Sydney Metro
Martin Place Station (SMMPS)
CSWSMP-MAC-SMA-AT-REP-949914
August 2017

# SSDA Supplementary Design Report

Grimshaw / JPW / Tzannes



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#### 1 — Introduction

This Supplementary Design Report provides a response to submissions in relation to the State Significant Development (SSD) Development Application (DA) for a concept proposal involving two Over Station Development (OSD) commercial towers above the northern and southern entrances of the planned Martin Place Metro Station.

It provides an overview of the developed illustrative scheme since the original Design Report prepared by Grimshaw + JPW dated May 2017. It should be noted that the illustrative material contained in this report represents the current design and continues to evolve.

The report addresses key issues identified by the Department of Planning and Environment following its review of the submissions made during the public exhibition period of the SSD DA and having undertaken a preliminary assessment of the proposal. It provides additional justification and / or clarification to particular design issues.

This Supplementary Design Report should be read in conjunction with the original Design Report prepared by Grimshaw + JPW dated May 2017.

The images used and depicted within this document are for illustrative purposes only, are the subject of ongoing review and design development and do not reflect the final design.



#### 2 — Key Design Principles

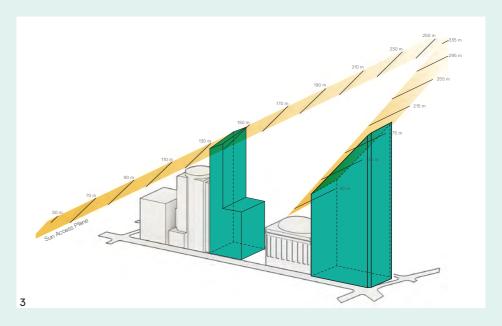
The developed design aligns with the design principles stated in the SSDA submission.

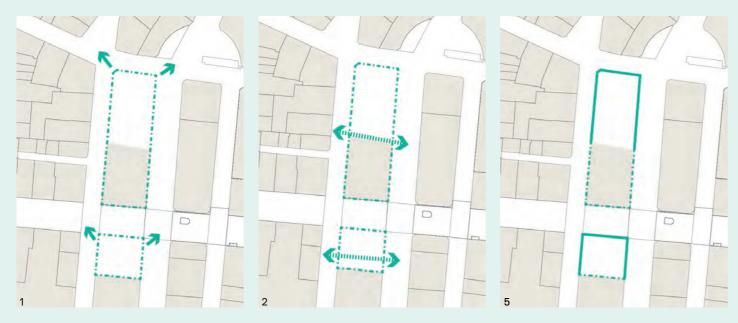
#### Movement

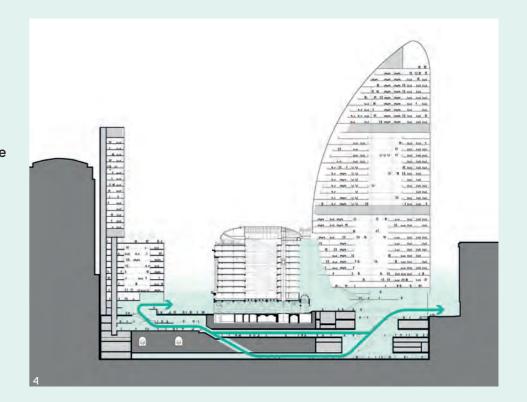
- 1 Enhance the relationship of George Street and Martin Place through to Macquarie Street as a unique pedestrian orientated experience.
- 2 Create an integrated transport exchange including appropriate scaling of public domain for predicting pedestrian movements, clear movement and interchange systems.
- 3 Maximise connectivity to the street grid for egress at corners (Fig.1).
- 4 Provision of pedestrian through site links between Elizabeth and Castlereagh Streets on both sites (Fig.2).

#### Public Domain

- 1 Conform to the City of Sydney Sun Access Plane for Hyde Park and Martin Place (Fig. 3).
- 2 Improve ground plane amenity on Martin Place, Elizabeth, Castlereagh and Hunter Streets.
  - Wind impacts of proposal to meet relevant public domain standards appropriate for use and proposed activity.
  - Investigate the potential to improve daylight levels to Martin Place through reflection.
- 3 Connect Martin Place with Chifley and Richard Johnson Squares (Fig.4).
  - The design of potential subterranean connection between these three civic spaces must ensure it becomes a desirable destination.
- 4 Public Domain Activation
  - Active frontages are to be maximised and to be located as a minimum in the locations noted in the City of Sydney DCP part 3.2.3 (Fig.5).

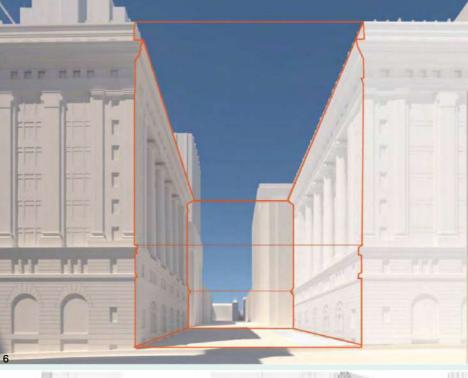




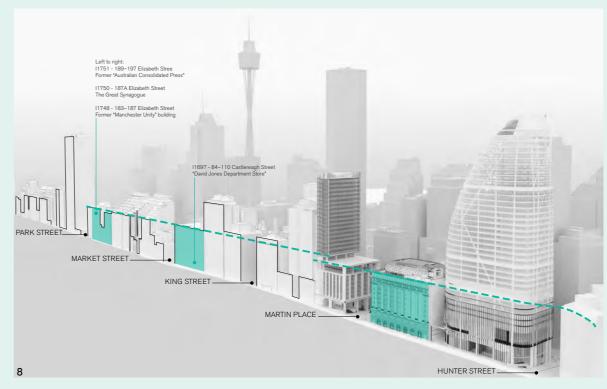


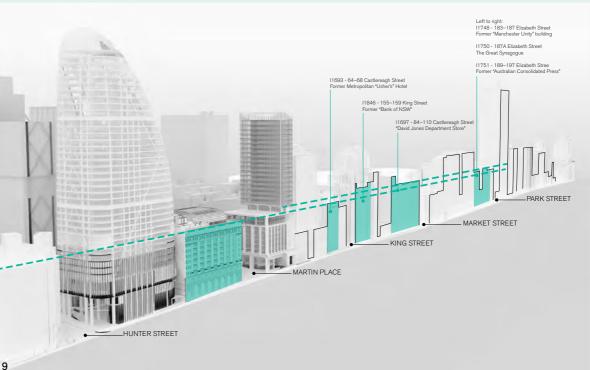
#### Built Form

- 1 Reinforce the distinctive attributes of each block on Martin Place (Fig.6).
- 2 Enhance built form relationships on Hunter Street (Fig.7).
  - The setback of the built form on Hunter Street is to generally align with the predominant setback of adjoining conditions to the east.
- 3 Maintain and enhance the character of Elizabeth and Castlereagh Streets (Fig.8 and 9).
  - The improvement of the block bounded by Elizabeth and Castlereagh Streets requires the recognition of the aligned height between 50 Martin Place and the former Qantas House on Chifley Square.
- 4 Establish a defining threshold to the Martin Place Station Precinct (Fig.10).
  - The tower form of the North and South Sites on Elizabeth and Castlereagh Streets to have a zero setback to establish a distinctive character at threshold locations.
- 5 Maximise development potential and density (Fig.7).
  - Gross Floor Area should be maximised within the proposed envelope allowing for appropriate built form and façade articulation.









- 1 Podium Streetwalls
  - The buildings are to have zero setbacks for their podiums to match the predominant street alignment (Fig.11).
  - Proposed streetwall heights are to relate to the heritage building at 50 Martin Place and former Qantas House.
  - A recess in the built form of the tower on the South Site is to increase the articulation and definition of the street wall from the tower over.
  - The proposed design of the northern tower is to respond to the 'reverse podium' alignment of 8 Chifley and Deutsche Bank.

- 2 Tower Setbacks (Fig.12)
  - Setback to Martin Place to be LEP compliant.
  - Zero setback to Hunter Street to align with the towers adjacent to the east along Hunter Street.
  - Zero setback to Castlereagh and Elizabeth Streets to enhance urban significance of Martin Place and Chifley Square.
  - Ensure the South Site tower is distinct and visually separated from the podium.

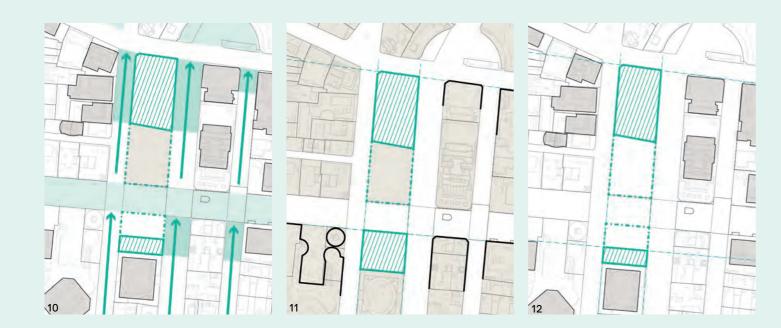
- 3 Streetwall Articulation (Fig.13 and 14)
  - The façades, particularly that addressing Martin Place, of the southern building are to respond to the articulation, principal datum lines, solid to void ratio and materiality of 50 Martin Place.
  - The façades of the tower on the North Site are to respond to the articulation and principal streetwall height or other key datum lines of 50 Martin Place and the former Qantas House, and the 'reverse podium' alignment of 8 Chifley and the Deutsche Bank building.
- The architectural form and expression of the North Site's tower should allow 48-50 Martin Place to be understood as a distinct and independent architectural element.
- The North Site's tower should allow the historic north-east and northwest lift overrun towers of 48-50 Martin Place to be understood visually as distinct forms.

#### 4 Materiality

- The materiality of the podium of the building on the South Site is to respond to the materiality of 50 Martin Place.
- The materiality of the South Site's tower over is to respond to its context in the city skyline, to support its articulation from the building's podium and also to form a cohesive, distinctive precinct with the tower of the North Site.







