Sydney Metro Martin Place

North Tower

Stage 2 SSD DA Architectural Design Report

CSWSMP-MAC-SMA-AT-DRE-000120

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Sydney Metro Martin Place Station, North Tower Stage 2 SSD DA Architectural Design Report

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Disclaimer

Street trees, furniture and other public domain elements within the precinct are indicative only and are subject to relevant approvals and detailed coordination with new and existing underground utilities and infrastructure

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Preamble

Planning and Approvals Background

Introduction

This report supports a State Significant Development (SSD) Development Application (DA) (SSD DA) submitted to the Minister for Planning (Minister) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) on behalf of Macquarie Corporate Holdings Pty Limited (Macquarie), who is seeking to create a world class transport and employment precinct at Martin Place, Sydney.

The SSD DA seeks approval for the detailed design and construction of the North Site Over Station Development (OSD), located above and integrated with Metro Martin Place station (part of the NSW Government's approved Sydney Metro project). The northern entrance to Metro Martin Place station will front Hunter Street, Elizabeth Street and Castlereagh Street, with the North Site OSD situated above.

This application follows the approval granted by the Minister for a Concept Proposal (otherwise known as a Stage 1 SSD DA) for two OSD commercial towers above the northern and southern entrances of Metro Martin Place station (SSD 17_8351). The approved Concept Proposal establishes building envelopes, land uses, Gross Floor Areas (GFA) and Design Guidelines with which the detailed design (otherwise known as a Stage 2 SSD DA) must be consistent.

This application does not seek approval for elements of the Metro Martin Place Precinct (the Precinct) which relate to the Sydney Metro City and Southwest project, which is subject to a separate Critical State Significant Infrastructure (CSSI) approval. These include:

- + Demolition of buildings on the North Site and South Site;
- + Construction of rail infrastructure, including station platforms and concourse areas;
- + Ground level public domain works; and
- + Station related elements in the podium of the North Tower.

However, this application does seek approval for OSD areas in the approved Metro Martin Place station structure, above and below ground level, which are classified as SSD as they relate principally to the OSD. These components are within the Sydney Metro CSSI approved station building that will contain some OSD elements not already approved by the CSSI Approval. Those elements include the end of trip facilities, office entries, office space and retail areas, along with other office/retail plant and back of house requirements that are associated with the proposed OSD and not the rail infrastructure.

This report describes the North Site OSD design. This comprises a new building referred to as the North Tower and covers modifications to the existing 50 Martin Place building.

Context

The New South Wales (NSW) Government is implementing Sydney's Rail Future (Transport for NSW, 2012), a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future.

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. The Sydney Metro network consists of Sydney Metro Northwest (Stage 1) and Sydney Metro City and Southwest (Stage 2).

Stage 2 of Sydney Metro entails the construction and operation of a new metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and onto Bankstown through the conversion of the existing line to metro standards. The project also involves the delivery of seven (7) new metro stations, including Martin Place.

This step-change piece of public transport infrastructure once complete will have the capacity for 30 trains an hour (one every two minutes) through the CBD in each direction catering for an extra 100,000 customers per hour across the Sydney CBD rail lines.

On 9 January 2017 the Minister approved the Stage 2 (Chatswood to Sydenham) Sydney Metro application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15_7400). Work is well underway under this approval, including demolition of buildings at Martin Place.

The OSD development is subject to separate applications to be lodged under the relevant provisions of the EP&A Act. One approval is being sought for the North Site – this application – and one for the South Site via a separate application.

Site Description

The Metro Martin Place Precinct relates to the following properties (refer to Figure 1):

- + 50 Martin Place, 9 19 Elizabeth Street, 8 12 Castlereagh Street, 5 Elizabeth Street, 7 Elizabeth Street, and 55 Hunter Street (North Site);
- + 39 49 Martin Place (South Site); and
- + Martin Place (that part bound by Elizabeth Street and Castlereagh Street).

This application relates **only to the North Site**, being the city block bounded by Hunter Street, Castlereagh Street, Elizabeth Street, and Martin Place (refer to Figure 1).

The South Site (39 – 49 Martin Place) is the subject of a separate Stage 2 SSD DA.

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Figure 1 – Aerial Photo of the North and South Site of the Metro Martin Place Precinct



Figure 2 –North Site Approved OSD Building Envelope



Figure 3 - Relationship of key planning applications to the Stage 2 North Site DA (this application)

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Background

Sydney Metro Stage 2 Approval (SSI 15_7400)

The Sydney Metro CSSI Approval approves the demolition of existing buildings at Martin Place, excavation and construction of the new station (above and below ground) along with construction of below and above ground structural and other components of the future OSD, although the fitout and use of such areas are the subject of separate development approval processes.

On 22 March 2018, the Minister approved Modification 3 to the Sydney Metro CSSI Approval. This enabled the inclusion of Macquarie-owned land at 50 Martin Place and 9-19 Elizabeth Street within Metro Martin Place station, and other associated changes (including retention of the opening to the existing MLC pedestrian link).

