Attachment A5

Urban Design and Indicative Built Form Report - Part 2

Design Principles

Urban Design Principles

Six urban design principles have been established to guide the urban design framework for the Hunter Street Station (Sydney CBD) sites.

Principle 1 — Movement and Connectivity

Embrace the movement opportunities of Sydney Metro West and support customer amenity and experience through clear arrangement of circulation, built form and enhancement of the public domain.

Principle 2 — Connecting with Country

Follow the principles of the [draft] Connecting with Country framework to value and respect First Nations people and knowledge, and care for Country.

Principle 3 — Heritage and Place Character

Understand and reveal the heritage and place character of the unique Hunter Street Station (CBD North) sites. Reinforce key alignments with heritage items. Open up view lines to heritage façades.

Principle 4 — Public Space

Expand and enhance the public domain and subterranean pedestrian movement networks and create new places for gathering and enjoyment.

Principle 5 — Streetwall Scale, Articulation and Tower Setbacks

Develop an appropriate streetwall scale, related to existing heritage items and built form. Articulate the streetwall to add rhythm to the street and identify through site pedestrian networks. Specific setbacks are driven by the core location defined by the station.

Principle 6 — Amenity and Landscape

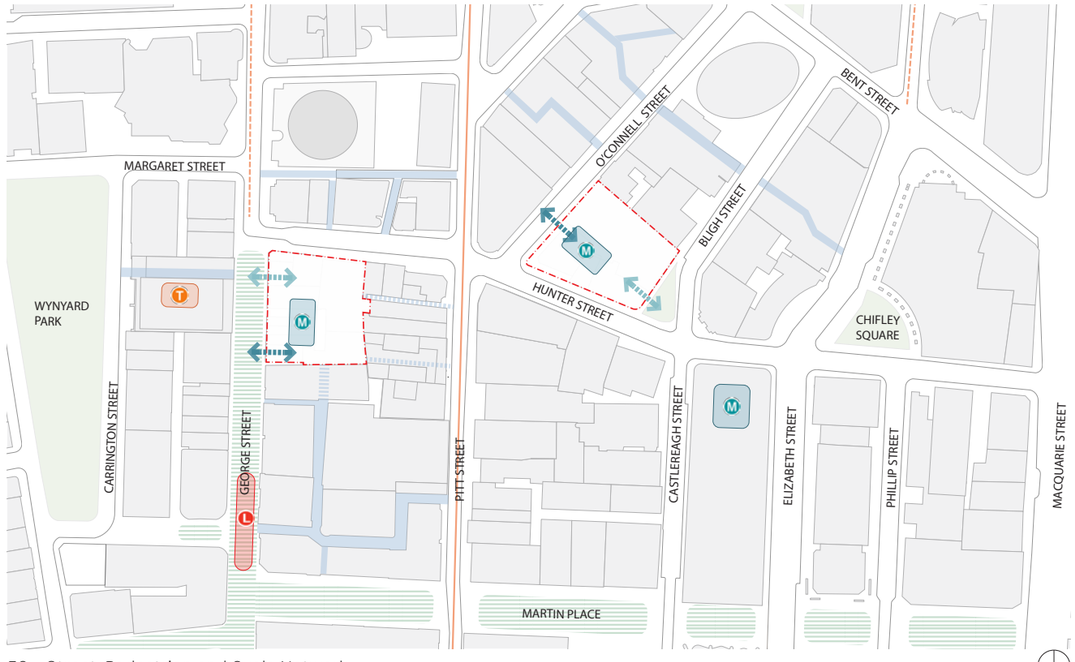
Work with topography, orientation and built form to create comfortable spaces with integrated soft landscape and street furniture.

Movement and Connectivity

Based on the analysis undertaken and the urban design principles established, opportunities to enhance the public domain, pedestrian environment and streetwall scale around the new station entries have been identified.

The proposal should contribute to the City's current and future pedestrian and cycle network and improve permeability of the site with the surrounding context. The design should allow for dispersement of pedestrian traffic around the stations to support the patronage of Sydney Metro and manage the pedestrian flow with a separation in entries for the Metro Station, commercial lobby and through site links.

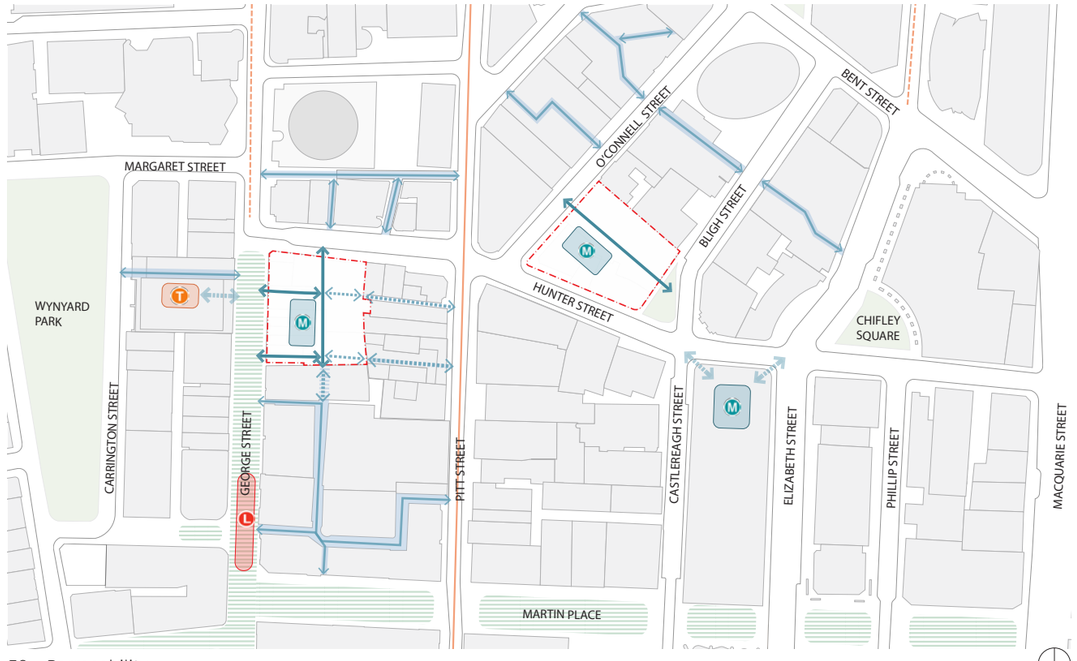
To improve the pedestrian connectivity to the surrounding area, through site links should be provided within each site. These links will assist with way finding for the Metro patrons and also contribute to the City's current pedestrian network. Additionally, the location of the links and access points should enhance connectivity to the other modes of transport. The access points for pedestrians and cyclists are designed to be clear and legible.



58. Street, Pedestrian and Cycle Network

KEY

- Site Boundary
- Metro Station
- Train Station
- Light Rail Stop
- Pedestrianised Zone
- Metro Station Entry
- Building Entry
- Separated Off-Road Cycleway
- Low Traffic Bike Lane
- Existing Links
- Potential Future Links



59. Permeability

KEY

- Site Boundary
- Metro Station
- Train Station
- Light Rail Stop
- Pedestrianised Zone
- Potential Links
- Existing Links
- Existing Station Entrances
- Low Traffic Bike Lane
- Separated Off-Road Cycleway
- Potential Future Links

Connecting with Country

"The Gadigal people were a harbour dwelling clan, inhabiting the area from South Head through to Eastern Suburbs to Sydney Cove (Warrrane) and ending at Darling Harbour (Gomora). Their clan name is derived from 'gadi', the name of the grass tree found in the area and 'gal' which means man or people. "

Source: Murawin Sydney Metro West Cultural Stories August 2021

On Gadigal Country

Across Sydney Metro, the design and integration of stations and precincts should respect and respond to the culture and stories embedded within the land through which they pass.

Sydney Metro is committed to develop a 'Designing with Country' strategy which can be implemented for the Hunter Street Metro Station sites. Murawin Consultants have been engaged to develop this Strategy in partnership with Sydney Metro. Through this process, the ancient spiritual significance of this site can be celebrated.

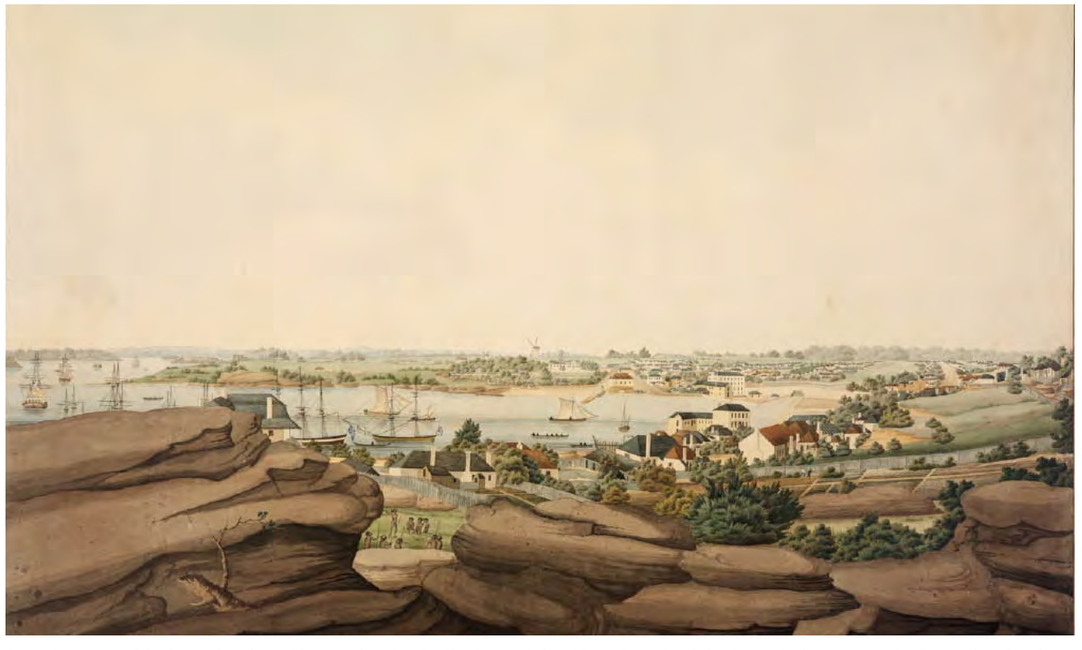
The Strategy will:

— Outline the policy, site and social context of the project. The strategy will respond to the Transport for NSW Reconciliation Action Plan 2019-2021 deliverables

— Inform the development and stewardship of appropriate Aboriginal Cultural Design Principles that will be incorporated into the design, public art and heritage interpretation of the project

Murawin and the design team have worked closely to develop a strategy whereby First Nations knowledge holders are connected with via a reconciliatory process of collaborative design. Through this process, the ancient spiritual significance of this site can be celebrated.

60. A view of Sydney Cove New South Wales



61. The town of Sydney developed into a city, the Gadigal were joined by other Aboriginal people from around NSW to live, forging relationships with the urban Aboriginal community

Tank Stream

The formerly fresh watercourse was the primary reason for settlement by the First Fleet at Sydney Cove and the name became attributed due to the tanks cut into bedrock by early settlers in attempts to modify the natural system to provide additional water storage.

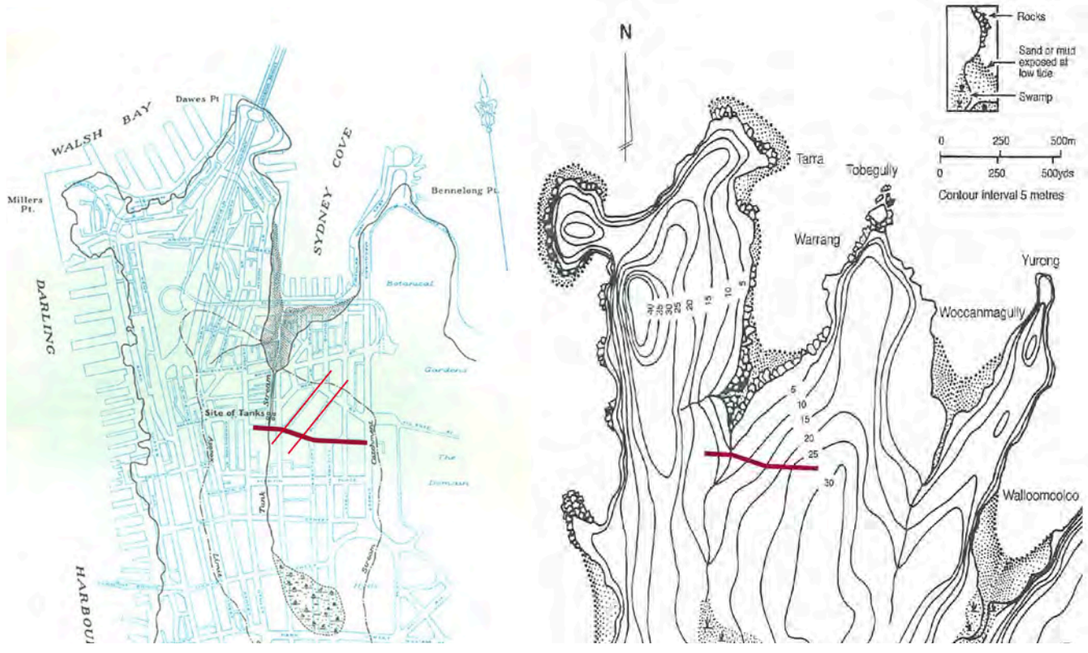
The Tank Stream remains a significant heritage listed Sydney Water stormwater masonry asset built in the early nineteenth century, running approximately 1.5 metres below the existing ground level. The Tank Stream is currently functioning as a channel which carries stormwater from the lower CBD to the harbour. Refer to the Sydney Metro West - Hunter Street Planning Proposal Non-Aboriginal Heritage Impact Assessment

The best documented Aboriginal site along the Tank Stream was found during archaeological excavations in the late 1990s, ahead of the redevelopment of Angel Place, north of Martin Place between Pitt and George Streets.
Source: Murawin Sydney Metro West Cultural Stories August 2021

62. Tank Stream, Old Sydney - when a severe drought reduced the stream to a little trickle, three tanks were excavated from the sandstone, giving the stream its present name.

Early Mapping

The historical street patterns were influenced by the topography, Tank Stream and the Governor's House. An overlay of the contemporary street pattern on an early map of the colony shows the Tank Stream catchment, the Tank Stream and the location of early water supply tanks serving the colony in relation to the site.



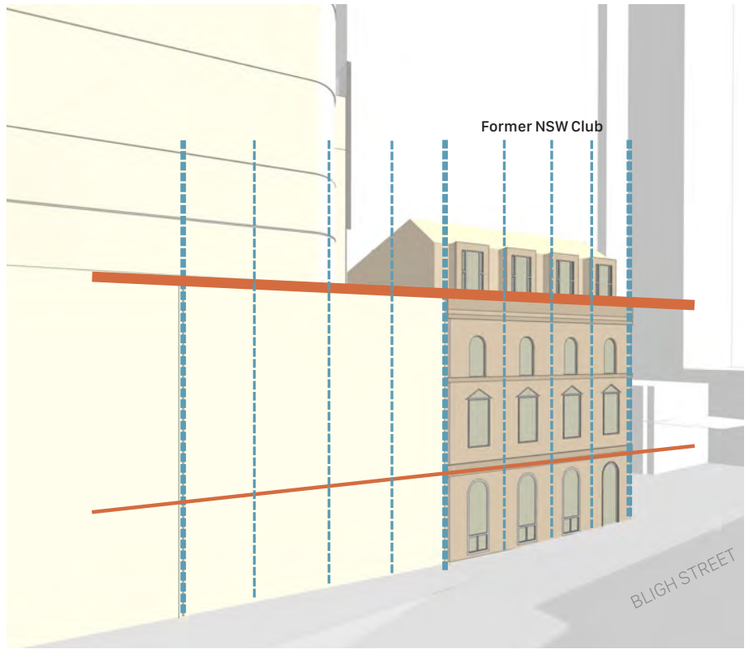
63. Overlay Map (left) Early Topographical Map (right)

Heritage and Place Character

The sites are surrounded by heritage items, with interfaces to these items across all boundaries. The scale of the proposed development should respond to the key datum lines of the heritage items and further enhances the character and heritage significance. The podium and facade elements should respond appropriately in terms of facade depth, modulation, proportion and articulation, to reinforce the character of the heritage building and the continuity of the streetscape.

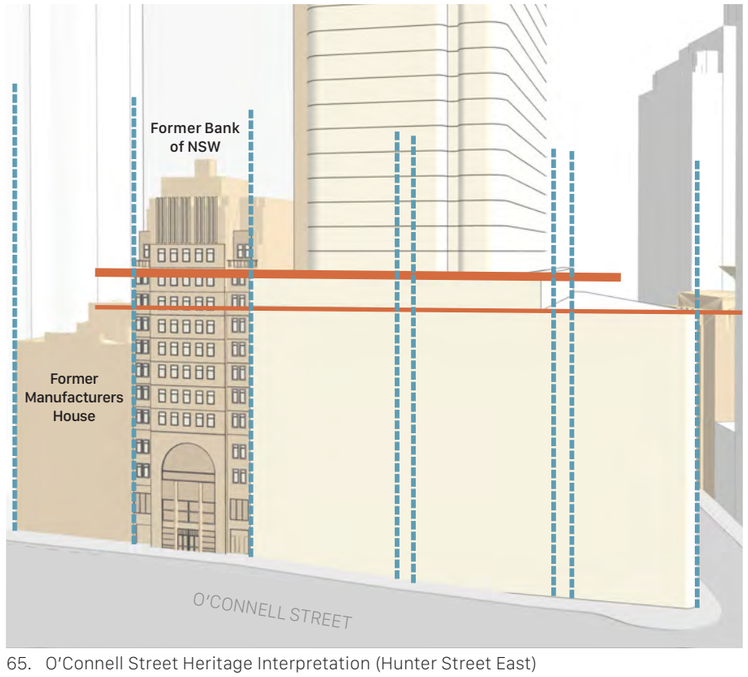
The built form on the Hunter Street East site should consider align to the parapet and cornice of the Former NSW Club (31 Bligh Street), Former Wales House (64-66 Pitt Street) and the Former Bank of NSW (16 O'Connell Street). It should also respond to the vertical rhythms of the heritage item.

The Hunter Street West proposal is to retain and adaptively reuses the heritage item located within the site. The built form should align to the parapet and cornice of the Former Skinners Family Hotel, NSW Sports Club (10-14 Hunter Street) and other heritage/contributory items along George Street. It should respond to the vertical rhythms of the heritage items and other developments along George Street.



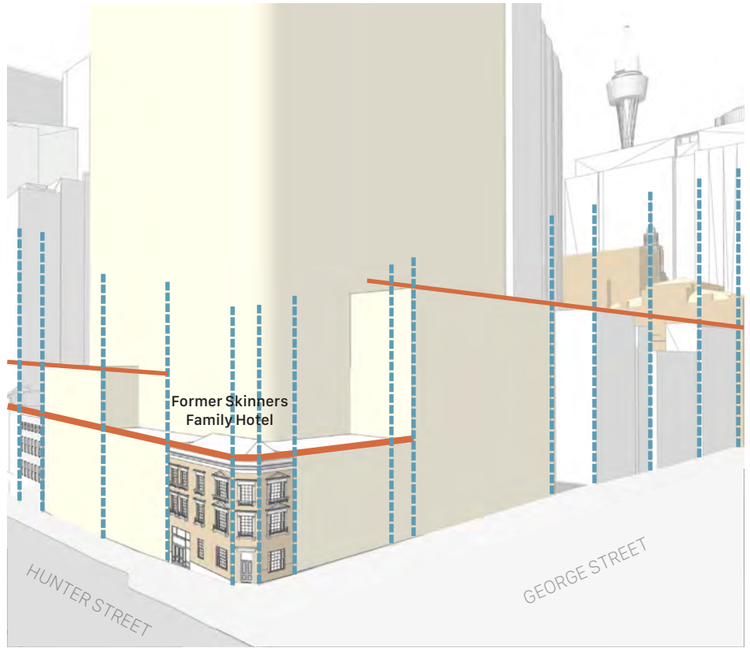
64. Bligh Street Heritage Interpretation(Hunter Street East)

— Respond to vertical and horizontal alignment of Former NSW Club



65. O'Connell Street Heritage Interpretation (Hunter Street East)

— Respond to vertical rhythm of Former Bank of NSW and horizontal alignment of Former Wales House and Former Bank of NSW



66. Hunter Street Heritage Interpretation (Hunter Street West)

— Respond to vertical and horizontal alignment of Former Skinners Family Hotel and other heritage items and buildings along George Street

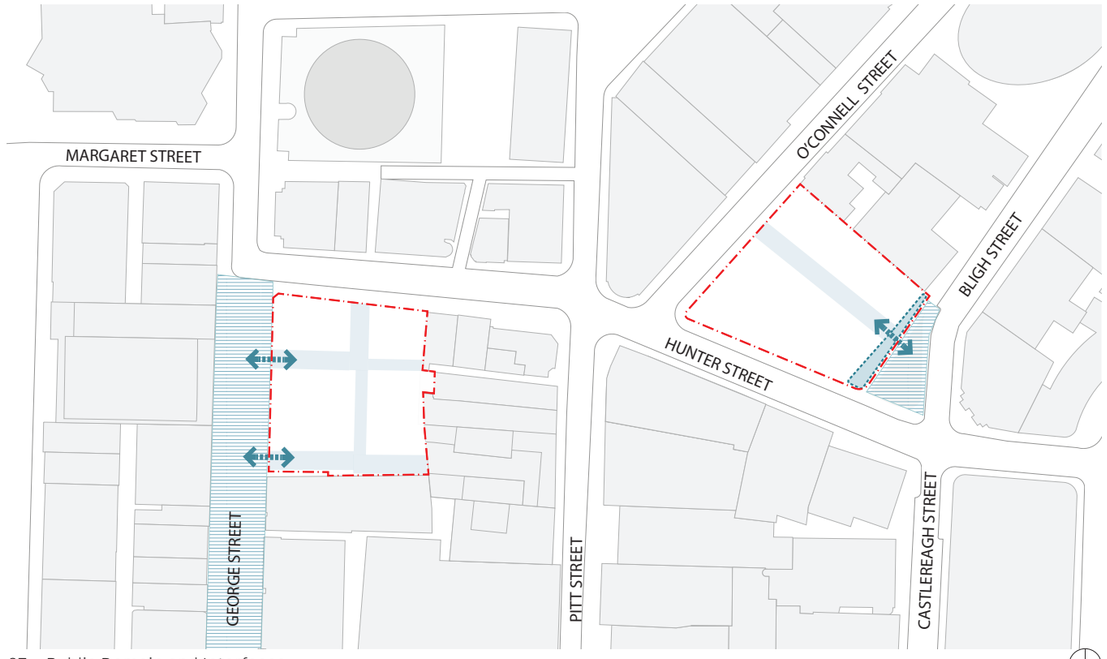
KEY

Vertical Alignment | Horizontal Alignment | Heritage Items | Indicative Built Form

Public Space

The proposal should respond and enhance the existing public domain interfaces along George Street and Richard Johnson Square. The design of the public domain should prioritise pedestrian activity and create a clear delineation between public and private spaces.

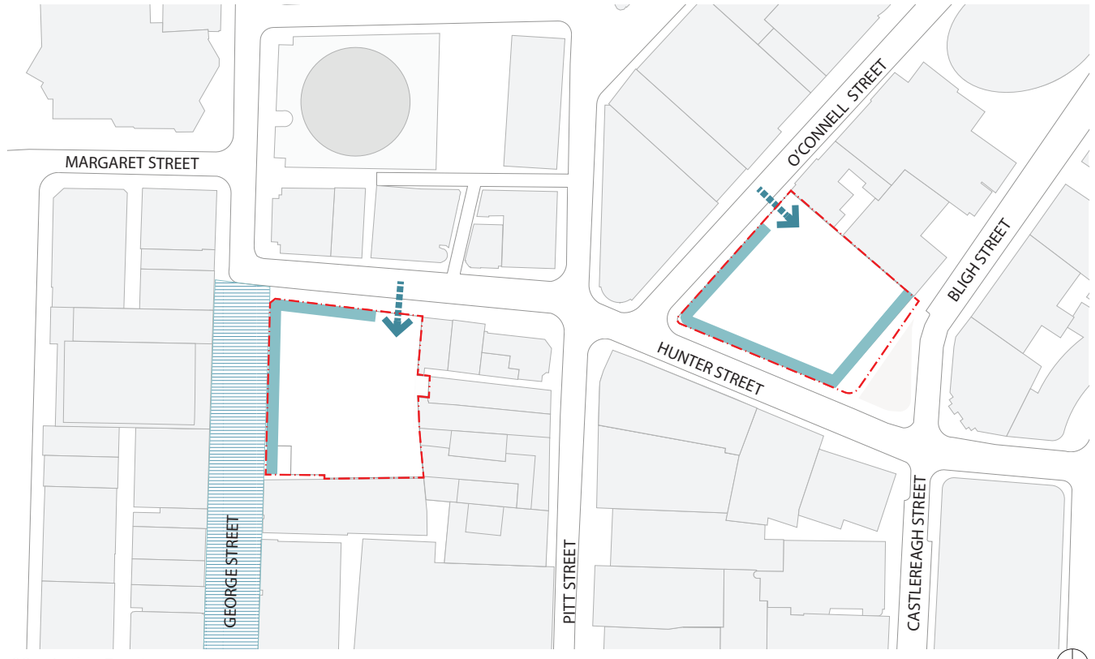
Additionally, the areas facing the street provide active use that contribute to the character of the public spaces within the surrounding context. The visual and physical prominence of ramps, vehicular/loading entry points and blank walls should be minimised.



67. Public Domain and Interfaces

KEY

Site Boundary | Public Domain | Potential Through Site Links | Existing Public Spaces | Public Domain Interfaces



68. Active Frontages

KEY

Site Boundary | Active Frontages | Pedestrianised Zone | Vehicle Access

Streetwall Scale, Articulation and Tower Setbacks

The built form should respond to the key datum lines of the significant heritage items and rhythm of the surrounding buildings. The openings provided, should have a clear hierarchy emphasising the station entry followed by the commercial entry, public through site links, retail frontages and service access..

The Hunter Street East proposal should respond to the vertical rhythms of Former NSW Club (31 Blight Street), Former Bank of NSW (16 O'Connell Street) and the existing fine grain pattern along O'Connell and Pitt Street.

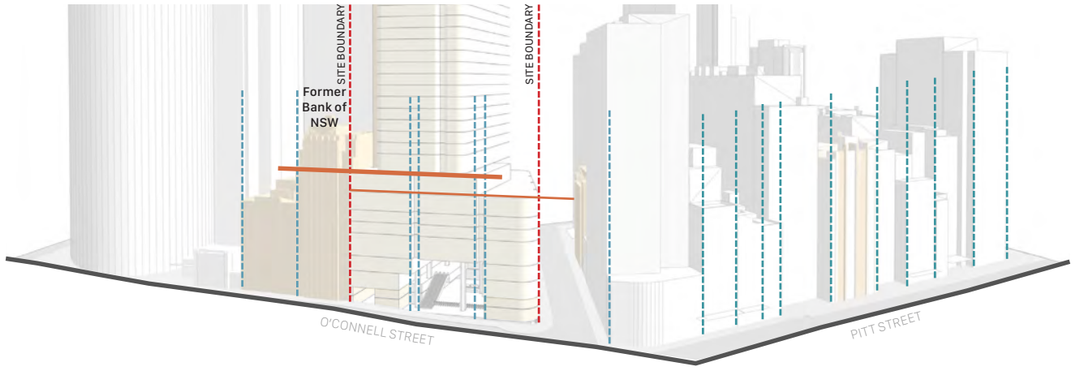
The Hunter Street West proposal should respond to the vertical rhythms of the Former Skinners Family Hotel and provide reinforcement in terms of the scale and facade relationship to this item. The fine grain pattern along George Street should also be taken into consideration.

The tower setbacks should respond to prevailing street alignment and emerging urban context by taking into consideration the alignment of the surrounding buildings.

Hunter Street East should consider and respond to the alignment of 1 Bligh Street. It should also improve east-west visual connection with the sky and maintain the visibility to Australia Square.

Hunter Street West should consider and respond to the alignment of Australia Square. It should consider the setback of adjacent and future developments and also maintain views to the sky.

The setbacks of both the Eastern boundary of the West site and the Northern Boundary of the East site are defined by the proposed core locations. The cores are heavily constrained by the spatial requirements of the station below.

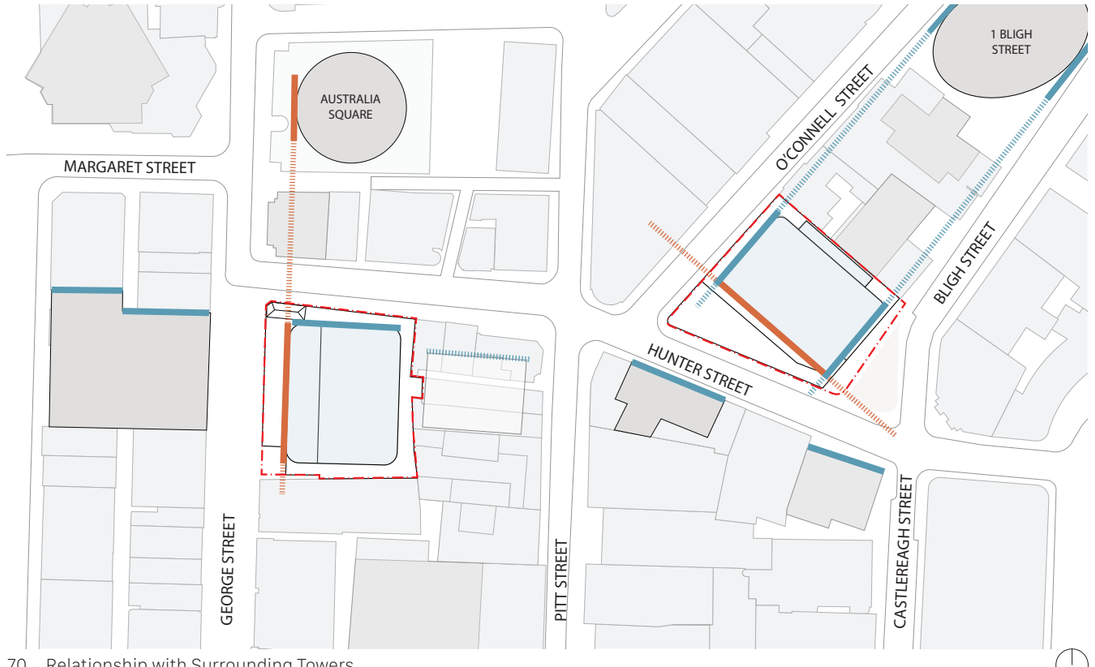


69. Streetscape Rhythm - O'Connell and Pitt Street (Hunter Street East)

KEY

Vertical Alignment

Horizontal Alignment



70. Relationship with Surrounding Towers

KEY

Site Boundary

Streetwall Alignment

Increased Street Setbacks

Indicative Tower Form

Amenity and Landscape

The landscape design should be of high quality , create visual interest and be well integrated with the development. Public art, integrated interpretation of country and heritage and integrated wayfinding must be incorporated in the landscape design.

Whilst landscaping is predominant programmed for the ground plan and will be delivered with the station, there is potential for upper terraces and balconies within the podiums and OSD towers for landscaping

The landscape character should be enhanced with provision of native species in line with the City of Sydney's Landscape code.

PRECEDENT IMAGES


ING
Perpetual
QBE
TAL
J.P.Morgan

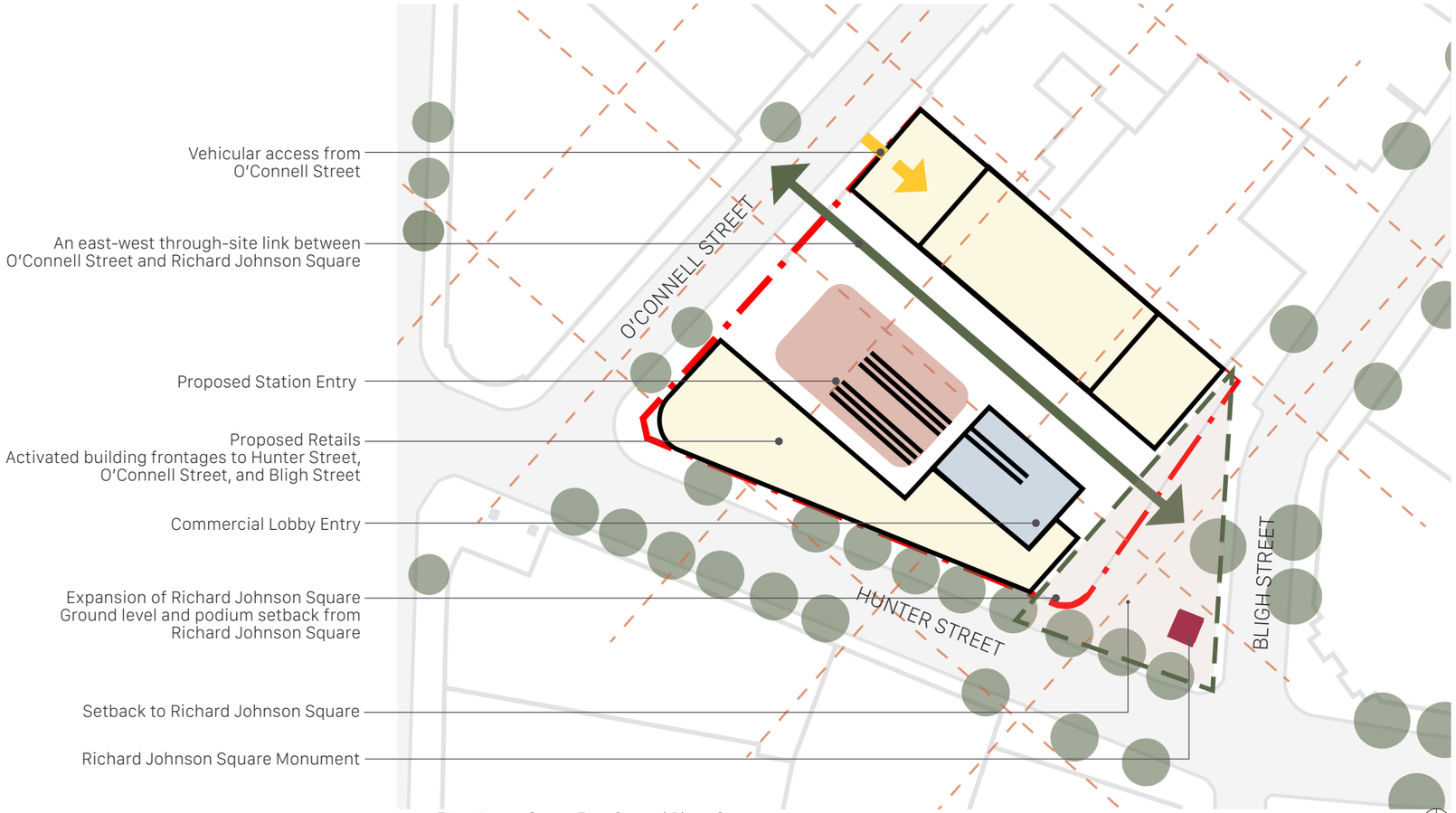
Hunter Street East

Ground Plane Strategy

The following figure illustrate how the proposed ground level for the Hunter Street East site accommodates public access to the underground station concourse and station platforms, access to commercial office lobbies, provides activated retail frontages to both the streets and the through-site links, and vehicular access to the site for car parking and service vehicles. A Referencce Scheme has been prepared to demonstrate the site's capacity to accommodate a development guided by the Hunter Street Station Over Station Development Design Guidelines and potential new floor space. Not withstanding, the indicative design is subject to detailed design through a Sydney Metro's design excellence approach, including a competitive procurement process which includes assessment for alternative design proposals for both the station and over station development.

KEY

- Street Trees
- Richard Johnson Square Monument
- Proposed Built Form
- Station Entry
- Proposed Service Vehicle Access
- Commercial Lobby
- Setback to Richard Johnson Square
- Proposed Through Site Link
- Proposed Public Open Space
- O'Connell Street Grid



71. Hunter Street East Ground Plane Strategy

72. O'Connell Street

73. Hunter Street

74. Bligh Street

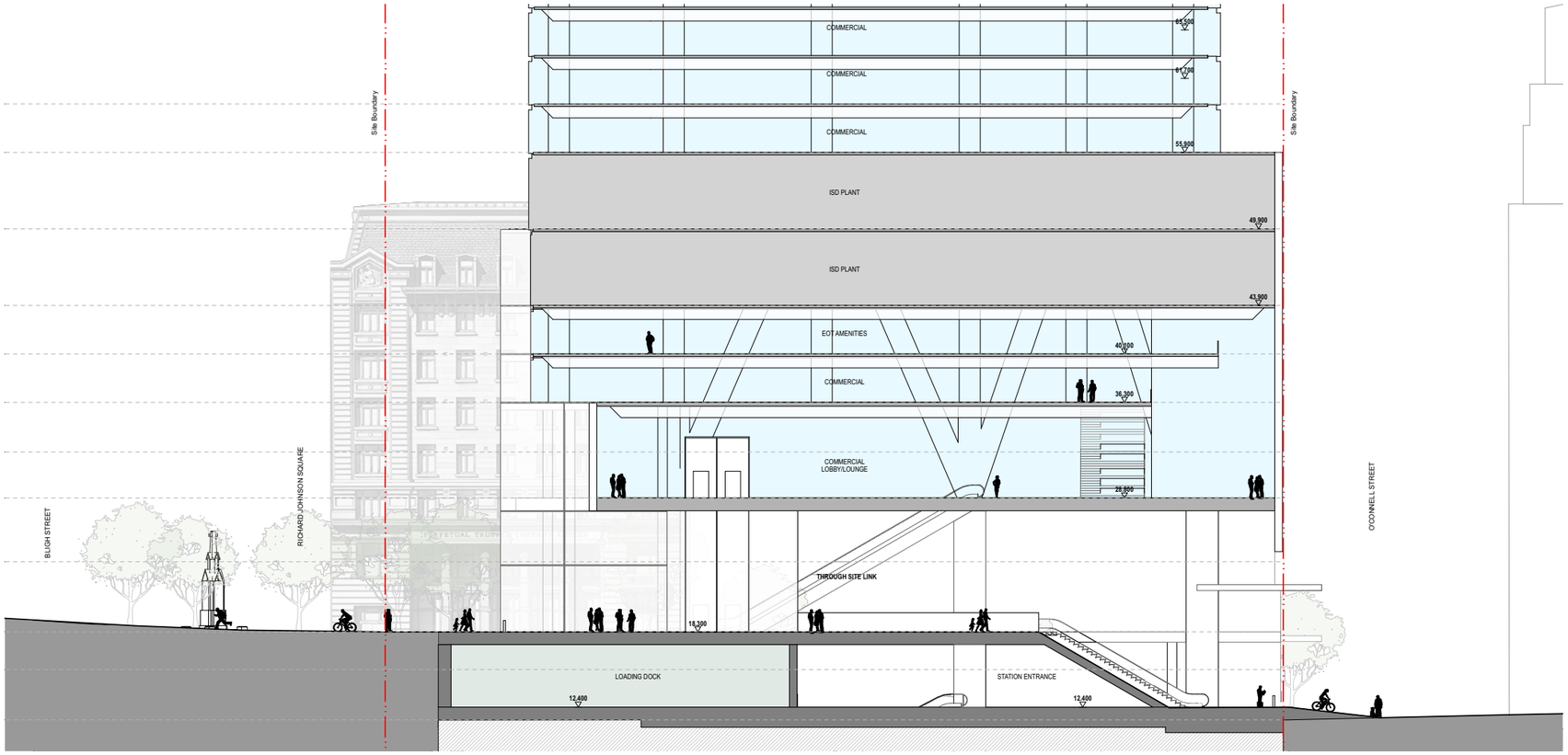
75. Richard Johnson Square

Through Site Link

The Hunter Street East site faces O'Connell Street, Hunter Street and Bligh Street. Hunter Street which runs along the southern edge of the site has a steep gradient.

There is a 6-7m level difference between O'Connell and Bligh Street. The proposed through site link will provide equitable level-access between O'Connell and Bligh Streets via escalators and lifts, which improves accessibility between those two streets running in parallel with Hunter Street. It will also provide public access through the site, and activate the site with proposed retail and commercial entry along with the through site link.

The proposed through site link will be physically and visually well connected to Richard Johnson Square which is located at the corner of Bligh Street and Hunter Street.



