens 21 June 2pm.

Young and Loftus Block

Young and Loftus Built Form Principles

_Establish a vibrant laneway precinct and pedestrian destination with a retail activated ground plane

_Mixed use developments that support residential, retail, commercial, hotel, serviced apartments educational, bars or restaurants

_Lower scale buildings that respond to the scale of adjacent heritage items and provide a transition in scale and built form

_Maintain the existing built form height of the southern buildings of the Young & Loftus Street block

_Reduce built form height to the northern buildings of the Young & Loftus Street block

_Improved solar access and reduced overshadowing to Macquarie Place with no additional overshadowing to First Government House Place

_Consolidate vehicle movements to a single entry/ exit point and a united basement to free up the ground plane and laneway for pedestrian uses

A vibrant mixed use neighbourhood and laneway precinct with low scale boutique developments

Mood board and precedents for character and use








Young and Loftus Block

Contextual Built Form Analysis

The Macquarie Place, Bridge Street and Young Street streetscape is generally low to mid rise and characterised by a mixture of large civic heritage buildings, predominantly of classically composition with a robust sandstone nature juxtaposed with a finer urban grain of smaller more vertical mixed use building with retail bases. In replacing the poorer quality infill buildings of the Young and Loftus block, the opportunity exists for a finer grain proportion, scale and texture .

A_ Macquarie Place

B_ Bridge Street

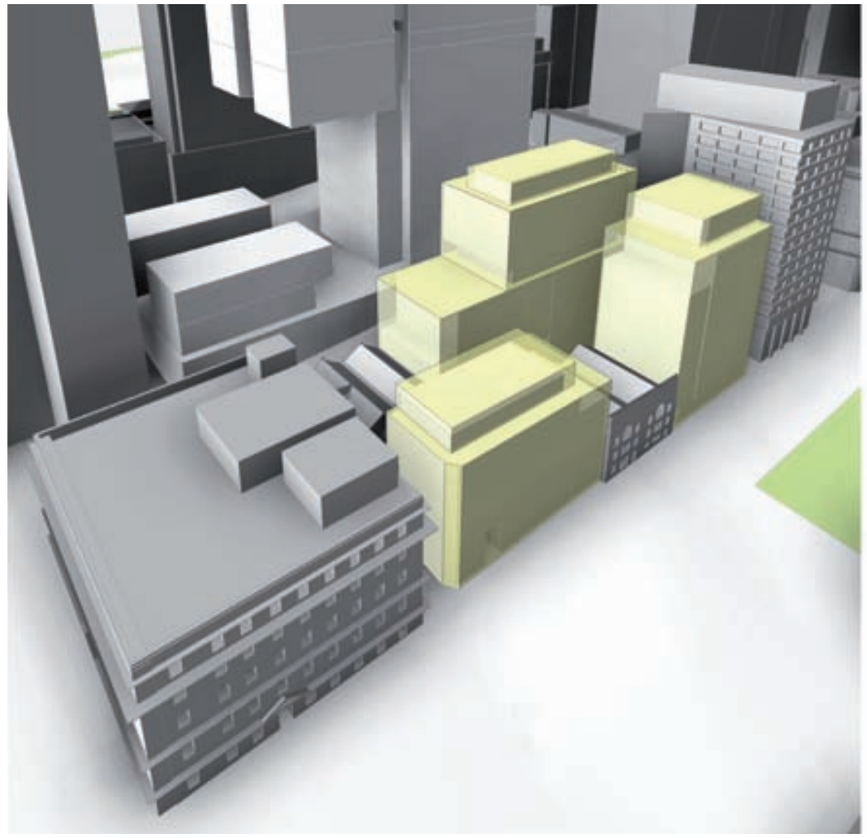
Legend

- Sandstone civic buildings and civic streetscape
- Finer grain streetscape

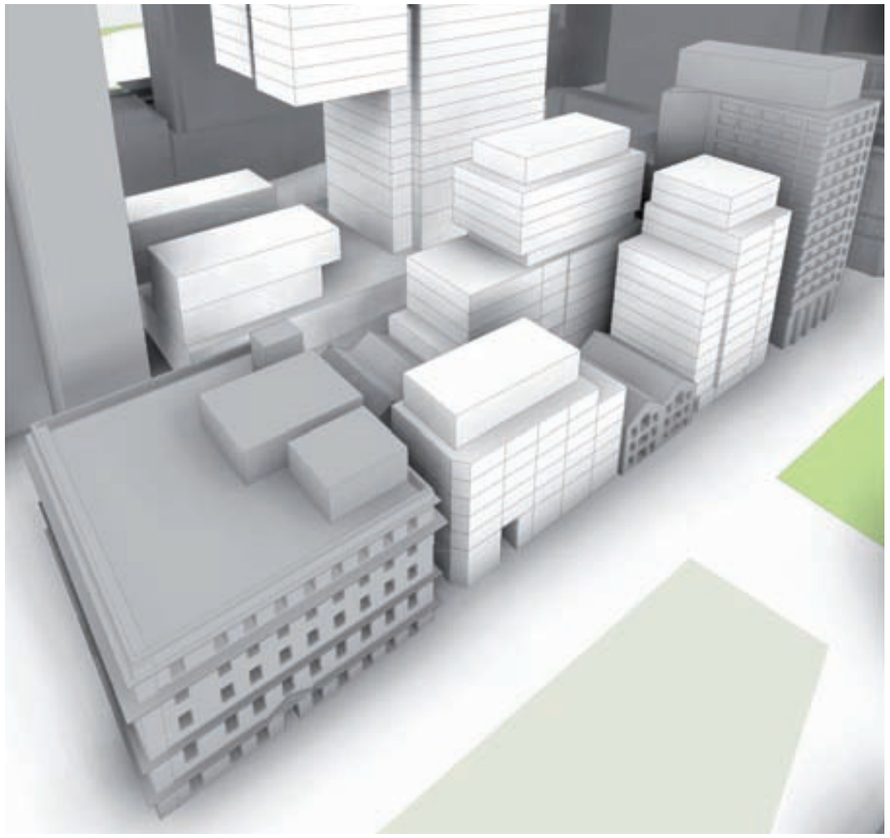
Built Form Strategies

Young and Loftus Block

Contextual Built Form Analysis



Proposed Built Form Envelope



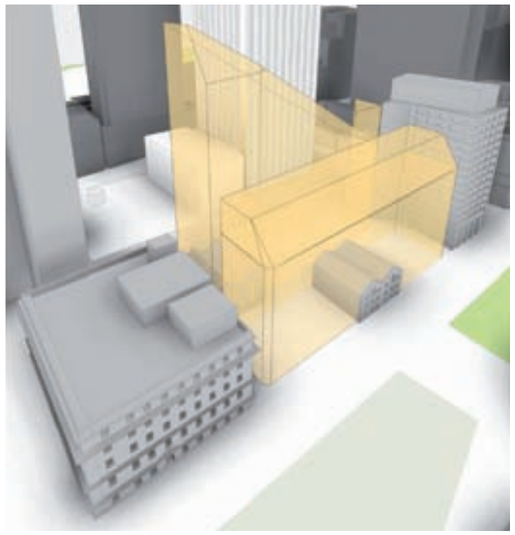
Indicate Massing

The proposed built form envelope documents the geometric envelope achievable within the constraints of the site, the indicative massing demonstrates one arrangement of the floor space quantum within the proposed envelope. The envelope is larger than the massing in order to preserve future flexibility.

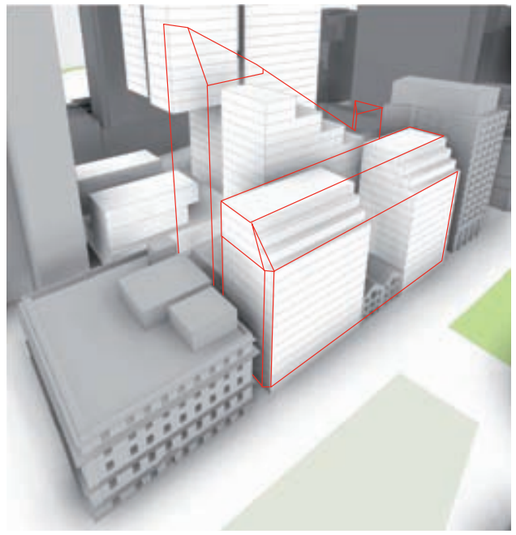
Built Form Strategies

Young and Loftus Block

Massing Strategies



1 LEP Solar Access Envelope

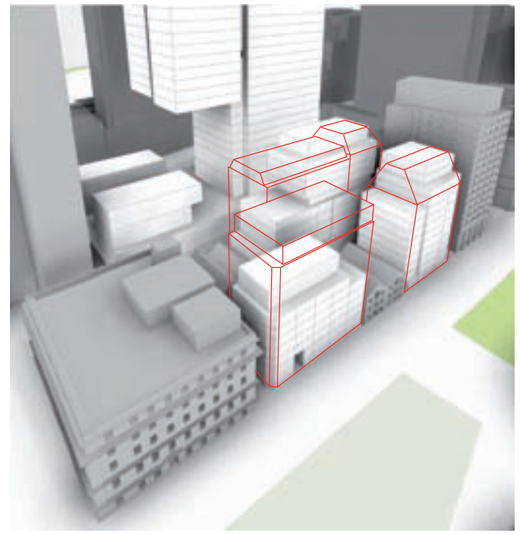


2 Maximum Built Form Under Solar Access Envelope

_Theoretical maximum built form permissible under the solar access plane

3 Reduced Building Heights

_Establish a lower scale finer grain built form typology
_Reduced built form height to improve solar access and reduced overshadowing to Macquarie Place
_Reduced built form height to improve solar access to and views from the laneway precinct



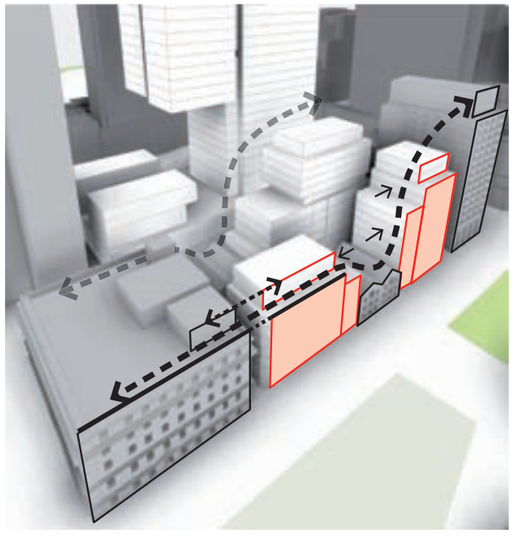
4 Existing Building Heights

_Reduce built form height to below the existing to the northern buildings
_Maintain the existing built form height of the southern buildings

Built Form Strategies

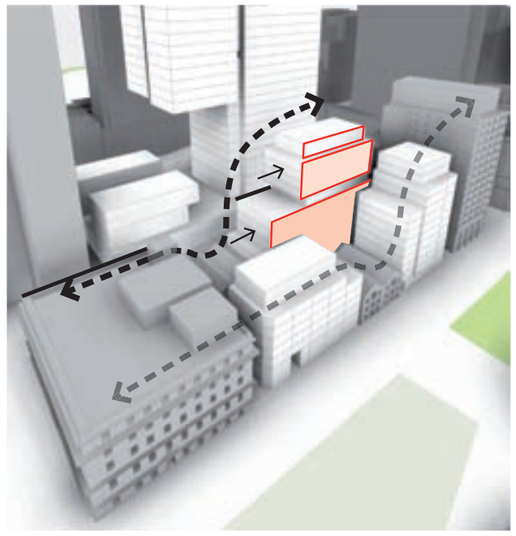
Young and Loftus Block

Massing Strategies



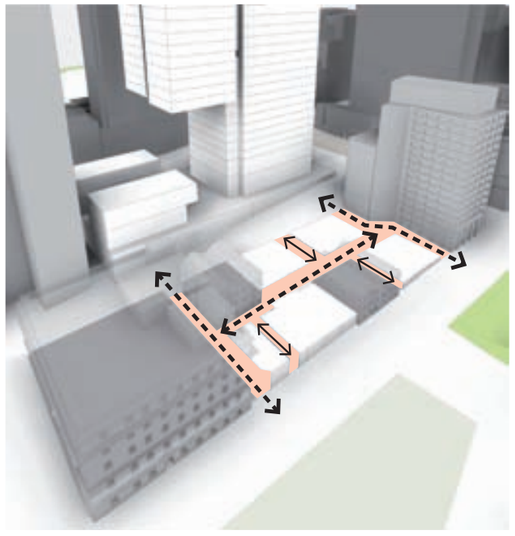
5 Transition in Scale

_Provide a transition in scale and built form
_Respect and respond to the form and massing of Customs House and the Gallipoli Club
_Generally build to the street alignments to provide streetscape definition and built form continuity



