

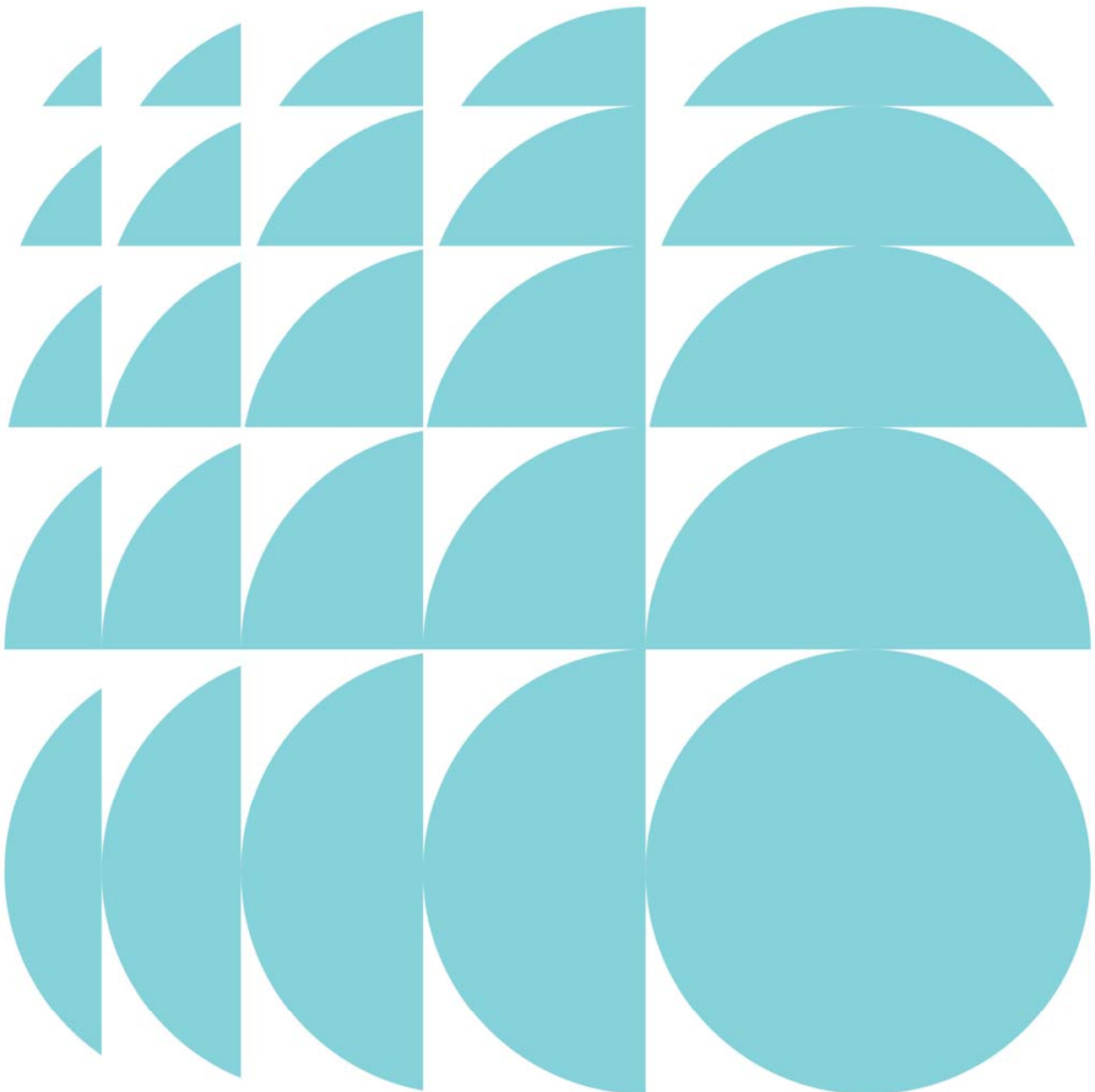
Response to Submissions

SSD 17_8351

Sydney Metro Martin Place Station Precinct
Concept State Significant Development Application

Submitted to NSW Department of Planning and
Environment
On behalf of Macquarie Corporate Holdings Pty Ltd

07 September 2017 | 15879



PREVIOUSLY KNOWN AS JBA

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Contents

Executive Summary	1
1.0 Introduction	4
1.1 Amendments to the Proposed Development	5
1.2 Background to the Development	6
2.0 Key Issues and Proponent's Response	9
2.1 Design Excellence	10
2.2 Building Form	17
2.3 Overshadowing	40
2.4 Wind	45
2.5 Heritage	46
3.0 Amendments to the Application	53
4.0 Additional Information and Assessment	56
4.1 Visual Impacts: Public Views	56
4.2 View Impacts: Outlook from Surrounding Buildings	58
4.3 Sky View (Daylight) Analysis	59
4.4 Pedestrian Capacity (Operation)	61
4.5 ESD	61
4.6 Further Built Form Considerations	63
4.7 Construction Impacts	67
5.0 Final Mitigation Measures	73
6.0 Conclusion	75

Figures

Figure 1 – Relationship of key planning applications	8
Figure 2 – Proposed north site envelope (left) and LEP/DCP compliant envelope (right)	19
Figure 3 – Typical floor plans, North Tower illustrative scheme	21
Figure 4 – North Tower illustrative scheme with proposed envelope	22
Figure 5 – Block defining expanse of buildings fronting Hunter Street	23
Figure 6 – North and South Tower city context	24

Contents

Figure 7 – 3D Impressions of view along Hunter Street and north tower undercrofts	25
Figure 8 - Figure 5.18 'Maximum Horizontal Dimension of a Building Above Street Frontage Height'	26
Figure 9 – Maximum horizontal dimensions of the North Tower	26
Figure 10- Figure 5.19 'Maximum Building Envelope Area above Street Frontage Height'	27
Figure 11- 5 Martin Place, Sydney	28
Figure 12- International Towers, Sydney	28
Figure 13- Leadenhall, London	29
Figure 14- 3D impression of podium form and materials reinforcing the adjacent building key parapet and undercroft heights	31
Figure 15- 3D impression of view along Elizabeth Street showing continuous street wall frontage height created by the podium base	31
Figure 16- 3D impression of view south from Chifley Square showing legibility of 50 Martin Place heritage lift overruns	33
Figure 17 – 3D impression of view south from Chifley Square showing podium development of complementary and contemporary materiality	33
Figure 18- 3D impression of view along Elizabeth Street showing north tower “peeling away” from 50 Martin Place	34
Figure 19- Articulation zone for the South Tower	36
Figure 20- Potential for a continuous street wall, as viewed from Elizabeth Street	36
Figure 21- Potential for a continuous street wall, as viewed from Castlereagh Street	37
Figure 22- Threshold examples to Martin Place, based on Jahn Gel's 2015 study	38
Figure 23- South tower (zero tower setback) threshold to Martin Place from Elizabeth Street	39
Figure 24- South tower (zero tower setback) threshold to Martin place from Castlereagh Street	39
Figure 25- Shadow cast on Hyde Park at 2pm, 21 June	41
Figure 26- Worst-case scenario overshadowing of Pitt Street Mall on 21 June (additional shadows shown in yellow) at 10am (left image) and 10.10am (right image)	42