76. Through Site Link Section (v Design)

77. 200 George Street

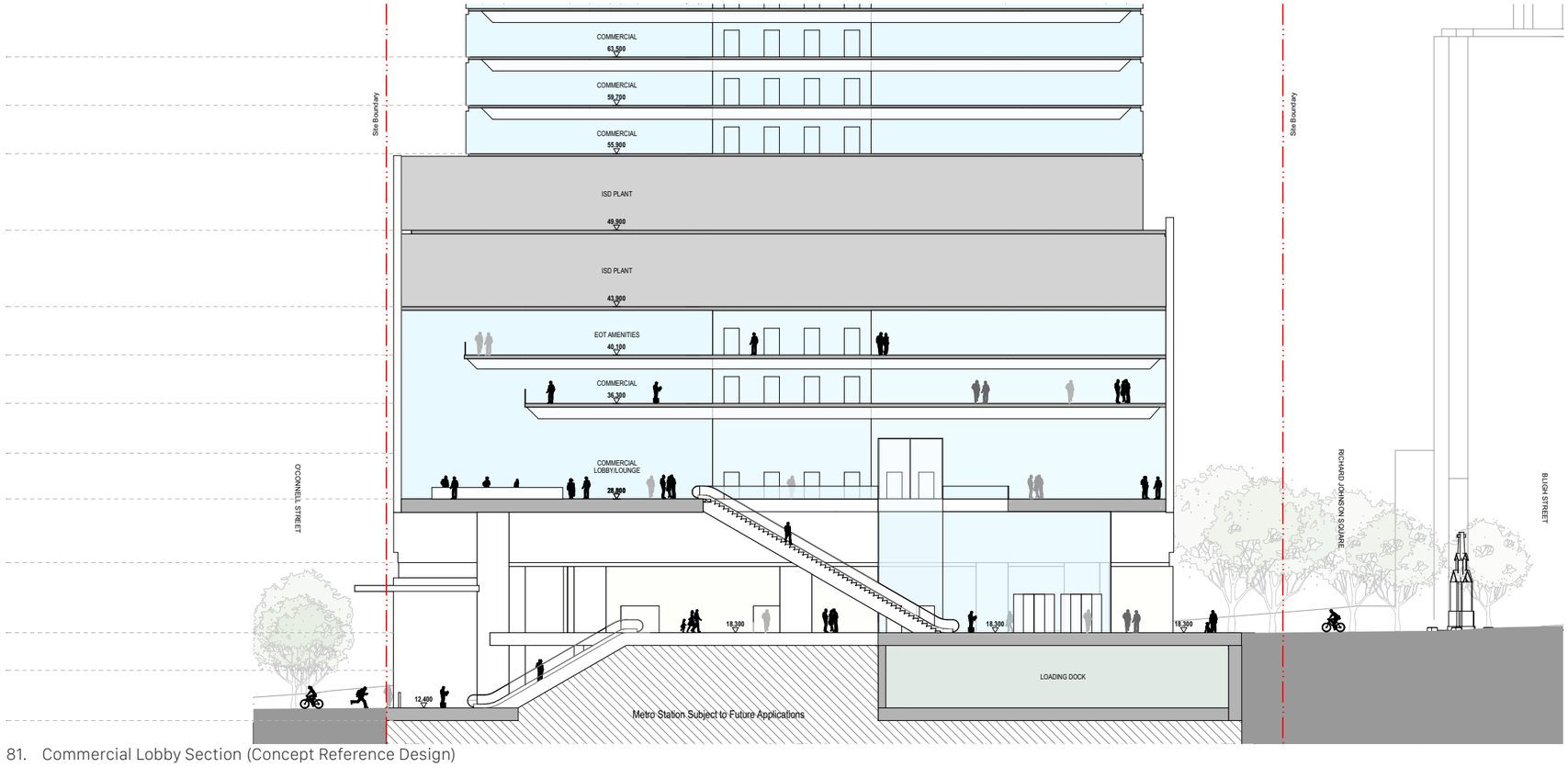
78. 200 George Street

79. 151 Clarence Street - Barrack Place

80. 151 Clarence Street - Barrack Place

OSD Lobby

The Hunter Street East OSD lobby is elevated above the station accessed via escalators and lifts from the entry located on the Bligh Street level. This entry is highly visible from Bligh Street and Richard Johnson Square located along the eastern boundary of the site. The commercial entry is accessed from the proposed through site link running in an east-west direction. The proposed OSD lobby is visually and physically well connected with above the co-working space and the EOT functions.



81. Commercial Lobby Section (Concept Reference Design)

82. 200 George Street

83. 580 George Street

84. 161 Castlereagh Street

85. 388 George Street

Public Art Strategy

A future over station development includes opportunities for the provision of public art in a variety of locations across the site. The public artwork is intended to be commissioned based on standards of excellence and innovation, integrity of the work, relevance and appropriateness of the work, public safety and public domain codes, and maintenance and durability in accordance with the requirements of Sydney Metro.

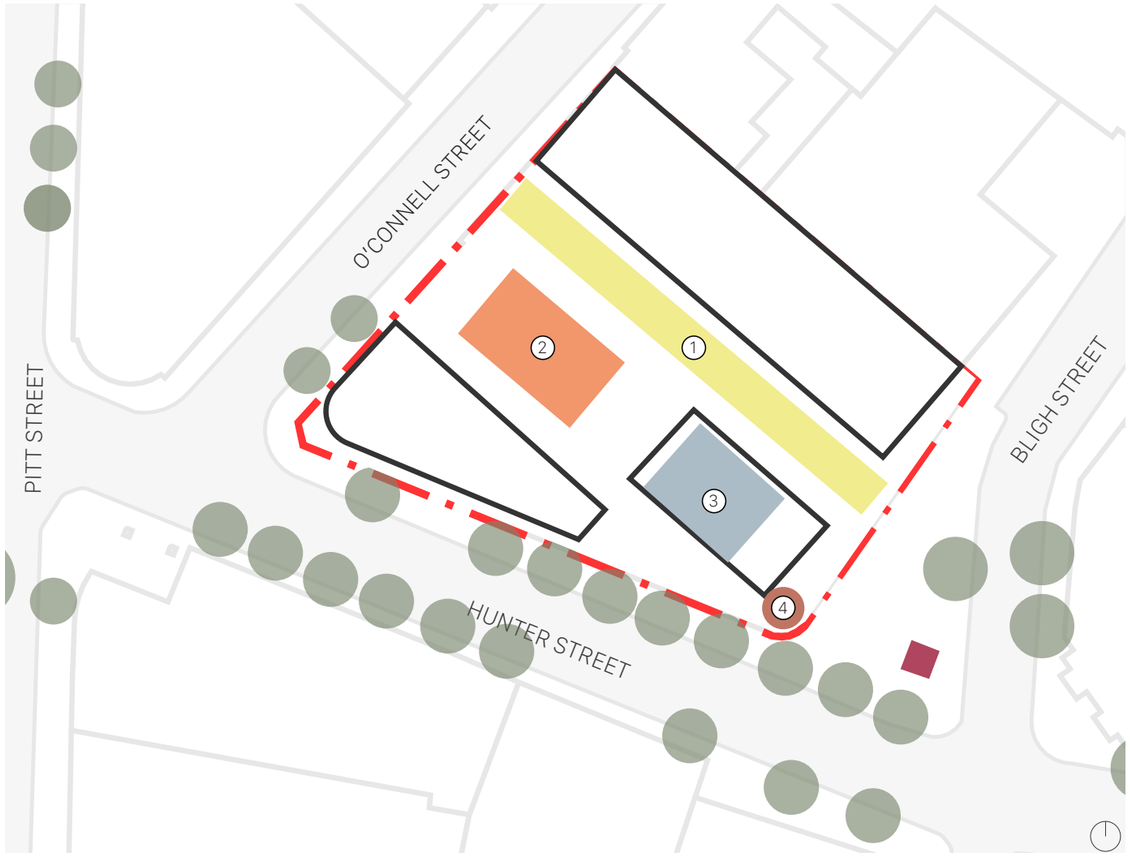
Future development applications for new buildings within the site are to be accompanied by a Public Art Strategy generally consistent with the City of Sydney's Public Art Strategy, Public Art Policy, Guidelines for Public Art in Private developments and Guidelines for Acquisitions and Deaccessions.

Public Art initiatives
- Fit art to the place
- Integrate art within built and landscape forms
- Make art a spectacle and worth repeat visits
- Appreciation of the origins and history of the precinct

Potential locations for public art opportunities have been identified as follows:

- Through-site link installations
- Ceiling/ soffit art at ground level retail and high frequency pedestrian zones
- Sculptural art in the south eastern setback area fronting Richard Johnson Square
- Commercial lobby art

Public art integrated with the over station development will be delivered over and above Sydney Metro's commitment to public art for the Station. Art within the Station will comply with the Sydney Metro Public Art Masterplan, which describes Sydney Metro's public art vision, objectives and principles as well as the commissioning process and important technical and functional parameters for public art in stations, and the specific Art Approach development for Sydney Metro West.



86. Opportunity for Public Art

①

87. Through Site Link

②

88. Soffit/Ceiling Art

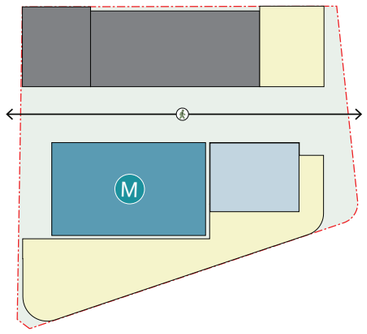
③

89. Commercial Lobby Art

④

90. Sculptural Art

Ground Plane Reference Design



KEY

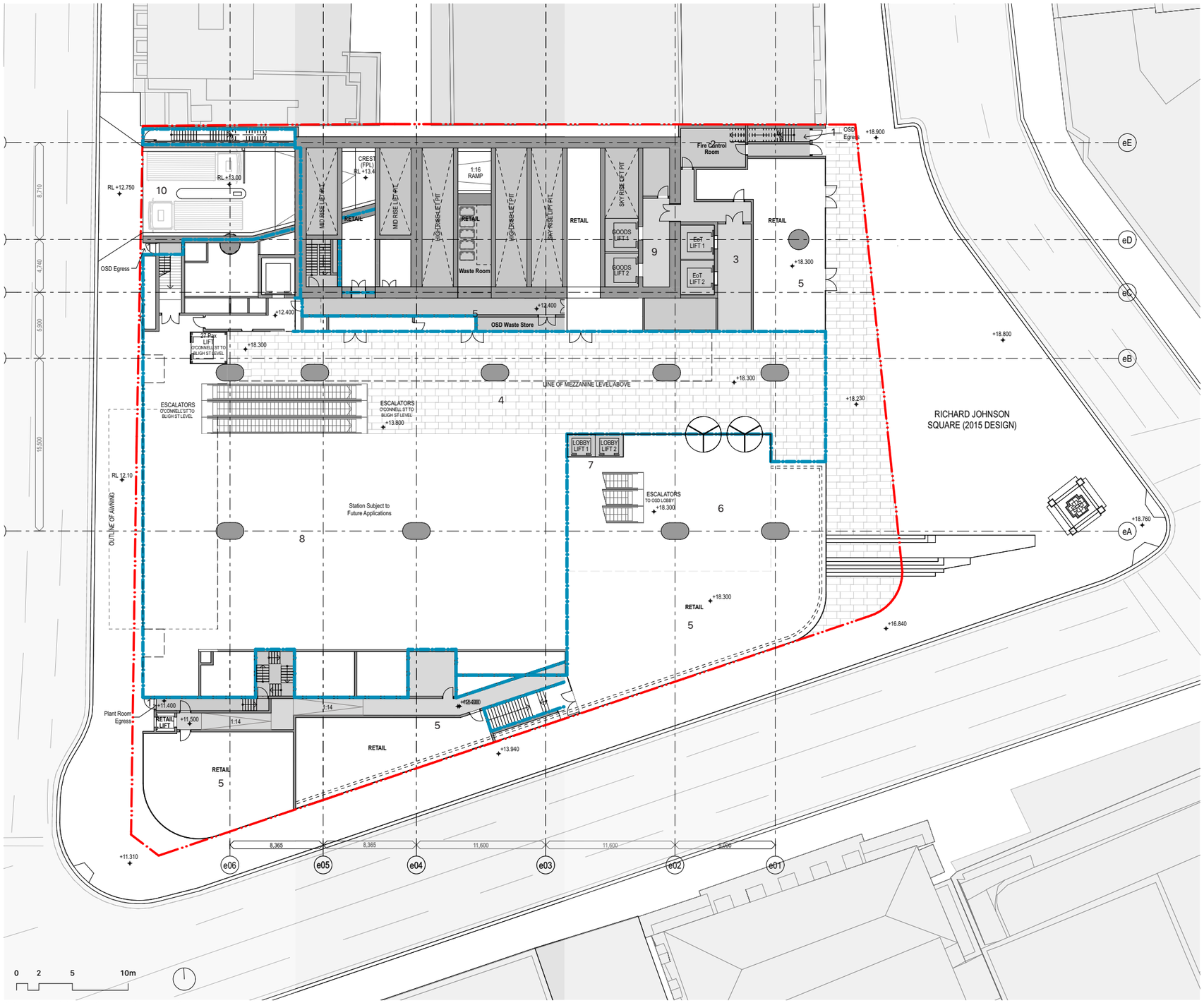
- Public Domain
- Retail
- Commercial
- Core/ Servicing
- Metro Station Entry/Exit

Legend

- PLANT
- EXTENT OF STATION

Note:
All security and pedestrian management devices associated with the Metro Station will be delivered through CSSI application for the construction of the Hunter Street Station (Sydney CBD)

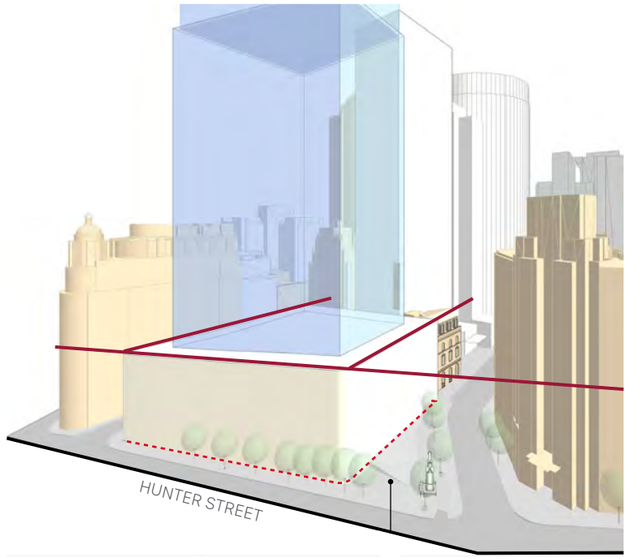
1. OSD Egress
2. OSD Fire Control Room
3. End of Trip Lifts
4. Through Site Link
5. Retail
6. OSD Entry
7. OSD Lobby Access Lifts
8. Metro Station Entry
9. OSD Goods Lift
10. Loading Dock Entry



91. Combined Ground Floor Plan

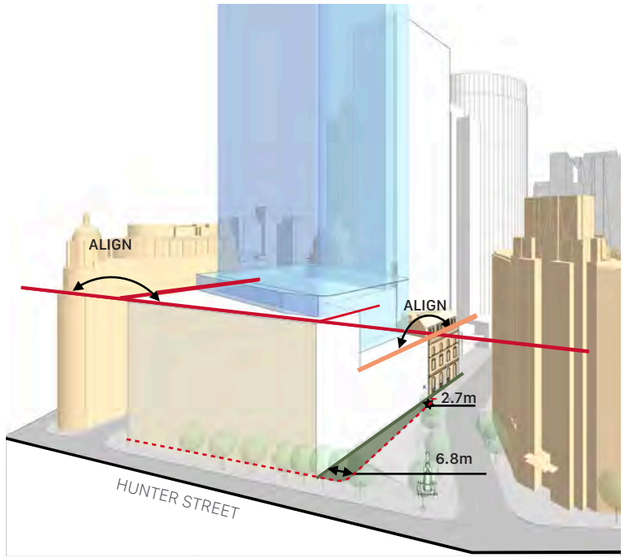
Podium Design Strategy

The proposed massing responds to the existing streetwall and key datum lines of the surrounding heritage items. The built form at the ground plane supports the expansion of Richard Johnson Square and provides clear sight lines for the through site link. The massing also responds to the street grids of O'Connell and Hunter Street.



92. Hunter Street and Bligh Street - DCP Compliant Streetwall Height

The Draft DCP controls outline a compliant podium street wall that is no greater than 25m above street level. However, the controls also offer the opportunity to vary street walls in response to context.

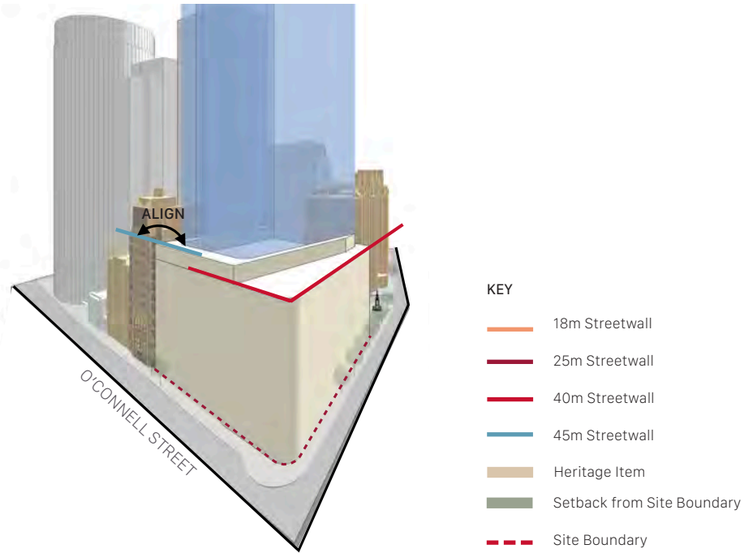


93. Hunter Street and Bligh Street - Proposed Responsive Streetwall Height

The proposed massing was developed as a response to the surrounding context.

— **Hunter Street:** The proposed massing steps up in scale to align with the streetwall height of the Former Wales House (64-66 Pitt Street) at 40m.

— **Bligh Street:** The proposed podium massing steps back from the property boundary along Bligh Street to align with the existing street wall of the Former NSW Club (31 Bligh Street). This approach is extended to the street wall height by aligning the street wall to the key datum line of the heritage item.



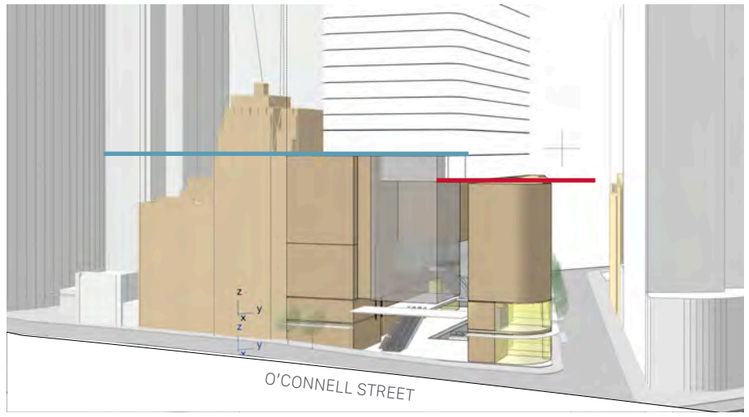
94. O`Connell Street and Hunter Street - Proposed Responsive Streetwall Height

— **O'Connell Street:** The scale of Hunter Street is continued around the corner to O'Connell Street and steps up to respond to the key datum lines of adjacent heritage item, Former Bank of NSW (16 O'Connell Street).

Streetwall Strategy

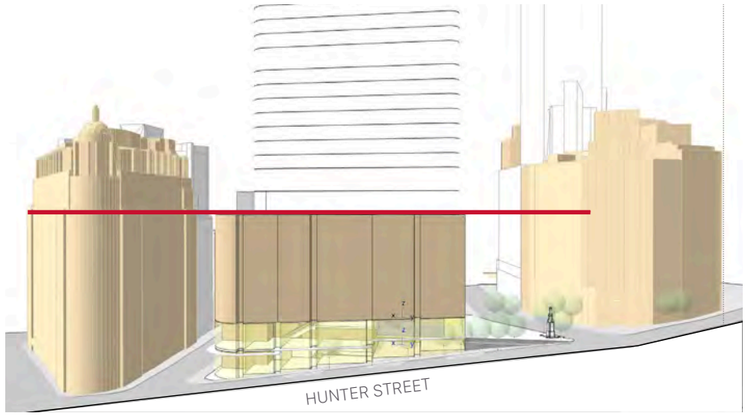
The proposed built form assists in capturing the fine-grain fragmented nature of buildings along Hunter, O'Connell and Bligh Street.

The built form provides a positive reinforcement in terms of rhythm, scale and façade relationship to the surrounding heritage items. At the corner of O'Connell and Hunter Street, the proposed form holds the corner as a response to the existing corner interfaces of the immediate context.



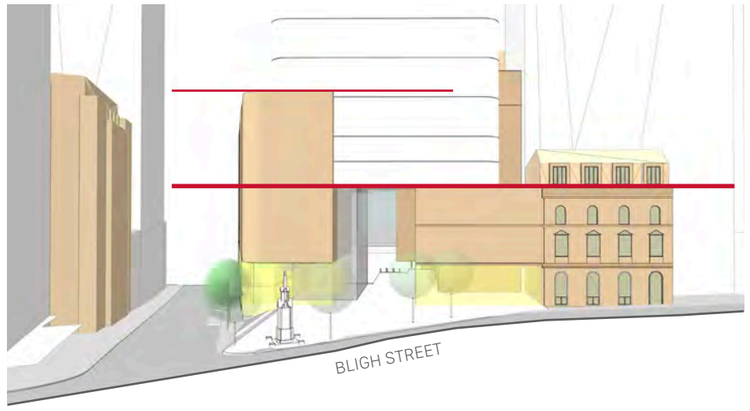
95. O`Connell Street - Proposed Responsive Streetwall Height

— Respond to horizontal alignment of Former NSW Club and Former Wales House



96. Hunter Street - Proposed Responsive Streetwall Height

— Respond to the horizontal alignment of Former Wales House



97. Bligh Street - Proposed Responsive Streetwall Height

— Respond to the horizontal alignment of Former Wales House and Former NSW Club


Castlereagh St
denovo

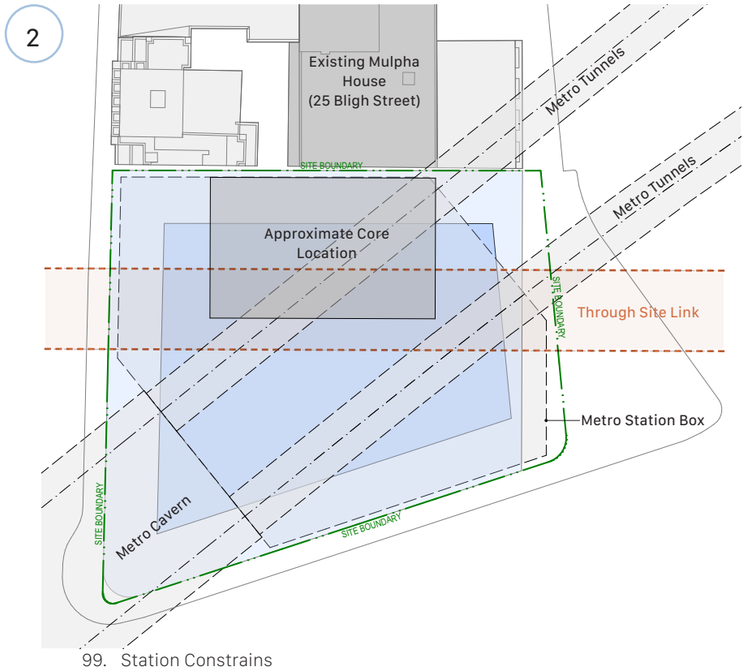
Tower Design Strategy

The building setback has been determined by environmental performances as well as urban design and Metro Station considerations, including:

— Heritage
— Heritage Alignment
— Streetwall Alignment
— Heritage Vistas
— Station Constraints
— Regularised Floor Plates

The proposed planning envelope responds to those requirements and achieves a regular and efficient floor plate within the urban context.

98. DCP Setback



99. Station Constrains

The default DCP setback is applied based on the height of the proposed planning envelope.

Street Setbacks :
(Building height greater than 120m)
— O`Connell Street Setback : 8m
— Hunter Street Setback : 8m
— Bligh Street Setback : 8m

Side and Rear Setbacks :
(Building height greater than 240m)
— Northern boundary : 8m

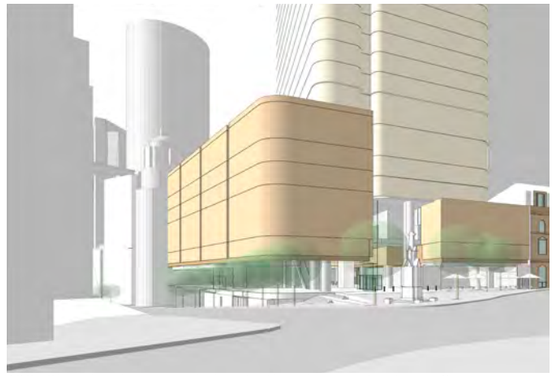
The metro station box and rail track passing through the middle of the site, which constrain the potential tower core and structure locations.

The building core location is pushed towards the northern boundary to accommodate the proposed metro station box and the rail track.

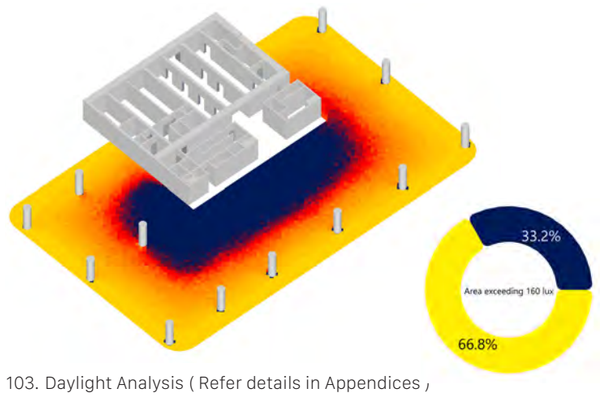
100. Floor Plate Regularization

Setback Adjustment

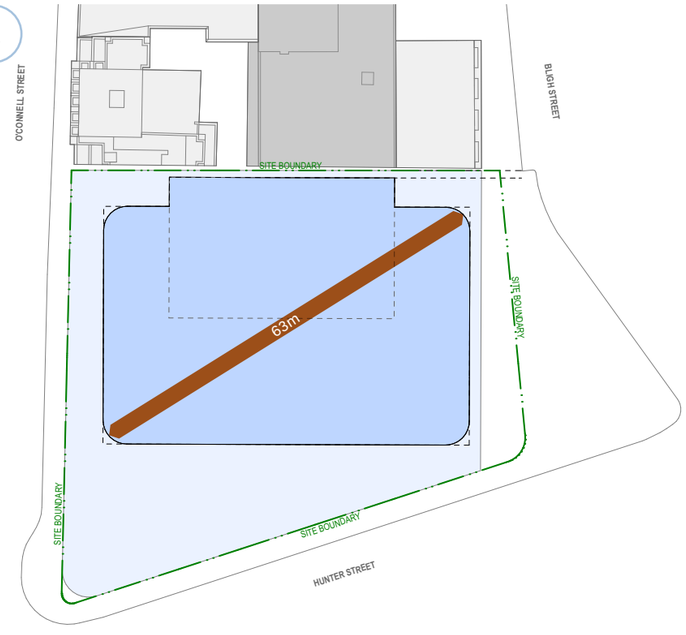
Additional tower setback to Hunter Street allows for the view towards the Australian Square from the eastern Hunter Street. The floor plate is regularised with area balanced setbacks to O`Connell Street and Bligh Street sides. The northern boundary setback was adjusted to 6m to the potential glass facade line with considering the shading devices in front. The regularisation of the form improves the flexibility and access to natural daylight for the commercial floor plates



102. Showing increased view to the sky and Australia Square Tower (Local Heritage Item) visible in the round

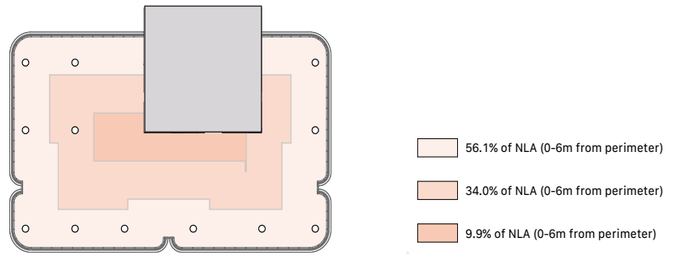


103. Daylight Analysis (Refer details in Appendices)



101. Round Corners

The rounding corner reduces the diagonal dimension of the floor plate, increasing the slenderness of the tower and improving natural daylight access to the surrounding public domain.



104. Floor Plate Analysis (Refer details in Appendices)

Height Control

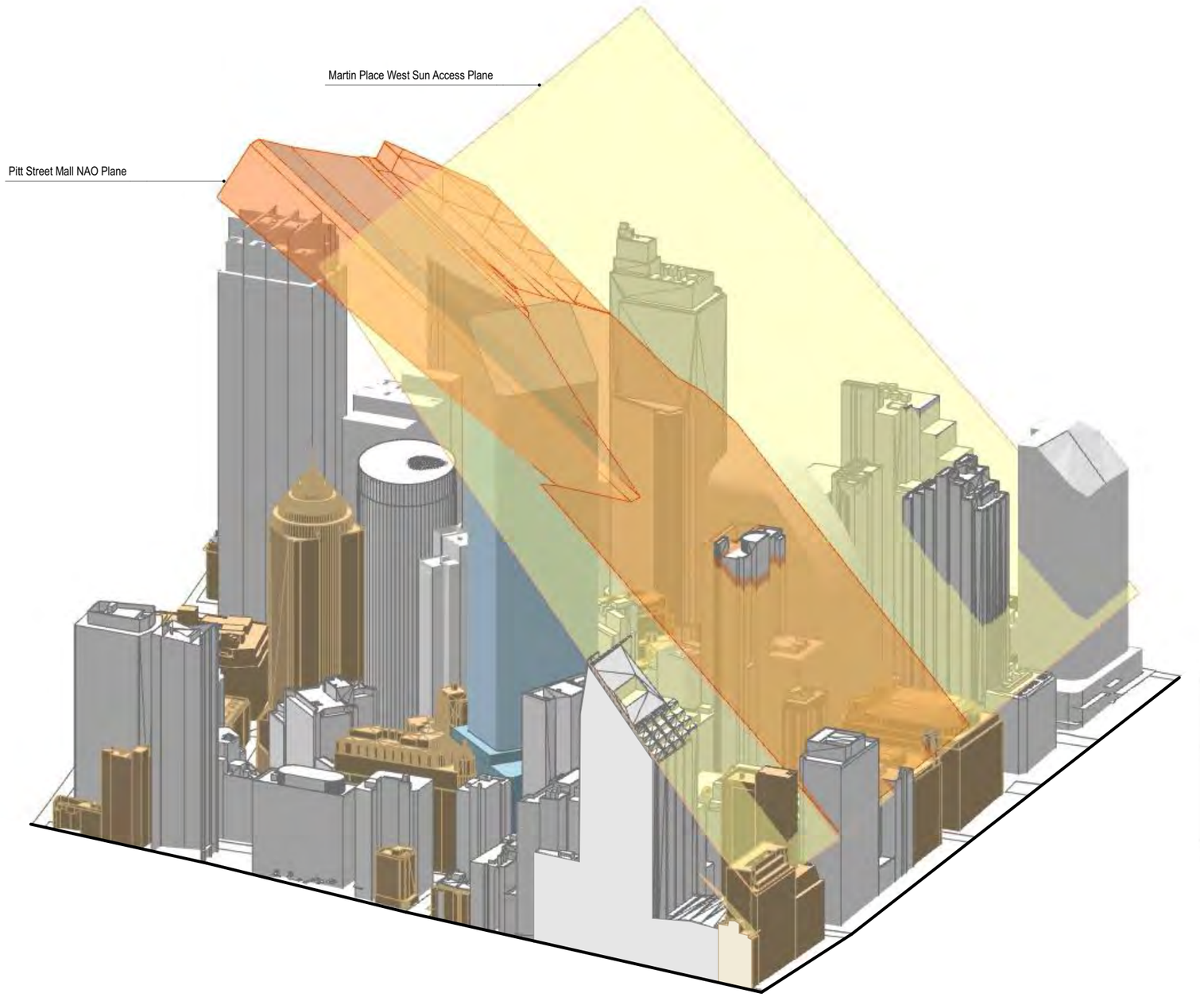
Hunter Street East is located to the North of Martin Place and Pitt Street Mall, limited in height by sun and shadow controls defined by the Sydney LEP.

The height of the proposed planning envelope is RL269.1m (257.7m above ground), which is below the Martin Place Sun Access Plane and the Pitt Street Mall No Additional Overshadowing plane.

The proposed envelope was analysed against the daylight and wind requirements based on the Sydney DCP - Schedule 12. (Refers to the appendices.)

The analysis demonstrates that the proposed envelope improves visual access to the sky by **0.018256%**, when compared to the Basecase envelope as outlined within Schedule 12 - _'Procedures for demonstrating compliance with variation provisions for setbacks, separations and tapering in Central Sydney'.

105. Sky View Factor Analysis Plan - 75m Radius Analysis extent

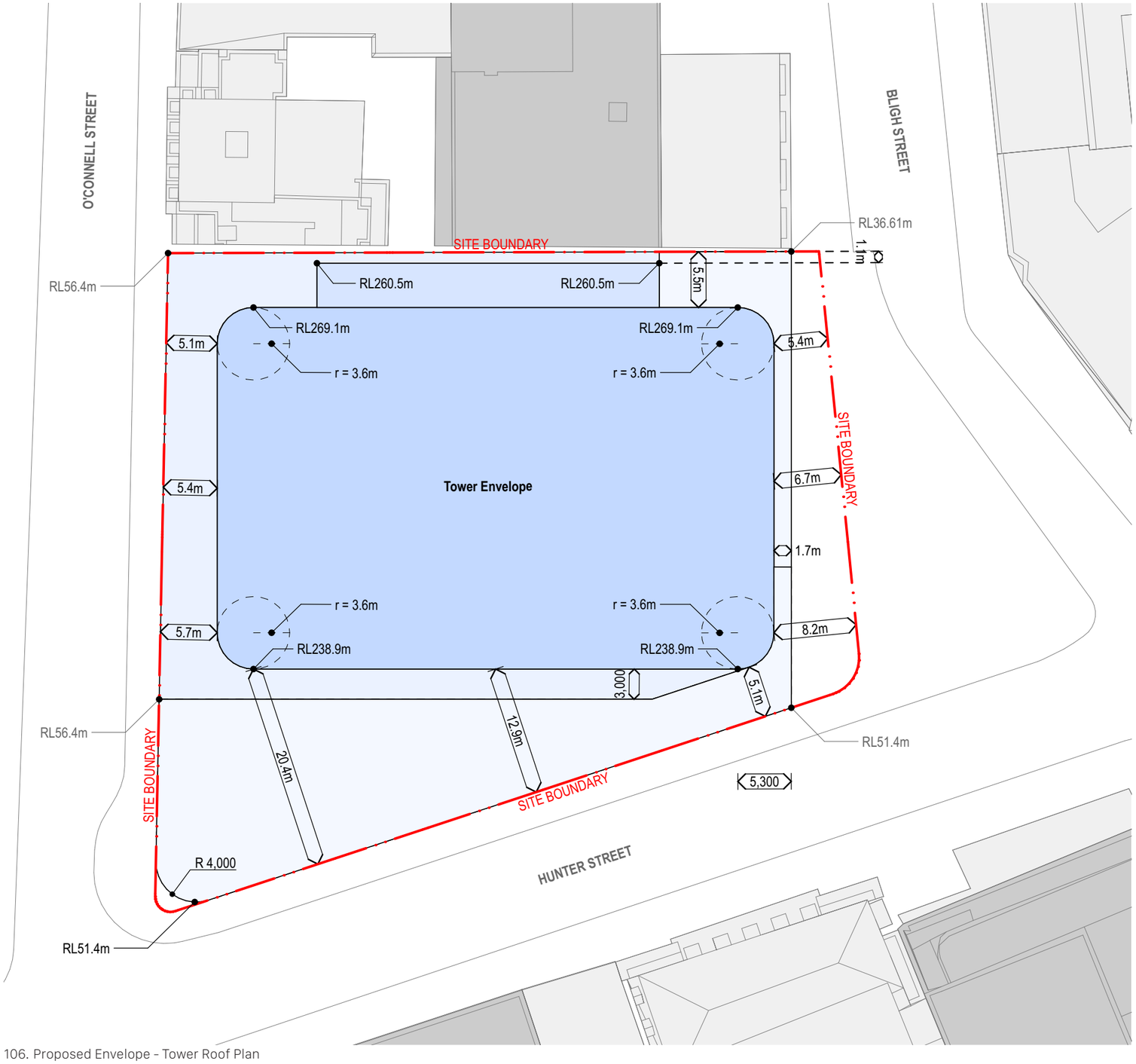


Proposed Planning Envelope

To realise the primary objective and intended outcome of the Planning Proposal request, a planning envelope has been outlined for the Hunter Street East site. The planning envelope establishes the built form parameters to guide future development on the site to be secured under a future SSDA process.

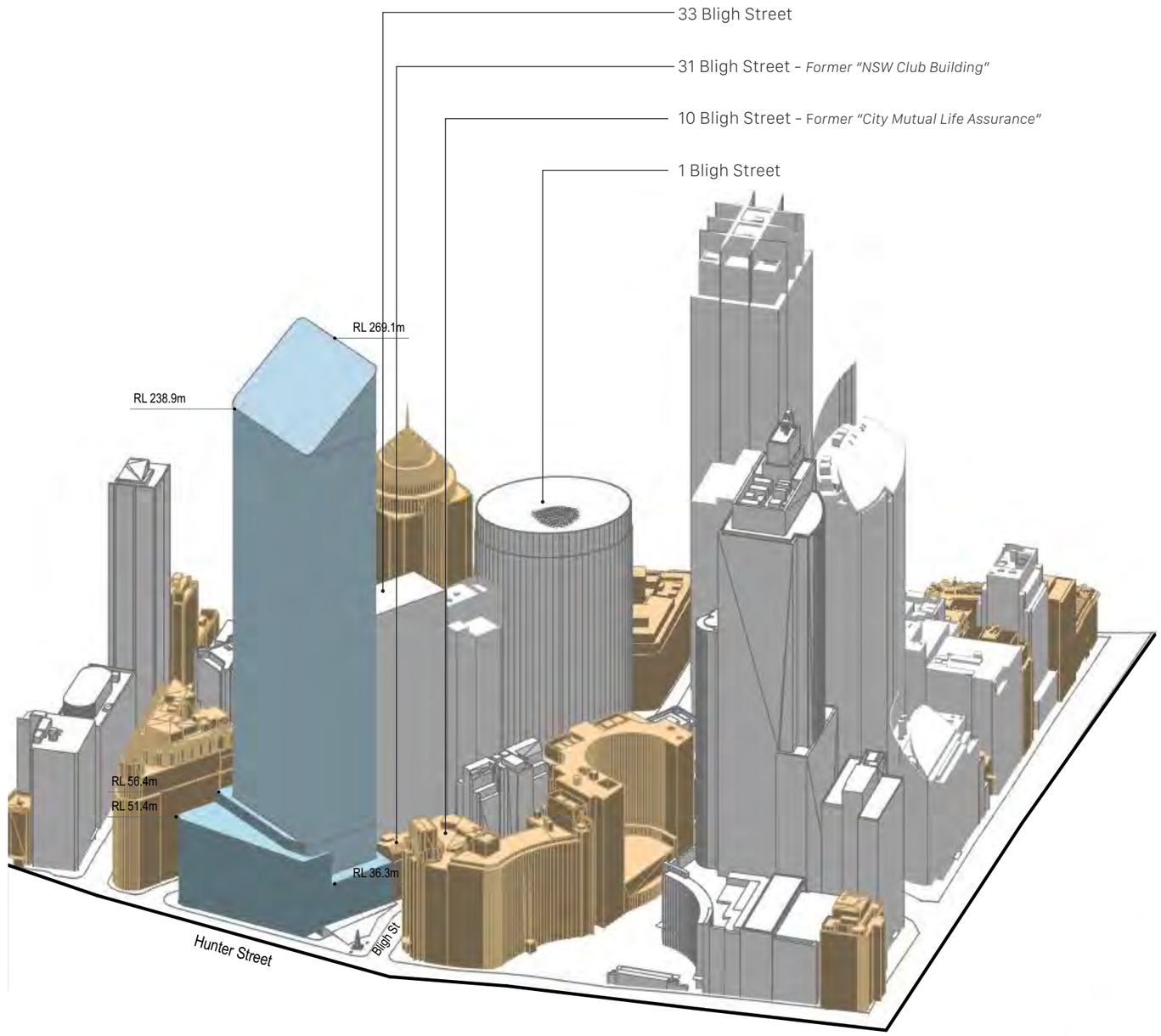
The proposed planning envelope has been defined by a careful analysis of the urban context including: the ground plane, street walls, setbacks, sun access, daylight access and wind conditions.