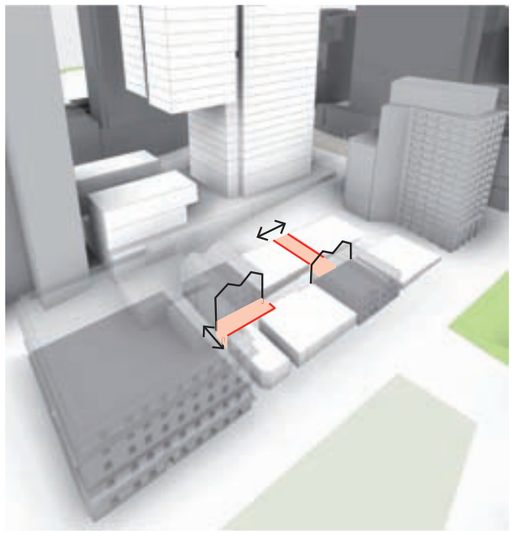
6 Transition in Scale

_Provide a transition in scale and built form
_Respect and respond to the form and massing of Customs House and Hinchcliff
_Generally build to the street alignments to provide streetscape definition and built form continuity



7 Connections

_Improve east-west pedestrian connections and permeability through the precinct
_Provide a variety of scales of laneways and through site links to facilitate and complement active Laneway frontages
_Strengthen existing laneways network



8 Ground Plane Set Backs

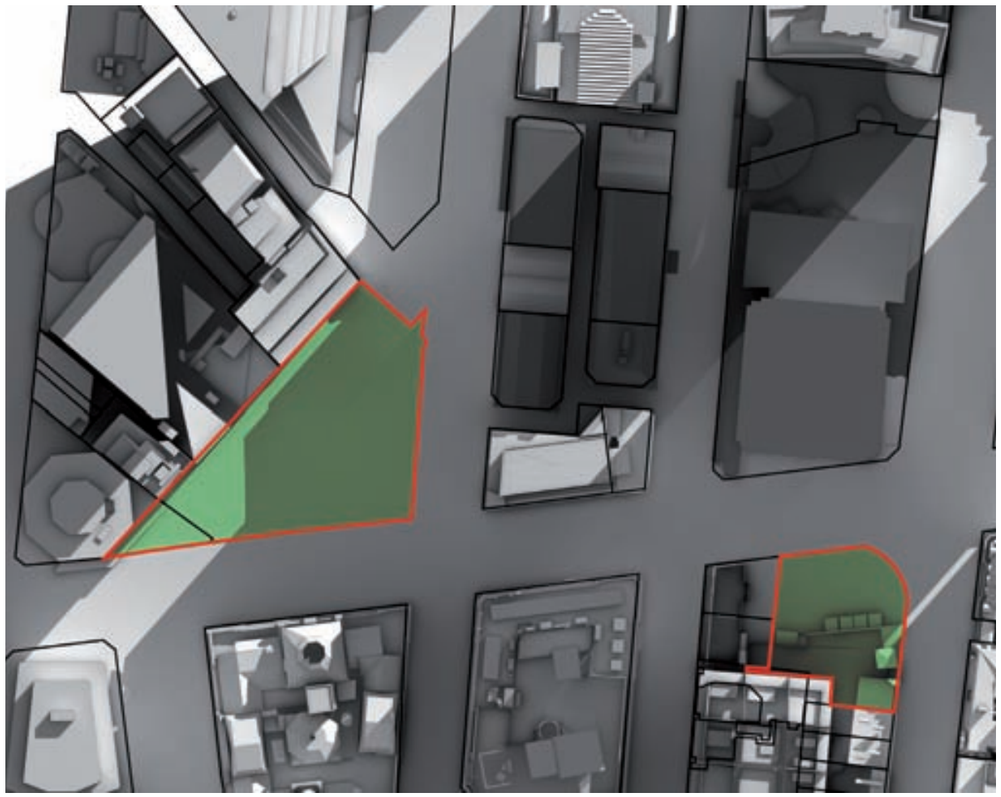
_Provide articulation and diversity to the laneway environment
_Provide a wider portion of the lane as a gathering space that sits at the junction of Loftus Lane and Customs House Lane adjacent to Hinchcliff House and Customs House
_The set back and lower northern building help in providing better sun access into the laneway
_Provide a larger carriageway through site link to frame view of the Gallipoli Club gables from Young Street