Contents

Figure 27- June 21, 11am, overshadowing comparison	43
Figure 28- September 21, 11am, overshadowing comparison	44
Figure 29- June 21, noon, overshadowing comparison	45
Figure 30- Archival photograph (1922) illustrating the construction of 50 Martin Place and its intended relationship to adjoining development with a blank northern façade	47
Figure 31- Images showing north tower ‘peeling away’ to reveal heritage turrets of 50 Martin Place	48
Figure 32- Impression of a potential design option to interface with 50 Martin Place	49
Figure 33- Precedent image of link spaces (left), artists impression (right)	50
Figure 34 – Opportunities for links which articulate old and new legibility of 50 Martin Place heritage towers	51
Figure 35 – Illustrative scheme – South Tower podium	54
Figure 36 – Illustrative scheme – South Tower	54
Figure 37 – Articulation zone and street frontage height reinforced through illustrative scheme	54
Figure 38 – Tapered connection with 50 Martin Place	55
Figure 39- Test fit-out of South Tower floor plate	63
Figure 40- Structural integration	65
Figure 41- Services integration	65
Figure 42- Façade integration	66
Figure 43- Pedestrian flow integration	66
Figure 44- Noise catchment areas	68
Figure 45- Grid noise map illustrating noise impacts due to low excavation	69

Tables

Table 1 – DRP Feedback and Responses	14
Table 2 – Sky View Factor Assessment Results	60
Table 3- Mitigation Measures	73

Contents

Appendices

- A** Detailed Record and Response to Submissions
Ethos Urban
- B** Supplementary Design Report
Grimshaw, JPW and Tzannes
- C** Additional Shadow Studies / Verification
Grimshaw + JPW + PSN
- D** Sydney Metro Martin Place Station Precinct Consolidated Design Guidelines
Tzannes / TKD / Sydney Metro
- E** Station and OSD Integration/OSD Lifecycle Approach
Grimshaw + Arup
- F** Assessment of Outlook Change
Grimshaw
- G** Revised Competitive Design Process Waiver
Ethos Urban
- H** Updated Design Excellence Framework
Ethos Urban
- I** South Tower Market Assessment
Savills
- J** Skyview Factor (Daylight) Analysis
Surface Design
- K** Updated Heritage Impact Statement and Addendum Letter
TKD
- L** Updated Pedestrian Wind Environment Study
CPP
- M** View Impact Analysis Addendum
Arterra + Tzannes
- N** Updated Urban Design Report
Tzannes

Contents

- O** Business Impact Assessment
Hill PDA
- P** Construction Management Plan
Lendlease
- Q** Updated Acoustic Assessment Report
Arup
- R** Traffic, Transport and Pedestrian Response Letter
Arup
- S** Air Quality Impact Assessment
Arup
- T** Updated ESD Strategy
Arup

Executive Summary

An Environmental Impact Statement (EIS) was prepared in support of State Significant Development Application (SSD 17_8351) for a Concept Proposal under Section 83B of the *Environmental Planning and Assessment Act 1979* ('EP&A Act') concerning two Over Station Development (OSD) commercial towers above the northern and southern entrances of the yet to be constructed Martin Place Metro Station. This EIS and accompanying documents were placed on exhibition for a period of 30 days inclusive between 1 June 2017 and 30 June 2017.

Public exhibition occurred in accordance with the requirements of the EP&A Act.

In total, 19 submissions were received in response to the public exhibition of the EIS. These included submissions made by government agencies and authorities and the general public, as follows:

- Government authorities and agencies – 11; and
- Members of the public – 8 submissions from 7 people.

The Department of Planning and Environment ('the Department') also prepared a letter setting out additional information or clarification prior to the final assessment of the project.

The key issues raised in submissions (agencies and members of the general public) can be broadly grouped into the following categories:

- Design excellence.
- Built form.
- Overshadowing.
- Wind.
- Heritage.

The proponent Macquarie Corporate Holdings Pty Limited (Macquarie), and their expert project team, have considered all issues raised in the submissions made, pursuant to the requirements of the EP&A Act. A considered and detailed response to all submissions made has been provided in the accompanying documentation, including the response table at **Appendix A**, with the key issues outlined above expanded on at **Section 2** and additional information provided at **Section 4**.

In responding to and addressing the range of matters raised by government agencies and authorities and the general public, Macquarie has sought to refine the illustrative scheme to further demonstrate how the detailed design of future development can respond to those matters raised in the submissions. The enhanced illustrative scheme is discussed in **Section 3** below.

Sections 2, 3 and 4 of this report and the accompanying documentation together provide an analysis and assessment of the proposed changes and the refined project more broadly. In summary, all environmental impacts of the amended development remain consistent with the original application and commensurate with what would be expected as part of the redevelopment of the site by a LEP/DCP compliant scheme. The Concept Proposal when compared to a DCP/LEP complying envelope is, on balance, considered appropriate given the similar level of impact generated by the loose-fit building envelopes that represent the maximum impact that would be reduced through detailed design.

The continued design development, testing, and refinement of the building envelopes through to Stage 2/detailed design will address a number of detailed matters considered in the submissions and yield the best possible outcome for the site and surrounds, that appropriately minimise or mitigate environmental impacts.

Final measures to mitigate the impacts associated with the refined proposal are detailed at **Section 6**.

In conclusion, the Concept Proposal for the Martin Place Metro Station Precinct redevelopment, to be further designed and considered in subsequent Stage 2 application(s), will form the first stage to delivering a fully integrated and operational Station and OSD in the commercial heart of the Sydney CBD. It will facilitate the delivery of two predominantly commercial office towers in a whole-of-Precinct redevelopment, to capitalise on the unparalleled access to public transport and deliver long lasting and significant public benefits. These include:

- **Design Benefits:**

- **Single, fully integrated commercial and transport proposal:** The Macquarie proposal would see the redevelopment of all sites (other than 50 Martin Place given it is a heritage item) within the block between the northern and southern stations, delivering significant commercial space in Central Sydney through an integrated design, resulting in maximum employment floor space return on investment in public transport infrastructure.
- **A better-connected rail interchange than originally envisaged:** The Macquarie proposal connects the Sydney Metro and Sydney Trains (T4 line Eastern Suburbs Illawarra line) and the local customer catchment. The public unpaid 'all weather' pedestrian concourse connection between the northern and southern Station entrances, significantly improves the connectivity for customers and non-customers of the Stations and across the Precinct.
- **A grand central transport hub:** The fully integrated nature of the proposal will allow, as demonstrated in the illustrative scheme within Appendix A, exceptional station entrances and customer experiences both for the northern and southern Sites, connected through the shared concourse under 50 Martin Place. The integrated nature of the proposal will allow for a more holistic design solution which will maximise the benefit to public transport users, the commercial tenants in the OSD towers and the travelling public generally.
- **Enhanced economic and civic value:** The landmark, fully integrated OSD solution for the precinct, which will contribute to Sydney's competitive edge and reinforce its status as a global city, in line with the NSW Government's aspirations for the CBD.
- **A revitalised public realm:** The integrated nature of the proposal will provide significant public domain renewal and enhancement opportunities, below ground and at ground level, particularly in Martin Place and the surrounding streets.