Concept Proposal (SSD 17_8351)

On 22 March 2018, the Minister approved a Concept Proposal (SSD 17_8351) relating to Metro Martin Place Precinct. The Concept Proposal establishes the planning and development framework through which to assess the detailed Stage 2 SSD DAs.

Specifically, the Concept Proposal encompassed:

- + Building envelopes for OSD towers on the North Site and South Site comprising:
- + 40+ storey building on the North Site (see Figure 2)
- + 28+ storey building on the South Site
- + Concept details to integrate the North Site with the existing and retained 50 Martin Place building (the former Government Savings Bank of NSW)
- + Predominantly commercial land uses on both sites, comprising office, business and retail premises
- + A maximum total GFA of 125,437m2 across both sites
- + Design Guidelines to guide the built form and design of the future development
- + A framework for achieving design excellence
- + Strategies for utilities and services provision, managing drainage and flooding, and achieving ecological sustainable development
- + Conceptual OSD areas in the approved Metro Martin Place Metro station structure, above and below ground level¹

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¹ Refers to those components within the Metro CSSI approved station envelope that will contain some OSD elements not approved in the CSSI consent. Those elements include the end of trip facilities, office entries, office space and retail areas, along with other office/retail plant and back of house requirements that are associated with the proposed OSD and not the rail infrastructure.

Planning Proposal (PP_2017_SYDNE_007_00) - Amendment to Sydney LEP 2012

The Planning Proposal (PP_2017_SYDNE_007_00) sought to amend the development standards applying to the Metro Martin Place Precinct through the inclusion of a site-specific provision in the Sydney Local Environmental Plan (LEP) 2012. This site-specific provision reduced the portion of the South Site that was subject to a 55 metre height limit from 25 metres from the boundary to Martin Place, to 8 metres, and applies the Hyde Park North Sun Access Plane to the remainder of the South Site, forming the height limit of the tower. It also permits a revised FSR of 22:1 on the South Site and 18.5:1 on the North Site. These amendments were gazetted within Sydney LEP 2012 (Amendment No. 46) on 8 June 2018 and reflect the new planning controls applying to the Precinct.

Overview of the Proposed Development

The subject application seeks approval for the detailed design, construction and operation of the North Tower. The proposal has been designed as a fully integrated station and OSD project that intends to be built and delivered as one development, in-time for the opening of Sydney Metro City and Southwest in 2024. This application seeks consent for the following:

- + The design, construction and operation of a new 39 storey commercial OSD tower (plus rooftop plant) within the approved building envelope for the North Site, including office space and retail tenancies.
- Physical connections between the OSD podium and the existing 50 Martin Place building, to enable the use of the North Site as one integrated building.
- + Vehicle loading areas within the basement levels.
- + Extension and augmentation of physical infrastructure / utilities as required.
- + Detailed design and delivery of 'interface areas' within both the approved station and Concept Proposal envelope that contain OSD-exclusive elements, such as end of trip facilities, office entries, office space and retail areas not associated with the rail infrastructure.

Planning Approvals Strategy

The State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) identifies development which is declared to be State Significant. Under Schedule 1 and Clause 19(2) of SEPP SRD, development within a railway corridor or associated with railway infrastructure that has a capital investment value of more than \$30 million and involves commercial premises is declared to be State Significant Development (SSD) for the purposes of the EP&A Act.

The proposed development (involving commercial development that is both located within a rail corridor and associated with rail infrastructure) is therefore SSD.

Pursuant to Section 4.22 of the EP&A Act a Concept DA may be made setting out concept proposals for the development of a site (including setting out detailed proposals for the first stage of development), and for which detailed proposals for the site are to be the subject of subsequent DAs. This SSD DA represents a detailed proposal and follows the approval of a Concept Proposal on the site under Section 4.22 of the EP&A Act.

Submitted separately to this SSD DA is a SSD DA for the South Site (Stage 2 South Site SSD DA). A Stage 1 Amending SSD DA to the Concept Proposal (Stage 1 Amending DA) has also been submitted that has the effect of aligning the approved South Site envelope with the new planning controls established for the South Site (achieved through the site specific amendment to the Sydney LEP 2012).

Figure 3 is a diagrammatic representation of the suite of key planning applications undertaken or proposed by Macquarie and their relationship to the subject application (the subject of this report).

The Department of Planning and Environment have provided Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development. This report has been prepared having regard to the SEARs as follows:

Architectural Design Statement including illustrations and descriptions of how the North Tower will relate to Metro spaces and the surrounding public domain.

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Project Vision and Overview

The North Tower creates a "next generation" workplace within the core of the city. As a commercial development over a major new transport interchange the design integrates a diverse range of working environments with public transport infrastructure and an active public domain. Fundamental initiatives include vertical and horizontal integration via open voids, atria and glass lifts, access to natural light and ventilation, integration of heritage and civic spaces and the creation of diverse floor plates which promote new forms of working and business community.