Young and Loftus Block

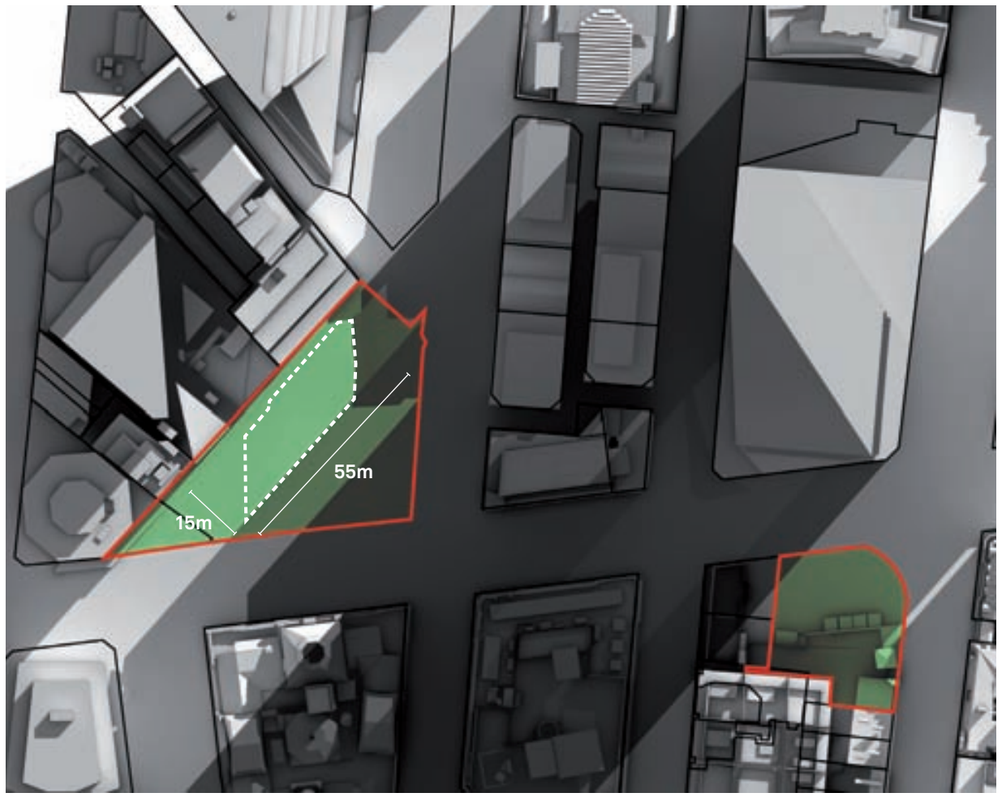
Key Public Benefits - Solar Access

Macquarie Place 9am 21 June

680 m² additional solar access at 9am in mid winter



Existing



Proposed

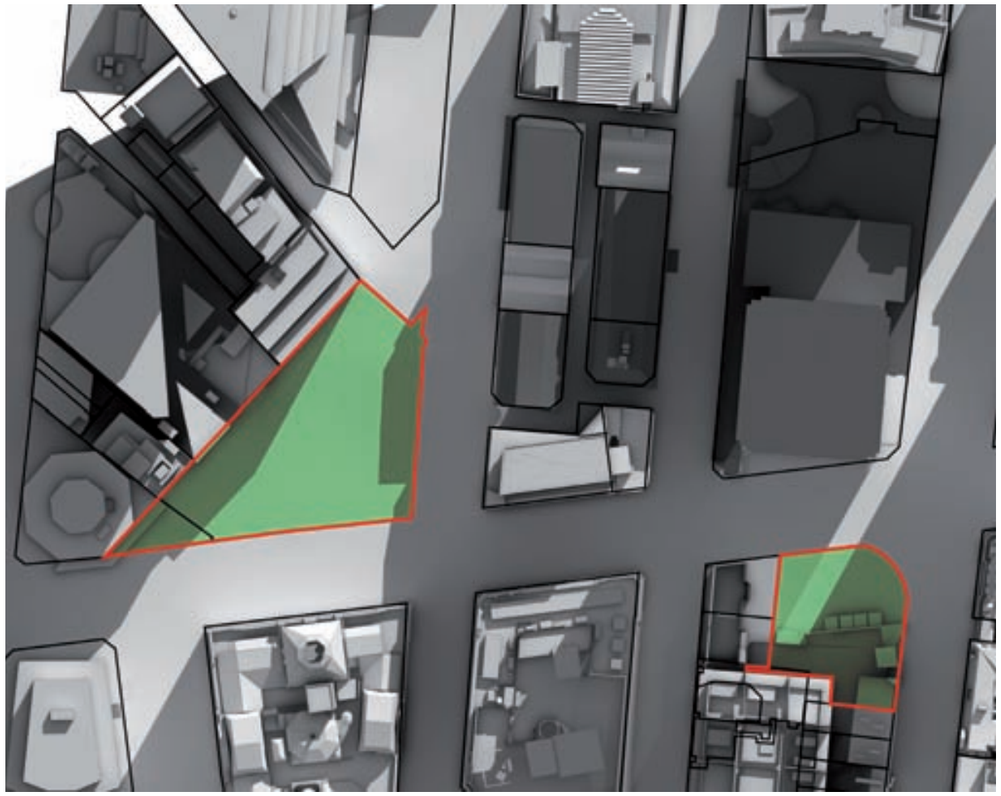
Built Form Strategies

Young and Loftus Block

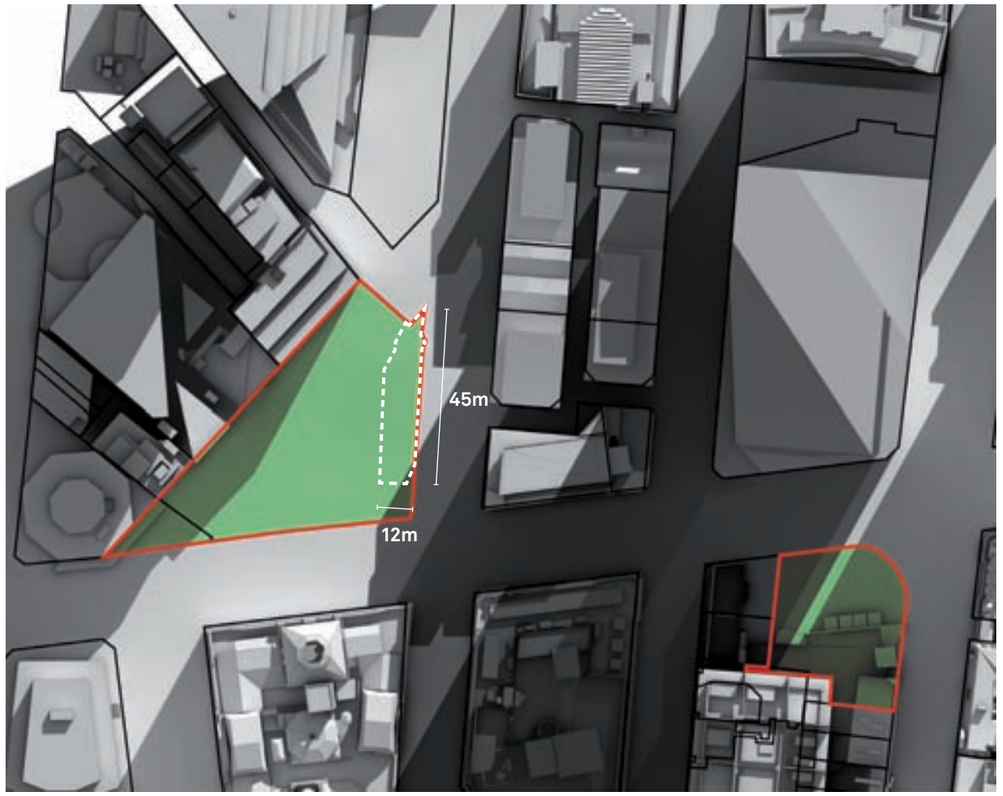
Key Public Benefits - Solar Access

Macquarie Place 10am 21 June

460 m² additional solar access at 9am in mid winter



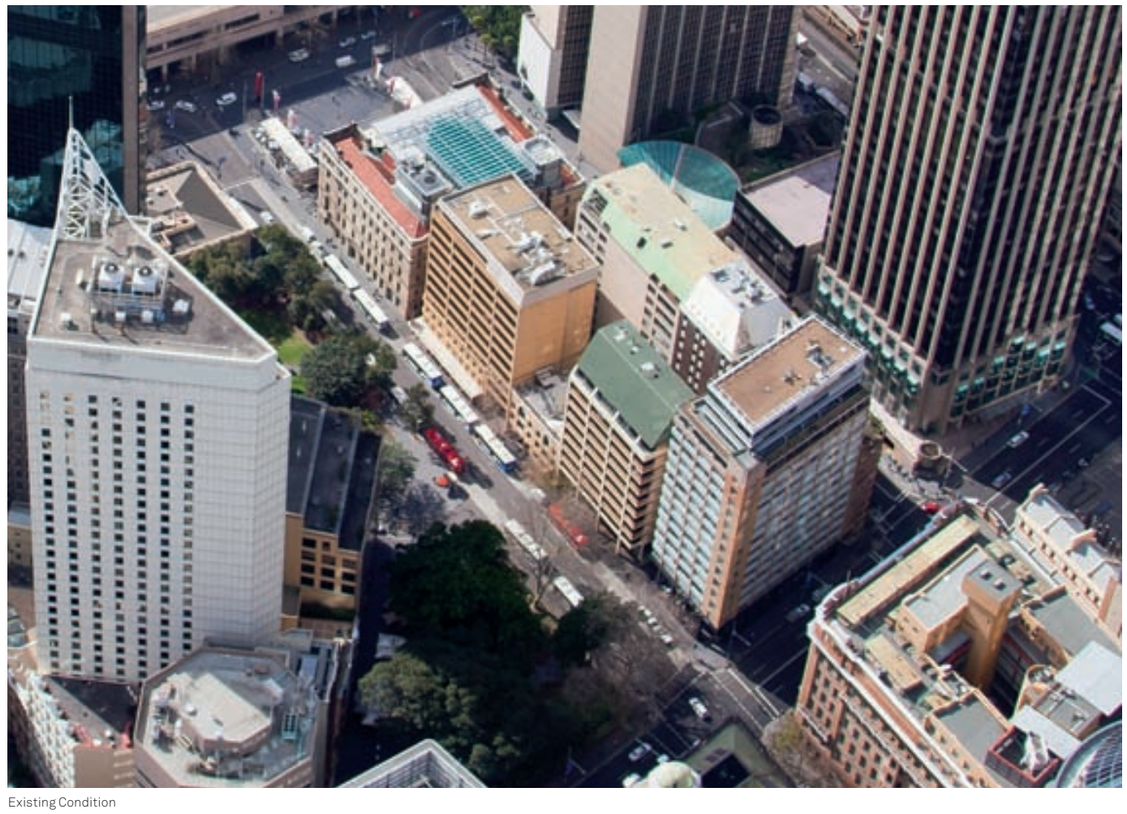
Existing



Proposed

Bridge and Alfred Block

Indicative Architectural Concept



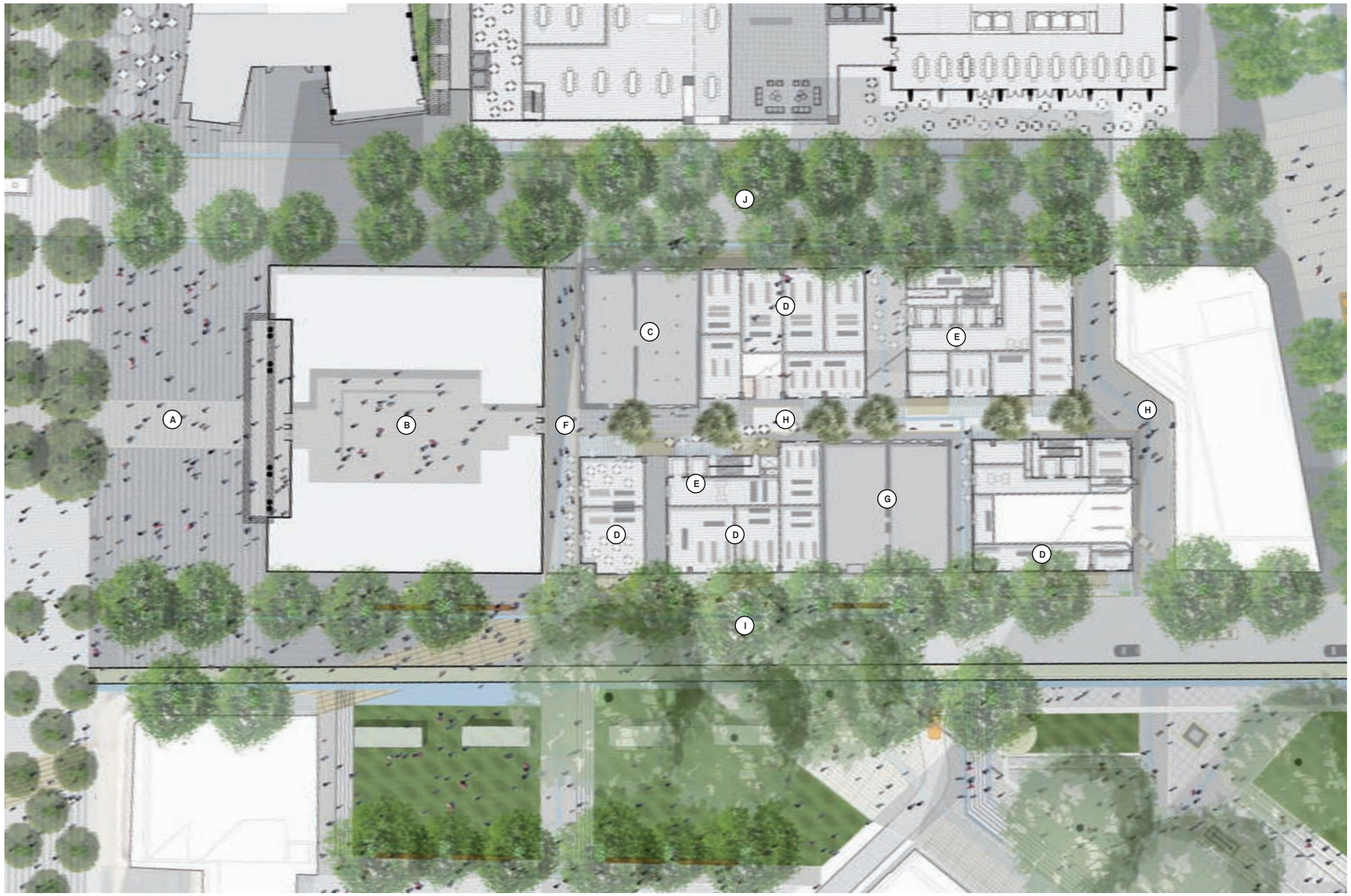
Existing Condition

Indicative architectural concept

Bridge and Alfred Block

Indicative public domain plan

- A Customs House Plaza
- B Customs House
- C Hinchcliffe House
- D Retail
- E Lobby
- F Customs House Lane
- G Gallipoli Club
- H Loftus Lane
- I Loftus Street
- J Young Street



Key location plan

Young and Loftus Block

Indicative Architectural Concept

Indicative plan - Typical low level

Indicative plan - Typical Upper level

Legend

- Commercial
- Residential

Scale
1:1000 @ A3

Indicative architectural concept (view from Macquarie Place)

Bridge and Alfred Block

Bridge and Alfred Built Form Principles

_A landmark premium grade commercial tower at Circular Quay, recycling an existing CBD tower to give it a new identity

_Ensure adequate separation between the commercial towers at 50 Bridge Street and 33 Alfred Street in order to maintain the individual identity of each

_Allow projection through the Botanic Gardens sun access plane but ensuring no additional overshadowing to the Botanic Gardens at the control time of 2pm on 21st June

_Existing tower and extension to be seamlessly integrated to create large single commercial floor plates

_New facade to the existing tower for high natural light transmission and improved views and improved energy performance and comfort

_Opportunity to create a new street-facing ceremonial and symbolic atrium lobby and plaza providing an identifiable access point to both towers

_Improved street presence with expanded and street fronted retail and restaurant precinct that activates the streets, arcades and through site links

_Consolidated basement entry locations to minimize the impact of vehicle movements on the public domain

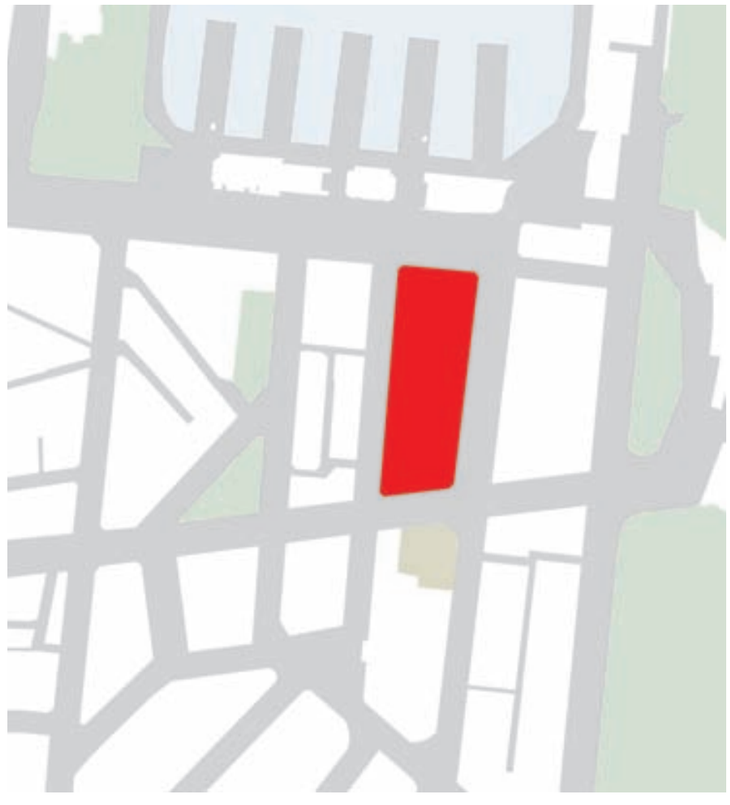
A global corporate address, landmark tower with an atrium lobby and plaza along with street based retail activity

Mood board and precedents for character and use

04_

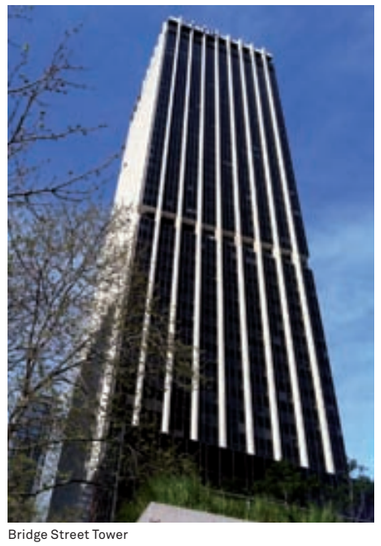
Bridge and Alfred Block

Contextual Built Form Analysis



The Bridge and Alfred block is made up of the original and heritage listed AMP Alfred Street Tower, and the later Bridge Street Tower. The area between the two towers has a poor street interface and is part of the Bridge Street Tower construction, it is dominated by blank facades to above ground parking and car park entries. The elevated food court was more recently modernised but is largely internalised and has a poor engagement with the street.