- **Direct State benefits:**

- The project will realise the NSW State Government's vision for OSD of significant scale and size on the Martin Place Station sites. It will provide a stronger and better-connected Sydney and deliver employment growth in connection with the Government's major investment in public transport infrastructure. The Concept Proposal capitalises on the additional capacity arising from the Metro and supports the long-term viability of the finance, knowledge, banking, IT and other service sectors in the Sydney CBD.

- OSD is identified by the NSW Government as an essential component to the success of the overall Sydney Metro project, both from a place making as well as financial feasibility perspective. In this regard, the broader Metro OSD strategy supports the NSW Government in funding the cost of this step change piece of public transport infrastructure.
- Macquarie is therefore (subject to progressing through the final stage of the USP process) paying the NSW Government for the development rights for the OSD, with that money directed towards the funding of the Sydney Metro project. This approach aligns with the objectives outlined within Council's CSPA.

Given the merits, and the significant public benefits associated with the proposed development, it is recommended that this application be approved.

1.0 Introduction

An Environmental Impact Statement (EIS) was prepared in support of State Significant Development Application (SSD 17_8351) for a Concept Proposal concerning two Over Station Development (OSD) commercial towers above the northern and southern entrances of the yet to be constructed Martin Place Metro Station. The EIS and accompanying documents were placed on public exhibition for a period of 30 days inclusive between 1 June 2017 and 30 June 2017.

Public exhibition occurred in accordance with the requirements of the *Environmental Planning and Assessment Act 1979*.

In total, 19 submissions were received in response to the public exhibition of the EIS. These included submissions made by government agencies and authorities and the general public, as follows:

- Government authorities and agencies – 11; and
- Members of the public – 8 submissions from 7 people.

The Department of Planning and Environment ('the Department') has also prepared a letter requesting the applicant provide additional information or clarification prior to the final assessment of the project.

The key issues raised in submissions (government agencies and the general public) can be broadly grouped into the following categories:

- Design excellence;
- Building form;
- Overshadowing;
- Wind impacts; and
- Heritage.

The proponent Macquarie Corporate Holdings Pty Ltd (Macquarie) and its expert project team have considered all issues raised within the submissions made pursuant to the requirements of the *Environmental Planning and Assessment Act 1979*.

This report, prepared by Ethos Urban (formerly known as JBA) on behalf of the proponent, sets out the responses to the issues raised in accordance with Clause 85A of the *Environmental Planning and Assessment Regulation 2000* ('the Regulation') to address matters raised in the submissions from agencies and the public.

The report also provides a detailed response to all of the issues raised by the various government agencies and the general public. Whilst the submissions received from agencies have been addressed individually, the submissions made by the general public have been addressed on an issue by issue basis.

This report provides a detailed response to each of the above issues and outlines the proposed amendments to the exhibited Environmental Impact Statement (EIS). Where individual issues have not been discussed in this report, a detailed response can be found in the table at **Appendix A**.

1.1 Amendments to the Proposed Development

To address issues raised in submissions, a range of documentation has been prepared. The following consultants' reports and supporting information have been updated or further supplements the material originally submitted in support of the EIS:

- A Detailed Record and Response to Submissions - Ethos Urban
- B Supplementary Design Report - Grimshaw, JPW and Tzannes
- C Additional Shadow Studies / Verification - Grimshaw + JPW + PSN
- D Sydney Metro Martin Place Station Precinct Consolidated Design Guidelines – Tzannes
- E Station and OSD Integration/OSD Lifecycle Approach - Grimshaw + Arup
- F Assessment of Outlook Change - Grimshaw
- G Revised Competitive Design Process Waiver – Ethos Urban
- H Updated Design Excellence Framework – Ethos Urban
- I South Tower Market Assessment - Savills
- J Skyview Factor(Daylight) Analysis - Surface Design
- K Updated Heritage Impact Statement and Addendum Letter - TKD
- L Updated Pedestrian Wind Environment Study - CPP
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- R Traffic, Transport and Pedestrian Response Letter - Arup
- S Air Quality Impact Assessment - Arup
- T Updated ESD Strategy - Arup

The revised supporting documentation will enable the Department to complete its assessment of the proposal. The findings of the revised supporting consultant documentation are summarised at **Sections 2** and **4** of this report as relevant.

A final schedule of the mitigation measures proposed to mitigate the impacts associated with the proposed works is provided at **Section 4**.

This report should be read in conjunction with the EIS prepared by JBA and dated May 2017, as relevant.

1.2 Background to the Development

The Concept Proposal forms part of a comprehensive suite of applications for planning approval, and other design processes to co-ordinate and deliver the fully integrated station/OSD solution for the Precinct.

The Concept Proposal SSD DA seeks approval for:

- land uses and tower envelopes for the North Site and South Site;
- a maximum Gross Floor Area (GFA) for the North Site and South Site, and
- those components of the OSD located at, above and below ground level and are within the proposed Metro Station building envelope already approved.

No physical works are proposed as part of the application, with details to be subject to separate future applications.

Unsolicited Proposal

Lodgement of the Concept Proposal SSD DA followed the decision of the NSW Government in March 2017 to proceed to Stage 3¹ of Macquarie's Unsolicited Proposal (USP) bid to deliver the combined Station and OSD for Martin Place. The USP by Macquarie seeks to create an integrated, world class transport and employment precinct. In doing so, delivering at the same time an improved Martin Place Metro Station, the two OSD towers and public domain work as one consolidated construction of what is essentially the one building. This Concept Proposal forms one of a number of planning applications necessary to deliver the overall vision for the project.

The project will realise the NSW State Government's vision for OSD of significant scale and size on the Martin Place Station sites. It will provide a stronger and better-connected Sydney and deliver employment growth in connection with the Government's major investment in public transport infrastructure. The Concept Proposal capitalises on the additional capacity arising from the Metro and supports the long-term viability of the finance, knowledge, banking, IT and other service sectors in the Sydney CBD.

Sydney Metro City and Southwest CSSI Approval – MOD 3

On 9 January 2017, the Minister for Planning approved the Stage 2 (Chatswood to Sydenham) Metro application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15_7400), hereafter referred to as the CSSI Approval.

Importantly, the CSSI Approval approves the construction of below and above ground structural and other components of the future OSD, although the fit-out and use of such areas are noted as requiring separate development approval. It is the OSD for the Martin Place Station that this Concept Proposal SSD DA relates to. The rationale for this delivery approach, as identified within the application for the Sydney Metro project, is to enable OSD to be more efficiently built and appropriately integrated into the metro station structures.

A number of modification applications have since been submitted by TfNSW, including in relation to the new Martin Place Station (referred to as MOD 3). This modification application has been made by TfNSW to address changes to the infrastructure works associated with the approved metro station at Martin Place that result from Macquarie's integrated station and OSD solution.

