

Attachment A2

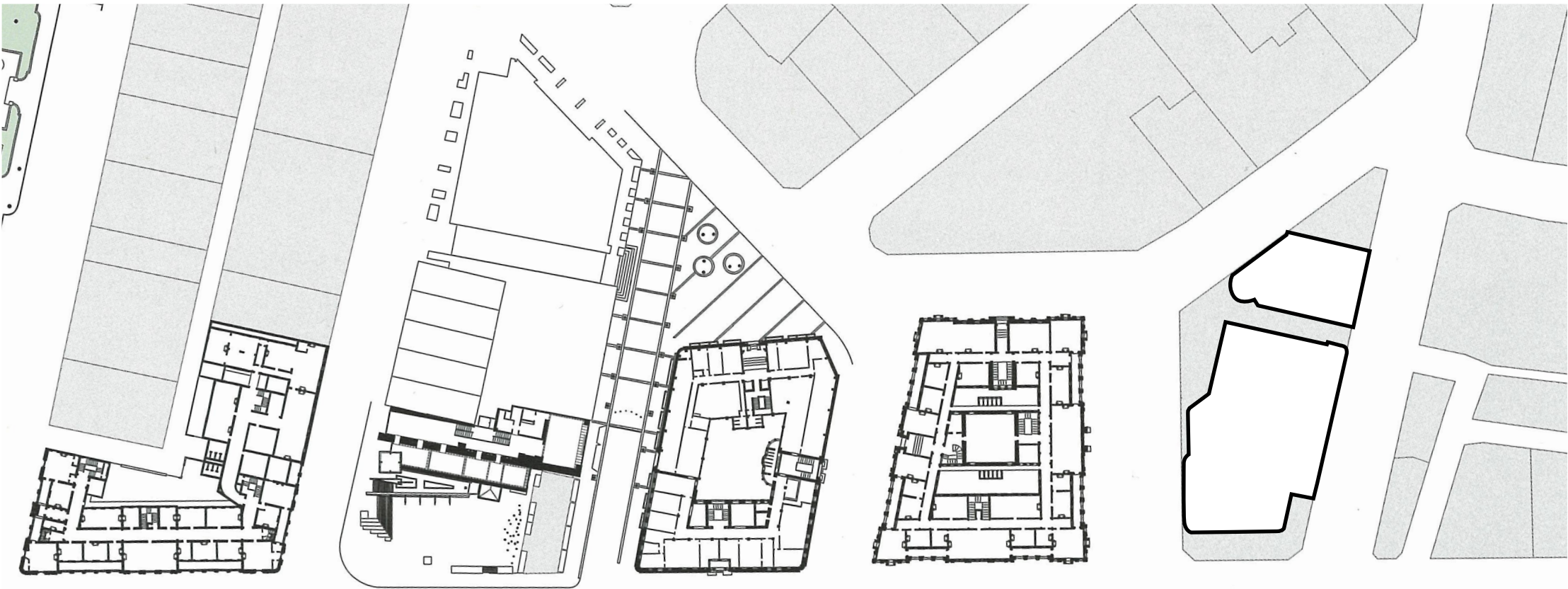
Urban Design Report - Part 2

Bridge Street Alignments

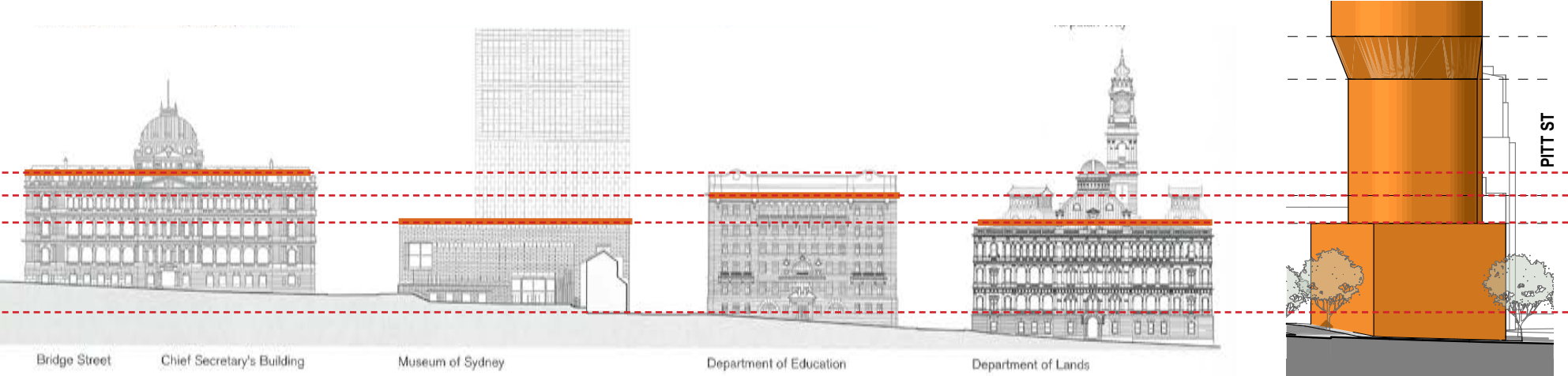
The street frontage height of the proposed envelope varies from the existing controls (max 25m for Bridge Street special Character area.) The 4 blocks to the east of the site along Bridge Street contain significant sandstone buildings of varying heights. It is proposed that an envelope aligning with the top of the original Lands Department building will result in a balanced rhythm of street wall heights.

The final design for the Bridge Street frontage of the podium should appropriately respond to the strong horizontal datums within the adjacent buildings.

This standardisation of podium heights will better integrate the Bridge Street frontage with the adjacent streets and allow for a clearer articulation of podium and tower.



Bridge Street

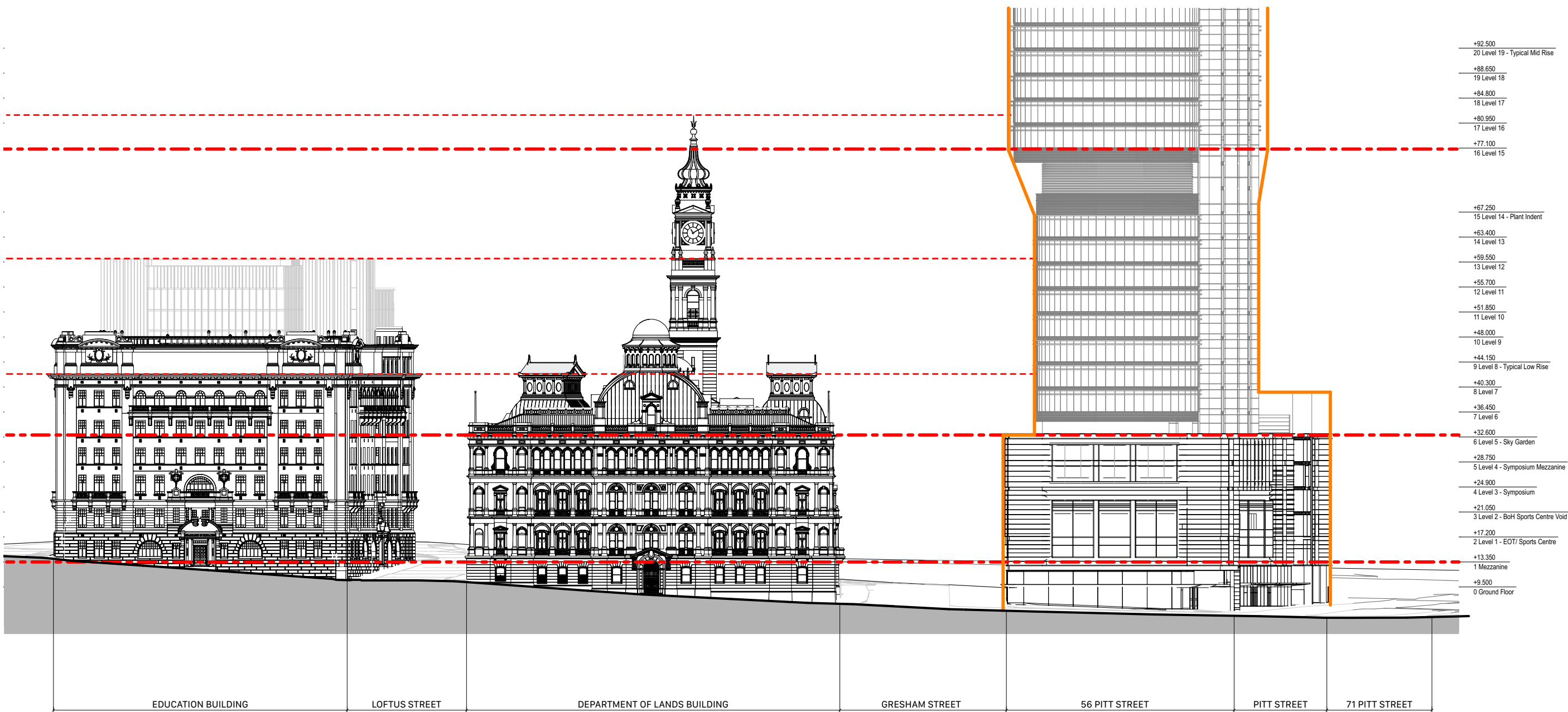


Bridge Street. Drawing extract from "Public Sydney: Drawing the City" by Philip Thalys and Peter John Cantrill

Proposed envelope podium

Bridge Street Heritage Building Height Datums

Elevation study of podium and building height datums in relation to adjacent Bridge Street heritage buildings (Education Building and Department of Lands Building).



Design Moves: Bridge Street Plaza

The Bridge Street Setback allows for a public plaza space

The podium envelope has been set back 8m relative to the Bridge Street boundary. This has been done with consideration of views to the adjacent heritage building and the 2023 City North Public Domain plan which sees the Gresham Street footpath increased from 3m to 8m. This 8m setback on Bridge Street allows for a more equitable relationship between the built form on both Gresham Street and Spring Street.

The current site conditions of a minimal setback and the absence of planting, greenery or any natural consideration limits meaningful Bridge Street activation. The new plaza offers the opportunity of a landscaped, public space for amenity and meeting that is connected yet separate from the adjacent office building. The office entry points are located away from this plaza to ensure that it retains a public, accessible character.

Heritage

Introducing an 8m setback on Bridge Street echoes the historical relationship between the original Royal Exchange building and the Department of Lands building. This strategy allows more of the eastern facade of the Department of Lands building to be visible upon approach from the western end of Bridge Street.

By re-establishing this condition it enables an increased opportunity for public gathering that is brought into Bridge St/ Macquarie PI - transforming it into a more active precinct within one of the most central locations of Sydney's Central Business District.

Site Activation

The Bridge St public plaza has been designed to accommodate large trees via the provision of a 2m deep zone for soil. The plaza provides opportunity for outdoor seating and planting. It is intended as a space dedicated to First Nation contemplation within this otherwise heavily colonial influenced area of the City of Sydney. Integration of First Nations stories and reflection will be delivered via integrated landscaping and art installations as discussed further in the Public Domain report by Arcadia that accompanies this submission.



Department of Lands Building



Heritage View from Pitt / Bridge St Intersection



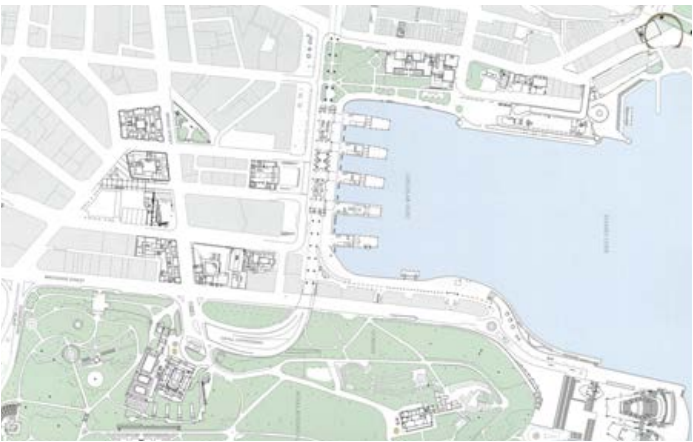
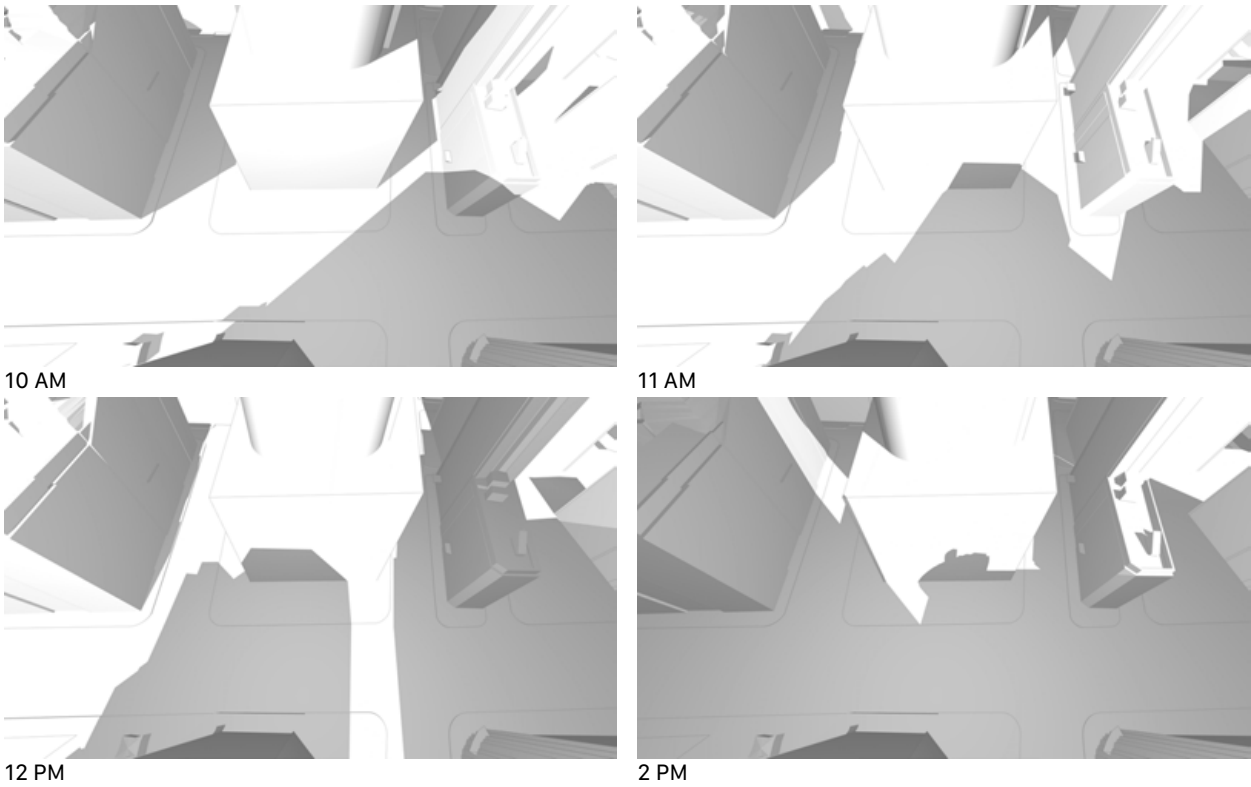
Reference Design View from Pitt / Bridge St Intersection

Design Moves: Bridge Street Plaza

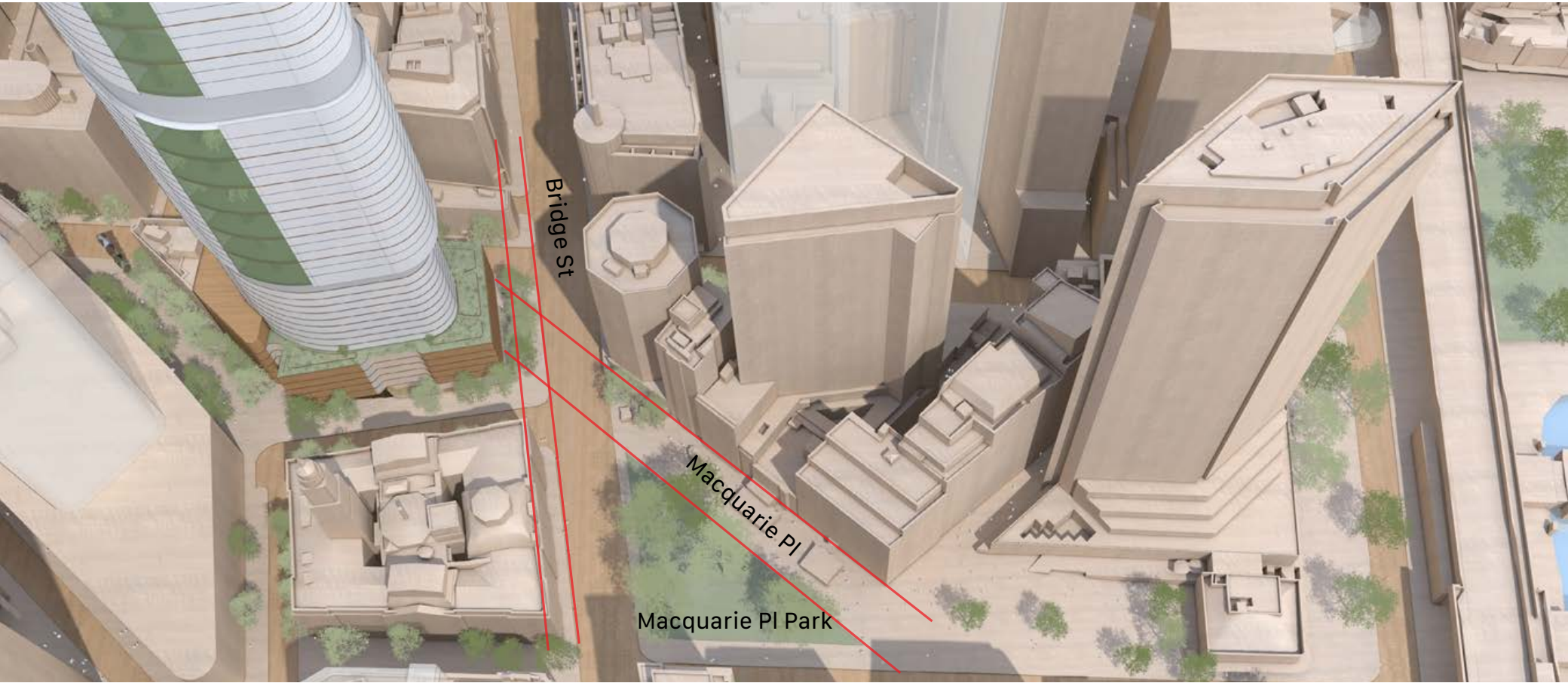
Complimenting Macquarie Place

The City North Public Domain strategy sees Macquarie Place and Macquarie Place Park re-imagined as per the plan extract (below). Macquarie Place offers and draws from Bridge Street’s colonial heritage through its formality, statues and expression. The new Bridge Street plaza as proposed offers the opportunity for a contrast to this space via the application of co-design and opportunities for integration of First Nations design approaches. Arcadia’s Public Domain report that accompanies this submission sets out a framework for authentic First nations engagement relative to the design of this plaza. The over-arching objective is notes as:

The purpose of the Indigenous design strategy during the planning proposal stage is to identify and establish preliminary Indigenous design moves and narratives for development throughout the public domain, publicly accessible areas and facade of the development, as well as establishing a framework for integration throughout all stages of design and construction to ensure the integrity of the original intent is maintained.