Alfred Street Tower



Bridge Street Tower

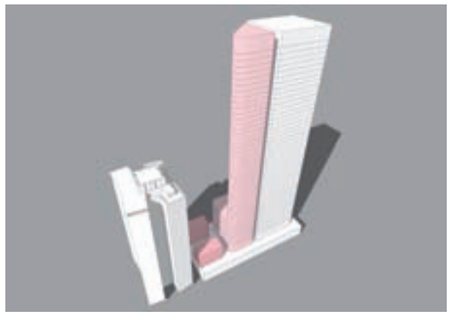
Ground Interface

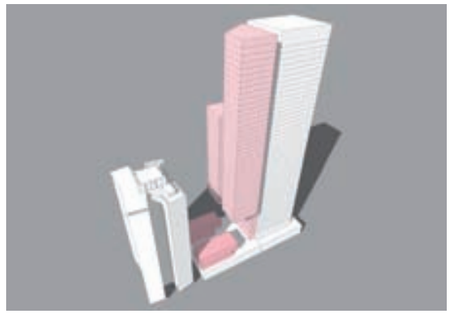
Built Form Strategies

Bridge and Alfred Block

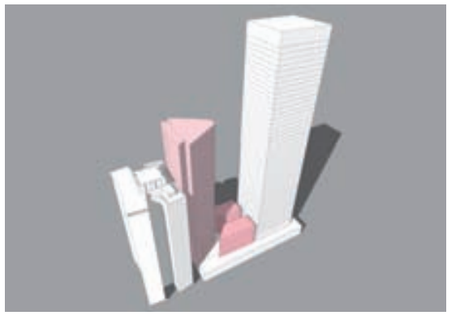
Preliminary Massing Options

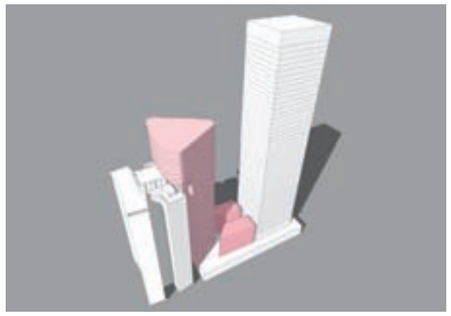
3 preliminary options for the Bridge and Alfred block were initially investigated in order to accommodate the transfer of floor space from the Young and Loftus block.





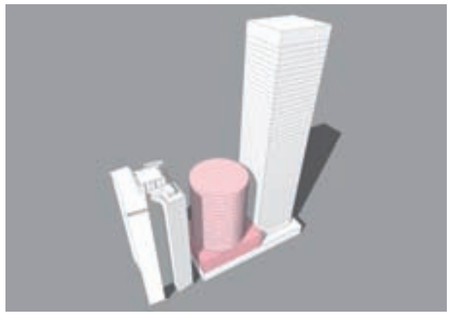
Bridge St tower extension options

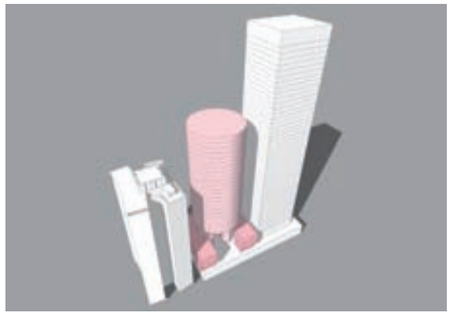




Alfred St tower extension options

Discounted due to heritage sensitivities to 33 Alfred Street and for poor commercial performance

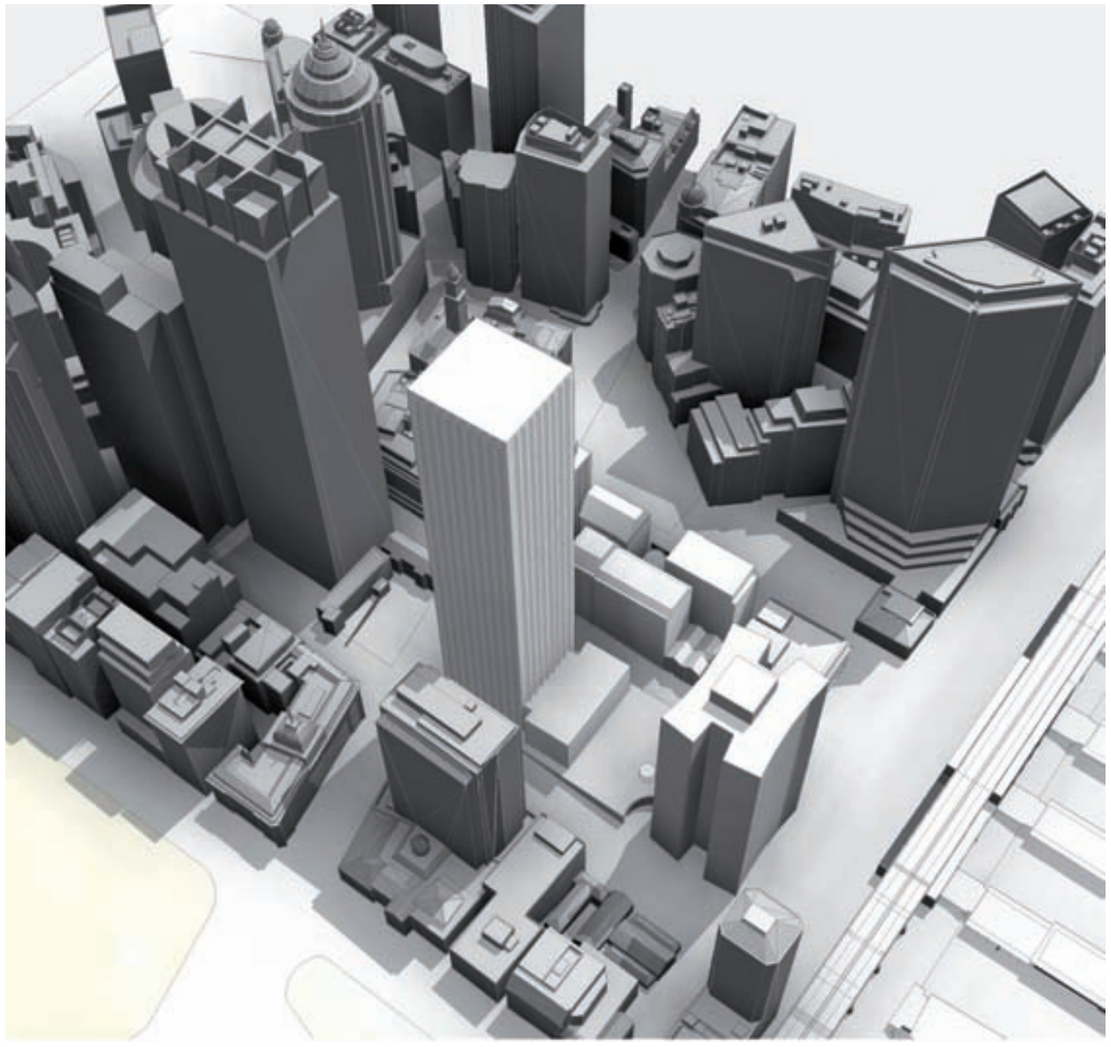




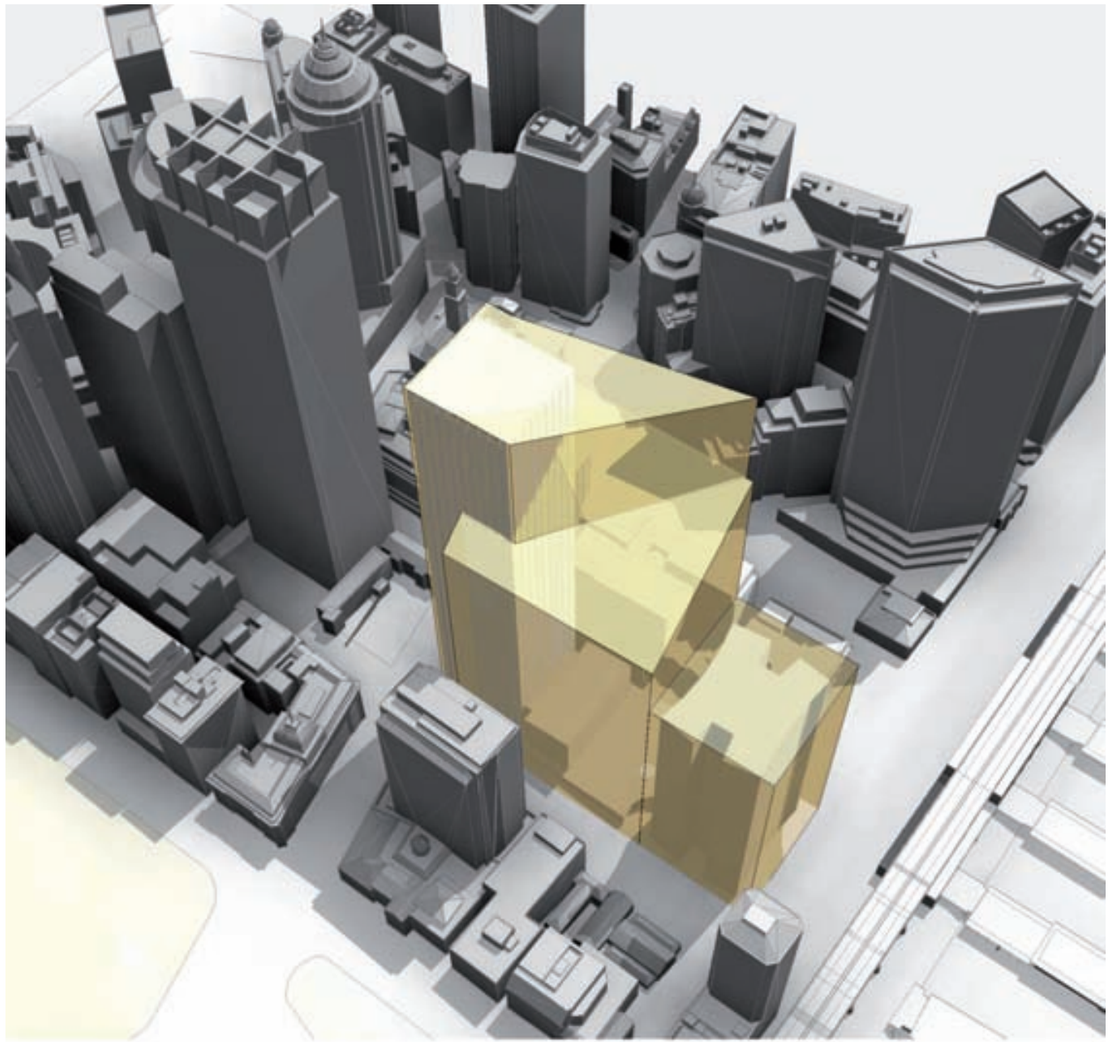
Stand alone tower options

Discounted due to poor urban design outcome with dense building block and insufficient separation with 33 Alfred Street