¹ Negotiation of Final Binding Offer: involves the finalisation of all outstanding issues with a view to entering into a binding agreement, should the Government decide to accept the final offer.

The modification seeks approval for the following modifications to the approved project:

- A larger, reconfigured station layout, including the addition of land at 9-19 Elizabeth Street and the alterations to the street level layout of the station entries
- The provision of a new unpaid concourse link (a link available to the general public without needing to pass through ticket gates) between the northern and southern station entries, extending beneath 50 Martin Place
- Retention of the existing MLC pedestrian link and works to maintain this connection that links to the Sydney Metro Martin Place Station.

MOD 3 was exhibited for a period of 28 days inclusive between 28 June 2017 and 26 July 2017, with a response to submissions being prepared by TfNSW at the time of writing.

Planning Proposal

A Planning Proposal for the Sydney Metro Martin Place Station Precinct was formally lodged with the Department of Planning and Environment on 19 June 2017, with the Secretary of the Department acting as the Relevant Planning Authority (RPA). This proposal forms part of the broader planning process being pursued by Macquarie in order to realise the shared vision and objectives for the Precinct and to deliver the fully integrated station and OSD solution.

Since the optimum social, economic and environmentally sustainable outcome for the Precinct cannot be realised under the existing planning controls, an amendment to some of the controls in the Sydney LEP 2012 imperative. This is considered the best and most transparent means of enabling the project to proceed as currently conceived.

The Planning Proposal seeks the following specific changes to the Sydney LEP 2012 controls governing the Precinct:

- increase in the building height over a portion of the South Site (going from 55m and up to the Hyde Park North Sun Access Plane);
- increase in the floor space ratio across the Precinct to enhance employment generation in alignment with substantial infrastructure investment.

On 20 July 2017, the Planning Proposal received Gateway Determination (subject to conditions), which confirmed that the amendments to the existing planning controls have merit and should proceed. The supporting reasons given for this decision were:

- The Planning Proposal will contribute to the economic success of Sydney by providing additional office accommodation in Martin Place;
- The Planning Proposal is generally consistent with long term transport planning;
- The Planning Proposal is generally consistent with the strategic planning framework and the inconsistencies are considered of minor significance.

Upon exhibition, the proposed amendments to the Sydney LEP 2012 will become a formal matter for consideration by the consent authority under Section 79C(1)(a)(ii) of the EP&A Act 1979 in determining the subject SSD DA.

Figure 1 below is a diagrammatic representation of the suite of key planning applications proposed by Macquarie, to show the relationship of the subject Concept Proposal to the Planning Proposal and the Martin Place Metro CSSI.

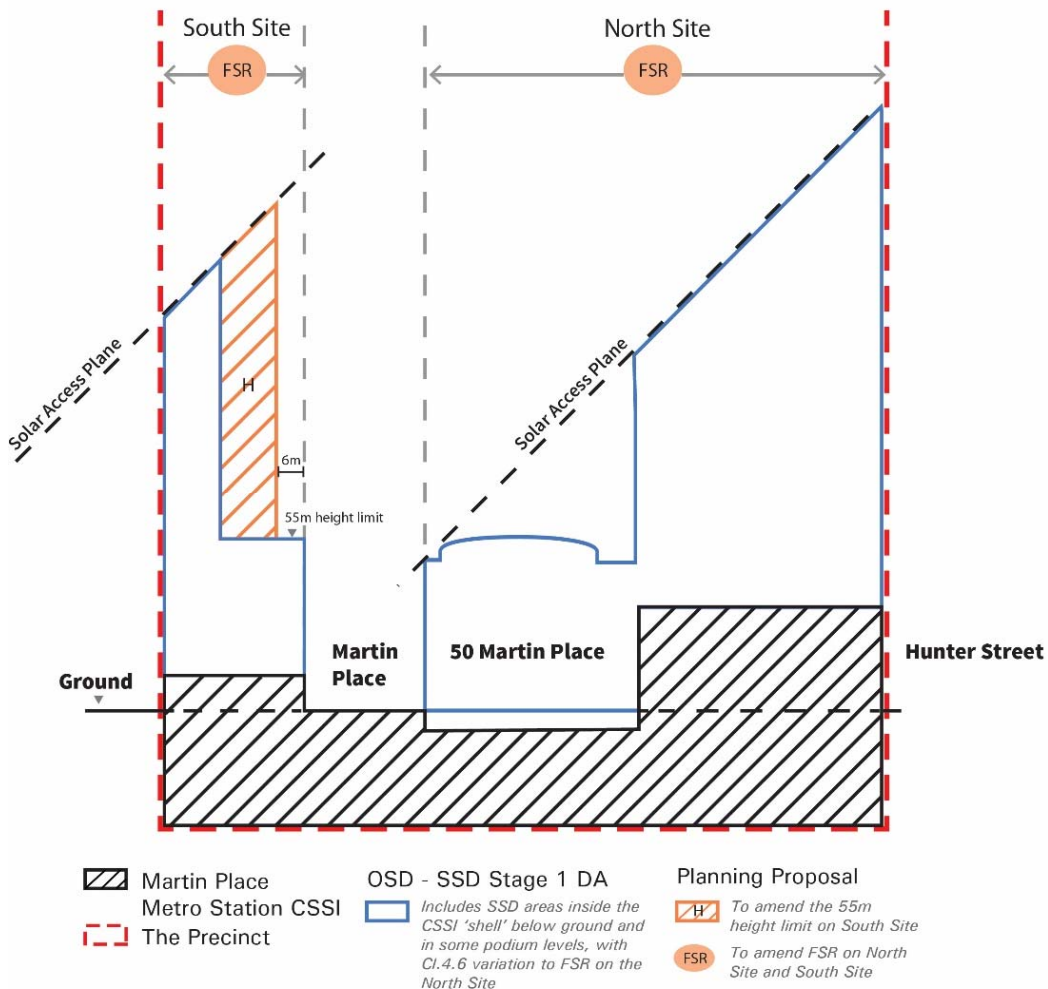


Figure 1 – Relationship of key planning applications

Source: Ethos Urban

2.0 Key Issues and Proponent's Response

This section of the report provides a detailed response to the following key issues raised by the Department, government agencies and authorities and the general public during the public exhibition of the SSD DA:

- Design excellence;
- Building form;
- Overshadowing;
- Wind impacts; and
- Heritage.

A response to each of the individual issues raised by the Department and submitters is provided in the table at **Appendix A**.

An overview of the parties who made submissions and their key issues for consideration is provided below. Other issues which require further assessment, such as detailed assessments against statutory policies and plans are considered at **Section 4**.

Government Authorities and Agencies

As highlighted earlier in this report, 11 submissions (inclusive of the Department's letter) were received from government agencies and authorities in response to the exhibition of the EIS. Specifically, responses were received from:

- City of Sydney;
- Office of Environment and Heritage;
- Transport for NSW;
- Ausgrid;
- Environment Protection Agency of NSW;
- Fire and Rescue NSW;
- NSW Office of the Government Architect;
- Roads and Maritime Services;
- Heritage Council of NSW; and
- Sydney Water.