Extract from *Public City* by Philip Thalys and Peter John Cantrill



Birds Eye View - Reconnecting Macquarie Pl to Bridge St Plaza

Design Moves: Bridge Street Plaza

Deep Soil

A 2m deep soil planting zone has been provided on the Bridge St frontage, with careful consideration to the structure and metro tunnel in which lies below. The deep soil zone will allow for significant tree planting that will increase canopy cover on the site, whilst also providing biophillic relief to the highly urban expression on the southern side of Bridge Street.

Wind Comfort

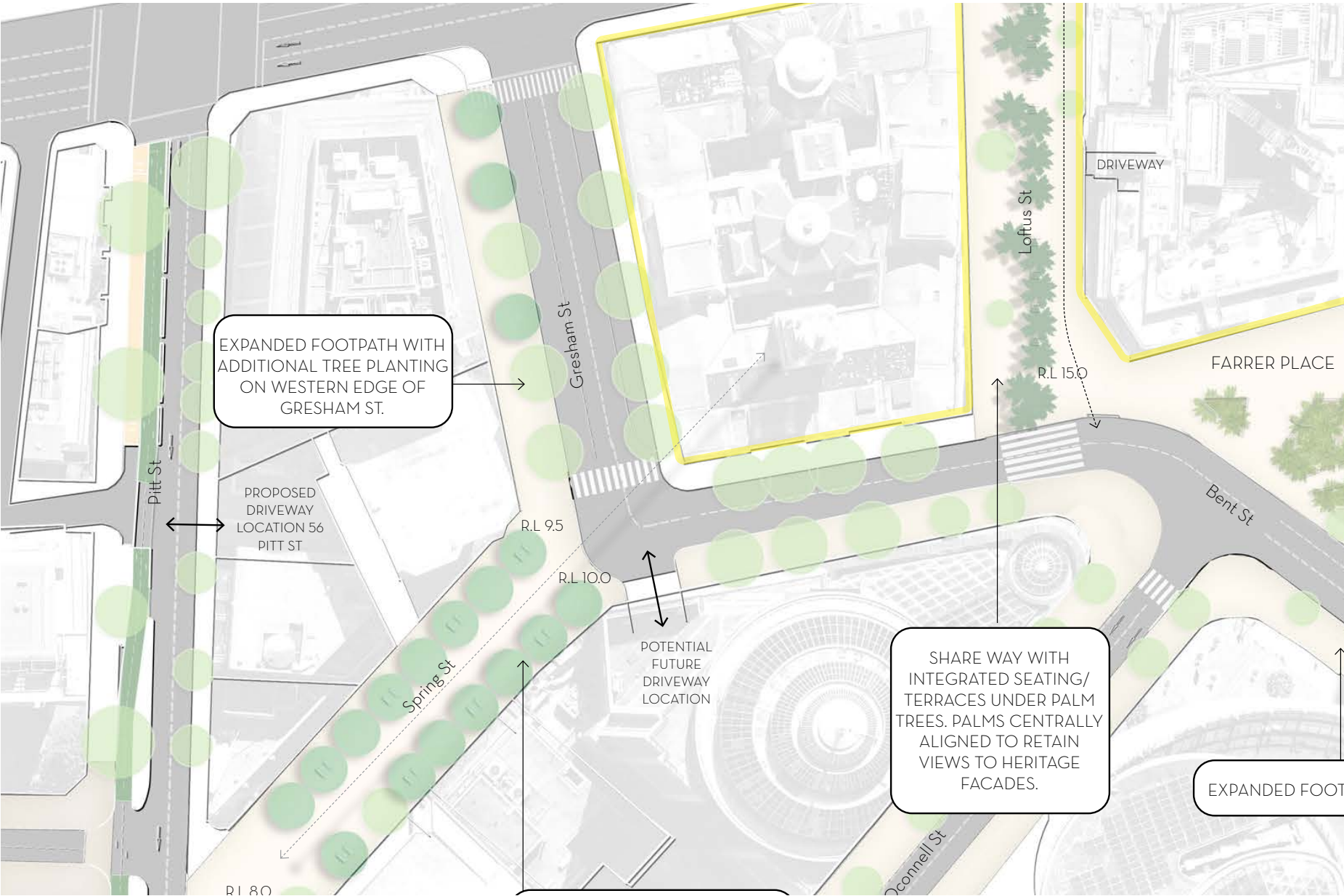
The proposed envelope achieves between a range of wind comfort speeds (refer to MEL Consultants Wind Report) which fully meets the requirement for pedestrian standing comfort. The recommended wind speed for comfortable pedestrian seating is 0 -4.0 m/s. As demonstrated in MEL Consultant’s wind report the Bridge Street Plaza is already meeting the sitting criteria or is capable of achieving this wind comfort level through detailed design.

Solar

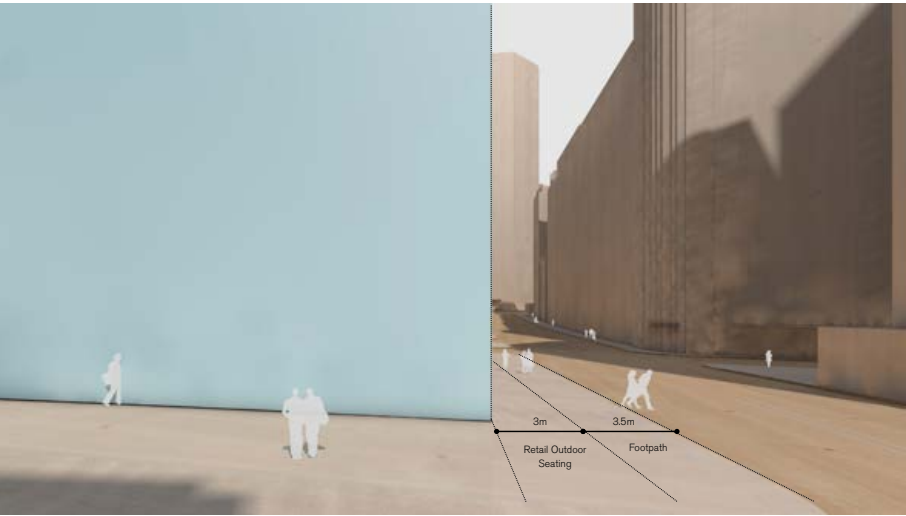
The public plaza area receives good solar access during the key morning / early afternoon period of 10.00am - 2.00pm (Equinox) as illustrated on the shadow diagrams on the previous page of this report. (Refer to page 28 for Bridge Street shadow study and page 86 for full solar analysis and shading studies).

Amenity

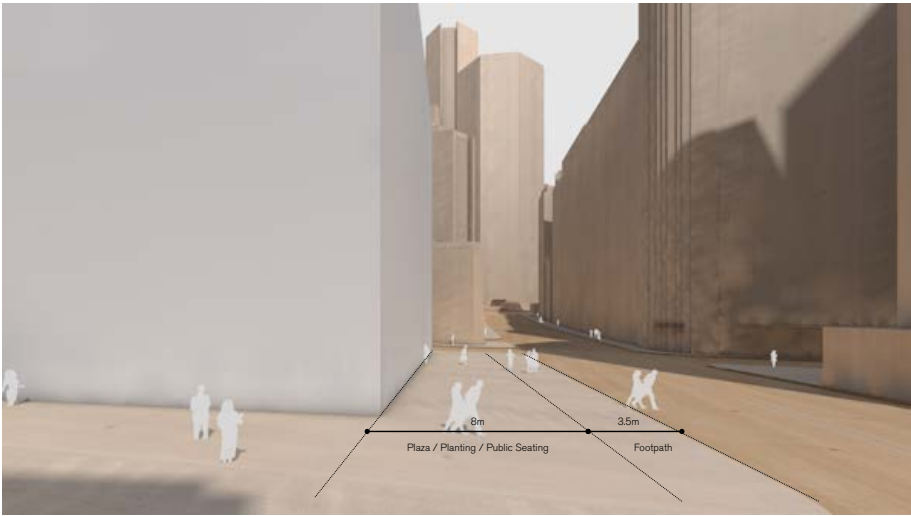
The Bridge Street Plaza will provide a comfortable and vibrant green space within the busy CBD environment. Workers, residents and visitors alike will be able to share in the stories of First Nations history, whilst finding relief in the landscape design of the space.



City North Public Domain Plan - Hunter Street Precinct



Gresham / Bridge St Plaza DCP Scheme - 3m Setback (as DCP)



Gresham / Bridge St Plaza Reference Scheme - 8m Setback



Bridge St Plaza view from Bridge/Gresham St

Street Frontages Height and Primary Podium Setbacks

Views Bridge Street

From Macquarie Park Place.

The proposed development has been assessed from a visual impact perspective. In this assessment, one of the key views was from Macquarie park place on the opposite side of Bridge Street (North east of the site). This view is considered also by Council in preparing the documentation for the CSPS and Special Character area controls.

The images to the right show that the existing building on Pitt and Bridge Site does not currently conform to the current controls. There is no distinct tower/podium separation.

The bottom right image shows the preferred controls applicable to Pitt and Bridge under the CSPS. This proposal notes however, that the 25m Bridge St frontage does not correspond to either the Lands Department or the combination of low and medium scale buildings to the western end of Bridge Street.

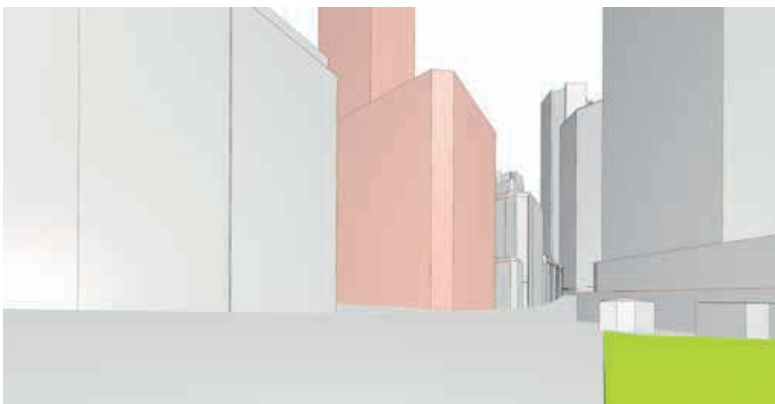
The Visual impact assessment photo-montage (far right) shows the impact of the proposed street frontage height in context with the medium height buildings to the western end of Bridge Street.

The proposed podium provides further opportunity to better integrate the podium into the prevailing character of the streetscape through an exploration of materiality, texture and colour as part of subsequent detailed development application stages.

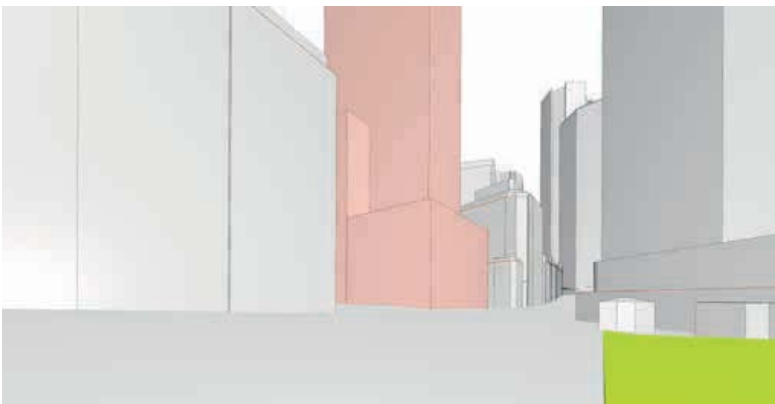
E_22 Bridge St SCA
Podium Heights and Setbacks - Existing condition



E_23 Bridge St SCA
Podium Heights and Setbacks - Current Controls



E_26 Bridge St SCA
Podium Heights and Setbacks - Preferred Controls



Extract from CSPS Podium heights and setbacks- Existing conditions, current controls, preferred controls



View from Macquarie Place - Existing

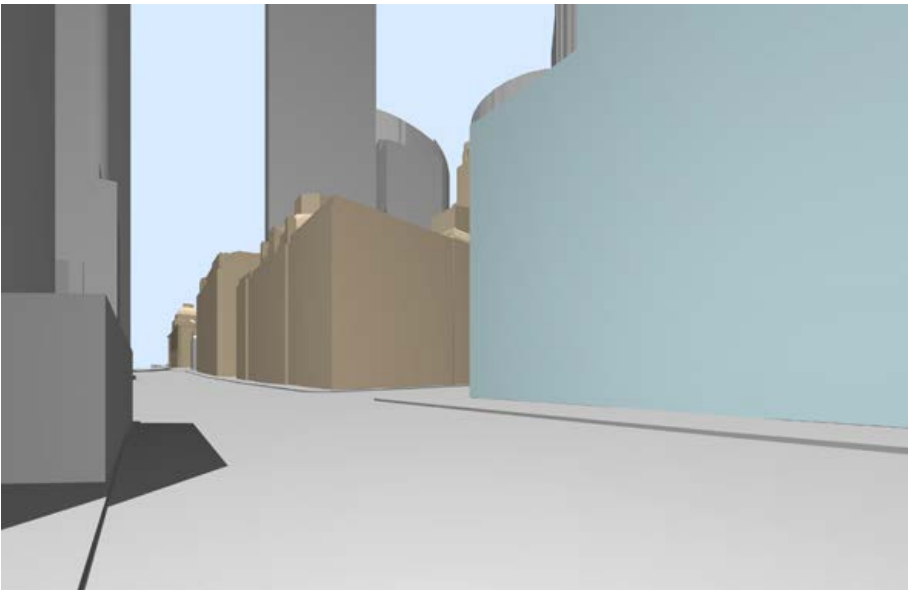


View from Macquarie Place - Photomontage - VIA

Street Frontages and Lands Department Building Relation

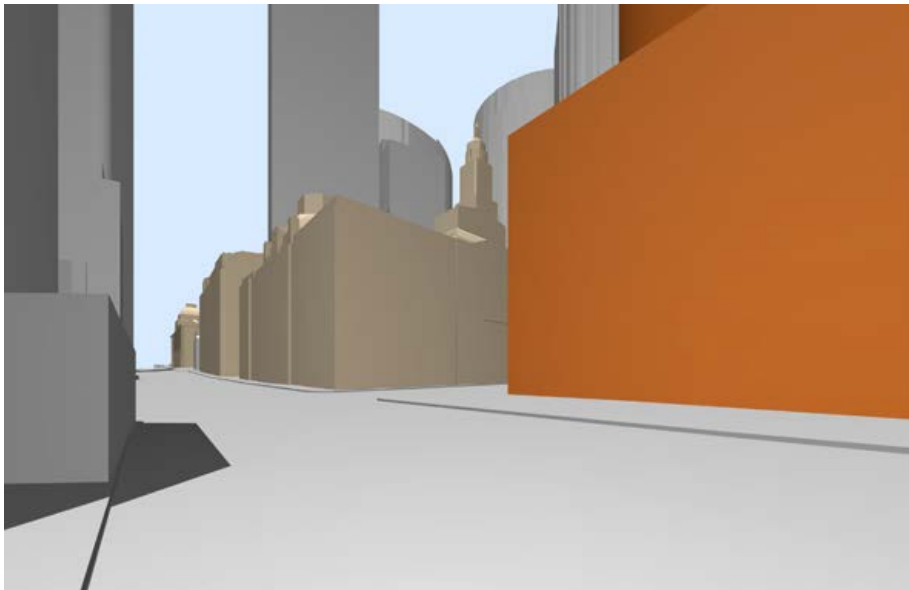
Comparison of envelopes in relation to the Department of Lands building, comparing the view to Lands Department Building between the DCP Envelope, Proposed Envelope and Reference Design Scheme. Proposed Envelope allows improved views to the Lands Department Clock Tower.