Bridge and Alfred Block



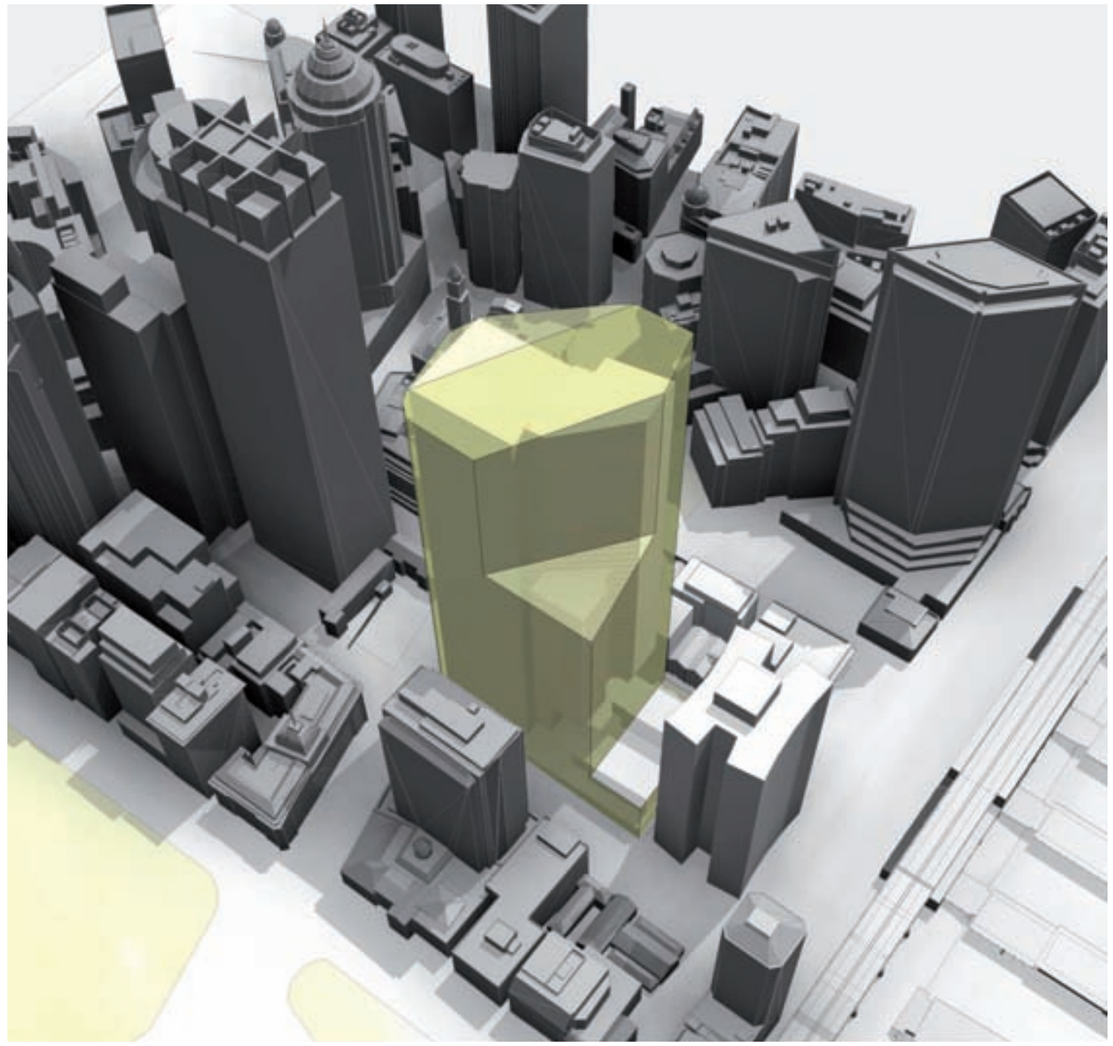
Existing Built Form



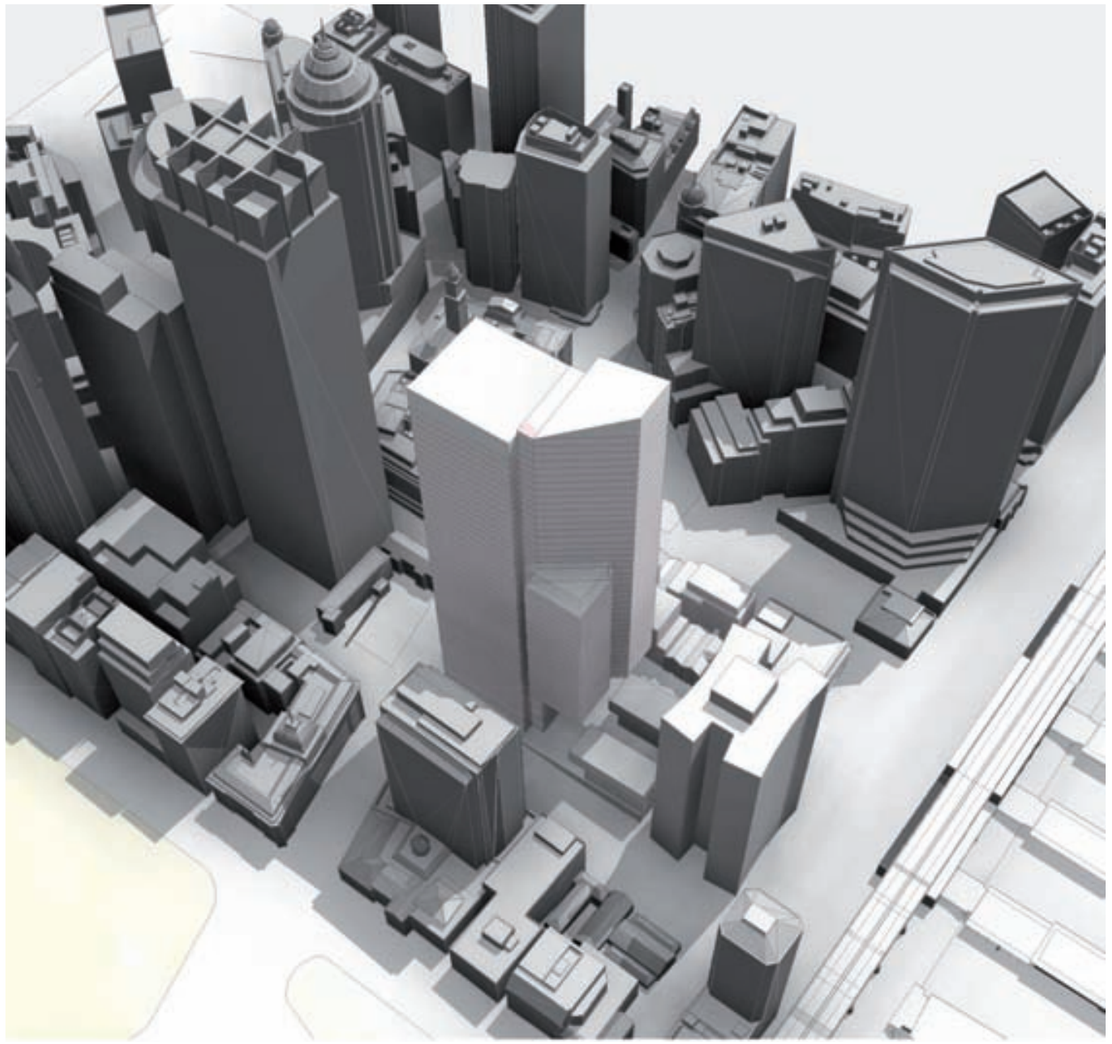
Interpreted LEP Solar Access Envelope

Built Form Strategies

Bridge and Alfred Block



Proposed Built Form Envelope



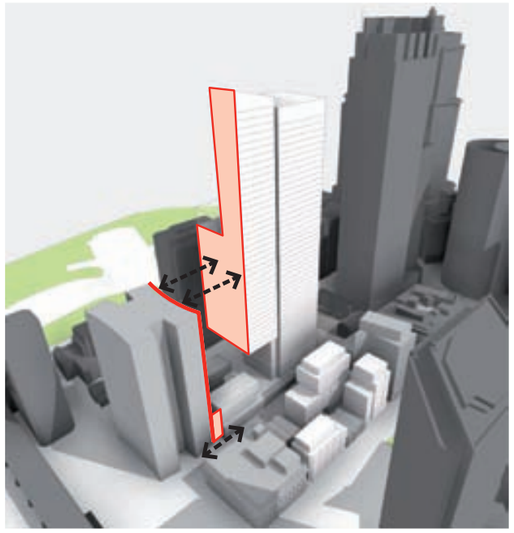
Indicate Massing

The proposed built form envelope documents the geometric envelope achievable within the constraints of the site, the indicative massing demonstrates one arrangement of the floor space quantum within the proposed envelope. The envelope is larger than the massing in order to preserve future flexibility.

Built Form Strategies

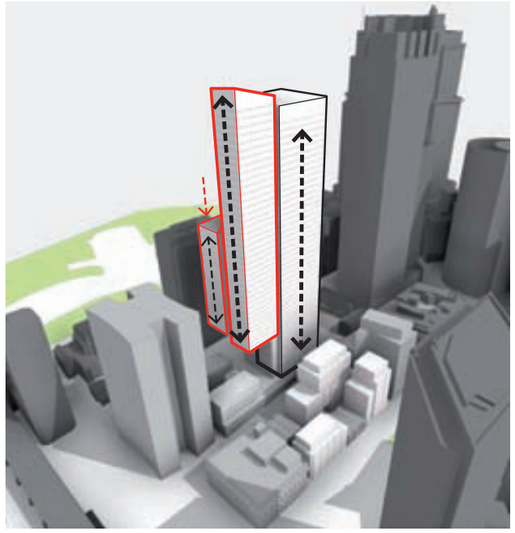
Bridge and Alfred Block

Massing Strategies



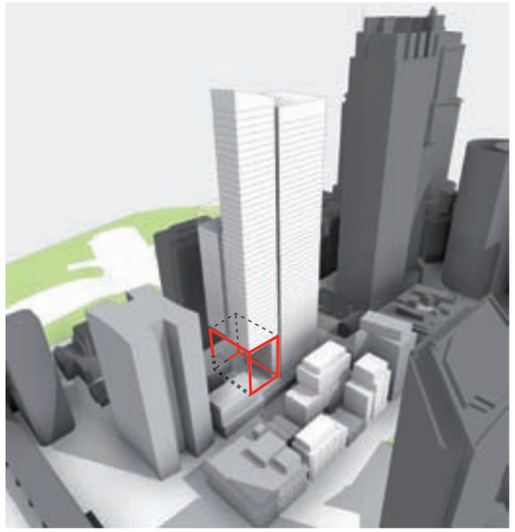
1 Tower Separation

_Ensure adequate separation between the tower extension and 33 Alfred Street in order to maintain the individual identity of each



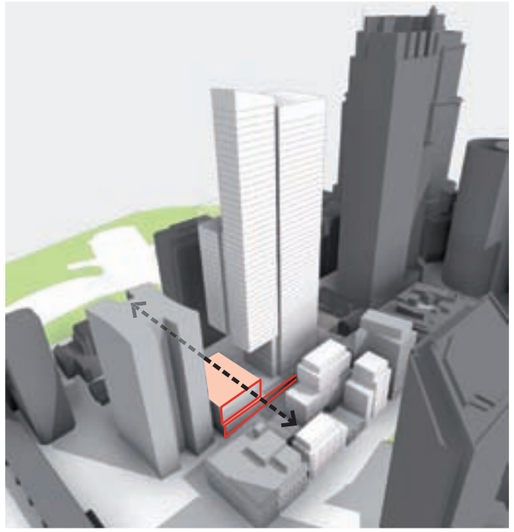
2 Bulk and Form

_Break form and scale of enlarged tower to read as a cluster of forms
_Articulate facades to reduce extent of a single facade and provide a vertical expression
_Reduce height of lower tower portion to eliminate overshadowing to the Botanic Gardens outside of at the control times



3 Undercroft

_Undercroft area to create a new ceremonial and symbolic atrium lobby and plaza providing an identifiable access point to both towers
_Ensure street-facing atrium space does not adversely impact upon street level activation



4 Ground level Interface and Podium

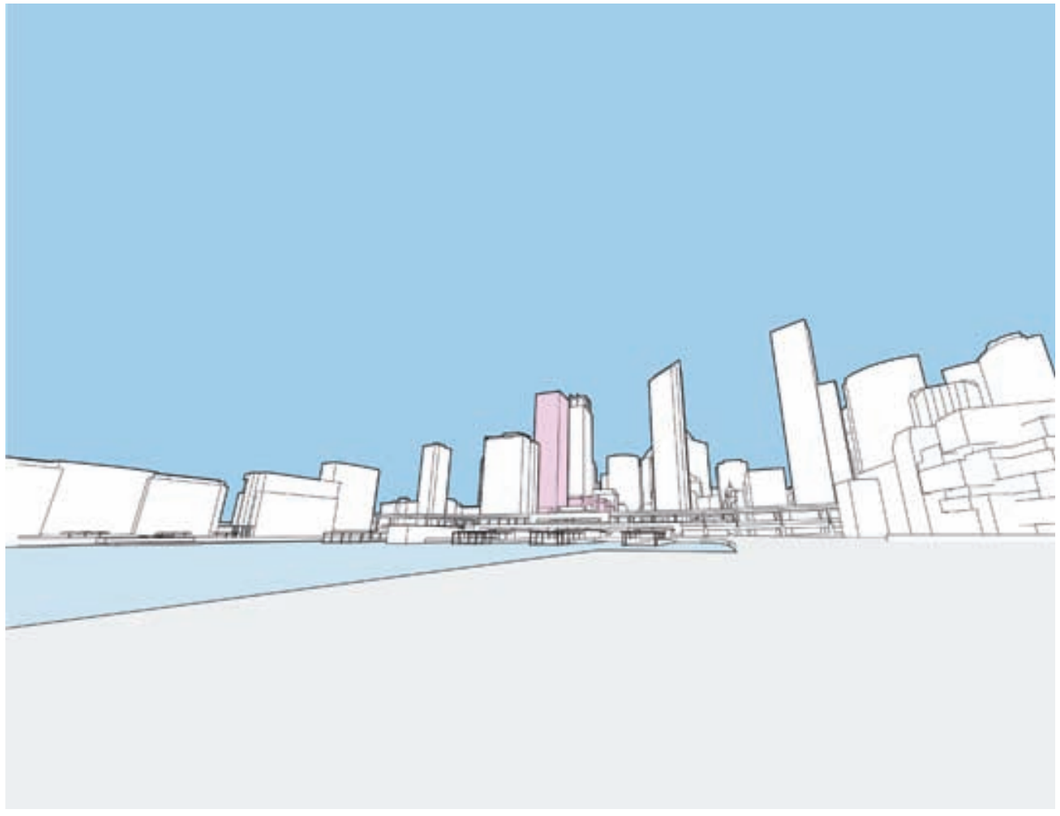
_Build to the street alignments at ground to provide streetscape definition and built form continuity
_Maximise active uses fronting streets consisting predominantly of smaller ‘fine grain’ shopfronts
_Height and form of podium buildings to relate to scale of surrounding streetscape and heritage context