A number of these submissions confirmed that the relevant agencies or authority had no further comment on the application, or simply provided guidance on recommended conditions. These included the submissions from the Office of Environment and Heritage (OEH), Ausgrid, and the Environment Protection Agency of NSW (EPA).

The Department also provided an overarching letter (as the assessment authority) summarising the key matters to be addressed and additional information to be provided. A response to the Department's correspondence is provided at the table in **Appendix A**, and discussed further below.

The remaining government authority to make a submission, being the City of Sydney Council (Council), sought clarification on a number of matters as detailed throughout this section and at **Appendix A**.

Members of the Public

Ethos Urban (formerly known as JBA) has analysed the submissions received from the general public in response to the public exhibition. In summary:

- A total of 8 public submissions from 7 people were received;
- Of these submissions, 3 objected to the proposal, 3 supported the proposal, and 2 provided general comment; and
- The authors of submissions comprised a local politician, industry body, and members of the general public.

Together these submissions raised a variety of issues including minor errors in the documentation of the proposal, heritage impacts, built form issues, construction impacts, wind impacts, overshadowing, concern with the planning approvals process, and the detailed design of the metro station. A detailed response to those issues raised by the general public has been provided at **Appendix A**, and discussed further in following sections.

2.1 Design Excellence

2.1.1 Issue

Clause 6.21(5) of the Sydney LEP 2012 requires that a 'competitive design process' (a design competition) be held for large scale projects in Central Sydney following a Concept Approval, but prior to future detailed proposals being lodged for a development site. However, Clause 6.21(6) of the Sydney LEP 2012 allows a consent authority the discretion to waive the requirement to hold a competitive design process, where it is satisfied that such a process would be 'unreasonable or unnecessary in the circumstances'.

As part of the SSD DA, Macquarie has sought a waiver of the requirement to hold a competitive design process on the basis that such a process would be unreasonable and unnecessary in the circumstances. However, Macquarie and its expert team have prepared a 'Design Excellence Framework', which sets out a process to ensure the future OSD buildings exhibit design excellence as required by Clause 6.21 of the Sydney LEP 2012.

City of Sydney's Submission

During the exhibition of the SSD DA, objections were received regarding Macquarie's proposed design excellence process from the City of Sydney and the Australian Institute of Architects, with concerns centred principally on the proposed waiver to undertake a design competition in favour of an alternative process as proposed by the applicant. The City's submission maintained that the Macquarie proposal could not be approved without a design competition being held as required by Clause 6.21(5) of the Sydney LEP 2012.

Department of Planning and OGA's Letter

The Department has requested that the applicant:

- "Review the Design Excellence Framework to identify additional opportunities for a competitive process which would achieve design excellence consistent with the objectives of Clause 6.21 of Sydney Local Environmental Plan 2012 (SLEP 2012). The Framework should deliver a robust, coordinated and independent design excellence process, having regard to the advice of the Government Architect NSW and comments provided by City of Sydney Council; and
- Provide the meeting notes from all occasions when the proposal has been presented to a design review panel, together with commentary on how the issues raised by the panel have been addressed in the proposal and/or justification where changes have not been made".

Furthermore, the NSW Office of the Government Architect (OGA) advised to the Department in its advice letter that the SEARs requirements for design excellence had not been fully addressed, and that opportunities for competitive design excellence processes in the design development proposal needed to be articulated. The OGA also noted that to achieve design excellence, it is of critical importance for the final design proposal to resolve a contextually appropriate response informed by consolidated design principles, and to the satisfaction of the site-specific Design Review Panel.

The OGA also recommended that consideration be given to the following as conditions of consent:

- "Identify opportunities for a competitive design excellence process that appropriately balances the Secretary's design excellence requirements with the proponent's objectives and which achieves design excellence and architectural diversity;
- Submission of Terms of Reference, including consolidated design principles as well as proposed governance and membership for the site-specific Design Review Panel, as endorsed by GANSW".

The proponent's response to these issues is outlined below.

2.1.2 Proponent's Response

In response to the issues raised by the OGA and the City with regards to the necessity to undertake a competitive design process in the form of an architectural design competition, the following is noted:

- Contrary to the City of Sydney's assertion in its submission, a competitive design process is not required to have been held prior to the determination of the Concept Proposal the subject of this SSD DA. This is because Clause 6.21 applies to 'development involving the erection of a new building'. A Concept Proposal typically includes a condition of consent which requires the proponent to hold a competitive design process in accordance with Clause 6.21(5), prior to the preparation of detailed proposals for the site.
- It is open to the consent authority of any future detailed proposals to find that a competitive design process is not required, if it is satisfied that such a process would be unreasonable or unnecessary in the circumstances (Clause 6.21(6)).
- Accordingly, Macquarie, as the proponent of this Concept Proposal, is seeking to secure agreement in-principle for an alternative design excellence process, as a reasonable and necessary alternative to the standard competitive design process, as a condition of consent of the Concept Proposal.

Competitive Design Process Waiver

The applicant has prepared a competitive design process waiver report (refer to **Appendix G**) which sets out the circumstances and rationale that warrant a waiver of the standard requirement for a competitive design process, on the basis that such a requirement is unnecessary and unreasonable in the circumstances of the proposal.

In summary, the waiver report argues that:

- The Sydney LEP 2012's competitive design processes do not apply to the approved metro project, including the station and surrounding public domain. A competitive design process can therefore only apply to the SSD (detailed design) and not the metro station, which forms part of an existing and separate approval pathway for CSSI. In this case:
 - the requirement to undertake a competitive design process is **unreasonable** because of an array of site-specific circumstances that apply to the overall proposal, which mean the undertaking a competitive design process would unreasonably constrain the opportunity to deliver a fully integrated station and OSD solution within the required timeframe to achieve such a vision, resulting in risks to realising the unique benefits that such an integration would provide. Specifically:
 - If an integrated design solution is to be achieved, there is insufficient time to recommence from scratch the design process for the architecture of the OSD buildings (necessitated by a design competition), which must be locked in early enough to meet critical design timeframes which are linked to the station design.
 - Should a design competition be required to be held, the integrated solution would need to be abandoned, with the Station and OSD decoupled and treated as two separate projects, with delivery of the OSD component following well after the Station.
 - A competitive design process would apply primarily to the 'skin' or façade of some of the podium levels, with the lower 'station box' podium levels and the station itself all to be designed and delivered together as part of the station (CSSI) contract, which does not cover OSD. A partial façade-only competition is considered tokenistic at best, would unnecessarily add process, time and cost and destroy the integrity of the integrated design solution.
 - Would be the subject of an extremely complicated brief for competitors, given the proposed OSD is one part of a specialised and complex building, that will be largely informed by the committed technical requirements of the Metro station.
 - the requirement to undertake a competitive design process is **unnecessary** because the approach for design review and development that has been adopted to date has been robust, and because the proposed Design Excellence Framework will ensure future detailed proposals can meet the statutory obligations under the Sydney LEP 2012 for 'design excellence', namely that the buildings can exhibit design excellence in accordance with Clause 6.21(3).

