





**Built Form Strategies**

**CBD Built Form Analysis**



View from Olympic Drive, Kirribilli



View from Farm Cove

Built Form Strategies

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.

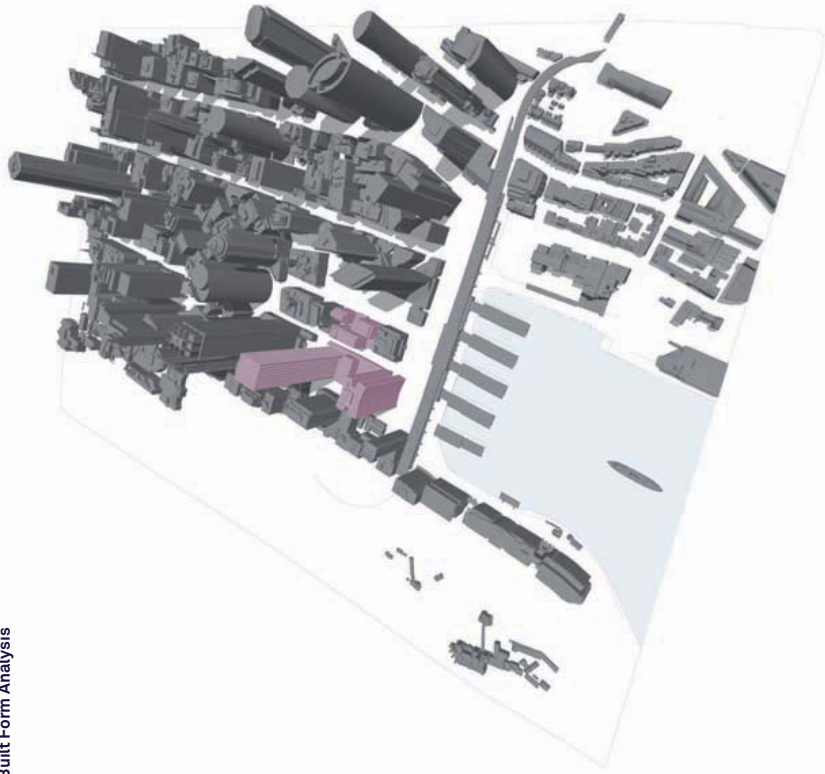


CBD Figure Ground



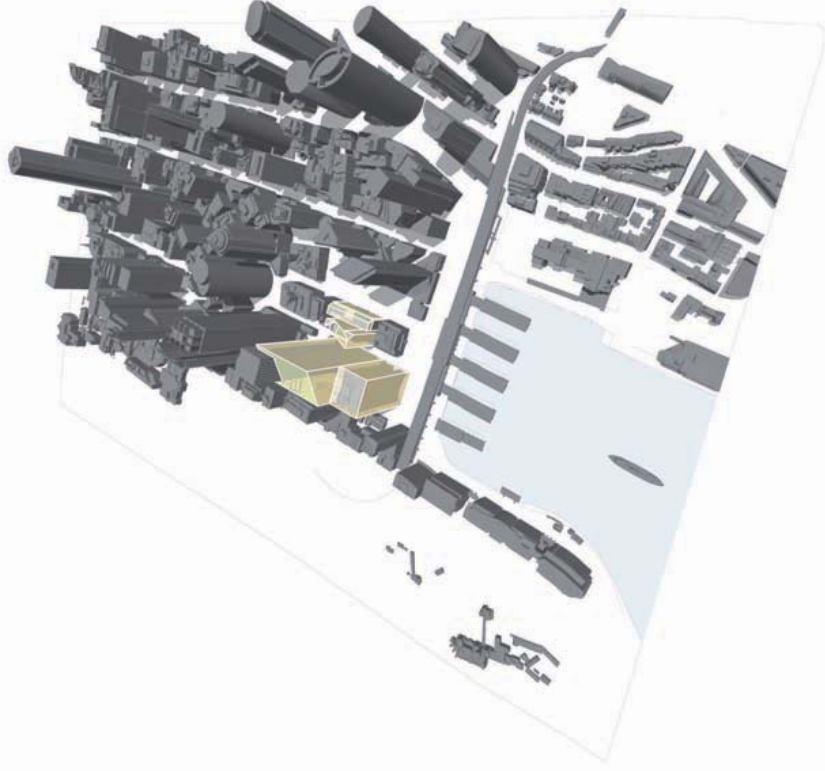
**Built Form Strategies**

**CBD Built Form Analysis**



**CBD Built Form**

CBD built form highlighting existing precinct buildings



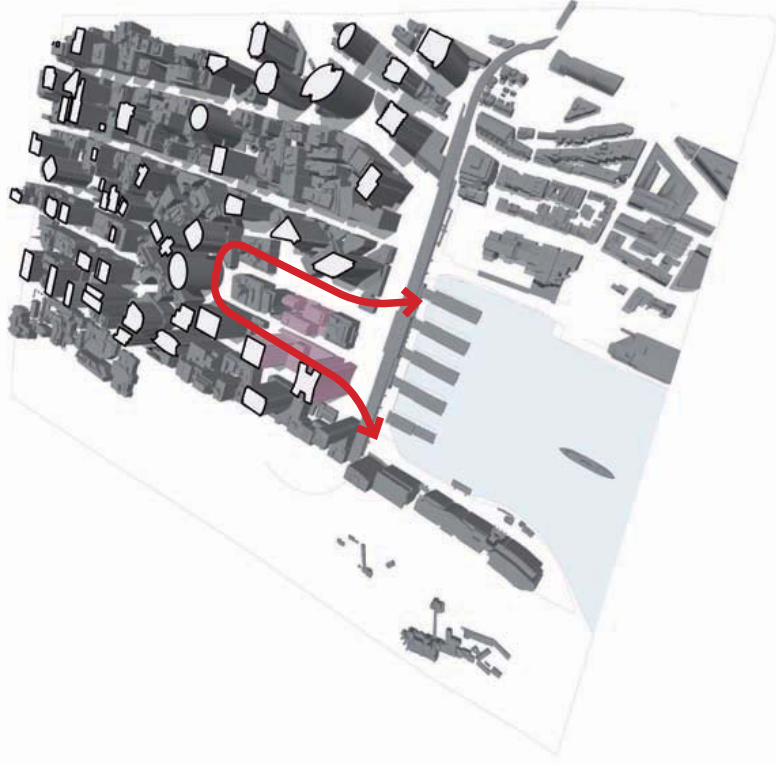
**LEP Solar Access Envelopes at precinct**

Built Form Strategies

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.

Built Form Strategies

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 Strategies**

**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 of the 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**

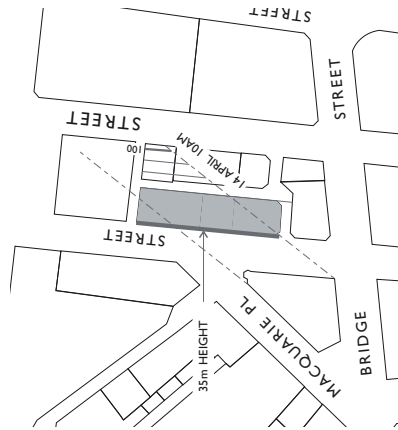


Figure 5.27 - Macquarie Place Controls 14 April 10am

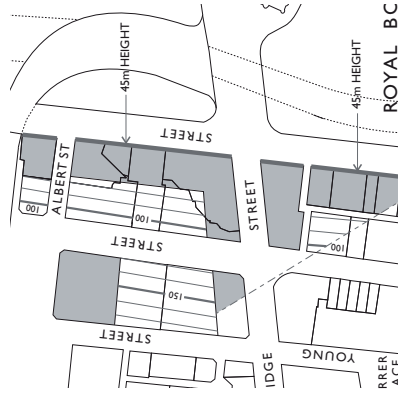


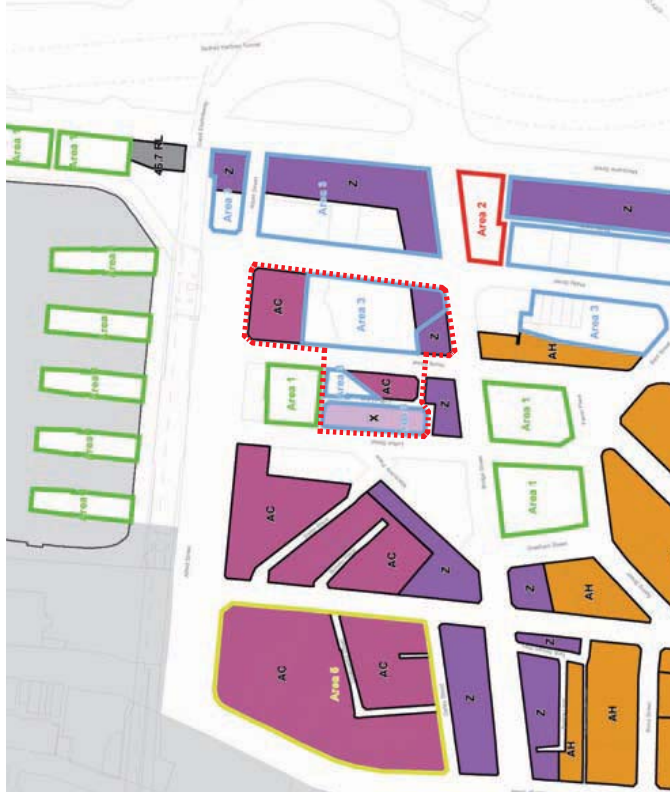
Figure 5.31 - Royal Botanic Gardens Controls 21 June 2pm

Built Form Strategies

Built Form Controls

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

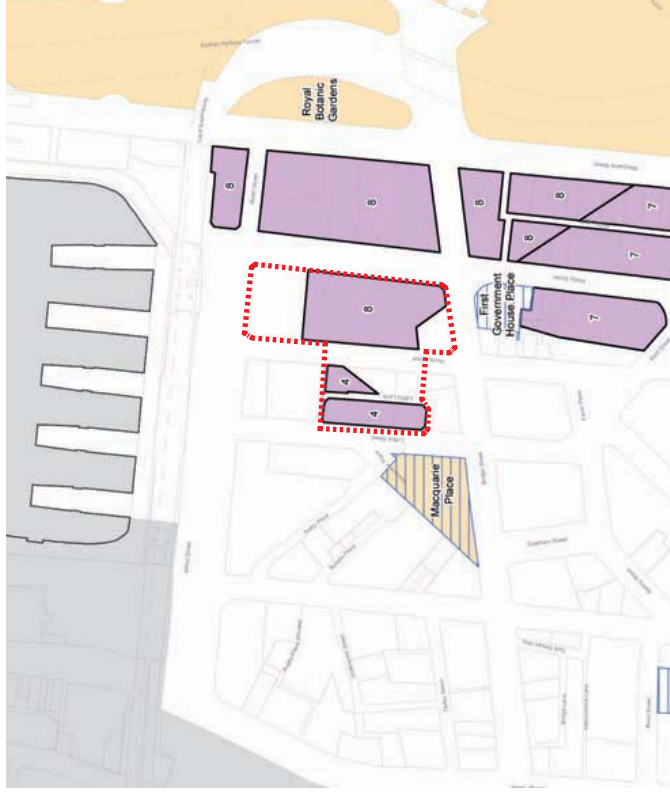
Maximum Building Height (m)



- X 45
- Z 55
- AC 110
- AH 235
- Area 1 - Existing height
- Area 2 - Existing 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