The North Tower responds to its context and environment in its functionality and form. Set within the Sun Access Plane, its aerodynamic profile improves the wind environment at street level and reflects the curved geometry of the contemporary glazed roof dome of the adjacent 50 Martin Place building. In its relationship to 50 Martin Place, a carefully scaled and considered relationship between the connected buildings reveals views of the heritage turrets and affords this palazzo-style building respect and visual prominence. Furthermore, the faceted, silver glass façade and southern lens subtly echo the 50 Martin Place glazed dome while contributing to a world class environmental design, an innovative workplace and creating a distinctive addition to the city skyline. The ground plane merges public and private space through its convergence of transport, retail and commercial spaces within a shared volume. The Metro entrances address key public spaces of Chifley Square and Richard Johnson Square and connect down to the Metro platforms via a daylit central atrium. The grand-scaled Metro Plaza is activated by retail along its edges and overlooked by the Macquarie reception floor above.

The permeable ground plane allows new pedestrian connections between Elizabeth Street and Castlereagh Street. A mid-block connection at the southern end of the North Site provides public access into the 50 Martin Place Grand Hall and leads to the primary OSD reception via escalators.

The Metro through-site connection at the site's northern edge provides public, universal access, parallel to the steep gradient of the existing Hunter Street footpath.







The scheme maximises the opportunity to integrate with the existing 50 Martin Place building and the new Metro entrances at Hunter Sreet. Within the North Tower there are a diverse range of workplace environments with connections into the 50 Martin Place building at key podium levels. Typical office floor plates are large and adaptable with side-lit atria and high levels of natural daylight and air quality. A central atrium encourages connectivity across floors and promotes mobility and well being. The design is informed by Macquarie's global best practice workplace at 50 Martin Place.

Unique and iconic visitor and workplace spaces are created including the Level 10 boulevard with landscaped terraces extending into 50 Martin Place, and the southern "lens" atrium terraces at high level which overlook Martin Place and the city beyond.

KEY DESIGN PRINCIPLES



Design Principles Ground Plane Permeability

The design of the North Tower and the integration and consolidation of Metro and tower infrastructure maximises public domain activation and permeability of the ground plane. Permeability is achieved by maximising the building's openness and connections to surrounding streets. Strong visual and physical connections are also created between OSD and Metro spaces across the development site and a convergence of these activities is promoted within a shared volume while providing distinct entrances for both functions.

Active street frontages are created and pedestrian pathways are improved via new through site connections and generously proportioned Metro entrances. The public domain is enhanced with street level facades in high quality materials and craftsmanship to match 50 Martin Place, as well as the incorporation of public art, salvaged heritage artwork and retail. The design also works hard to minimise Metro services impacts on the public domain.

The North Tower addresses significant neighbouring public squares in its form and circulation strategy. Metro entrances are located on the north east and north west corners of the site, directly addressing Chifley Square and Richard Johnson Square and aligned with pedestrian desire lines to the north of the city. These entrances also provide a universally accessible public through site link between Elizabeth Street and Castlereagh Street adjacent to Hunter Street which is currently non-compliant due to the naturally steep gradient of the street.

Elizabeth Street and Castlereagh Street entrances to the OSD lobby create a public mid-block connection adjacent to 50 Martin Place. The primary entrance is on Elizabeth Street and is adjacent to the existing 50 Martin Place entrance and headquarters of the Macquarie organisation. This initiative provides an intuitive arrival address for Macquarie's new and existing buildings.

North East corner Metro entrance addressing Chifley Square



Design Principles World Leading Workplace

The North Tower is located above what will become one of Sydney's busiest transport interchanges and is adjacent to some of Sydney's most significant civic spaces including; Martin Place, Chifley Square and Richard Johnson Square. This will be a precinct where commuters, tourists, workers, shoppers and city visitors converge to work, live, socialise and play.

The North Tower offers a diverse range of working environments and promotes mobility, collaboration and flexibility. An important dimension to this vision is the global headquarters for Macquarie. Built adjacent to the existing Macquarie workplace in 50 Martin Place, the development will interconnect a series of high performance environments, both vertically and horizontally.

Office floors are large, flexible floor plates averaging ~1,500m2 with a sidelit core and high levels of amenity. A variety of workplace zones ill provide different environmental conditions such as daylight, internal air quality and views. This acknowledges the growing mobility within buildings, providing a richer workplace experience.

Central atria in the low and mid rise floors promote collaboration and provide visual and physical connection, amenity and light in the centre of the large floor plates. 3-level south-facing atria in the high rise floors augment the typical office space with improved access to natural light, views and landscaping.

The design also provides connections to 50 Martin Place at key floors to encourage movement between buildings as an integrated campus combining heritage and contemporary workplace environments.