Refer to **Appendix G** for the full report.

Revised Design Excellence Framework

In accordance with the Department's request, and having regard to the advice from the Office of the Government Architect provided to the Department and the submission from the City of Sydney, the applicant has augmented the proposed Design Excellence Framework, with a revised version included in **Appendix H** of this Response to Submissions (RTS).

The revised Design Excellence Framework demonstrates how the proposed development will set about achieving design excellence, identifies opportunities for competitive design excellence processes to be pursued by Macquarie and identifies how comments from OGA have been addressed. The revised Framework involves three key elements as the means by which the future detailed design is ultimately capable of exhibiting design excellence:

1. Appointment of the highly experienced, world class design team from project inception all the way through to completion. The calibre of the team and its consistency throughout is critical to realising Macquarie's unique vision for the Precinct, and ensuring the extra-ordinary level of integration required. The core design team is also being advised by Macquarie-appointed expert designers in the fields of urban design, heritage architecture and interior architecture, which are independent and report directly to the proponent.
2. A Design Review Panel (DRP) of highly regarded expert designers independently appointed by the NSW Government to critically review and provide feedback to the Macquarie design team throughout the design development process. Macquarie's preferred position is that this panel be the Sydney Metro DRP (the DRP required under the terms of the CSSI consent for the Sydney Metro), or a subcommittee of the Sydney Metro DRP.
3. Consolidated design principles to guide the design of the project, being the consolidation of three sets of guidelines that directly relate to the Precinct and its future redevelopment, taking into account design, heritage and specific Sydney Metro Station requirements. These principles have been specifically formulated to guide the Macquarie design team, and assist the DRP when considering the detailed design of the development as it progresses. It is proposed that these guiding principles be adopted by way of a condition of consent for the Concept Proposal SSD DA.

In addition, Macquarie is preparing for submission as part of the Stage 2 DAs a Competitive Design Opportunities Program.

Macquarie is committed to a design excellence framework and process which is robust and will ensure that the proposed buildings can exhibit design excellence in the redevelopment of this landmark site, whilst also delivering a world class, integrated transport and employment precinct at Martin Place. A combination of proven techniques is proposed to ensure design excellence can be achieved, as included in the revised Design Excellence Framework in **Appendix H**.

This Framework sets out techniques which include a clear and iterative process where critical review and input of design ideas can be exchanged between the design professionals on the Macquarie team and external independent design experts.

This approach is consistent with that adopted in other areas of Sydney, and other major SSD projects in Sydney. By following this Framework and its design development process, the Secretary of the Department, the community and the consent authority for the Concept Proposal and future detailed design applications can have confidence that a design outcome which exhibits design excellence will be achieved, as required by Clause 6.21 of the Sydney LEP 2012.

A summary of all actions from DRP meetings undertaken so far is included below.

Design Review Panel Presentations and Feedback

As noted within the EIS, the project has been presented to the Sydney Metro Design Review Panel on a number of occasions. The DRP will continue to play a key role as the project evolves and moves through the next phases of design development.

There have been six (6) presentations to date to the DRP by Macquarie and its designers:

- DRP Presentation 1 - 17 October 2016
- DRP Presentation 2 - 11 April 2017
- DRP Presentation 3 - 22 May 2017
- DRP Presentation 4 – 6 June 2017
- DRP Presentation 5 - 18 July 2017
- DRP Presentation 6 - 22 August 2017

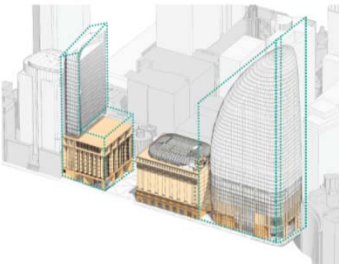
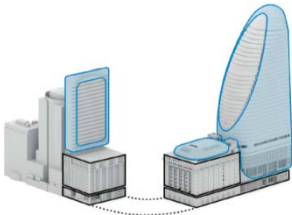
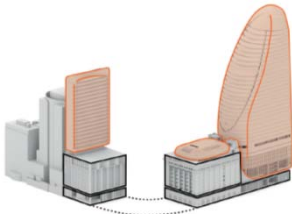
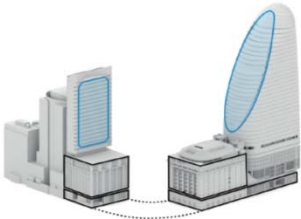
As the project evolves the DRP will continue to play a key role.

Given the nature of the project and that there are different aspects that fall under different planning approval streams, not all feedback provided by the DRP is relevant to the subject Concept Proposal SSD application (e.g. those comments relating to the station and the Planning Proposal).

Table 1 below provides an overview of relevant commentary provided by the DRP to date and how it has been addressed. As is the formulae of the DRP process, comments and feedback raised at a meeting are noted and responded to by Macquarie and the design team at subsequent DRP meeting/s.

Table 1 – DRP Feedback and Responses

Relevant DRP Comment/Action	Response
Consider a setback to the tower (North Site) as an alternative response to create a visual break.	<i>Considered/addressed</i> The design team has established urban planning principles to inform the design development of a tower on the North Site. These principles have been have developed with careful consideration for the following: • The relevant DCP and LEP • The requirements for the Sydney Metro station and associated CSSI approval • Detailed site analysis to develop an appropriate urban response (See 'Urban Design of Sydney Martin Place Station Precinct – Tzannes March 2017') • Reviews and studies to assess impacts to public amenity. Given the above, it is proposed that an appropriate architectural response for the site is a singular tower with a curvaceous, aerodynamic form. The tower will compliment 126 Phillip St and 8 Chifley Square, all of which mark the transition from the orthogonal to the topographical city grid and distinguish the south side of Chifley Square. The curved form sits within the Martin Place Sun Access Plane and exposes the north-east and north-west corners of 50 Martin Place. Independent solar, wind and daylight impact assessments have demonstrated that the proposed form and nil setbacks do not have significant environmental impacts. The proposal does not overly enclose the street as the rotation of street alignments around the site do not provide long street views. Detailing, articulation and materiality will respond appropriately to both 50 Martin Place, the more diverse architecture of Hunter Street and street wall considerations. The proposal for the North Tower is an appropriate response to the site, that seeks to maximise the opportunity to create a significant commercial tower while addressing the requirements for the Sydney Metro, urban planning principles and the heritage proximity to 50 Martin Place. The zero set-back to Hunter St is consistent

Relevant DRP Comment/Action	Response
	with the adjoining developments to the east along Chifley Square and reinforces a transition from the orthogonal to the topographical city grid.
Consider opportunities for the towers to relate to each other	<i>Noted and actioned</i> The material connection of the base of the three buildings achieves consistency throughout the podium designs.  The materiality and façade composition in the North and South towers are related: a. The towers are both glass towers. This also includes the roof top addition to 50 Martin Place.  b. Both towers incorporate soft curved forms. This also includes the roof top addition to 50 Martin Place.  c. The principal facades facing Martin Place have special glazing elements which incorporate clear glazing and shading devices. These special elements directly face each other on either side of Martin Place 
Panel would like to see the actual sun access diagrams and	<i>Noted and actioned</i> Sun access diagrams presented in detail to DRP including providing clarification of