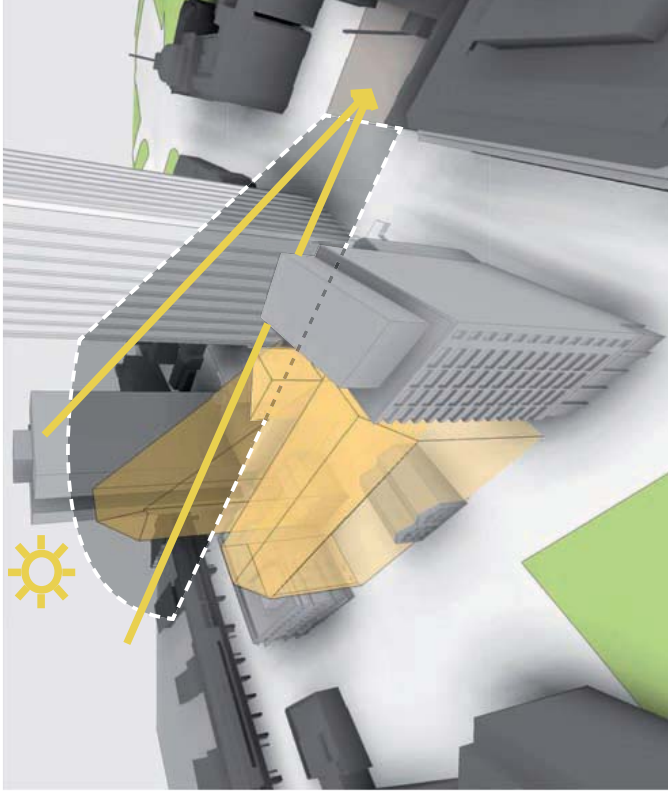
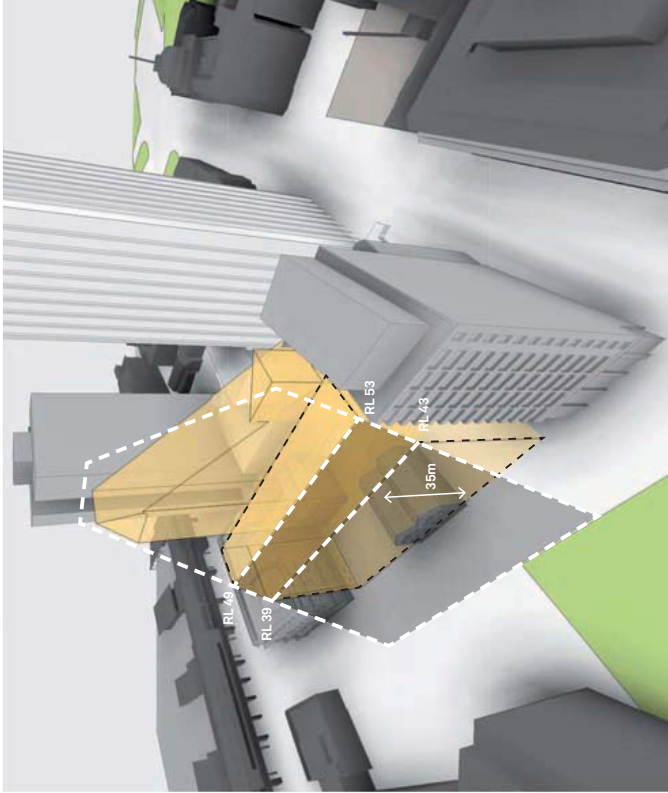


- 4 Macquarie Place 4
- 7 The Domain 7
- 8 Royal Botanic Gardens 8
- Protected Area - refer to clauses 6.16 to 6.18
- No Additional Overshadowing - Refer to clause 6.18

**Built Form Strategies**

**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.

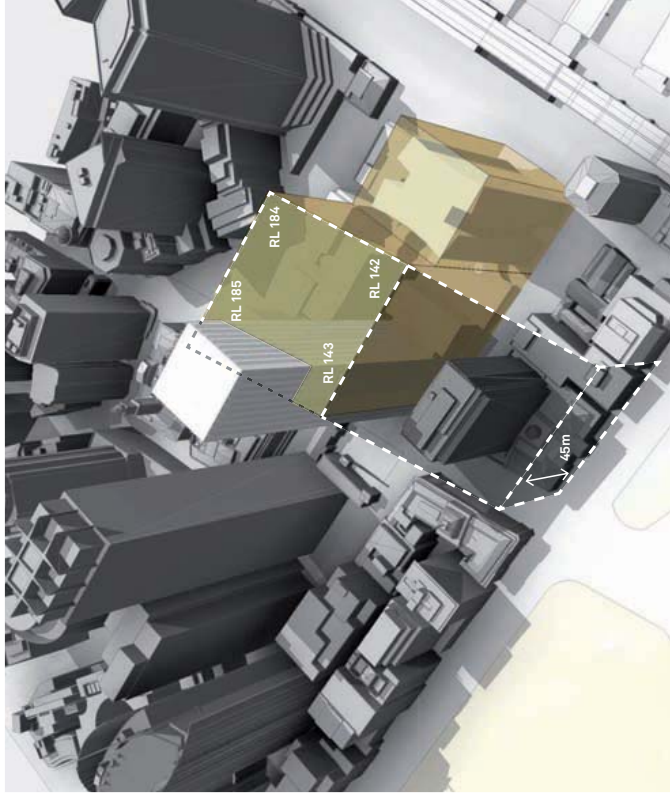
**First Government House Place**

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

**Built Form Strategies**

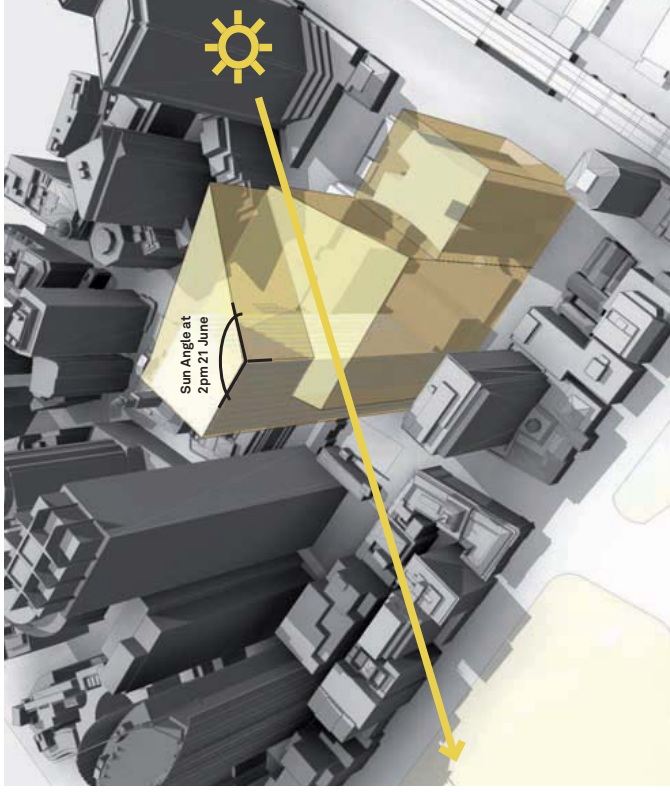
**LEP Solar Access Plane**

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.

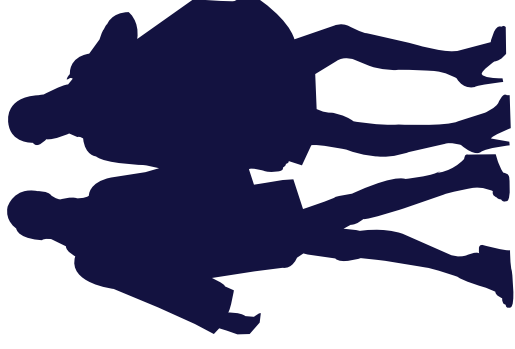
### Built Form Strategies

#### Young and Loftus Block

##### Young and Loftus Built Form Principles

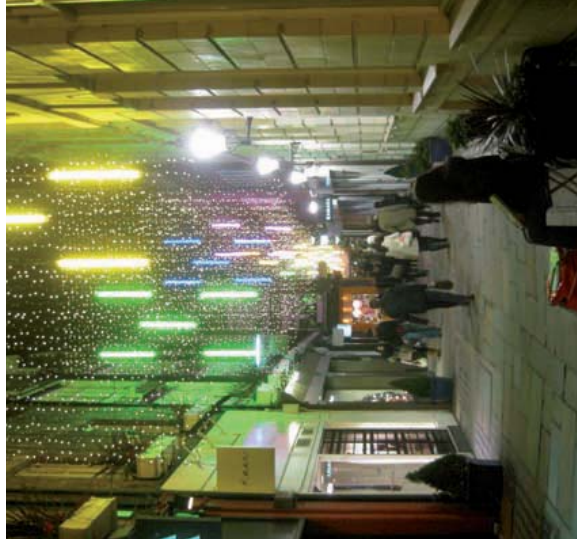
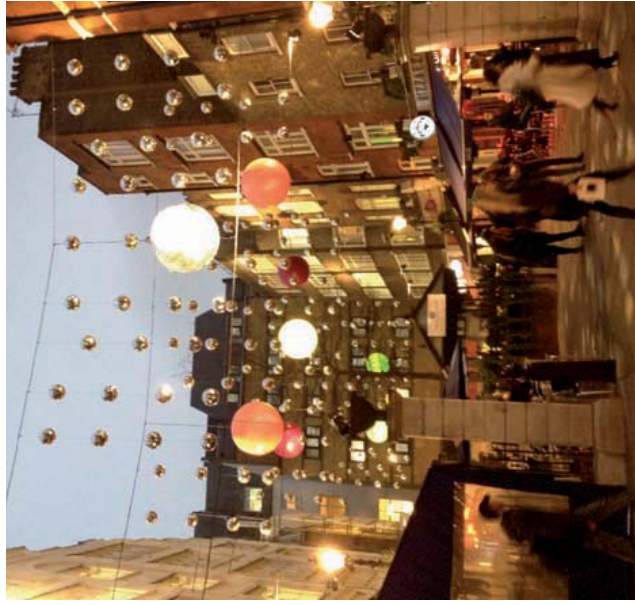
- \_ Establish a vibrant laneway precinct and pedestrian destination with a retail activated ground plane
- \_ Mixed use developments that support residential, retail, commercial, hotel, serviced apartments educational, bars or restaurants
- \_ Lower scale buildings that respond to the scale of adjacent 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**





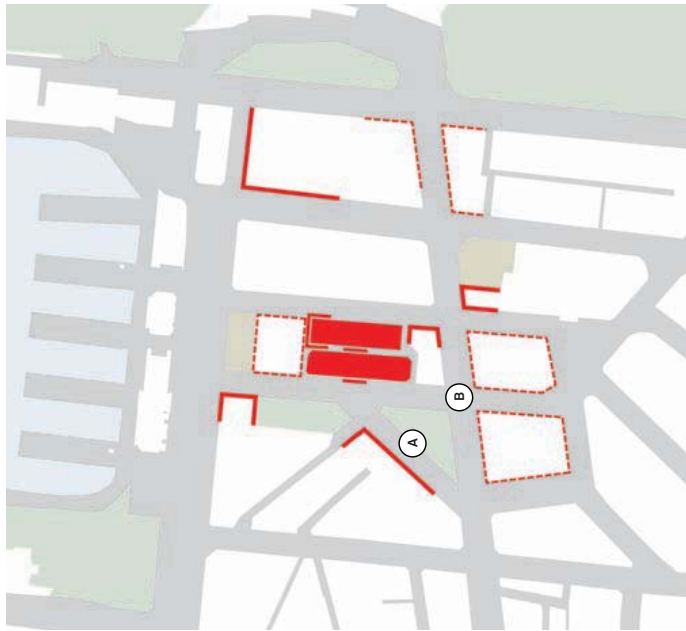
Mood board and precedents for character and use