Indicate Massing

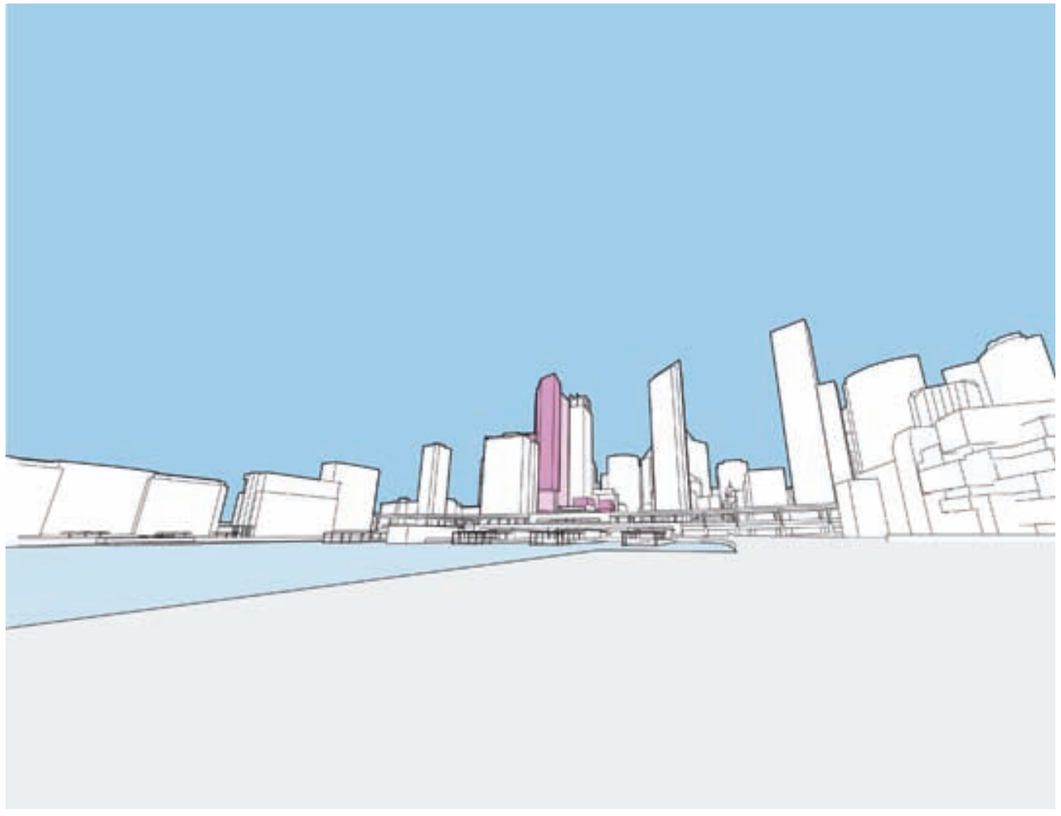
Bridge and Alfred Block

CBD Skyline Analysis

View from the Overseas Passenger Terminal



Existing

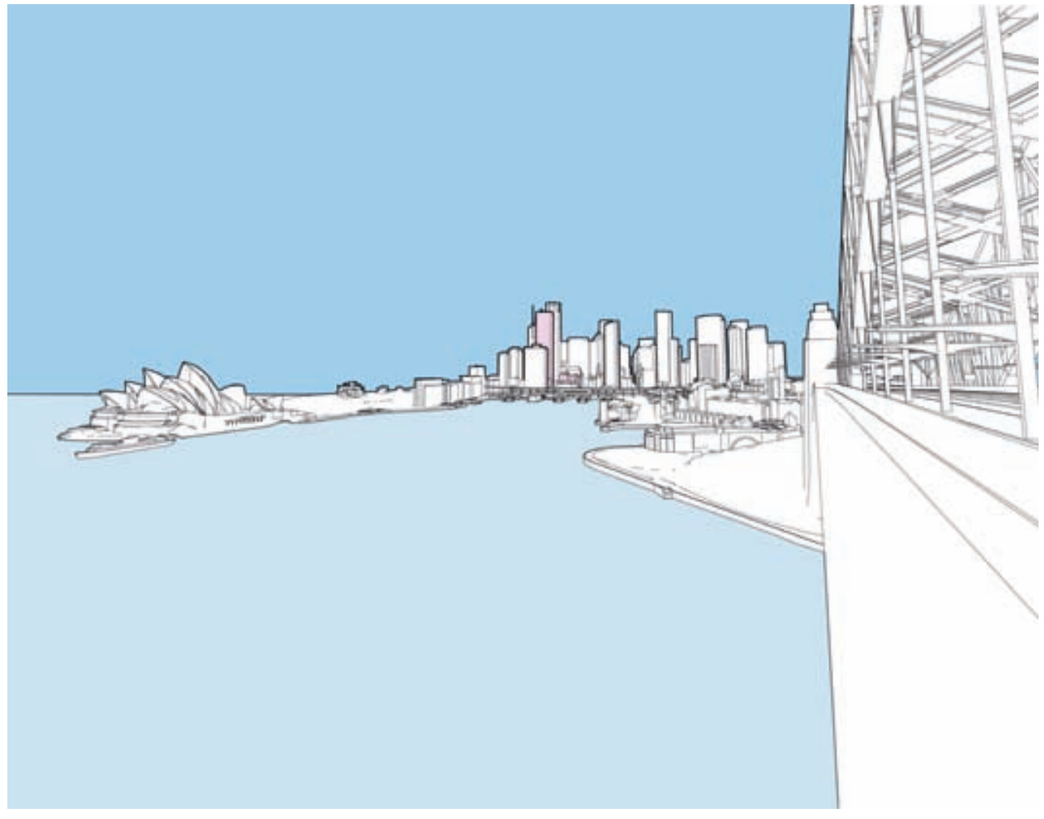


Proposed

Bridge and Alfred Block

CBD Skyline Analysis

View from the Harbour Bridge



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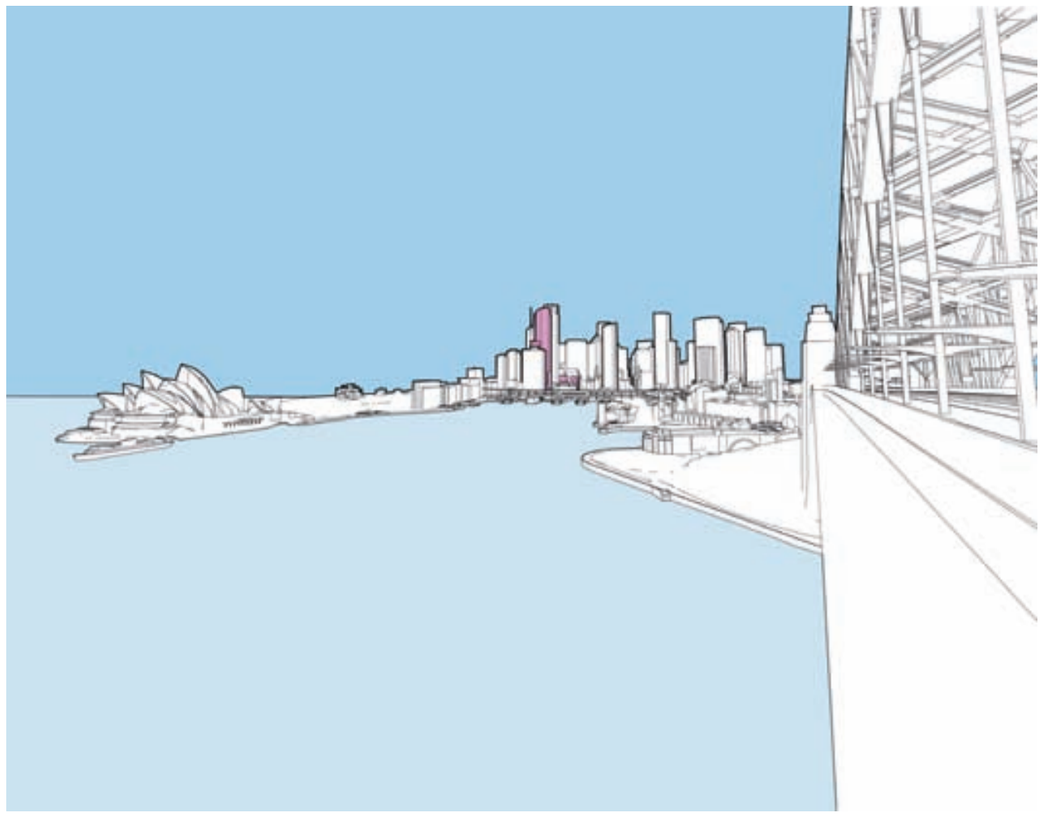
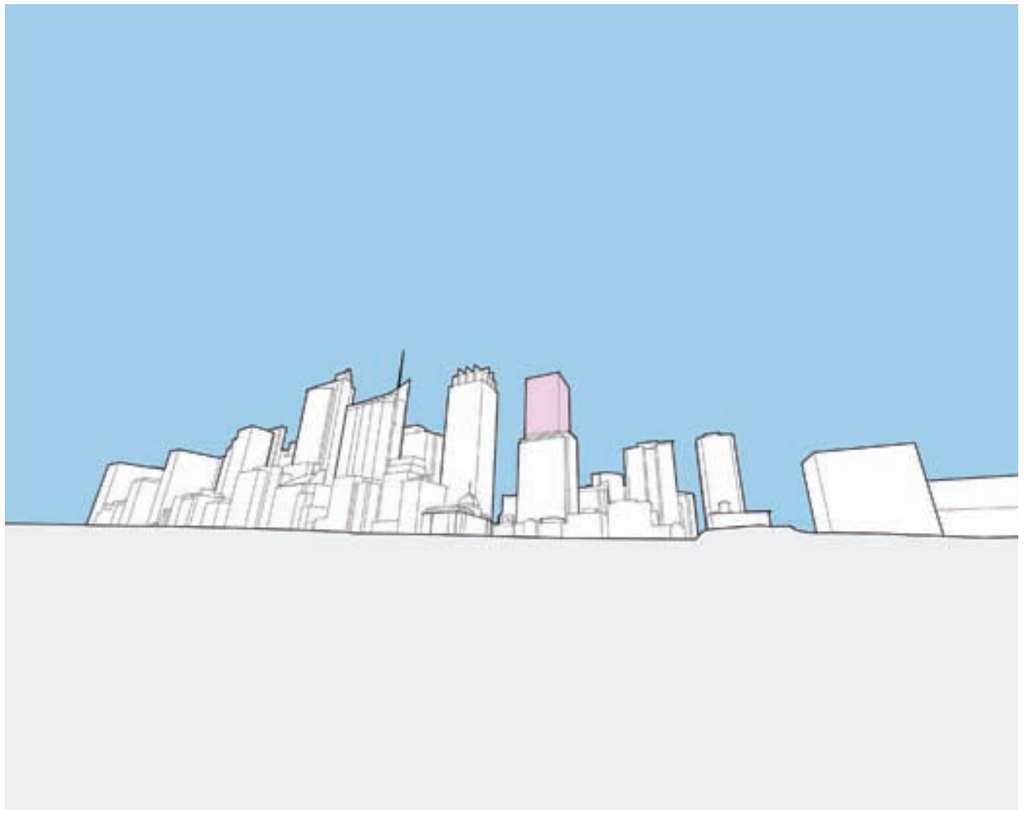