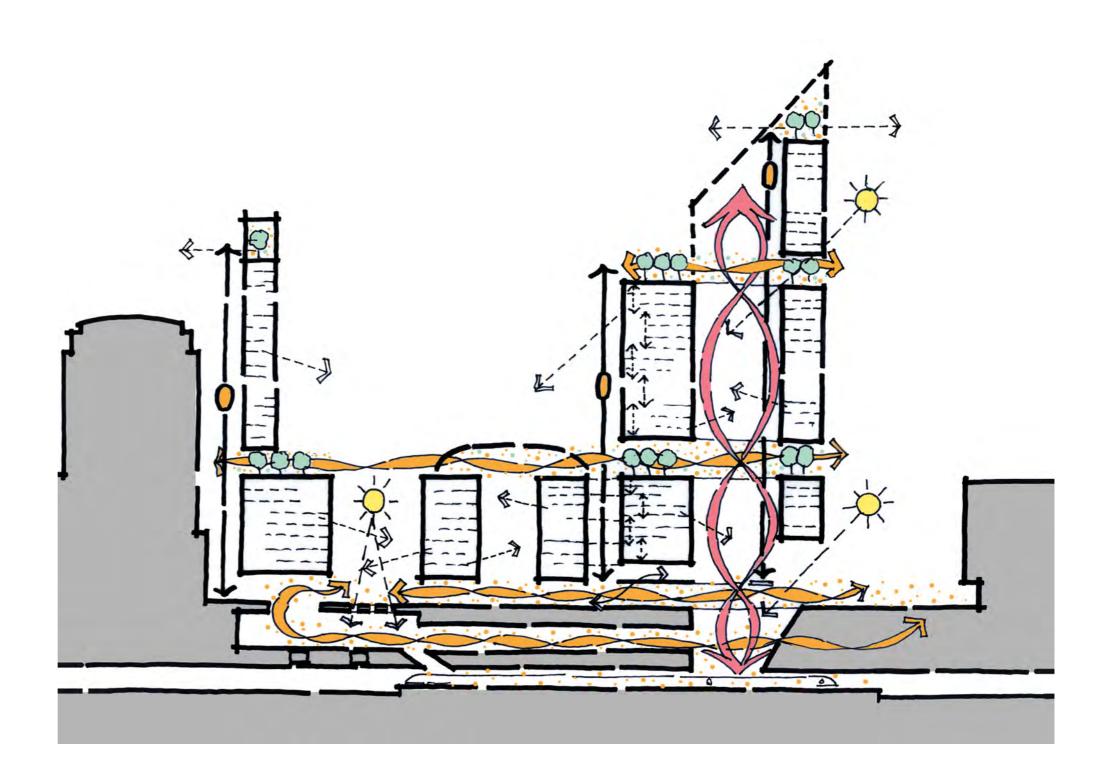


## Illustrative Scheme

#### Overview

The following sections provide further details and exploration of a developed illustrative scheme that sit within the proposed envelopes and respond to the urban design and heritage principles established for the project by Tzannes and TKD and achieve Macquarie's project vision.

While the envelopes provide the broad parameters for the future built form, it is through the illustrative design that clarity and resolution of what the principles strive to achieve can be fully appreciated.



#### **Project Vision**

Macquarie's vision is aligned with the State's objective to create a transportation precinct that offers mixed use space with inter modal travel that seamlessly integrates into the civic centre of Sydney.

The vision will provide the framework for a global leading design for all facets of the built form, one in which high volume transportation systems sit alongside a convergent urban form incorporating commercial office space, modern retail outlets and urban defining civic space. This will reinforce Sydney's credentials as a global city in the 21st century.

A development of this scale, building on a major new transport initiative, comes about only once in a generation. As an integral part of the Martin Place Station precinct, the consolidated Macquarie proposal for the precinct provides a unique opportunity to restructure and revitalise a city block into the vital fabric of Sydney. It is a unique opportunity to create a world class, sustainable, integrated commercial office and retail experience built around the rich heritage of Martin Place and more specifically 50 Martin Place.

Macquarie's project objectives, augmenting those outlined by the State, are as follows:

- Create a fully functional and compliant railway station for the Sydney Metro that delivers a world class public transport experience for its customers.
- Maximise the opportunity to integrate with the existing public transport and pedestrian routes, in and around Martin Place, thereby further enhancing the Sydney Metro customer experience and improving the transport links and connections for the surrounding Sydney community.
- Build on the City of Sydney's 2030 strategy for Sydney, enhancing the Martin Place precinct as Sydney's premier civic space and creating a lively, activated city neighbourhood encompassing the full extent of the site.

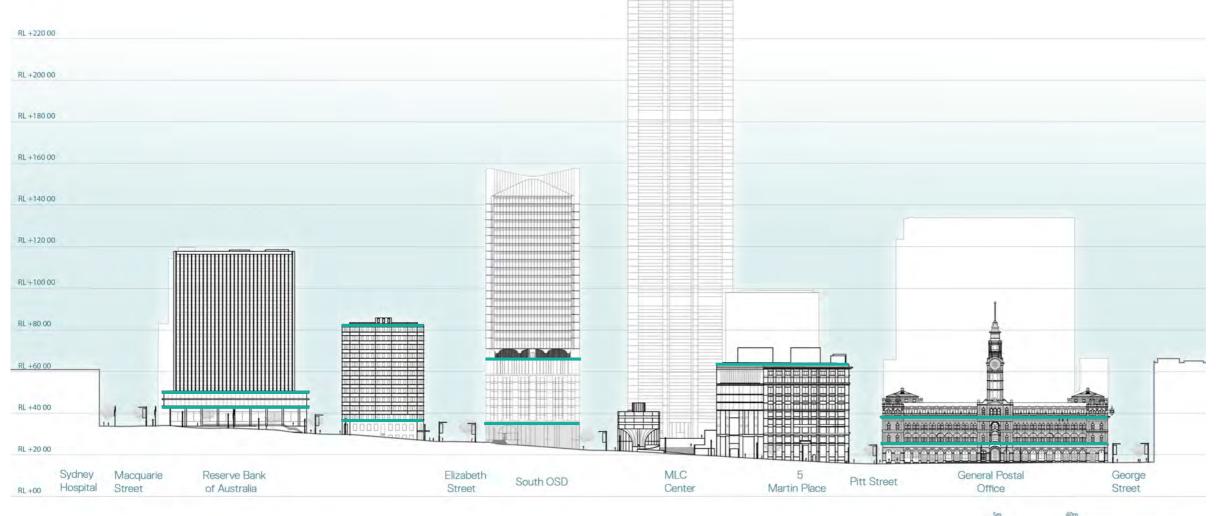
- as one of Sydney's most significant heritage buildings with an ongoing relevance as the global headquarters of Macquarie.
- Create a development that enhances the City at both a functional and symbolic level.
- Use the over station development to create the next generation workplace environment that realises the opportunities that are emerging in future work practice, well-being and sustainability, communication and digital technologies, security and mixed use development.

#### Streetscape - South Site

The developed South
Site scheme aligns with the
design principles of the SSDA
submission and the consolidated
design principles.

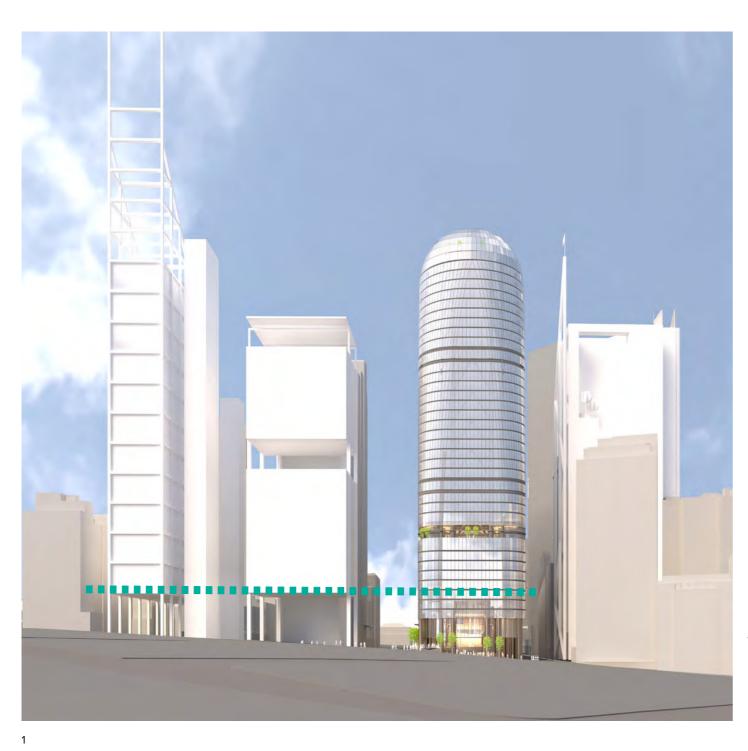
The architecture of the podium of the illustrative design has been developed in response to these principles through a very direct architectural response to 50 Martin Place as follows.

- The maintenance of the street alignments established by 50 Martin Place.
- The podium establishes a strong base, middle and top that responds accurately to the alignment of the base, the grand order and the parapet of 50 Martin Place.
- The materials of the podium are directly related to that of 50 Martin Place through the use of stone and ceramic cladding.
- A grand order of curved ceramic and glass bays responds to the grand order of 50 Martin Place.
- The grand order of the Martin Place façade is extended to the Elizabeth and Castlereagh Streets elevations in a more fine grained manner. This follows the pattern established by 50 Martin Place.



40m 1 Martin Place Elevation

#### Streetscape - North Site



1 3D impression of view north along Hunter St showing alignment with under crofts of 8 Chifley and Deutsche Bank building and continuation of mass and scale in the same proportions.