Built Form Strategies

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

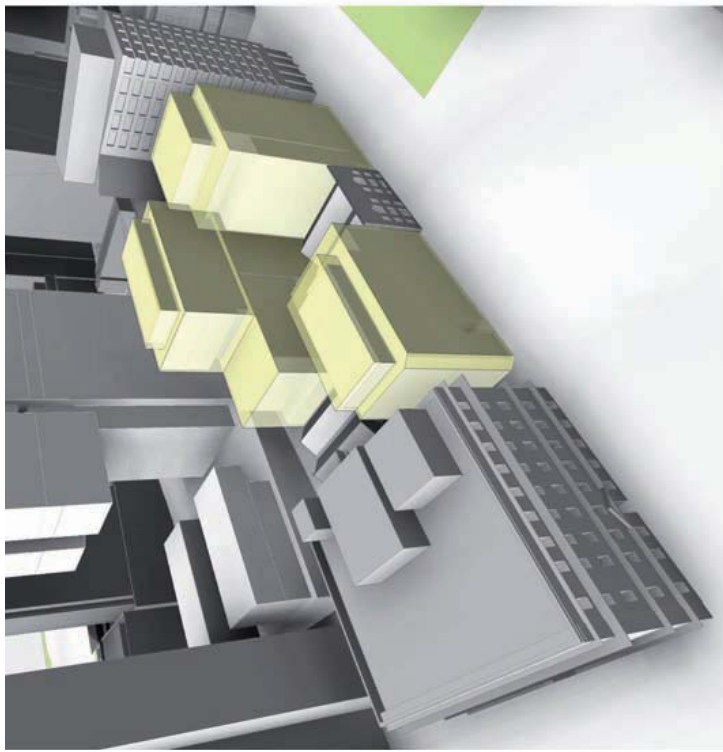
- Sandstone civic buildings and civic streetscape
- Finer grain streetscape



**Built Form Strategies**

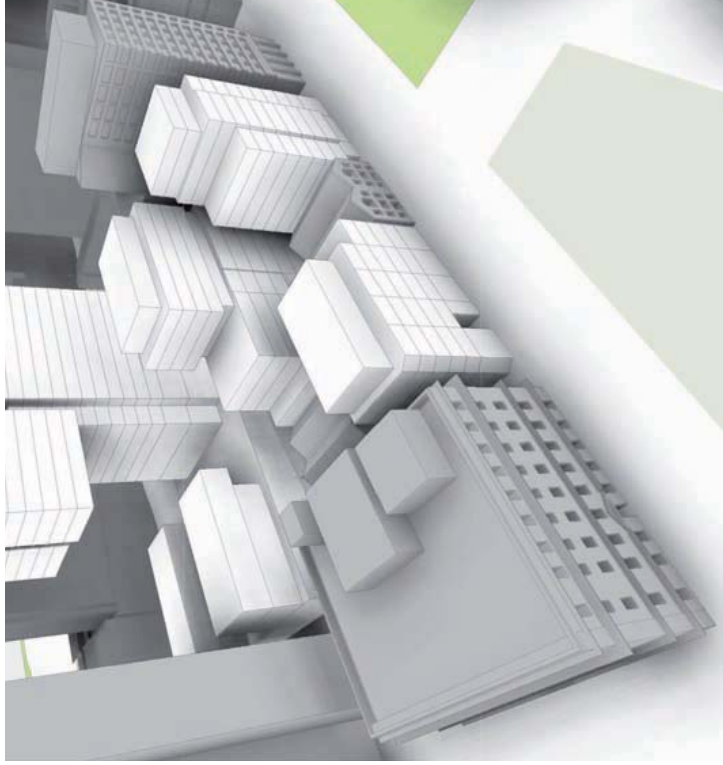
**Young and Loftus Block**

**Contextual Built Form Analysis**



Proposed Built Form Envelope

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.

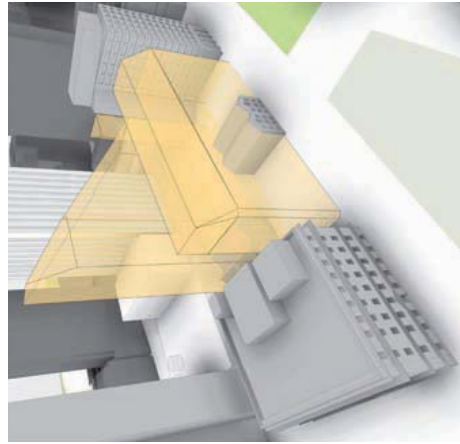


Indicative Massing

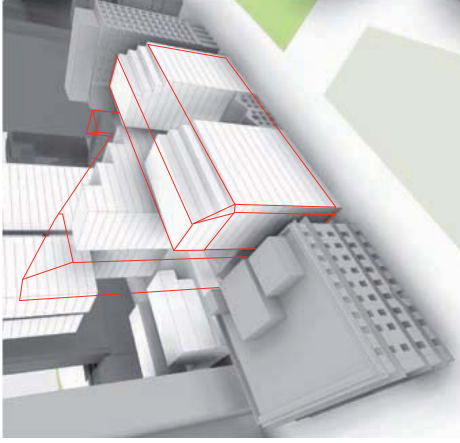
**Built Form Strategies**

**Young and Loftus Block**

**Massing Strategies**

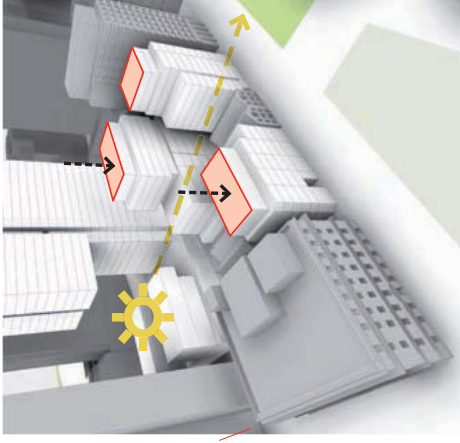


**1 LEP Solar Access Envelope**



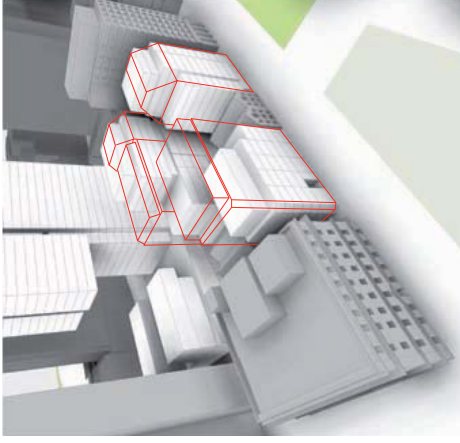
**2 Maximum Built Form Under Solar Access Envelope**