The envelope is consistent with the principles, objectives and controls of the Central Sydney Planning Strategy and associated draft DCP and LEP amendments.

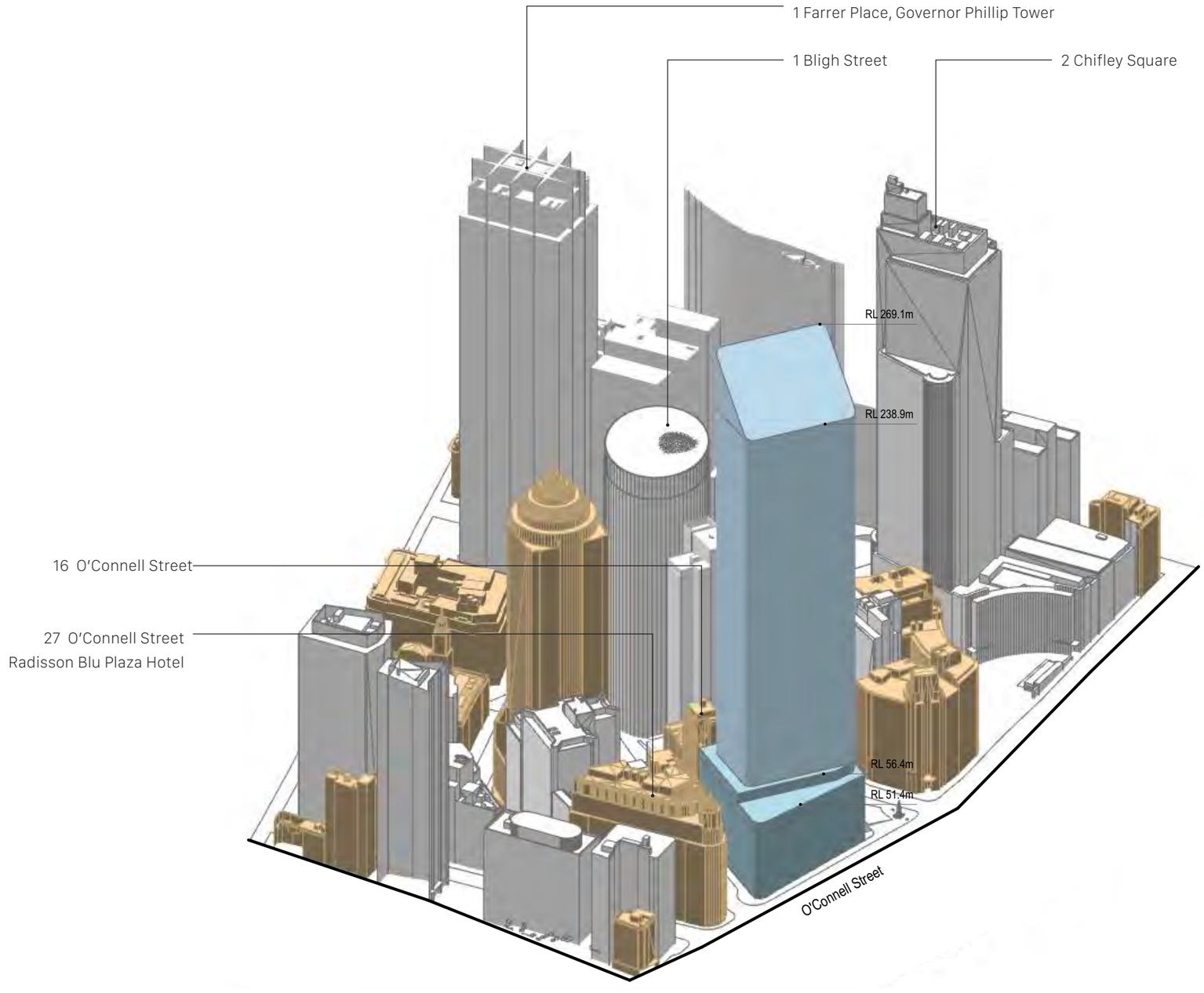


106. Proposed Envelope - Tower Roof Plan

Proposed Envelope



107. Proposed Envelope - Southeast View



108. Proposed Envelope - Northwest View

Concept Reference Design Massing

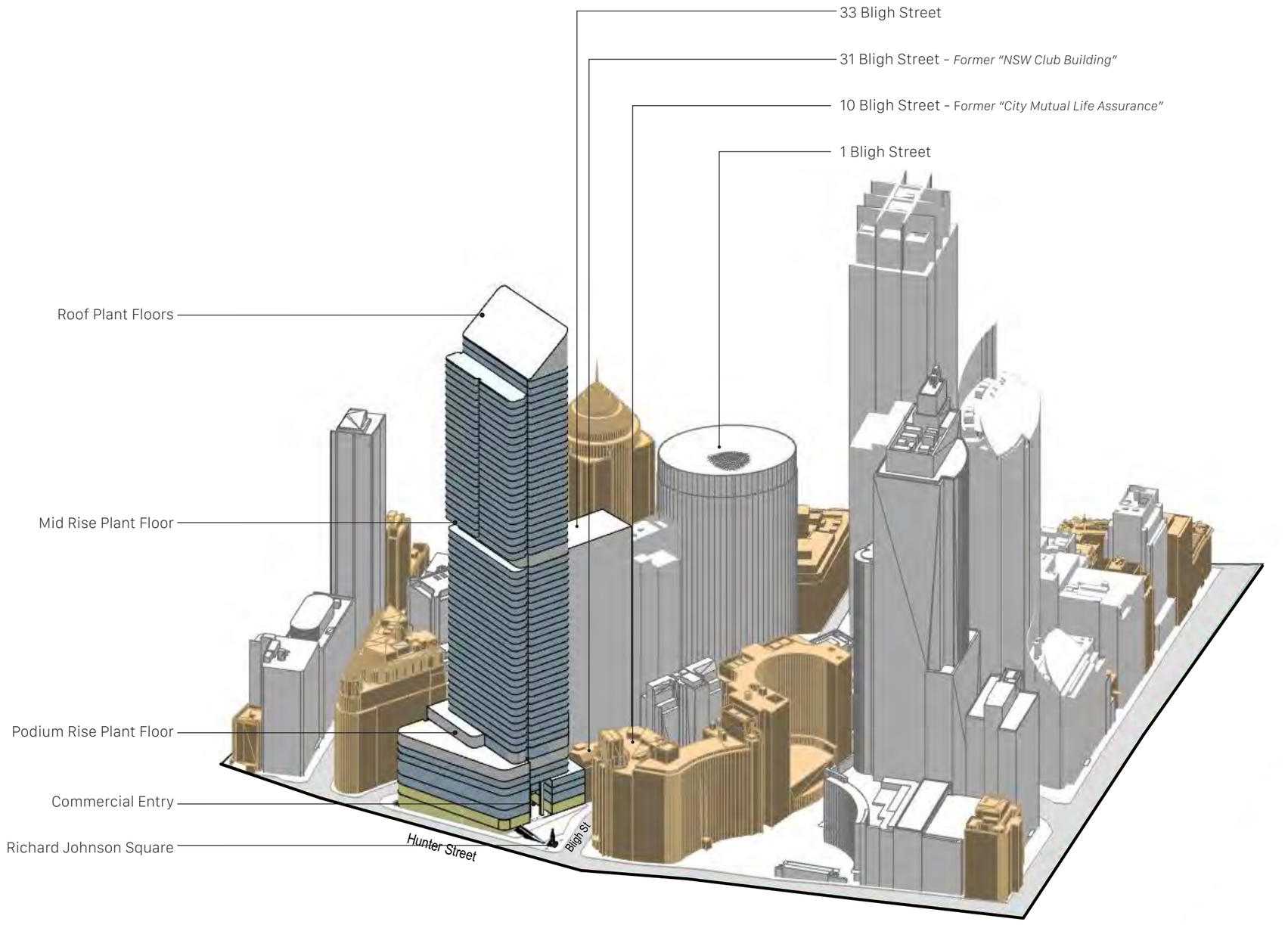
The concept reference design has been prepared for the Hunter Street East site and is indicative only. It has primarily been prepared to demonstrate and justify the proposed numerical amendments to the SLEP 2012 which are being sought under this Planning Proposal request. The final detailed design of the scheme will be the subject of a future Concept SSDA, competitive tendering process and a future Detailed SSDA.

The concept reference design for a commercial tower fits within the proposed planning envelope and contains the proposed amount of floor space including the Metro Station and through site link.

This concept reference design allows for building articulation, and external facade elements such as sun shading and roof features to fit within the envelope. The following massing diagrams illustrate this articulated form.

The proposal is consistent with the scale of development in the precinct and is in line with the objectives of the Central Sydney strategy in terms of creation of employment space, land efficiency and urban controls.

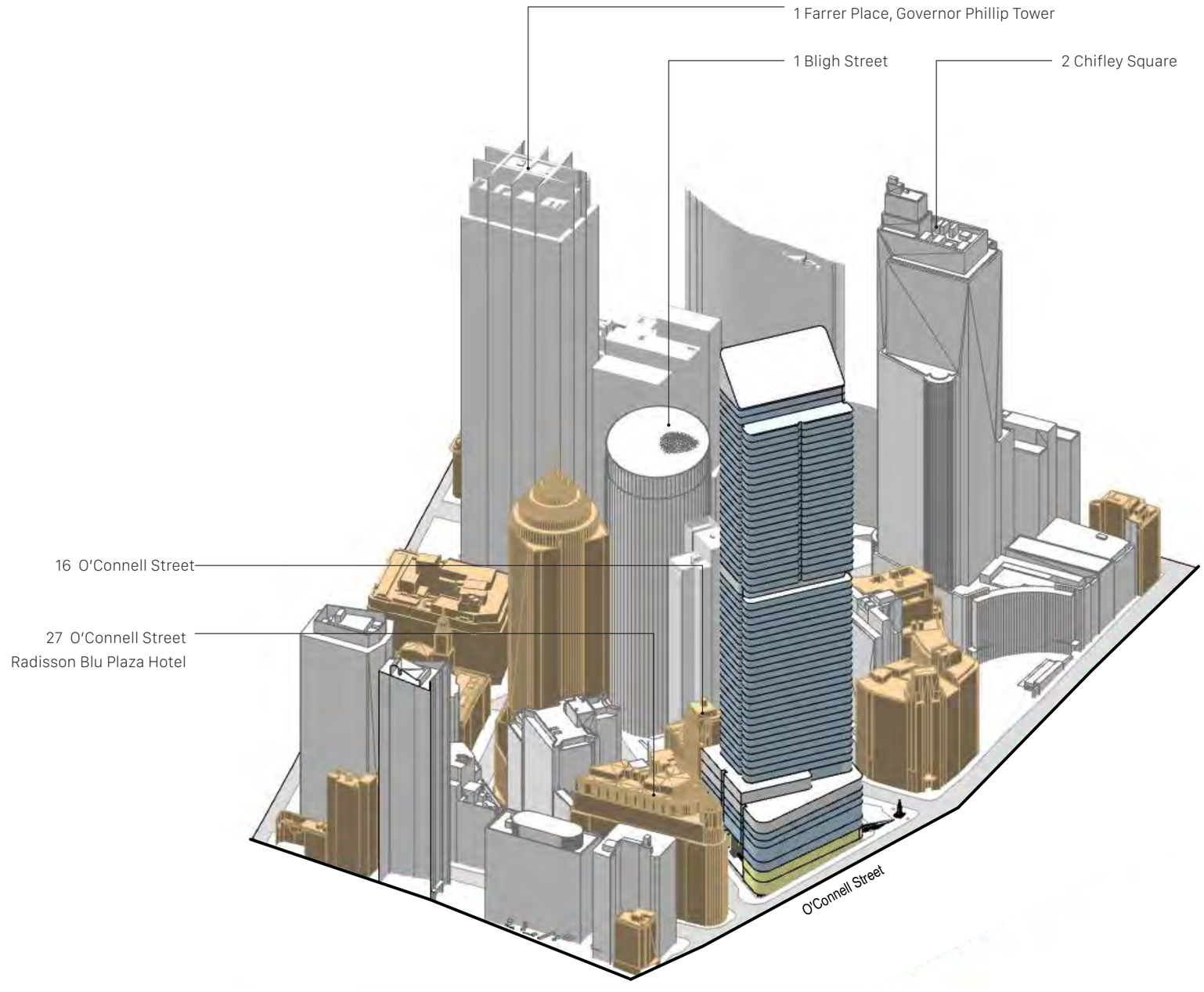
The articulation is 15% of the envelope outline measured on a floor by floor basis and the efficiency of the commercial tower is 78.4% GBA to GFA.



109. Indicative Design - Southeast View

KEY

- Commercial
- Retail
- Plant



110. Indicative Design - Northwest View

KEY

- Commercial
- Retail
- Plant


Castlereagh St
1-25

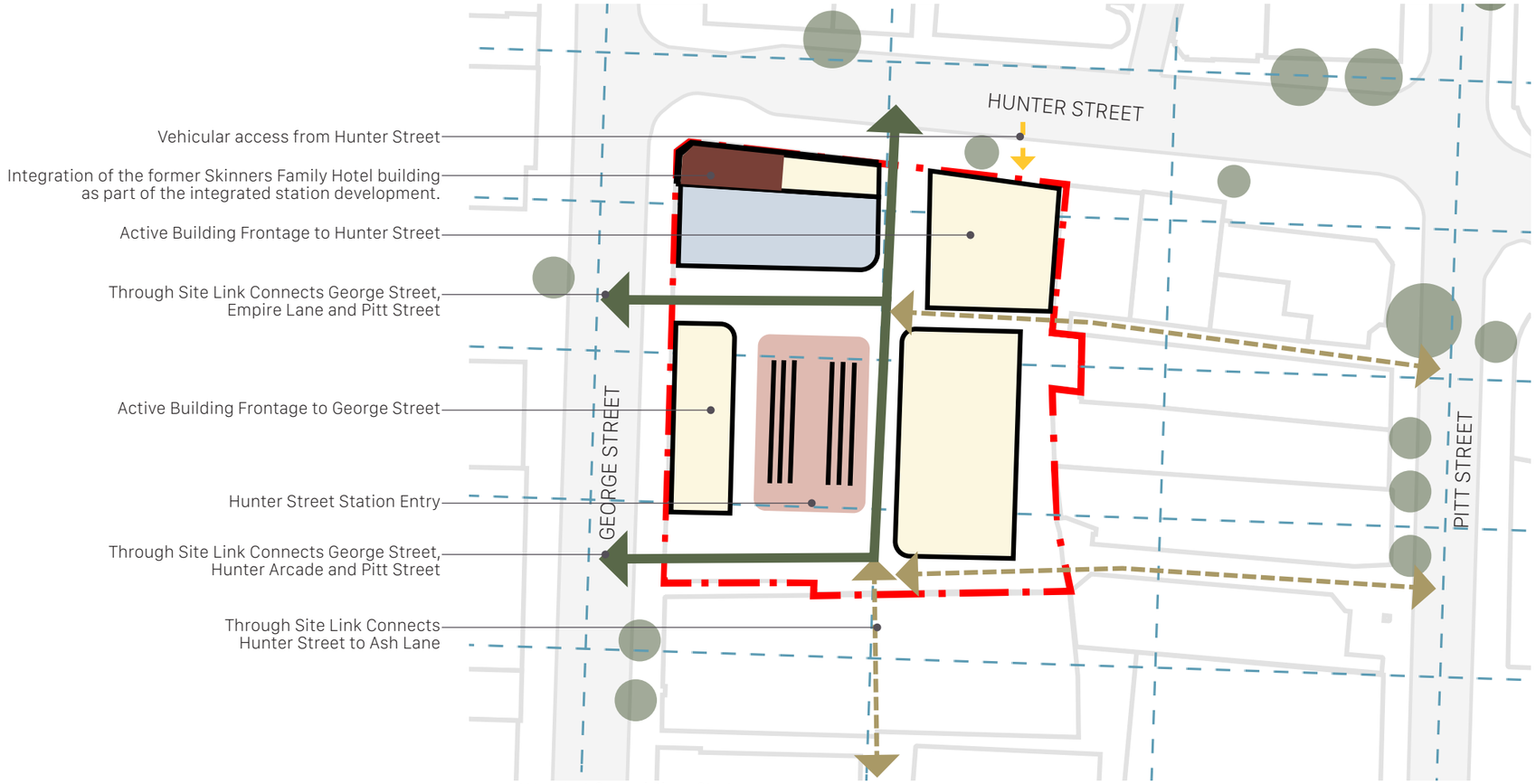

de novo
ONE WAY

Ground Design Strategy

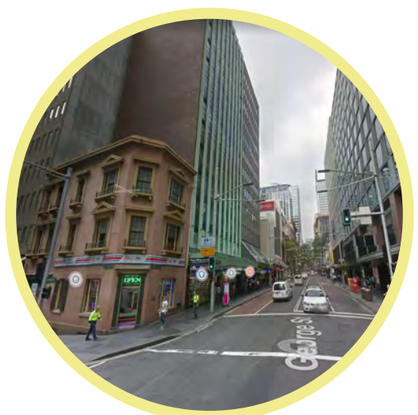
The following figure illustrate how the proposed ground level for the Hunter Street West site accommodates public access to the underground station concourse and station platforms, access to commercial office lobbies, provides activated retail frontages to both George Street and the through-site links, and vehicular access to the site for car parking and service vehicles. Indicative design has been prepared to demonstrate the site's capacity to accommodate a development guided by the Hunter Street Station Over Station Development Design Guidelines and potential new floor space. Not withstanding, the reference concept design is subject to Sydney Metro's design excellence approach, including a competitive procurement process which includes assessment for alternative design proposals for both the station and over station development.

KEY

- Street Trees
- Heritage Facade/ Item
- Proposed Built Form
- Station Entry
- Proposed Service Vehicle Access
- Commercial Lobby
- Proposed Through Site Link
- Proposed Public Open Space
- George Street Grid
- Future Through Site Link



111. West Ground Plane Strategy



112. George Street

113. Hunter Street

114. Former Skinners Family Hotel

115. Wynyard Station

Through Site Link

The Hunter Street West site faces George Street and Hunter Street. One north-south and two east-west through site links are proposed in conjunction with the metro station entry, which improves station customer distribution with the surrounding street network. These links will provide public access through the site and also be activated with the proposed commercial entry and retail.

Sydney Metro has provisioned for future through site links to deliver desirable pedestrian connections. The success of these links will rely on coordination with adjacent land owners. Sydney Metro will work collaboratively with adjacent land owners.

116. Through Site Link Section (Concept Reference Design)

117. 200 George Street

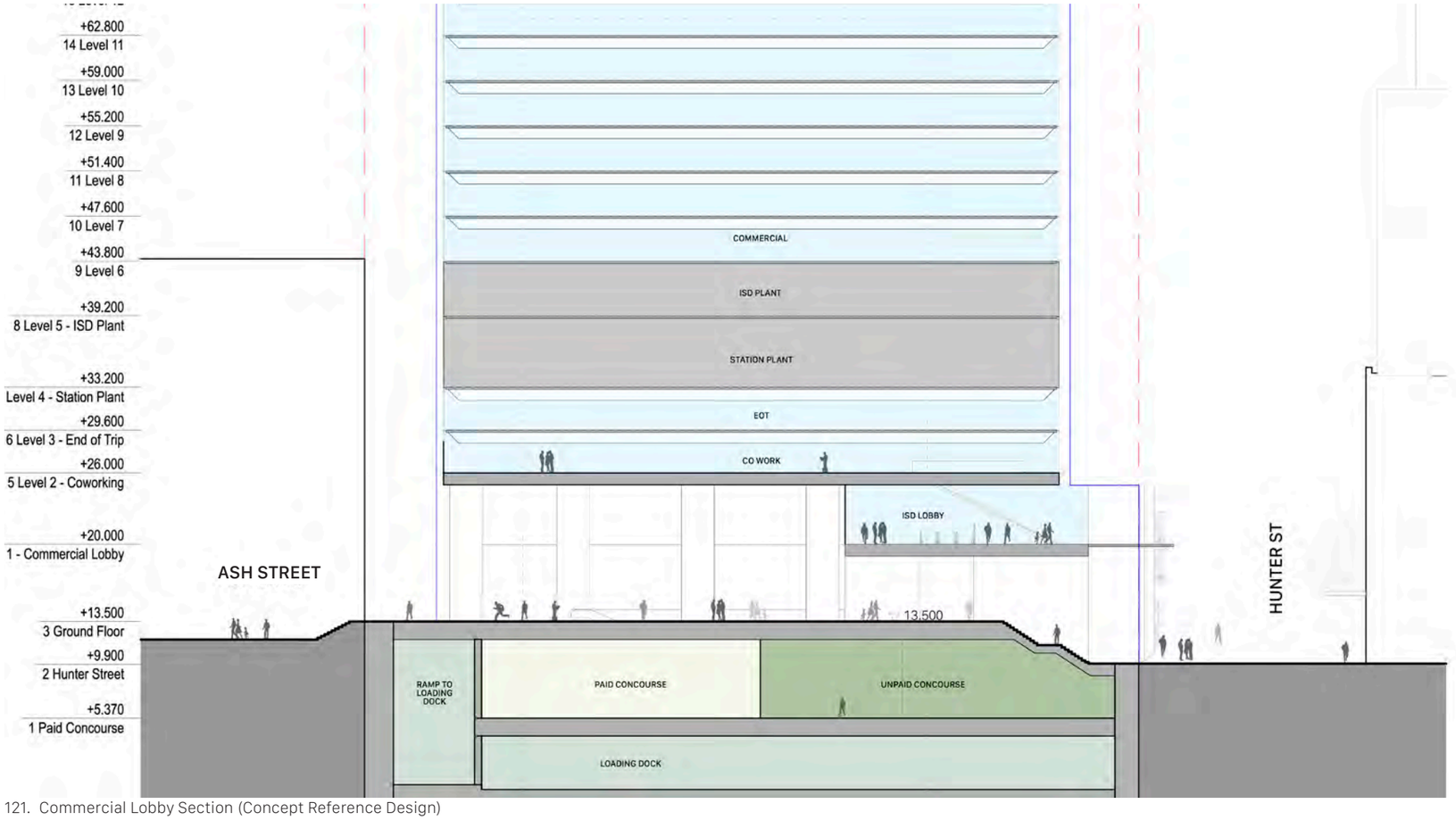
118. 200 George Street

119. 151 Clarence Street - Barrack Place

120. 151 Clarence Street - Barrack Place

OSD Lobby

The Hunter Street West OSD lobby is elevated above the station accessed via escalators and lifts from the ground level entry located on George Street. This entry is highly visible from George Street and the Wynyard Street Station entry located directly opposite the site on George Street. The commercial entry is accessed directly from George Street, which is attached to the on-site heritage item, the Former Skinners Family hotel which will be adaptively reused as a retail building. The Reference Scheme illustrates how the OSD Lobby can be visually and physically connected.



121. Commercial Lobby Section (Concept Reference Design)

122. 200 George Street

123. 580 George Street

124. 161 Castlereagh St

125. 388 George Street

Public Art Strategy

A future over station development includes opportunities for the provision of public art in a variety of locations across the site. The public artwork is intended to be commissioned based on standards of excellence and innovation, integrity of the work, relevance and appropriateness of the work, public safety and public domain codes, and maintenance and durability in accordance with the requirements of Sydney Metro.

Future development applications for new buildings within the site are to be accompanied by a Public Art Strategy generally consistent with the City of Sydney's Public Art Strategy, Public Art Policy, Guidelines for Public Art in Private developments and Guidelines for Acquisitions and Deaccessions.

Public Art initiatives
- Fit art to the place
- Integrate art within built and landscape forms
- Make art a spectacle and worth repeat visits
- Appreciation of the origins and history of the precinct

Potential locations for public art opportunities have been identified as follows:

- Through-site link installations
- Heritage displays at the Former Skinner's Family Hotel
- Sculptural art within the southwestern setback area fronting George Street
- Ceiling/ soffit art above pedestrian entrances to the below ground concourses

Public art integrated with the over station development will be delivered over and above Sydney Metro's commitment to public art for the Station. Art within the Station will comply with the Sydney Metro Public Art Masterplan, which describes Sydney Metro's public art vision, objectives and principles as well as the commissioning process and important technical and functional parameters for public art in stations, and the specific Art Approach development for Sydney Metro West.

126. Opportunity for Public Art

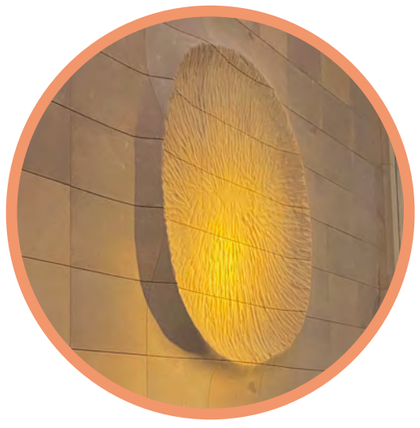
1

127. Through Site Link

2

128. Heritage Display

3

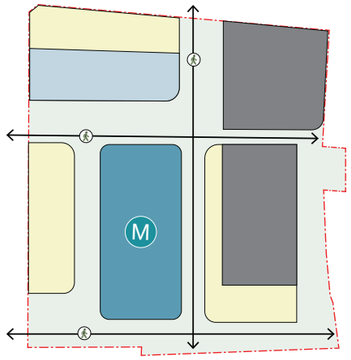


129. Sculptural Art

4

130. Ceiling/ Soffit Art

Ground Plane Reference Design



KEY

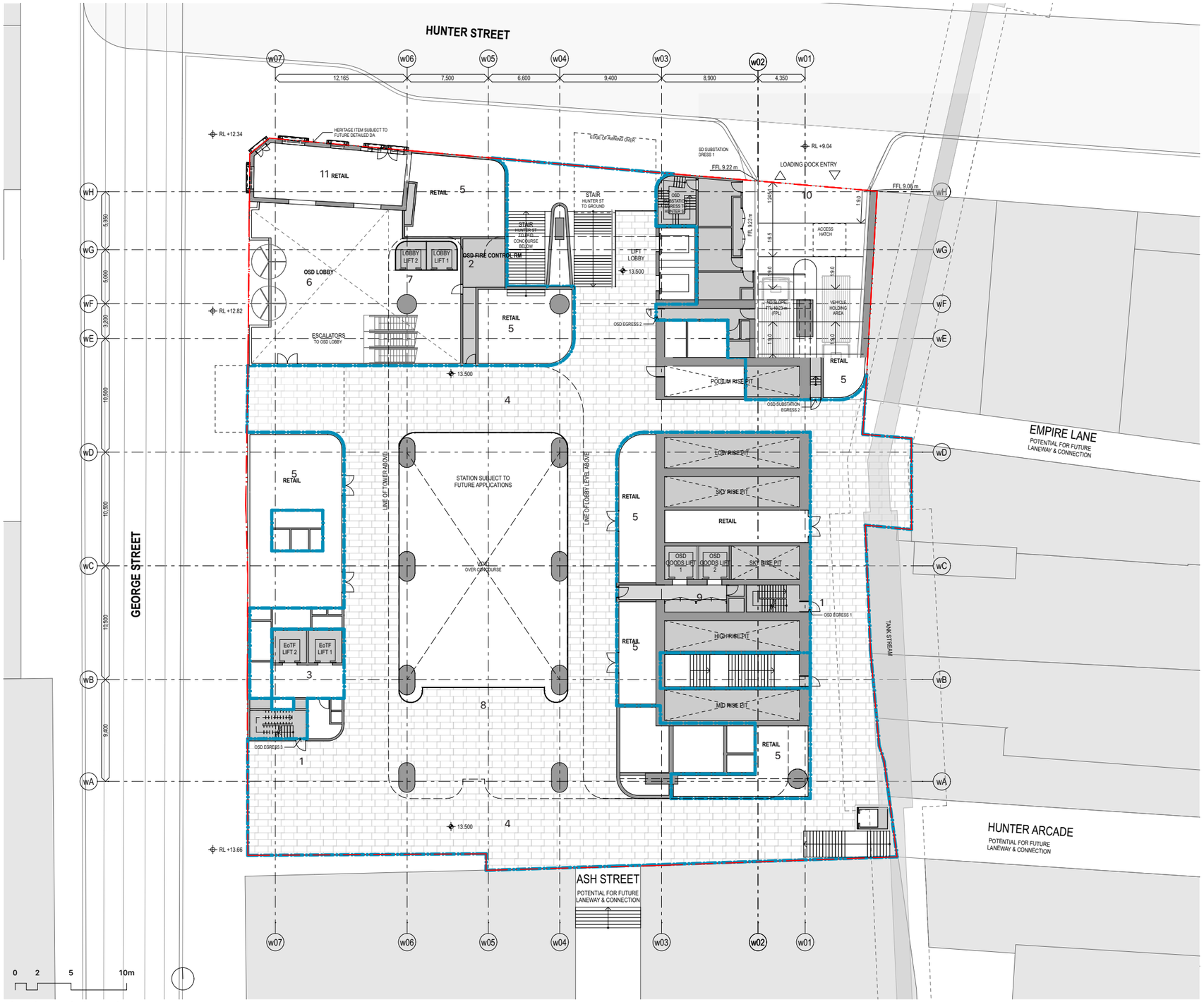
- Public Domain
- Retail
- Commercial
- Core/ Servicing
- Metro Station Entry/Exit

Legend

- PLANT
- EXTENT OF STATION

Note:
All security and pedestrian management devices associated with the Metro Station will be delivered through CSSI application for the construction of the Hunter Street Station (Sydney CBD)

1. OSD Egress
2. OSD fire Control Room
3. End of Trip Lifts
4. Through Site Link
5. Retail
6. OSD Entry
7. OSD Lobby Access Lifts
8. Metro Station Entry
9. OSD Goods Lift
10. Loading Dock Entry
11. Heritage Item



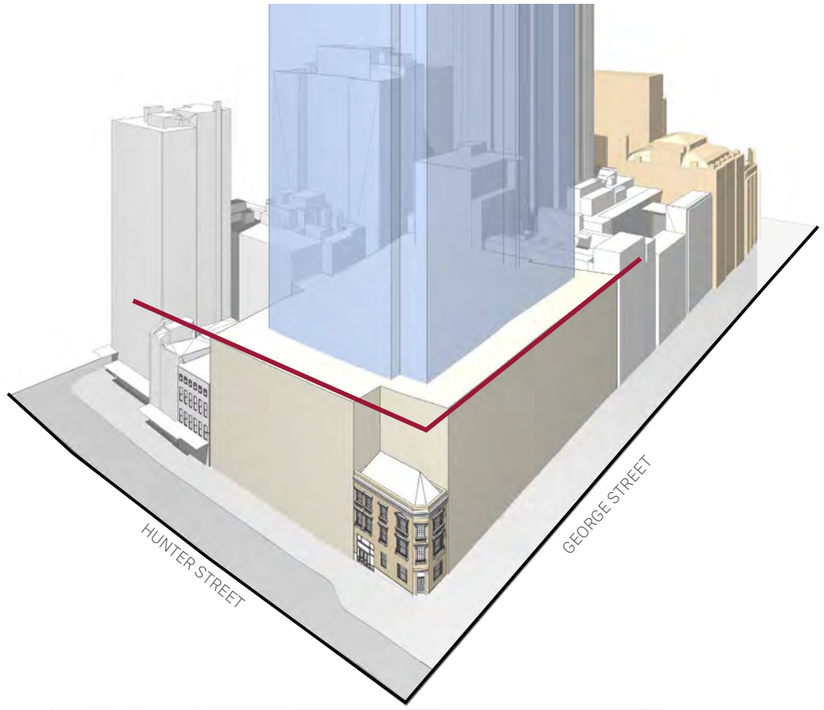
131. Ground Floor Plan

Podium Design Strategy

The proposed podium massing responds to the existing height and alignment of the surrounding context .The original scale and streetwall height of the Former Skinners Family Hotel is reflected through the massing strategy. The proposed massing reflects the George Street grid.

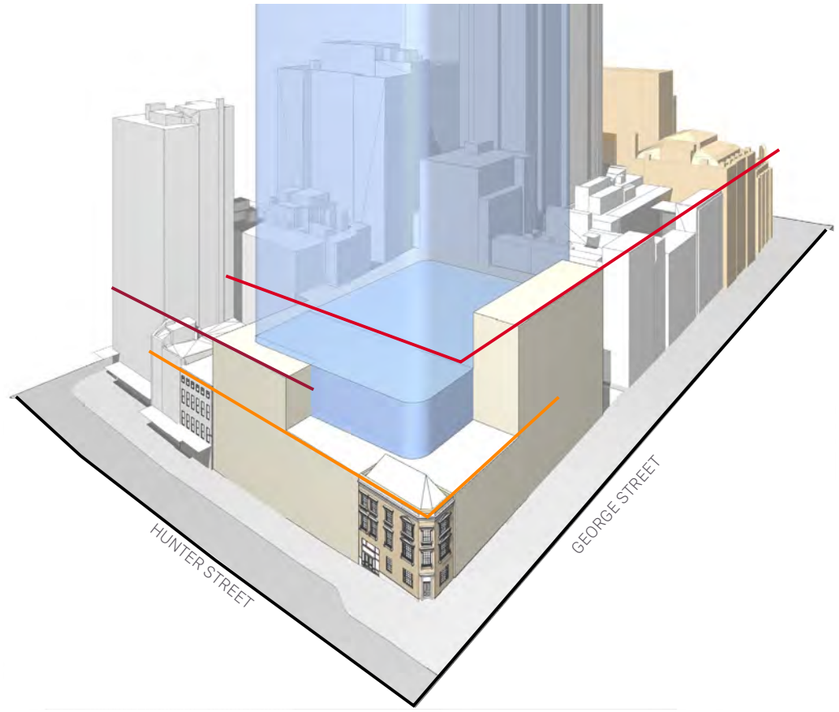
KEY

- 12.5m Streetwall
- 25m Streetwall
- 32m Streetwall



132. Hunter Street and George Street - DCP Compliant Streetwall Height

Draft DCP controls outline a compliant podium street wall that is no greater than 25m above street level. However, the controls also offer the opportunity to vary street walls in response to context.



133. Hunter Street and George Street - Proposed Responsive Streetwall Height

The proposed massing was developed as a response to the surrounding context.

Former Skinners Family Hotel: The proposed massing steps down to align with the existing parapet of the Former Skinners Family Hotel. The relationship to the heritage item is enhanced by maintaining a lower streetwall on either side.

George Street: The streetwall aligns with the predominant streetwall height of heritage items and other buildings along George Street.

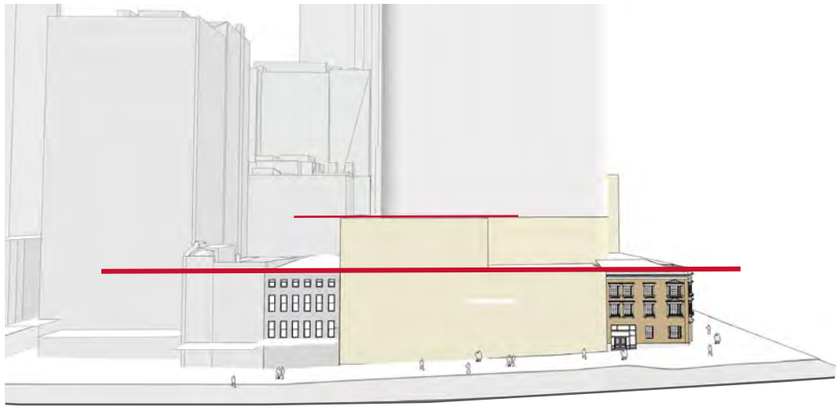
Hunter Street: The streetwall along Hunter Street is proposed to step up and increase in scale to the east of the Former Skinners Family Hotel to a typical compliant scale of 25m.

Streetwall Strategy

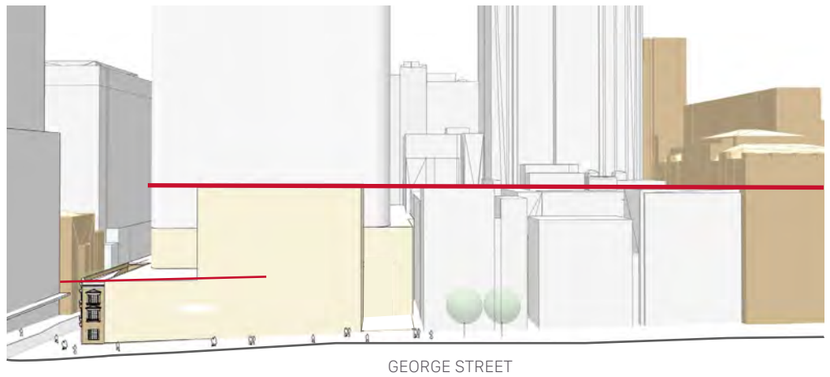
The proposed built form assists in capturing the fine-grain rhythm of the buildings along Hunter and George Street.

The built form provides a positive reinforcement in terms of scale and relationship to the heritage item on site and surrounding context. The heritage item is well integrated with the design and is proposed to be adaptively re-used.

134. Hunter and George Street - Proposed Responsive Streetwall Height



135. Hunter Street - Proposed Responsive Streetwall Height



136. George Street - Proposed Responsive Street Wall Height

— Respond to horizontal alignment of Former Skinners Family Hotel and other heritage items and buildings along George Street

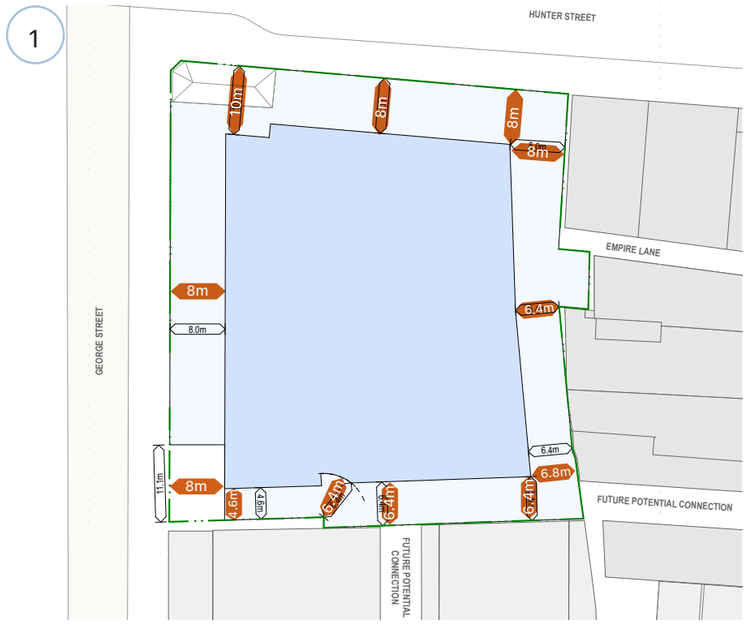
Indicative Street View

Tower Design Strategy

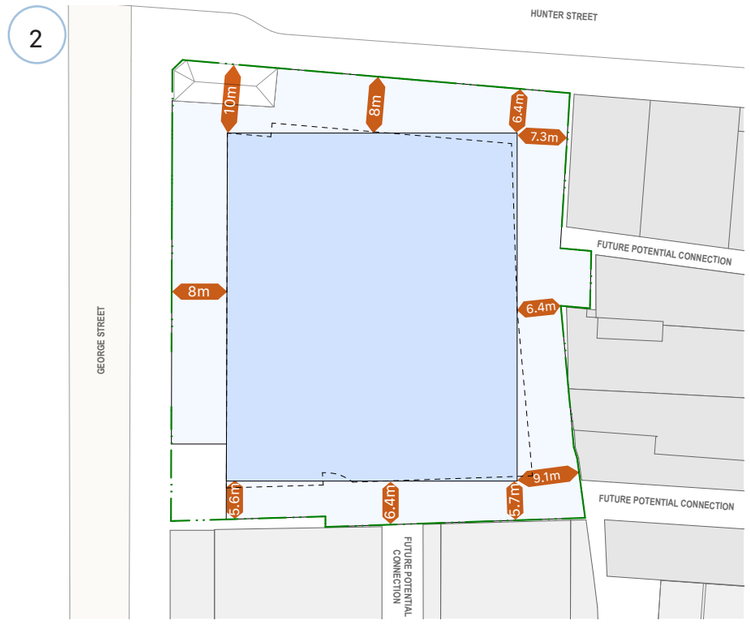
The building setback has been determined by environmental performances as well as urban design and Metro Station considerations, including:

— Heritage
— Heritage Alignment
— Streetwall Alignment
— Heritage Vistas
— Station Constraints
— Regularised Floor Plates

The proposed planning envelope responds to those requirements and achieves a regular and efficient floor plate within the urban context.