These high-performance environments, for the Macquarie team, will be organised around unique architectural spaces catering for shared activities and amenities including the Level 10 terrace floor connecting to the existing client meeting spaces on the roof of 50 Martin Place.

> Workplace interiors are orientated around a central atrium

Design Principles

Landmark Tower Reinforcing Urban Context and 50 Martin Place

This is a unique opportunity to enhance the precinct and the Sydney CBD, by consolidating a range of small and underutilised sites into a full city block.

The North Tower form responds imaginatively to the approved Stage 1 SSD DA Envelope to achieve a landmark building and a distinctive over-station development. The North Tower responds to context and environment in its functionality and form. The aerodynamic profile is a distinctive response to the Martin Place Sun Access Plane which moderates wind impacts at ground level and reflects the curved geometry of the adjacent 50 Martin Place glazed dome roof.

The tower reinforces a line of towers along Hunter St at the edge of the cluster of northern CBD towers. The tower-to-ground form is emphasised at Hunter St and transitions to a tower above an infill podium at the southern boundary. This podium reinforces the streetwall and aligns with the surrounding heritage buildings.

The tower facade expression and materiality articulate these contrasting conditions. Along Hunter Street it aligns with neighbouring towers to the east and on Elizabeth Street and Castlereagh Street it references key streetwall datums established by 50 Martin Place at podium height. The building's southern facade curves above the podium to reveal views of the heritage lift overruns and affords 50 Martin Place respect and visual prominence.

Clearly contemporary, the North Tower reinforces the heritage significance of the palazzo-style 50 Martin Place building. The North Tower's design also creates a clear relationship to its masonry podium character and glazed roof top dome. The faceted tower glazing and southern lens geometry echo the 50 Martin Place glazed dome; both providing daylight and strong connections to the external environment, while giving external expression to the innovative workplace within.

TO BE DESIGN

The North Tower is uniquely shaped both by the specific site and urban context and by it's relationship to the singular architecture of 50 Martin Place. The North Tower marks the northern threshold of the Martin Place Metro precinct - a distinctive urban composition also comprising the South Tower and 50 Martin Place, at the precinct's centre. A unique and highly distinctive addition to the Sydney CBD, the North Tower will mark the new Metro precinct in the city skyline.

View of upper floors of proposal from the corner of Martin Place and Elizabeth Street



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Introduction

The purpose of the following sections is to describe the key characteristics of the North Tower and demonstrate how the design addresses the following guidelines:

- + This Stage 1 SSD DA Approval Conditions
- + Design Guidelines from the 'Sydney Metro Martin Place Station Precinct SSD DA Consolidated Design Guidelines' by Tzannes
- + Heritage Design Guidelines from 'Sydney Metro Martin Place Station Precinct SSD DA Statement of Heritage Impact' by TKD Architects



Integrated precinct - Early concept sketch

Precinct Wide Design

A central objective of the proposal is the establishment of an integrated, transport-oriented development that fulfills the potential of its strategically important location in the heart of Sydney's financial and civic districts. Martin Place station will be a flagship of the Sydney Metro that provides a modern and efficient multi-modal transport interchange and a welcoming new gateway into the CBD.

The aim of the Precinct is to create an ensemble of buildings with 50 Martin Place as the key source of reference and the North Tower and South Tower having an architectural relationship while responding to the unique characteristics of their respective sites. The Precinct identity and experience continues below ground in the Metro station levels connecting the north and south entrances, through consistent materiality and detailing.

The scheme maximises the opportunity to integrate with the existing public transport and pedestrian routes, in and around Martin Place, further enhancing the Sydney Metro customer experience and improving the transport links and connections for the community. A fully functional station for the Sydney Metro will be realised by the design of clear, legible, iconic station entries with concourses and platforms that will deliver an enjoyable customer experience. The Precinct provides a safe, accessible, visually attractive, high quality, unified street-scape. Important street-scape vistas will be retained and enhanced.

The North Tower structure and building services can be comprehensively integrated, resulting in the further benefit of the creation of 'convergent' areas where the public and private elements interface, creating an enriched urban outcome and significant public benefits.



Built Form

The North Tower is a distinctive, singular double-curved form that imaginatively responds to the approved Stage 1 SSD DA envelope. The soft curved geometry resolves the angled form of the Martin Place Sun Access Plane (SAP) and enhances the proportional relationship of the tower to the lower scale of 50 Martin Place.

A symmetrical, orthogonal and axial form, the North Tower geometrically relates to the symmetry of 50 Martin Place to reinforce the landmark qualities and civic presence of this significant heritage building when viewed from Martin Place. There is also a consistency of faceted curved elements between the North Tower form and the adjacent rounded geometry of the 50 Martin Place glazed dome.

A podium is articulated by a recess at Level 10 of the tower, consistent with the street wall height set by the parapet of 50 Martin Place. Above the podium the tower form is setback from 50 Martin Place and curves away at its upper limits to allow the heritage building to be understood as a distinct and independent architectural element. This ensures it appropriately integrates with the low scale of 50 Martin Place and clearly articulate street wall heights on Elizabeth Street and Castlereagh Street. It also allows the historic lift overruns to be understood visually as distinct forms.