- 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



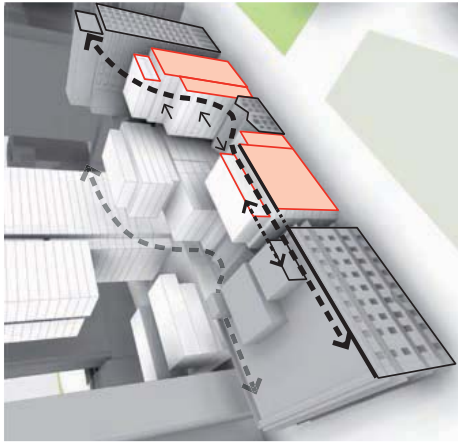
**4 Existing Building Heights**

- 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**

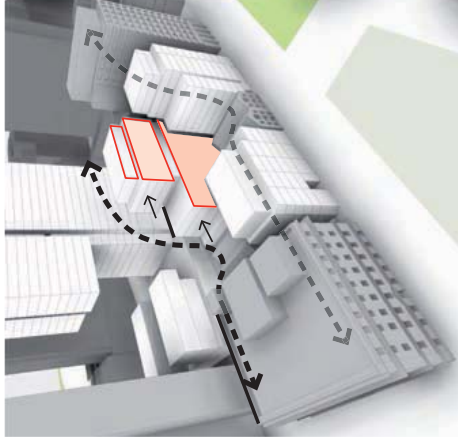
**Young and Loftus Block**

**Massing Strategies**



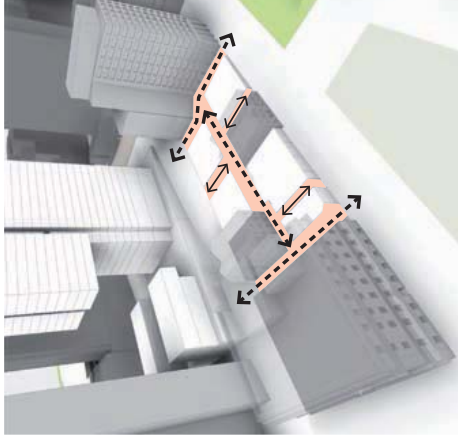
**5 Transition in Scale**

- \_ 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



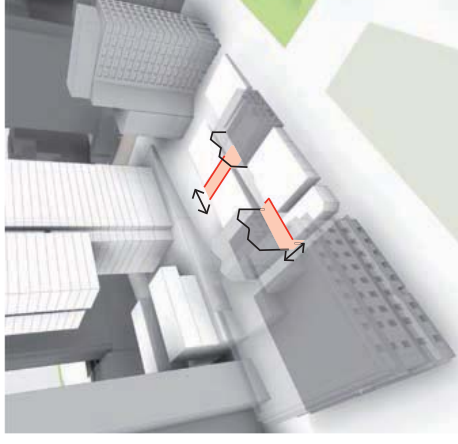
**6 Transition in Scale**

- \_ 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



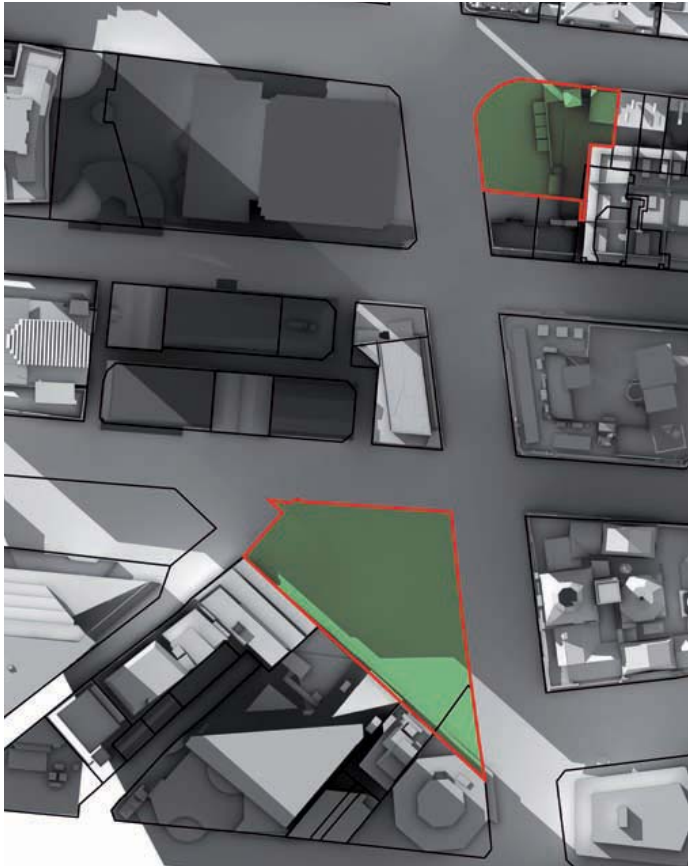
Built Form Strategies

Young and Loftus Block

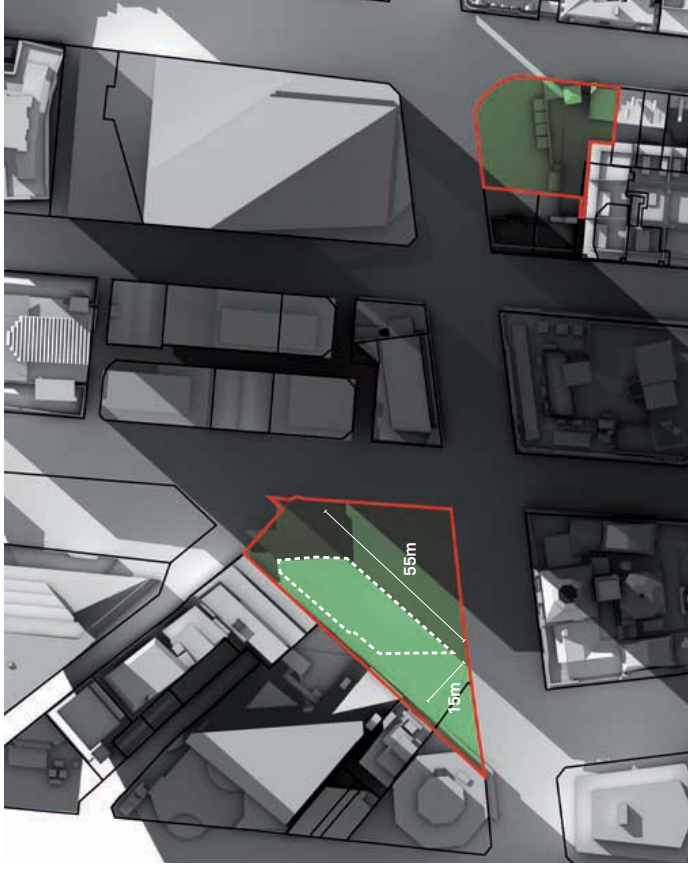
Key Public Benefits - Solar Access

Macquarie Place 9am 21 June

680 m<sup>2</sup> additional solar access at 9am in mid winter



Existing



Proposed

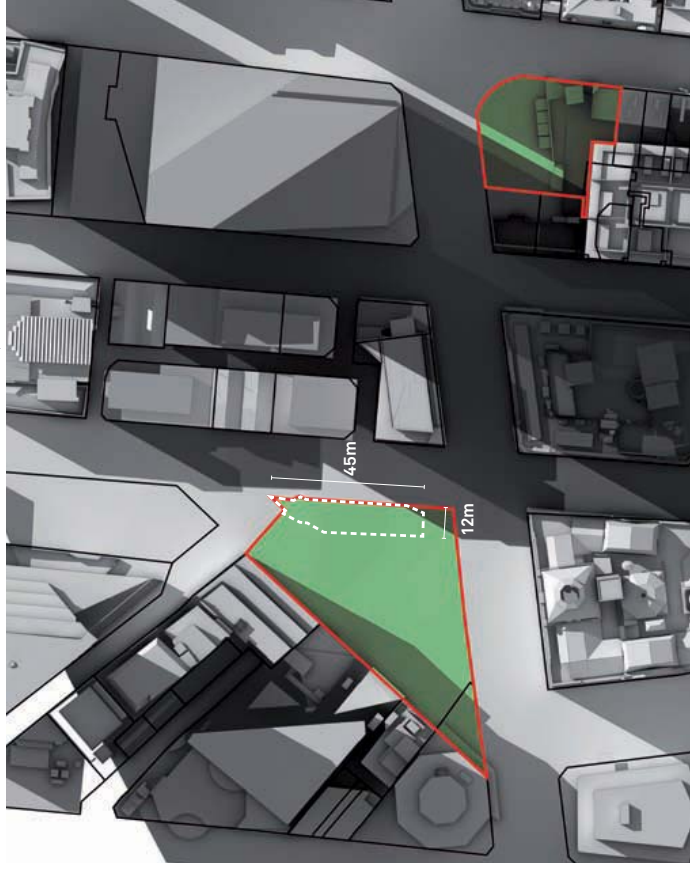
Built Form Strategies

Young and Loftus Block

Key Public Benefits - Solar Access

Macquarie Place 10am 21 June

460 m<sup>2</sup> additional solar access at 9am in mid winter

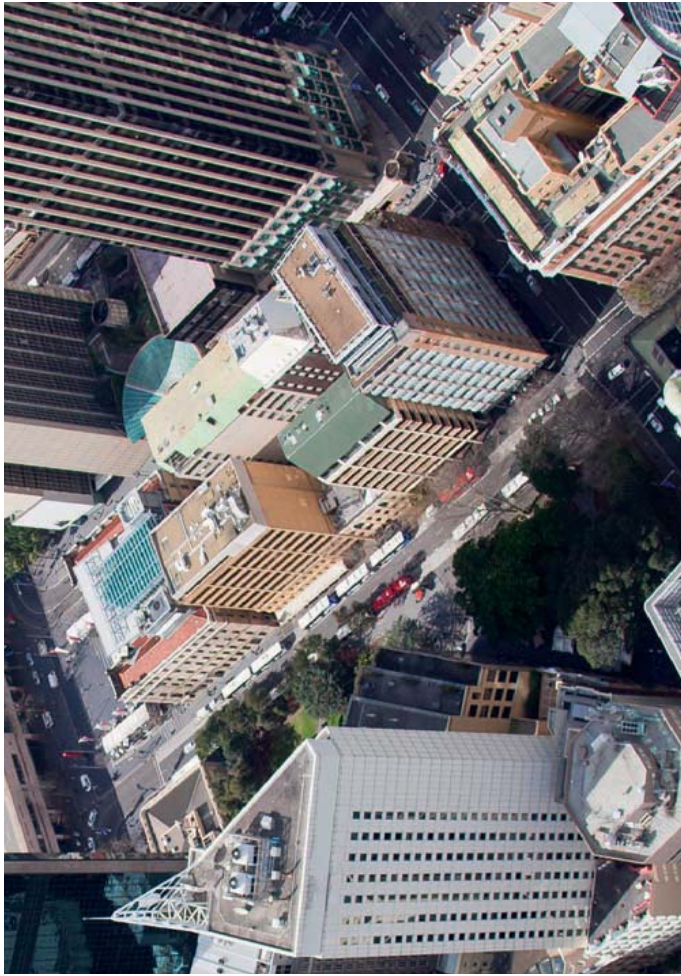




**Built Form Strategies**

**Bridge and Alfred Block**

**Indicative Architectural Concept**



Existing Condition



Indicative architectural concept



**Built Form Strategies**

**Bridge and Alfred Block**

**Indicative public domain plan**

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



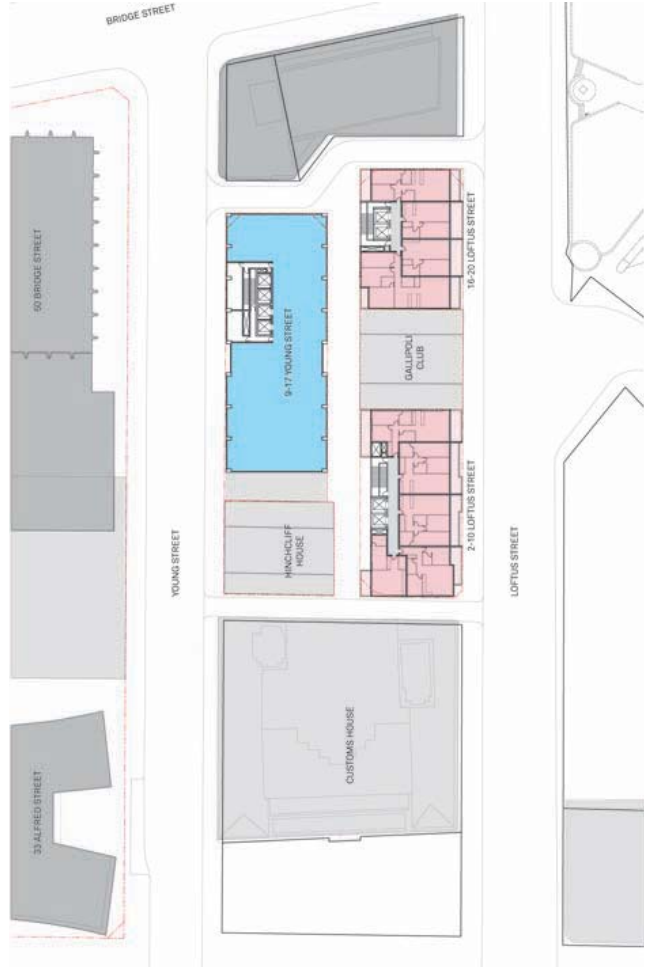
Key location plan



Built Form Strategies

Young and Loftus Block

Indicative Architectural Concept



Legend

- Commercial
- Residential



Scale  
1:1000 @ A3





Indicative architectural concept (view from Macquarie Place)

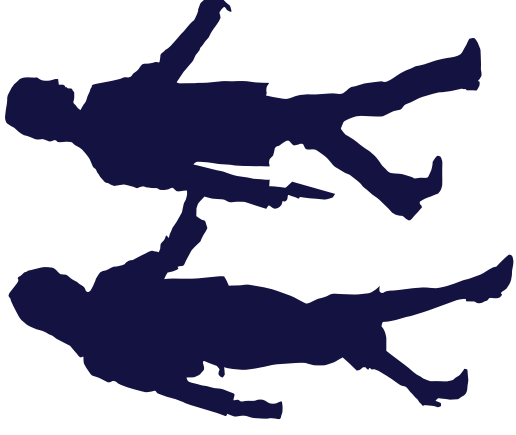
**Built Form Strategies**

**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**





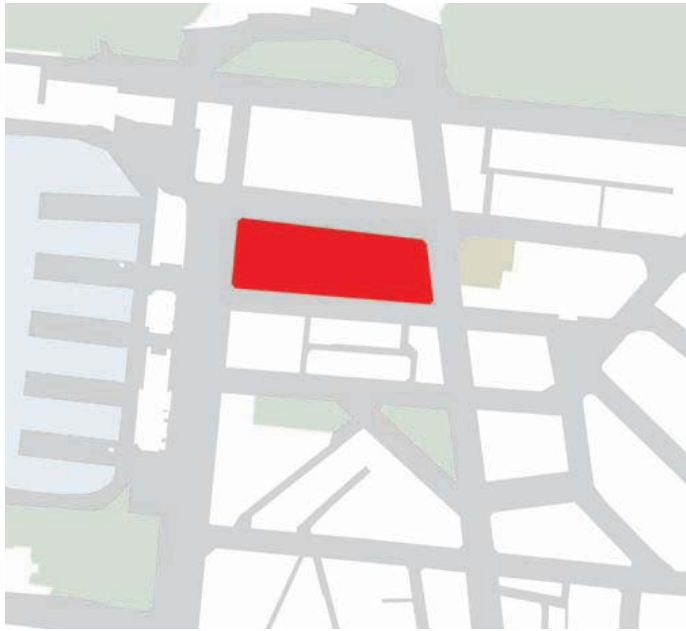
Mood board and precedents for character and use



Built Form Strategies

Bridge and Alfred Block

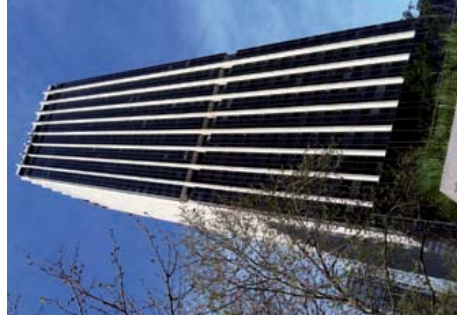
Contextual Built Form Analysis



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

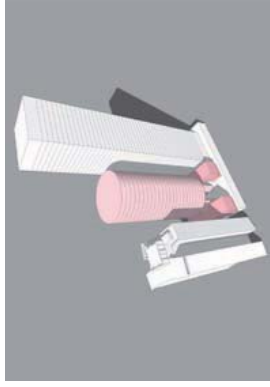
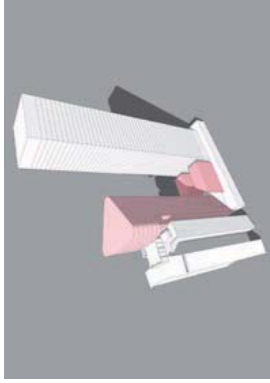
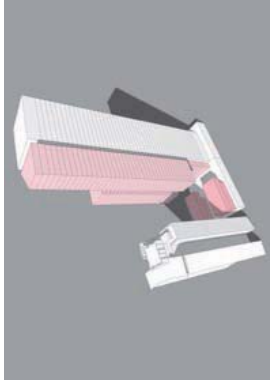
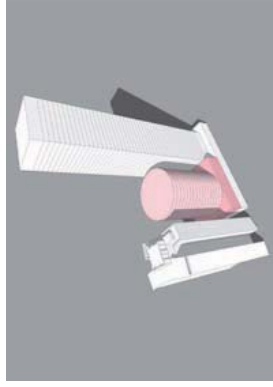
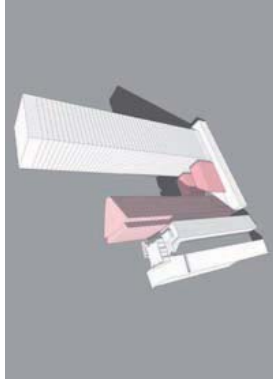