137. DCP Setback



138. Floor Plate Regularization

The default DCP setback is applied based on the height of the proposed planning envelope.

Heritage Setbacks:
(from the Former Skinners Family Hotel)
— Hunter Street : 10m

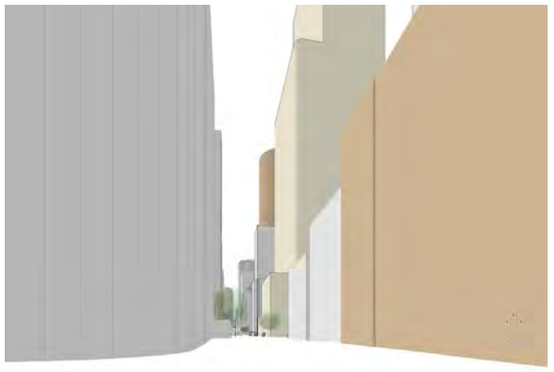
Street Setbacks :
(Building height greater than 120m)
— Hunter Street Setback : 8m
— George Street Setback : 8m

Side and Rear Setbacks :
(Building height Greater than 120m up to 240m)
— Eastern and Southern boundary : 3.33% of the proposed total height of building

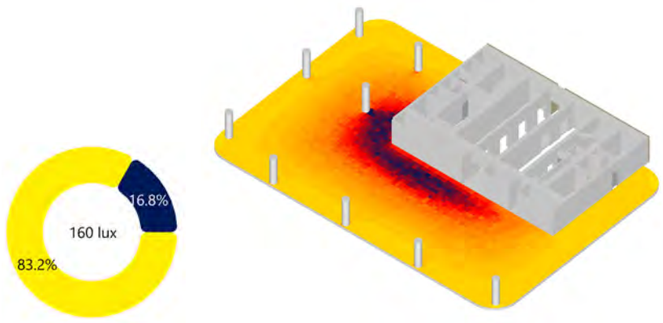
The floor plate is regularised with area balanced setbacks to Hunter Street, the eastern and the southern boundary.

139. George Street Setback

Additional setback to George Street allows for the view towards the Australian Square from the southern George Street. The floor plate is kept regular shape and further adjusted with Hunter Street setback, the eastern and the southern boundary setbacks.



140. Showing increasing view to the sky and Australia Square Tower (Local Heritage Item) from the southern side of George Street

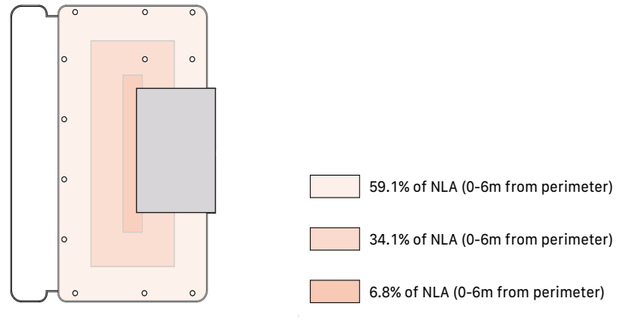


142. Daylight Analysis (Refer details in Appendices)

141. Round Corners

The rounding corner reduces the diagonal dimension of the floor plate, which improves the slenderness of the tower and increases natural daylight access for the surrounding public domain

The upper level of the tower steps back further from George Street to avoid additional overshadowing of Martin Place and further increase daylight access to George Street.



143. Floor Plate Analysis (Refer details in Appendices)

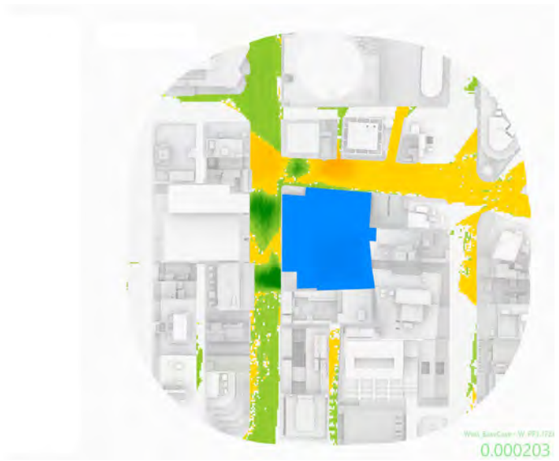
Height Control

Hunter Street West is located to the North of Martin Place, limited in height by sun and shadow controls defined by the Sydney LEP.

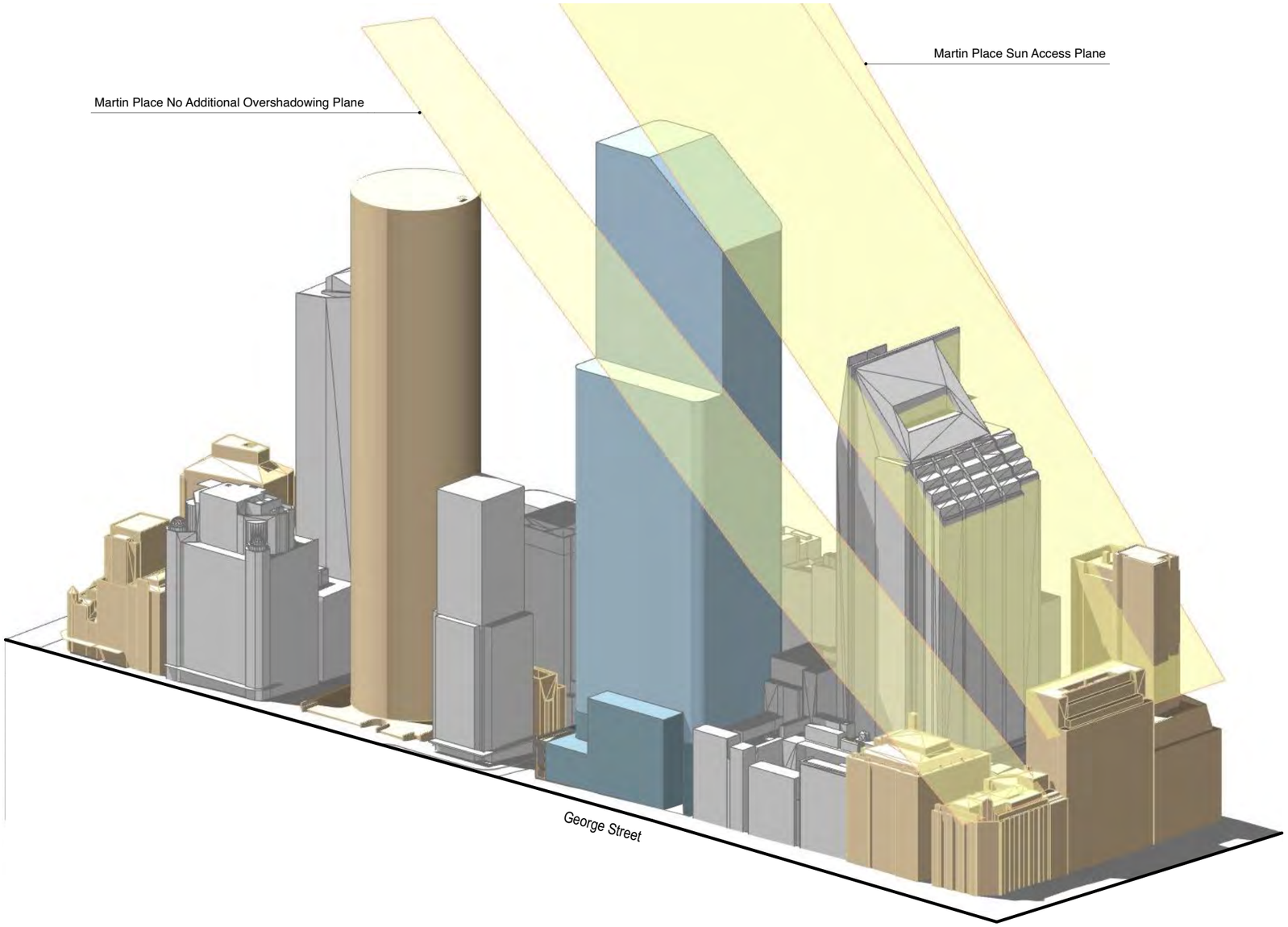
The height of the proposed envelope is RL220.0m (213.0m above ground), which is below the Martin Place Sun Access Plane and the Martin Place No Additional Overshadowing plane.

The proposed envelope was analysed against the daylight and wind requirements based on the Sydney DCP - Schedule 12. (Refers to the appendices.)

The analysis demonstrates that the proposed envelope improves visual access to the sky by **0.000203%**, when compared to the Basecase envelope as outlined within Schedule 12 - _'Procedures for demonstrating compliance with variation provisions for setbacks, separations and tapering in Central Sydney'.



144. Sky View Factor Analysis Plan - 100m Radius Analysis extent

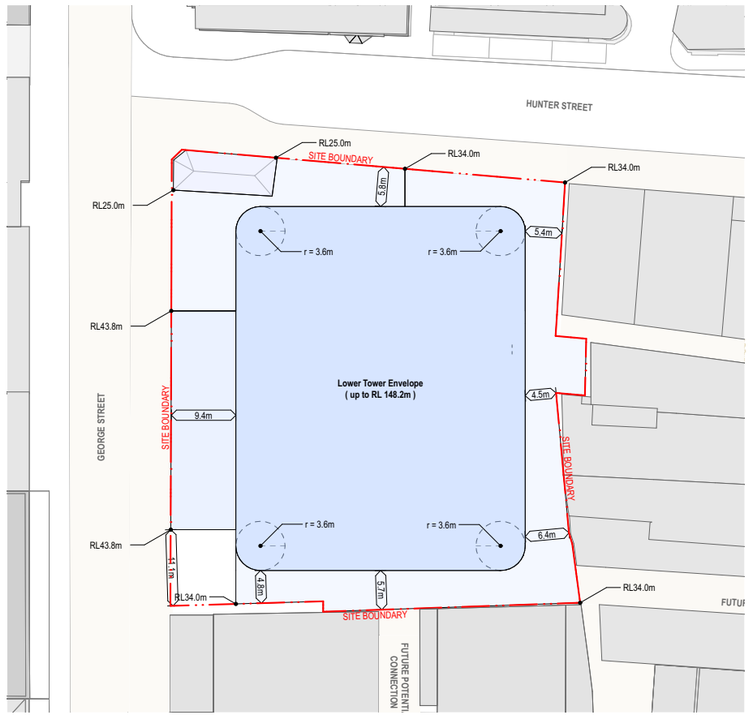


Proposed Planning Envelope

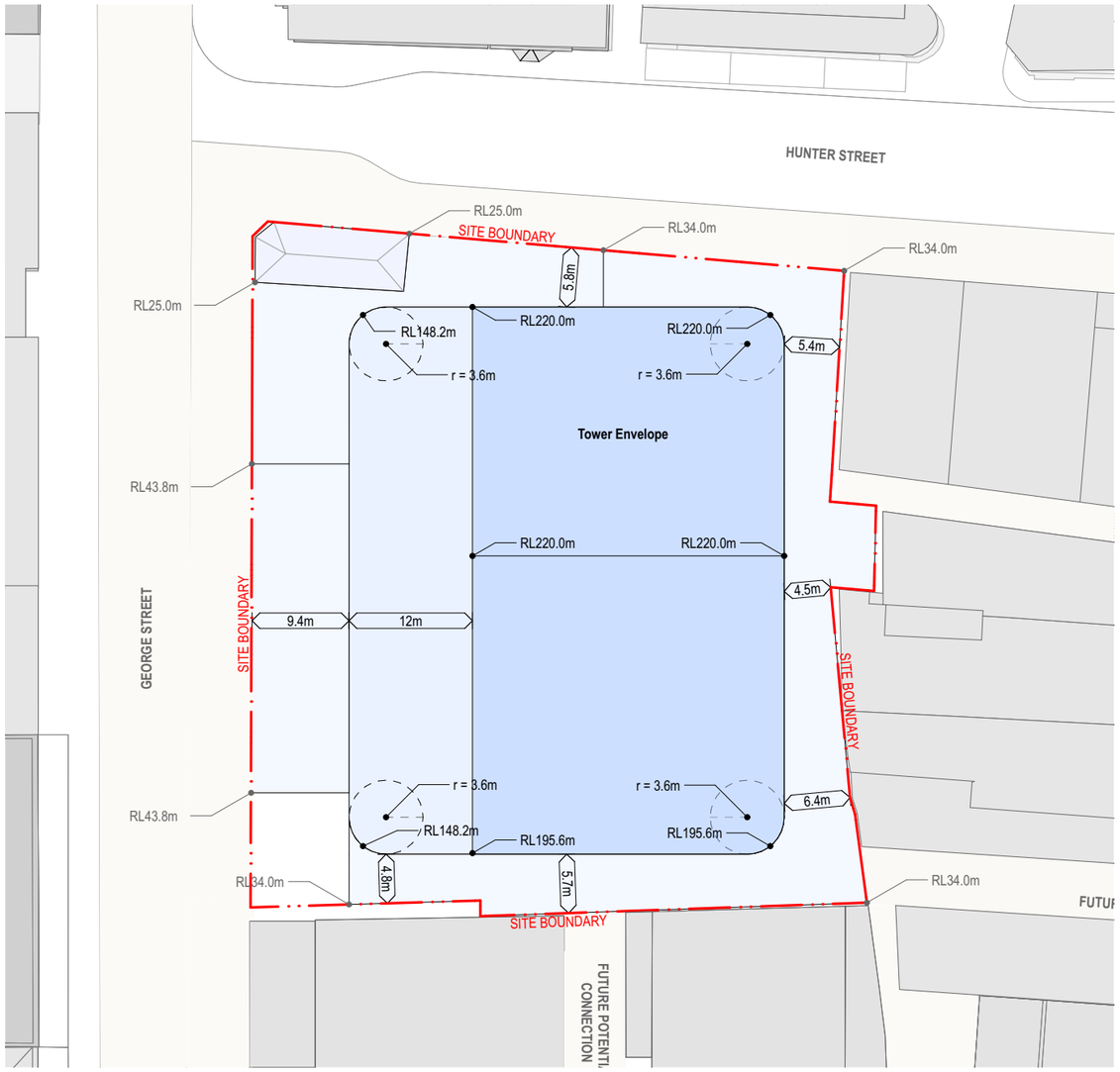
To realise the primary objective and intended outcome of the Planning Proposal request, a planning envelope has been outlined for the Hunter Street West site. The planning envelope establishes the built form parameters to guide future development on the site to be secured under a future SSDA process.

The proposed planning envelope has been defined by a careful analysis of the urban context including: the ground plane, street walls, setbacks, sun access, daylight access and wind conditions.

The envelope is consistent with the principles, objectives and controls of the Central Sydney Planning Strategy and associated draft DCP and LEP amendments.

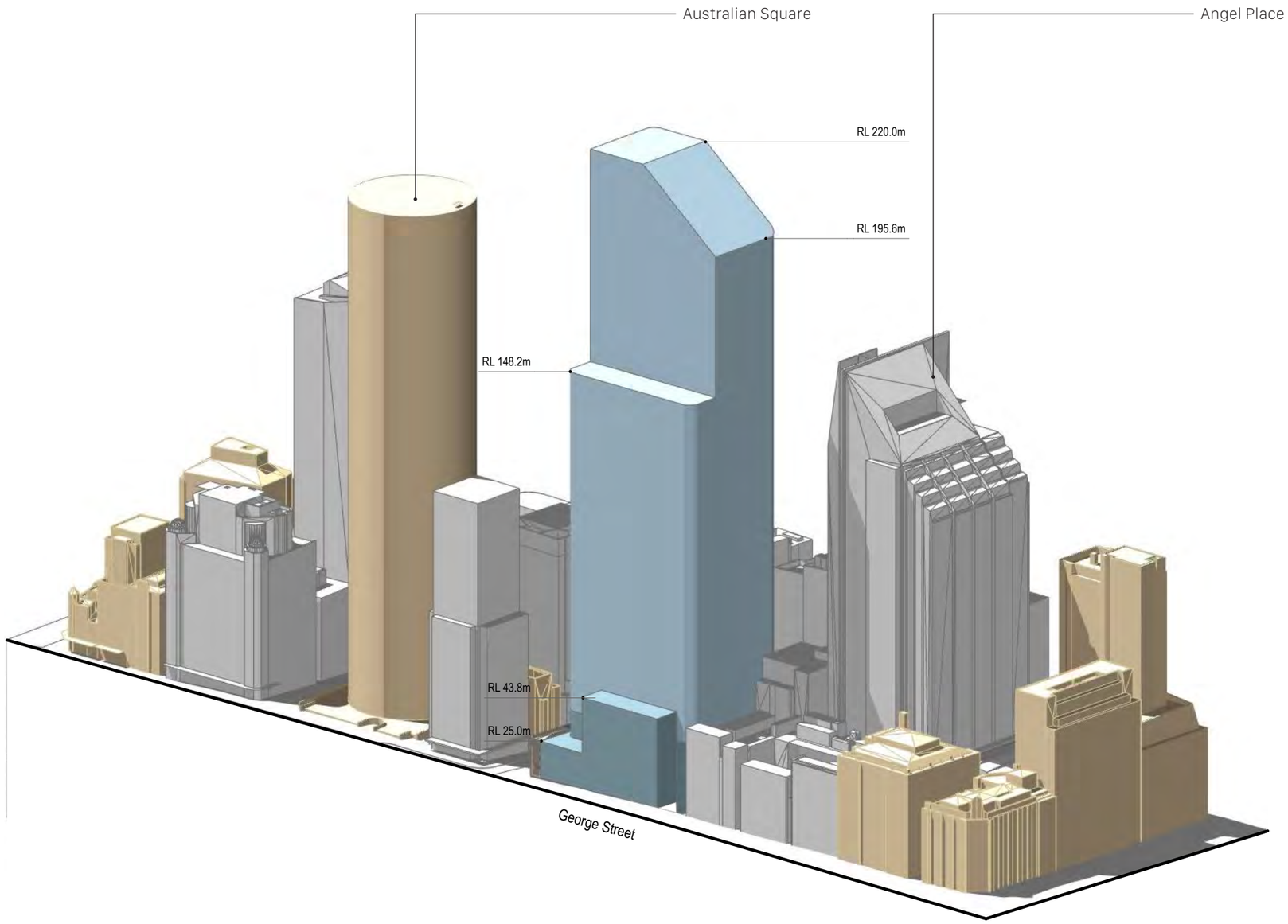


145. Proposed Envelope - Lower Tower Roof Plan

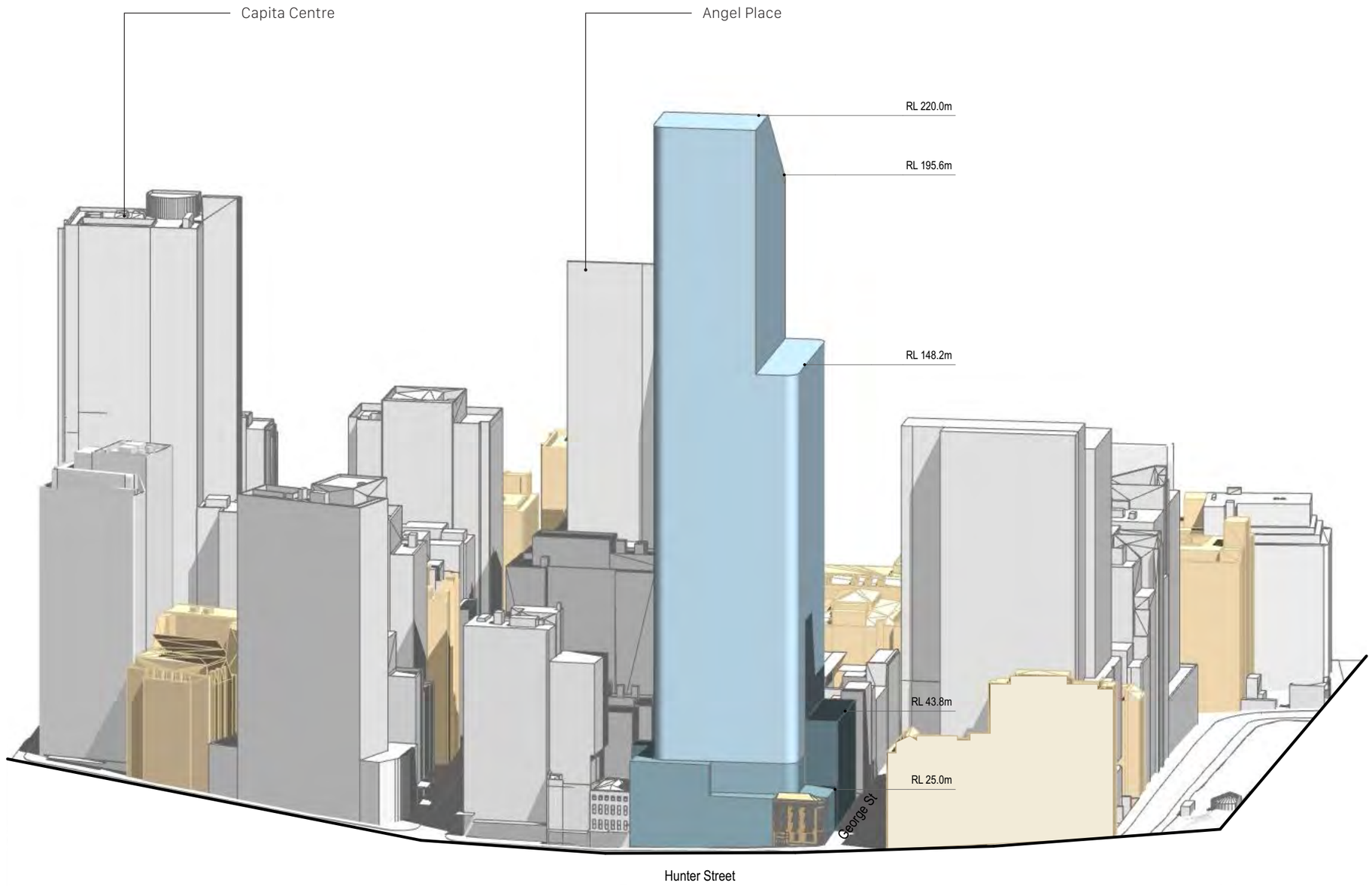


146. Proposed Envelope - Tower Roof Plan

Proposed Envelope



147. Proposed Envelope - Southwest View



148. Proposed Envelope - Northwest View

Concept Reference Design Massing

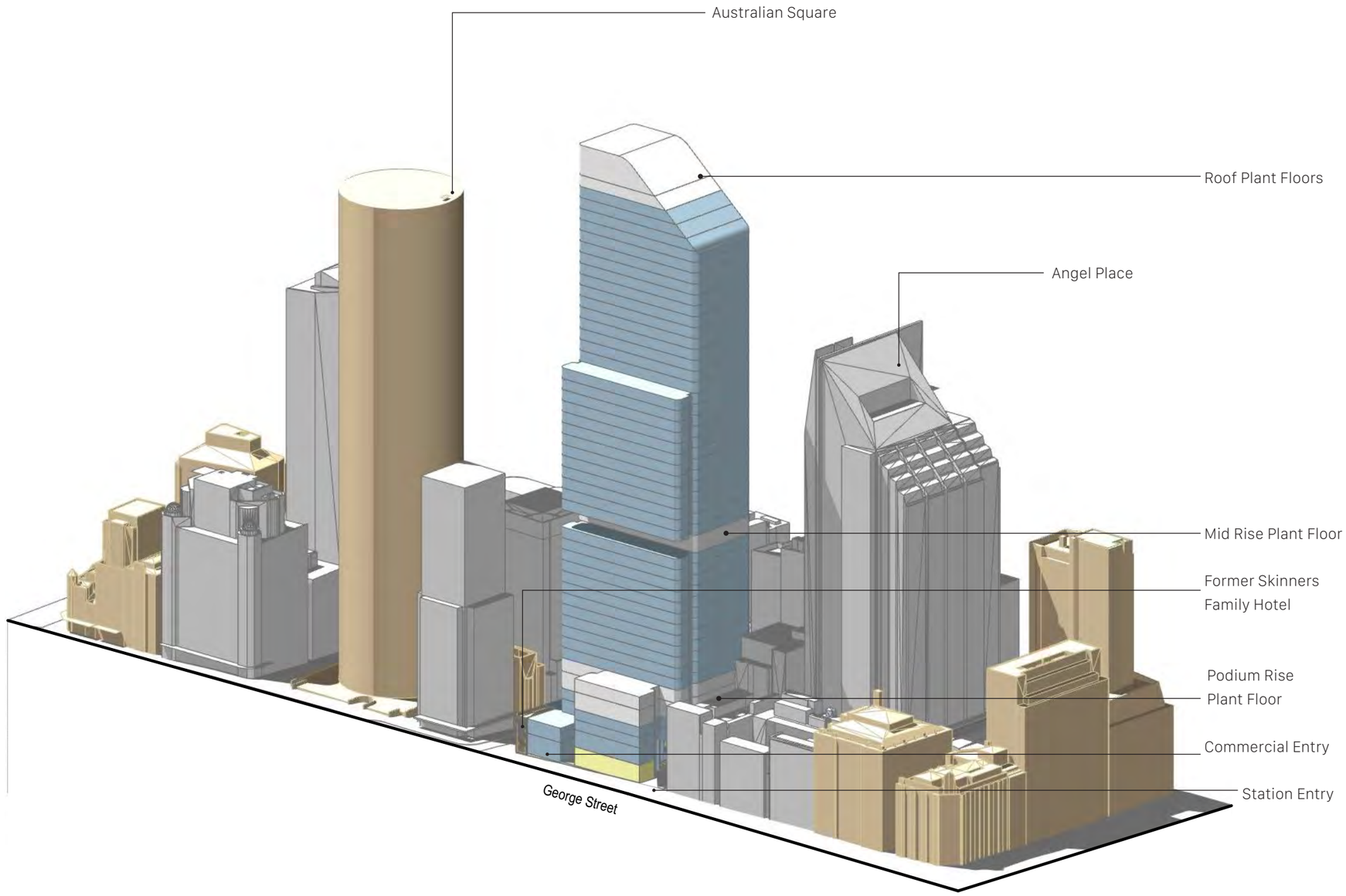
The concept reference design has been prepared for the Hunter Street West site and is indicative only. It has primarily been prepared to demonstrate and justify the proposed numerical amendments to the SLEP 2012 which are being sought under this Planning Proposal request. The final detailed design of the scheme will be the subject of a future Concept SSDA, competitive tendering process and a future Detailed SSDA.

The concept reference design for a commercial tower fits within the proposed planning envelope and contains the proposed amount of floor space including the metro station and through site link.

This concept reference design allows for building articulation, and external facade elements such as sun shading and roof features to fit within the envelope. The following massing diagrams illustrate this articulated form.

The proposal is consistent with the scale of development in the precinct and is in line with the objectives of the Central Sydney Strategy in terms of creation of employment space, land efficiency and urban controls.

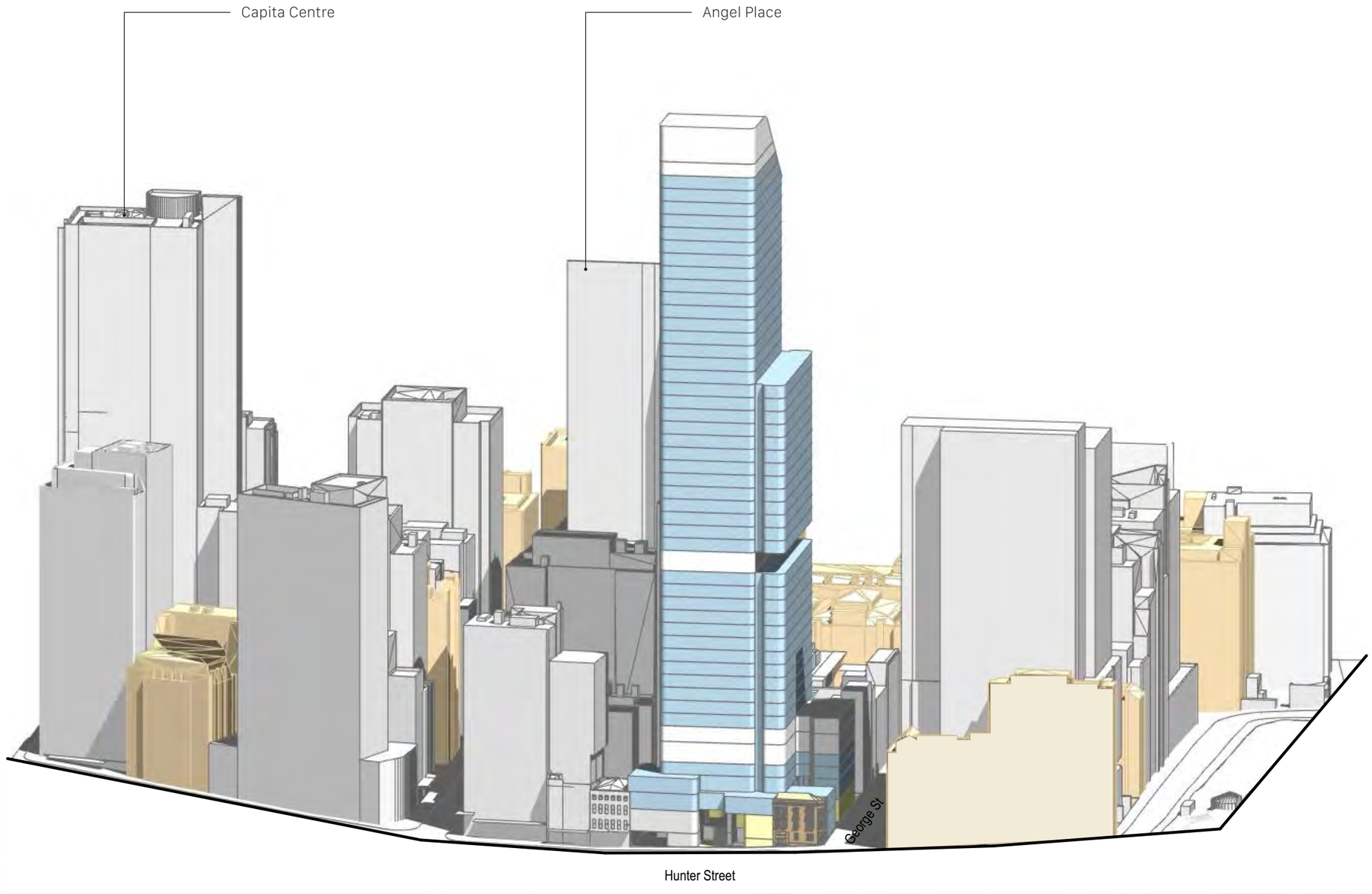
The articulation is 12% of the envelope outline measured on a floor by floor basis and the efficiency of the commercial tower is 79.49% GBA to GFA.



149. Concept Reference Design - Northwest View

KEY

- Commercial
- Retail
- Plant



150. Indicative Design - Southwest View

KEY

- Commercial
- Retail
- Plant


Hunter St


M
20
FALAFE

Residential Sun Access Analysis

Residential Sun Access Analysis

The following sun-eye view analysis has been undertaken on June 21st between 9am and 3pm for the purpose of assessing potential overshadowing of residential buildings within the control times specified in SEPP 65 and the NSW Apartment Design Guide(ADG).

In the first step, hourly analysis has been undertaken to detect the potential overshadowing impact of the proposed envelopes. In the second step, 15 minute detailed analysis have been applied to the impacted times to measure their duration.

The results illustrate the following:

The proposed Hunter Street East building envelope will partially shade the western facade of 1 Hosking Place between 11:45pm and 12:15pm on 21 June (Figure. 160 & 161).

The proposed Hunter Street West building envelope partially shades the west facade of 1 Hosking Place between 2:45pm and 3pm on 21st June (Figure. 165 & 166).

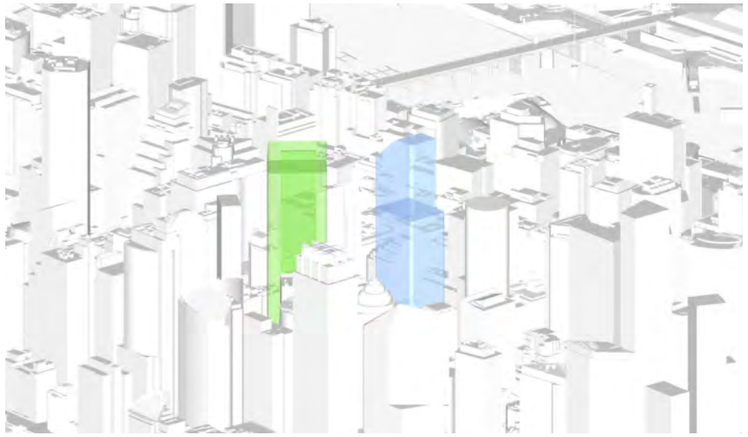
However, 1 Hosking Place still receives 2.5 hours of solar access between 12:15pm and 2:45pm on 21 June, which complies with the requirement of the NSW Apartment Design Guide (ADG).

For a discussion on compliance with SEPP 65 please refer to the Urbis Planning Proposal report.

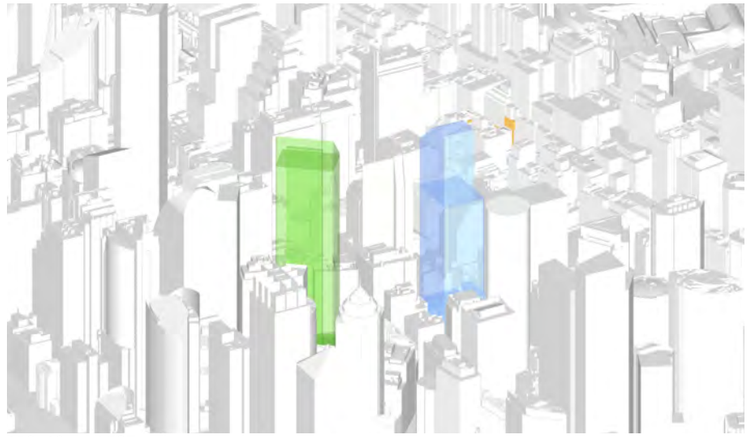
Winter Solstice - 21 June

Between 9am and 3pm

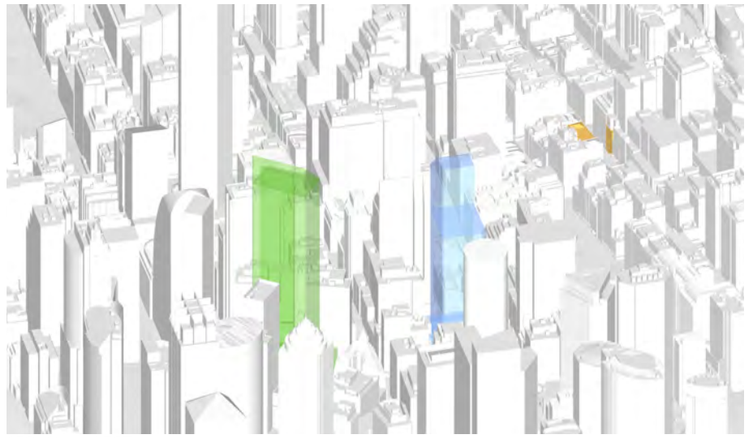
1 hour Intervals



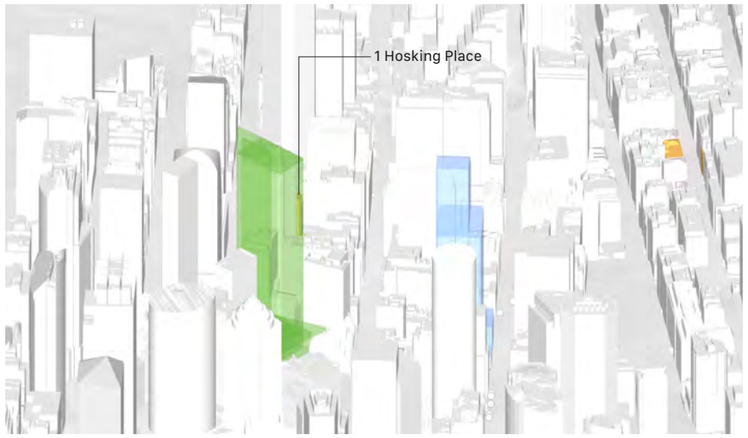
151. 9am AEST



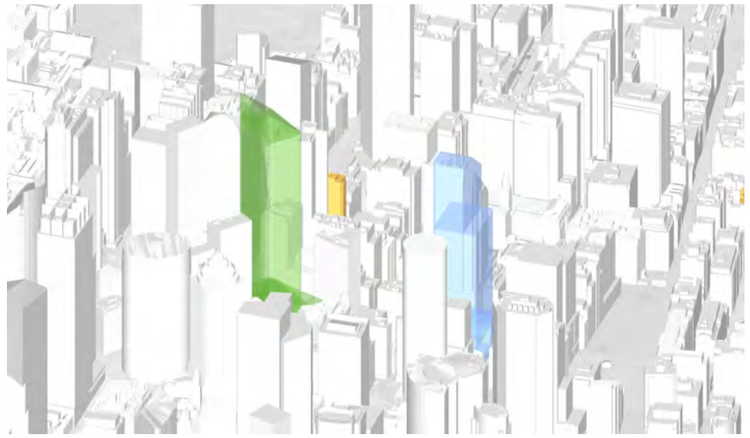
152. 10am AEST



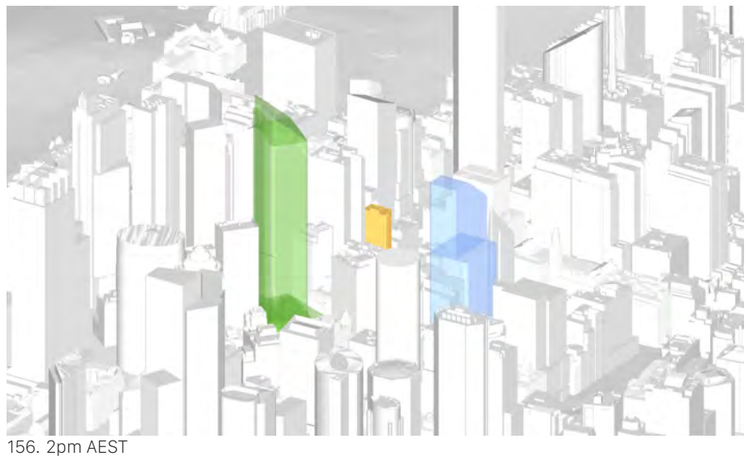
153. 11am AEST



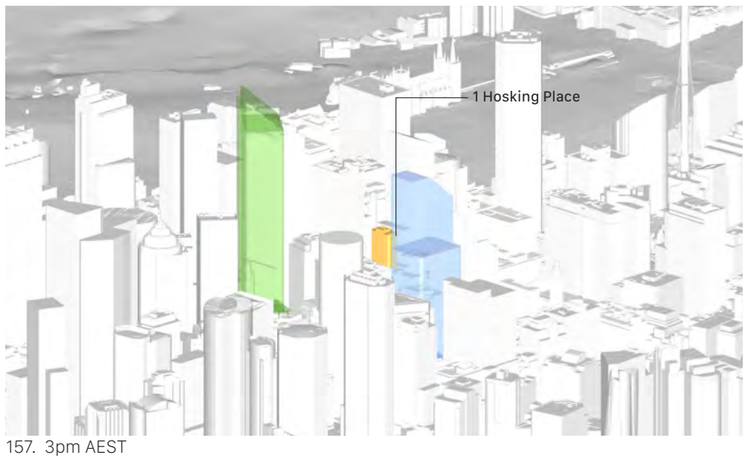
154. 12pm AEST



155. 1pm AEST



156. 2pm AEST



157. 3pm AEST

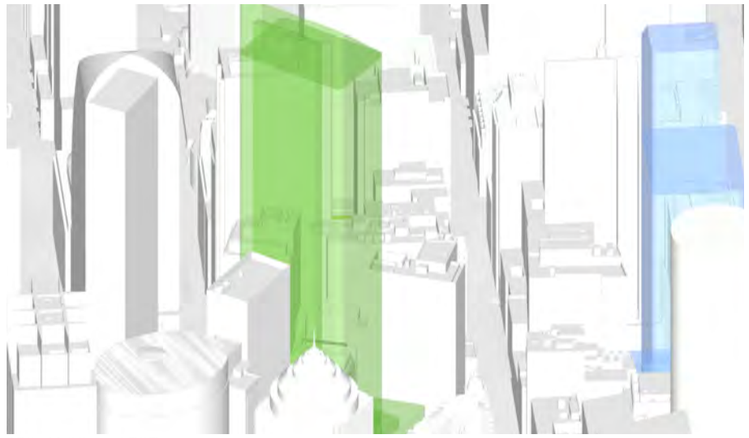
KEY

- Proposed Hunter Street East Envelope
- Proposed Hunter Street West Envelope
- Surrounding Residential Buildings