Tower to Ground

The North Tower is expressed as a singular tower-to-ground form when viewed from Chifley Square and Richard Johnson Square. A podium is simultaneously articulated in alignment with the predominant street wall height set by 50 Martin Place along Elizabeth Street and Castlereagh Street.

The concept of tower-to-ground is followed as a means of formally integrating with adjacent towers 8-12 Chifley Square (8 Chifley) and 126 Philip Street (Deutsche Bank Place) to the east on Hunter Street. Collectively these tower forms maintain the character of Hunter Street as a connecting element between Chifley Square and Richard Johnson Square and improve the definition of both squares.

The base of the glass tower-to-ground form aligns with the monumental granite base of 50 Martin Place creating a consistent and continuous pedestrian street level experience along Elizabeth Street and Castlereagh Street. At the northern end of the site the base of the tower is clearly suspended above the ground plane and station atrium. This extends the "reverse" podium character of 8 Chifley and Deutsche Bank Place in turn creating a consistency of pedestrian experience along Hunter Street between Macquarie Street and Castlereagh Street.

This tower-to-ground form transitions to a tower with expressed podium orming along Elizabeth Street and Castlereagh Street to meet sensitively with the adjacent 50 Martin Place podium base and integrate them together as one city block.

The design differentiates the tower form from the podium via a facade recess at the parapet height of 50 Martin Place. This acknowledges key street wall datums established by surrounding heritage buildings and is further enhanced at a detailed scale by a series of tapering vertical fins that increase in depth as they get closer to 50 Martin Place. The gradation of these fins transition the design from a street wall to a singular tower to ground form with "reverse" podium.

Preliminary sketches exploring tower to ground form transitioning to the podium expression of 50 Martin Place



Massing and Articulation

The North Tower is expressed as a tower-to-ground that mediates its relationship to 50 Martin Place with an articulated podium. Its mass and scale relates to neighbouring Hunter Street towers to the east.

The podium occupies the full north site with no setbacks, in keeping with neighbouring buildings to provide consistent built form alignments. The podium has zero setbacks to Elizabeth Street, Castlereagh Street and Hunter Street with curved northern corners.

The podium height aligns with the parapet of 50 Martin Place and the podium facade composition extends its expression of vertical orders, mass and solidity.

Above the podium the tower tapers progressively to the building's crown. As the tower height increases, the southern extent reduces and the radius of the northern corners increases. Both reduce the extent of the tower massing.

A 6m setback above podium height along the southern boundary to 50 Martin Place enhances the perception of building separation and provides appropriate space to ensure its distinctive architectural expression and prominence are maintained. The setback further streamlines the form of the tower.

Predominant street wall heights established by the 50 Martin Place parapet are articulated by a recess above podium level on Elizabeth Street, Castlereagh Street and Hunter Street. This key alignment extends through to Qantas House, the City Mutual Building and Chifley Square and to the podium height of the South Tower to create a continuous and unifying datum line. On Hunter Street the tower facade is suspended above the ground in general alignment with the "reverse" podium streetwall articulation of 8 Chifley and Deutsche Bank Place.



North tower form fits within city context and skyline



Tapering tower form fits wholly within envelope with modelled corners for improved environmental performance



Setback from 50 Martin Place and tapering form reduce sense of bulk. Facade articulation and details enhances sense of scale

Height, Bulk and Scale

The proposed North Tower form is a distinctive response to the SAP for Martin Place which defines the height of the approved Stage 1 SSD DA envelope. The environmental performance of this form improves on the performance of the approved envelope as a result of modelled corners and tapered form at its upper limits.

As a commercial development over a major new transport interchange, the North Tower maximises GFA capacity within the constraints of the SAP and the Urban Design Guidelines. The development aligns greater levels of density with public transport infrastructure and high standards of public amenity and maximises the site's potential as a commercial hub for city workers.

To reduce the sense of bulk, the tower form is set back from 50 Martin Place and tapers significantly at the upper limits and is slimmest at its peak. The tower architecture is also articulated by appropriately scaled vertical and horizontal elements and facade recesses to enhance the perception of scale.

The maximum height of the tower is RL194m and floor-to-floor heights are generally 3.9m.



Street Wall and Street Frontage Elizabeth Street and Castlereagh Street

The North Tower responds to the street wall character of Elizabeth Street and Castlereagh Street to reinforce the distinctive characteristics of this city block.

The principal heritage street wall height of 50 Martin Place, Qantas House and the City Mutual building is expressed as a podium through a combination of expressed parapet, materiality and recesses. This alignment is consistent with, and is strengthened by, the consistent height of the South Tower podium.