**Built Form Strategies**

**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**



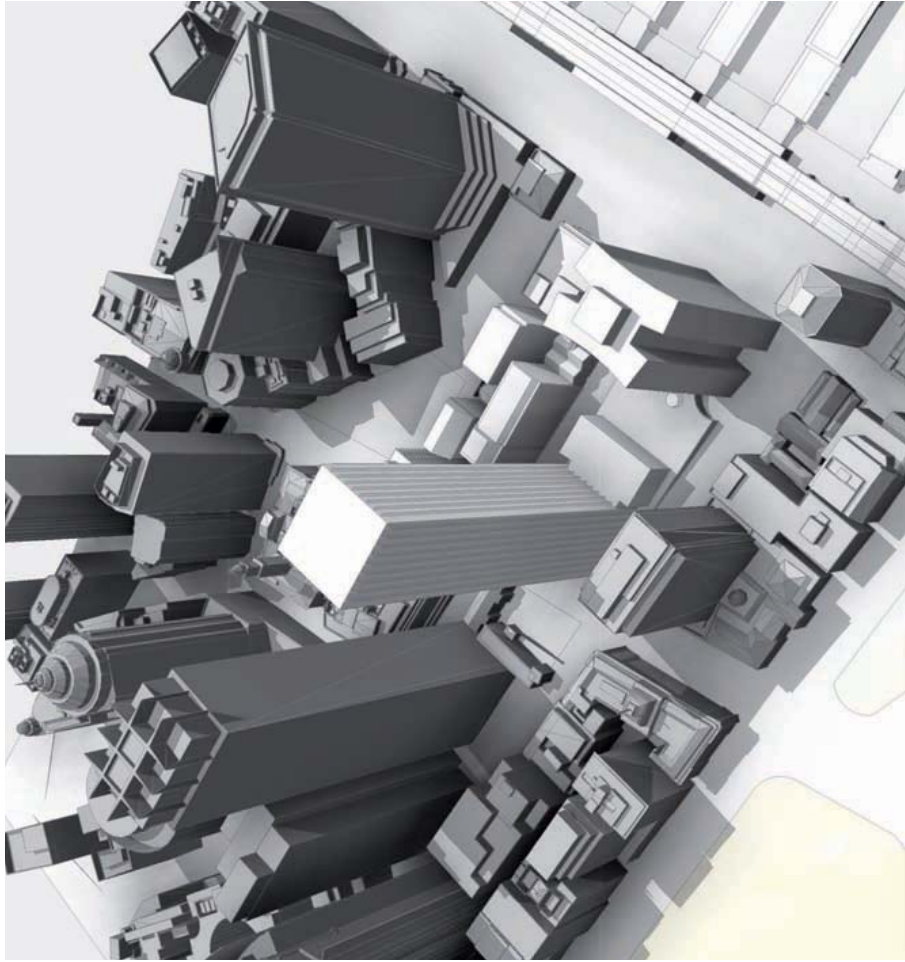
**Stand alone tower options**

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

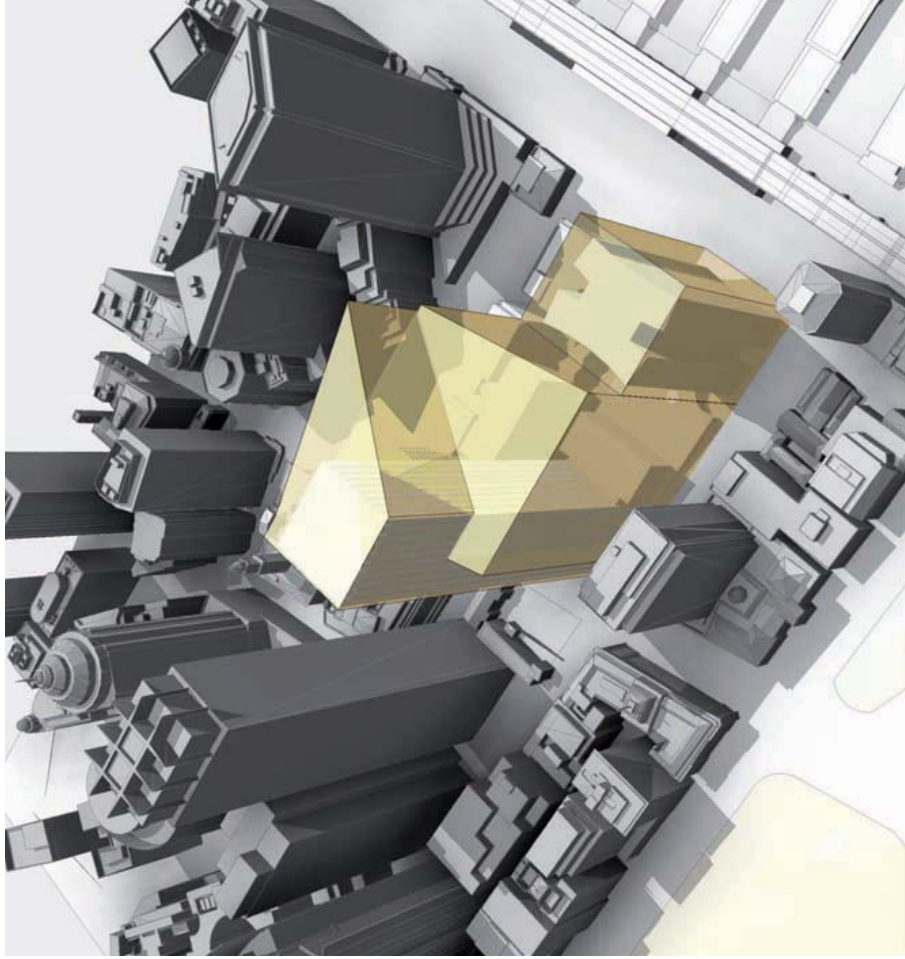
Discounted due to poor urban design outcome with dense building block and insufficient separation with 33 Alfred Street

**Built Form Strategies**

**Bridge and Alfred Block**



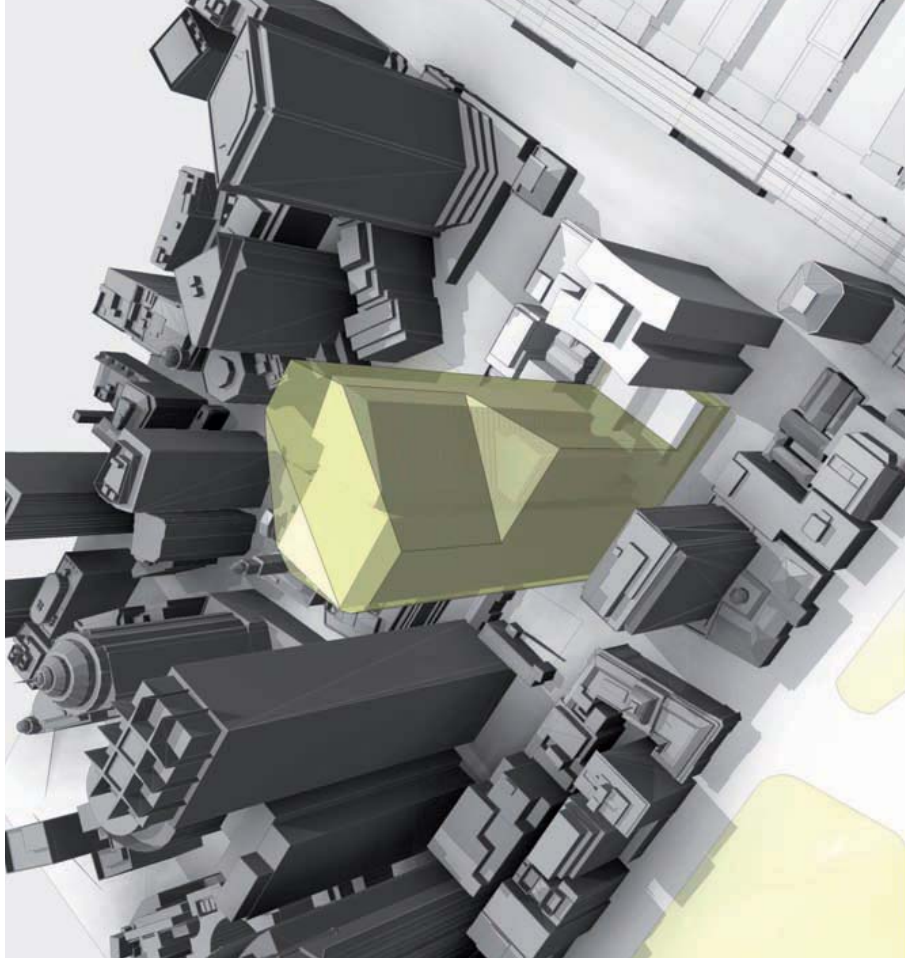
Existing Built Form



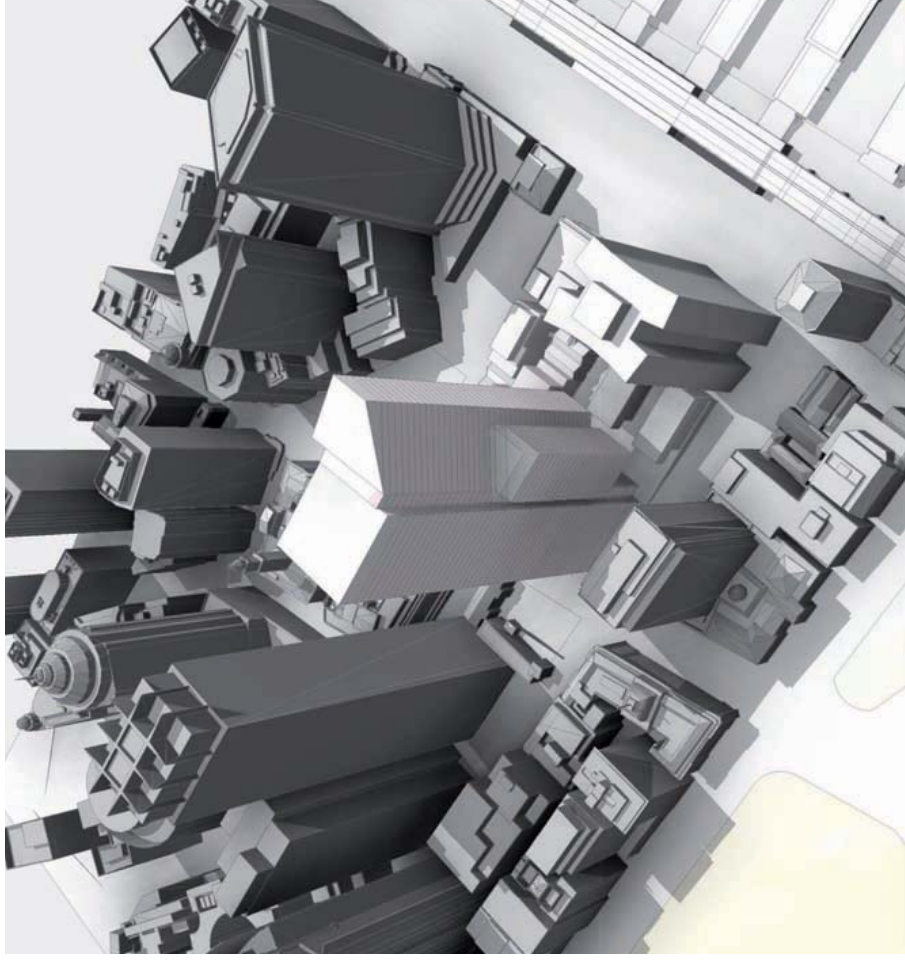
Interpreted LEP Solar Access Envelope

**Built Form Strategies**

**Bridge and Alfred Block**



Proposed Built Form Envelope



Indicative Massing

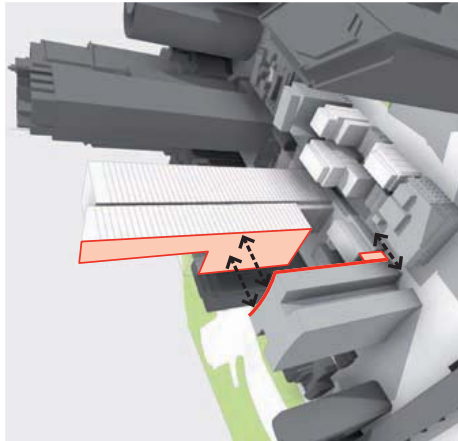
The proposed built form envelope documents the geometric envelope achievable within the constraints of the site, the indicative massing demonstrates one arrangement of the floor space quantum within the proposed envelope. The envelope is larger than the massing in order to preserve future flexibility.