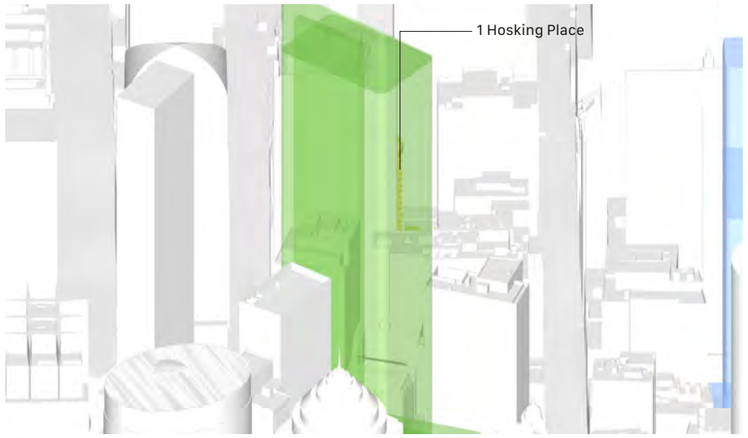
Winter Solstice - 21 June

Between 11:30pm to 12:30

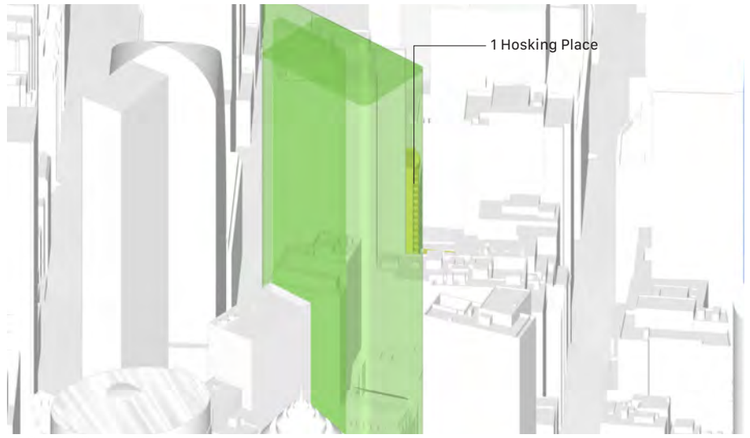
15 minutes Intervals



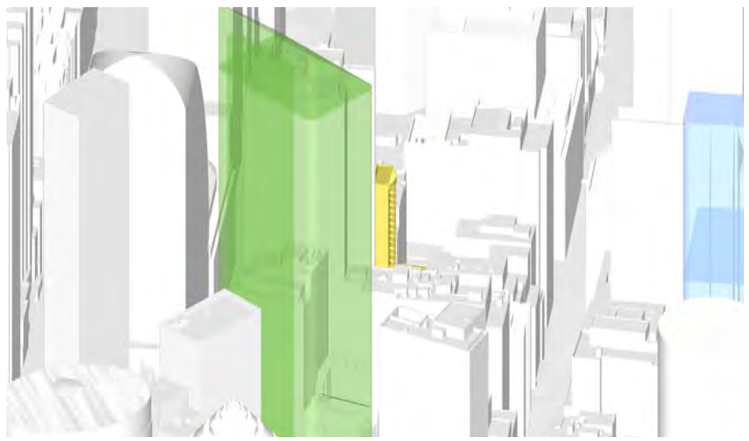
158. 11:30am AEST



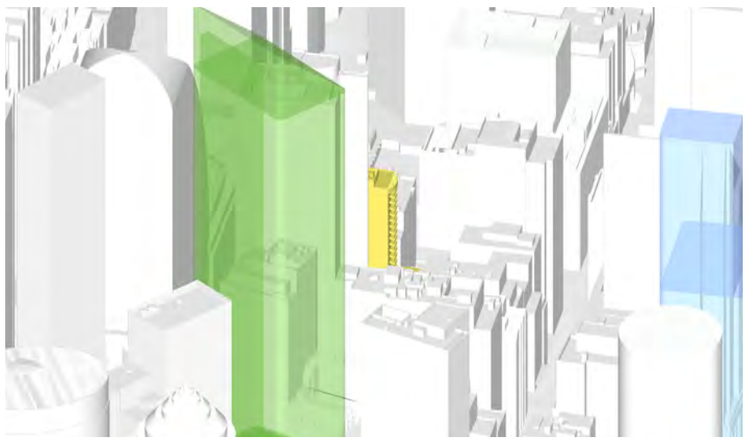
159. 11:45am AEST



160. 12:00pm AEST



161. 12:15pm AEST



162. 12.30pm AEST

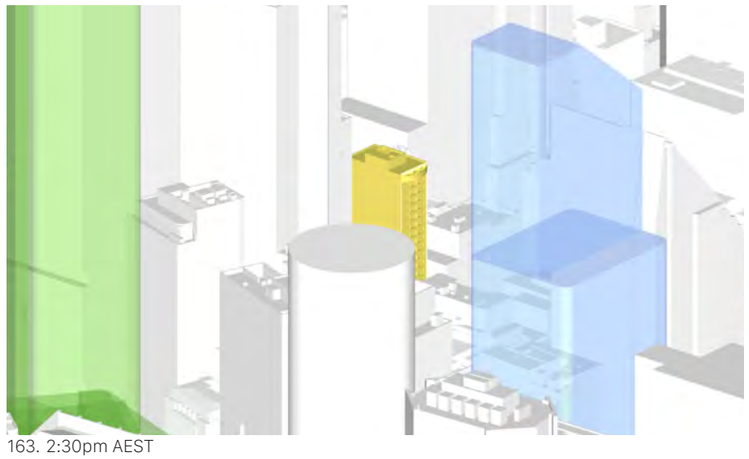
KEY

- Proposed Hunter Street East Envelope
- Proposed Hunter Street West Envelope
- Surrounding Residential Buildings

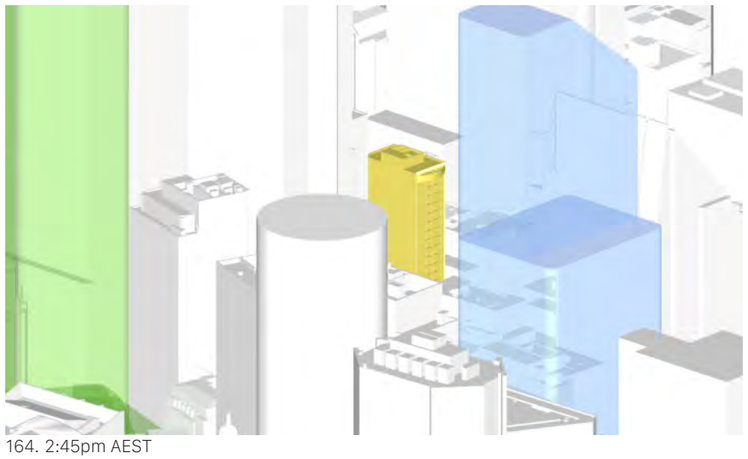
Winter Solstice - 21 June

Between 2:30pm to 3:00

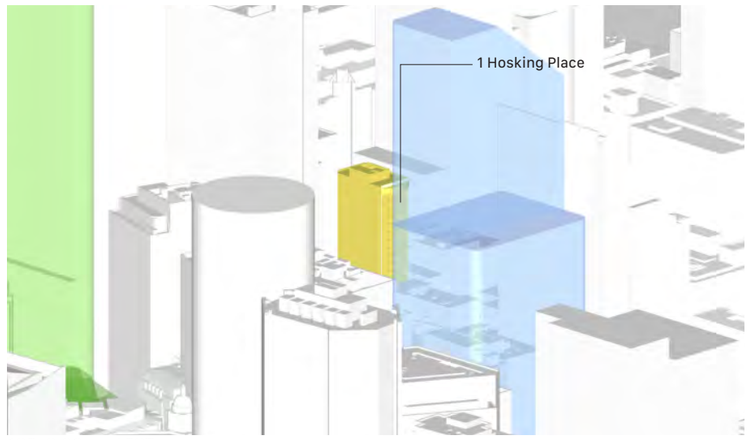
15 minutes Intervals



163. 2:30pm AEST



164. 2:45pm AEST



165. 3:00pm AEST

KEY

- Proposed Hunter Street East Envelope
- Proposed Hunter Street West Envelope
- Surrounding Residential Buildings

Appendix

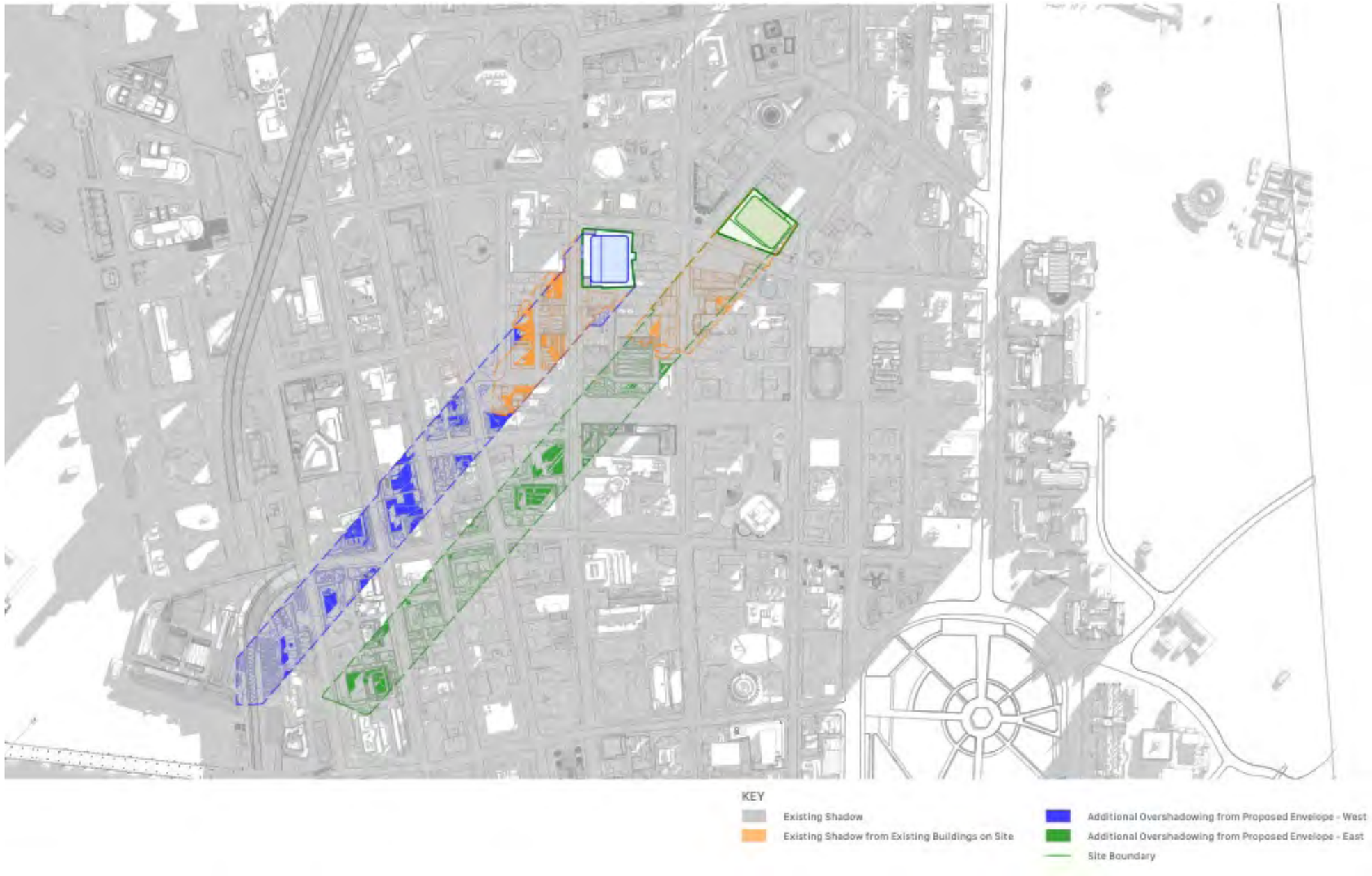
Shadow Diagrams

The following shadow analysis has been undertaken on 21 June (winter solstice) and 21 December (summer solstice).

The Hunter Street East proposed envelope and its impacts have been illustrated in blue and the Hunter Street West proposed envelope and its impacts have been illustrated in green. A consistent colour (orange) has been used to demonstrate the existing shadows from the existing buildings on site.