The North Site scheme has been developed to reinforce the design principles of the SSDA submission as follows:

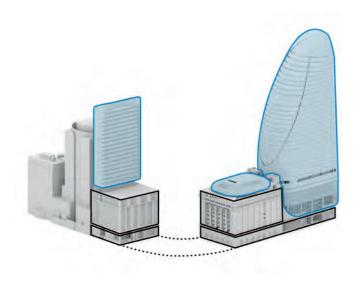
- A recessed terrace articulates the podium facade at the parapet height of 50 Martin Place. This key alignment extends through to Former Qantas House, City Mutual Building, Chifley Square and 8 Chifley as a continuous and unifying datum line.
- The form of the tower and facade articulation allow 50 Martin Place to be read as a separate entity thus retaining its unique historic presence.
- The use of zero setbacks to Elizabeth and Castlereagh Streets creates a threshold condition at the edge of

- Martin Place due to its different formal structure. This allows for a more distinct and defined entry to the Martin Place Station Precinct.
- Extension of the under croft datums of 8 Chifley and Deutsche Bank building along Hunter Street, reinforcing the scale and expression of these buildings. This continuation of zero setbacks and "reverse" podiums, form a strong southern edge to Chifley and Richard Johnson Squares and allows these important public spaces to be legible in the city skyline.

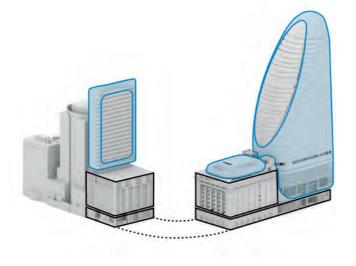
#### **Integrated Precinct**

<u>Tower Forms:</u> The developed scheme aligns with the original SSDA objective of the precinct that the two commercial towers relate to each other.

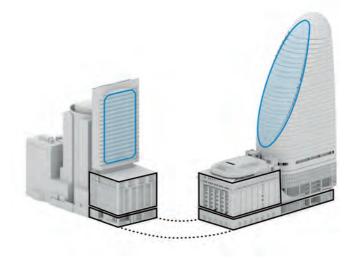
The relationship begins with a direct response to the materiality and height datums of the existing heritage facade of 50 Martin Place. A consistent tower materiality and approach to shaping the edge conditions of each form allows for a tower relationship that is able to adapt to the specific urban conditions of the individual sites as follows.



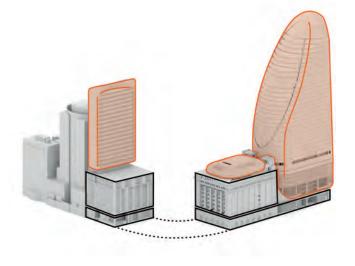
Glass forms floats above a masonry base: Glass facades float above a masonry base drawn from 50 Martin Place



Consistent materiality with differentiated forms:
A consistent glass facade system is utilised in both towers and will improve environmental performance.



Facing facades are similarly differentiated:
The tower facades that look across Martin Place towards each other are similarly differentiated in colour and texture from the other facades and podium of each building.



The architecture is softened by curved forms:
The tower architecture is softened at the corners
by curved forms within the envelopes defined by
their different sun access planes.

#### **Public Domain**

The developed illustrative schemes reinforce the design objectives of the SSDA submission throughout the site.

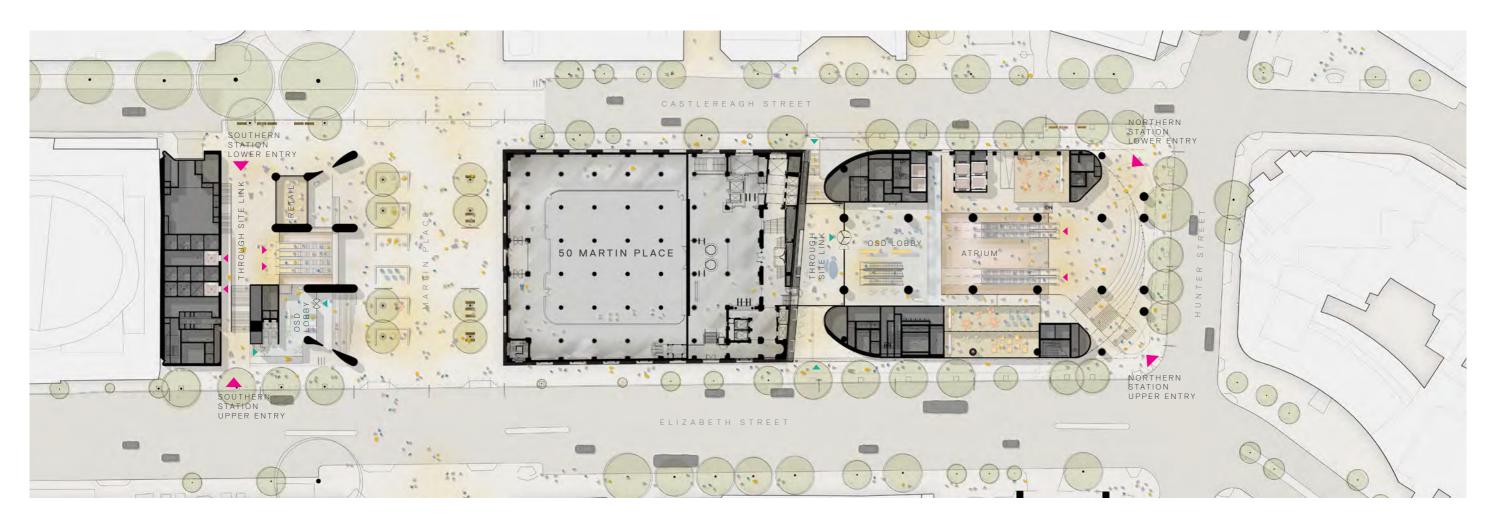
The podium of the South Tower has been developed to maximize opportunities for public domain activation yet retain a built form appropriate for the prevailing monumental architectural character of Martin Place.

Openness has been maximised to facilitate movement and activation while deep thresholds of monumental masonry have been used to provide an appropriate masonry character to the base of the building, particularly when viewed obliquely.

The podium of the North Tower has been developed to maximize active and permeable frontages around the perimeter.

Ground plane amenity has been improved through further developments into wind and rain protection along with the integration of security and landscaping elements. The through site links have further developed in response to detailed flood level and daylight studies, DDA accessibility requirements, pedestrian flows and metro entry requirements.

Public art has been further considered, including integration of the Tom Bass sculpture within the public domain.



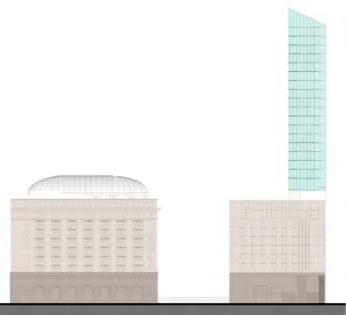
#### Built form - South Site

The developed South Site scheme aligns with the design principles of the original SSDA scheme and in particular, the enhancement of Martin Place through the architectural treatment of the built form.

The built from of the illustrative design has been developed to respond to these principles through the following measures.

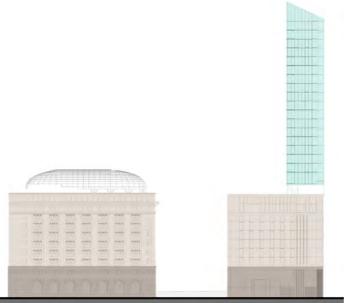
 The extent of articulation and detail of the podium as well as the relationship of this articulation to 50 Martin Place.

- · A defined material difference between the ceramic and stone base from the glass and metalwork of the tower.
- The setback of the tower from the alignment of the podium.
- The scale of the recessed articulation between the tower and the podium.
- The use of dark metalwork to enhance the effect of the recessed element between the tower and the podium.



- Diagram showing material of podium
- responding to that of 50 Martin Place Diagram showing material separation between tower and
- podium Diagram showing articulation zone provided between the tower and the podium

ARTICULATION ZONE



2

18

#### Built form - North Site



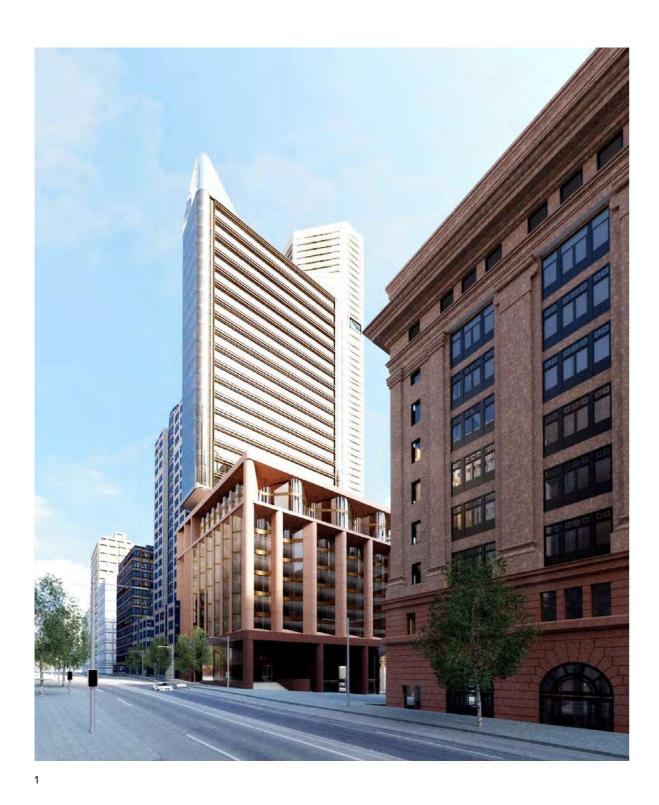


- 1 3D impression of view north along Elizabeth St showing continuous streetwall frontage height created by the podium base and recessed terrace within the tower.
- 2 3D impression of view north along Hunter St showing alignment with undercrofts of 8 Chifley and 126 Philip St and continuation of mass and scale in the same proporions.