**Built Form Strategies**

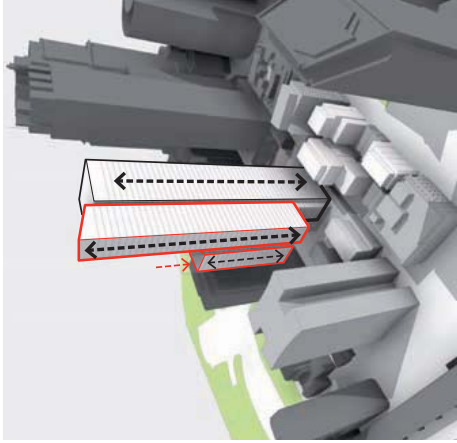
**Bridge and Alfred Block**

**Massing Strategies**



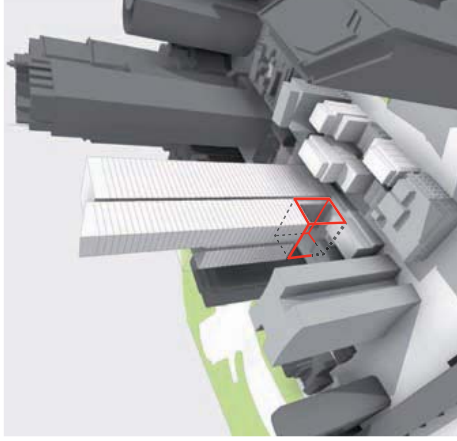
**1 Tower Separation**

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



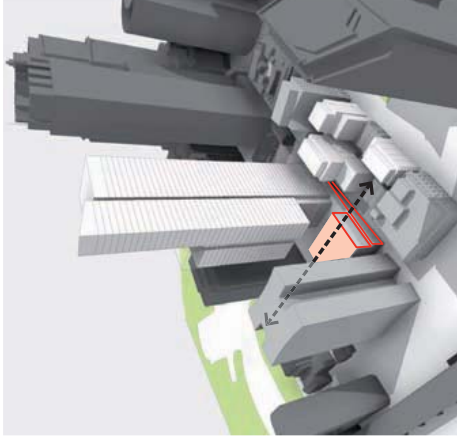
**2 Bulk and Form**

- 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 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