Proposed

Bridge and Alfred Block

CBD Skyline Analysis

View from the Royal Botanic Gardens



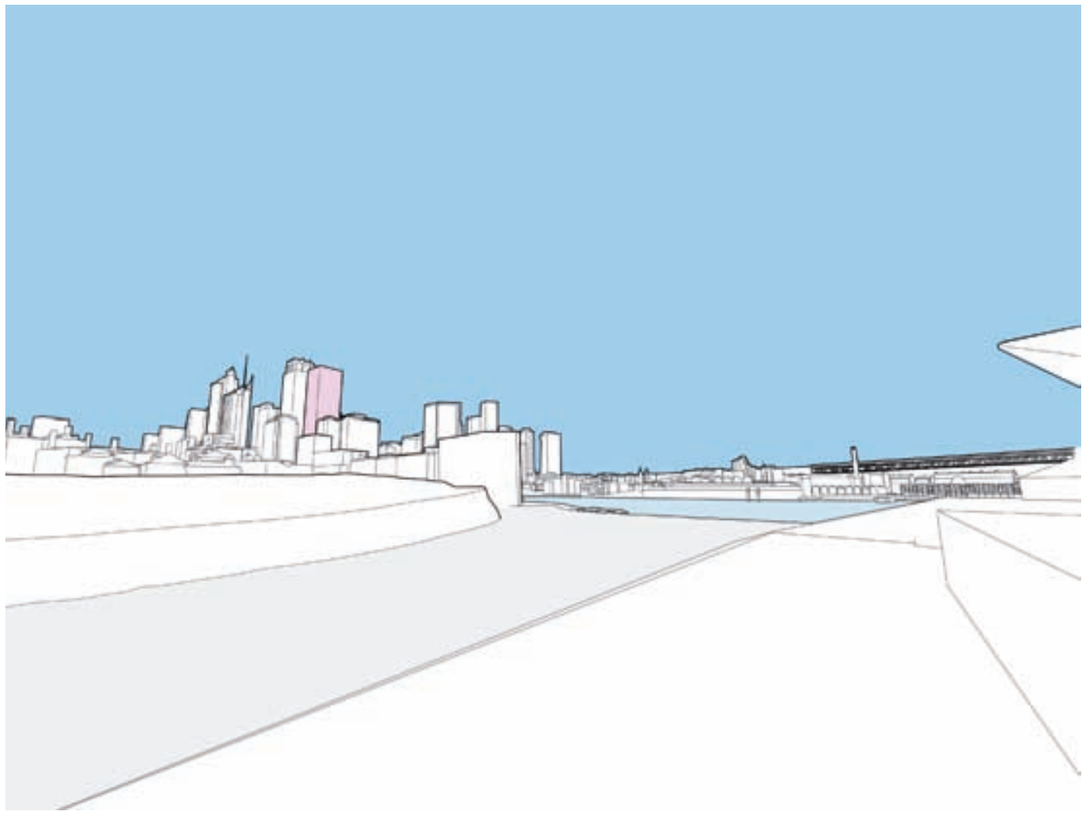
Existing

Proposed

Bridge and Alfred Block

CBD Skyline Analysis

View from the Opera House steps



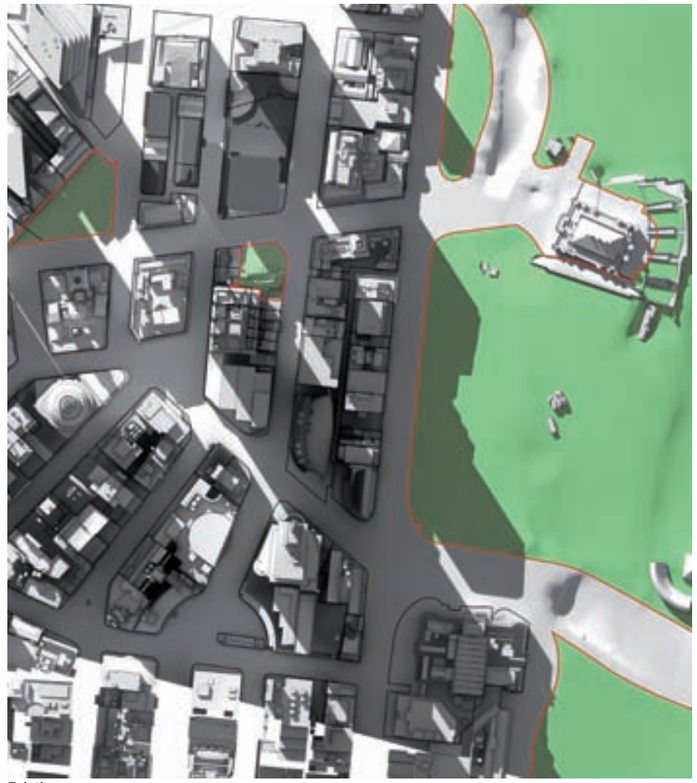
Existing

Proposed

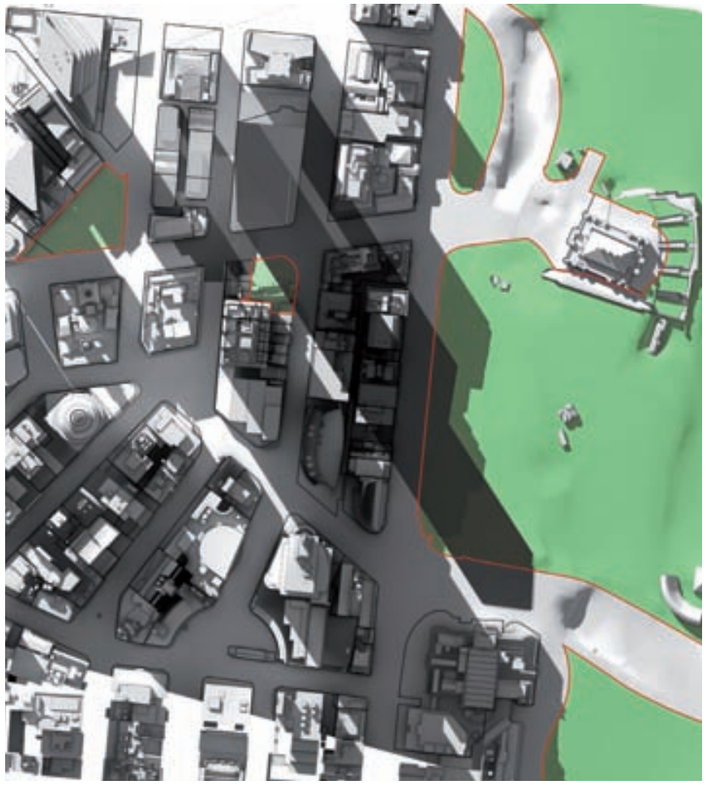
Young and Loftus Block

Key Public Benefits - Solar Access

Botanic Gardens 2pm 21 June



Existing



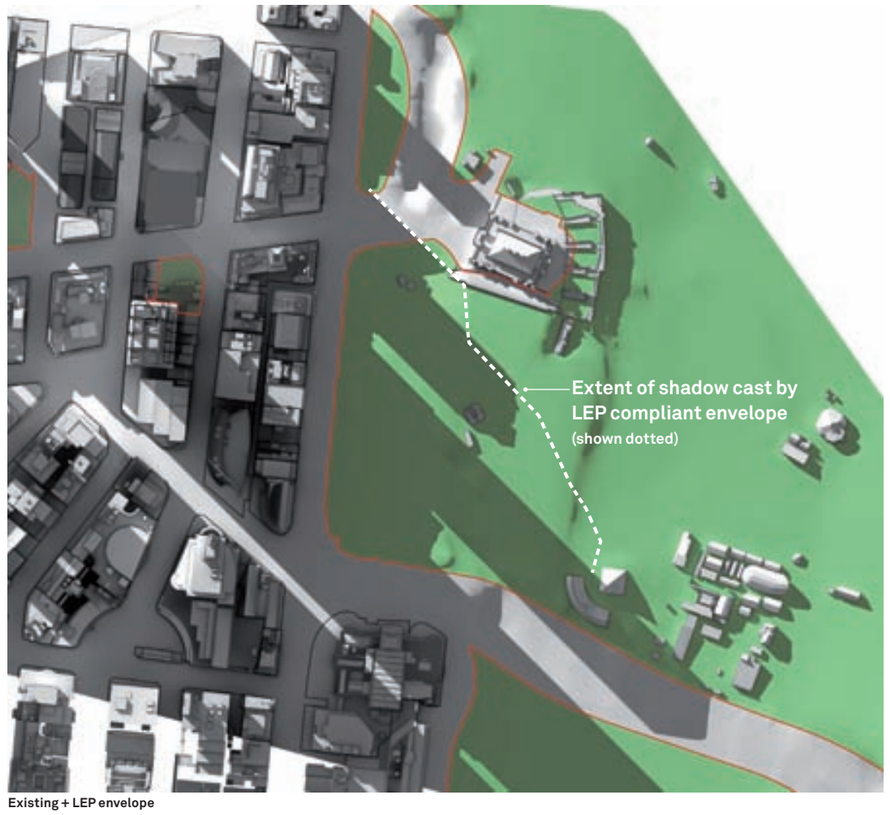
Proposed

No additional overshadowing to the Botanic Gardens at 2pm in mid winter

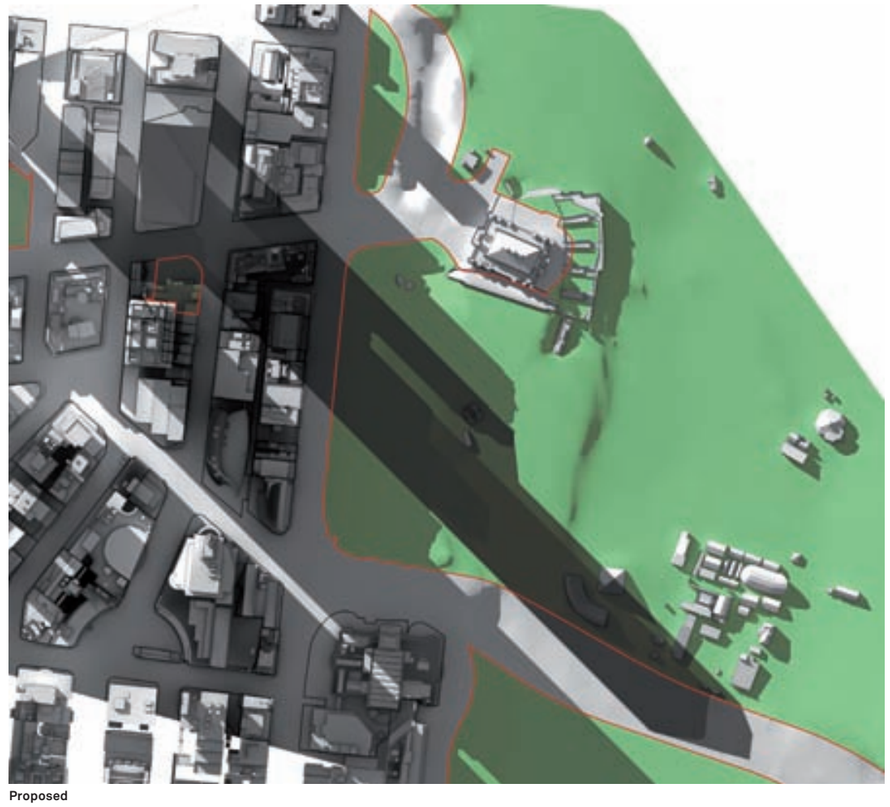
Young and Loftus Block

Key Public Benefits - Solar Access

Botanic Gardens 3pm 21 June



Existing + LEP envelope

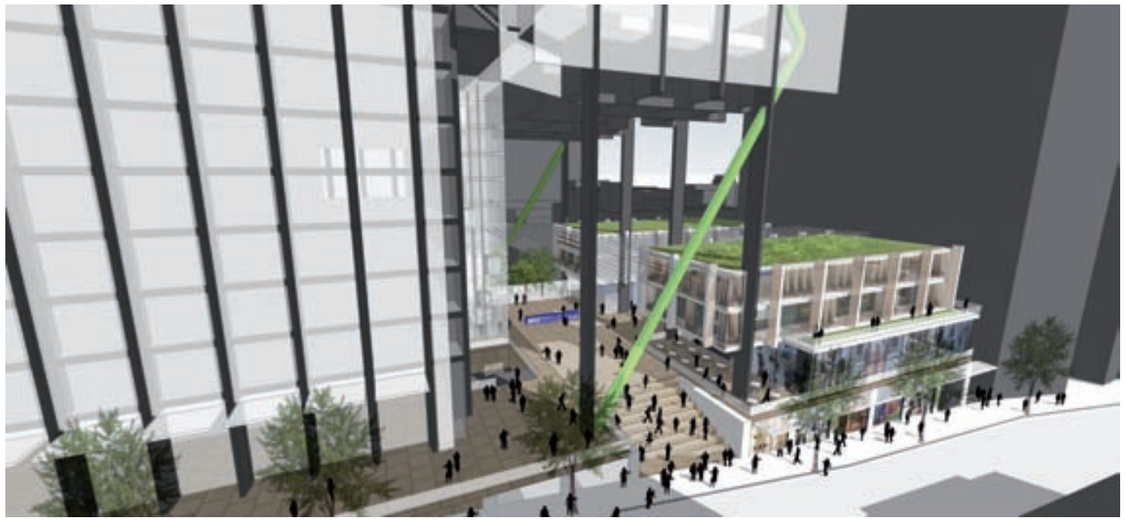


Proposed

Negligable impact to Botanic Gardens at 3pm beyond that of an LEP compliant envelope

Bridge and Alfred Block

Indicative Architectural Concept



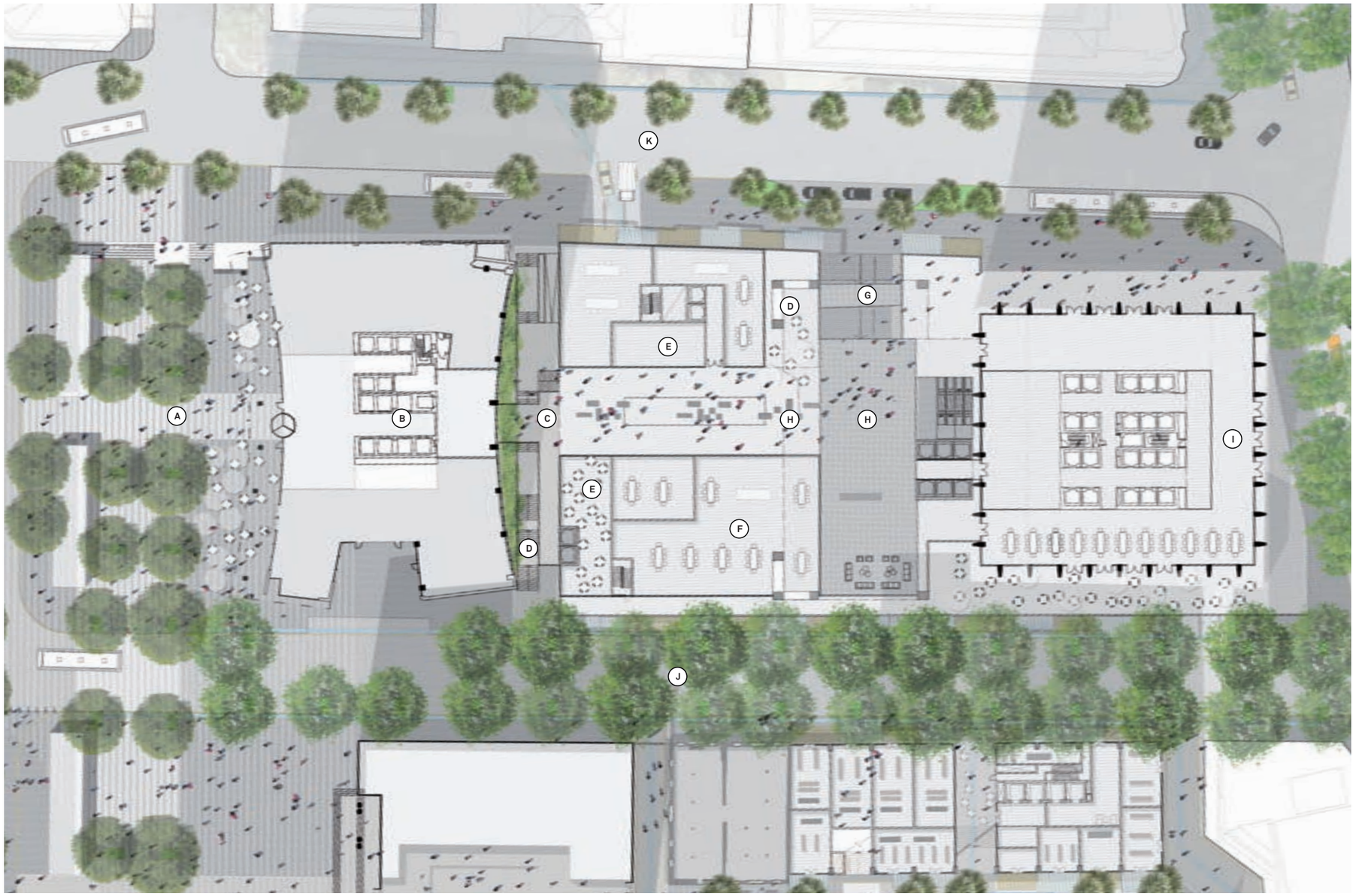
Indicative architectural concept (view from Phillip Street)