The North Site scheme has been developed to reinforce the SSDA design principles in terms of form and footprint as follows:

- Built form and facade treatment respond to the key streetwall heights of surrounding buildings.
- The tower form without setbacks, responds to the mass and scale of neighbouring buildings.
- A recessed terrace aligns to the key alignments of adjacent buildings, most significantly 50 Martin Place, to articulate the predominant street frontage heights.
- As a commercial development over a major new transport interchange, the North Tower as part of the overall precinct reinforces Sydney's global city status by alignining greater levels of density with public transport infrastructure and excellent standards of public amenity.

#### Architectural Character & Materiality - South Site



The architectural character and materiality have been developed in accordance with the Metro, Urban Design and Heritage Principles. The principal areas in which the design has been developed are as follows.

- The South podium is a direct response to 50 Martin Place in order to make a memorable public space between them
- The podium matches the height of 50 Martin Place and responds to its articulation.
   In detail this has resulted in a building with a defined base, middle and top, that relates directly to the key alignments of 50 Martin Place.
- The articulation of the podium responds directly to the grand order of 50 Martin Place and the way it varies to address the principal elevation to Martin Place as well as the subsidiary ones to Elizabeth and Castlereagh Streets.
- The main materials of the developed scheme are granite, ceramic glass and bronze.
   These respond directly to the materiality and arrangement of these materials in 50
   Martin Place.

- The tower over is designed to be distinct from the podium.
   This retains the importance of the podium in enhancing the distinctive characteristics of Martin Place.
- The use of glass in the tower defines it from the podium.
   The reflectivity of the glass enhances views of the sky and mitigates the built form of the tower.
- The use of glass in the tower and granite in the base establishes a direct relationship with the North tower in order that they are legible as a precinct in the city.

View of South tower from north east, along Elizabeth Street

#### Architectural Character & Materiality - North Site





The North Site scheme has been developed to reinforce the SSDA design principles in response to the unique contextual conditions, in particular its relationship to 50 Martin Place.

- The proposed design demonstrates respect to the heritage significance of 50 Martin Place through the use of complementary and contemporary materiality.
- The tower and podium are articulated separately from 50 Martin Place and provide a "space" to ensure its distinctive architectural expression and prominence are maintained.

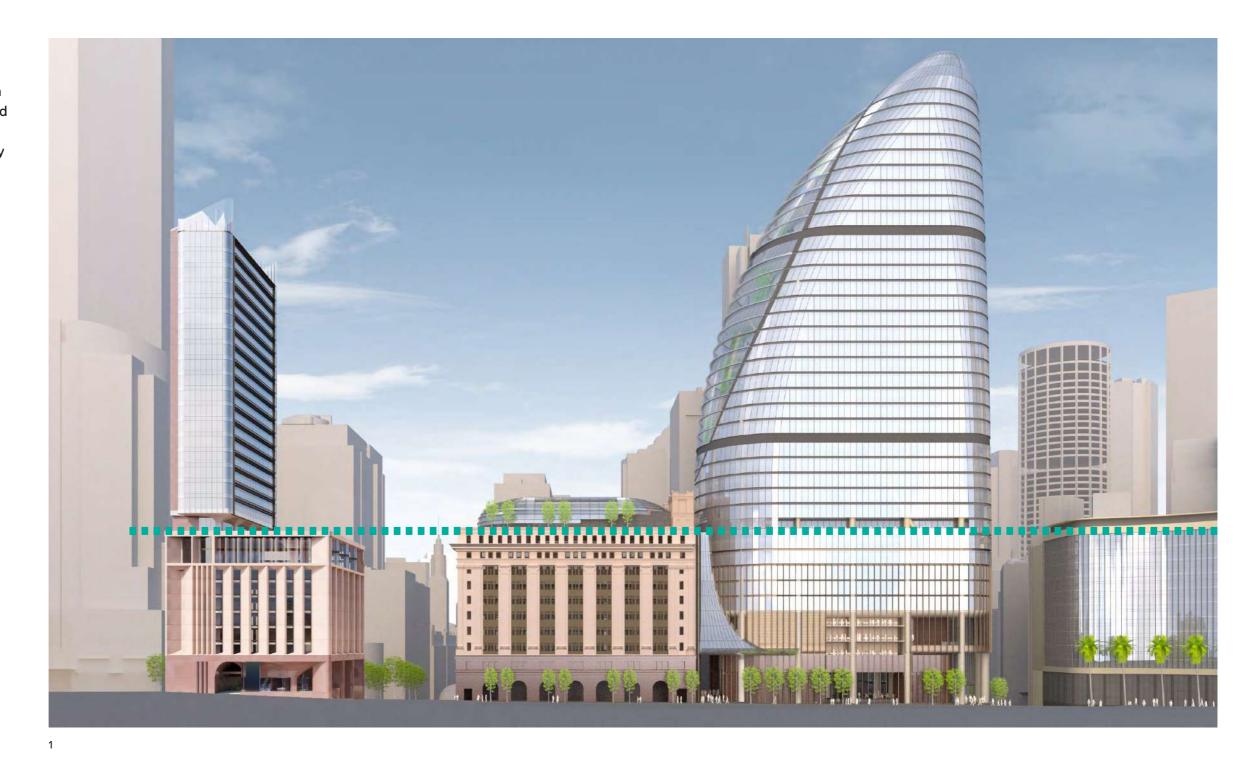
- The curved form of the tower with its glazed skin responds to the form of the 50 Martin Place dome and assists with reinforcing its contextual prominence within the city skyline.
- Elements of the podium facade cladding have been developed to reinforce the predominant features, materials and datums of adjacent building facades, most notably referencing the parapet height of 50 Martin Place along Elizabeth St and Castelreagh St.

- 3D impression of view south from Chifley Square showing north tower "peeling away" and giving appropriate space to 50 Martin Place.
- 2 3D impression of views along Castlereagh St showing development of complementary and contemporary materiality, respectful to 50 Martin Place.

#### Heritage

The developed precinct scheme is consistent with the SSDA heritage design principles.

Both towers preserve and reinforce the aesthetic and historic significance of 50 Martin Place through the articulation and materiality of the podium floors and the unique and contemporary form of the glazed towers.



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<sup>1 3</sup>D impression of view along Elizabeth Street showing extension of principle datum line of 50 Martin Place.

#### Heritage - South Site

The design ambition for the South Tower is to create an architectural form that strongly relates to its specific context in Martin Place. In order to achieve this, a strong design relationship between the new South Tower and 50 Martin Place is proposed. The South Tower is to be a contemporary interpretation of this building, one that is based in the same logic and materiality of the original building.

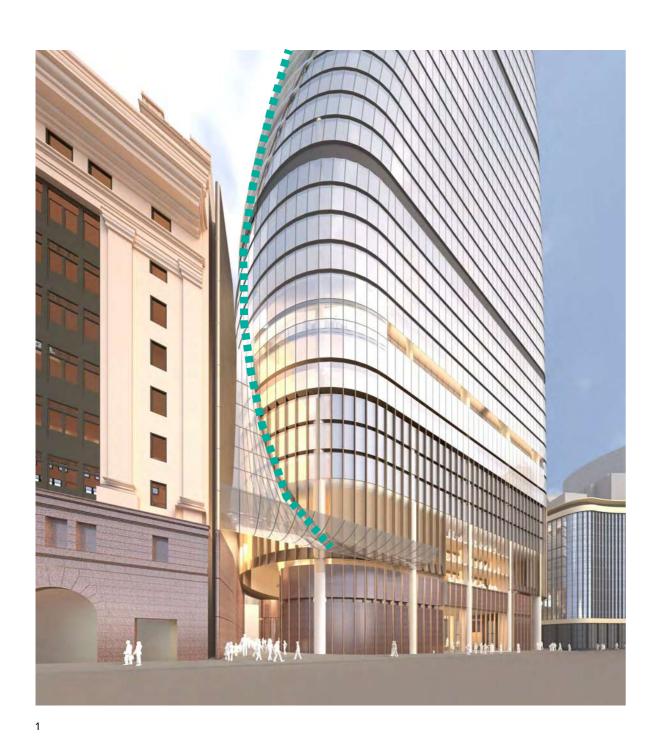
This ambition is achieved through the following principles.

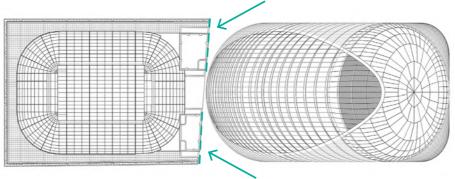
- The South podium is a direct response to 50 Martin Place in order to make a memorable public space between them
- height of 50 Martin Place and responds to its articulation. In detail this has resulted in a building with a defined base, middle and top, that relates directly to the key alignments of 50 Martin Place.

- The articulation of the podium responds directly to the grand order of 50 Martin Place and the way it varies to address the principal elevation to Martin Place as well as the subsidiary ones to Elizabeth and Castlereagh Streets.
- The main materials of the developed scheme are granite, ceramic glass and bronze.
   These respond directly to the materiality and arrangement of these materials in 50
   Martin Place.
- The tower over is designed to be distinct from the podium.
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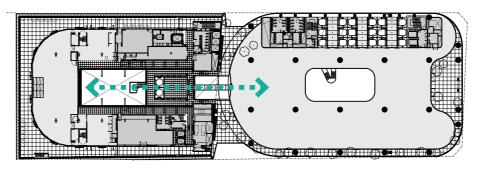


#### Heritage - North Site





2. Indicative roof plan



3. Indicative Level 10 plan



4. Indicative ground floor plan

The North Site scheme has developed in accordance with the SSDA heritage design principles with respect to 50 Martin Place as follows:

- space and prominence
  by providing a zone of
  articulation in between. The
  tower form gently tapers
  away towards the north to
  reveal the heritage turrets
  and reinforce the distinctive
  presence of 50 Martin
  Place as an independent
  architectural element.
- A through site link "interlude" between the two buildings is a central part of the scheme that has been developed to create activity and energy at ground level and up throughout the podium floors.
- Discreet bridge links are proposed to connect through this space into 50 Martin Place at key "active" floors
   the Ground Floor Banking Chamber, Level 5 Office Plaza and the Level 10 Client Terrace Level.
- 3D impression of articulation zone between 50 Martin Place and North tower.
- Opportunities for links which articulate old and new maintain legibility of 50 martin place heritage turrets.