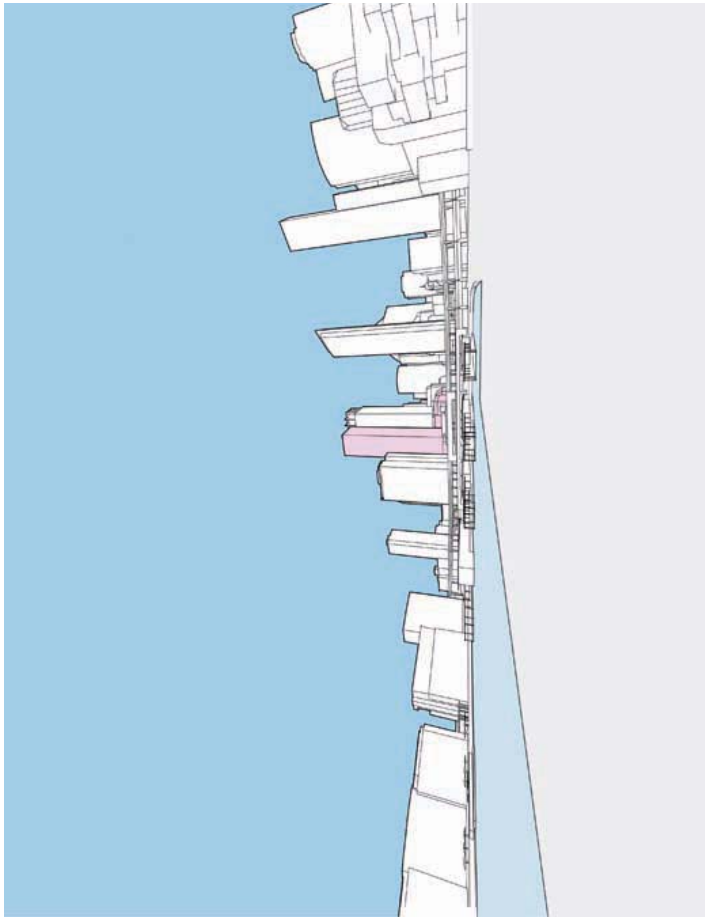
Indicate Massing

**Built Form Strategies**

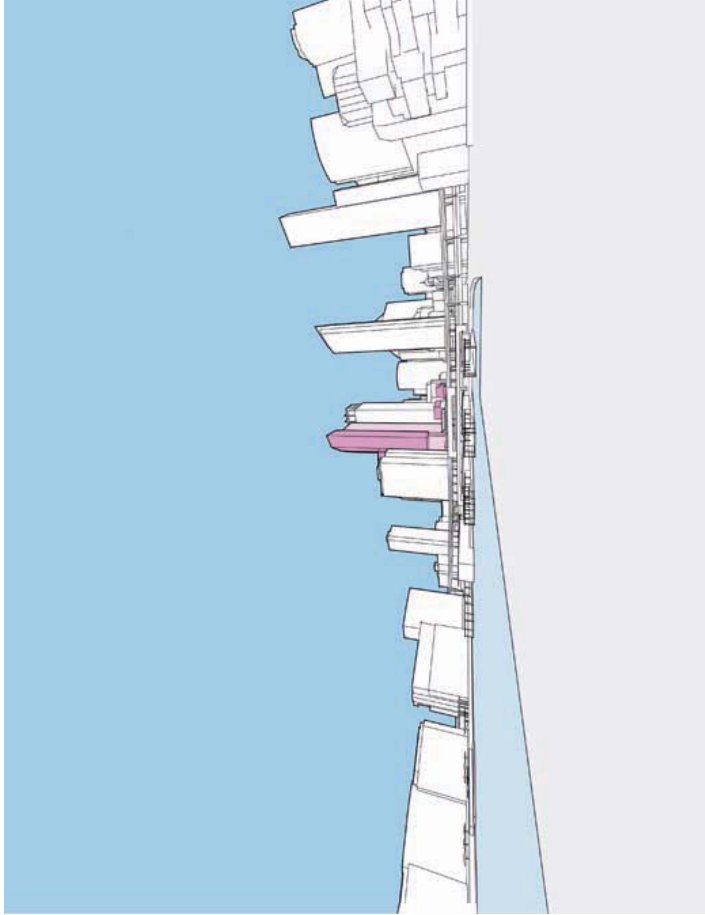
**Bridge and Alfred Block**

**CBD Skyline Analysis**

View from the Overseas Passenger Terminal



Existing



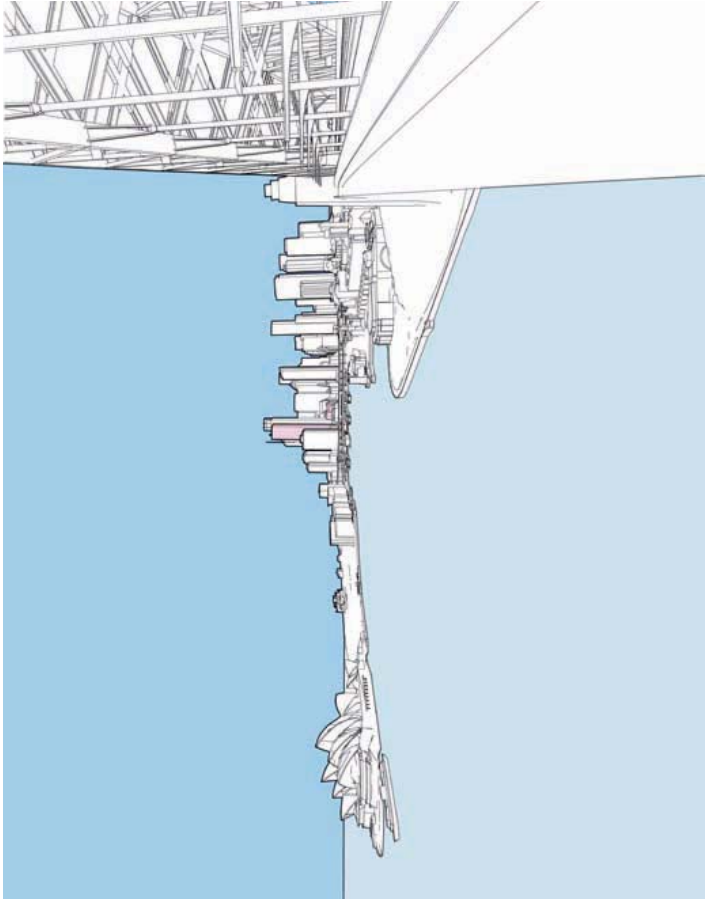
Proposed

**Built Form Strategies**

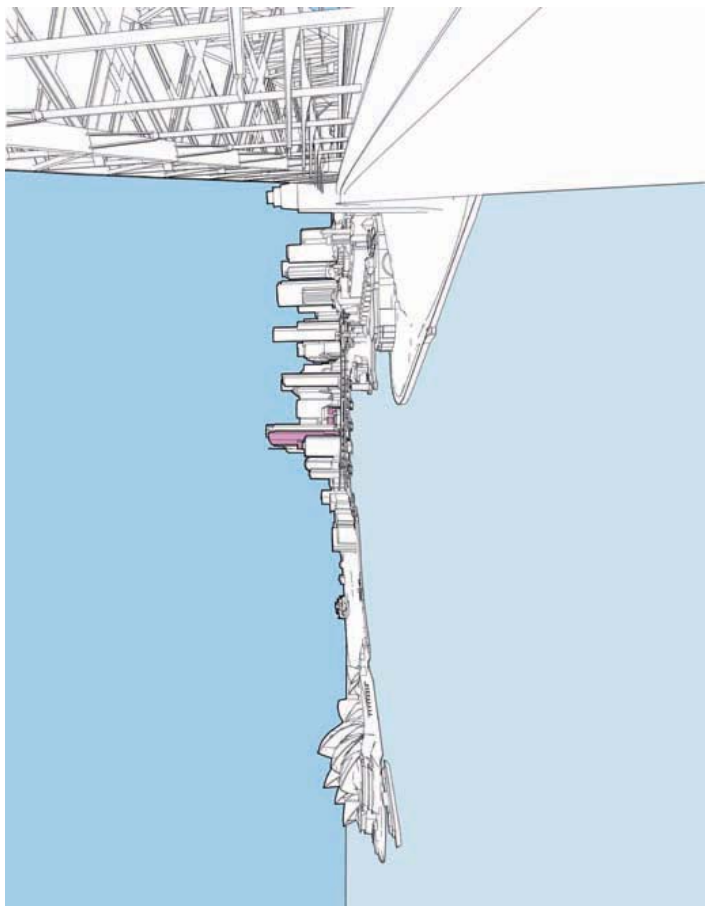
**Bridge and Alfred Block**

**CBD Skyline Analysis**

View from the Harbour Bridge



Existing



Proposed

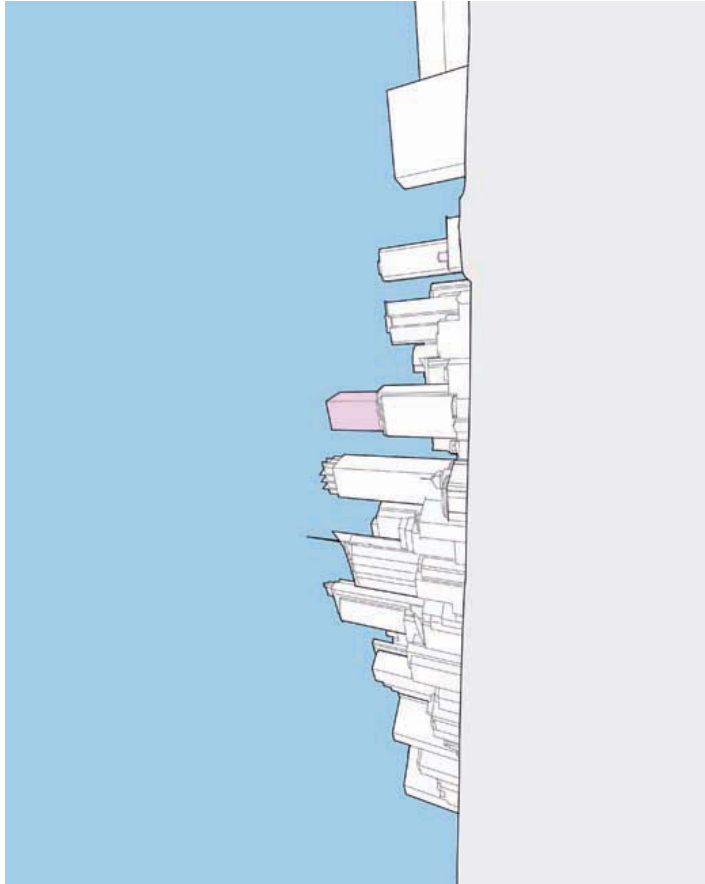


**Built Form Strategies**

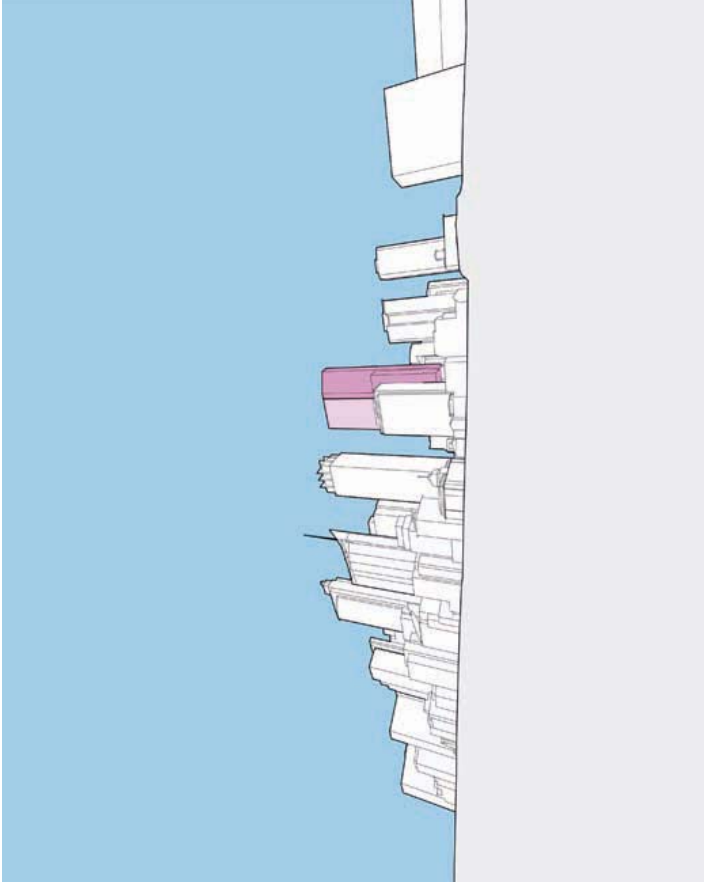
**Bridge and Alfred Block**

**CBD Skyline Analysis**

View from the Royal Botanic Gardens



Existing



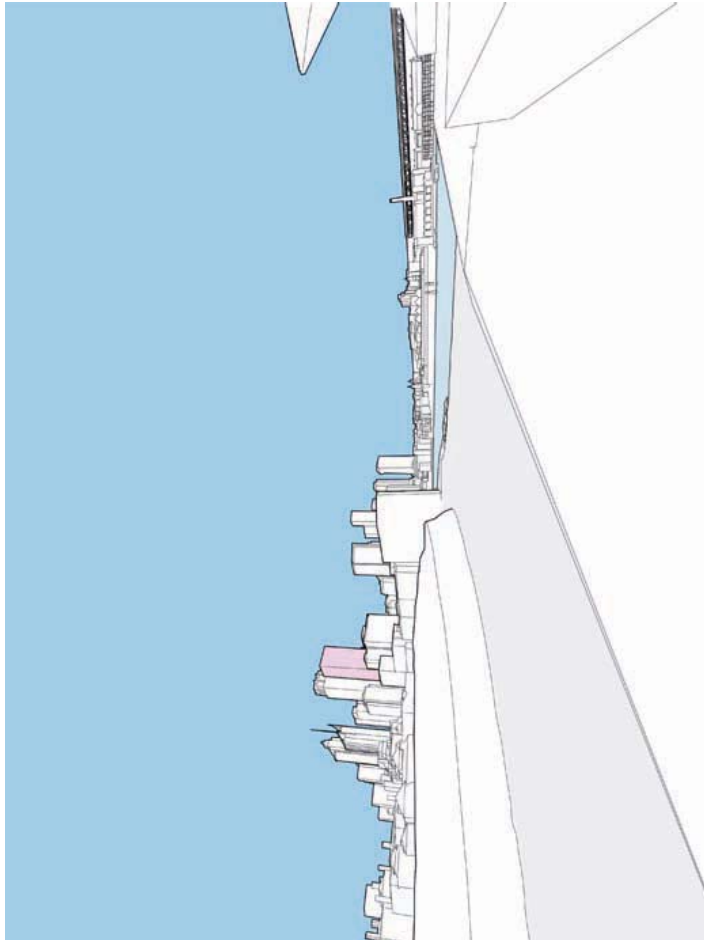
Proposed

**Built Form Strategies**

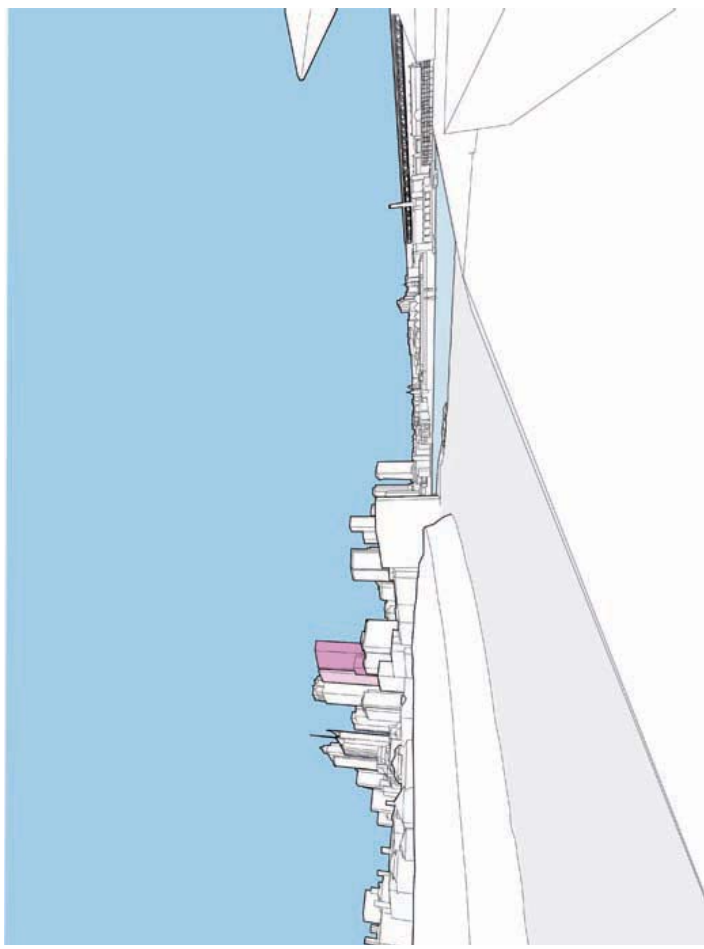
**Bridge and Alfred Block**

**CBD Skyline Analysis**

View from the Opera House steps



Existing



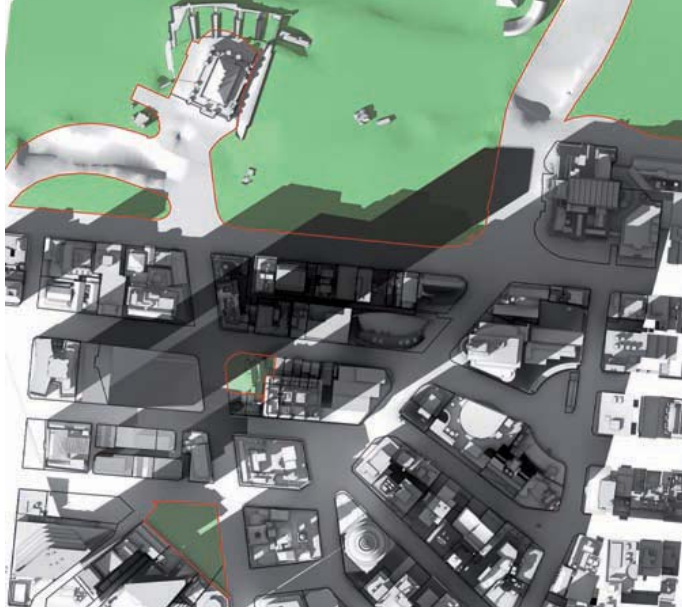
Proposed

**Built Form Strategies**

**Young and Loftus Block**

**Key Public Benefits - Solar Access**

Botanic Gardens 2pm 21 June



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

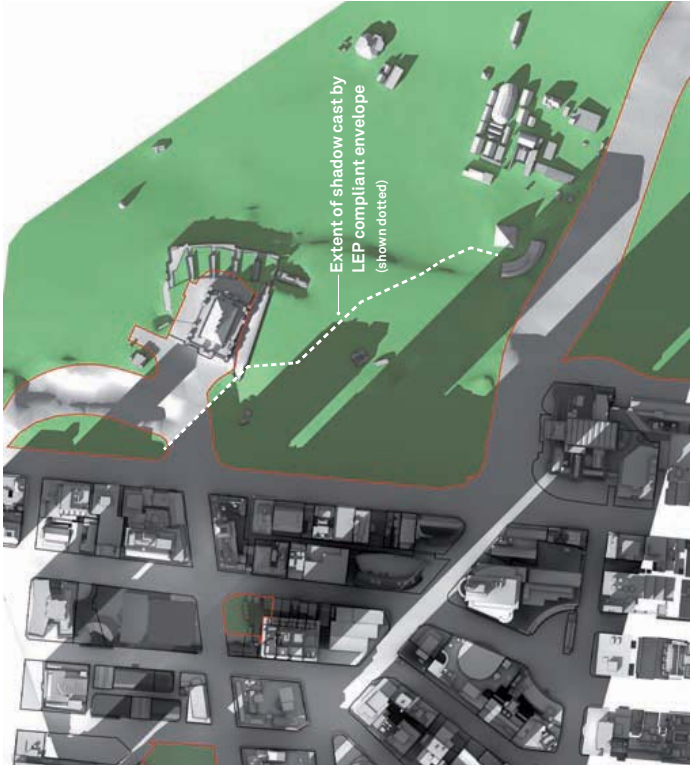


Built Form Strategies

Young and Loftus Block

Key Public Benefits - Solar Access

Botanic Gardens 3pm 21 June



Existing + LEP envelope



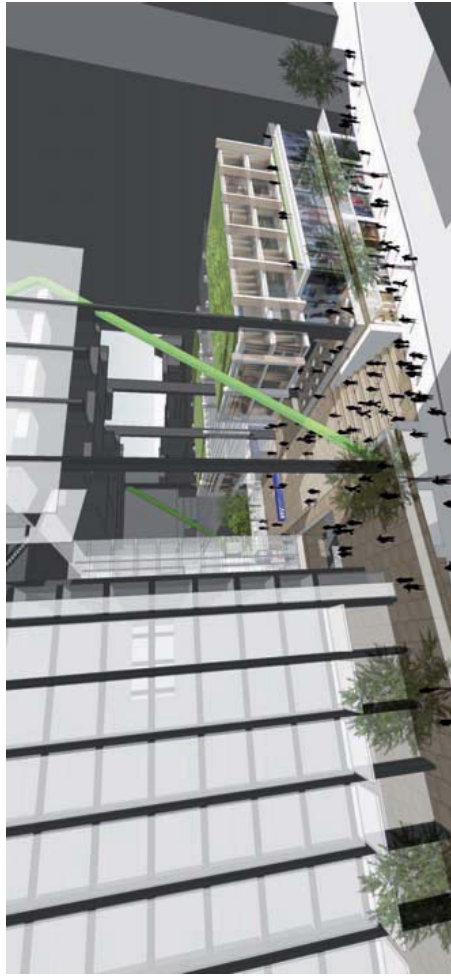
Proposed

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

**Built Form Strategies**

**Bridge and Alfred Block**

**Indicative Architectural Concept**



Indicative architectural concept (view from Philip Street)