At a detailed scale, elements of the podium facade have been developed to reinforce the predominant datums and material qualities of 50 Martin Place. In particular the street wall granite base of the North Tower directly references its monumental masonry base and podium through a series vertical fins that respond to the grand order of 50 Martin Place.

North Tower and 50 Martin Place viewed from the corner of Elizabeth Street and Martin Place showing key street wall alignments



Elizabeth Street - reinforcing key street frontage podium height



Castlereagh Street- reinforcing key street frontage podium height



Elizabeth Street - Granite base and fins respond to 50 Martin Place facade podium expression



Castlereagh Street - Granite base and fins respond to 50 Martin Place facade podium expression

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Hunter Street - alignment of "reverse" podiums of neighbouring tower forms



Hunter Street plan view - general alignment of neighbouring tower forms

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Street Wall and Street Frontage

Hunter Street

The North Tower responds to the predominant architectural forms and alignments of neighbouring towers on Hunter Street. In its tower-to-ground form, the North Tower generally aligns with the setbacks of adjoining conditions to the east. This alignment maintains the character of Hunter Street as a connecting element between Chifley Square and Richard Johnson Square and enhances the spatial definition of these squares. It also improves the definition of the change in street geometry at Hunter Street.

The proposed scheme references key characteristics and datums of 8 Chifley and Deutsche Bank Place towers to the east. The tower form relates directly to the commercial tower typology and scale of these adjoining buildings and generally aligns its north facade to their "reverse" podiums. This suspension of the tower above ground level defines the Metro entry and opens up views and light down to the Metro spaces below while also making North Tower Metro entrances legible to the public.



Hunter Street suspension of tower above ground plane

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Setbacks

Elizabeth Street, Castlereagh Street and Hunter Street

Along Hunter Street the North Tower generally aligns with the zero setbacks of adjacent buildings 8 Chifley Square and Deutsche Bank Place. It reinforces the straight street alignment along the southern edge of Chifley Square established by the existing line of towers to the east. This forms a strong southern edge to Chifley Square and a sense of enclosure to its semi -circular form.

As a group these towers define both Chifley Square and Richard Johnson Square and allow these important public spaces to be legible in the Sydney skyline and maintain the character of Hunter Street as a connecting element between public squares.

With no setback to Hunter Street or Elizabeth Street and Castlereagh Street, the North Tower is consistent with the adjacent 8 Chifley and Deutsche Bank Place and forms the third tower in a composition of three towers with these existing neighbours.

The three towers provide a marker or the changing street grid alignment where Hunter Street meets Castlereagh Street, and make legible the transition from the orthogonal street grid to the more organic and topographic structure of the historical city grid to the north.

Consistent with the Urban Design Guidelines recommendations, the North Tower has no setbacks to Elizabeth Street and Castlereagh Street to match the predominant street alignments. With zero setbacks to these streets, the tower is prominent from all approaches and marks the threshold and entry to the Martin Place Station Precinct.



Setback of south facade provides space between 50 Martin Place and the unique character of the heritage lift overrun towers as seen from the Level 10 terrace and office interiors of the North Tower.

Setbacks 50 Martin Place

The North Tower is set back 6 metres from 50 Martin Place above parapet height along its southern facade reflecting the setback of the 50 Martin Place glazed dome to the boundary. This articulates the podium form and demonstrates a considered transition between the tower form and low-scale 50 Martin Place building. The setback responds directly to the recommendation of the Stage 1 Consent Conditions requiring consideration for a setback to the southern extent of the approved envelope.

To further enhance the distinction of 50 Martin Place, the tower form tapers away to the north as it reaches the crown of the building with the rounded corners further reducing visual impact.

The setbacks and tapering form collectively afford space and prominence to 50 Martin Place and legibility of its heritage lift overruns is maintained. It also creates a unique external terrace at Level 10 that connects to 50 Martin Place, introducing a new form of interaction with these heritage items. The heritage lift overruns are also overlooked by the North Tower offices floors above, creating a series of unique viewing experiences.

The broad curves of the southern building facade contribute to limiting the length of the east and west elevations at the lower tower floors. At street level the pedestrian perceives distinctive east and west elevations which progressively diminish in readth as the tower increases in height.



Roof Plan - 6m setback to 50 Martin Place and tapering tower form to crown



Level 10 Plan - Connection to 50 Martin Place and a continuation of terraces and client spaces between both buildings

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The design recognises Chifley Square and Richard Johnson Square as important public open spaces and has a positive impact on their definition and activation.

At the scale of the skyline, the tower serves as marker for these important public spaces as well as marking the changing street grid from the original city grid.

In the urban context, the use of zero setbacks and "reverse" podium alongside neighbouring towers on Hunter Street, forms a strong southern edge to Chifley and Richard Johnson Squares. Defining the edge of the public space, the tower form provides a sense of enclosure to Chifley Square and Richard Johnson Square.