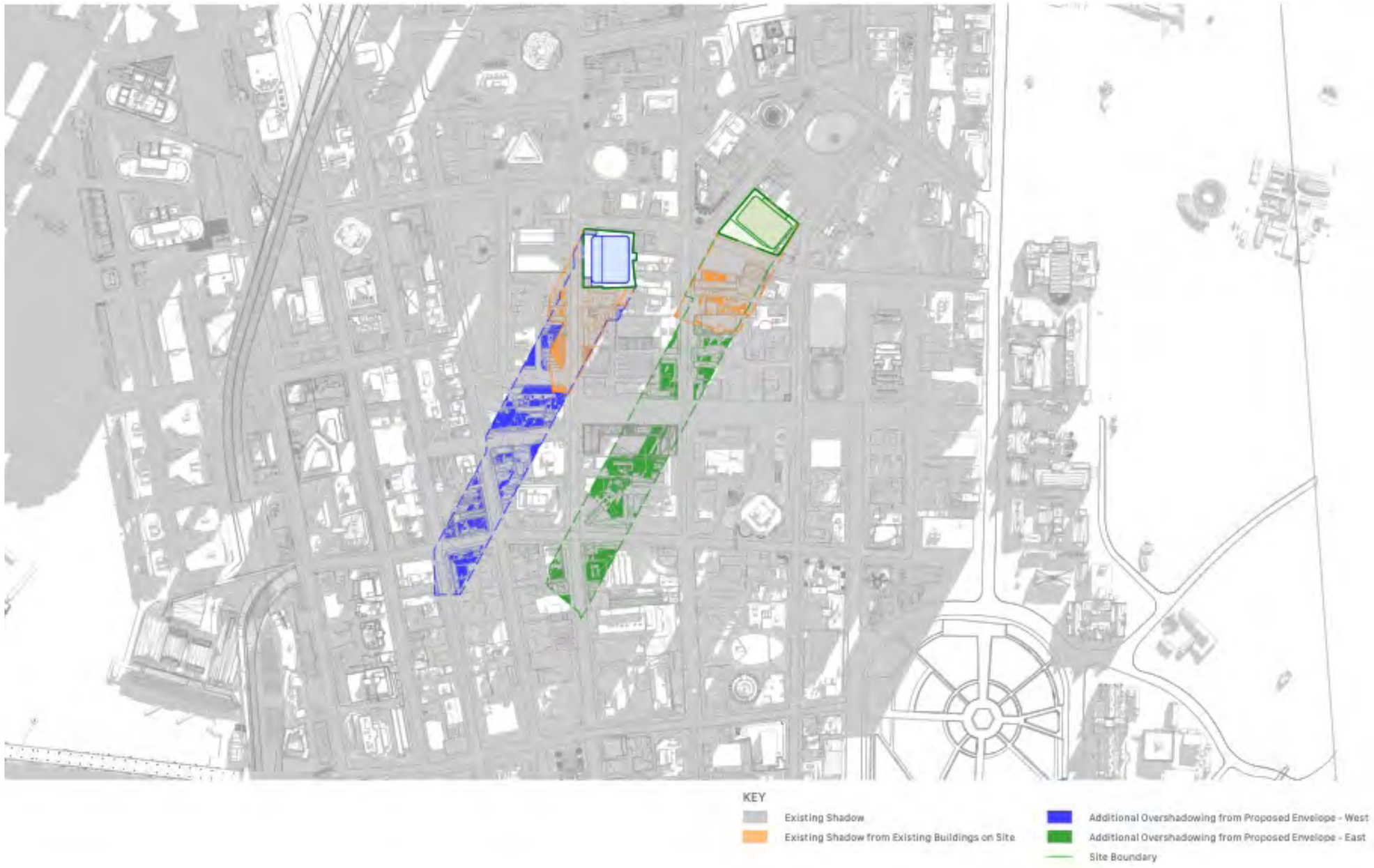
Winter Solstice - 21 June

9am



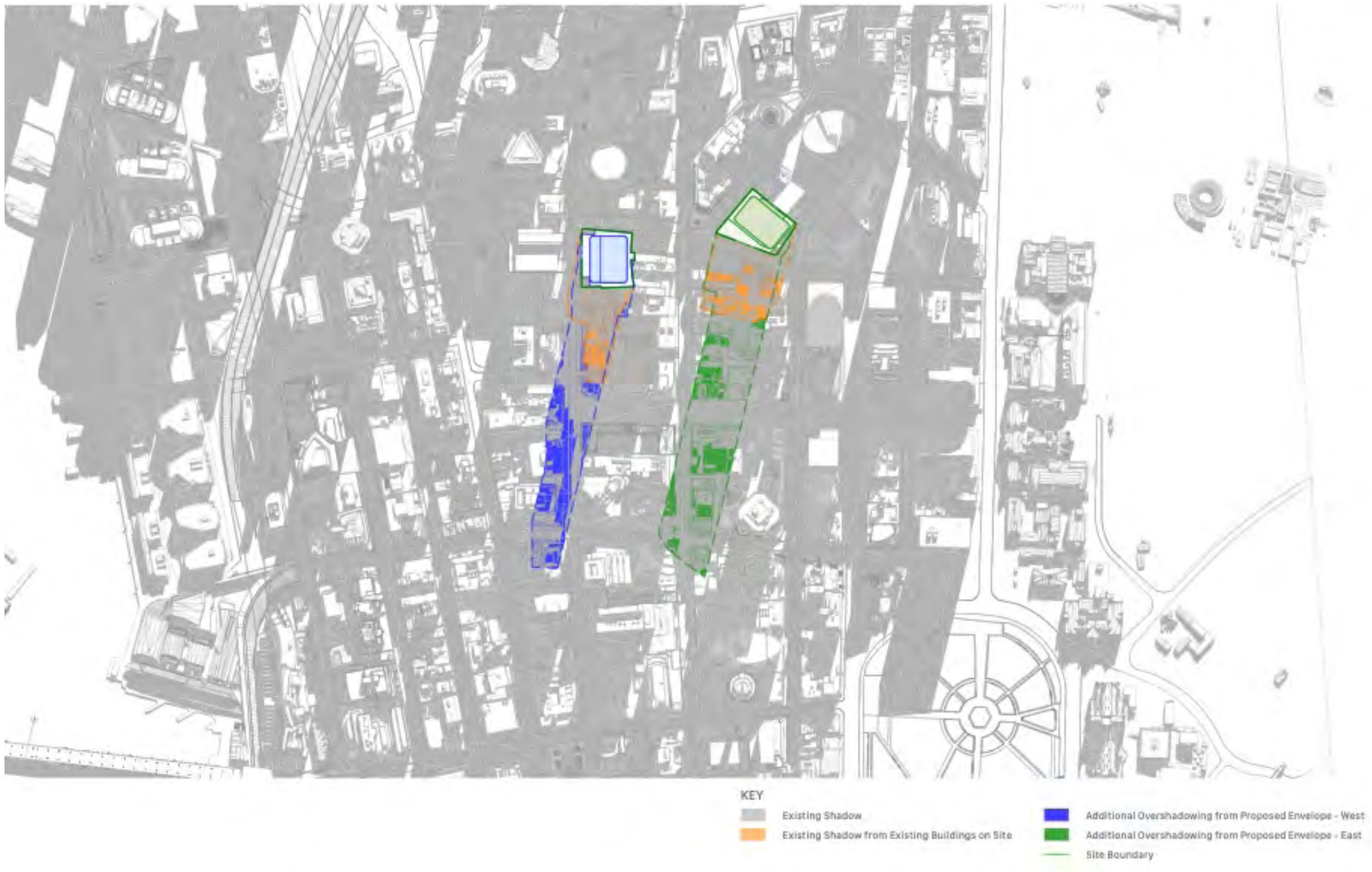
Winter Solstice - 21 June

10am



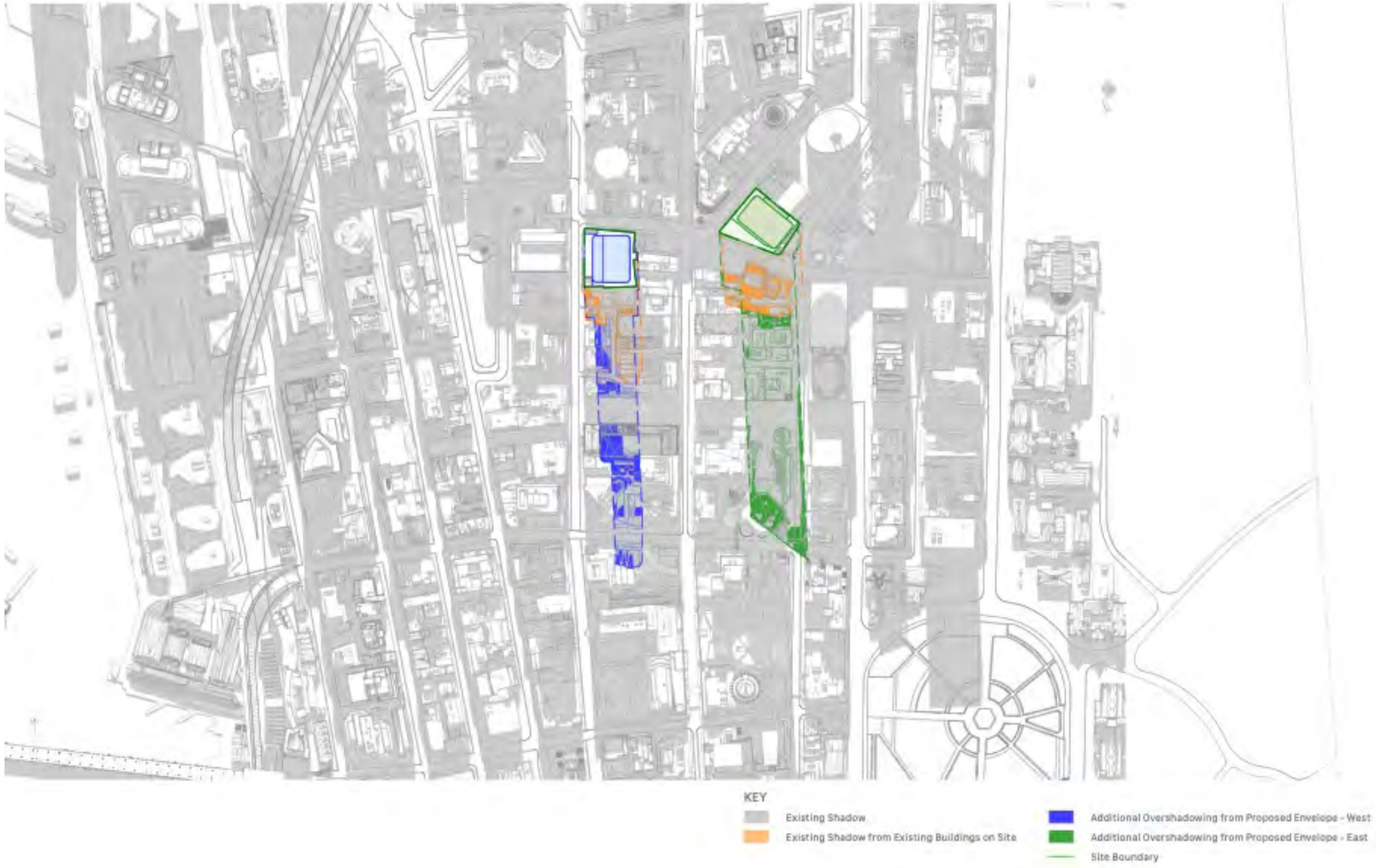
Winter Solstice - 21 June

11am



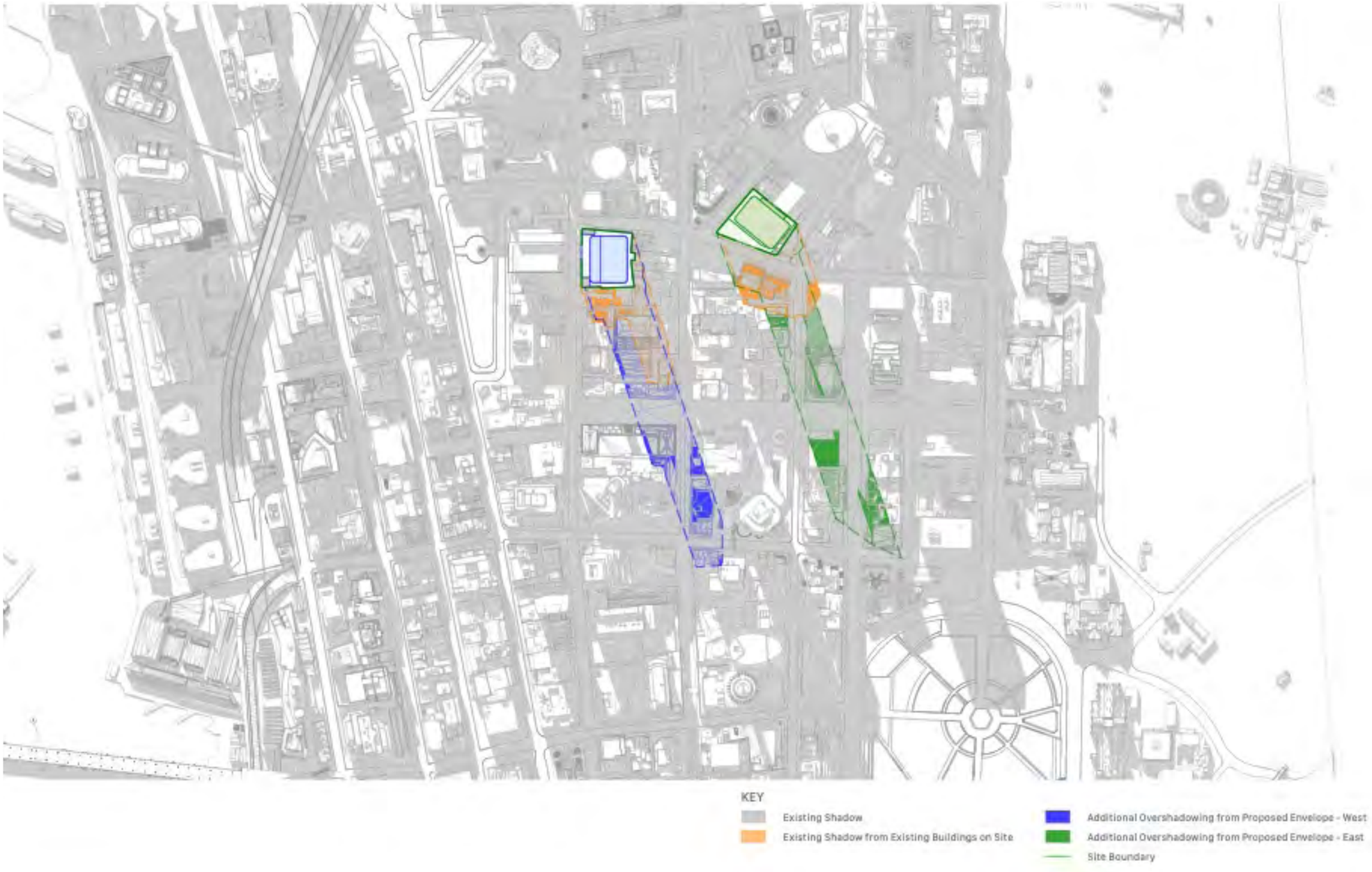
Winter Solstice - 21 June

12pm



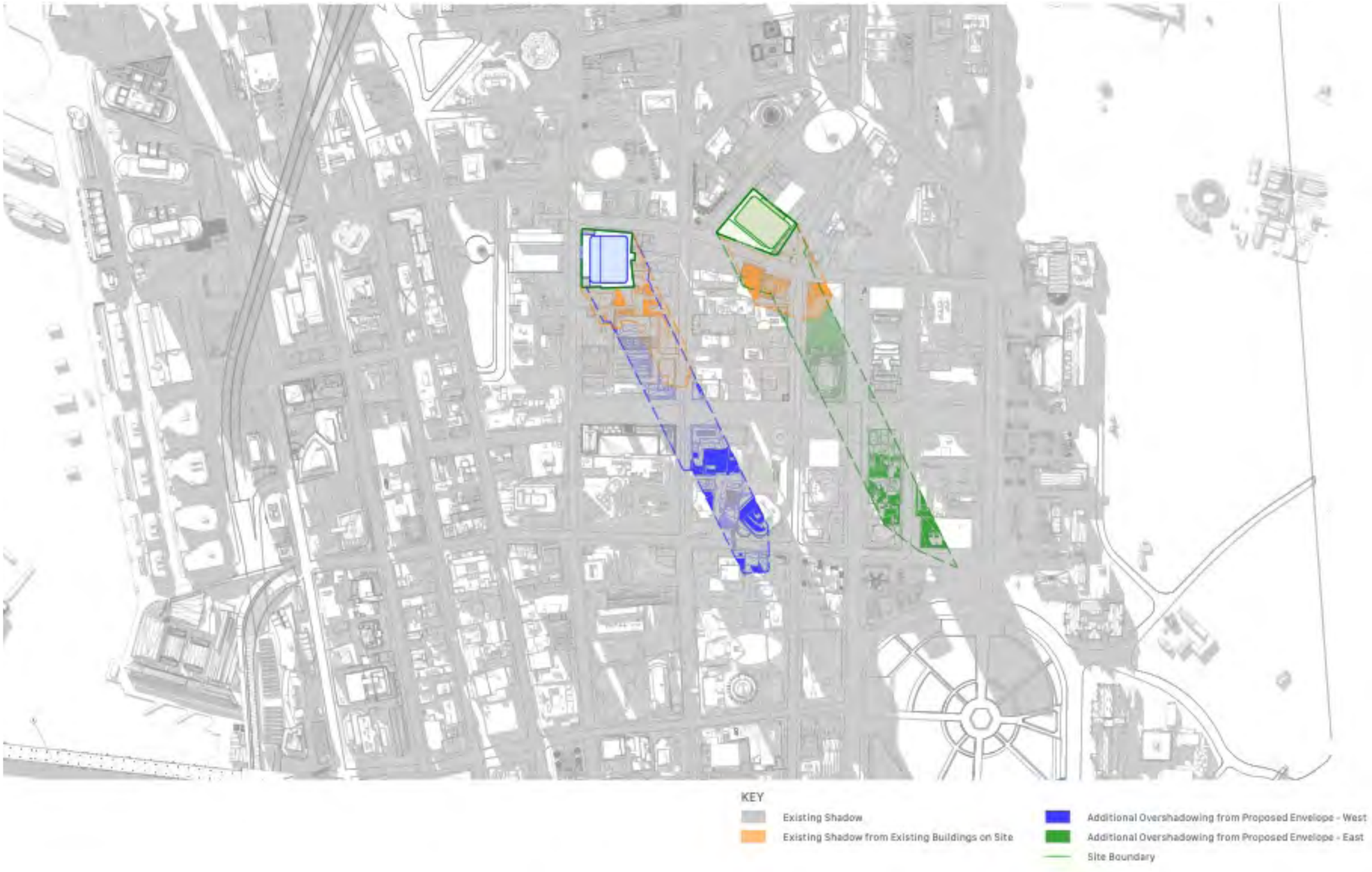
Winter Solstice - 21 June

1pm



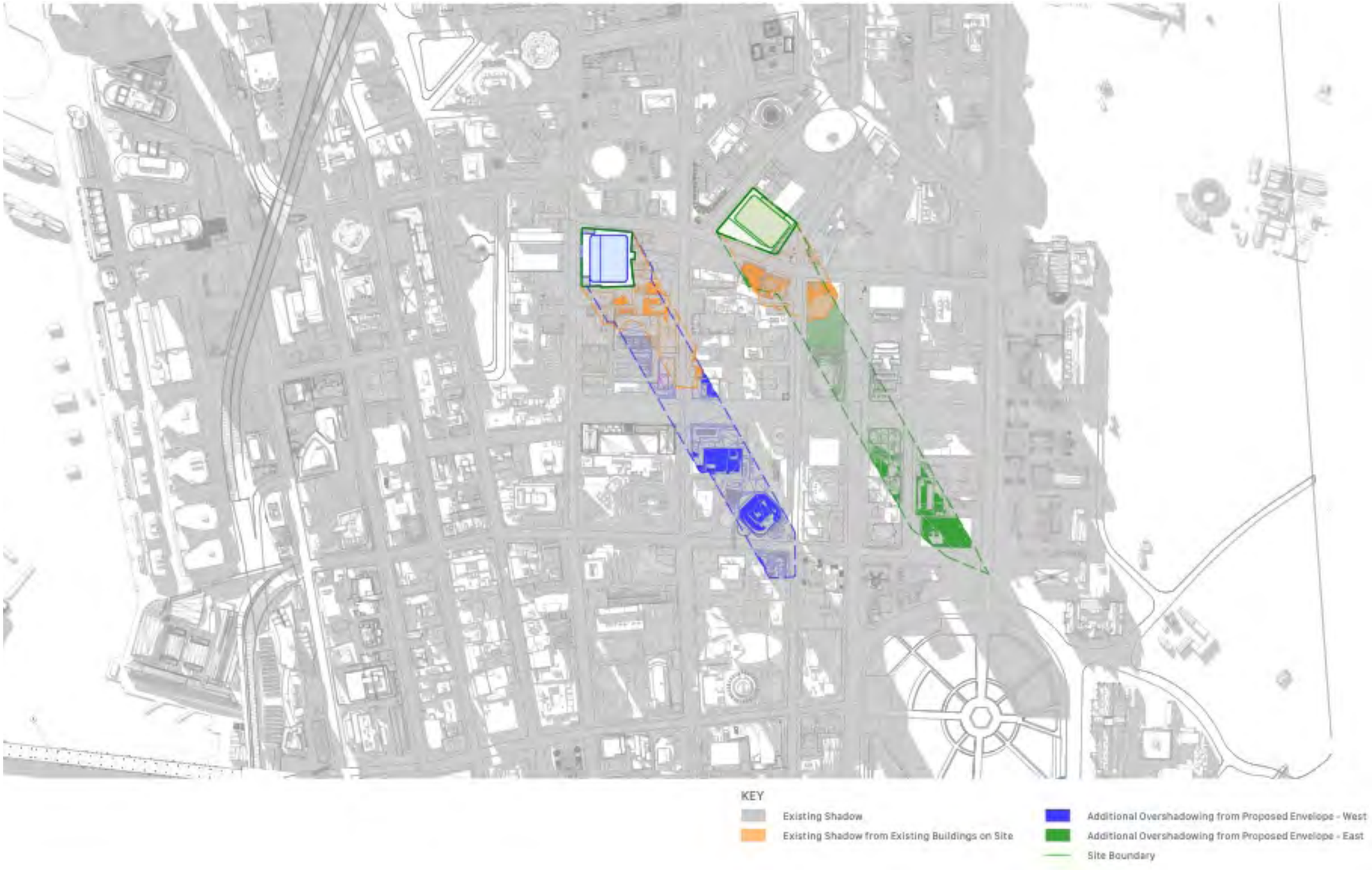
Winter Solstice - 21 June

1:30pm



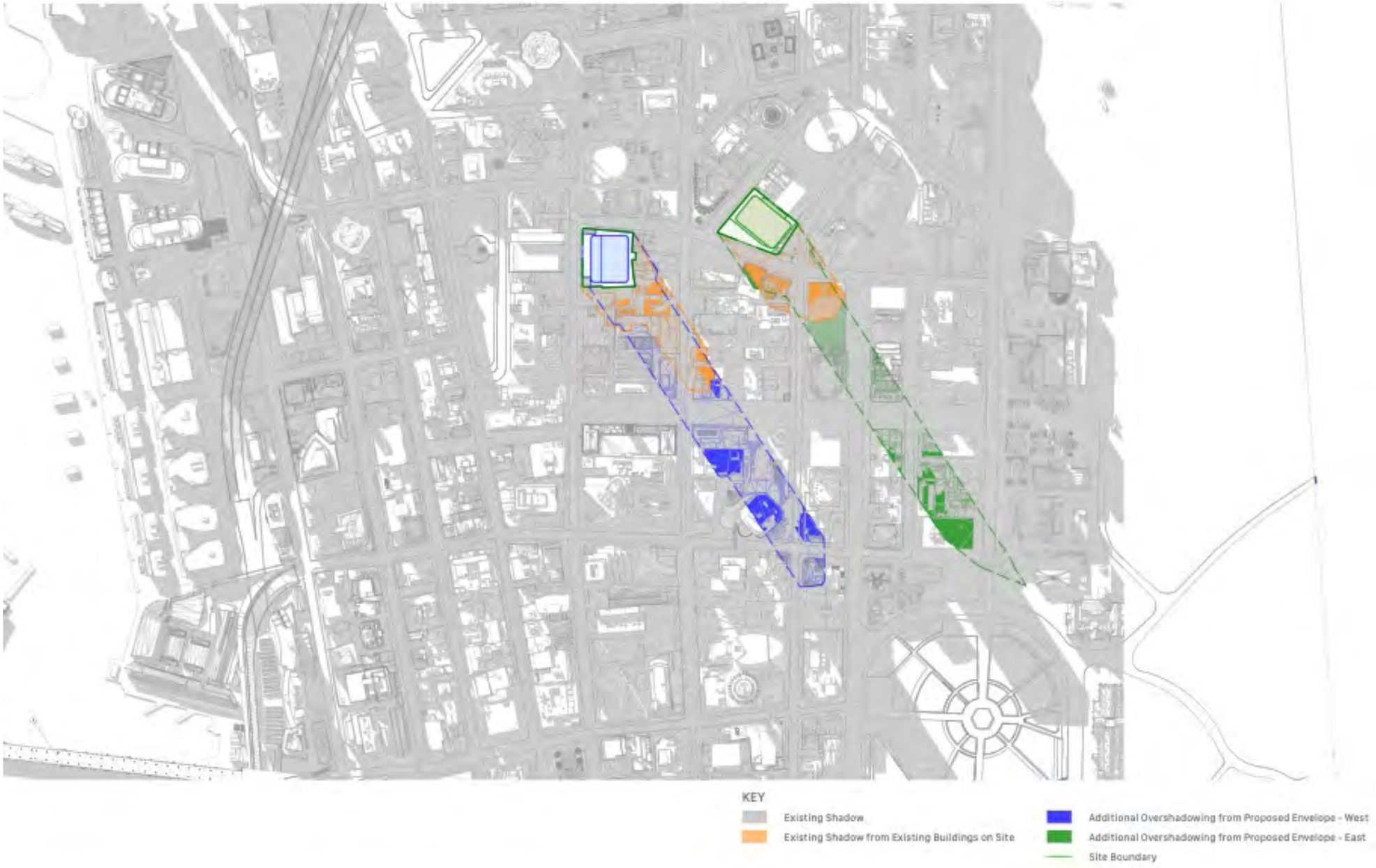
Winter Solstice - 21 June

1:45pm



Winter Solstice - 21 June

2pm

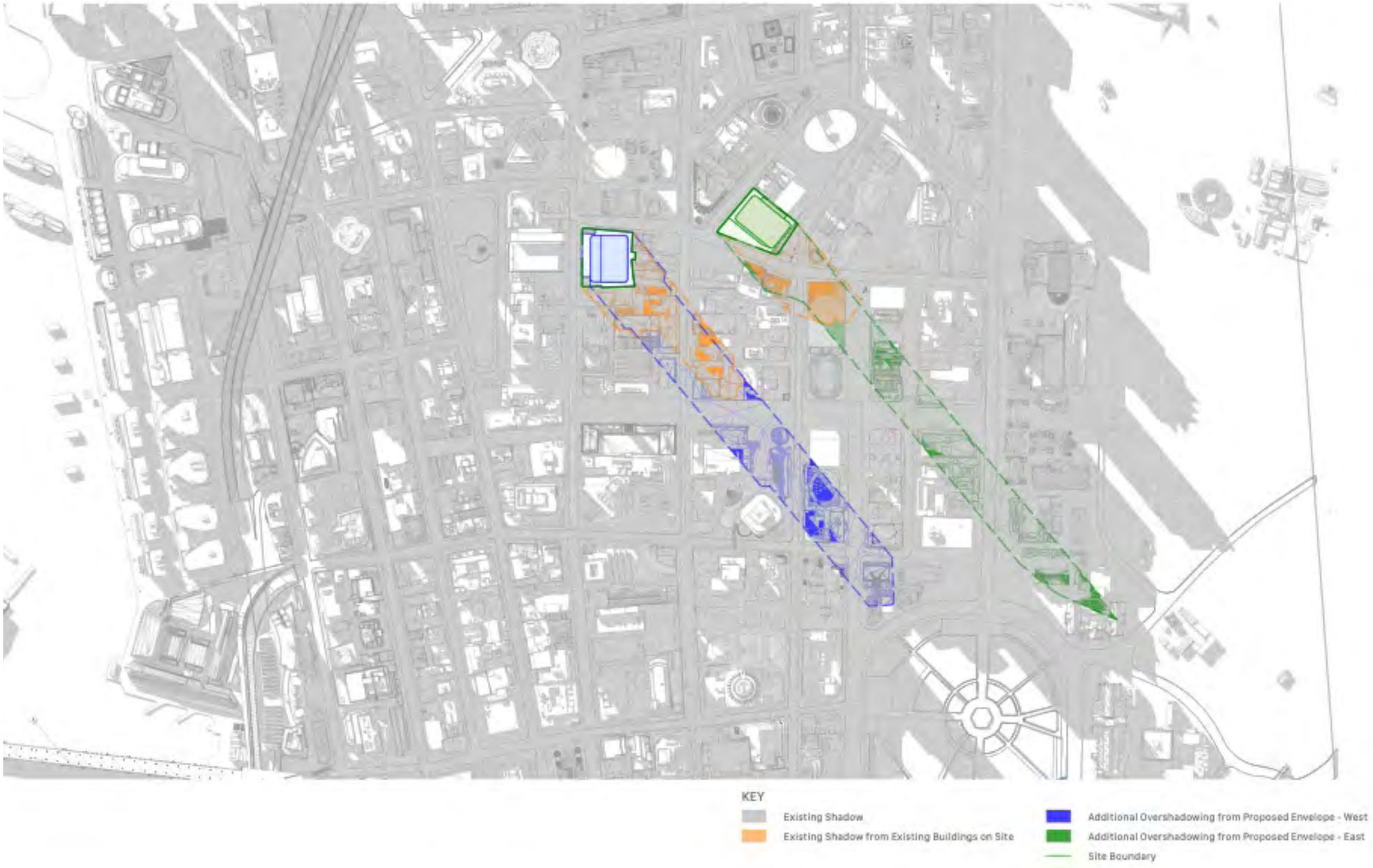


Winter Solstice - 21 June

2:15pm

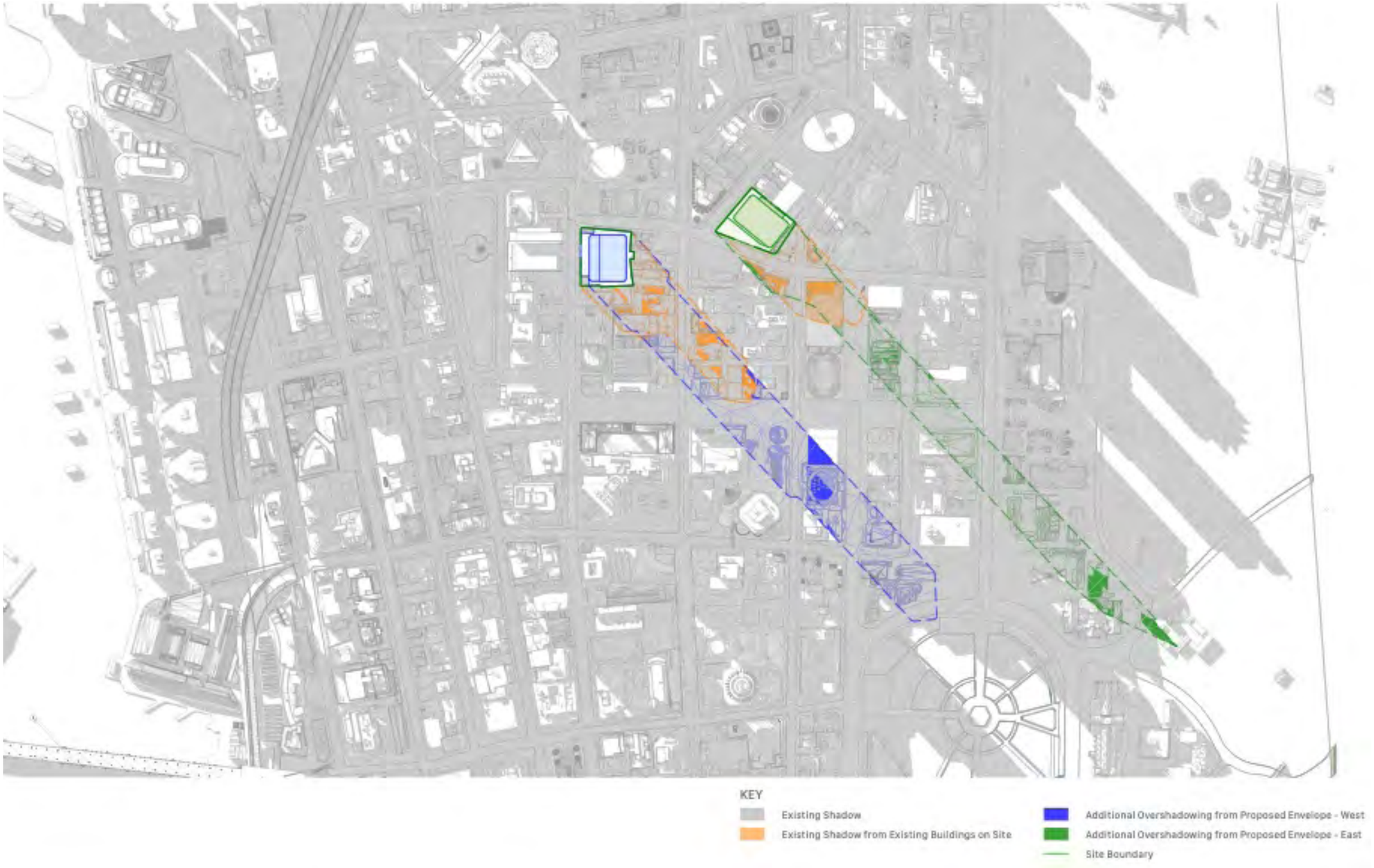
Winter Solstice - 21 June

2:30pm



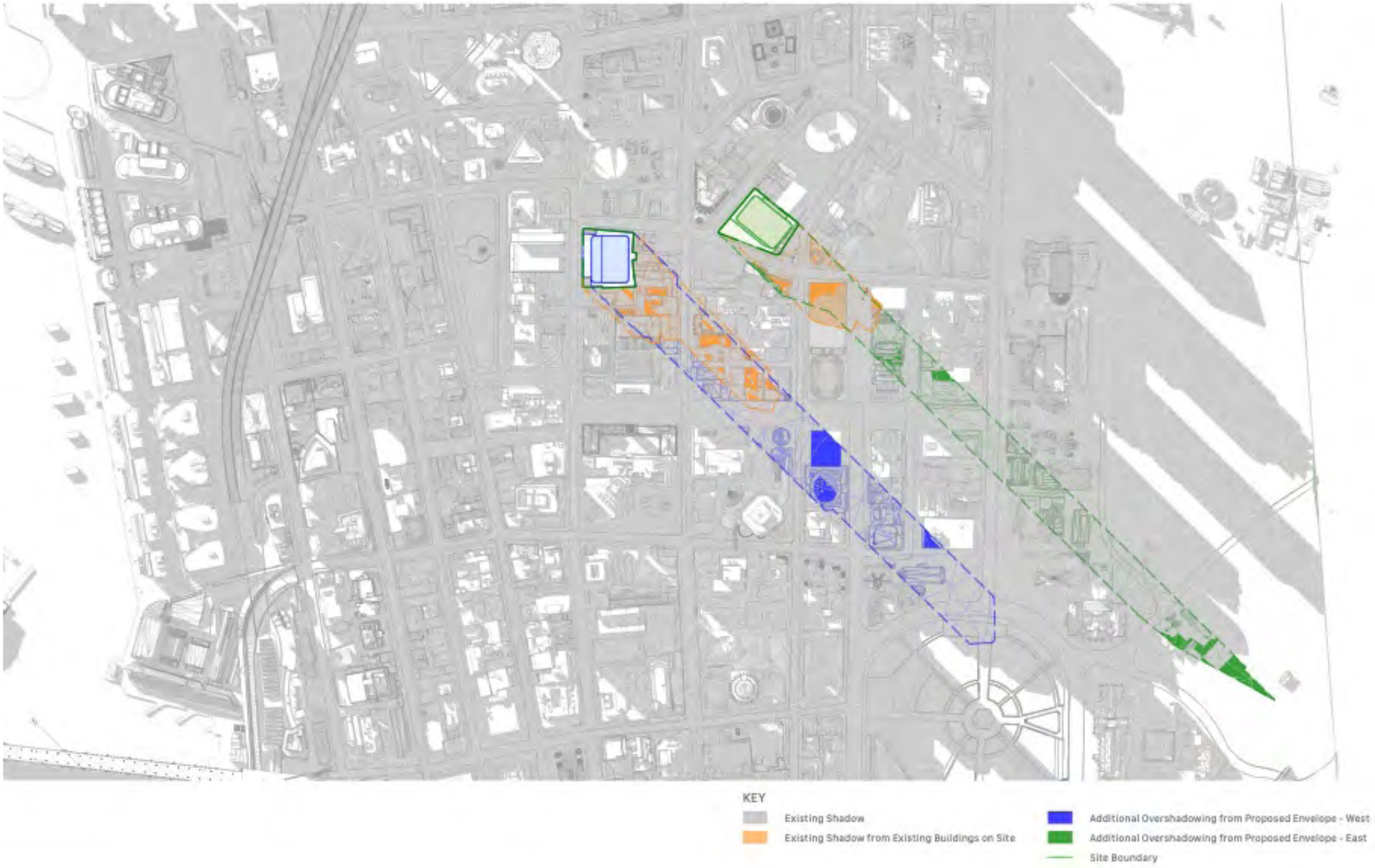
Winter Solstice - 21 June

2:45pm



Winter Solstice - 21 June

3pm



Summer Solstice -21 December

9am

Summer Solstice -21 December

12pm

Summer Solstice -21 December

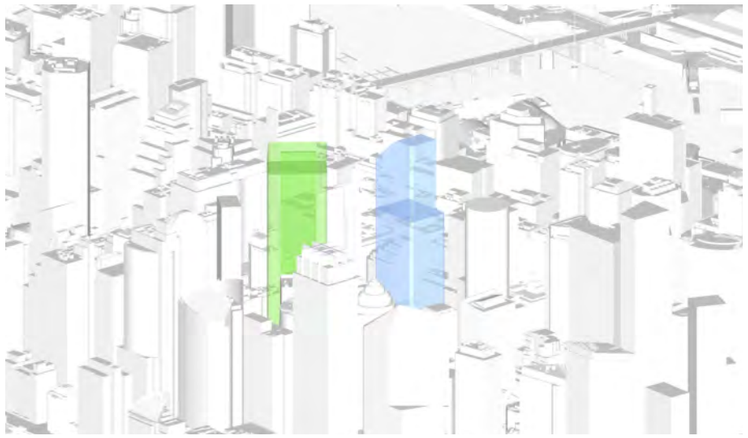
3pm

Sun Eye View Diagrams

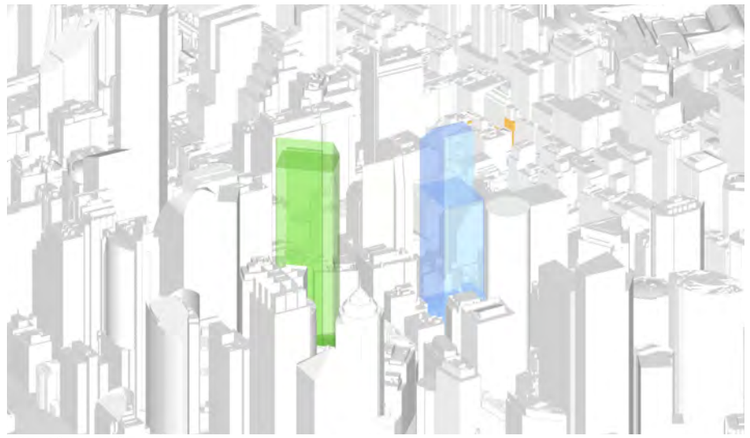
Winter Solstice - 21 June

Between 9am and 3pm

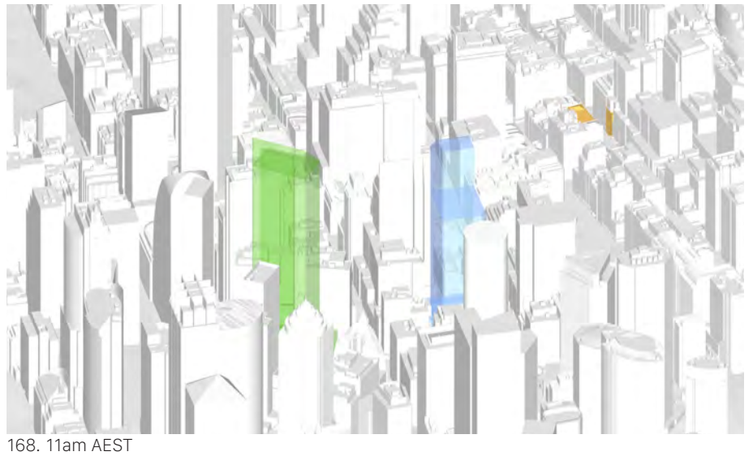
1 hour Intervals



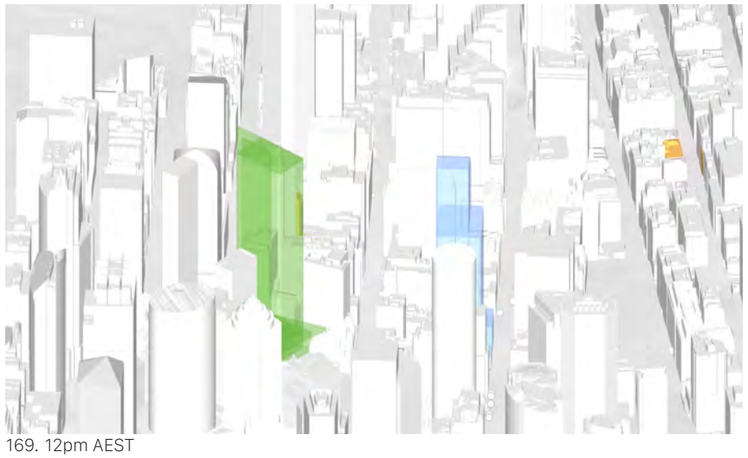
166. 9am AEST



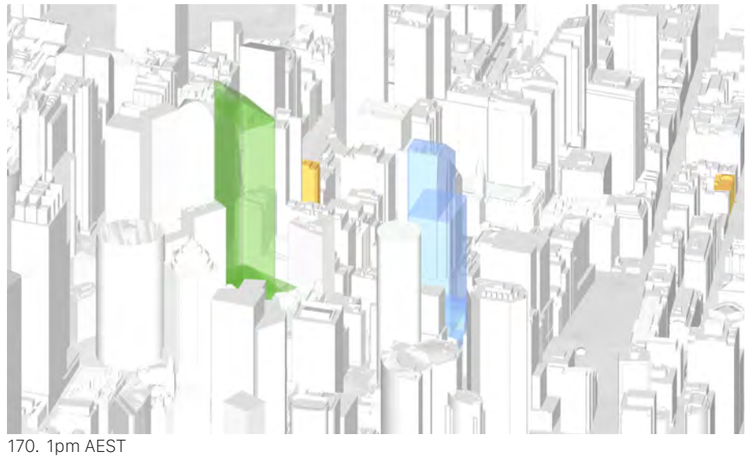
167. 10am AEST



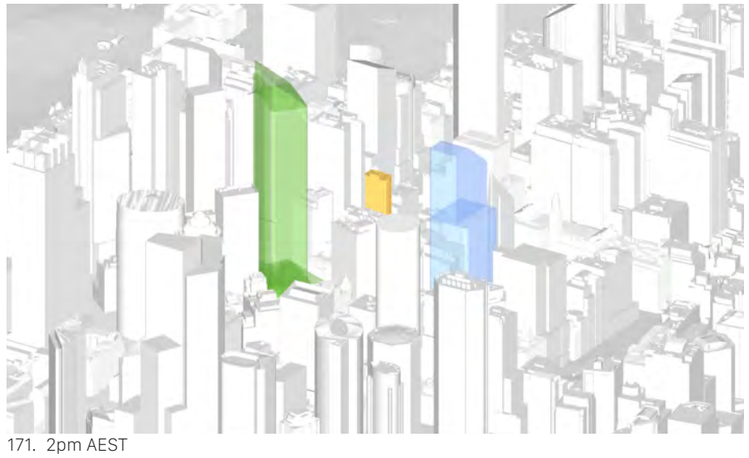
168. 11am AEST



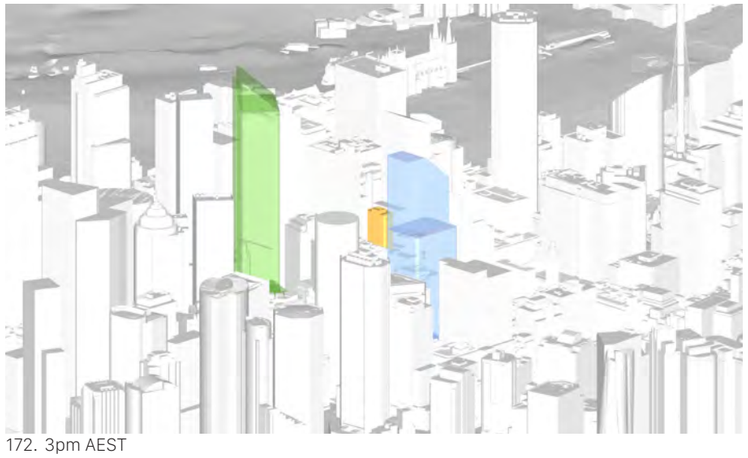
169. 12pm AEST



170. 1pm AEST



171. 2pm AEST



172. 3pm AEST

KEY

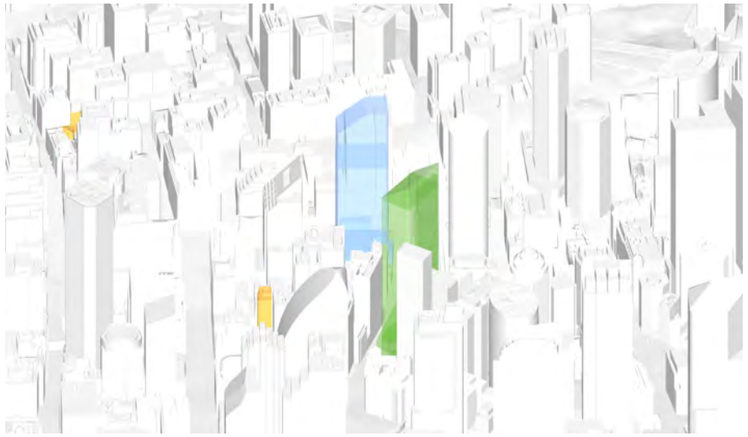
Proposed Hunter Street East Envelope

Proposed Hunter Street West Envelope

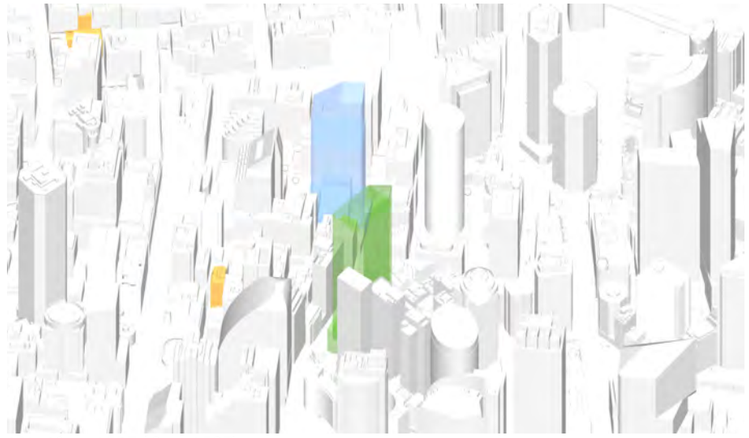
Summer Solstice -21 December

Between 9am and 3pm

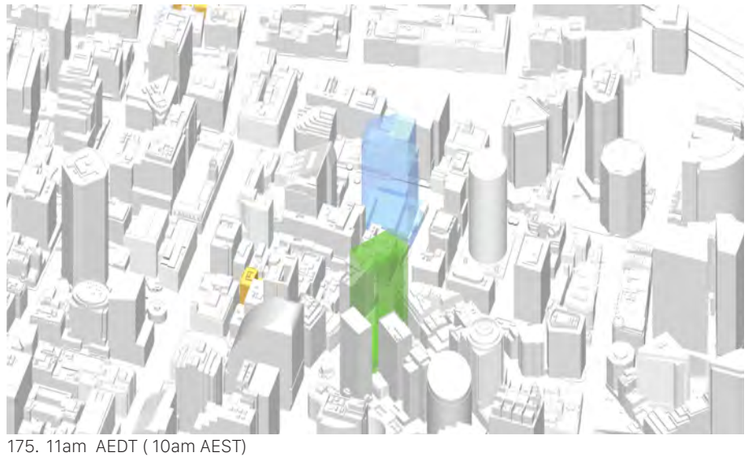
1 hour Intervals



173. 9am AEDT (8am AEST)



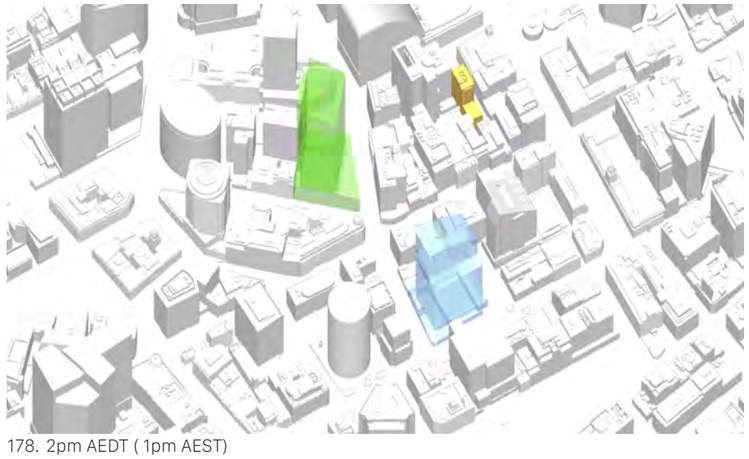
174. 10am AEDT (9am AEST)



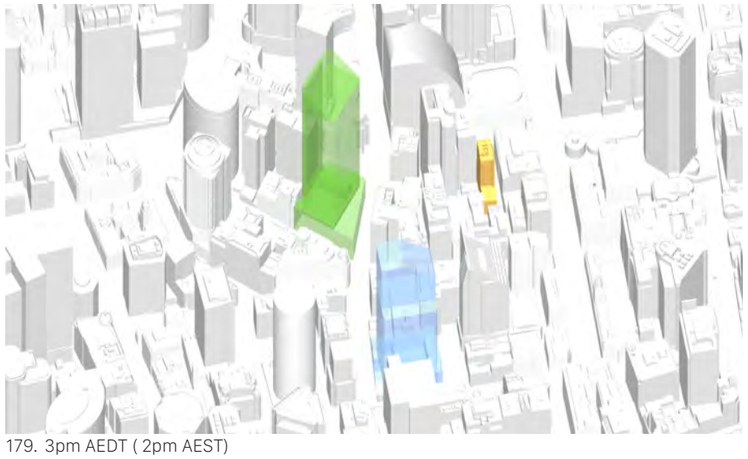
175. 11am AEDT (10am AEST)

176. 12pm AEDT (11am AEST)

177. 1pm AEDT (12pm AEST)



178. 2pm AEDT (1pm AEST)



179. 3pm AEDT (2pm AEST)

KEY

Proposed Hunter Street East Envelope

Proposed Hunter Street West Envelope

Sky View Analysis

Sky View Factor means the extent of sky observed above a point as a proportion of the total possible sky hemisphere above the point.

Hunter Street East

The following analysis compares the impact on natural light levels in the public domain surrounding the site as a result of the proposed envelope against a base case massing as per Sydney DCP Schedule 12.

It follows the natural daylight analysis procedure set out in Procedure B, Schedule 12 of the Sydney DCP 2012.

<u>Methodology</u>

This study identifies the potential impact of proposed envelope by determining the approximate average annual daylight level, sampled on the surrounding public spaces to a nominated distance from the development site.

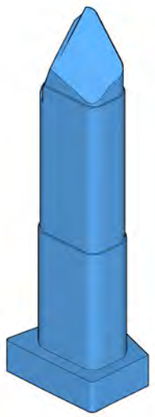
A 1m sampling grid is proposed up to an extent of 75m from the eastern development site, and up to an extent of 100m from the western development site.

Measures of daylight levels are established for a base case (schedule 12 base case as per Sydney DCP). These are expressed as a percentage and represent the average ratio of visible sky across the area.

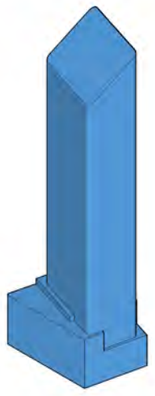
Measures of daylight levels are established for a envelope. These are expressed as a percentage and represent the average ratio of visible sky across the area.

The difference between daylight levels are established for the base case versus the envelope. The difference is also expressed as a percentage.

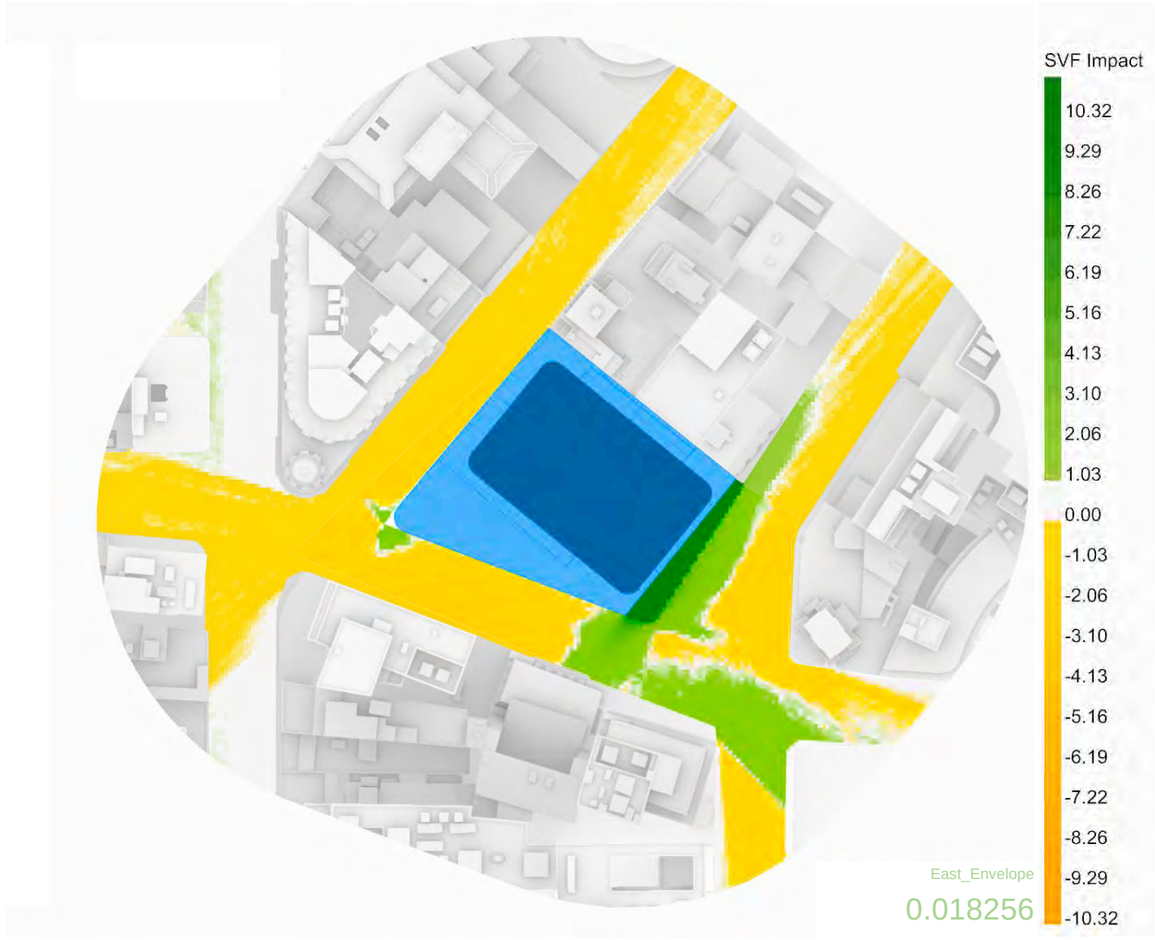
The intent of the study is for the proposed envelope average daylight percentage (Sky View Factor) compared to the base case Sky view Factor, to be a positive number.



180. Base Case Massing - 11.866542 (Schedule 12, Sydney DCP)

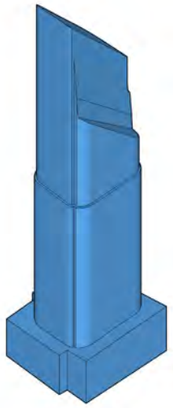


181. Proposed Envelope - 11.884798 (Varied setbacks)



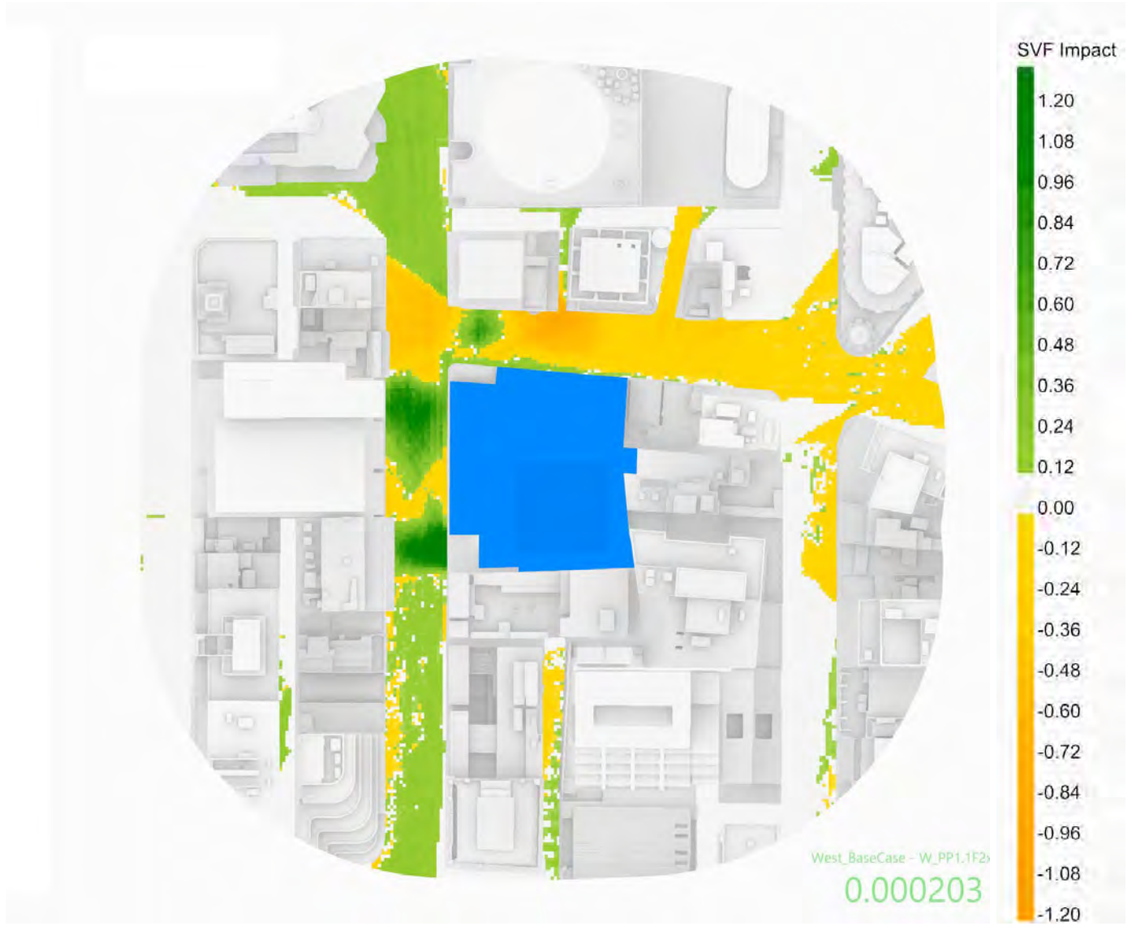
182. Sky View Factor Analysis Plan

Skyview analysis has been completed for the Schedule 12 Base Case Massing and proposed envelope. There is an increase of 0.018256 of Visible Sky.



183. Base Case Massing - 15.517138 (Schedule 12, Sydney DCP)

185. Proposed Envelope - 15.517341 (Varied setbacks)



184. Sky View Factor Analysis Plan

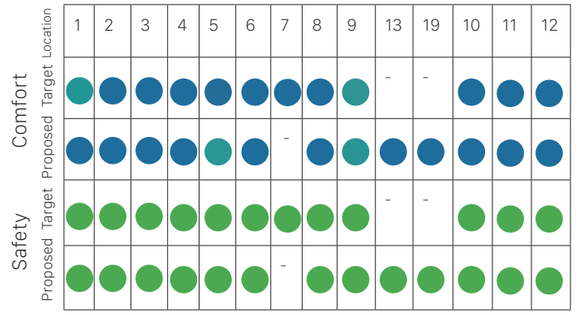
Skyview analysis has been completed for the Schedule 12 Base Case Massing and proposed envelope. There is an increase of 0.000203 of Visible Sky.

Wind Analysis

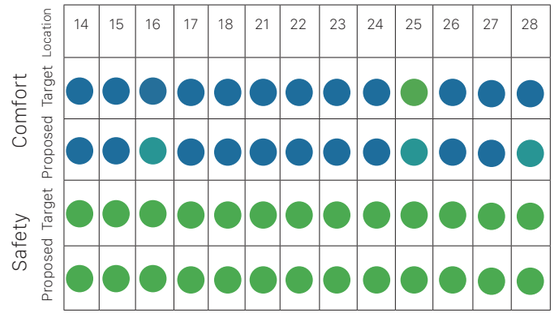
The pedestrian wind impact assessment investigates the potential wind impact on and from the proposed development. The wind conditions for comfort and safety around the two sites have also been assessed under the existing, base case scenario and proposed development. To determine the site-specific wind speeds for the proposed development, wind tunnel experiments were undertaken.

To ensure compliance, the wind speeds around the proposed developments were assessed against the SDCP wind criteria. A comparison of the base case to the proposed development was undertaken which showed that on average, the proposed development performed better than the base case. The results of the assessment also indicate that wind speeds are compliant with the intended usage of each area around the proposed development.

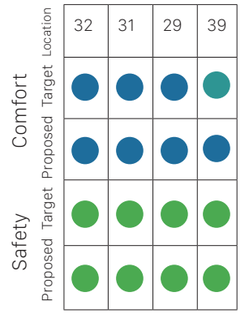
George Street



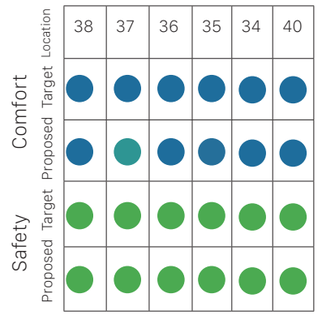
Hunter Street



O'Connell and Pitt Street

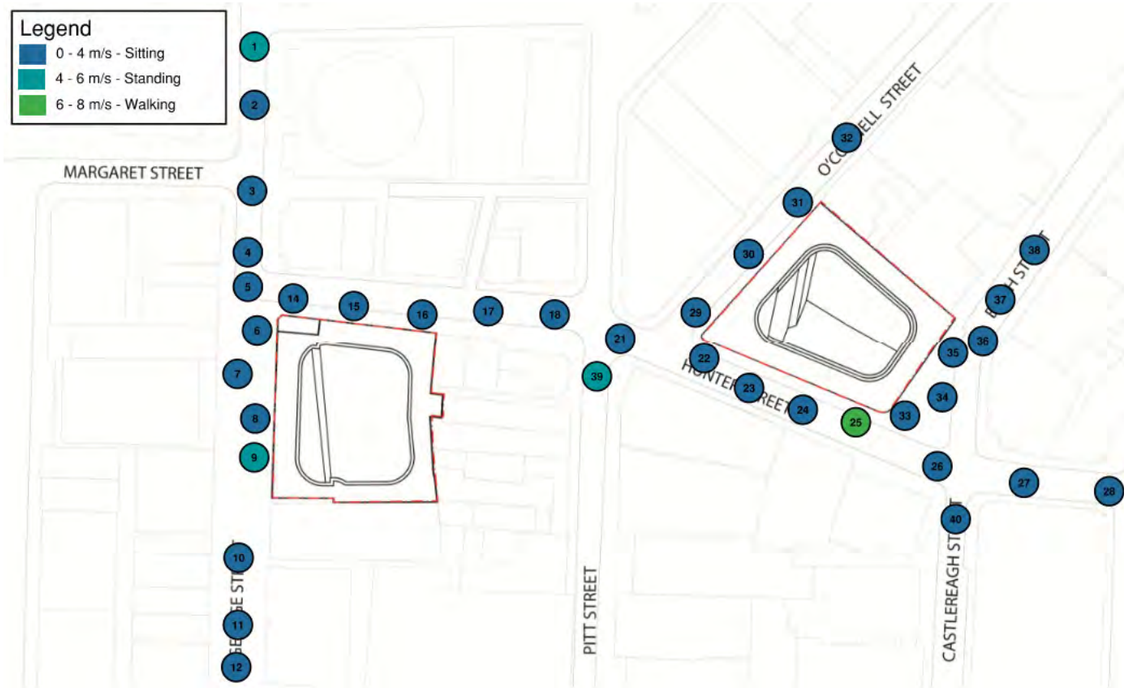


Bligh and Castlereagh Street

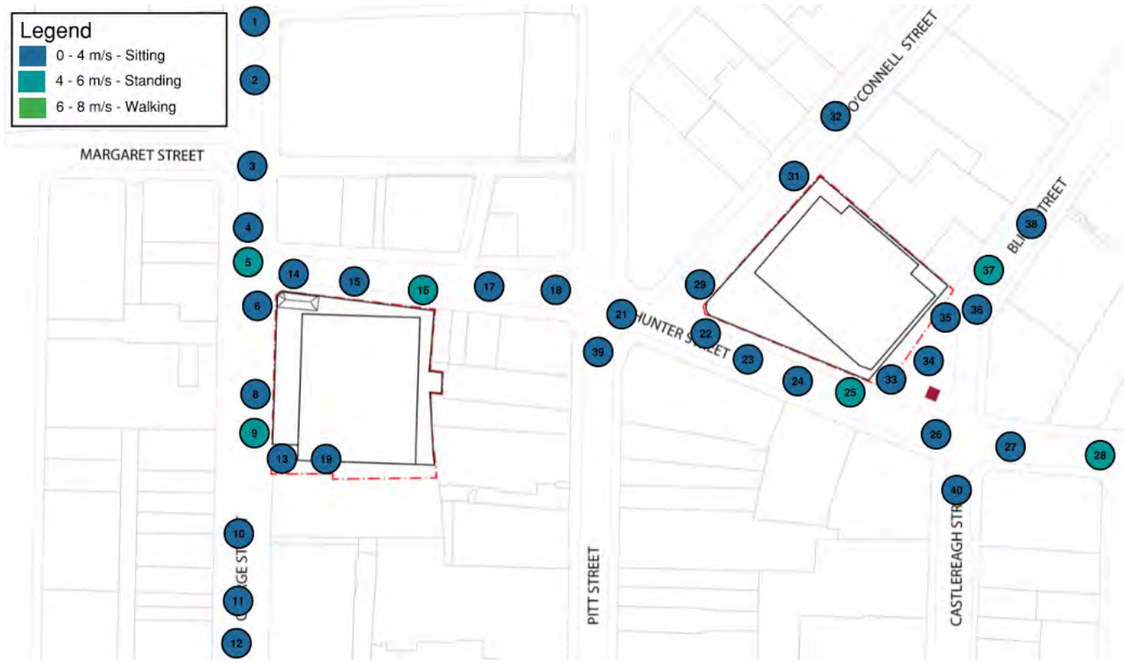


NOTE: Please refer to page 56 for the Key.