Indicative architectural concept (view from Young Street)

**Built Form Strategies**

**Bridge and Alfred Block**

**Indicative public domain plan**

- A Alfred Street Plaza
- B 313 Alfred Street
- C Bridge link
- D Through-site link
- E Retail
- F AMP meeting rooms
- G AMP meeting entrance
- H Ceremonial entrance
- I Atrium lobby
- J 50 Bridge Street
- K Young Street
- L Phillip Street



Key location plan





Built Form Strategies

Bridge and Alfred Block

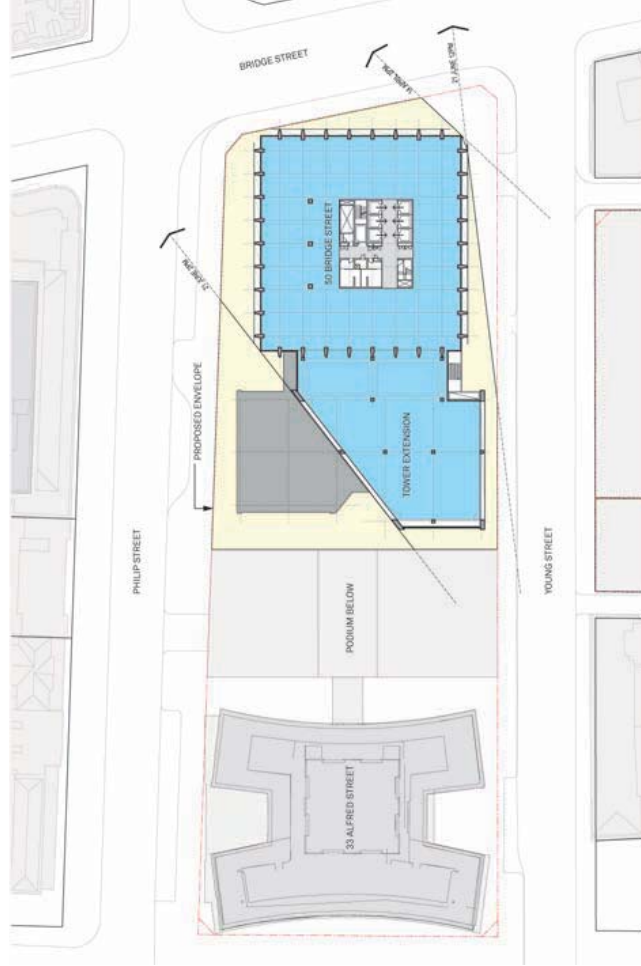
Indicative Architectural Concept



Indicative plan - Typical mid-rise tower level

Legend

- Commercial
- Proposed Envelope



Indicative plan - Typical sky-rise tower level



Scale  
1:1000 @ A3



Indicative architectural concept (view from The Rocks)

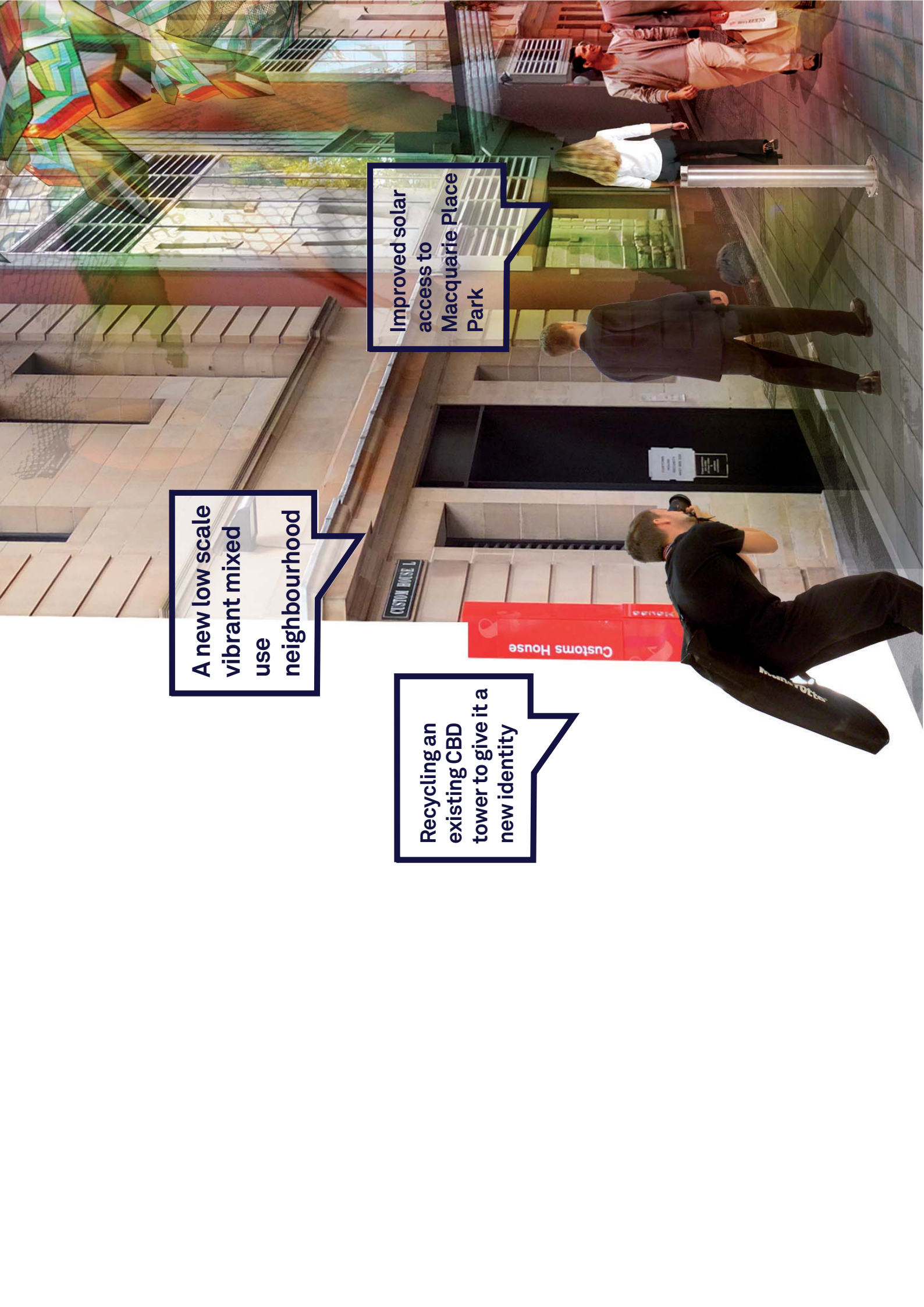






Bridge and Alfred Street Block



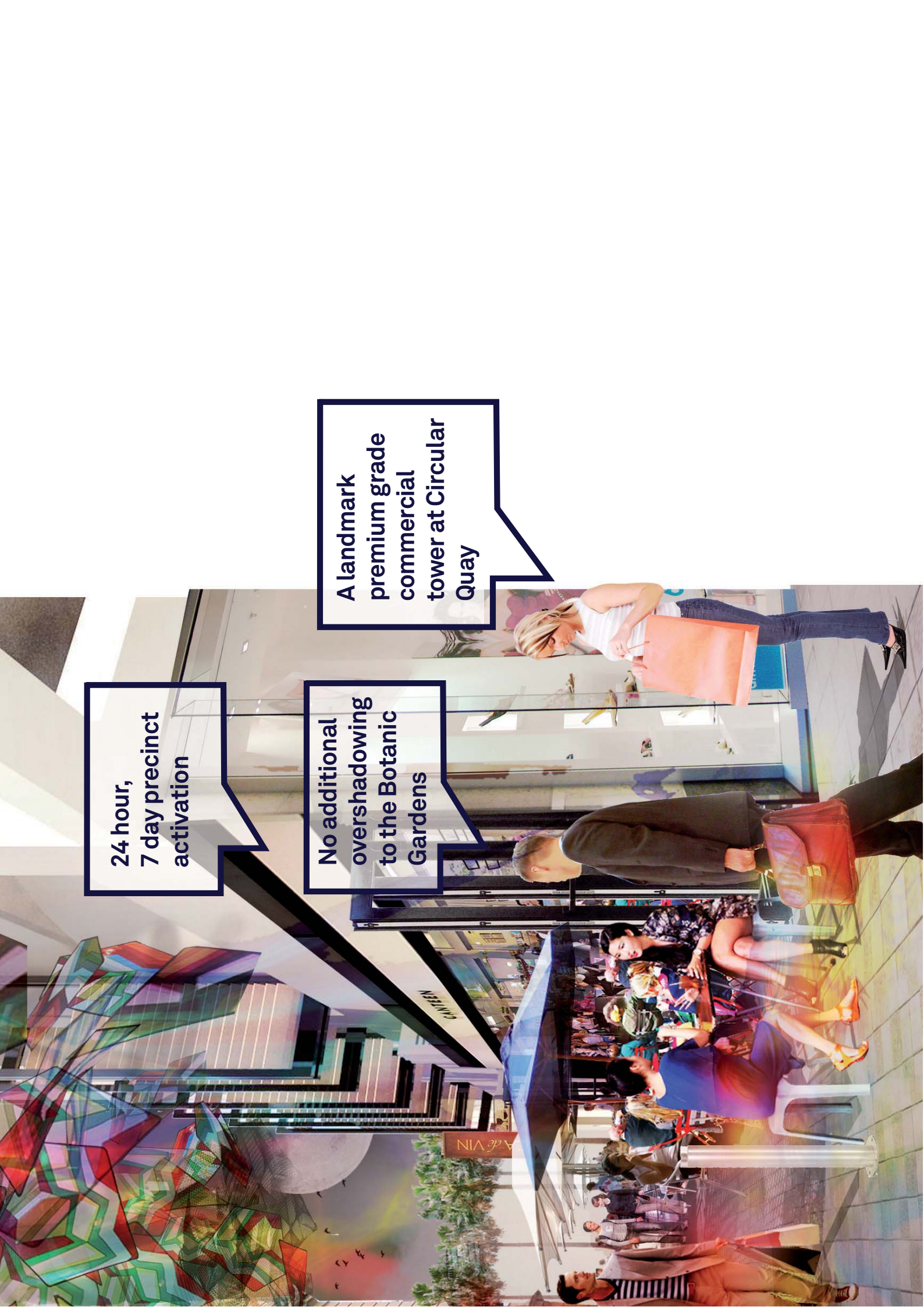


**A new low scale  
vibrant mixed  
use  
neighbourhood**

**Improved solar  
access to  
Macquarie Place  
Park**

**Recycling an  
existing CBD  
tower to give it a  
new identity**





**24 hour,  
7 day precinct  
activation**

**No additional  
overshadowing  
to the Botanic  
Gardens**

**A landmark  
premium grade  
commercial  
tower at Circular  
Quay**