# Response to Key Issues

### Building Form -North Tower



"The Department suggests the total quantum of floor space and bulk of the building envelope be reviewed, including a comparative assessment against a development which would comply with the floor space ratio control and the setbacks within the Sydney Development Control Plan 2012 (SDCP 2012), in terms of:

- view impacts from key vantage points;
- wind impacts;
- daylight to streets;
- outlook from surrounding buildings."
- Department of Planning and Environment

#### Envelope

The developed North Site scheme tapers significantly with height to provide relief in its perceived bulk within the maximum envelope. This is consistent with the objectives for massing, tapering and maximum dimensions for tall buildings buildings contained within the Draft Sydney Development Control Plan for Central Sydney 2012 – Central Sydney Planning Review Amendment.

Consistency with the following key points are illustrated in the following pages and assist in demonstrating how the north tower form and massing have been developed to limit the sense of bulk and scale.

"5.1.1.4 Built form massing, tapering and maximum dimensions

#### Objectives:

(c) Ensure that buildings are slimmest at their peaks so that in the overall city form buildings become less bulky at their upper limits."

The proposed scheme tapers significantly and is slimmest at its peak.

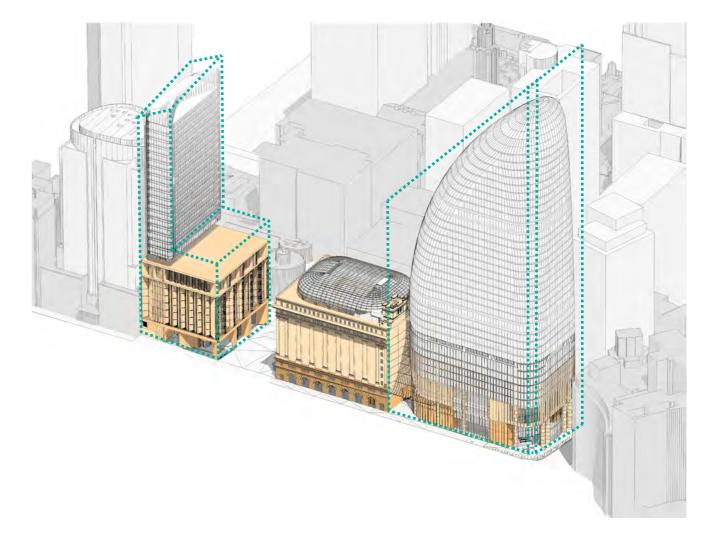
#### "Provisions:

- (1) Above Street Frontage
  Height the maximum horizontal
  dimension of a building including
  all external elements (for
  example architectural elements
  like horizontal or vertical fins)
  measured in any direction
  (including diagonally across the
  site see Figure 5.18) is not to
  exceed:
- a 50m for residential accommodation and serviced apartment developments; and
- b 100m for all other developments."

The proposed scheme maximum horizontal dimension is approx. 75m.

- "(3) Above the Street Frontage Height the total Building Envelope Area may occupy the following proportion of the site area less any areas of heritage items and required DCP setbacks:
- c 100% up to 120m above ground;
- d 90% above 120m up to 240m above ground; and
- e 80% above 240m above ground."

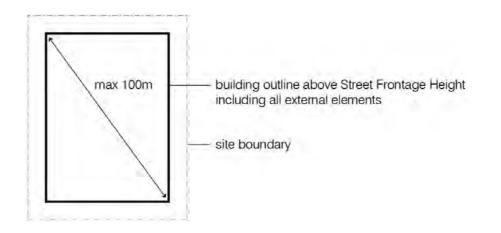
The illustrative scheme floor plates utilise no greater than 85% within the envelope and reduce substantially with height.



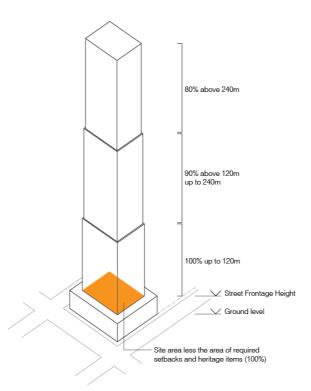
3D impression of view along Elizabeth St showing developed illustrative schemes within envelopes.



Sydney DCP 2012 – Central Sydney Planning Review Amendment



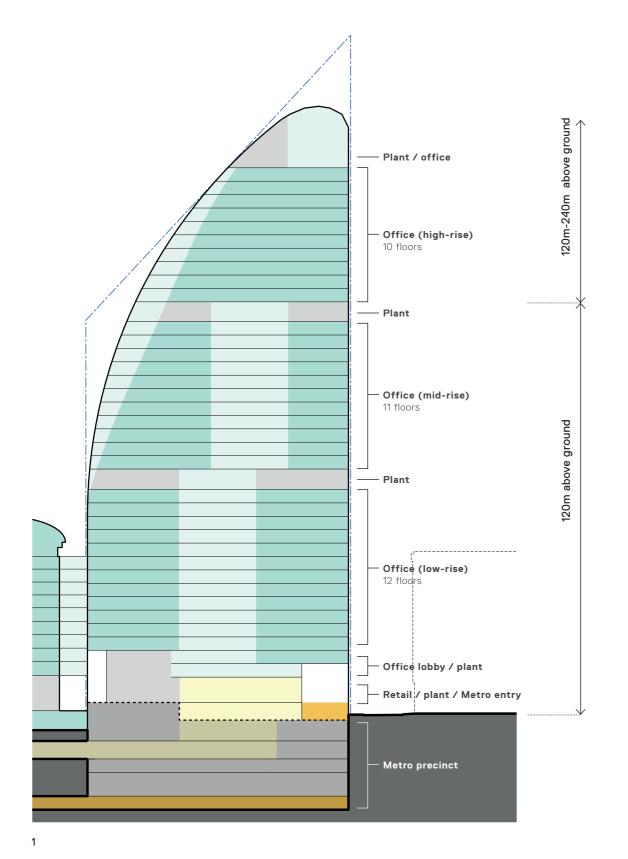
- 1 3D impression of view north along Elizabeth St showing form of the north tower fitting within envelope and tapering significantly at the upper limits to reduce sense of bulk
- 2 Maximum horizontal dimension of a building above street frontage height, DCP diagram.
- Maximum building
  envelope are above
  street frontage
  height, DCP diagram.
  Maximum horizontal
  dimension of
- proposed scheme =



3

75m maximum distance

Extracts from the Sydney DCP 2012 - Central Sydney Planning Review Amendment 5.1.1.4 Built form massing, tapering and maximum dimensions



#### NORTH SITE

	Primary uses	Maximum envelope area	Maximum envelope GFA (@ 90% of max)	Illustrative scheme GFA	% of Illustrative scheme GFA to maximum GFA
Level 39	Office / Plant	1,474	1,327	458	34.52
Level 38	Office / Plant	1,613	1,452	564	38.85
Level 37	Office	1,768	1,591	1,047	65.80
Level 36	Office	1,923	1,731	1,211	69.97
Level 35	Office	2,079	1,871	1,382	73.86
Level 34	Office	2,234	2,011	1,442	71.72
Level 33	Office	2,390	2,151	1,536	71.41
Level 32	Office	2,546	2,291	1,712	74.71
Level 31	Office	2,702	2,432	1,720	70.73
Level 30	Office	2,859	2,573	1,800	69.95
Level 29	Office	3,015	2,714	1,996	73.56
Level 28	Office	3,211	2,890	1,907	65.99
Level 27	Plant	3,293	2,964	112	3.78
Level 26	Office	3,293	2,964	2,034	68.63
Level 25	Office	3,293	2,964	1,926	64.99
Level 24	Office	3,293	2,964	1,998	67.42
Level 23	Office	3,293	2,964	2,203	
Level 22	Office	3,293	2,964	2,106	71.06
Level 21	Office	3,293	2,964	2,168	
Level 20	Office	3,293	2,964	2,326	78.48
Level 19	Office	3,293	2,964	2,256	76.12
Level 18	Office	3,293	2,964	2,298	77.54
Level 17	Office	3,293	2,964	2,405	81.15
Level 16	Office	3,293	2,964	2,469	83.31
Level 15	Office / Plant	3,293	2,964	1,519	51.25
Level 14	Office	3,293	2,964	2,347	79.19
Level 13	Office	3,293	2,964	2,361	79.66
Level 12	Office	3,293	2,964	2,361	79.66
Level 11	Office	3,293	2,964	2,361	79.66
Level 10	Terrace	3,293	2,964	2,361	79.66
Level 09	Office	3,293	2,964	2,493	84.12
Level 08	Office	3,293	2,964	2,493	84.12
Level 07	Office	3,293	2,964	2,493	84.12
Level 06	Office	3,293	2,964	2,493	84.12
Level 05	Office	3,293	2,964	2,493	84.12
Level 04	Office	3,293	2,964	2,265	76.42
Level 03	Office	3,293	2,964	2,265	76.42
Level 02	Office	3,293	2,964	2,265	76.42
Level 01	Office	3,293	2,964	1,500	50.61
-	-	3,293	2,964	-	
Ground floor	Retail / Plant	3,293	2,964	1,273	-
Lower ground	Retail / Plant	3,293	2,964	697	-
B1 Upper Concourse	Service yard	6,022	5,420	-	-
B2 Lower Concourse	Station / Retail	6,022	5,420	-	
B3	Plant / EOTF	6,022	5,420	1,949	
B4 Mezzanine	Plant / EOTF	6,022	5,420	402	
B4	Plant / EOTF	6,022	5,420	381	

- 1 Above the Street
  Frontage Height
  analysis of illustrative
  scheme from original
  SSDA Design Report
  May 2017, page 88.
  2 Building Areas: 3293
  sqm Site Area (Excl.
  50 Martin Place).
  Areas based on
  illustrative scheme
  from original SSDA
  Design Report May
  2017, page 89.