Pedestrian Comfort

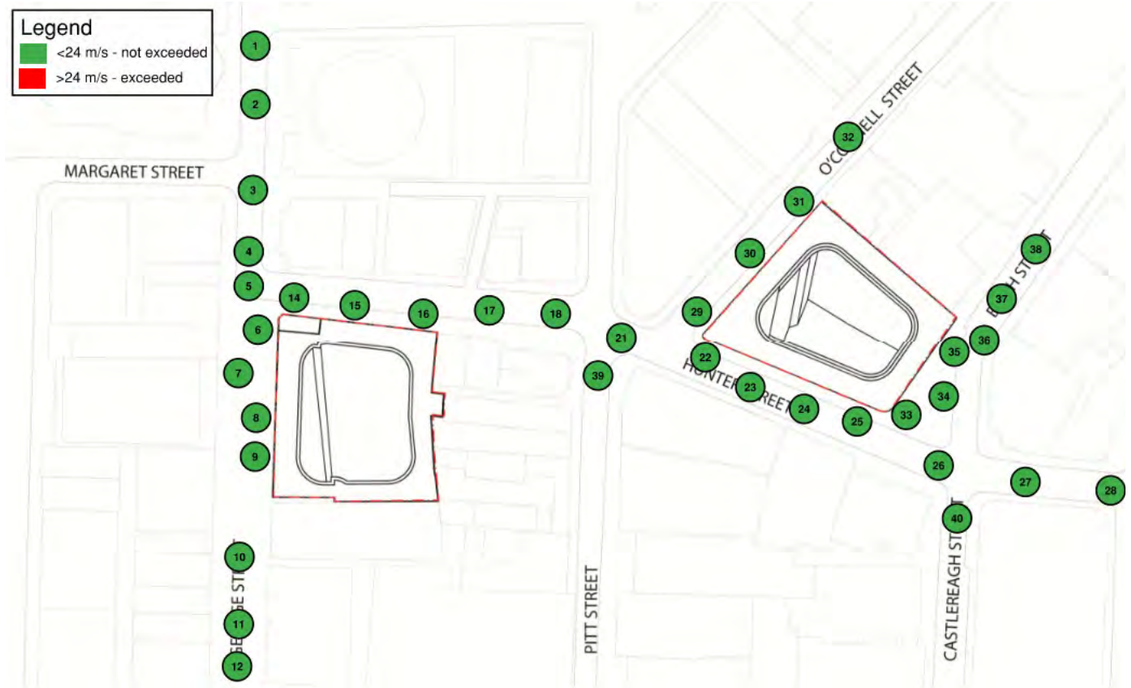


186. Irwin Sensor Comfort Results for Basecase Scenario *(Source: Sydney Metro Wes Pedestrian Wind Assessment)*



188. Irwin Sensor Comfort Results for Proposed Development *(Source: Sydney Metro Wes Pedestrian Wind Assessment)*

Pedestrian Safety



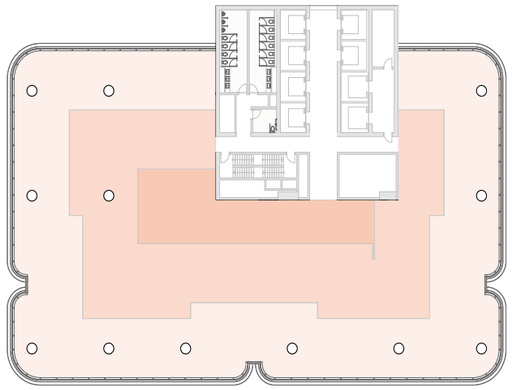
187. Irwin Sensor Safety Results for Basecase Scenario *(Source: Sydney Metro Wes Pedestrian Wind Assessment)*

189. Irwin Sensor Safety Results for Proposed Development *(Source: Sydney Metro Wes Pedestrian Wind Assessment)*

Floor Plate Analysis

Hunter Street East

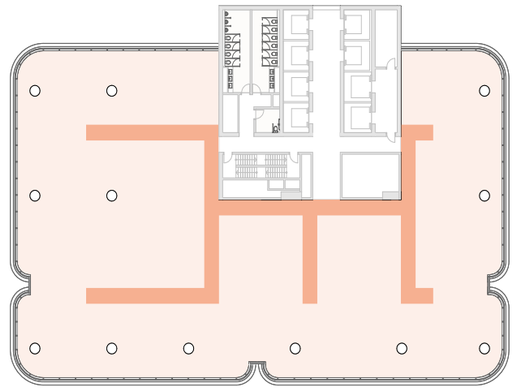
Sky-rise
GBA : 1850m2
GFA :1659m2



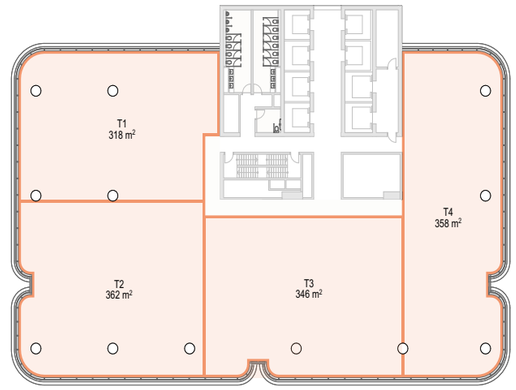
56.1% of NLA (0-6m from perimeter)

34.0% of NLA (0-6m from perimeter)

9.9% of NLA (0-6m from perimeter)

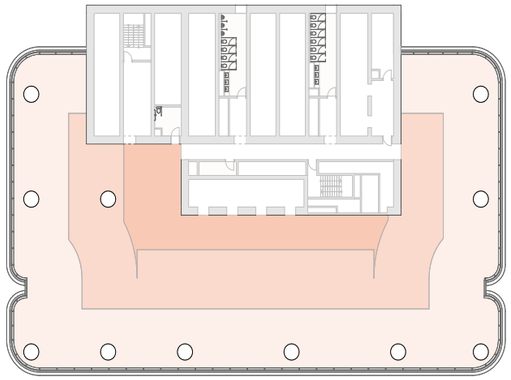


Tenant Efficiency: 89.5% of NLA (within 7.5m)



Circulation Area: 3.1% of NLA

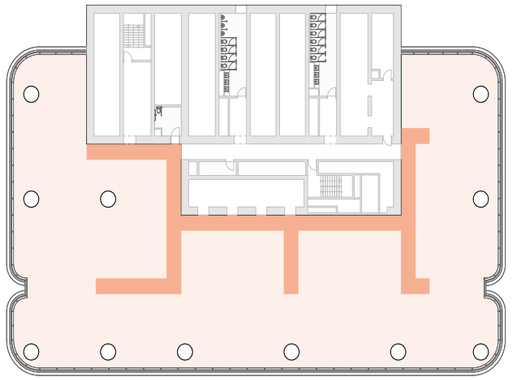
Low-rise
GBA : 1824m2
GFA : 1369m2



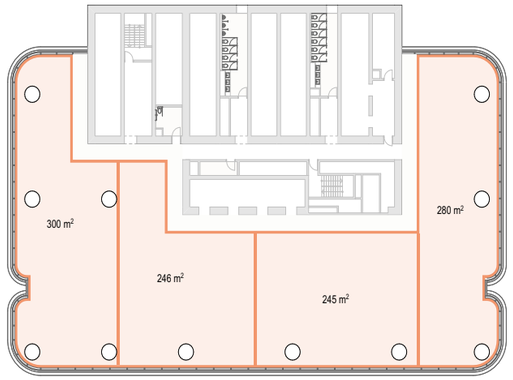
56.6% of NLA (0-6m from perimeter)

31.2% of NLA (0-6m from perimeter)

12.2% of NLA (0-6m from perimeter)



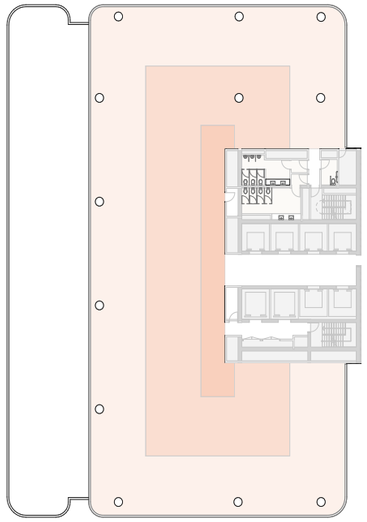
Tenant Efficiency: 89.1% of NLA (within 7.5m)



Circulation Area: 9.5% of NLA

Hunter Street West

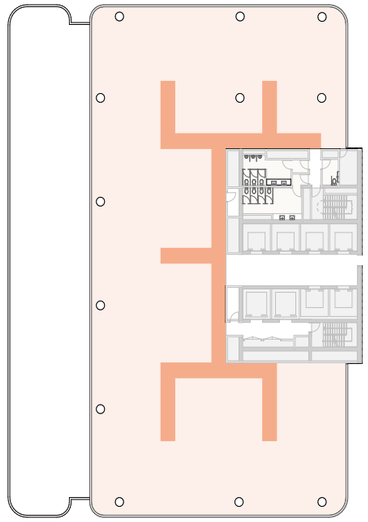
Sky-rise
GBA : 1492m2
GFA : 1277m2



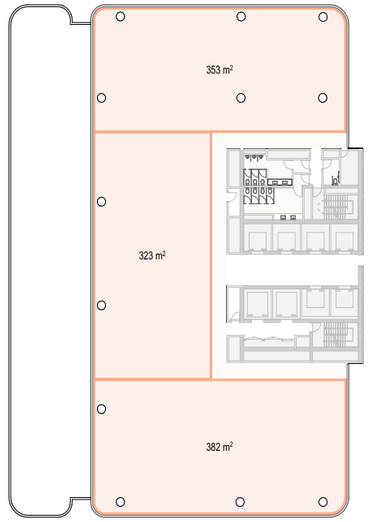
59.1% of NLA (0-6m from perimeter)

34.1% of NLA (0-6m from perimeter)

6.8% of NLA (0-6m from perimeter)

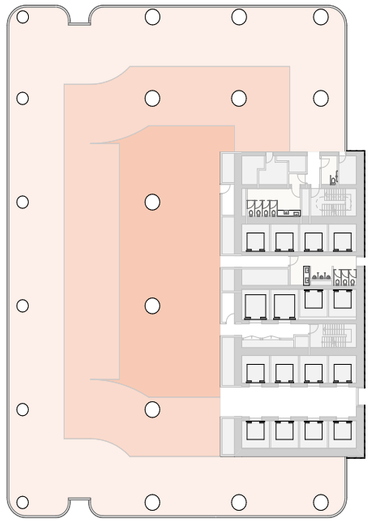


Tenant Efficiency: 88.7% of NLA (within 7.5m)



Circulation Area: 7.1% of NLA

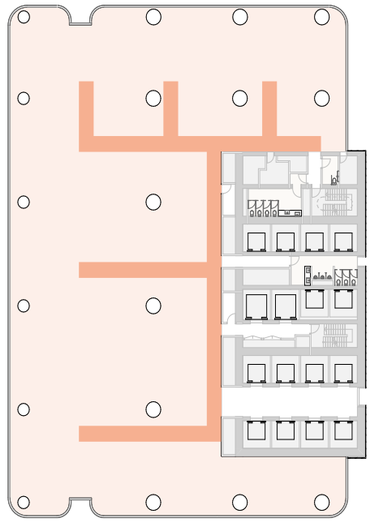
Low-rise
GBA : 1970m2
GFA : 1562m2



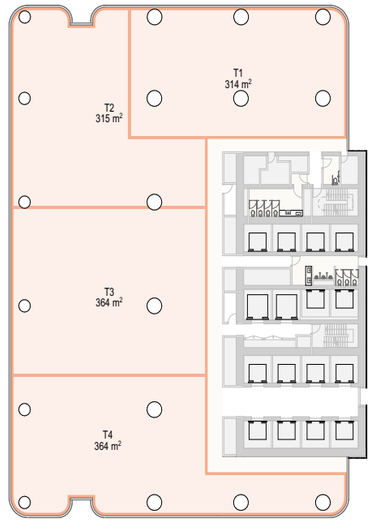
50.7% of NLA (0-6m from perimeter)

28.5% of NLA (0-6m from perimeter)

20.8% of NLA (0-6m from perimeter)



Tenant Efficiency: 89% of NLA (within 7.5m)



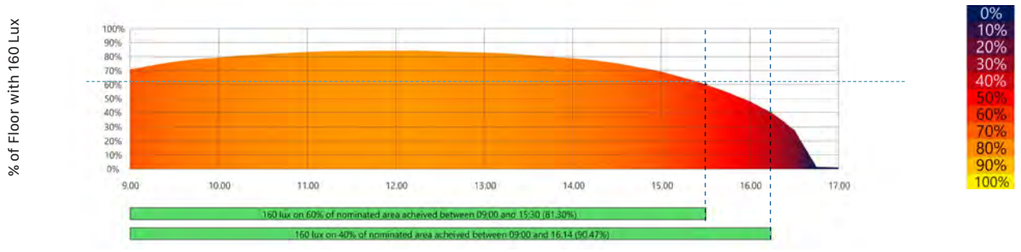
Circulation Area: 6.4% of NLA

Work Quality Assessment

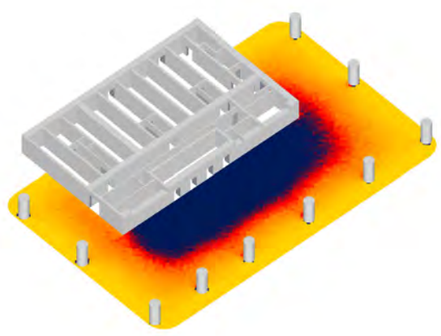
Hunter Street East

Method of measure:
Daylight autonomy: High Levels of daylight are deemed to have at least 160 lux due to daylight during 80% of the nominated hours.
Analysed between the hours of 9:00 and 17:00 on 21st June (Winter Solstice)

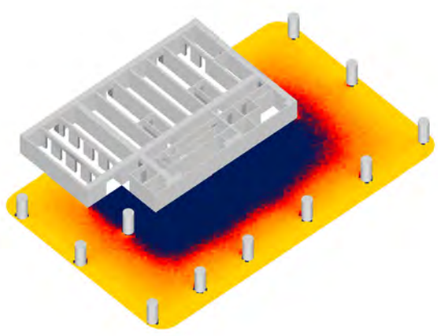
Up to 2 points are available where a percentage of the nominated area receives high levels of daylight:
— For 40% of the nominated area – 1 point;
— For 60% of the nominated area – 2 points.



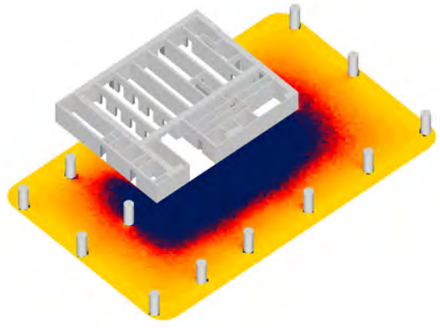
Daylight Hours



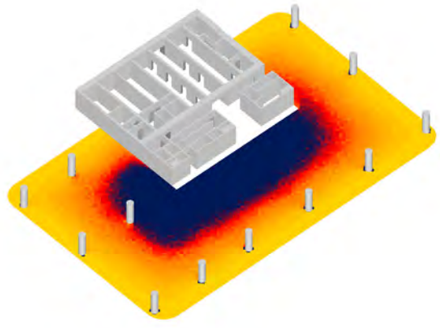
Low Rise



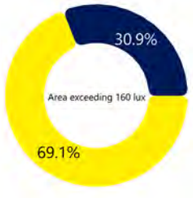
Mid Rise

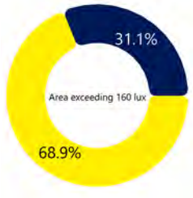


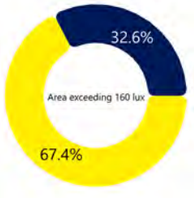
High Rise

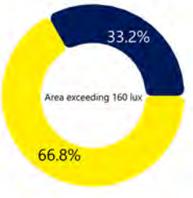


Sky Rise





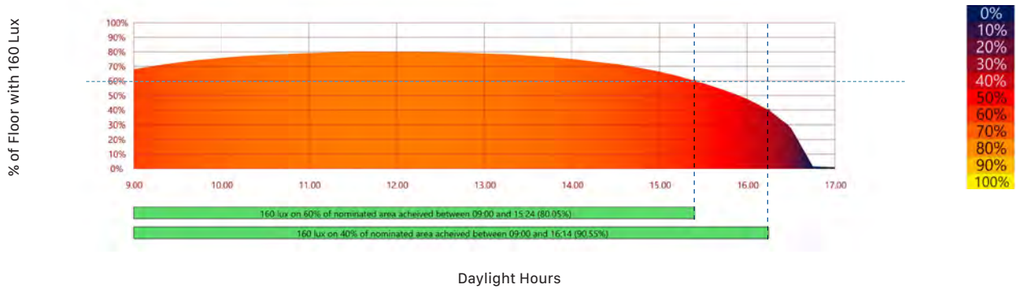


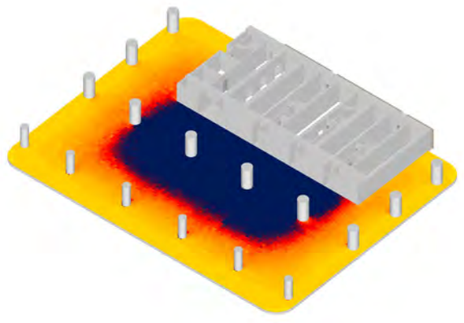


Hunter Street West

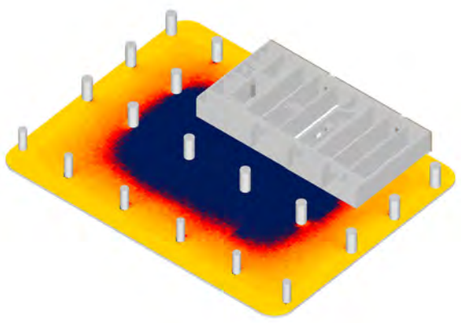
Method of measure:
Daylight autonomy: High Levels of daylight are deemed to have at least 160 lux due to daylight during 80% of the nominated hours.
Analysed between the hours of 9:00 and 17:00 on 21st June (Winter Solstice)

Up to 2 points are available where a percentage of the nominated area receives high levels of daylight:
— For 40% of the nominated area – 1 point;
— For 60% of the nominated area – 2 points.

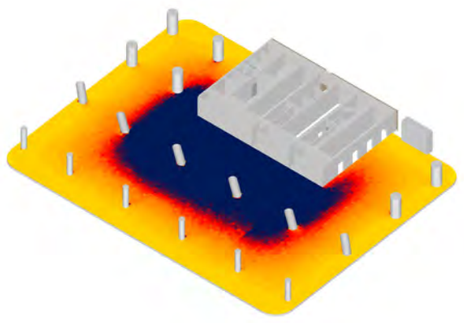




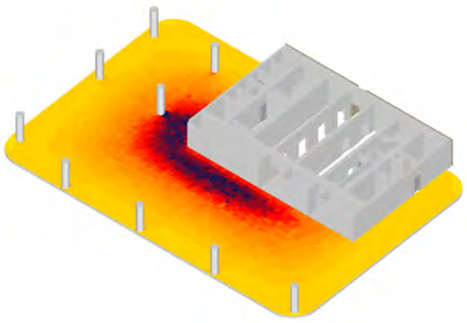
Low Rise



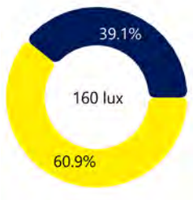
Mid Rise

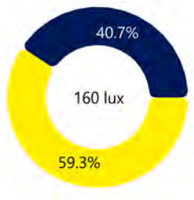


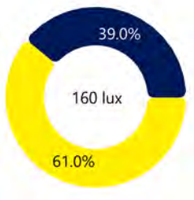
High Rise

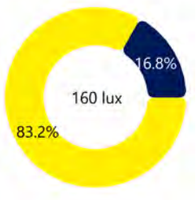


Sky Rise



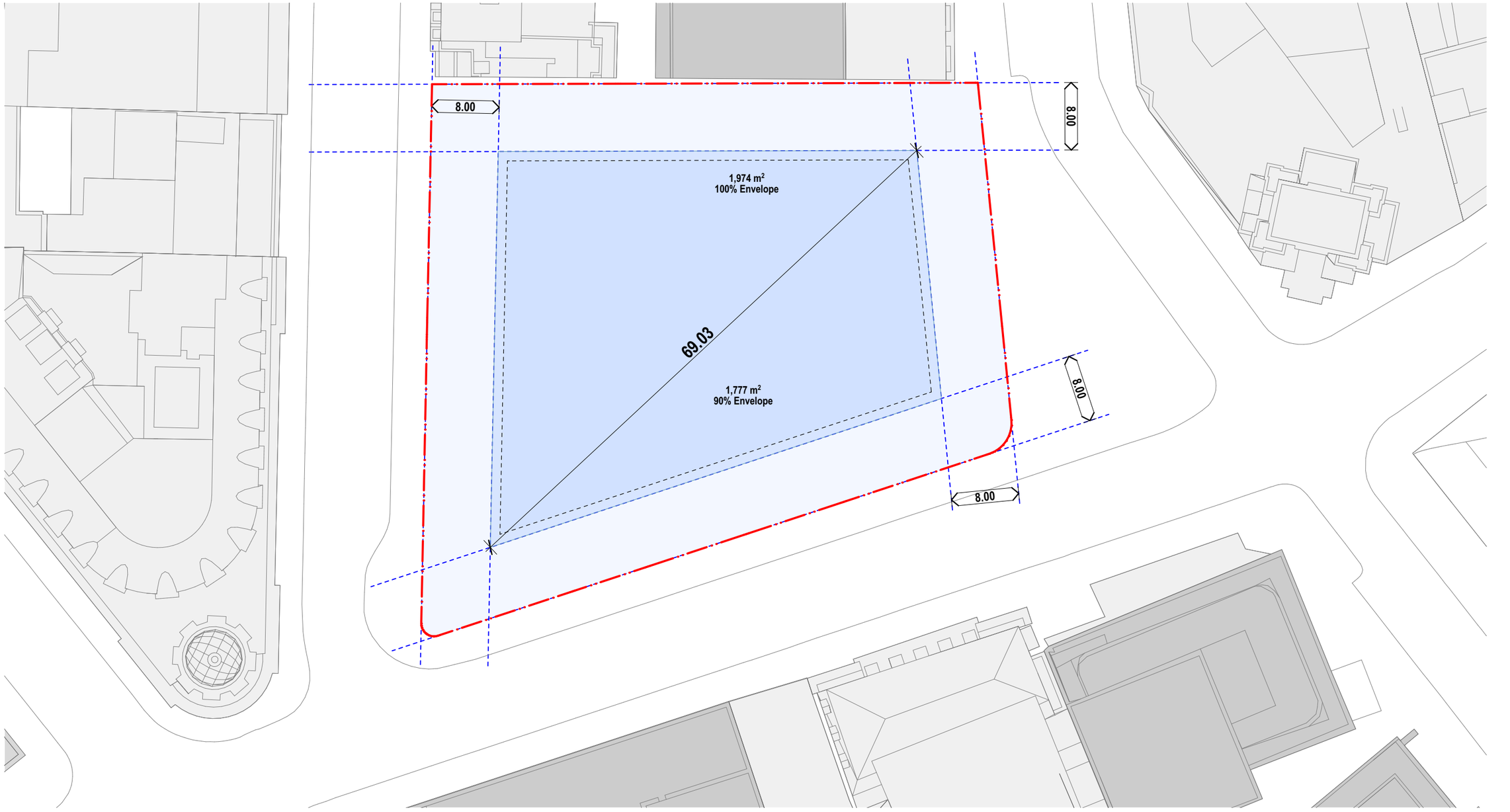






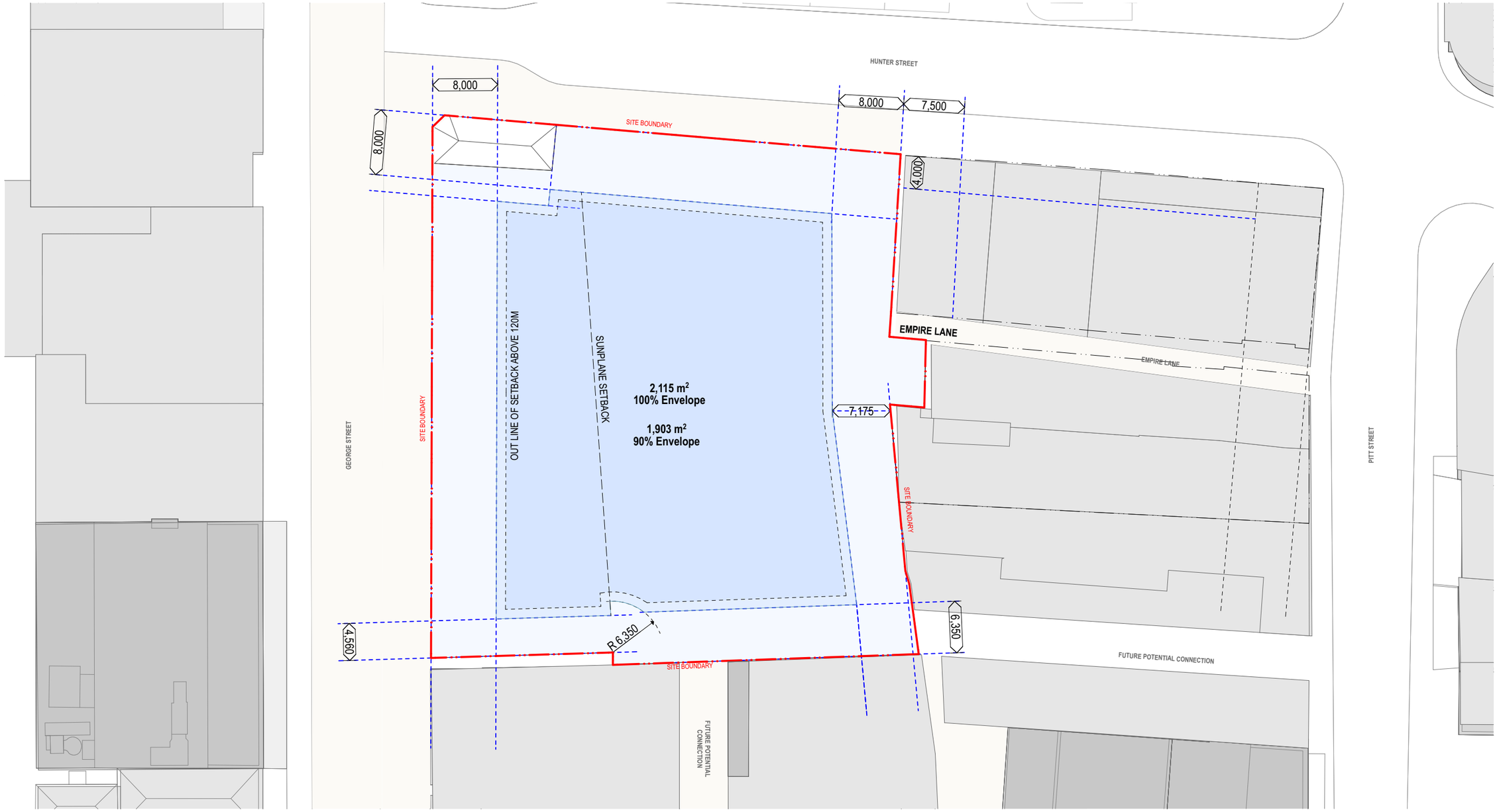
Default DCP Setbacks

Hunter Street East



190. Default DCP Setbacks Diagram

Hunter Street West

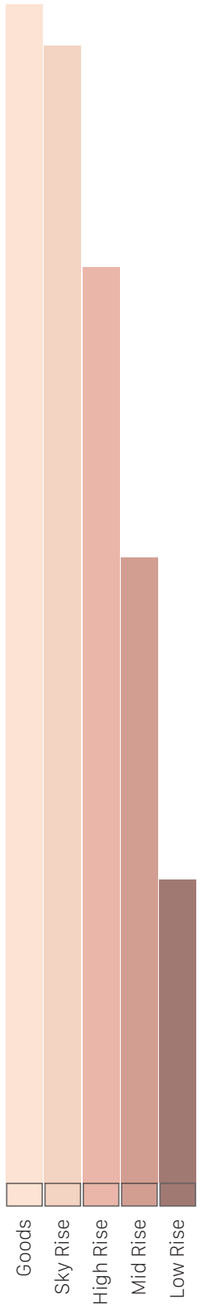


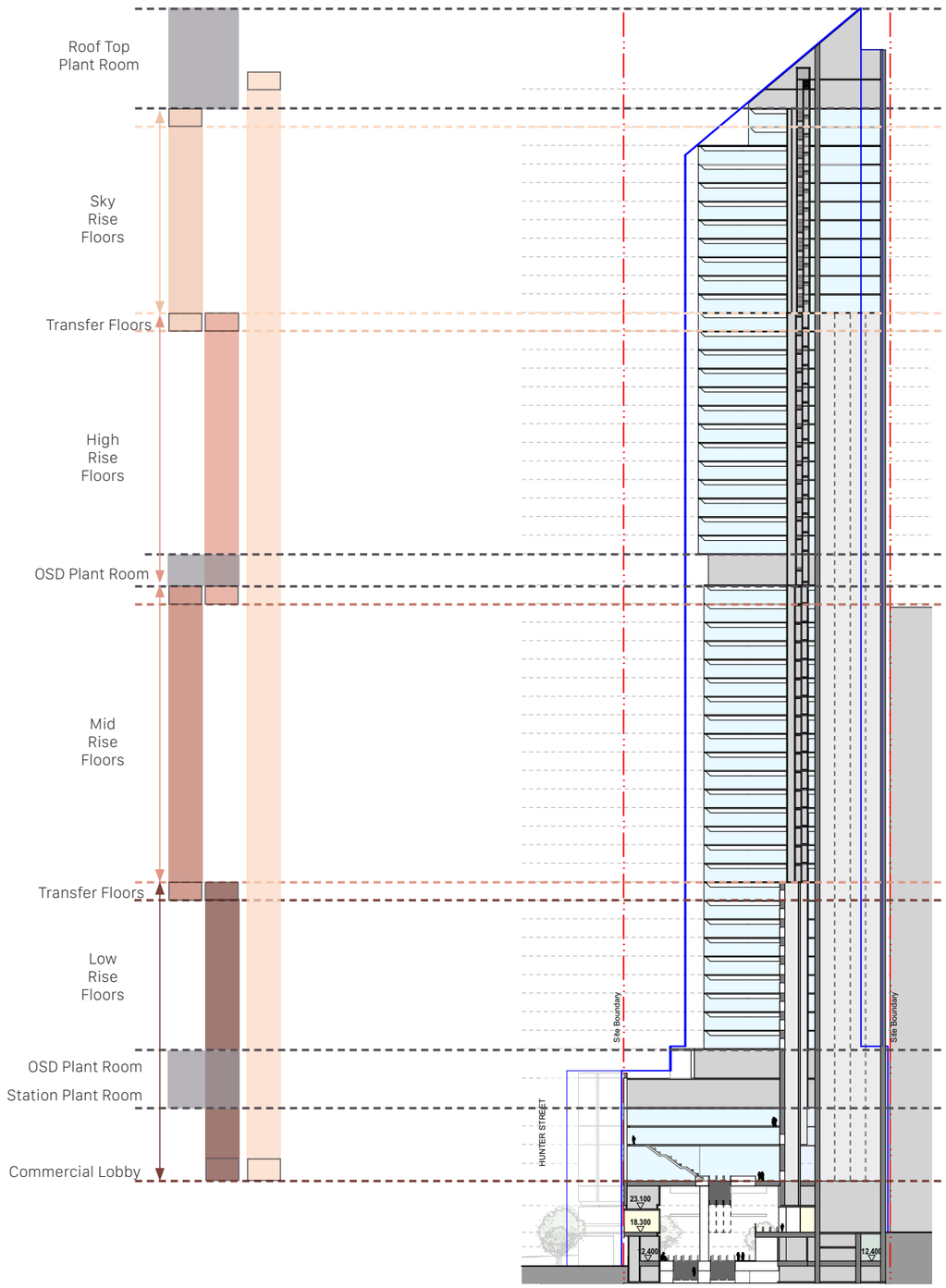
191. Default DCP Setbacks Diagram

Vertical Transportation

Hunter Street East

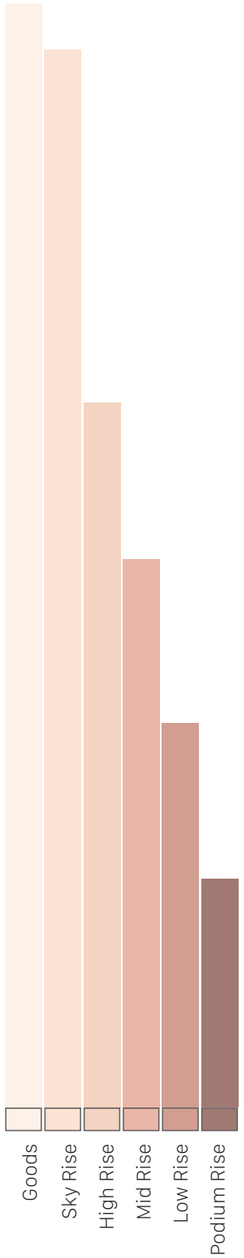
— 24x Commercial Lifts
  Low Rise : 4 Lifts Serving Level 2 to 3, 6 to 14
  Mid Rise : 7 Lifts Serving Level 15 to 30
  High Rise : 8 Lift Serving Level 32 to 44
  Sky Rise : 5 Lifts Serving 45 to 55
— 2x OSD Good Lifts
  Goods : 2 Goods Lift Serving Ground Level to Level 57
— 2x DDA lobby Lifts
— 2x End of Trip Lifts
— 3x OSD lift lobby escalators
— 1x Metro Goods lift

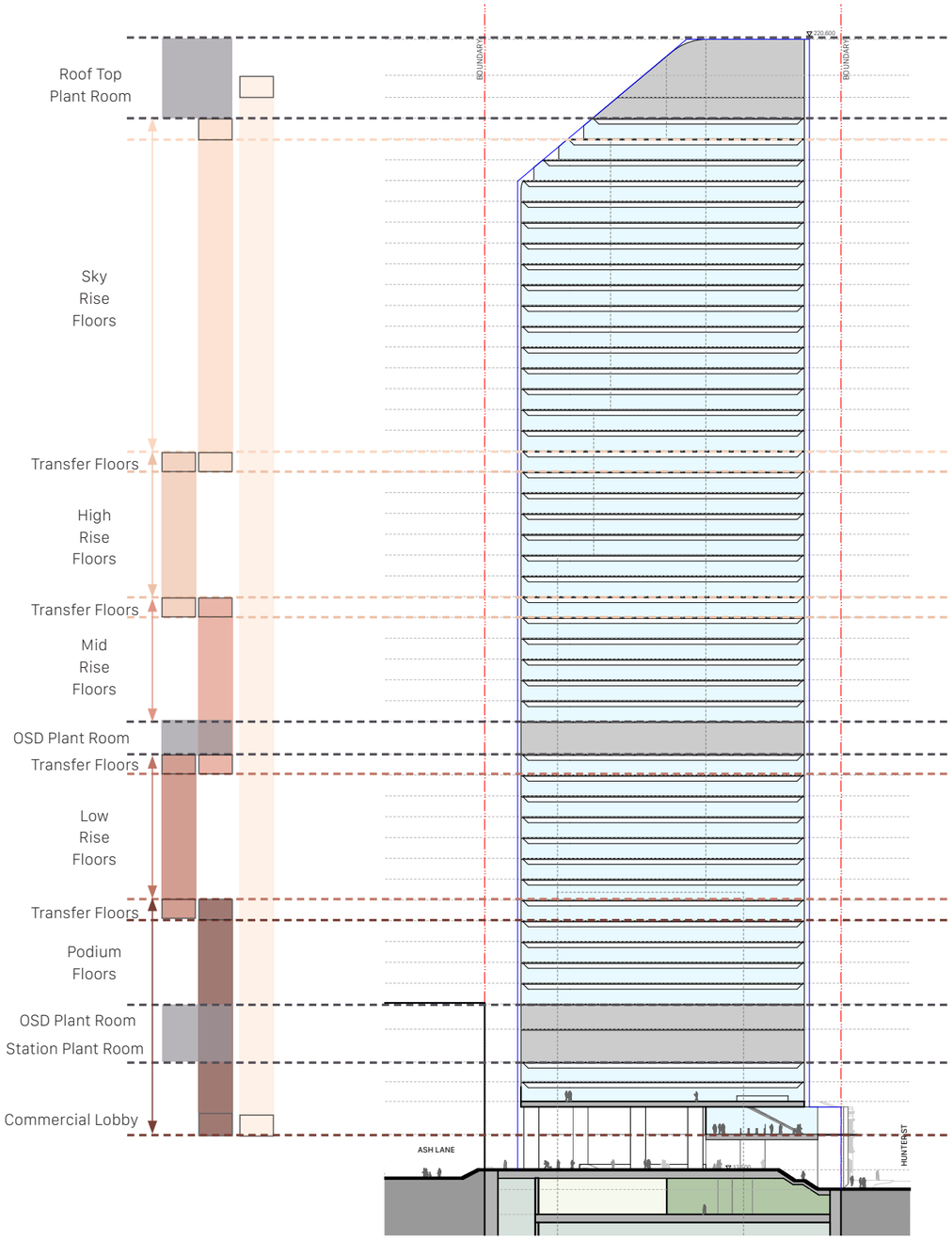




Hunter Street West

— 21x Commercial Lifts
  Podium Rise : 3 Lifts Serving Level 2 to 3, 6 to 10
  Low Rise : 4 Lifts Serving Level 11 to 17
  Mid Rise : 4 Lifts Serving Level 19 to 26
  High Rise : 4 Lift Serving Level 27 to 34
  Sky Rise : 6 Lifts Serving 35 to 48
— 2x OSD Good Lifts
  Goods : 2 Goods Lift Serving Ground Level to Level 50
— 2x DDA lobby Lifts
— 2x End of Trip Lifts
— 3x OSD lift lobby escalators





Area Schedules

Hunter Street East

Articulation

Envelope to GBA (Articulation)	15%

Efficiency Based GBA

	RL	Floors	Height	Envelope Outline	GBA
Top RL	269.10		257.70		
level 56 Mez	252.50	16.60	241.10	1000	850
level 56	248.50	4.00	237.10	1469	1249
level 55	244.70	3.80	233.30	1719	1461
level 54	240.90	3.80	229.50	2126	1807
level 53	237.10	3.80	225.70	2126	1807
level 52	233.30	3.80	221.90	2126	1807
level 51	229.50	3.80	218.10	2126	1807
level 50	225.70	3.80	214.30	2126	1807
level 49	221.90	3.80	210.50	2126	1807
level 48	218.10	3.80	206.70	2126	1807
level 47	214.30	3.80	202.90	2126	1807
level 46	210.50	3.80	199.10	2126	1807
level 45	206.70	3.80	195.30	2126	1807
level 44	202.90	3.80	191.50	2126	1807
level 43	199.10	3.80	187.70	2126	1807
level 42	195.30	3.80	183.90	2126	1807
level 41	191.50	3.80	180.10	2126	1807
level 40	187.70	3.80	176.30	2126	1807
level 39	183.90	3.80	172.50	2126	1807
level 38	180.10	3.80	168.70	2126	1807
level 37	176.30	3.80	164.90	2126	1807
level 36	172.50	3.80	161.10	2126	1807
level 35	168.70	3.80	157.30	2126	1807
level 34	164.90	3.80	153.50	2126	1807
level 33	161.10	3.80	149.70	2126	1807
level 32	157.30	3.80	145.90	2126	1807
level 31	150.90	6.40	139.50	2126	1807
level 30	147.10	3.80	135.70	2126	1807
level 29	143.30	3.80	131.90	2126	1807
level 28	139.50	3.80	128.10	2126	1807
level 27	135.70	3.80	124.30	2126	1807
level 26	131.90	3.80	120.50	2126	1807
level 25	128.10	3.80	116.70	2126	1807
level 24	124.30	3.80	112.90	2126	1807
level 23	120.50	3.80	109.10	2126	1807
level 22	116.70	3.80	105.30	2126	1807
level 21	112.90	3.80	101.50	2126	1807
level 20	109.10	3.80	97.70	2126	1807
level 19	105.30	3.80	93.90	2126	1807
level 18	101.50	3.80	90.10	2126	1807
level 17	97.70	3.80	86.30	2126	1807
level 16	93.90	3.80	82.50	2126	1807
level 15	90.10	3.80	78.70	2126	1807
level 14	86.30	3.80	74.90	2126	1807
level 13	82.50	3.80	71.10	2126	1807
level 12	78.70	3.80	67.30	2126	1807
level 11	74.90	3.80	63.50	2126	1807
level 10	71.10	3.80	59.70	2126	1807
level 9	67.30	3.80	55.90	2126	1807
level 8	63.50	3.80	52.10	2126	1807
level 7	59.70	3.80	48.30	2126	1807
level 6	55.90	3.80	44.50	2126	1807
Total Tower				**108,362**	**92,108**