Extract from CSPS Existing DCP Envelope



NW Bridge Street View

Proposed Envelope

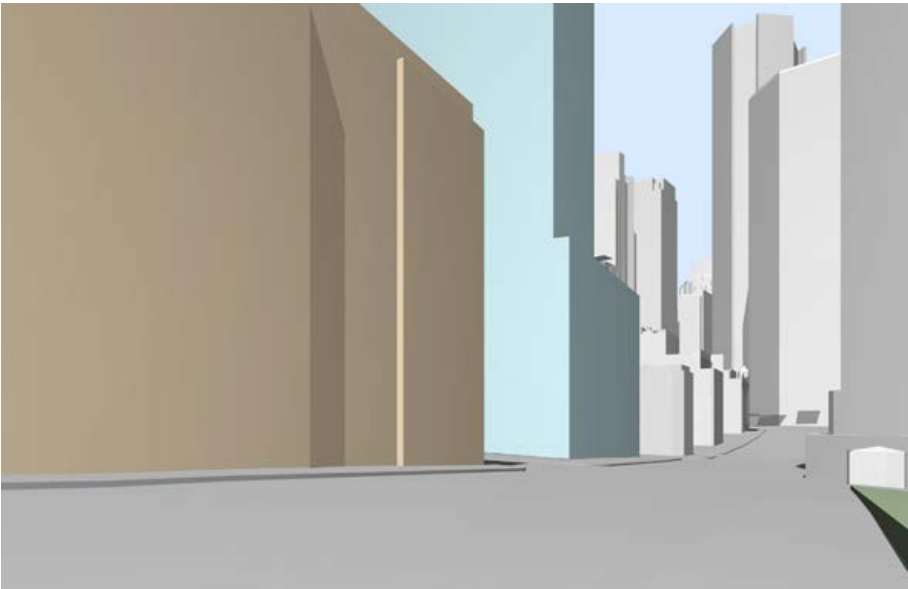


NW Bridge Street View

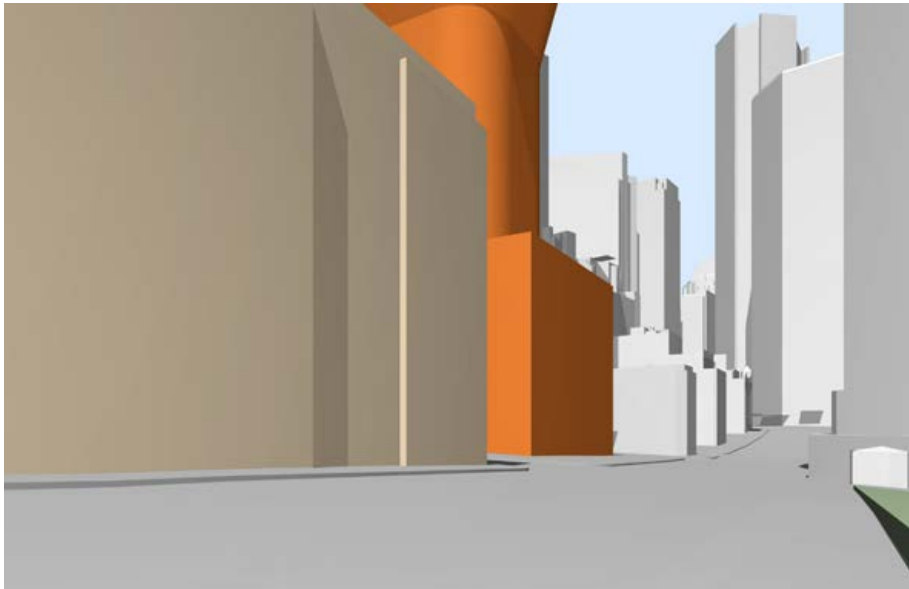
Reference Design Scheme



NW Bridge Street View



NE Bridge Street View



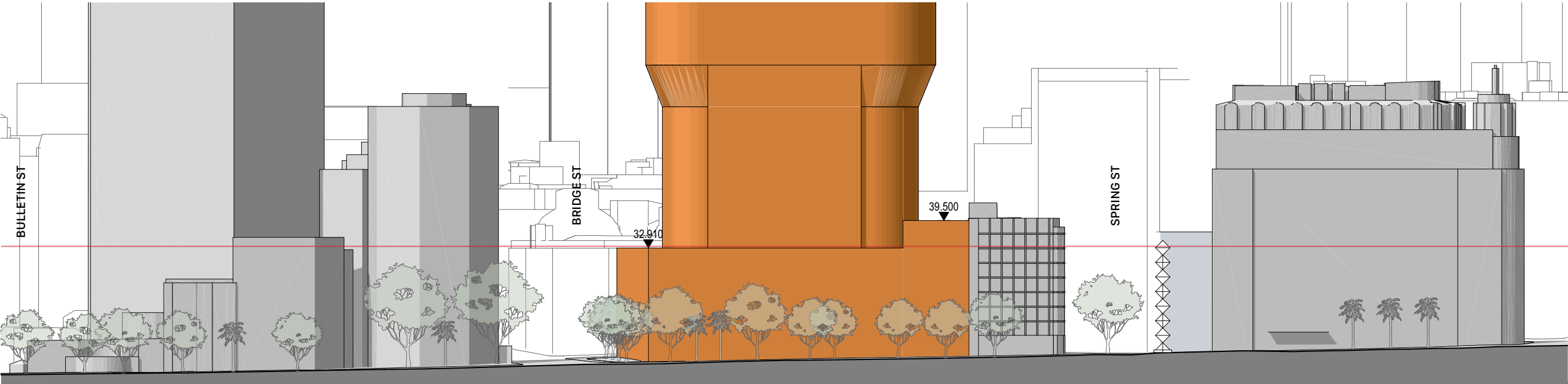
NE Bridge Street View



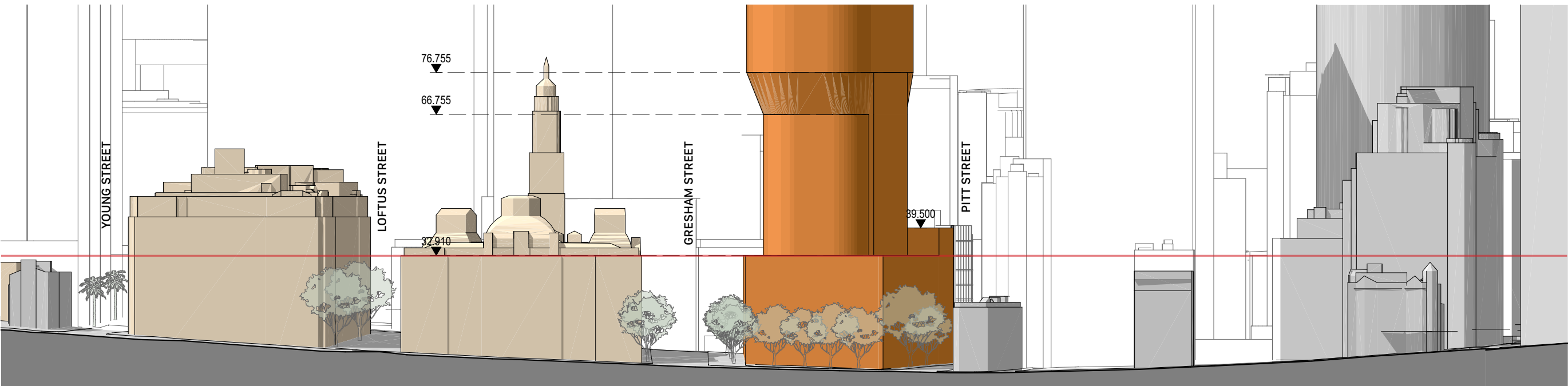
NE Bridge Street View

Proposed Envelope - Podium

Pitt Street Elevation Looking East



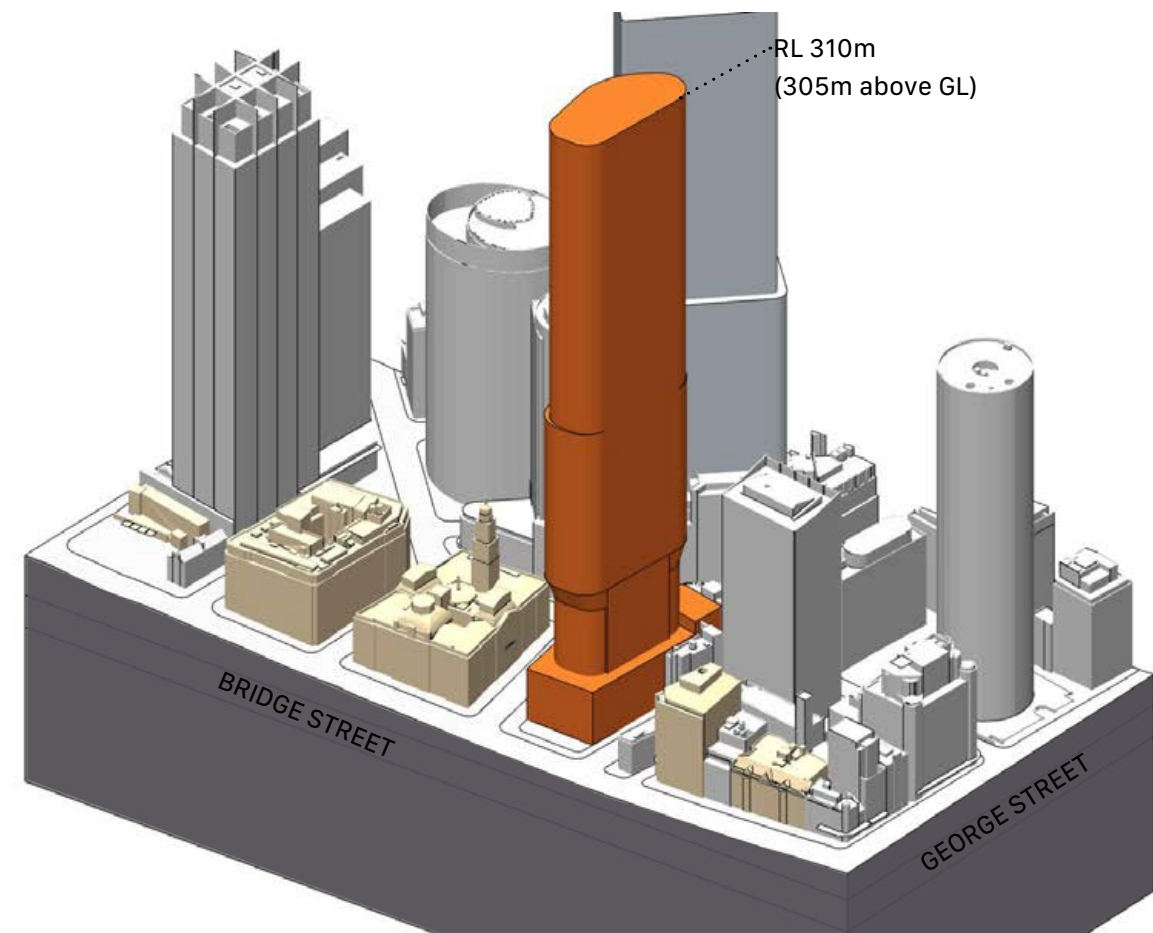
Bridge Street Elevation Looking South



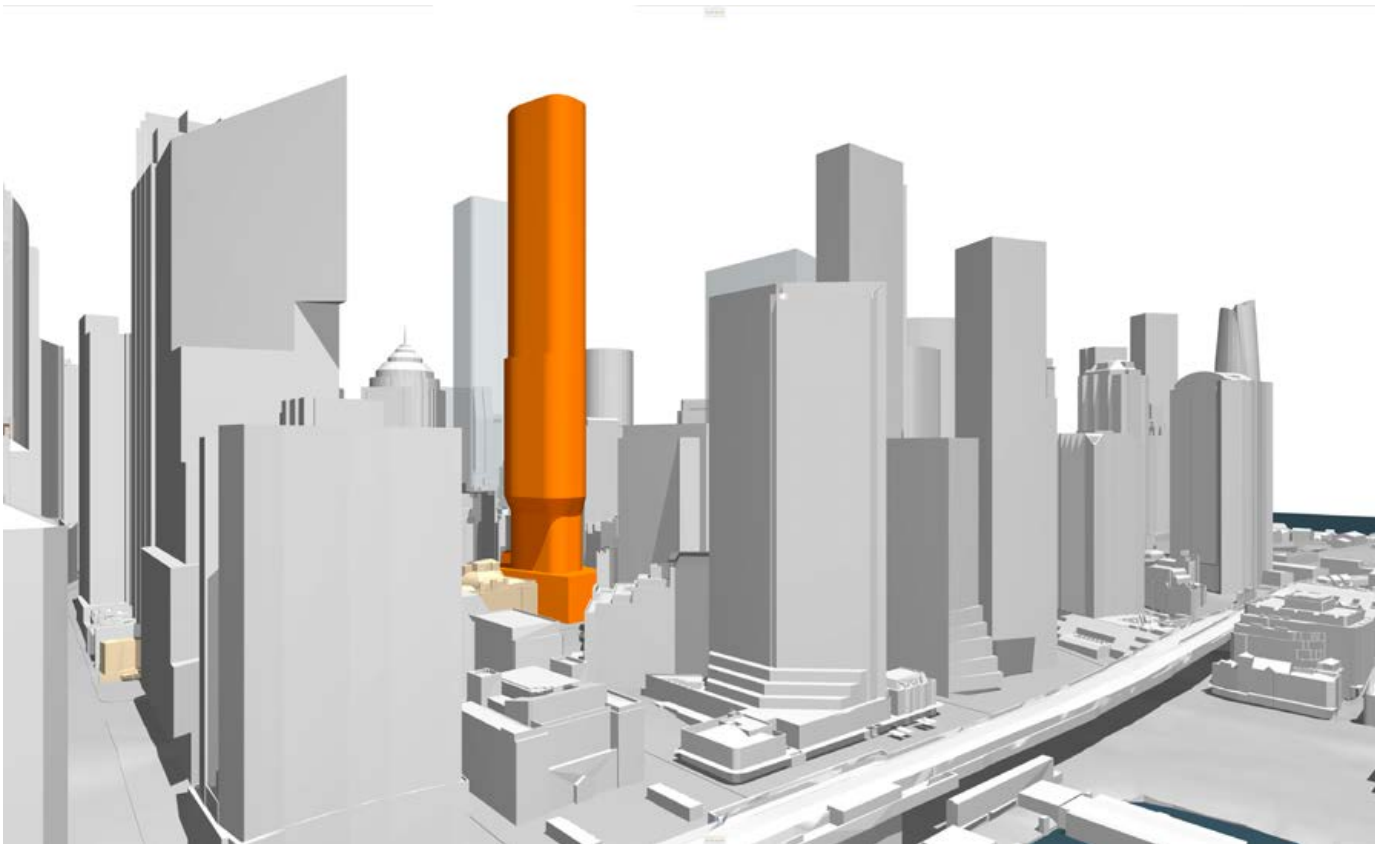
Proposed Envelope - Overall form

The proposed envelope has been designed to accommodate a tapered tower form. This allows a tower to read as a series of curved forms that respond to the many horizontal datums within the adjacent built form of the city.

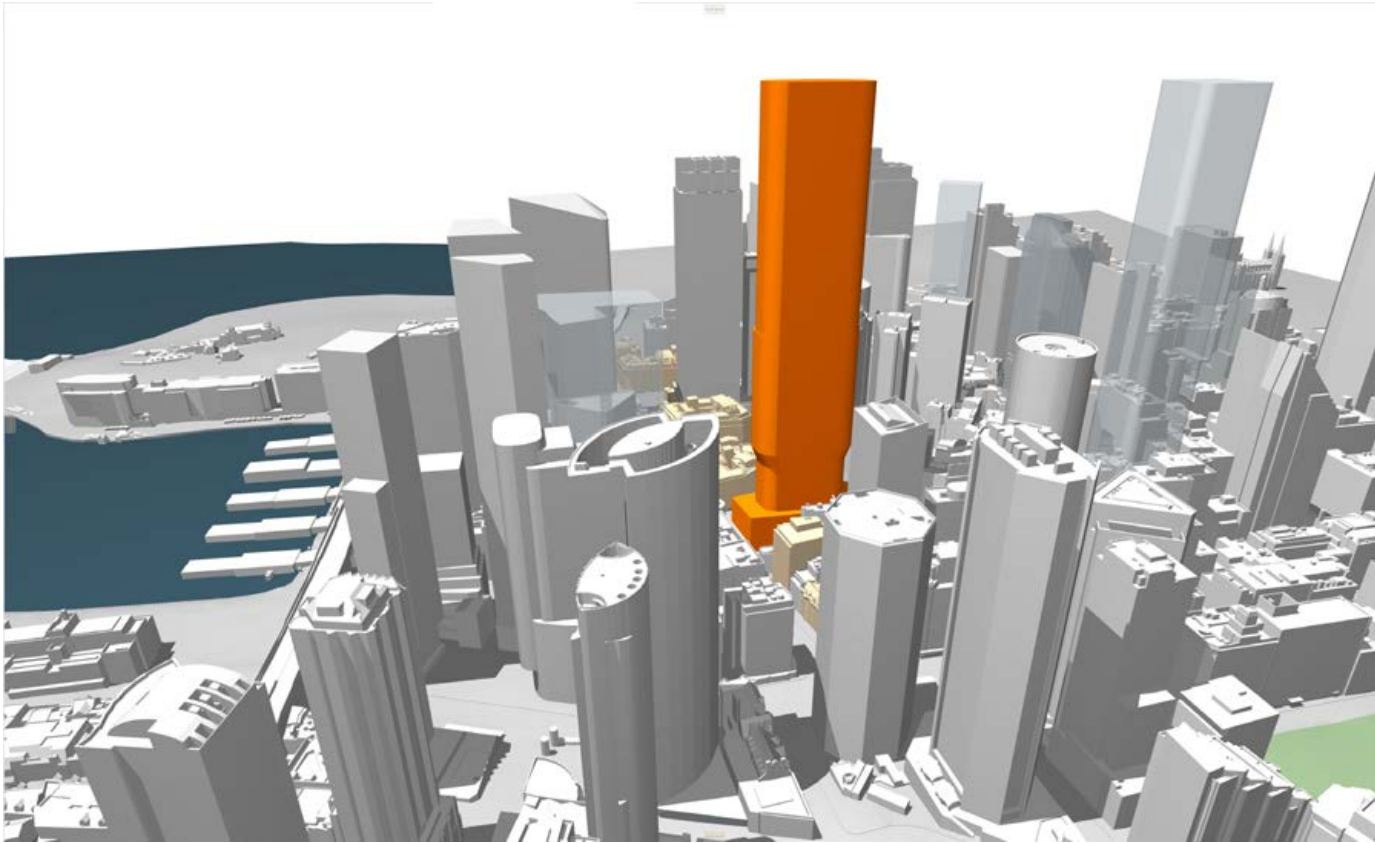
A recess at the base of the tower reduces the visual bulk of the tower from the podium and street levels.



Axonometric view
Proposed Envelope



Progressive stepped taper tower form in context - viewed from north east.



Progressive stepped taper tower form in context - viewed from south

Proposed Envelope - Progressive Taper

Progressive Tapered Tower form - Proposed Envelope

The series of diagrams to the right show the proposed form in isolation from various angles. The form allows for a core to be located to the west of the floor plate, fronting Pitt Street.

An 8m tower setback to Bridge Street opens up vistas to the adjacent heritage buildings and an opportunity for a generous and activated street edge.

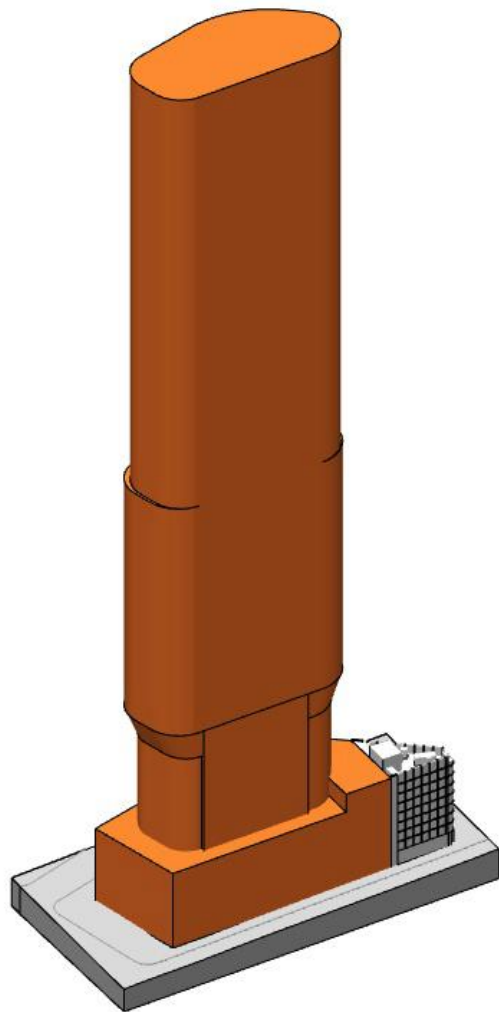
Allows for the creation of large, efficient floor plates with sufficient vertical transportation, services and amenities.

The base envelope includes articulation and tapering.

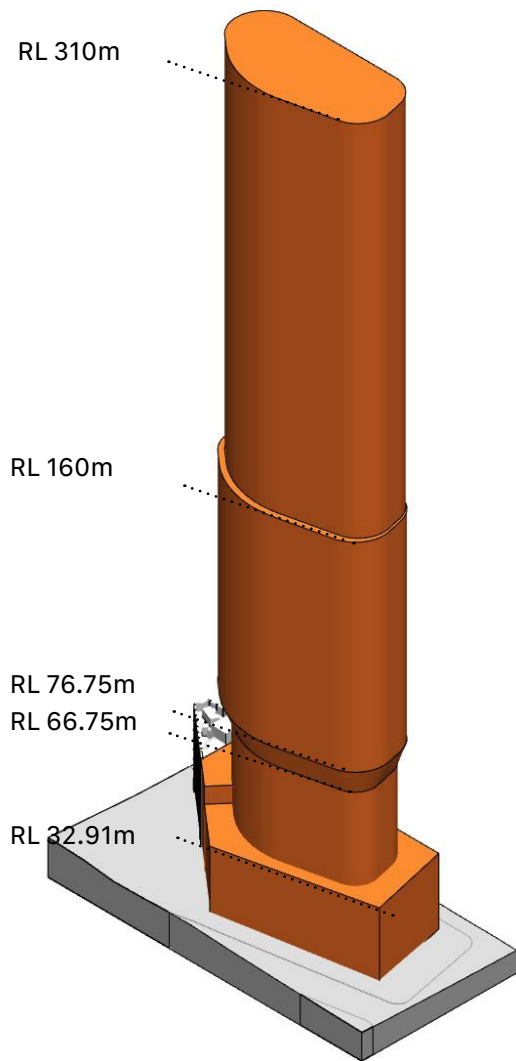
A recess at the base of the tower allows for the podium to create a strong connection to Bridge Street special character area.