Strong physical and visual connections between these spaces and the North Tower are created for pedestrians. Diagonally symmetrical northern corners of the North Tower directly address Chifley Square and Richard Johnson Square and Metro entries are located at these corners to maximise pedestrian flow and connection to the key public spaces. This s designed to encourage their use as both a destination and meeting place for pedestrians.



Rendered ground plane

Ground Plane Activation

The design of the North Tower ground plane maximises street level activation and pedestrian connections to surrounding public spaces. It improves site permeability and promotes a convergence of OSD and Metro activities while providing clearly separate entrances for both, and the ground plane is completely open to the public during business hours.

Active street frontages are maximised with a mix of OSD entries, Metro entrances and retail openings along the three street facades. The design also works hard to consolidate Metro services and stack them vertically to minimise impacts on the public domain. An elevated tower reception and lift lobby allows for the suspension of the lift pits above the ground plane which further extends the openness and activation of the ground plane on Castlereagh Street.

The design provides two new east-west connections between Elizabeth Street and Castlereagh Streets which improves the permeability of this city block. The mid-block connection provides access along the southern end of the site connecting to the elevated reception and lift lobby. The two Metro entrances along Hunter St provide a universally accessible through site link along the northern end of the site.



Environmental Amenity

The proposed design has made improvements from Stage 1 SSD DA envelope as a result of modelled corners and overall height.

Solar -

- + The solar impacts of the proposed design have been tested by Virtual Ideas through 3D modelling and analysis. Refer CSWSMP-MAC-SMA-UD-REP-000360 and CSWSMP-MAC-SMA-UD-REP-000370. This analysis has compared the proposed design with the existing condition and approved Stage 1 SSDA envelope.
- + The built form of the North Tower is contained fully within the Sun Access Plane for Martin Place and the analysis demonstrates an improved solar access outcome when compared with the approved Stage 1 SSD DA envelope. In relation to the specific Stage 1 SSD DA condition, the proposed design has reduced the area of shadow cast on Martin Place between the hours of 12 and 2 pm (14 April) by 19.1% when compared to the shadow cast by the approved building envelope,

Wind -

- + The wind impacts of the proposed design have been tested by CPP through 3D modelling and analysis. Refer CSWSMP-MAC-SMA-UD-REP-000380. This analysis has compared the proposed design with the existing condition and approved Stage 1 SSD DA envelope.
- + The aerodynamic form moderates wind impacts at ground level and the analysis has demonstrated that the Stage 1 SSD DA condition requiring the improvement to comfort and safety ratings to be comfortable for at least pedestrian standing at station entries has been achieved

Views -

- + The view impacts of the proposed design have been tested by Arterra through 3D modelling and this has been analysed in the Visual Impact Assessment report been prepared by Tzannes. Refer CSWSMP-MAC-SMA-UD-REP-000400. This analysis has compared the proposed design with the existing condition and approved Stage 1 SSD DA envelope.
- + The built form of the tower is contained fully within the approved Stage 1 SSD DA envelope and does not fill the full extent of it. The analysis demonstrates an improved visual impact outcome when compared with the approved envelope.







Services Integration

- + Above ground station services carefully concealed and integrated into the facades.
- Intakes and discharges vertically stacked at the southern corners of the building away from Metro entrances and public spaces.
- + Services are distributed vertically in the tower to minimise ground level impact.
- + Minimised impact on the architecture and public domain.

Facade Integration

- + Grilles and louvres are consolidated into regular vertical columns.
- + Above ground station services carefully concealed and integrated into facade.
- Intakes and discharges vertically stacked along east and west facades at south end of building.
- + Minimised impact on the architecture and public domain.

Pedestrian Flow Integration

- + Clear separation of Metro and OSD entrances.
- + Minimising cross-flow between Metro customers and OSD occupants.
- + OSD lobbies have distinct street addresses.
- + Open plaza below the North Tower improves pedestrian flows.
- + Mid-block connection created.
- + Elevated lift lobbies keep ground level clear for activation and circulation.

Structural Integration

- + Highly integrated structure to avoid transfer slabs.
- Column arrangement optimised for tower and station, and side core, to allow central atria into the Northern Metro areas.
- + Side core arrangement for clear open floor plates.

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Metro Station Integration

The larger site (through the inclusion of 9-19 Elizabeth Street) and the integrated approach to the design of the Metro Station and OSD maximises opportunities and benefits for the Metro Station. The result is grander, more civic scaled station entrances that can accommodate future pedestrian demands and ensure easy and safe interchange for pedestrians, with seamlessly integrated workplace above.

The integration also allows for a more sensitive and nuanced integration of the station entrances into the major civic spaces of Martin Place to the south and Chifley Square and Richard Johnson Square to the north.

The North Tower features an elevated reception together with suspended lift shafts over Castlereagh St, thereby allowing retail units to sit under the elevator core. Access to the commercial lobby for the North Tower is via the proposed through-site connection alongside 50 Martin Place. This strategy allows the corners on Hunter Street at Elizabeth Street and Castlereagh Street to be dedicated to the Metro station access.