Reference Design

	RL	Floors	Height	Envelope Outline	Articulation	GBA	GFA	Efficiency
Top RL	269.10		257.70					
level 56 Mez	252.50	16.60	241.10	1000	35%	650		
level 56	248.50	4.00	237.10	1469	37%	920		
level 55	244.70	3.80	233.30	1719	24%	1310	1074	82%
level 54	240.90	3.80	229.50	2126	38%	1310	1074	82%
level 53	237.10	3.80	225.70	2126	13%	1850	1659	90%
level 52	233.30	3.80	221.90	2126	13%	1850	1659	90%
level 51	229.50	3.80	218.10	2126	13%	1850	1659	90%
level 50	225.70	3.80	214.30	2126	13%	1850	1659	90%
level 49	221.90	3.80	210.50	2126	13%	1850	1659	90%
level 48	218.10	3.80	206.70	2126	13%	1850	1659	90%
level 47	214.30	3.80	202.90	2126	13%	1850	1659	90%
level 46	210.50	3.80	199.10	2126	13%	1850	1659	90%
level 45	206.70	3.80	195.30	2126	13%	1850	1659	90%
level 44	202.90	3.80	191.50	2126	13%	1860	1561	84%
level 43	199.10	3.80	187.70	2126	13%	1860	1561	84%
level 42	195.30	3.80	183.90	2126	13%	1860	1561	84%
level 41	191.50	3.80	180.10	2126	13%	1860	1561	84%
level 40	187.70	3.80	176.30	2126	13%	1860	1561	84%
level 39	183.90	3.80	172.50	2126	13%	1860	1561	84%
level 38	180.10	3.80	168.70	2126	13%	1860	1561	84%
level 37	176.30	3.80	164.90	2126	13%	1860	1561	84%
level 36	172.50	3.80	161.10	2126	13%	1860	1561	84%
level 35	168.70	3.80	157.30	2126	13%	1860	1561	84%
level 34	164.90	3.80	153.50	2126	13%	1860	1561	84%
level 33	161.10	3.80	149.70	2126	13%	1860	1561	84%
level 32	157.30	3.80	145.90	2126	13%	1860	1561	84%
level 31	150.90	6.40	139.50	2126	29%	1500		
level 30	147.10	3.80	135.70	2126	14%	1824	1409	77%
level 29	143.30	3.80	131.90	2126	14%	1824	1409	77%
level 28	139.50	3.80	128.10	2126	14%	1824	1409	77%
level 27	135.70	3.80	124.30	2126	14%	1824	1409	77%
level 26	131.90	3.80	120.50	2126	14%	1824	1409	77%
level 25	128.10	3.80	116.70	2126	14%	1824	1409	77%
level 24	124.30	3.80	112.90	2126	14%	1824	1409	77%
level 23	120.50	3.80	109.10	2126	14%	1824	1409	77%
level 22	116.70	3.80	105.30	2126	14%	1824	1409	77%
level 21	112.90	3.80	101.50	2126	14%	1824	1409	77%
level 20	109.10	3.80	97.70	2126	14%	1824	1409	77%
level 19	105.30	3.80	93.90	2126	14%	1824	1409	77%
level 18	101.50	3.80	90.10	2126	14%	1824	1409	77%
level 17	97.70	3.80	86.30	2126	14%	1824	1409	77%
level 16	93.90	3.80	82.50	2126	14%	1824	1409	77%
level 15	90.10	3.80	78.70	2126	14%	1824	1409	77%
level 14	86.30	3.80	74.90	2126	14%	1824	1369	75%
level 13	82.50	3.80	71.10	2126	14%	1824	1369	75%
level 12	78.70	3.80	67.30	2126	14%	1824	1369	75%
level 11	74.90	3.80	63.50	2126	14%	1824	1369	75%
level 10	71.10	3.80	59.70	2126	14%	1824	1369	75%
level 9	67.30	3.80	55.90	2126	14%	1824	1369	75%
level 8	63.50	3.80	52.10	2126	14%	1824	1369	75%
level 7	59.70	3.80	48.30	2126	14%	1824	1369	75%
level 6	55.90	3.80	44.50	2126	14%	1824	1369	75%
Total Tower				**108,362**	**15%**	**92,120**	**72,237**	**78.4%**

Reference Design

Site Area	3,694 m2	
	GFA	**FRS**
Tower - Reference Design		
GFA	72,237 m2	**19.56 :1**
Podium		
GFA - Commercial	9,532 m2	**2.58 :1**
GFA - Retail	1,454 m2	**0.39 :1**
GFA - Station	1,064 m2	**0.29 :1**
Podium Total	12,050 m2	**3.26 :1**
Total	84,287 m2	**22.82 :1**

	RL	Floors	Height	Envelope Outline
level 5 - ISD	49.9	6	38.5	2601
level 4 - Station	43.9	6	32.5	3357
level 3	40.1	3.8	28.7	3357
level 2	36.3	3.8	24.9	3357
level 1 - Mez	32.4	3.9	21	3477
level 1	28.8	3.6	17.4	3477
Bligh St - Mez	23.8	5	12.4	3477
GL - Bligh St	18.3	5.5	6.9	3477
O'connell St - Mez	15.35	2.95	3.95	3694
O'connell St	11.4	3.95	0	3694
	Total Podium			**33,968**
	Total Envelope			**142,330**

	RL	Floors	Height	Envelope Outline	GBA Station	Potential GBA Station	GBA OSD	Potential GBA OSD	Void Station	Void Commercial	Articulation	GFA Commercial	Potential GFA Commercial	GFA Retail	GFA Station	Potential GFA Station
level 5 - ISD	49.9	6	38.5	2601	15		2276				310					
level 4 - Station	43.9	6	32.5	3357	1836		1242				279					
level 3	40.1	3.8	28.7	3357	307		2781				269	2244				
level 2	36.3	3.8	24.9	3357	292		2792				273	2185				
level 1 - Mez	32.4	3.9	21	3477	321		795	1603		407	351		1603			
level 1	28.8	3.6	17.4	3477	178		2660			292	347	2024				
Bligh St - Mez	23.8	5	12.4	3477	488		1157	978		457	397		730	122		
GL - Bligh St	18.3	5.5	6.9	3477	764	45	1674		735		259	205		1033	449	45
O'connell St - Mez	15.35	2.95	3.95	3694	212		343	605	941	1262	331		541			
O'connell St	11.4	3.95	0	3694	1045		2107		343		199			299	570	
Basement 1	8.2	3.2					278									
	Total Podium			**33,968**	**5,458**	**45**	**18,105**	**3,186**	**2,019**	**2,418**	**3,015**	**6,658**	**2,874**	**1,454**	**1,019**	**45**
	Total Envelope			**142,330**		**Total GBA**	**118,914**								**Total GFA**	**84,287**

ticulation

velope to GBA (Articulation) 12%

Efficiency Based GBA

	RL	Floor	Height	Envelope Outline	GBA Articulation Zone
	220.00		213.00		
level 49	209.60	10.40	202.60	1069	941
level 48	205.60	4.00	198.60	1206	1061
level 47	201.80	3.80	194.80	1343	1182
level 46	198.00	3.80	191.00	1480	1302
level 45	194.20	3.80	187.20	1617	1423
level 44	190.40	3.80	183.40	1617	1423
level 43	186.60	3.80	179.60	1617	1423
level 42	182.80	3.80	175.80	1617	1423
level 41	179.00	3.80	172.00	1617	1423
level 40	175.20	3.80	168.20	1617	1423
level 39	171.40	3.80	164.40	1617	1423
level 38	167.60	3.80	160.60	1617	1423
level 37	163.80	3.80	156.80	1617	1423
level 36	160.00	3.80	153.00	1617	1423
level 35	156.20	3.80	149.20	1617	1423
level 34	152.40	3.80	145.40	1617	1423
level 33	148.60	3.80	141.60	1617	1423
level 32	144.80	3.80	137.80	1617	1423
level 31	141.00	3.80	134.00	2257	1986
level 30	137.20	3.80	130.20	2257	1986
level 29	133.40	3.80	126.40	2257	1986
level 28	129.60	3.80	122.60	2257	1986
level 27	125.80	3.80	118.80	2257	1986
level 26	122.00	3.80	115.00	2257	1986
level 25	118.20	3.80	111.20	2257	1986
level 24	114.40	3.80	107.40	2257	1986
level 23	110.60	3.80	103.60	2257	1986
level 22	106.80	3.80	99.80	2257	1986
level 21	103.00	3.80	96.00	2257	1986
level 20	99.20	3.80	92.20	2257	1986
level 19	95.40	3.80	88.40	2257	1986
level 18	89.40	6.00	82.40	2257	1986
level 17	85.60	3.80	78.60	2257	1986
level 16	81.80	3.80	74.80	2257	1986
level 15	78.00	3.80	71.00	2257	1986
level 14	74.20	3.80	67.20	2257	1986
level 13	70.40	3.80	63.40	2257	1986
level 12	66.60	3.80	59.60	2257	1986
level 11	62.80	3.80	55.80	2257	1986
level 10	59.00	3.80	52.00	2257	1986
level 9	55.20	3.80	48.20	2257	1986
level 8	51.40	3.80	44.40	2257	1986
level 7	47.60	3.80	40.60	2257	1986
level 6	43.80	3.80	36.80	2257	1986
Tower Total				**86,418**	**76,048**

Reference Design

	RL	Floor	Height	Envelope Outline	GBA Articulation Zone	GBA	GFA	Efficiency
	220.00		213.00					
level 49	209.60	10.40	202.60	1069	9%	977		0%
level 48	205.60	4.00	198.60	1206	8%	1108		0%
level 47	201.80	3.80	194.80	1343	17%	1121	989	88%
level 46	198.00	3.80	191.00	1480	15%	1254	1059	84%
level 45	194.20	3.80	187.20	1617	14%	1385	1188	86%
level 44	190.40	3.80	183.40	1617	8%	1492	1296	87%
level 43	186.60	3.80	179.60	1617	8%	1492	1296	87%
level 42	182.80	3.80	175.80	1617	8%	1492	1296	87%
level 41	179.00	3.80	172.00	1617	8%	1492	1296	87%
level 40	175.20	3.80	168.20	1617	8%	1492	1296	87%
level 39	171.40	3.80	164.40	1617	8%	1492	1296	87%
level 38	167.60	3.80	160.60	1617	8%	1492	1296	87%
level 37	163.80	3.80	156.80	1617	8%	1492	1296	87%
level 36	160.00	3.80	153.00	1617	8%	1492	1296	87%
level 35	156.20	3.80	149.20	1617	8%	1492	1296	87%
level 34	152.40	3.80	145.40	1617	8%	1492	1296	87%
level 33	148.60	3.80	141.60	1617	8%	1492	1296	87%
level 32	144.80	3.80	137.80	1617	8%	1492	1296	87%
level 31	141.00	3.80	134.00	2257	13%	1970	1683	85%
level 30	137.20	3.80	130.20	2257	13%	1970	1683	85%
level 29	133.40	3.80	126.40	2257	13%	1970	1683	85%
level 28	129.60	3.80	122.60	2257	13%	1970	1683	85%
level 27	125.80	3.80	118.80	2257	13%	1970	1683	85%
level 26	122.00	3.80	115.00	2257	13%	1970	1683	85%
level 25	118.20	3.80	111.20	2257	13%	1970	1683	85%
level 24	114.40	3.80	107.40	2257	13%	1970	1619	82%
level 23	110.60	3.80	103.60	2257	13%	1970	1619	82%
level 22	106.80	3.80	99.80	2257	13%	1970	1619	82%
level 21	103.00	3.80	96.00	2257	13%	1970	1619	82%
level 20	99.20	3.80	92.20	2257	13%	1970	1619	82%
level 19	95.40	3.80	88.40	2257	13%	1970	1619	82%
level 18	89.40	6.00	82.40	2257	31%	1560		0%
level 17	85.60	3.80	78.60	2257	13%	1970	1581	80%
level 16	81.80	3.80	74.80	2257	13%	1970	1581	80%
level 15	78.00	3.80	71.00	2257	13%	1970	1581	80%
level 14	74.20	3.80	67.20	2257	13%	1970	1581	80%
level 13	70.40	3.80	63.40	2257	13%	1970	1581	80%
level 12	66.60	3.80	59.60	2257	13%	1970	1581	80%
level 11	62.80	3.80	55.80	2257	13%	1970	1581	80%
level 10	59.00	3.80	52.00	2257	13%	1970	1561	79%
level 9	55.20	3.80	48.20	2257	13%	1970	1561	79%
level 8	51.40	3.80	44.40	2257	13%	1970	1561	79%
level 7	47.60	3.80	40.60	2257	13%	1970	1561	79%
level 6	43.80	3.80	36.80	2257	13%	1970	1561	79%
Tower Total				**86,418**	**12.0%**	**76,051**	**60,451**	**79.49%**

Reference Design Measure

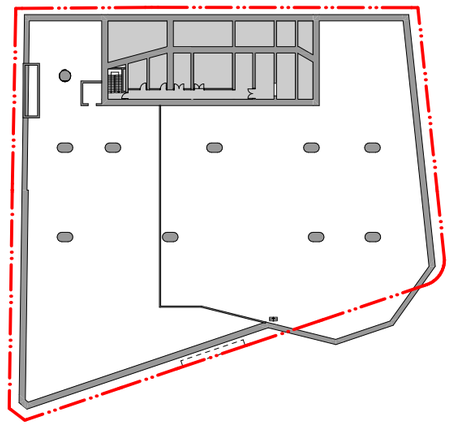
		GFA	FRS
Site Area	3,736 m2		
		GFA	FRS
Tower		60,451 m2	**16.18**
Podium Commercial		5,463 m2	**1.46**
Podium Retail		933 m2	**0.25**
Podium Station		3,065 m2	**0.82**
Podium Total		9,461 m2	**2.53**
Total		**69,912** m2	**18.71**

	RL	Floor	Height	Envelope Outline
level 5 - Station	39.20	4.60	32.20	2550
level 4	33.20	6.00	26.20	2550
level 3	29.60	3.60	22.60	3244
Level2	26.00	3.60	19.00	3244
level 1	20.00	6.00	13.00	3628
Ground	13.5	6.50	6.50	3628
Lower Ground	7.0	6.50	0	
			Total Podium	**18,844**
			Total	**105,262**

	RL	Floor	Height	Envelope Outline	GBA Station	Potential GBA Station	GBA OSD	Potential GBA OSD	Void Station	Void Commercial	Articulation	GFA Commercial	Potential GFA Commercial	GFA Retail	GFA Station	Potential GFA Station
level 5- Station	39.20	4.60	32.20	2550	374		1947				229					
level 4	33.20	6.00	26.20	2550	1011		1310				229					
level 3	29.60	3.60	22.60	3244	197		2124				923	1628				
level 2	26.00	3.60	19.00	3244	163		2363				718	1575				
level 1	20.00	6.00	13.00	3628	302	597	1658	872		185	14	878	872	67		598
Ground	13.5	6.50	6.50	3628	1651		1514		373		90	253		543	1395	
Lower Ground	7.0	6.50	0		1495		1430	257	373				257	323	1072	
Total Podium				**18,844**	**5,193**	**597**	**12,346**	**1,129**	**746**	**185**	**2,203**	**4,334**	**1,129**	**933**	**2,467**	**598**
			Total Envelope	**105,262**		**Total GBA**	**95,316**								**Total GFA**	**69,912**

GFA Diagrams

Hunter Street East



1 GFA Basement 1
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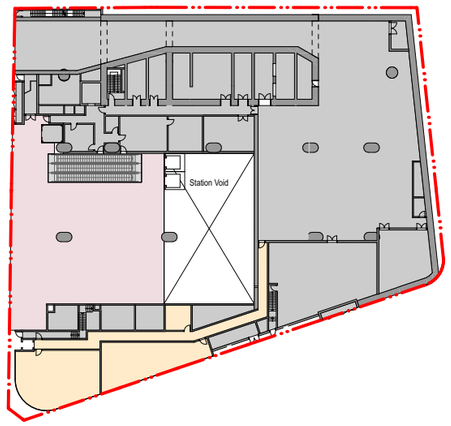
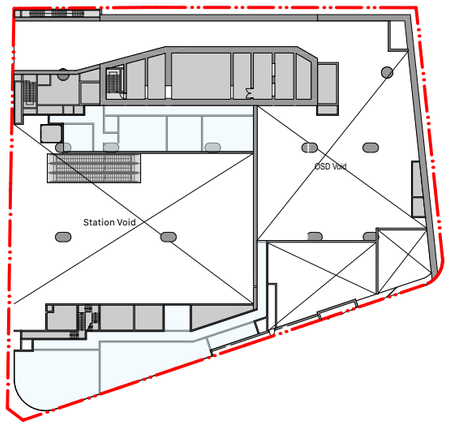
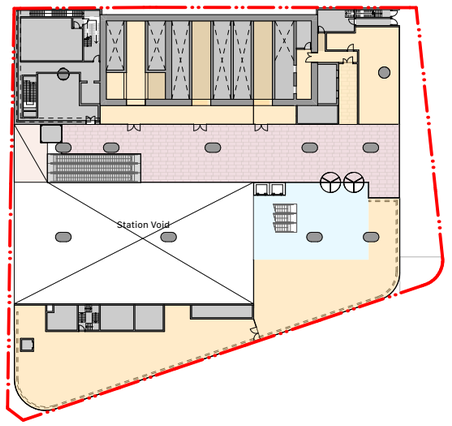
GFA: NIL



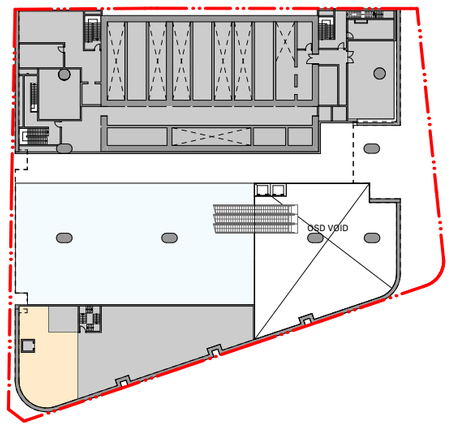
2 GFA Ground Floor - O` Connell St
1:500



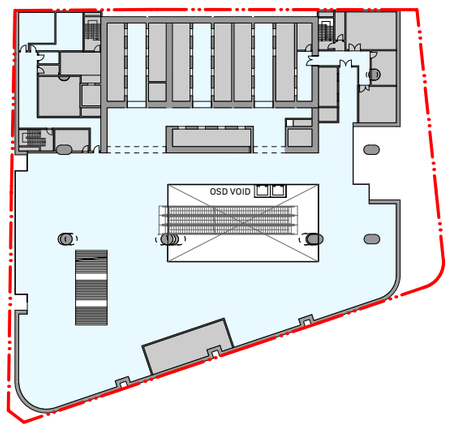
3 GFA Ground Floor - O'connell St Mezzanine
1:500



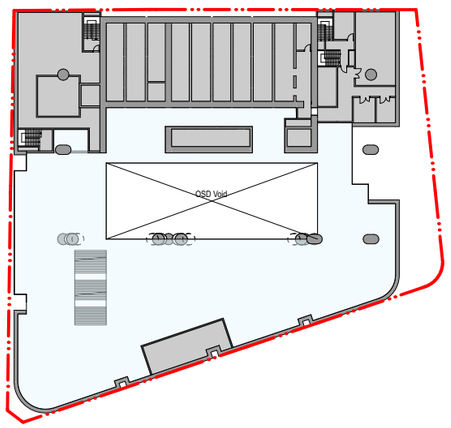
4 GFA Ground Floor - Bligh St
1:500



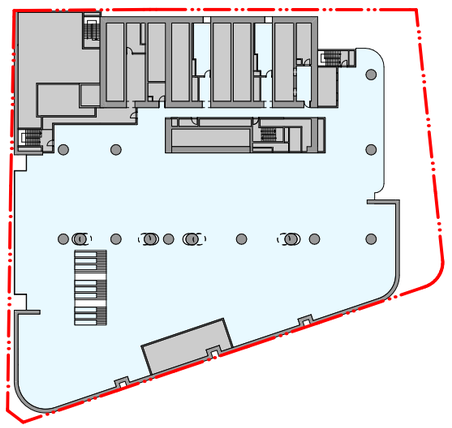
5 GFA Ground Floor - Blight St Mezzanine
1:500



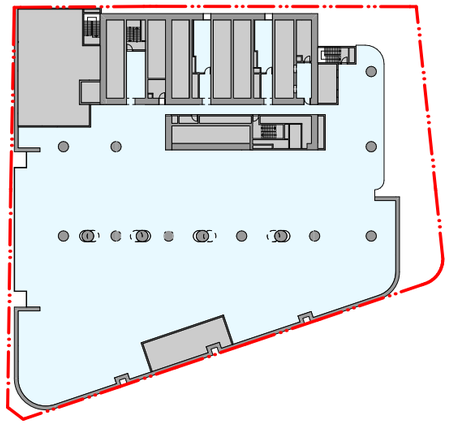
6 GFA Level 1 Commercial lobby
1:500



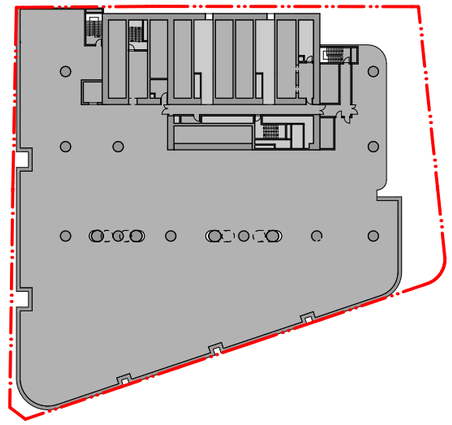
7 GFA Level 1 Commercial Lobby Mezzanine
1:500



8 GFA Level 2 Commercial
1:500

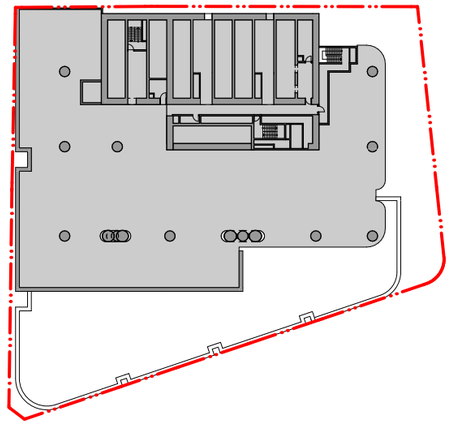


1 GFA Level 3 End of Trip
1:500



2 GFA Level 4 Station Plant & OSD Plant
1:500

GFA: NIL

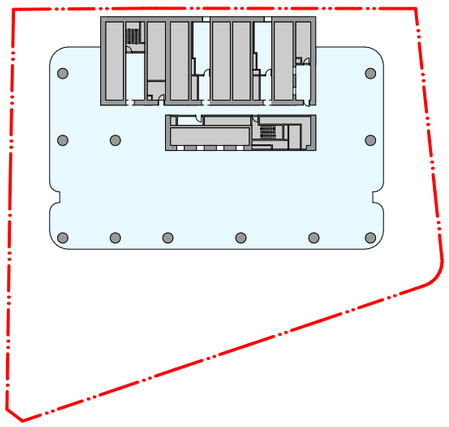


3 GFA Level 5 OSD Plant
1:500

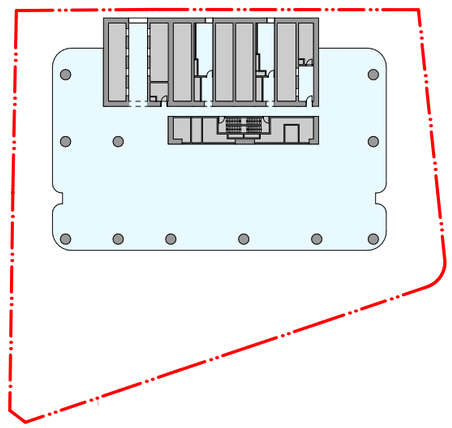
GFA: NIL

KEY

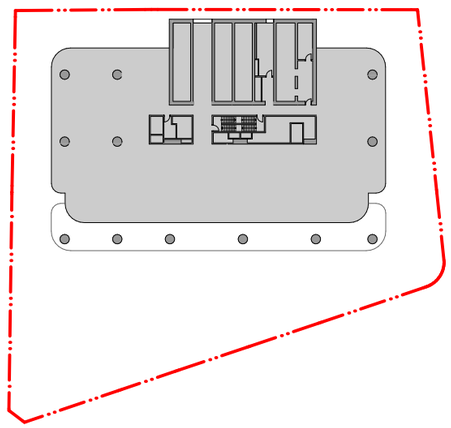
- OSD GFA
- Potential OSD GFA
- Retail
- Station
- Potential Station GFA
- Plant and Vertical Circulation
- Station Void
- OSD Void



4 GFA Low Rise
1:500



5 GFA Mid Riee
1:500



6 GFA Level 31 OSD Plant
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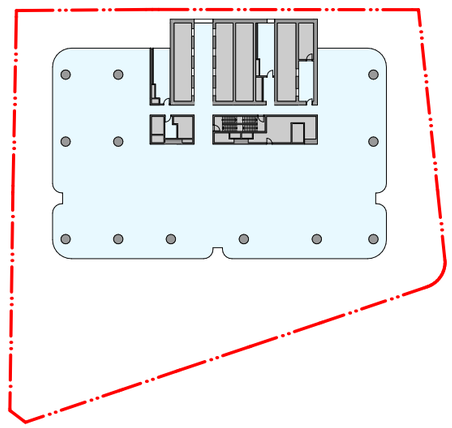
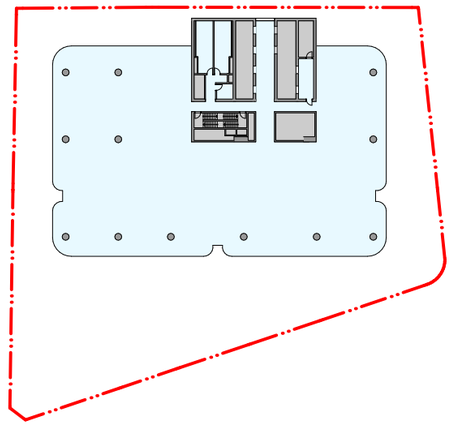
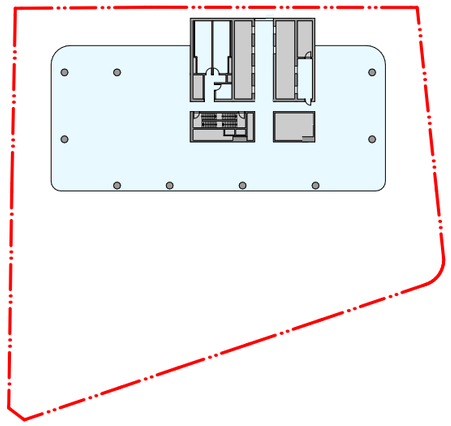
KEY



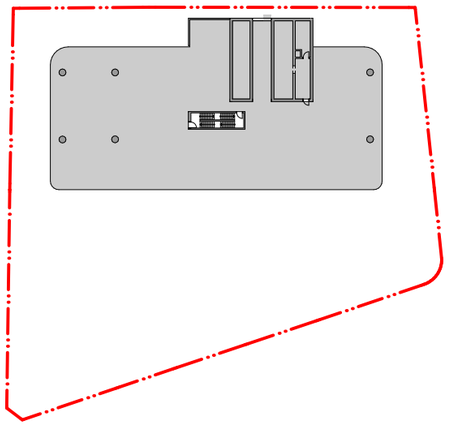
7 GFA High rise
1:500



1 GFA Sky Rise
1:500



2 GFA Level 54 Recessed
1:500



3 GFA Level 56- 56 Mez
1:500

GFA: NIL

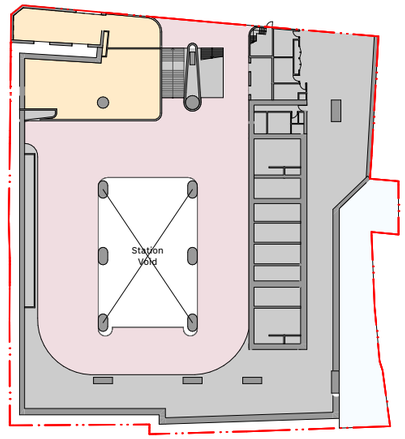
KEY

- OSD GFA
- Potential OSD GFA
- Retail
- Station
- Potential Station GFA
- Plant and Vertical Circulation
- Station Void
- OSD Void

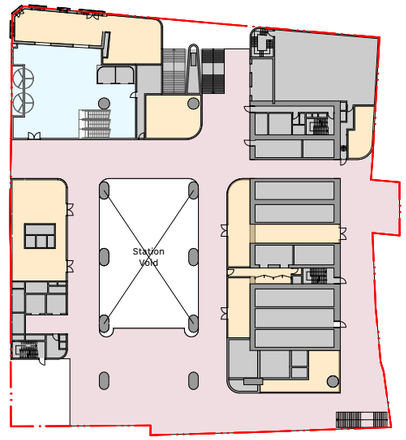
Hunter Street West

KEY

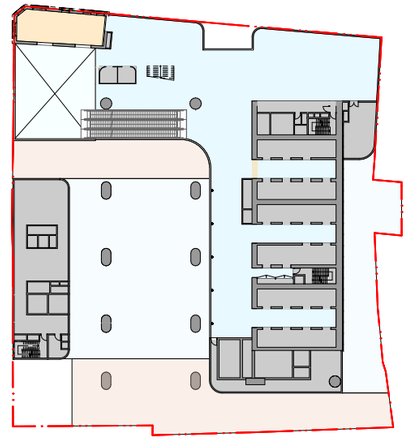
- OSD GFA
- OSD Potential GFA
- Retail
- Station GFA
- Station Potential Void
- Plant and Vertical Circulation
- OSD Void
- Station Void



1 PLAN Hunter Street - Ground Floor
1:500



2 PLAN George Street - Ground Floor
1:500



3 PLAN Level 1 - Commercial Lobby
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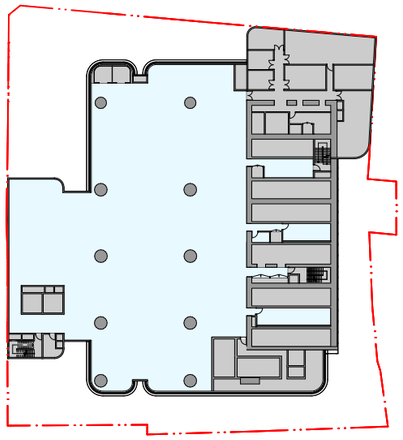

4 PLAN Level 2 - Coworking
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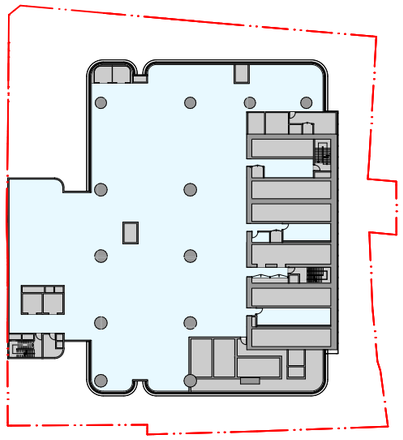
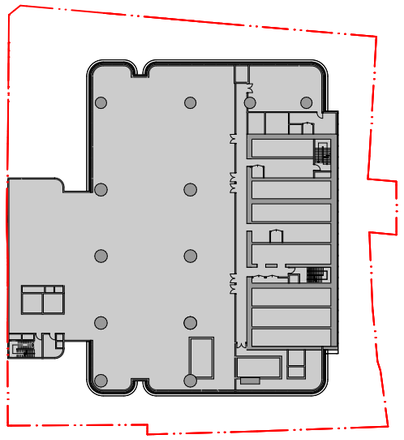
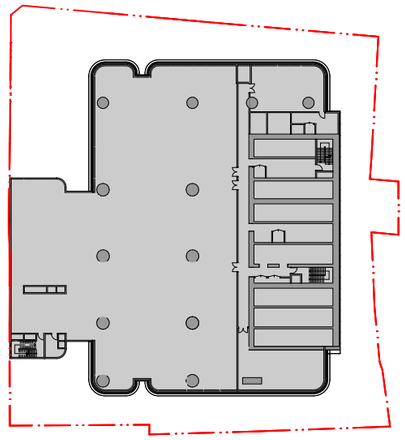


5 PLAN Level 3 - End of Trip
1:500



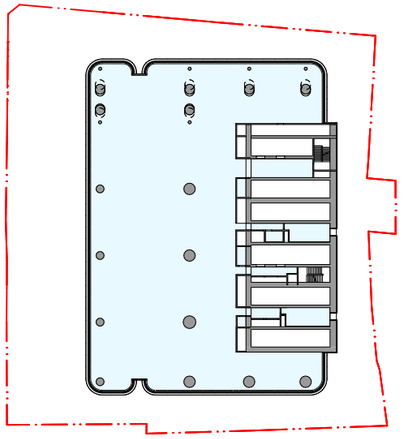
6 PLAN Level 4 - Station / OSD Podium P
1:500



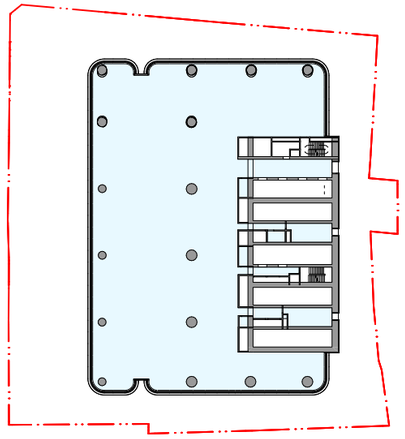
7 PLAN Level 5 - Station / OSD Podium Plant
1:500

KEY

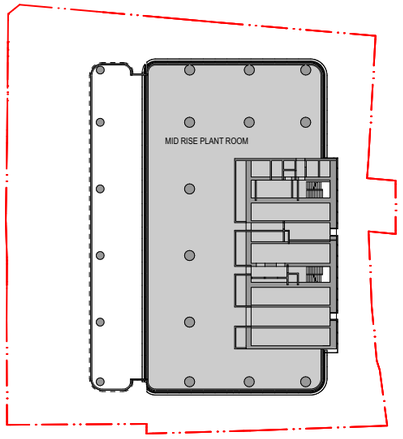
- OSD GFA
- OSD Potential GFA
- Retail
- Station GFA
- Station Potential Void
- Plant and Vertical Circulation
- OSD Void
- Station Void



1 PLAN Level 6 - 10 - Podium Rise
1:500

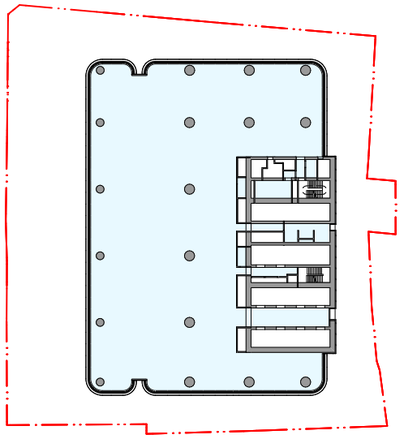


2 PLAN Level 11 - 17 - Low Rise
1:500

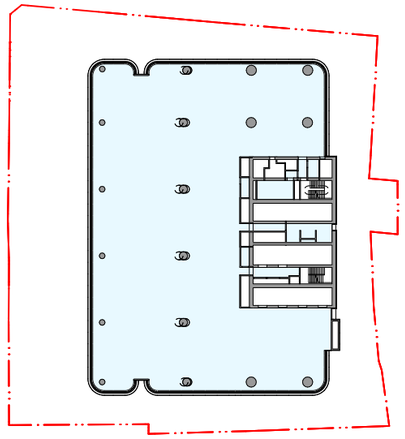


3 PLAN Level 18 - Mid Rise Plant
1:500

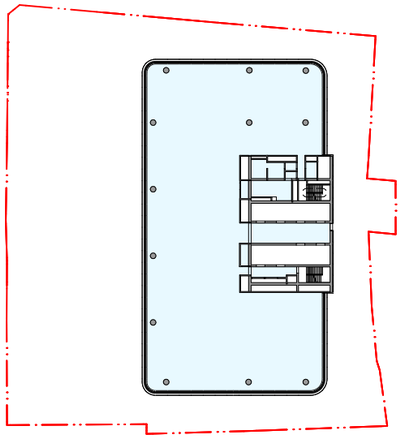
GFA: NIL



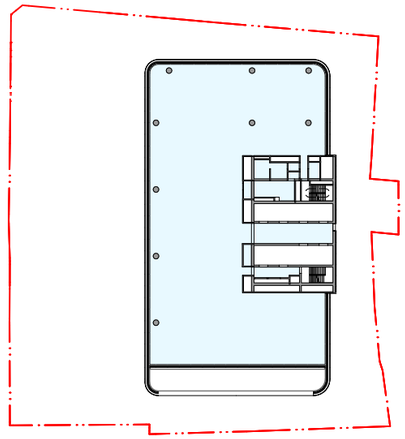
4 PLAN Level 19 - 26 - Mid Rise
1:500



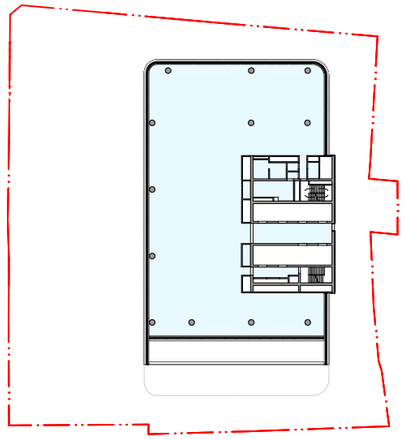
5 PLAN Level 27 - 31 High Rise
1:500



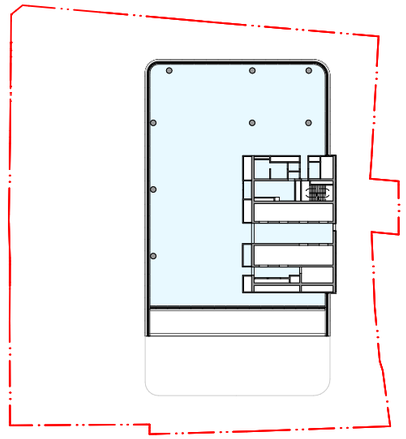
6 PLAN Level 32 - 44 - Sky Rise
1:500



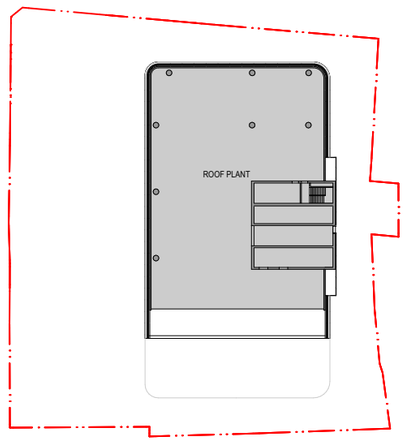
1 PLAN Level 45 - Sky Rise Setback
1:500



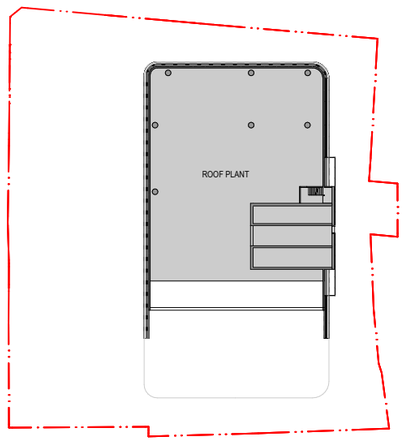
2 PLAN Level 46 - Sky Rise Setback
1:500



3 PLAN Level 47 - Sky Rise Setback
1:500



4 PLAN Level 48 - Roof Top Plant
1:500



5 PLAN Level 49 - Roof Top Plant
1:500

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