There is a taper at the base of the tower element along Gresham and Spring Street for wind mitigation.

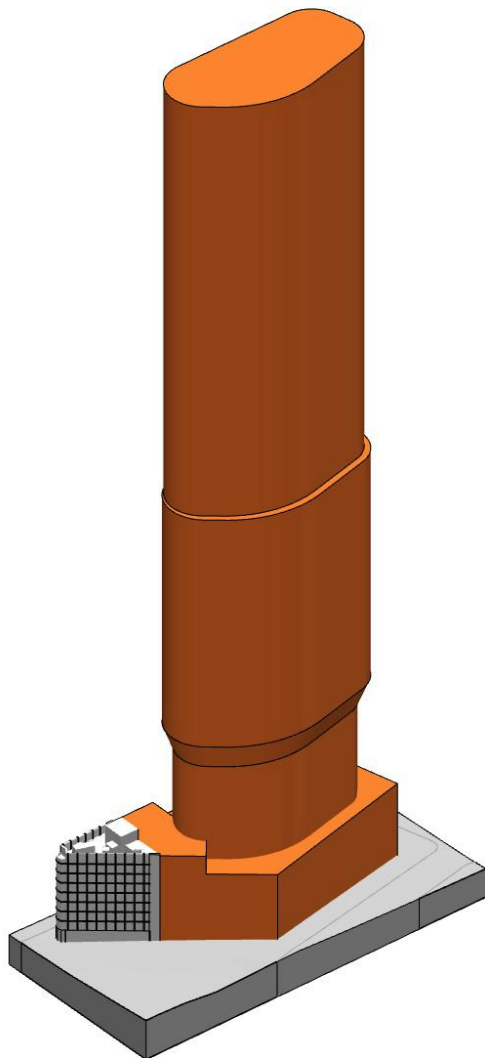
Curved faces to the envelope restrict the length of a flat facade in any one direction, allowing the tower to appear more slender.



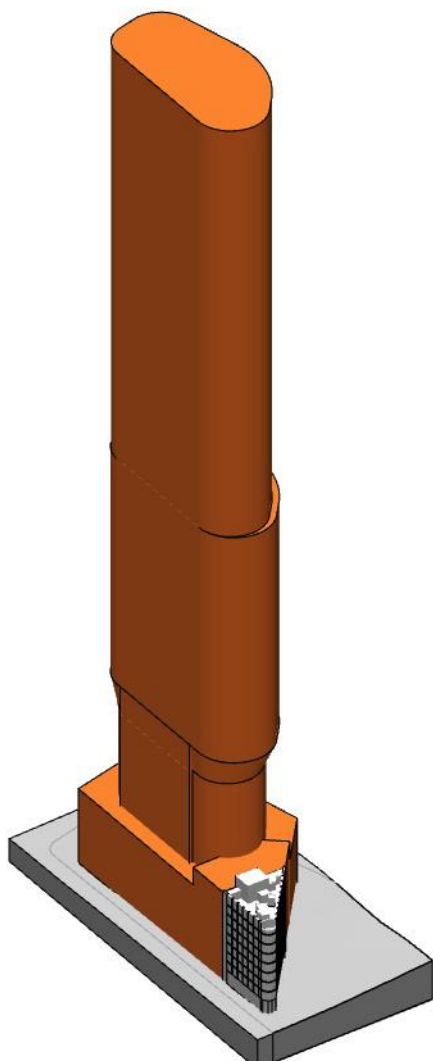
North-West axonometric view



North-East axonometric view



South-East axonometric view

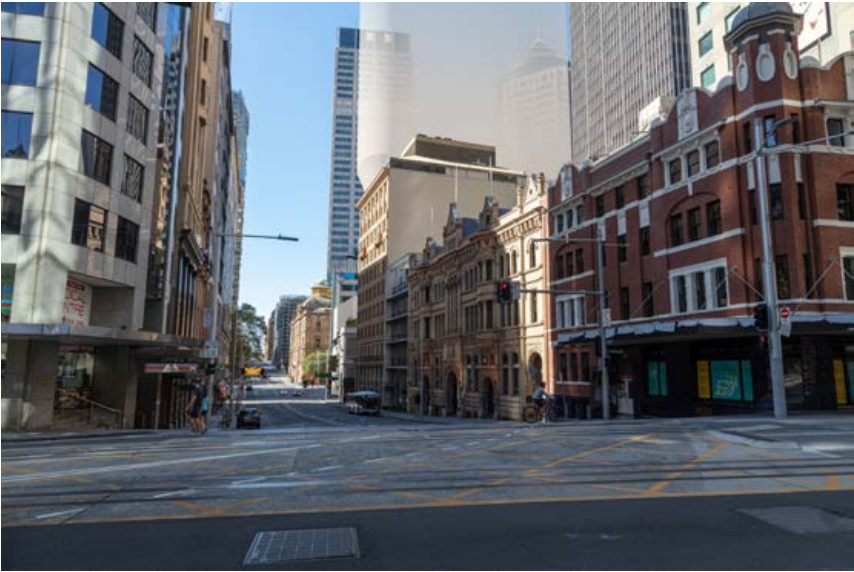


South-West axonometric view

Proposed Envelope - Visual Impact Images

Proposed Envelope

The series of images are extracted from the visual impact assessment as prepared by Ethos Urban which forms part of this Planning Proposal submission. Refer to this report for further detailed analysis/assessment.



VIA - Views



Tower Setbacks

Tower

The proposed envelope will accommodate the overall NLA as required to justify the structural, servicing and vertical transportation needs as associated with such a significant commercial tower.

The tower form progressively steps back as the height increases. As such, the minimum setbacks occur at the lower tower levels.

Proposed tower setbacks have been established following careful consideration of visual impacts from each of the streets.

A minimum 5.5m tower setback to Pitt St is proposed. Analysis indicates that this will still allow for a clearly identified street wall condition to be achieved.

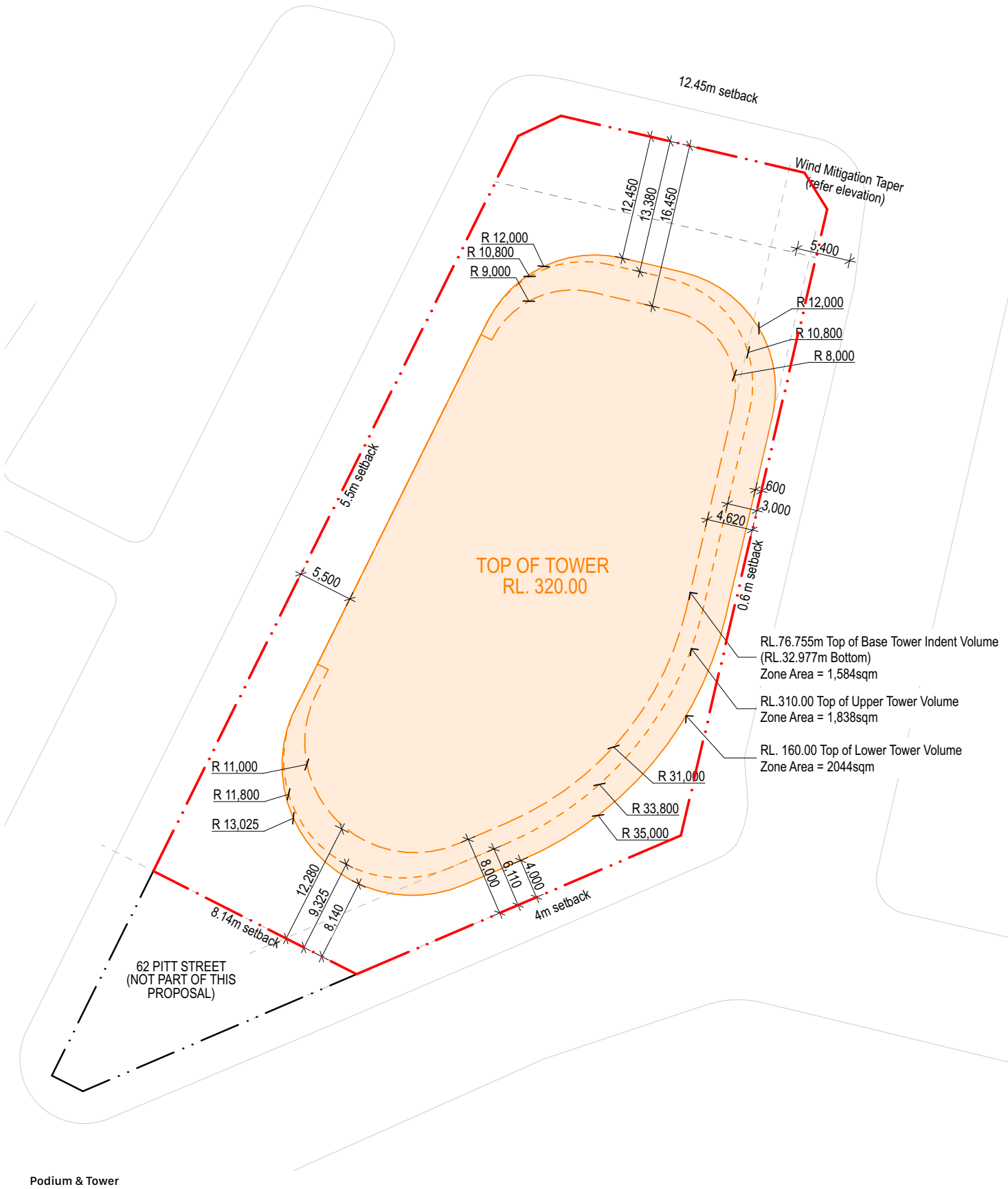
A 12.45m tower set back (relative to boundary) is provided to Bridge Street which allows a generous and activated streetscape with open vistas to the sandstone buildings.

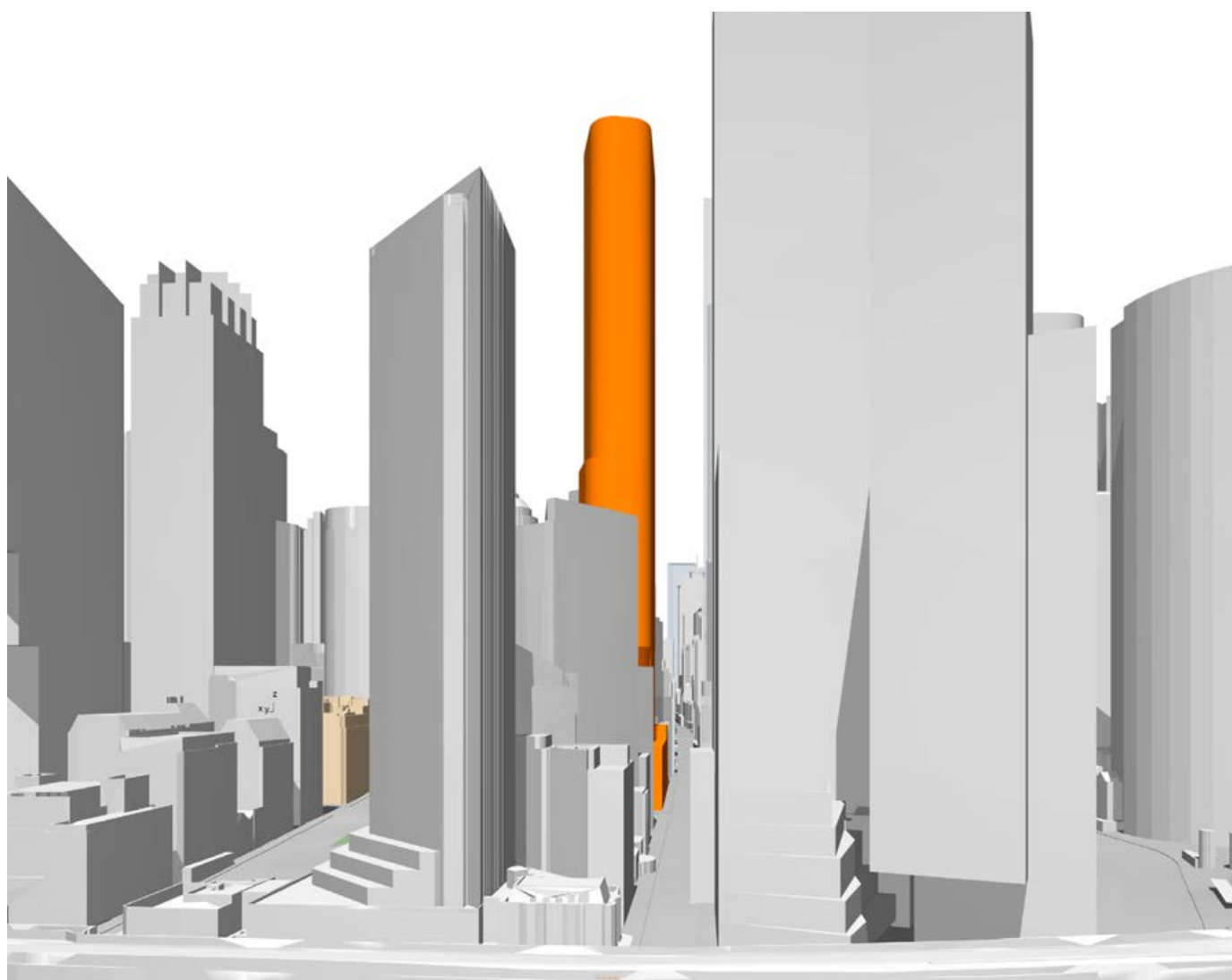
A curved form ensures that the tower and podium volumes are visually separated when viewed from Spring Street, Gresham Street and Bent Street.

Tower tapering - refer to Envelope Tower plan for details.

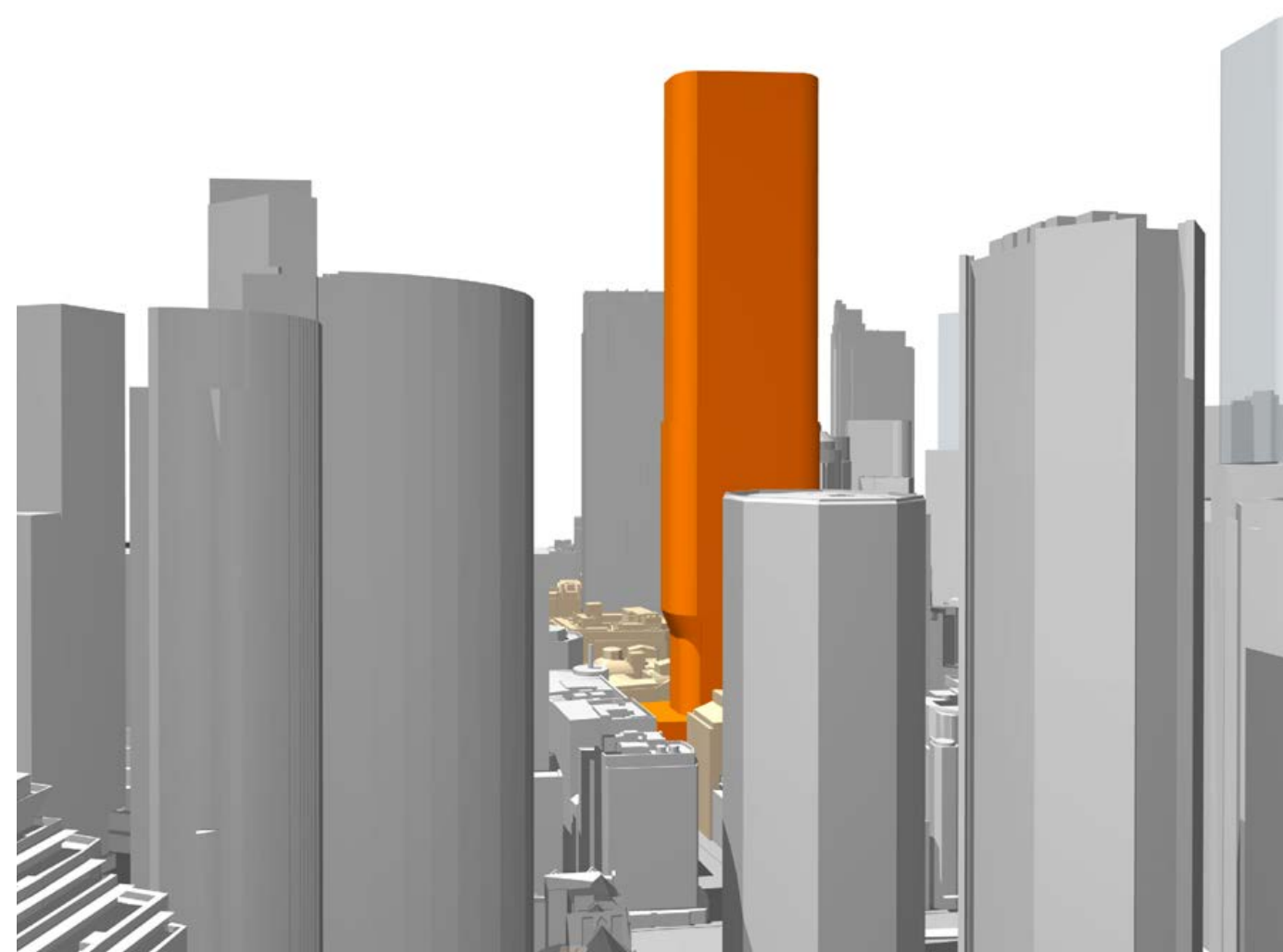
Tower setbacks

Pitt St	5.5m
Bridge St	4.45m (from podium)
Gresham St	0.6m
Spring St	4m
Rear commercial site	1.5m





Sketch view above Circular Quay looking up Pitt Street



Sketch view above Bridge Street looking East

Reference Scheme

Tower Form

The reference scheme has been included in the Urban Design Report as a indicative application of the setbacks and height plane defined by the proposed envelope and achieving 90,000sqm of commercial and retail GFA.

The reference scheme has resulted from rigorous testing and analysis including structural, servicing and vertical transportation. This has been done to prove efficiencies further to the base assumptions in the CoS planning proposal guidelines.

The indicative scheme includes the following features;

1. Floorplate step in articulation between mid rise, high rise and sky rise
2. Potential for green expression wintergarden articulating floorplate in two parts
3. Sky garden and co-working in indent levels between tower and podium
4. Core element on Western side
5. Mid rise 1187sqm NLA floorplate



Aerial - North West



City Skyline view



City Skyline - distant view

Floor Space Ratio Indicative design form

Approximate FSR for Proposed Envelope.

In the development of the proposed envelope and site specific planning proposal, extensive investigations of indicative reference schemes have taken place.

These studies included the consideration of various CSPA planning proposal guide requirements including articulation, floor to floors. (refer page 127 Envelope Efficiency & Alignment with Council DCP assumptions)

These studies have driven an informed FSR to proposed envelope ratio with the following assumptions.

Appropriate and efficient structural wall thicknesses within the structural core to deliver a building of the permitted height.