The integrated development allows the consolidation of Metro services with North Tower services resulting in a coordinated approach which minimises intrusion of services into the public domain. With the priority to activate the streets and provide through-site connections, the space available for the large service ducts, fire exits and access lifts is very constrained. The scheme minimises the impact of Metro services on the public domain. Plant/BOH zones for tower and Metro are consolidated and primarily located below ground to minimise street presence. The scheme locates the service risers in the parts of the site that have the least value to the activation and amenity of the public domain. To allow for the inclusion of generously scaled spaces in the round levels of the building, the Metro plant rooms and outlets are stacked vertically to minimise the footprint n the publically accessible lower levels. This approach also allows the exhaust outlets to be carefully concealed in the façade design, positioned well above the street.

Daylight access is maximised by levating built forms above ground level where possible - including suspended lift pits, mezzanine reception floor and "reverse" podium arrangement long Hunter Street. These allow daylight access to the Metro areas and create a visual connection between platform and street levels. The "reverse" podium arrangement on Hunter Street, in particular, allows views and daylight penetration down to the Metro station levels.



Facade

The North Tower design has been developed to reinforce and strengthen the building's key design principles while also integrating services and buildability requirements. The facade is informed by the considered transition between two key components - the glazed tower form in direct response to the surrounding tower typology of Hunter Street; and the solid podium base in response to the character of 50 Martin Place. The towerto-ground and podium are differentiated through facade details, recessed articulation and alignment with 50 Martin Place.

The tower expression is of faceted, curvilinear glazing panels echoing the glass dome of 50 Martin Place. The resulting organic form will be clad in curtain wall system, horizontally articulated at each floor level. The cladding geometry is resolved to almost entirely flat, four-sided glass panels to create a beautifully faceted reflective form, reminiscent of a cut gemstone. Reflections on the faceted panels give shape and movement to the form.

The tower is clad in two contrasting glazing types which respond to the building's internal programme and contribute to the distinctive external appearance. Reflective glass around the typical office floors supports the workplace environment with moderate daylight and minimised glare, accentuating the building's curvilinear form and faceted cladding.

The southern lens facade in contrast, is clad in high transparency and high visual light transmission (VLT) glass to maximise daylight and views from the southern end of the floors. Integrated horizontal sunshading projections control glare and solar heat gain at the upper levels. The western Castlereagh St facade enclosing the lift shafts is also clad with high VLT glass to allow high levels of daylight to side-illuminate the central atria that connect the building's low and mid-rise.

The tower-to-ground form is clearly expressed at both Hunter Street corners, facing Chifley and Richard Johnson Square and the "reverse" podium aligns with the two towers to the east.

On Elizabeth Street and Castlereagh Street elevations the tower extends the streetwall character of 50 Martin Place by expressing a podium consisting of solid masonry base elements; a screen of vertical fins concealing louvre banks laid over the tower glazing between Levels 2 and 9, terminating to recessed terraces at Level 10. This integrated composition reinforces the predominant street wall height established by the 50 Martin Place parapet and articulates a podium distinct from the tower on Elizabeth Street and Castlereagh Street.

Consistent and complementary materials in a family of colour and hue ensure the whole is understood as an integrated composition. Precinct-wide consistency is created through the use of similar stone and metal finishes across South Tower, North Tower and 50 Martin Place.

The following pages discuss the key components of the tower and podium curtain wall facade systems.



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Facade Large Floorplate, Diverse Environmental Qualities

The external appearance, material selection and the articulation of the tower facade specifically responds to Macquarie's workplace criteria, energy efficiency and solar orientation. As a result, the adopted facade system includes a mix of high performance glass, highly transparent glass and external sun shading.

This hybrid solution is developed out of a detailed consideration of alternative facade materials and assemblies that were evaluated against Macquarie's workplace criteria:

- + Large, regular, open floor plates with clear lines of sight.
- + Diverse daylight levels across the large floor plates to provide a variety of environmental conditions.
- + Daylit side-lit atria in the low and mid-rise to physically and visually connect communities of approximately 10 floors.
- A passive chilled beam mechanical system with fresh air reticulated and delivered at floor level as a combined system that delivers premium internal air quality, occupant control and energy efficiency - consistent with 50 Martin Place and considered best-in-class.
- + Prioritise unimpeded perimeter views with floor to ceiling glazing, avoiding external fixed sun shades.
- + Minimise blind use for thermal control (glare control only).

In response to Macquarie's workplace brief the North Tower floor plate is designed to offer a diverse range of environments that support flexible work styles. This approach is informed by the 50 Martin Place workplace and the North Tower is designed to meet Macquarie's aspirations for its future workplace.

The proposed office floor plates are large and adaptable with a side-lit core and high levels of natural daylight and air quality. The large floorplates with varied VLT facade conditions and central atria (or side atria in the high rise) will offer a wide range of distinctive work areas. This will encourage mobility by providing distinct work environments across the floor.