Relevant DRP Comment/Action	Response
demonstration of no additional over-shadowing to Martin Place.	statutory controls that apply to State Significant Development in the precinct.
South tower: Further analysis and development is required to address a clear delineation between podium and tower (including distinction of architectural expression of the tower relative to the podium)	<i>Ongoing resolution</i> This is the subject of ongoing resolution and design development by the project team, with future DRP presentations to respond and address this comment.
South tower: Materials and articulation of tower form require further and substantial development	<i>Ongoing resolution</i> This is the subject of ongoing resolution and design development by the project team, with future DRP presentations to respond and address this comment.
North tower: The expression of the podium and reference to the scale of 50 Martin Place is unresolved and requires more articulation.	<i>Noted and actioned + Ongoing resolution</i> This is the subject of ongoing resolution and design development by the project team, with future DRP presentations to respond and address this comment. The architectural form and expression of the North Tower allows 50 Martin Place to be understood as a distinct and independent architectural element in the Elizabeth and Castlereagh Street streetscapes. The North Tower allows the historic north-east and north-west lift overrun towers of 50 Martin Place to be understood as distinct forms. The articulation of the base of the North Tower responds to the architectural language of 50 Martin Place. The Hunter Street façade of the North Site responds to the articulation and principal street wall height and other key datum lines of 50 Martin Place.
North tower: The panel seeks confirmation of no negative impacts on pedestrian amenity caused by wind effects on surrounding public spaces and footpaths	<i>Noted and actioned + Ongoing resolution</i> The project team have high aspirations for the quality of pedestrian amenity within and surrounding the site. Extensive pedestrian wind tunnel testing has been undertaken to date with results clearly illustrating that the proposal results in wind conditions consistent with the existing situation. Further wind tunnel testing will take place as part of the design development phase in order to test opportunities and mitigation measures that are able to be incorporated which improve upon existing conditions.

2.2 Building Form

2.2.1 Issue (North Tower)

The City of Sydney in its submission, and one (1) submission from the public provided comments on the proposed form of the north tower envelope. The City's submission in particular noted:

- that the proposed envelope may have impacts to 50 Martin Place, being a heritage item, as a result of its proximity;
- that the proposed envelope would result in overshadowing, wind and daylight impacts (and therefore impacts on pedestrian amenity) as a result of its unrelieved form and lack of setbacks;
- the concept scheme for the North Tower is contrary to the design intent for the area as anticipated by the local planning instruments, which is to deliver the typical podium and tower form of buildings throughout the CBD;
- the inability of the proposal to deliver a built form that conforms to the relevant planning controls for the site may relate to the excessive floor area being sought; and
- the envelope results in a poor relationship with the surrounding street wall heights and the heritage buildings at 48-50 Martin Place and in the vicinity of Chifley Square including the former QANTAS building, Wentworth (Sofitel) Hotel and the City Mutual Building. The datum set up around Chifley Square by the last two decades of development is weakened by a lack of street wall or set back to the north.

The Department in its letter to the proponent has noted that the scale of the building envelope of the north tower is greater than surrounding buildings by virtue of the expanse of the city block between 50 Martin Place and Hunter Street, and that the envelope results in a mass and bulk that creates a visual dominance which is out of character with the local context with associated visual and amenity impacts. The Department has therefore requested:

- that a comparative assessment be undertaken 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 (refer to **Section 4.1** of this RTS);
 - wind impacts (refer to **Section 2.4** of this RTS);
 - daylight to streets (refer to **Sections 2.3** and **4.3** of this RTS);
 - outlook from surrounding buildings (refer to **Section 4.1** of this RTS).
- that further consideration 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; and
 - established setbacks above the heritage street wall height along Elizabeth Street and Castlereagh Street.

This section discusses the built form and urban design of the proposed north site envelope having regard to a comparative LEP/DCP compliant envelope.

2.2.2 Proponent's Response (North Tower)

A detailed response to the concerns raised by the Department, City of Sydney Council and the general public are provided at **Appendix A**, together with the supporting documents accompanying this RTS (refer to Table of Contents). It is noted that a comparison of the proposed envelope and an envelope that complies with the FSR development standard and the SDCP 2012 setback controls with regard to view impacts from key vantage points, wind impacts, daylight to streets, and outlook from surrounding buildings are addressed separately within this RTS report.

A response to the key built form and urban design considerations raised in these submissions is provided below.

Comparison with 'Complying Envelope'

In response to the Department's request, a comparative envelope assessment has been prepared for the north tower, which compares:

- the existing situation;
- an envelope which would comply with the floor space ratio control and the setbacks within the Sydney DCP 2012 ('LEP/DCP envelope'); and
- the proposed envelope.

It is noted that the LEP/DCP envelope has been predicated on a scenario that considers the development potential of the North Site excluding the floor space below ground associated with the metro station within the total FSR calculation. Accordingly, compliant LEP/DCP envelope represents an envelope that:

- complies with the maximum FSR of 13.75:1, which:
 - includes a base FSR of 8:1;
 - includes accommodation FSR of 4.5:1 (under Clause 6.4 of the LEP);
 - includes a design excellence bonus FSR of 1.25:1; and
 - assumes a void within the central component of the building;
- complies with the DCP setback requirement of 8 metres from street frontages for towers above a podium fronting Castlereagh Street, Elizabeth Street and Hunter Street;
- complies with the height limit as governed by the Sun Access Planes; and
- includes the 50 Martin Place site area.

Figure 2 below represents the proposed envelope compared with the LEP/DCP compliant envelope as per the parameters set out above.