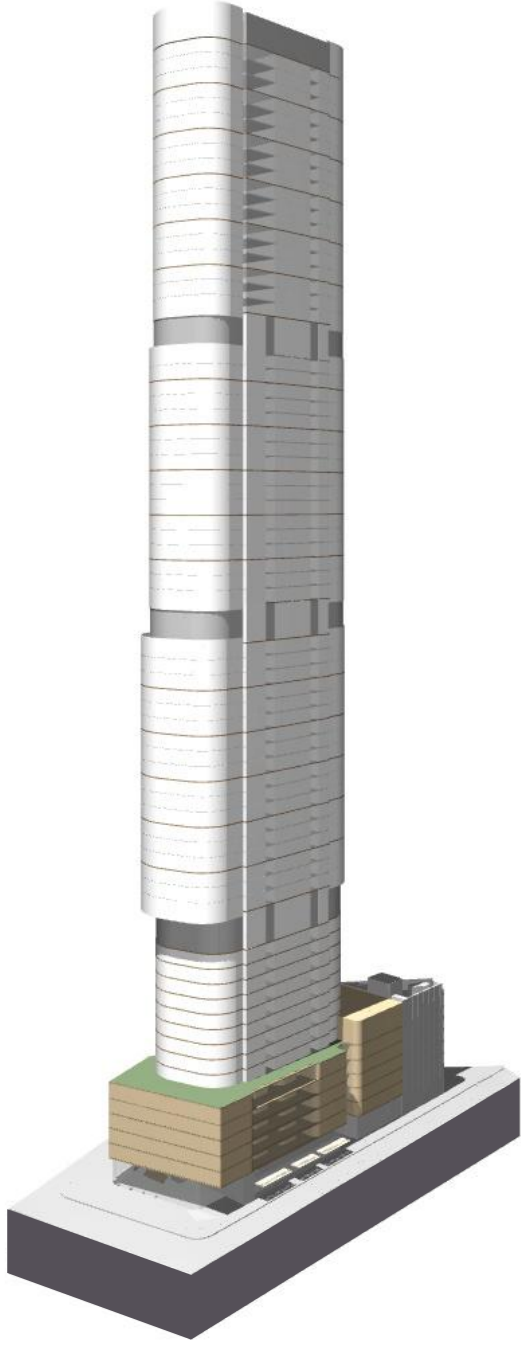
- Achieve floor plates of a commercially viable size.
- Provide amenities to service floor plate capacity.
- Provide mechanical, electrical, hydraulic etc service risers and rooms to all levels with 6m high plant levels distributed effectively in the building.
- Appropriate and efficient vertical transportation solutions to service a building of the permitted height and capacity.

These studies determined that the indicative scheme / proposed envelope would require an approximate FSR of 27.4:1 to deliver an efficient and viable tower as described within this report.

The series of diagrams to the right illustrate how such a tower might be articulated at the macro scale. These diagrams show the relationship between podium and tower form. Additionally they begin to indicate how the vertical zones of the tower can have individual expression.



North-West axonometric view



North-East axonometric view



South-East axonometric view



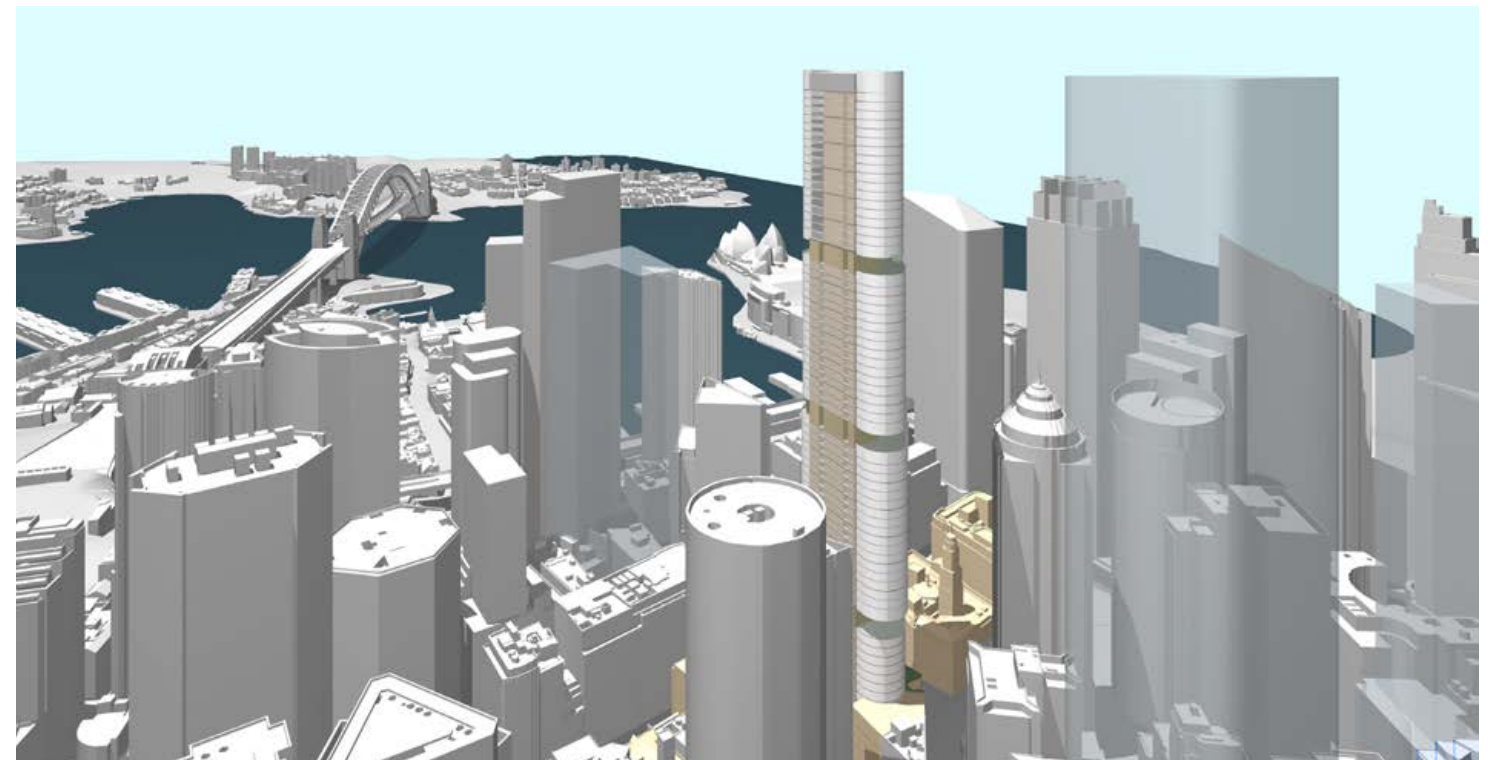
South-West axonometric view



Birds eye view looking South from Sydney Harbour



Birds eye view looking South East - Indicative tower design



Birds eye view looking North East to Sydney Harbour - Indicative tower design

Design Response - Tower Greening Strategy

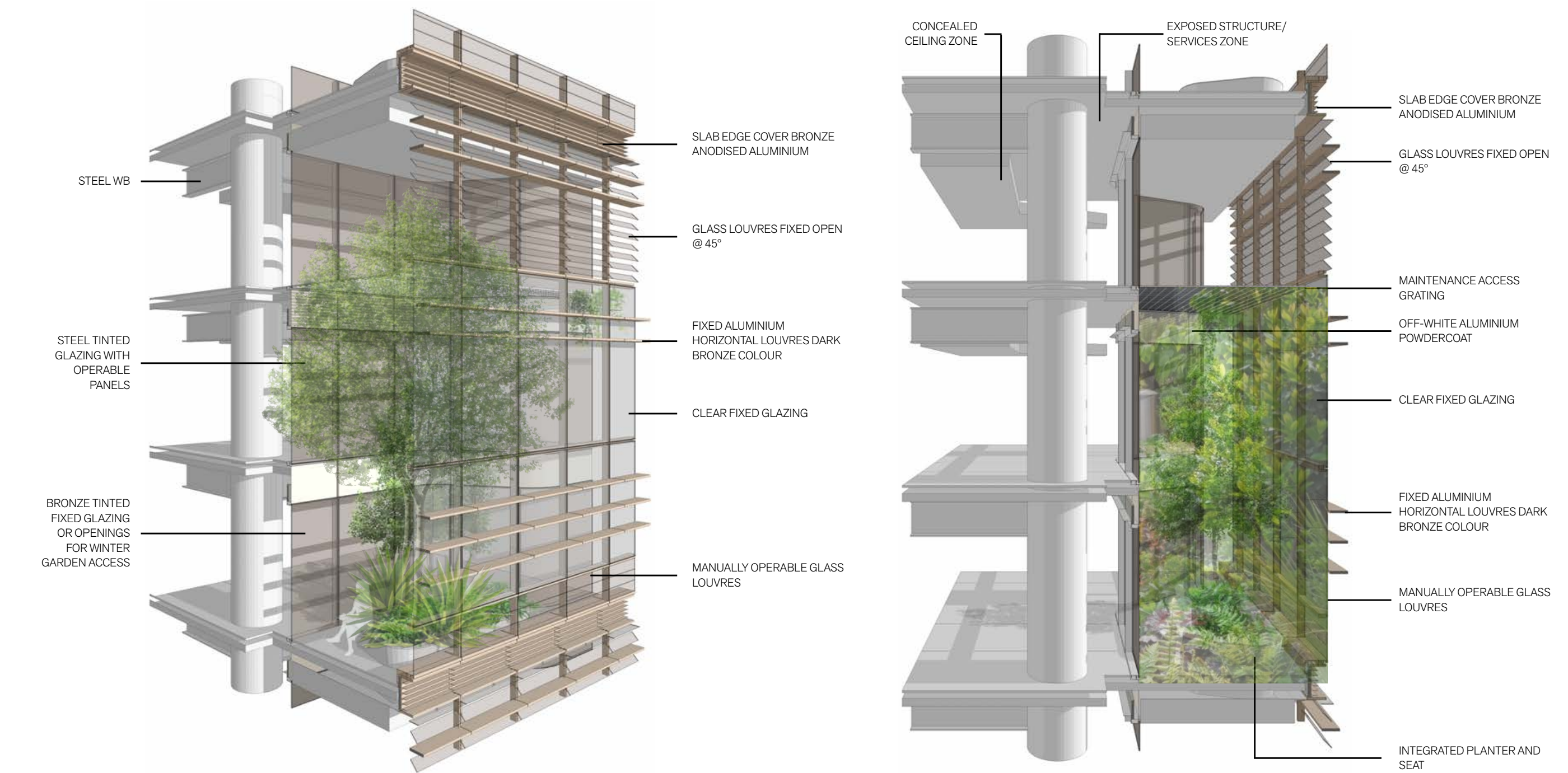
Pitt and Bridge aspires to be an emblem for the new green economy. It will be a vertical village of contemporary workplaces and innovative uses. Pitt and Bridge has been designed to accommodate tenant garden spaces to express the towers green credentials and offers potential for landscaped spaces for the tenants.

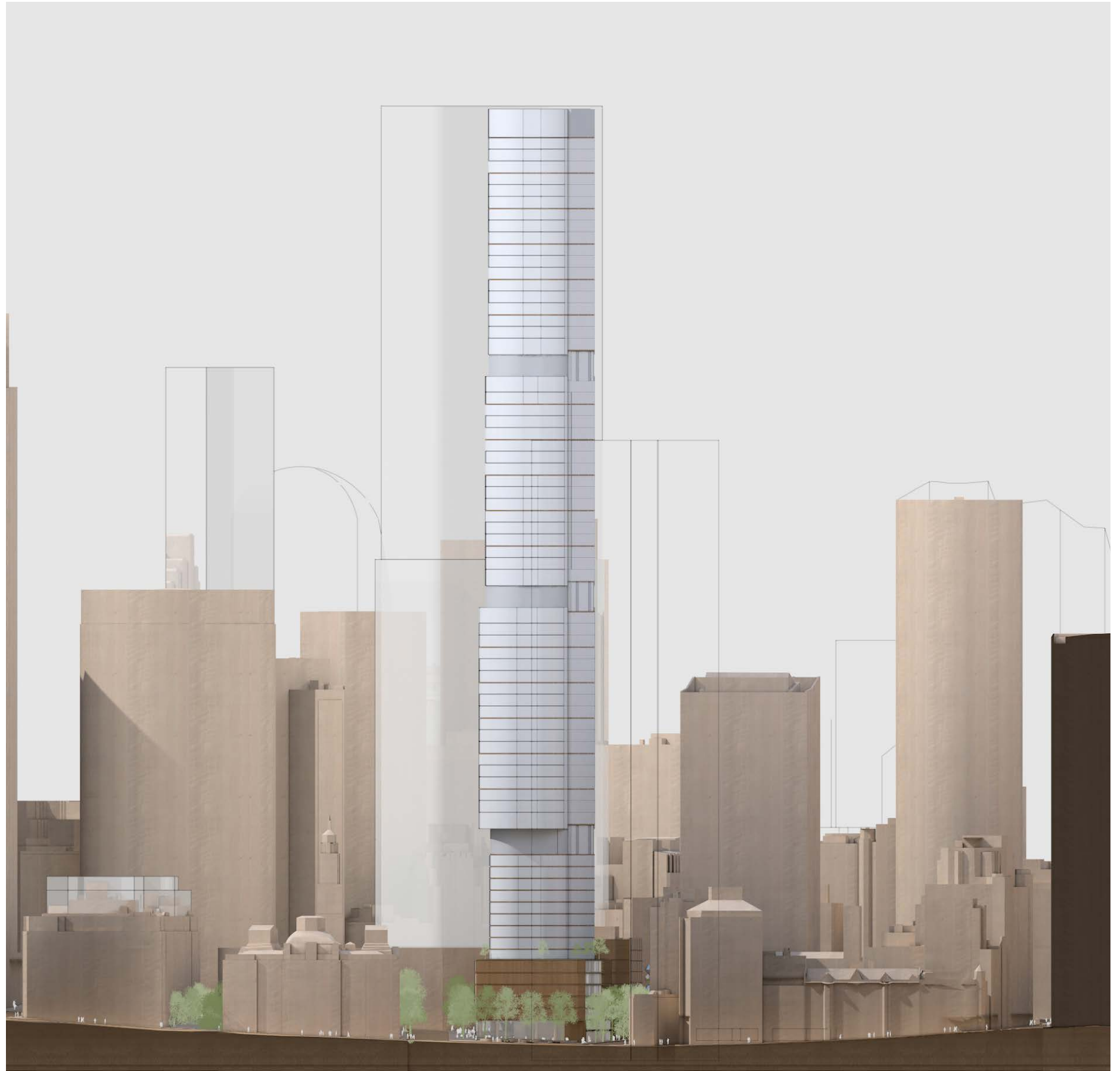
There is potential to integrate the green seam element with the setback service floors and the roof feature and will be highly visible from the distinctive Sydney Harbour skyline view.



Winter garden study

The following diagrams indicate potential components of wintergardens with 3 storey voids, substantial planting, performance inner glazing, integrated accessways and irrigation as an option for the design excellence stage.





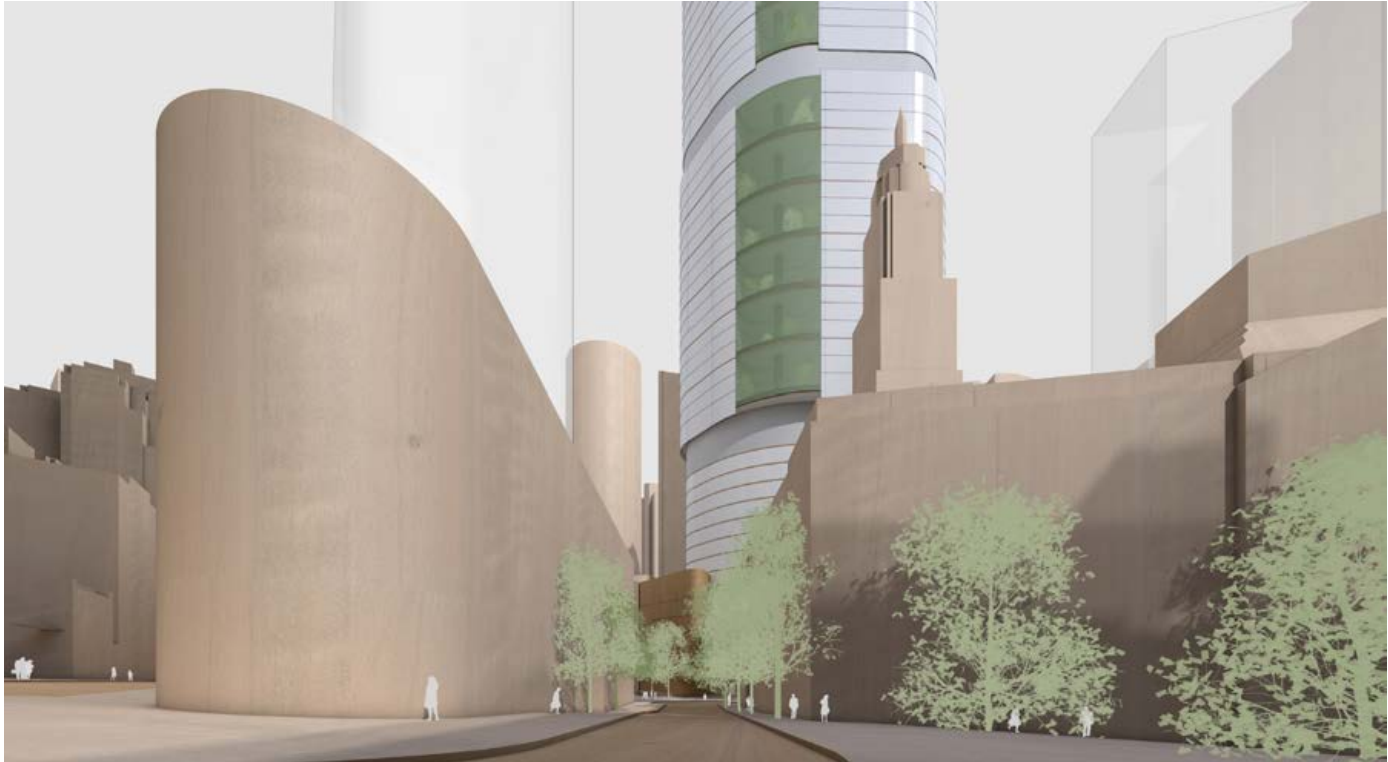
North Elevation



Sydney Skyline view



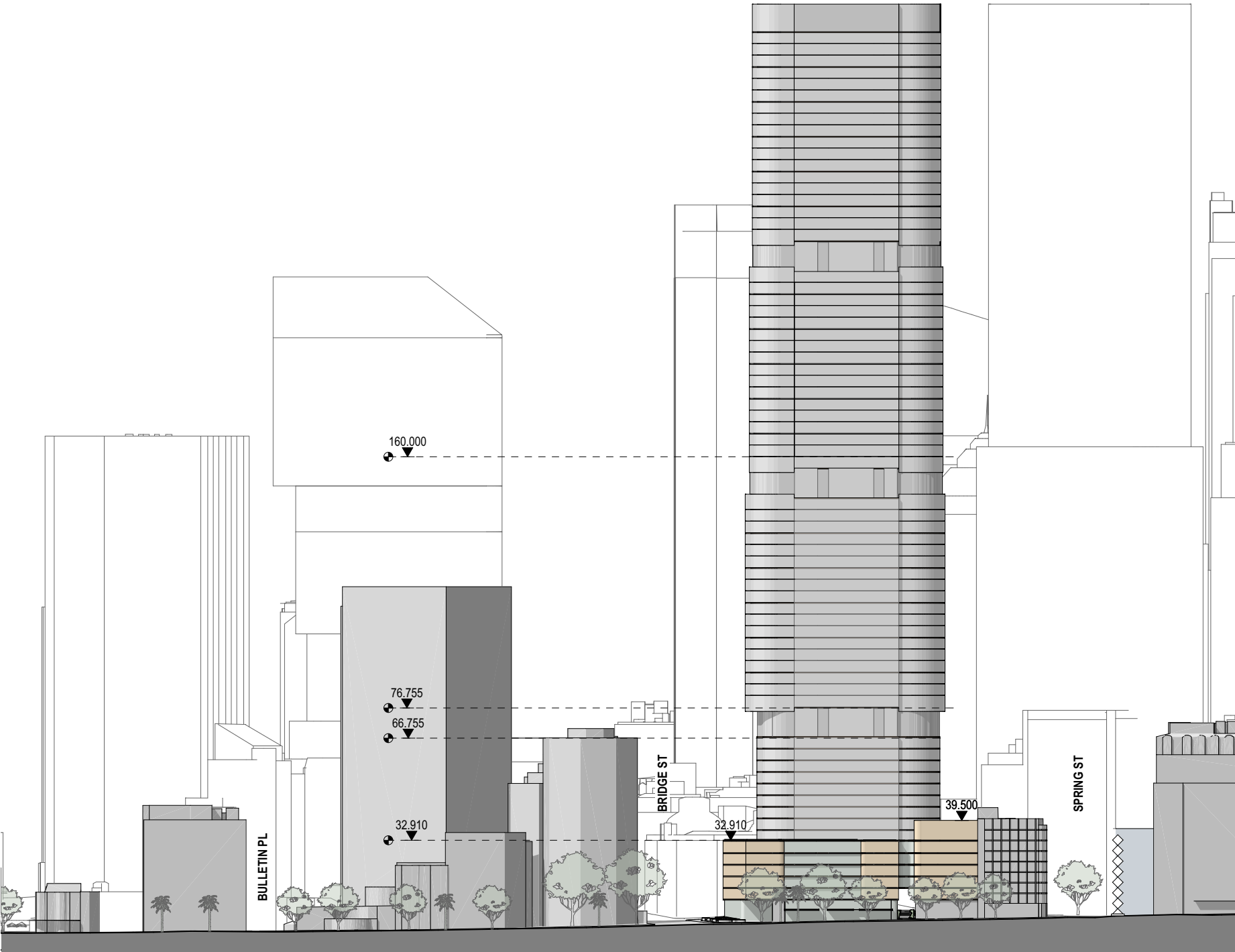
View from Bent Street



View from Farrer Place

Design Response: Pitt Street

A key design response in Pitt and Bridge is the strengthening of the Pitt St Pedestrian experience. Pitt Street is enhanced through activated streetscape edges, podium setback at key corners and through-site link.