2



### Consistency with Existing / Desired Future Character

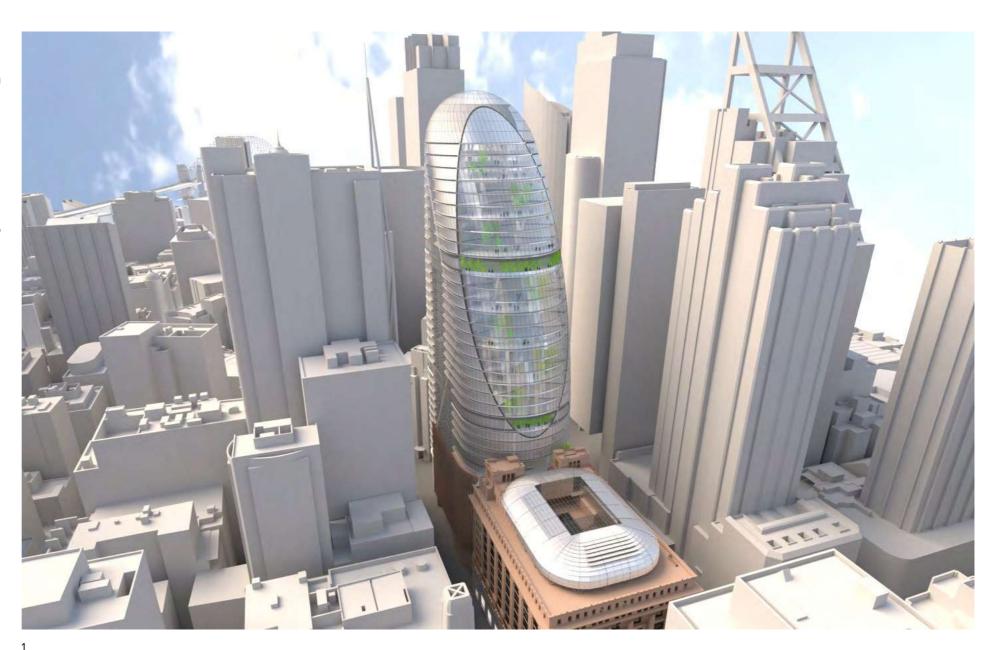
The form and footprint of North Site scheme are suited to the existing characteristics of the local area in terms of alignment with neighbouring building typologies and reinforcement of key street wall alignments.

This portion of the city is not defined by typical podium and tower built forms. The proposed north tower with zero setbacks is in keeping with the form and scale of neighbouring 8 Chifley Square and Deutsche Bank. The tower form also assists in reinforcing the changing street grid at the northern end and provides a sense of enclosure to Chifley Square and Richard Johnson Squares.

The proposed tower fits within the current cityscape and skyline, and in terms of future character, it aligns with the support for greater concentration of large scale towers envisaged for Sydney's future under the Central Sydney Planning Strategy (CSPS).

The tower footprint is also consistent with the objectives for tall buildings contained within the Draft Sydney Development Control Plan for Central Sydney.

The North Tower as part of the overall precinct reinforces Sydney's global city status. As a commercial development over a major new transport interchange, the proposal aligns greater levels of density with public transport infrastructure and excellent standards of public amenity.



 3D impressions of proposed scheme within the current cityscape.

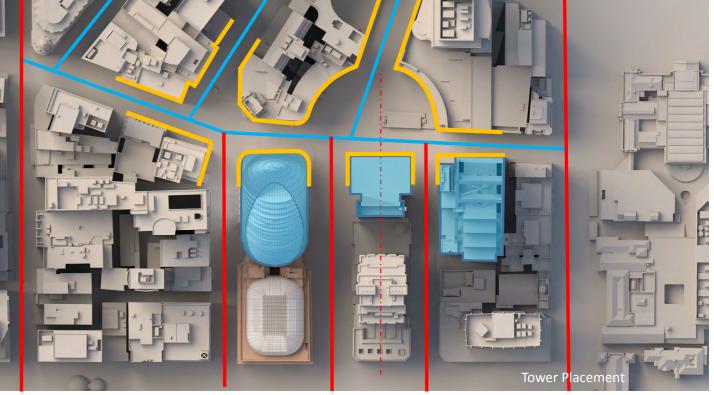






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- The proposed tower form and placement are in keeping with neighbouring buildings.
   The proposed tower alignment provides reinforcement to Chifley Square and Richard Johnson Squares.
   3D impression of view north along Hunter St showing consistent mass and scalewith surrounding towers.
   3D impression of proposed tower within
- proposed tower within the current context.





## Building form comparisons

As a global city, Sydney is rapidly expanding and a greater concentration of large scale towers are envisaged to reinforce this status within the CSPS.

A comparative study of building shapes and floorplates from local and international locations are provided.

#### 5 Martin Place, JPW, Sydney

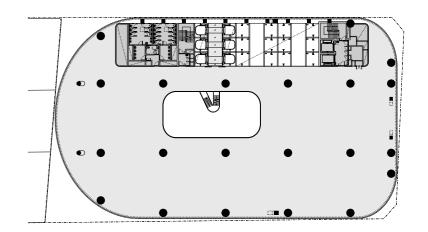
- Recent development within the same context of Martin Place, Sydney
- · Utilises full site area
- Floorplates of approx.2000sqm in podium floors

## International Towers Sydney, Rogers Stirk Harbour + Partners, Sydney

- Recent development in Sydney meeting increased demand from tenants for large floorplate offices in the CBD
- Towers range from 170m 220m high
- Floorplates range from 800sqm - 2500sqm

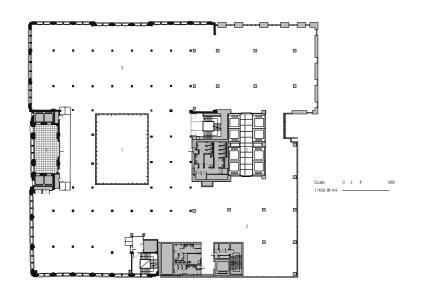
#### <u>Leadenhall, Rogers Stirk Harbour</u> + Partners, London

- Recent development in key global city of London
- Utilises full site area of 48m x 62m
- 47 floors and 225m high
- Floor plates range from 550sqm - 2000sqm
- Significant new public spaces at ground floor commercial development over a major new transport interchange, the proposal aligns greater levels of density with public transport infrastructure and excellent standards of public amenity.

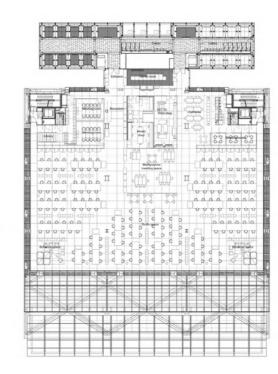


- 1 Proposed North Tower
- 2 5 Martin Place
- 3 International Towers Sydney
- 4 Leadenhall















Grimshaw / JPW / Tzannes // Supplementary Design Report



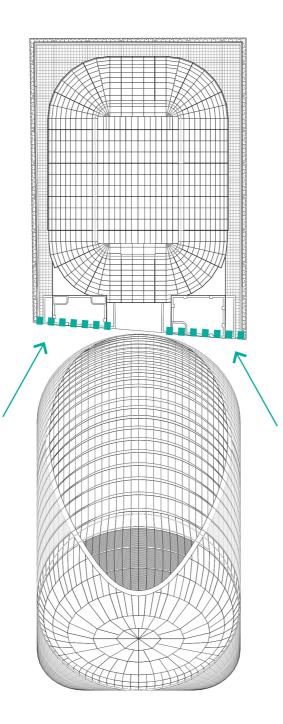
"Further consideration should also be given how the proposal will reinforce the heritage street frontage height through setbacks to enhance the relationship with the public domain and surrounding buildings, having regard to:

- the heritage significance of 50
   Martin Place and the need to give the building space and prominence;
- established setbacks above the heritage street wall height along Elizabeth Street and Castlereagh Street."
- Department of Planning and Environment

# Relationship and response to 50 Martin Place

The visual prominence of 50 Martin Place within the Castlereagh and Elizabeth Street streetscapes derives from its distinctive architectural expression and highly modelled facades in the Beaux Arts style. The proposed design of the north tower responds purposefully to 50 Martin Place in its form and materiality to reinforce its streetscape prominence and independent identity. Above podium level, the tower form of the new building gently curves away towards the north, providing visual and physical separation. This space allows views of the historic turrets to be maintained.

The developed podium design demonstrates respect for the significance of 50 Martin Place through the use of the complementary and contemporary materiality. The curved form of the tower with its glazed skin also responds to the form of the 50 Martin Place dome and assists with reinforcing its contextual prominence within the city skyline.











- Plan view showing north tower curving away to reveal historic turrets
  3D impression of view south from Chifley Square showing legibility of heritage turrets due to articulation of tower from 50 Martin Place.
  3D impression of view
- from 50 Martin Place.
  3D impression of view south from Chifley Square showing north tower curving away affording space and prominence to the historic turrets.
  3D impression of views along Castlereagh St showing development of complementary and contemporary materiality, respectful to 50 Martin Place.

#### Reinforcement of Heritage Street Frontage Height

The North Site scheme is respectful to and responds to the key streetwall frontage heights of surrounding heritage buildings. Buildings on Elizabeth and Castlereagh Streets within the vicinity of the proposed development vary in age, character and scale, and do not collectively contribute to a consistent street wall height or historic street character, and the streetscapes do not have established setbacks.