Indicative architectural concept (view from Young Street)

Bridge and Alfred Block

Indicative public domain plan

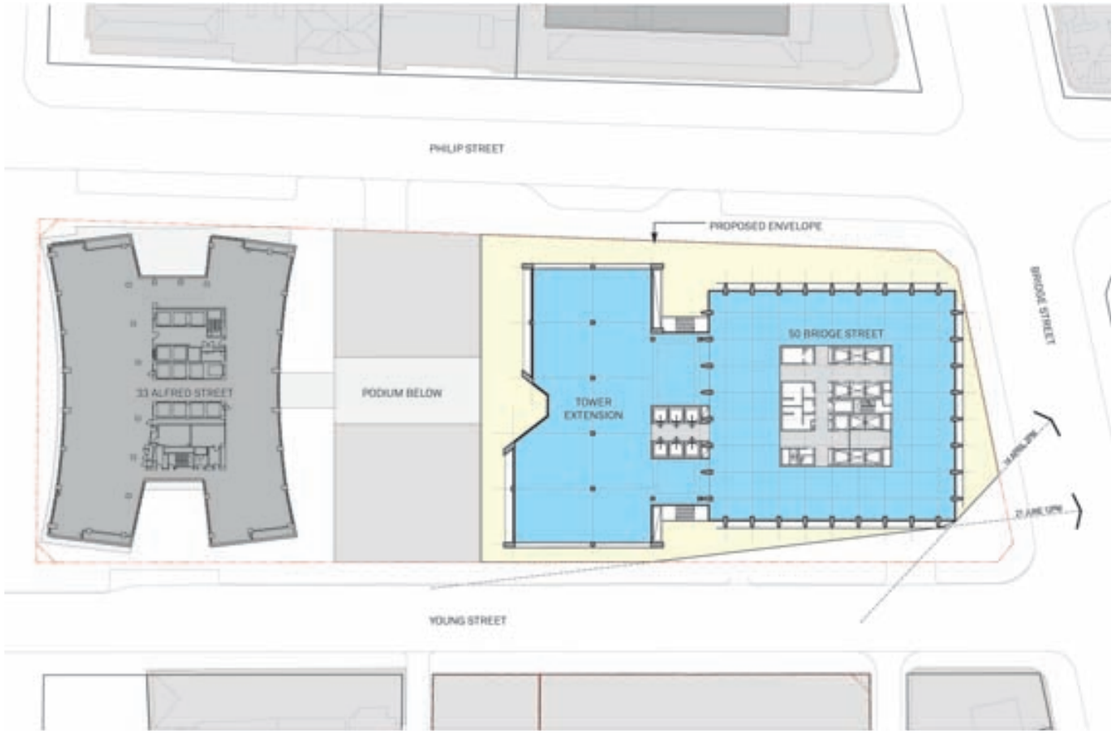
- A Alfred Street Plaza
- B 33 Alfred Street
- C Bridge link
- D Through-site link
- E Retail
- F AMP meeting rooms
- G Ceremonial entrance
- H Atrium lobby
- I 50 Bridge Street
- J Young Street
- K Phillip Street



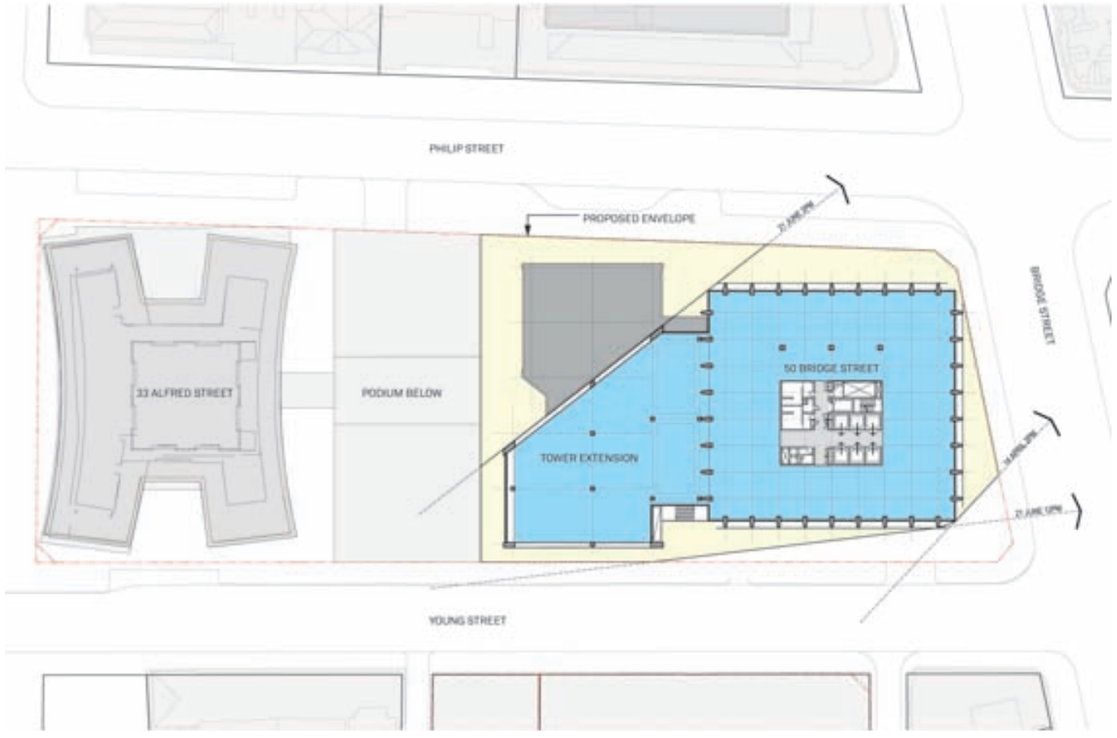
Key location plan

Bridge and Alfred Block

Indicative Architectural Concept



Indicative plan - Typical mid-rise tower level



Indicative plan - Typical sky-rise tower level

Legend

- Commercial
- Proposed Envelope

Scale
1:1000 @ A3

Indicative architectural concept (view from The Rocks)

Bridge and Alfred Street Block


A new low scale vibrant mixed use neighbourhood
Recycling an existing CBD tower to give it a new identity
Improved solar access to Macquarie Place Park
CUSTOM HOUSE L
Customs House

24 hour,
7 day precinct
activation

No additional
overshadowing
to the Botanic
Gardens

A landmark
premium grade
commercial
tower at Circular
Quay