View of Bridge / Gresham Street Plaza

Design Response: Through Site Link

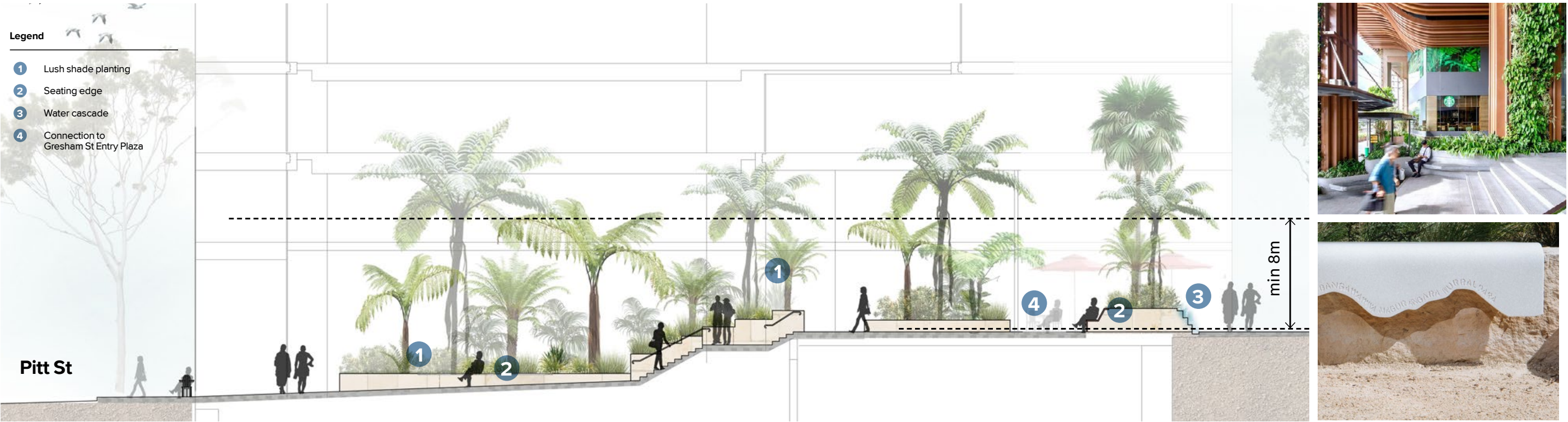
The through site link connects Abercrombie Lane to Spring Street, allowing for a clear sight line from Pitt Street to Spring Street - drawing users through a high triple height volume, activated corners and key visual connections using public art and wayfinders. Opportunity to continue connection to country principles into the building via the through site link.



Gresham St Plaza

Design Response: Through Site Link - Views

The level change of the through site link is located as close to Gresham St as practical, with views to the sandstone of The Department of Lands building visible from the through-site link.

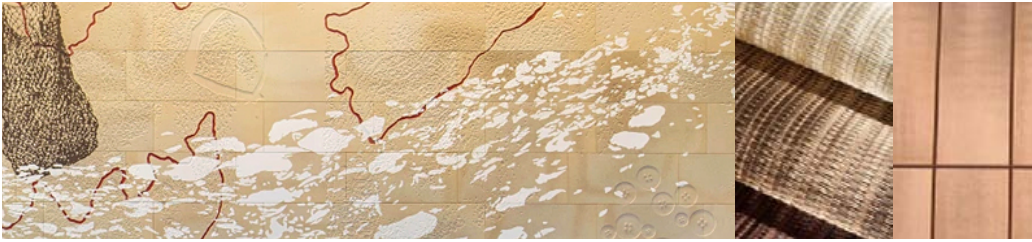


Design Response: Relationship to Macquarie Place

The setback on Bridge Street public realm allows a continuation of the Warrane green link from Macquarie Place through Pitt and Bridge to the Southern side of the site.

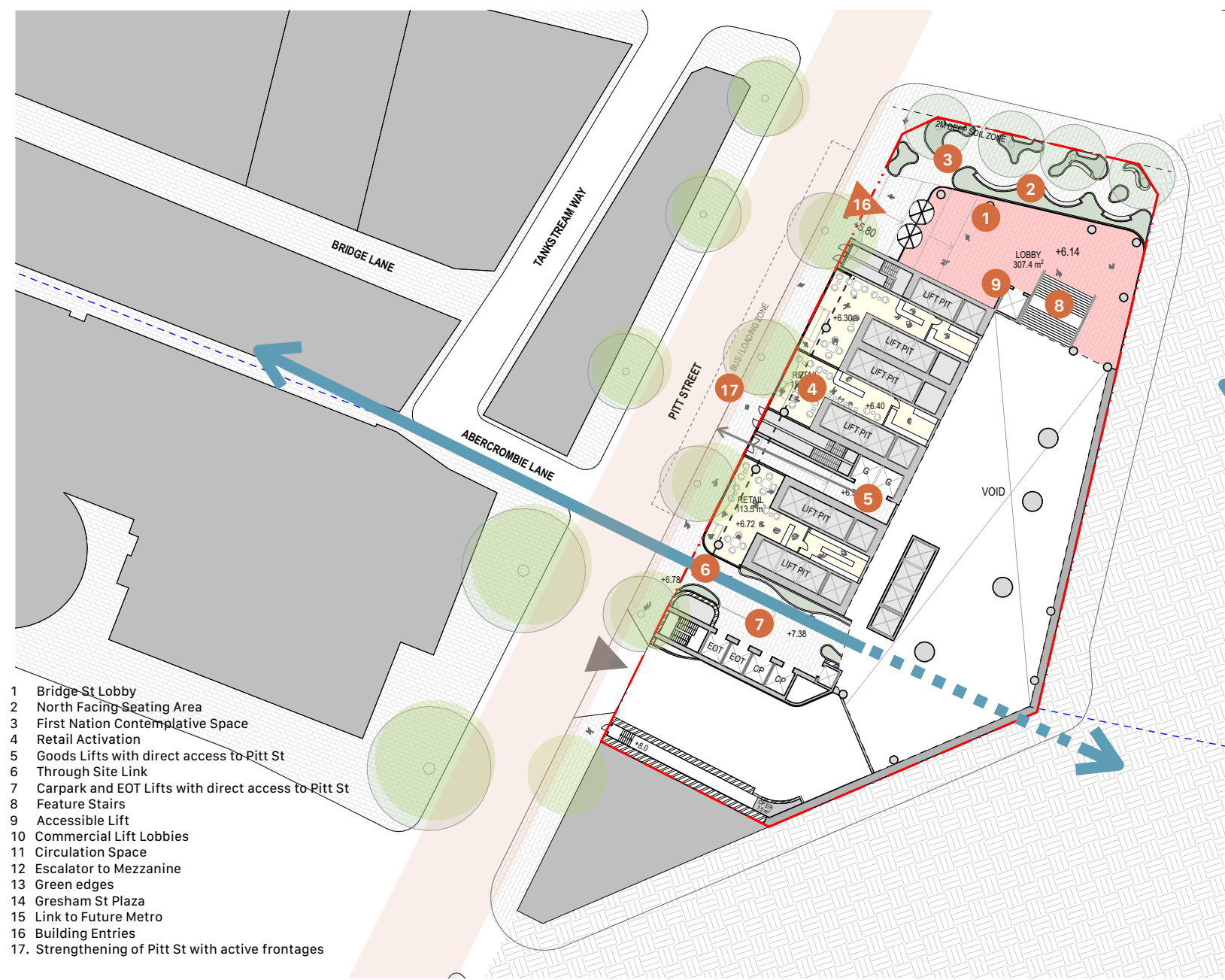


Aerial view of Macquarie Place and Bridge Street Plaza

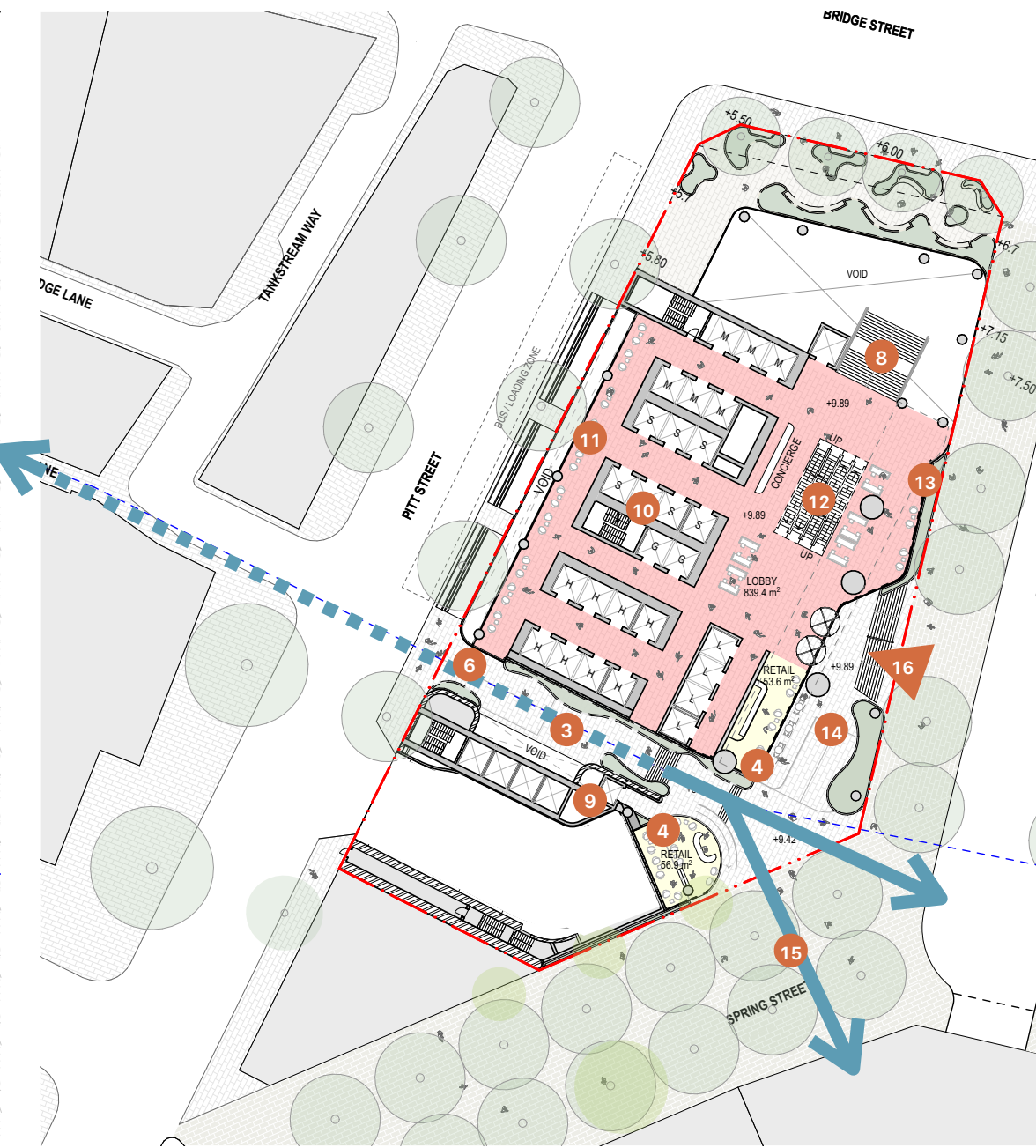


Design Response: Ground plane strategy

- Key responses to the ground plane strategy (refer Arcadia public domain report):
- Tower core weighted to the west and south opening up the northern side of the site for a generous streetscape featuring integrated public seating and activated retail, softening the built form against the backdrop of the Sandstone buildings.
 - Building entries and lobbies addressing Pitt St and Gresham St with future increased pedestrian traffic movements from metro.
 - A mid block through site link that connects Abercrombie Lane to Spring Street.
 - Enhance pedestrian experience along Pitt Street through activated streetscape edges, enhanced podium setback at key corners and through-site link.
 - Loading from Pitt Street, opening up the rest of the groundplane for pedestrianisation.
 - Consolidation of multiple existing driveway crossovers into a single access point off Pitt Street, with width to be minimised.



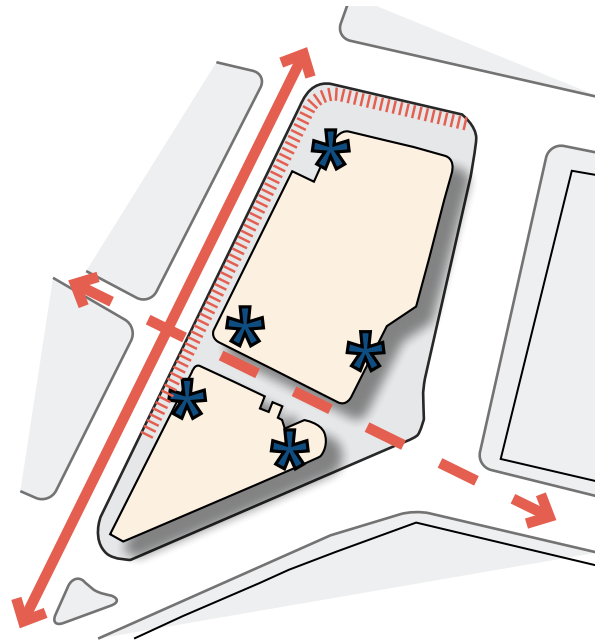
/ Through site link option



/ Developed ground plane strategy

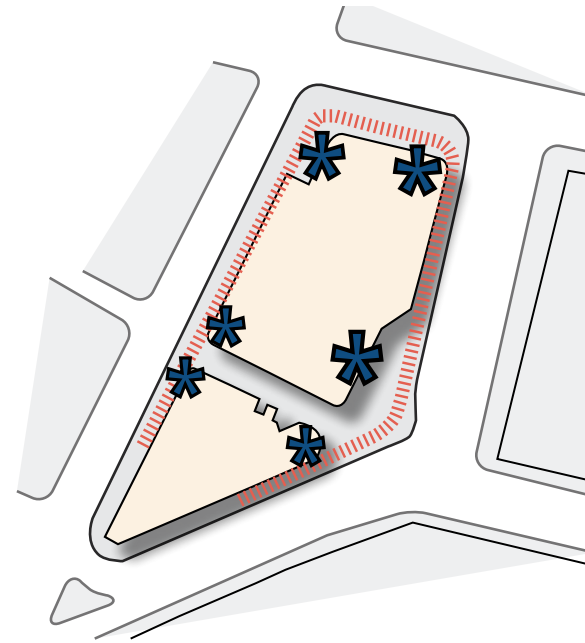
Design Moves: Ground plane strategy

(refer to Arcadia public domain report)



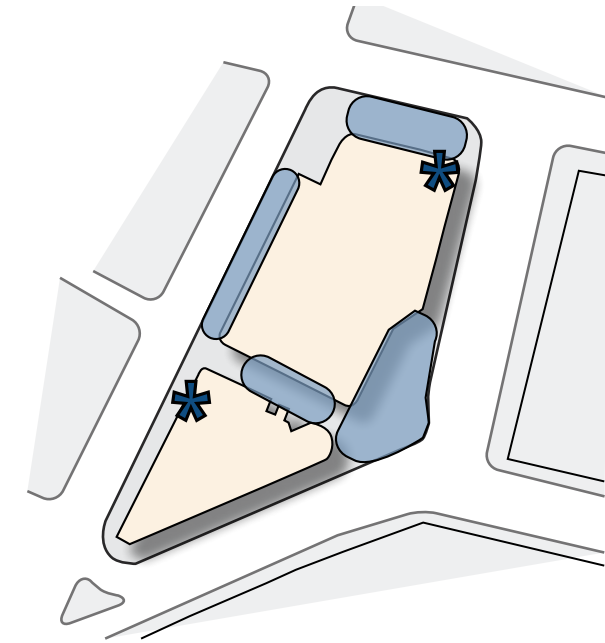
Strengthen Pitt St

Enhance pedestrian experience along Pitt Street through activated streetscape edges, enhanced podium setback at key corners and through-site link.



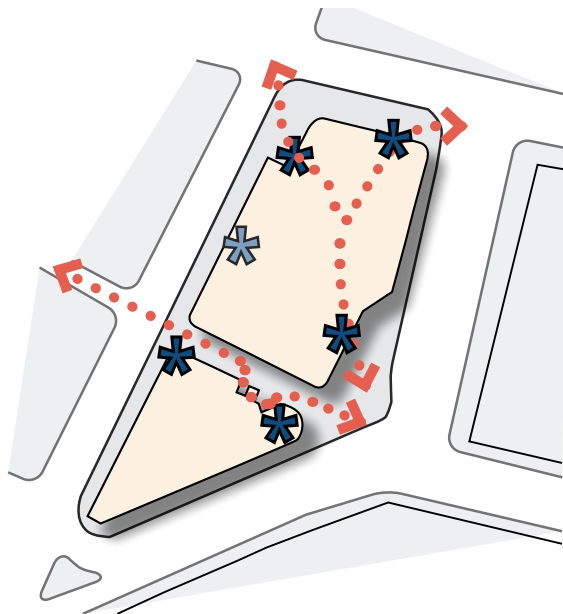
Activate Built Edge

Activate key corners of the ground floor podium with more permeable ground floor uses including building entrances, cafes and alfresco. Provide continuous retail interface along Pitt Street.