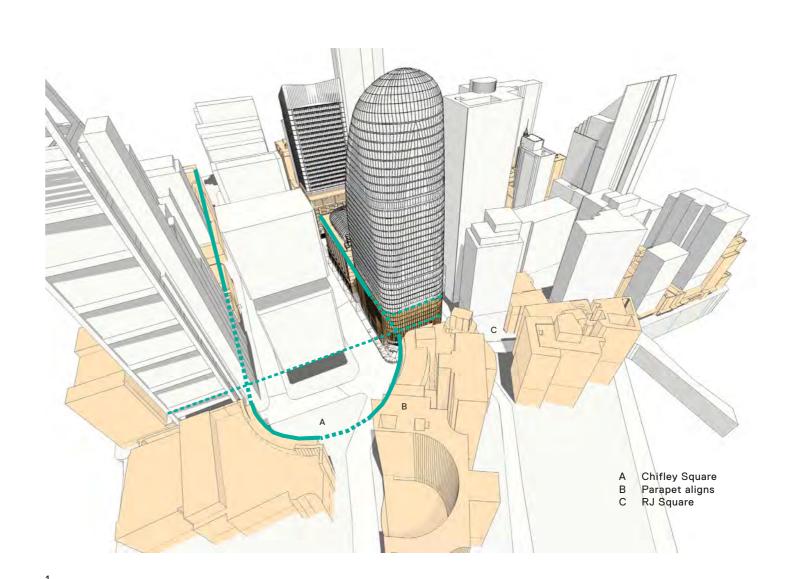
The proposed scheme reinforces key heritage street wall heights without setbacks. A recessed terrace articulates the podium facade at the parapet height of 50 Martin Place. This key alignment extends through to Former Qantas House, City Mutual Building, Chifley Square and 8 Chifley as a continuous and unifying datum line.

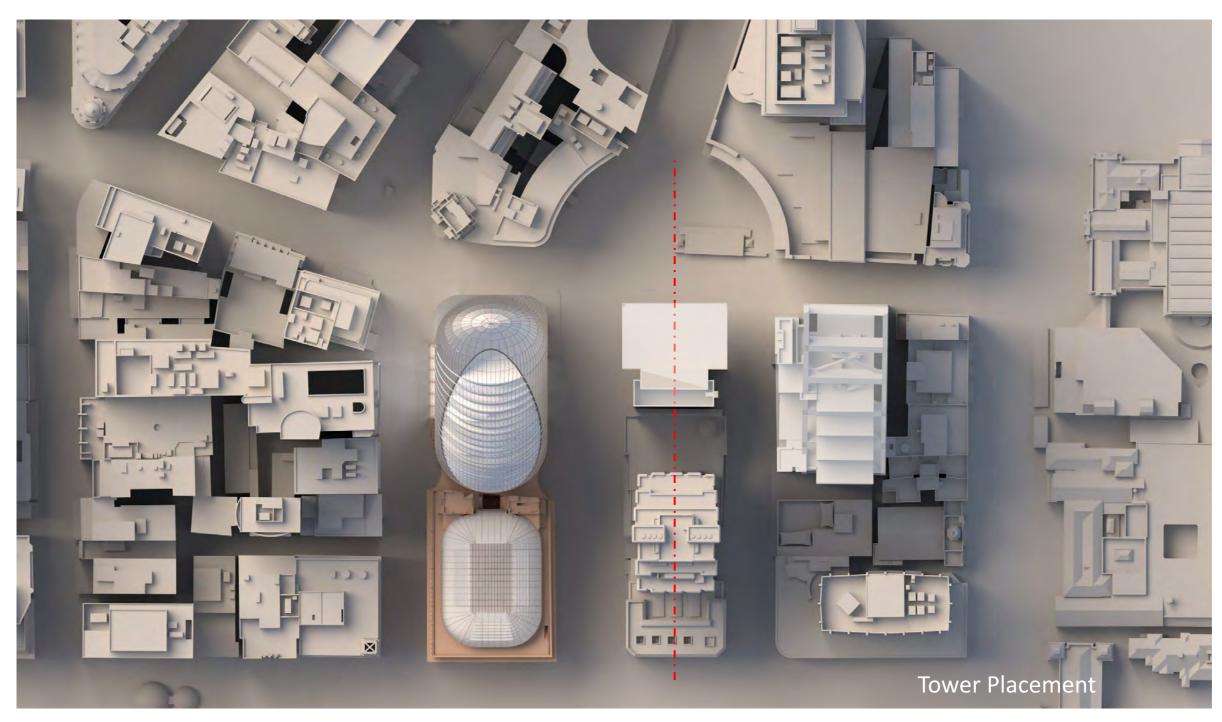
The use of zero setbacks to Elizabeth and Castlereagh Streets also creates a threshold condition 2 at the defining edge of Martin Place due to its different formal structure which allows for a more distinct and defined entry to the Martin Place Station Precinct.

At a detailed scale, elements of the podium facade cladding have been developed to reinforce the predominant features and datums of adjacent building facades, most notably referencing the architectural language of 50 Martin Place along Elizabeth St and Castlereagh St.

The proposal also extends the under croft datums of 8 Chifley and Deutsche Bank building along Hunter Street, reinforcing the scale and expression of these buildings. This alignment of these towers, with their zero setbacks and "reverse" podiums, form a strong southern edge to Chifley and Richard Johnson Squares and allows these important public spaces to be legible in the city skyline.

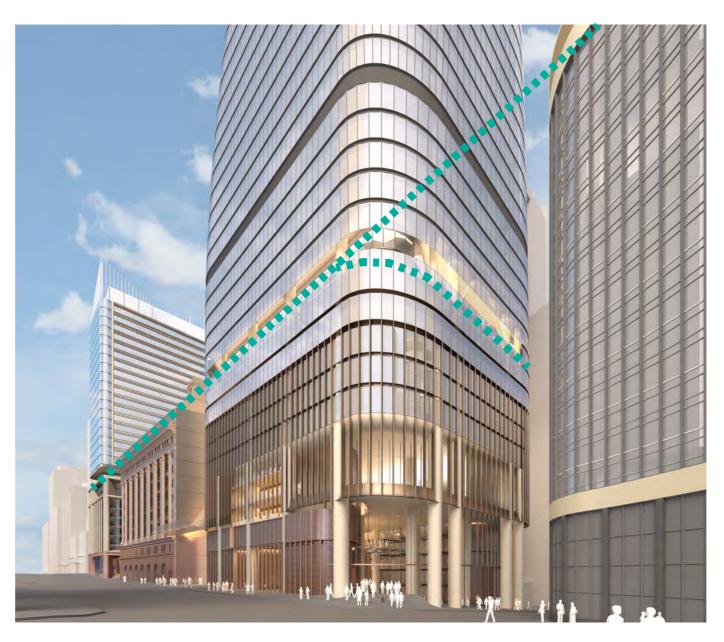
- North tower responds to key street wall alignments to reinforce Chifley Square and Richard Johnson Square. Zero setback to Hunter St aligns with
- adjacent buildings to the east.





The north tower responds to the zero setbacks to 8 Chifley Square and the Deutsche Bank building. As a group these buildings define both Chifley and Richard Johnson Squares as well as the changing street grid at Hunter Street. This change in street geometry where Hunter Street meets Castlereagh Street also means that there are no long views down Elizabeth and Castlereagh Streets and the zero setback does not result in an overly enclosed quality to the street.





- 1 3D impression of view north along Elizabeth St showing continuous streetwall frontage height created by the podium base and recessed terrace within the tower.
  2 3D impression of view south along Elizabeth St showing continuous streetwall frontage height created by the podium base and recessed terrace within the tower. tower.





- 3D impression of view north along Hunter
  St showing alignment with under crofts of 8
  Chifley and 126 Philip
  St and continuation of mass and scale in the same proportions.
   3D impression of proposed metro entrance at corner of Castlereagh St and Hunter St.

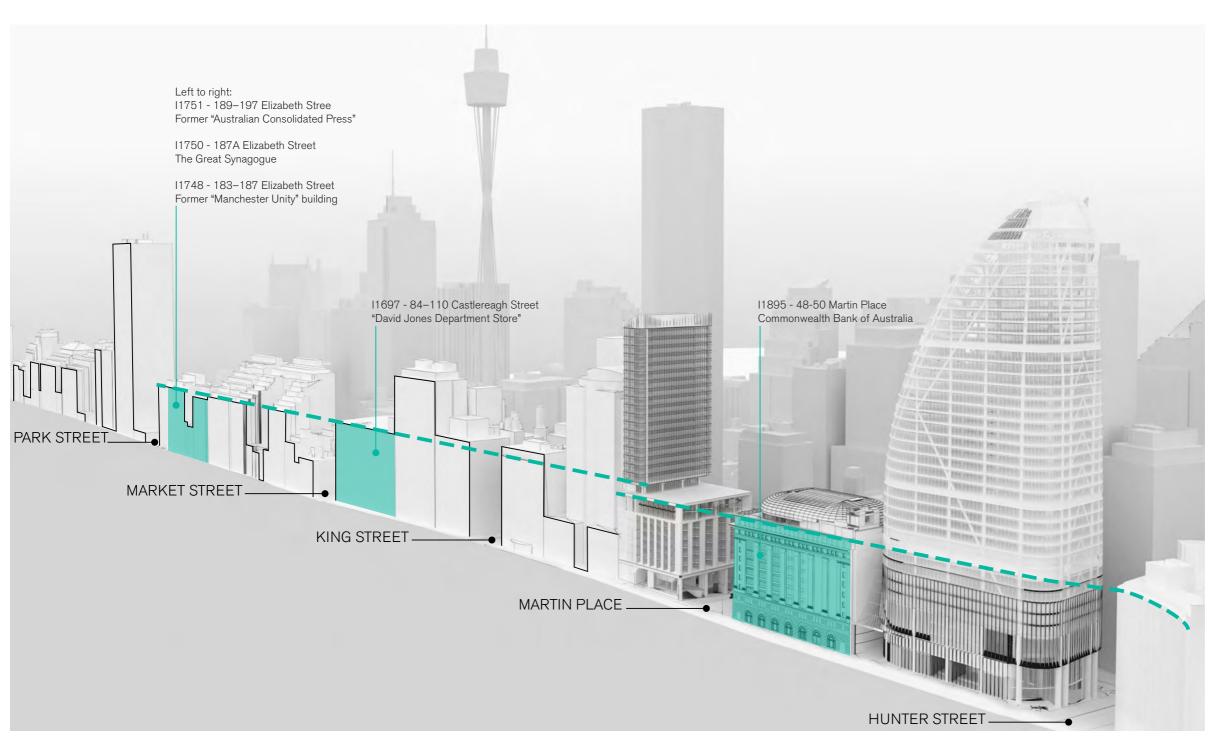
# Building Form - South Tower



"Review the relationship of the southern tower building envelope with the heritage street frontage height along Elizabeth and Castlereagh Streets and give consideration to providing setbacks to the tower from Elizabeth and Castlereagh Street."