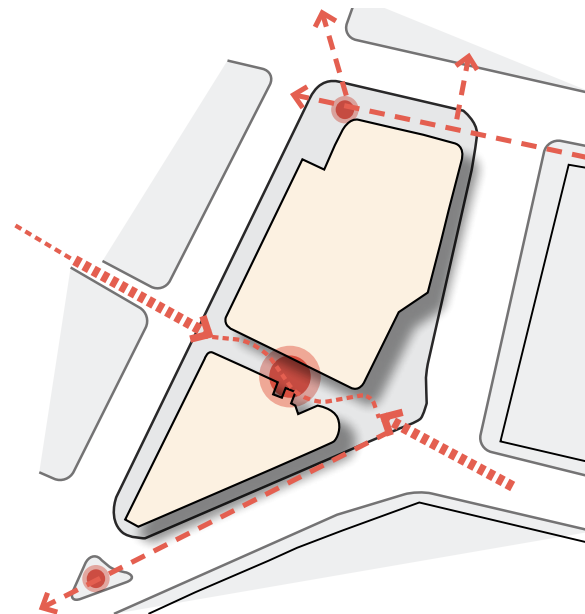
Sequence of Places

Create a series of landscape amenities along the podium to connect podium with the streetscape. Leverage north facing aspect of the development to allow for places for people to gather.



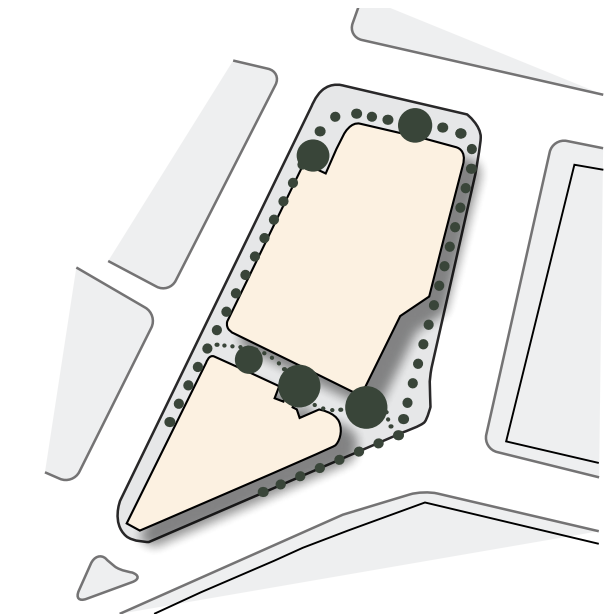
An Accessible Journey

Improve pedestrian experience and create an accessible route through the spaces connecting to podium key entrances.



Visual Connections

Provide an intimate pedestrian through link on site to vary the mid-block crossing experience from Abercrombie Lane to Spring Street. Allow for a clear sight line from Pitt Street to Spring Street and draw users into the site through activation of key corners of the site with key visual connections using public art and wayfinders.



Tell the Story of Country

Connecting with the eons held identity of Warrane, interpreting the sacred connections and uses of place. Strong hydrological processes aid us in story telling.

Design Moves: Ground plane strategy (continued)

The Bridge Street Setback allows for a public plaza space

Balancing permeability with street activation

- Provide accessible through site link to increase flow efficiency from Pitt to Spring Street.
- Would visually connect Spring/Bent and Gresham intersection with Pitt Street and Abercrombie Lane, higher permeability
- 3m+ level change obscures visual connection
- Provide engaging ground floor interface with streetscape
- Provide relief of setback on ground floor of key meeting place
- Provide adequate wind comfort for pedestrians

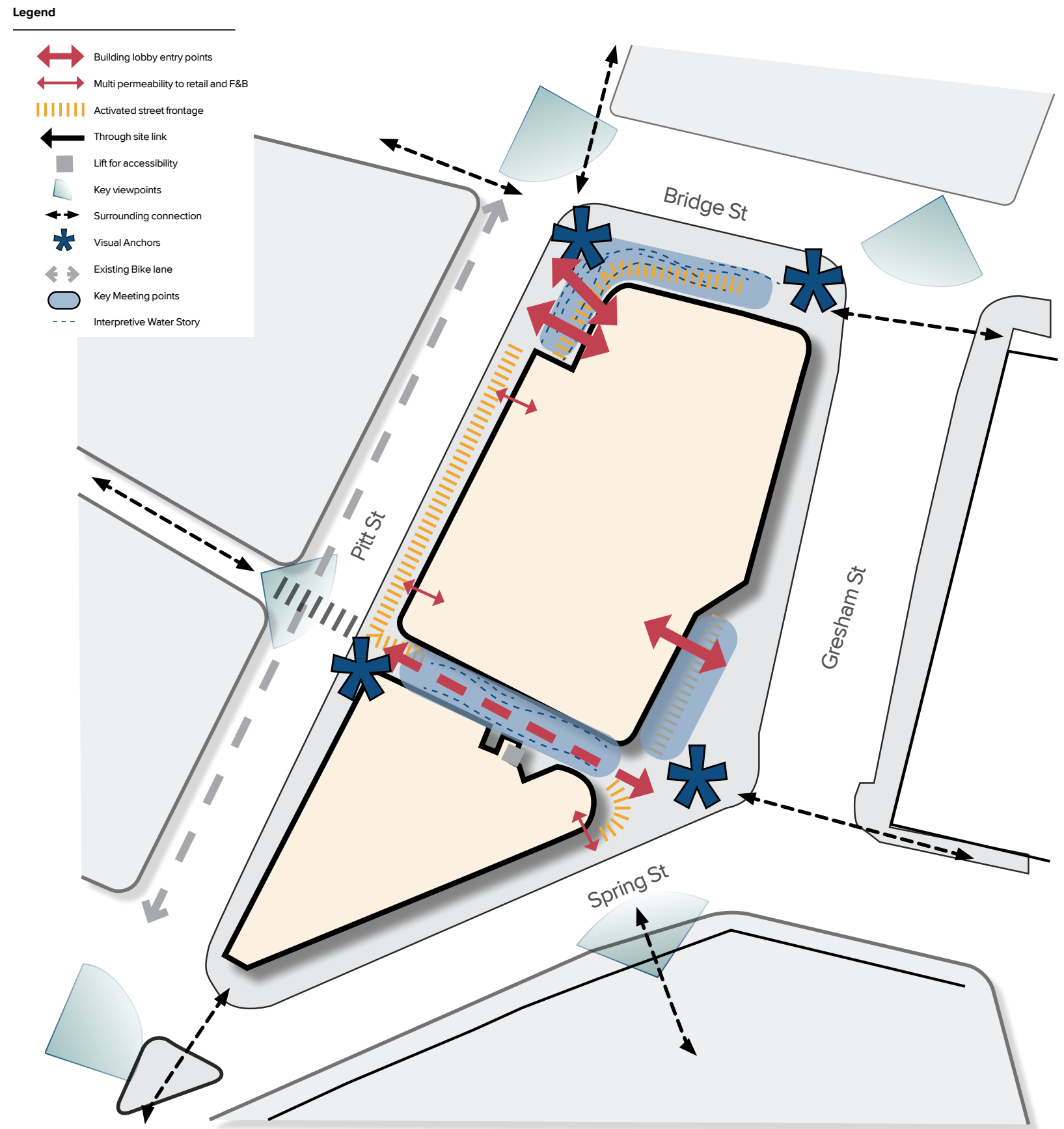
Spatial Considerations

The ground plane has been designed to the benefit of all contributing disciplines e.g. traffic, heritage, pedestrian comfort, accessibility, wind and connecting with country

- Focus on significant lobby space, unencumbered by retail to ensure that pedestrian circulation for the building can be managed internally opposed to blocking the footpath.
- Level changes from a low point at Pitt and Bridge intersection around RL 5.00 to about RL 10.00 at the corner of Gresham and Bent Streets require consideration for accessibility
- Accessibility of the site has been provided via ramps and a lift to facilitate the change in RL from Pitt St to Spring/Gresham St.
- A deep soil zone along Bridge St has been provided to allow for planting/trees in the Design Excellence stage. This allows for further flexibility in pedestrian wind comfort and overall reinforcement of the biophillic design.
- Further pedestrian comfort opportunities are prevalent throughout the reference design, from external seating and planting to cafes and retail along Pitt St, Bridge St and Gresham St.
- Visual connections from Macquarie Place, 1 Bligh and the intersections of Pitt Street are key for drawing users into site and urban legibility
- Street front and through-site link activations
- Provide option for the future expansion of adjacent side of Pitt street
- Water drainage lines important to consider urban water management, filtration and flooding
- Provide crossing from Abercrombie Lane through traffic calming solution and allow for street edge activation.

Extending the public domain, activating the ground floor

- Facilitates street activation and improves pedestrian experience of City North



Ground Level Plan - based on illustrative scheme

Public Art strategy

The proposal will implement a significant portion of the Sustainable Sydney 2030 vision and align its public art strategy with the City of Sydney policies.

Public artwork will be developed closely with City of Sydney art committees and in accordance with City of Sydney policies, and procurement of public artwork will run in parallel with the building design.

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

- Illuminate each unique scene and harness an identifiable night time experience
- Consider 'plug and play' facilities to facilitate event overlays

Artwork will be commissioned based on standards of excellence and innovation, integrity of the work, relevance and appropriateness of the work to the content, consistency with current planning, heritage and relevant codes, consider public safety and public domain access and maintenance and durability.

There are several unique opportunities to overlay Heritage and Public Art at Pitt and Bridge, to be developed in detailed design and subject to detailed art strategy for the site.

The steps of the current building at Pitt and Bridge feature a sculpture of 'Commerce' which was originally installed on the roof of the previous building on the site. It is expected that a redevelopment of the site would see this relocated within the site or within a redeveloped Gresham street landscape design.

- Public Art Opportunity
- Public Art Opportunity integrated within landscape design



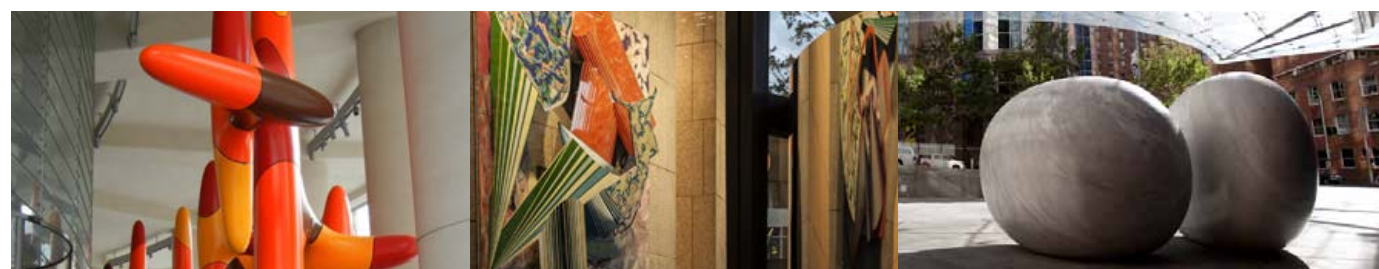
Embedded Paving Treatment



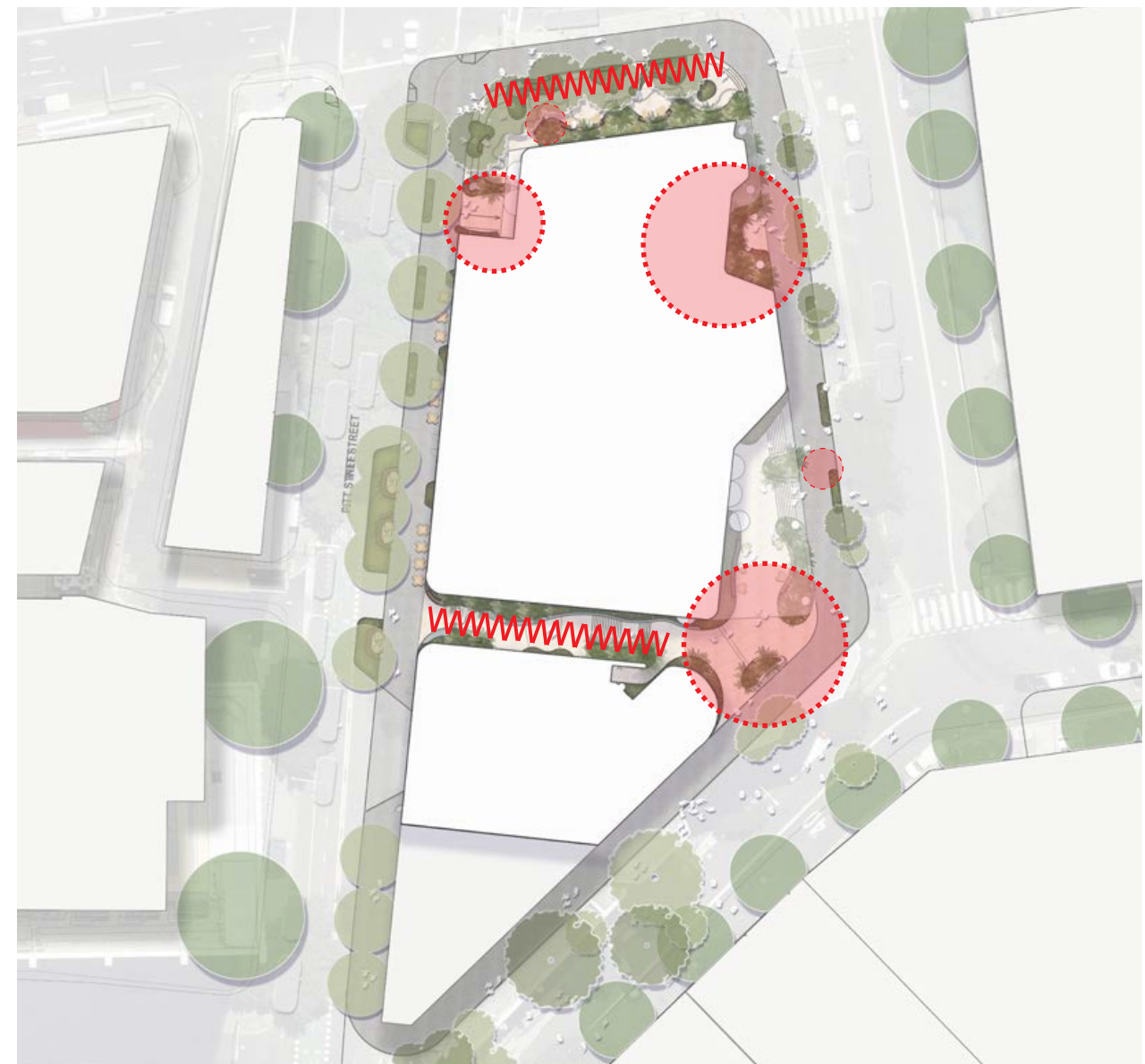
Heritage Display



Light Artwork/Installation



Major Commissioned Artwork



Vertical transportation

Conventional vertical transportation strategies for a commercial building (ground level lift lobby, lift banks for each commercial rise, premium grade service) would result in a large number of lift shafts and reduce the floor plate area significantly.

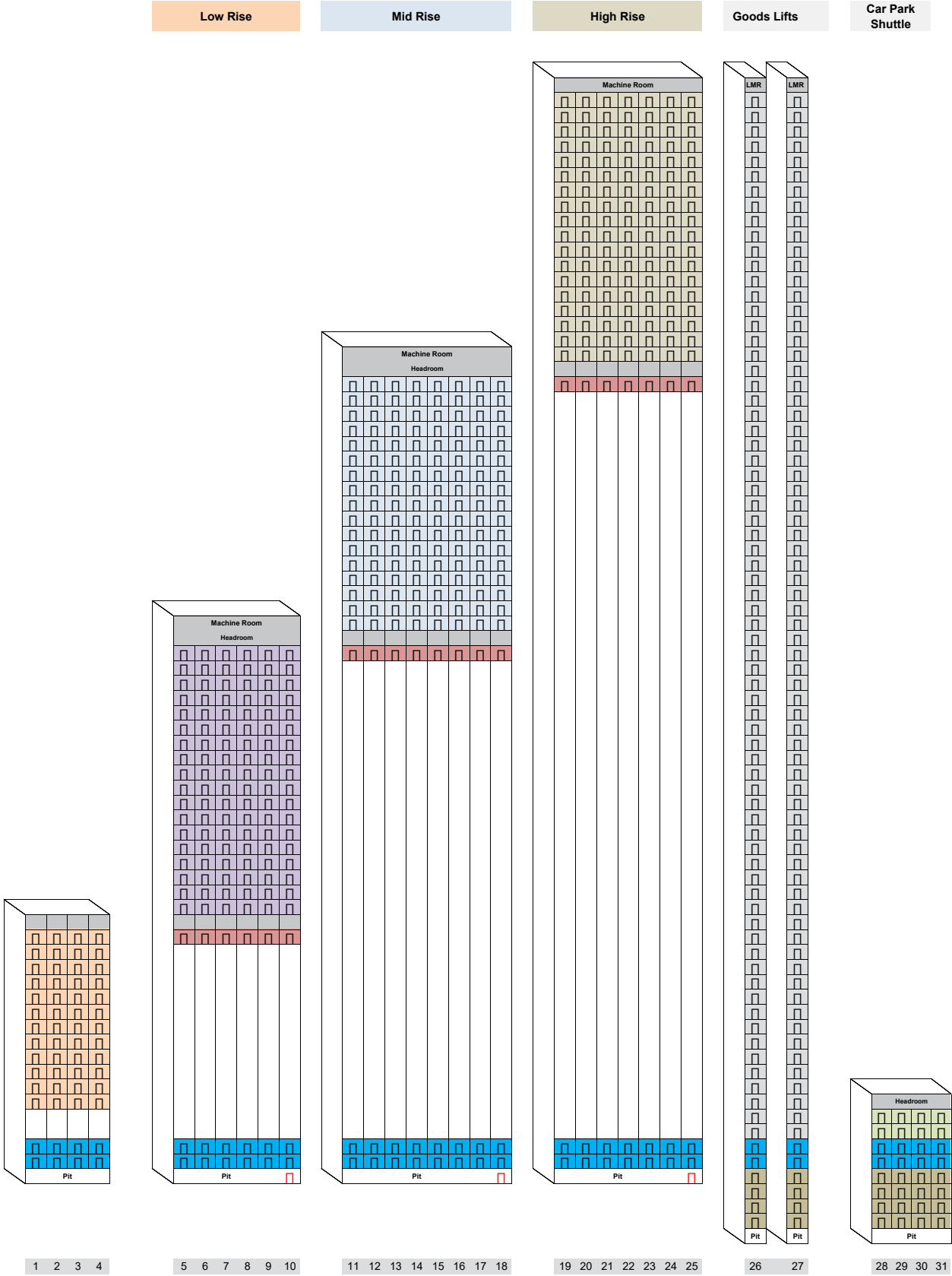
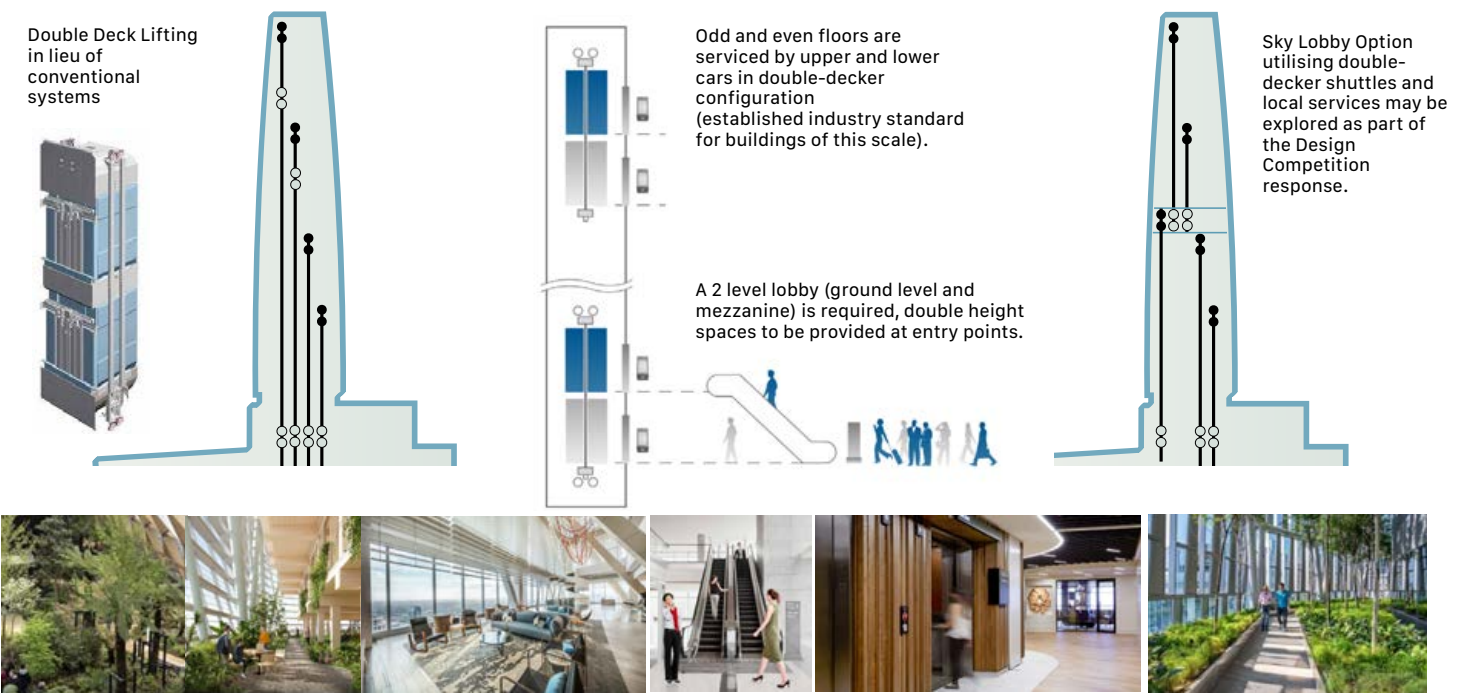
An appropriate lifting strategy to service a 300m+ tall tower was identified.

Building upon contemporary industry advice and input from the consultant team it was determined that a tower of the proposed height and slenderness will need to adopt non-conventional vertical transportation strategies to decrease the footprint of the core, and retain commercial viability.

A number of vertical transportation options have been tested. This includes the option express shuttle lifts to an elevated Sky Lobby, ie. the top half of the tower is effectively a building within a building 'stacked' over the lower half.

Proposed strategy

The indicative design scheme as submitted adopts a lifting strategy where all floors are served from a 2 level ground floor podium. Shuttle lifts and double decker cars servicing odd/even floors allowing for a significant reduction in the number of lift shafts.



Diagrammatic section

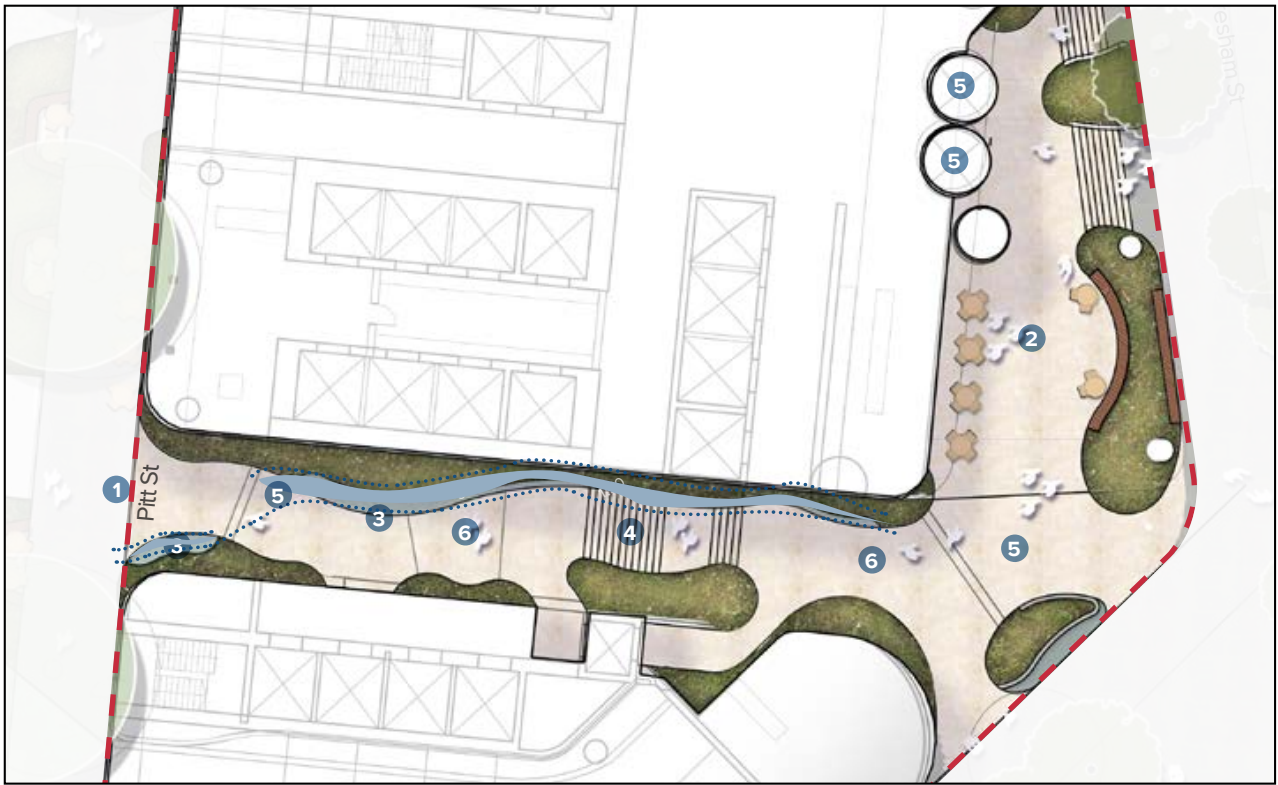
Public Domain strategy for Abercrombie Lane & Gresham St Plaza

The following section illustrates the public benefits and contributions attainable as a result of the proposed alternative envelope. See Arcadia report for further details on public domain strategy.

Legend

- 1 Pitt Street streetscape
- 2 Gresham St Plaza & Alfresco
- 3 Water Rill & Water Feature
- 4 Abercrombie through site link
- 5 Building Entries

ARCADIA 56 Pitt Street
Landscape Public Domain - Planning Proposal

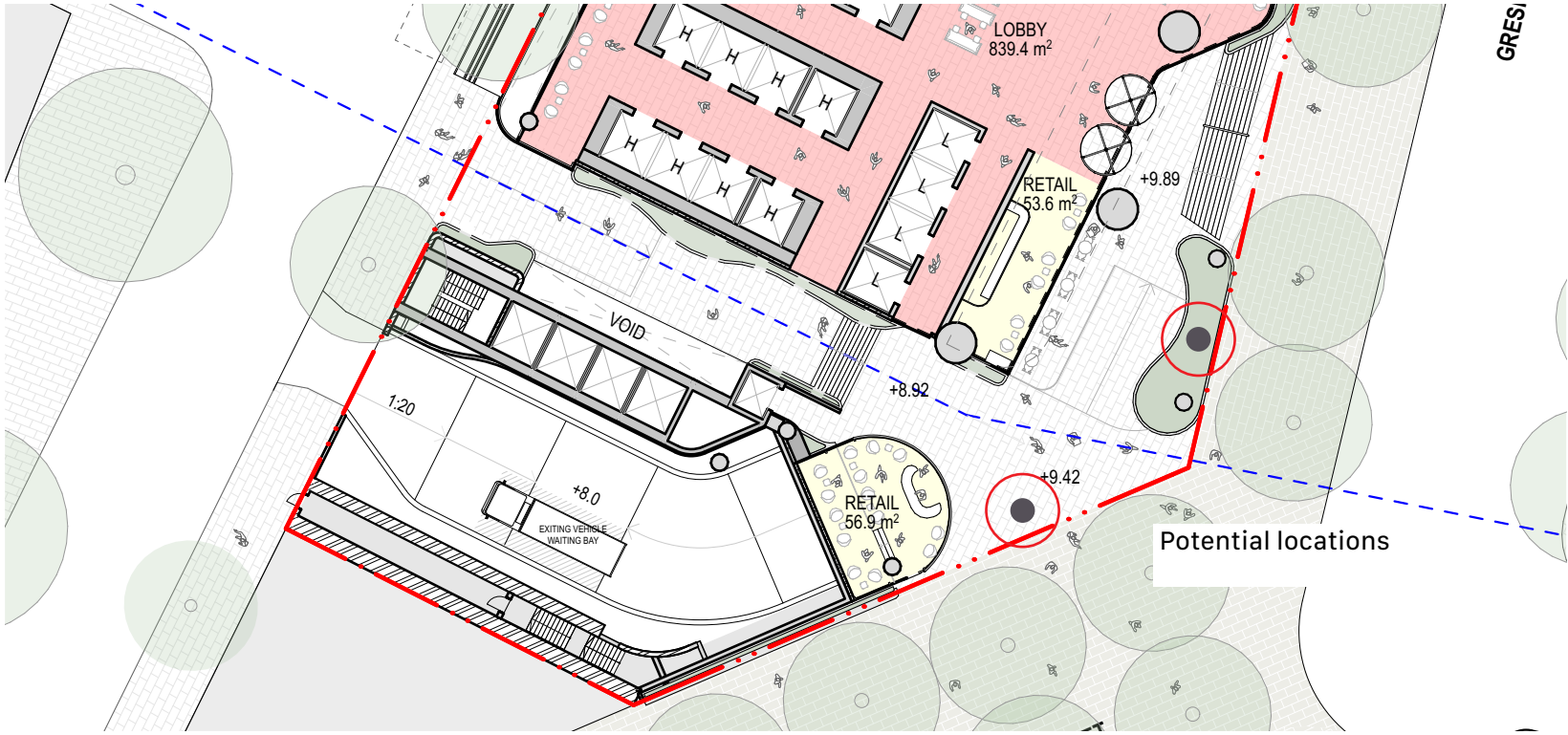


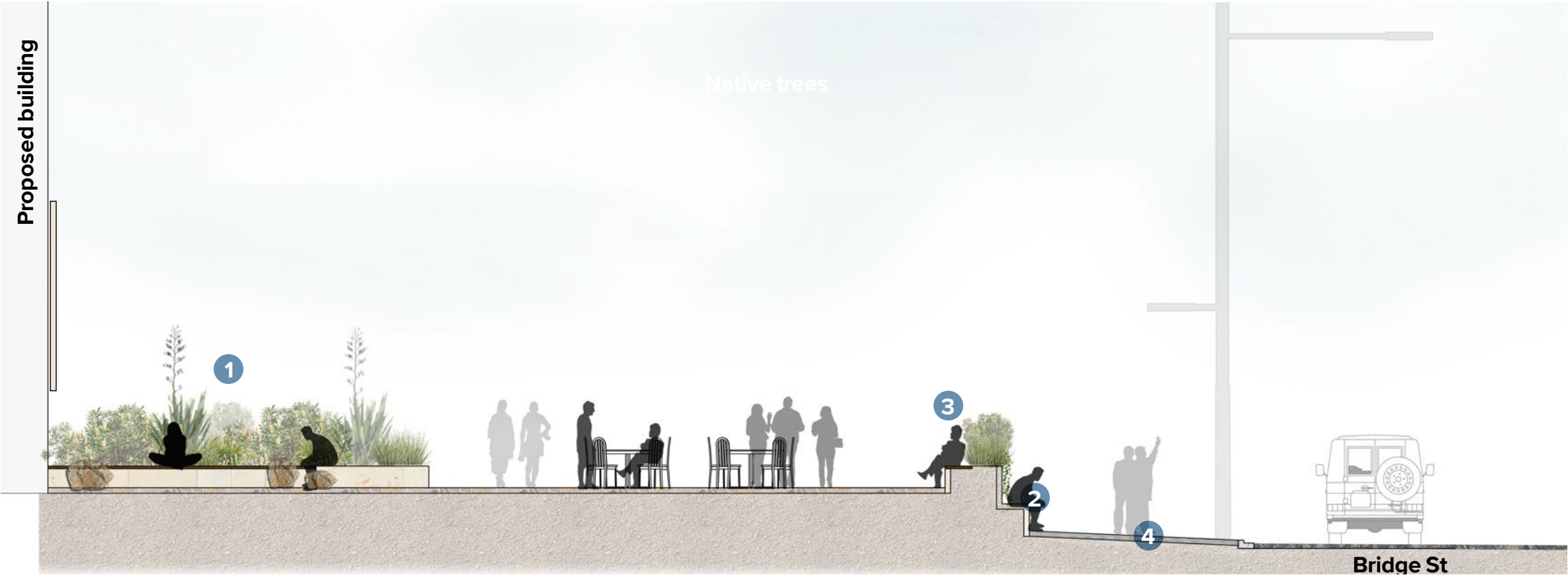
Lady of Commerce

The historical 'Lady of Commerce' Statue is proposed to be retained as part of the redevelopment. It was sculpted by James White (1861-1918), and was originally located on the Bridge Street facade of the previous Royal Exchange Building.

Potential locations for the statue include the pivotal intersections between Gresham St, Spring St and Bent St adjacent to the Through Site Link.

The exact location is to be further considered as part of the design excellence process.





Section through Bridge St Entry



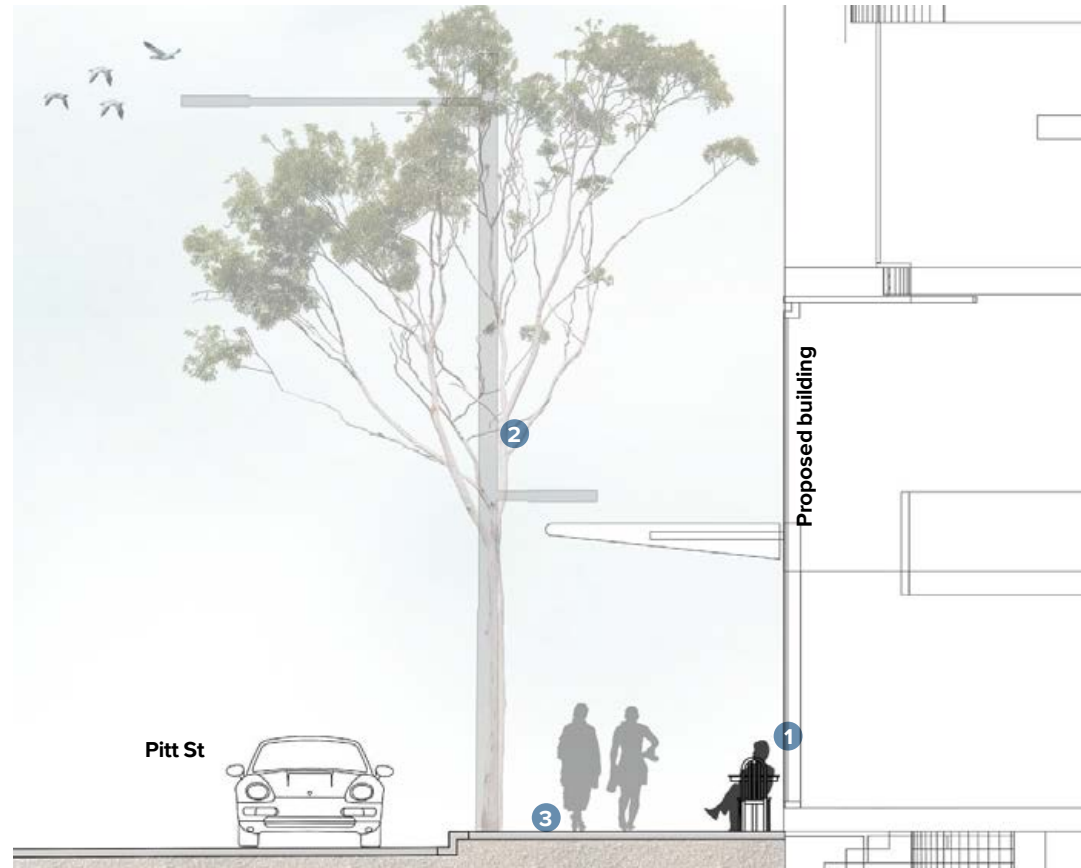
Section through Bridge Street Plaza

Bridge Street Interface

Opportunity for a landscaped forecourt with northerly aspect seating edge, native planting and public seating

An extension to the Warrane Green link from Macquarie Place to Circular Quay. This space consists of ceremonial and contemplative space within a fine grain landscaped setting





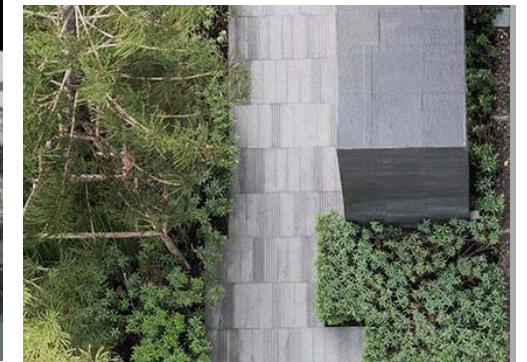
Section through Pitt St Retail



Section through Gresham St Plaza

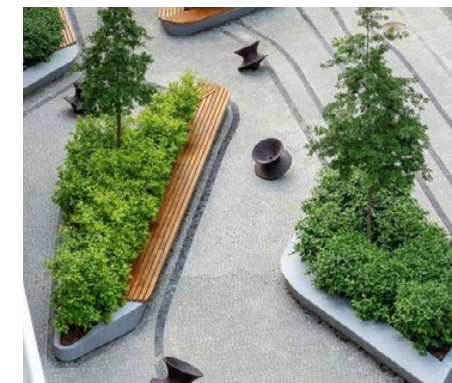
Pitt Street

The through-site link entry on Pitt St allows for external seating fused together with outdoor linear planting.



Through-site link to Gresham St

The southern side of the Warrane Green link. This space allows for linear planting and seating elements





Abercrombie Cross

As an extension of Abercrombie Lane, the through-site link connects Pitt St to Spring St with integrated landscape with activated key corners and an opportunity for story telling that connects with Country.