- Department of Planning and Environment

#### Street Frontage Elizabeth Street



The developed South Site scheme is respectful to and responds to the key streetwall frontage heights of surrounding heritage buildings, especially 50 Martin Place.

Buildings on Elizabeth
Street within the vicinity of the proposed development vary in age, character and scale, and do not collectively contribute to a consistent street character, and the streetscapes do not have established setbacks.

Notwithstanding, the underside of the tower is designed to refer to the streetwall height of the few heritage items to the south, along Elizabeth Street, as noted in green.

Most importantly, the design of the South podium directly responds to the adjacent heritage item of 50 Martin Place, relating to it in term of the scale, proportion and material along Elizabeth Street.

The use of zero setback to Elizabeth Street creates a threshold condition at this entry point to Martin Place, to give a 'clear sense of arrival' to this important public space of Sydney, in line with Gehl Architect's vision stated in their 2015 'Martin Place Urban Design Study'.

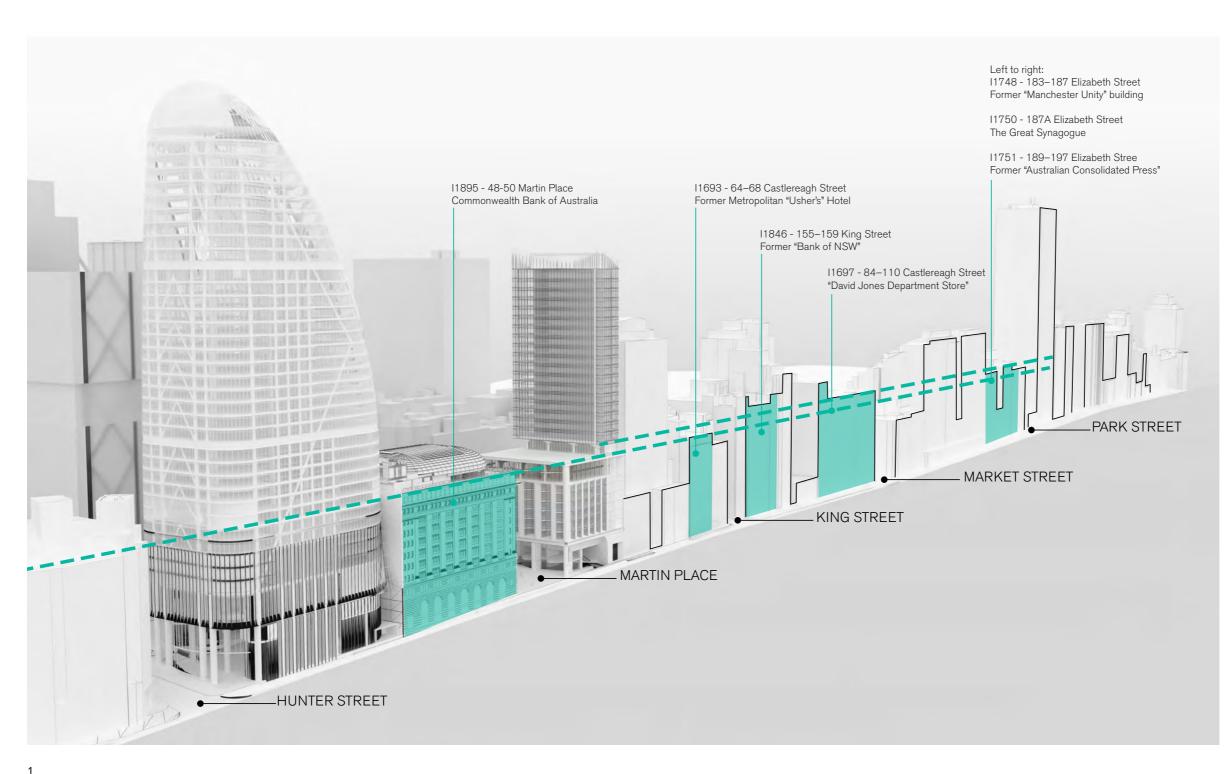
The tower is separated from the podium by: a setback above street frontage along Martin Place; a significant vertical separation between the podium and the underside of the tower; and change of material between podium and tower.

The combined effect of the above will result in a clear visual separation between podium and tower forms from near, medium and distant views, and therefore a clear reading of the podium element to define the streetwall.

- 1 3D view showing street elevation along Elizabeth St with the proposed buildings
- 2 3D impression of view south along Elizabeth St showing continuous streetwall frontage height created by the podium and the clear articulation between the tower and podium



## Street Frontage Castlereagh Street



The developed South Site scheme is respectful to and responds to the key streetwall frontage heights of surrounding heritage buildings, especially 50 Martin Place.

Buildings on Castlereagh
Street within the vicinity of the proposed development vary in age, character and scale, and do not collectively establish a consistent street alignment or built form, including height and setback. Heritage items along Castlereagh Street are noted in green and are a similar height to the podium.

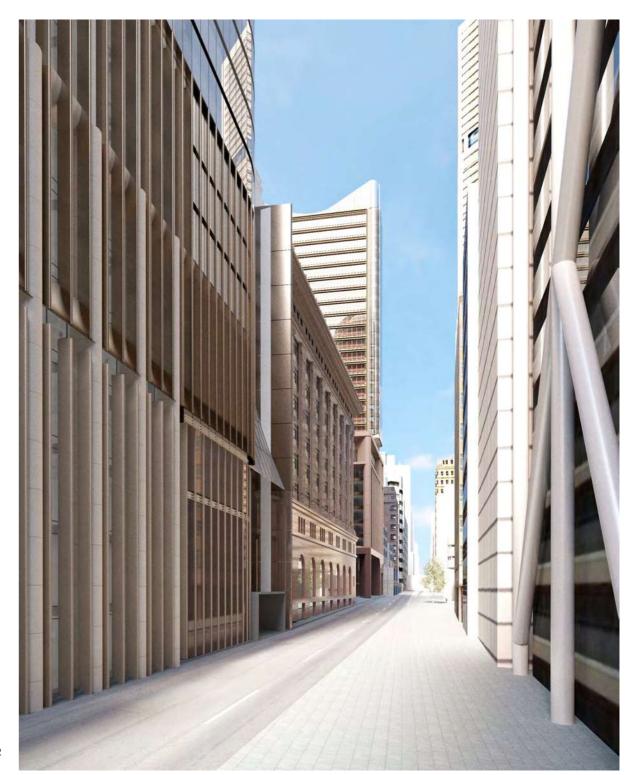
The design of the South podium therefore directly responds to the adjacent heritage item of 50 Martin Place, relating to it in term of the scale, proportion and material along Castlereagh Street.

The use of zero setback to Castlereagh Street creates a threshold condition at this entry point to Martin Place, to give a 'clear sense of arrival' to this important public space of Sydney, in line with Gehl Architect's vision stated in their 2015 'Martin Place Urban Design Study'.

The built form on Castlereagh Street establishes the primacy of the Martin Place Metro Precinct. The tower is separated from the podium by: a setback above street frontage along Martin Place; a significant vertical separation between the podium and the underside of the tower; and change of material between podium and tower.

The combined effect of the above will result in a clear visual separation between podium and tower forms from near, medium and distant views, and therefore a clear reading of the podium element as the dominating streetwall.

- 1 3D view showing street elevation along Castlereagh St with the proposed buildings
- buildings
  2 3D impression of view south along Castlereagh St showing continuous streetwall frontage height created by the podium and the clear articulation between the tower and podium





"Review the impact of the proposal on solar access to Hyde Park in mid-winter, and how the proposal is consistent with the objectives within the SLEP 2012 to protect the amenity of public places. This should include an analysis of the overshadowing impacts on Hyde Park in comparison to a development which would apply the setbacks of SDCP 2012."

- Department of Planning and Environment

#### Hyde Park Shadows

Impact of the Proposal on the solar access of surrounding buildings, street and public spaces has been studied intensively throughout the design process. The detailed shadow diagrams are documented in the 'SSDA Addendum Shadow Analysis' prepared by Grimshaw and JPW in August 2017.

The solar amenity of the major public spaces impacted by the development, Martin Place and Hyde Park, are protected by the City of Sydney's Sun Access Planes as defined in the LEP. These controls are met by the Proposal. There will be no additional overshadowing to the public domain beyond that predicted by the SAP.

This study demonstrates that the proposed envelope on the South site only casts additional overshadowing on Hyde Park for a short period of time limited to less than an hour on 21 June.

For this study, shadows were generated for the control times of 14 April, 21 June, 31 August, 21 September, 21 December, at 30 minute increments.

The LEP/DCP compliant envelope for the South tower taken up to the approved Solar Access Plane is shown to already create limited overshadowing of Hyde Park during the control time of 21 June from 1:30-2:30pm.

The DA approved maximum

development envelope for the 148 King Street site is shown to also already cast additional shadow on Hyde Park during this time over the same area.

Taking the above into account, the proposed envelope on the South site only casts two narrow strips of overshadowing additional to this at 2pm.

It is also worth noting that this overshadowing is only limited to the northern-most edge of Hyde Park, which is populated with large canopied trees which already overshadow the garden beds and paths below. There will be negligible overshadowing of the tree canopies themselves, as the shadow strikes at a low angle by the time it reaches Hyde Park.



- Northern edge of Hyde Park, July 2pm
- 2 Aerial view