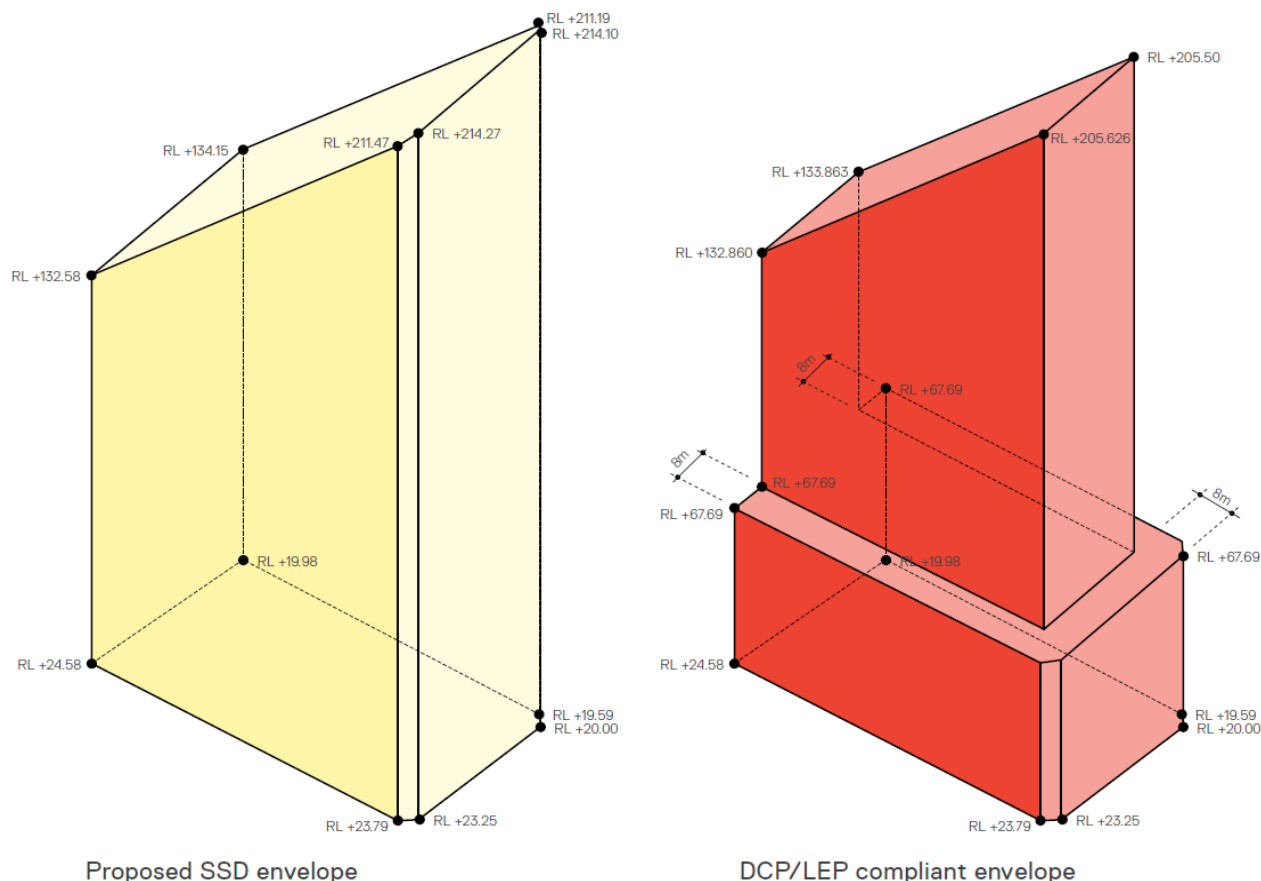


Figure 2 – Proposed north site envelope (left) and LEP/DCP compliant envelope (right)

Source: Grimshaw + JPW

Building Form

This section responds to the comments made by the Department and the City of Sydney with regard to the northern envelope's building form, massing and scale, and its contextual fit within the character of the wider urban block.

As a starting point in addressing these comments, it is noted that the assessment undertaken by the Department and the City of Sydney was of the maximum building envelope which is sought for approval with the Concept Proposal the subject of the SSD DA, and not of a detailed scheme which fits loosely within this envelope. As described in the Concept Proposal EIS, the envelopes for the north and south tower represent maximum parameters for a future development, setting the maximum vertical and horizontal parameters of buildings lines.

Accordingly, it is emphasised (as it was in the EIS) that the north tower envelope has been deliberately designed as a 'loose fit' with sufficient excess 'space' to allow for detailed building design and articulation. The amount of Gross Floor Area (GFA) sought with the proposal reflects this, with the illustrative scheme provided demonstrating floor plates utilising no more than 85% of the achievable GFA within the envelope on each level, reducing substantially in the mid-rise and high-rise sections of the building down to percentages as low as 34%.

Accordingly, a further developed illustrative scheme is provided in **Appendix B** for analysis. This developed illustrative scheme demonstrates:

- how the proposed envelopes can accommodate the Macquarie project vision and objectives in accordance with the design principles for the precinct, and a detailed design which is consistent with the desired future character of the area; and
- that a future detailed scheme for the north tower which fits into its context can be accommodated on the site with the GFA sought, without resulting in a mass and bulk which creates a visual dominance and a building which is out of character with the surrounding context.

The proposed building form has been developed having regard to the consolidated design principles developed for the precinct, particularly the following 'built form' principles:

Design Principles relating to Building Form

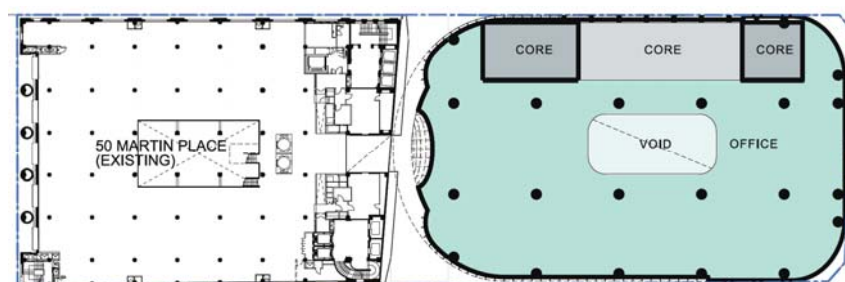
- 6. Establish a defining threshold to the Martin Place Station Precinct:
 - The built form of the North and South Sites on Elizabeth and Castlereagh Street can vary the predominant set back requirements established within City of Sydney development controls to zero in order to establish a distinctive character at threshold locations of the Martin Place Station precinct.
- 7. Maximise development potential and density
 - Gross Floor Area should be maximised within the proposed envelope allowing for appropriate built form and façade articulation.
 - Both towers are not to breach the Sun Access Planes.
 - Both towers are to maximise their capacity within the constraints of the Sun Access Planes and the design principles of this report.
- 11. Tower Set Backs
 - Setback to Martin Place to respond to the alignment of the Reserve Bank building and 53 Martin Place as well as the break in the spatial definition of Martin Place created by the MLC building.
 - Zero setback to Hunter Street to align with the towers adjacent to the east along Hunter Street.
 - Model corners of North Site's tower for enhanced solar access, daylight to the public domain and wind performance
 - Zero setback to Castlereagh and Elizabeth Streets.

Relieved and Articulated Form

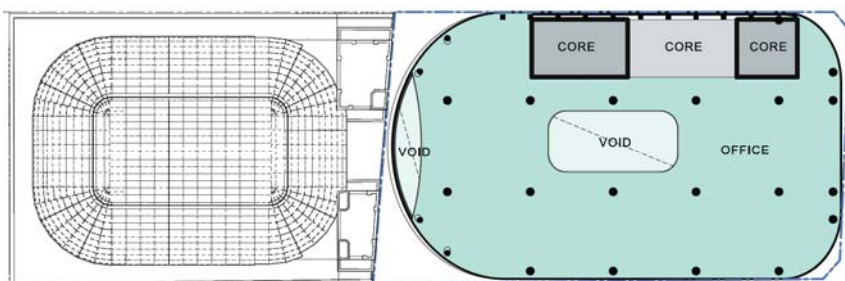
The design principles developed to inform the detailed design of the project emphasise that GFA should be maximised within the proposed envelope given the site's strategic location above a transport interchange, whilst allowing for a threshold built form and a distinctive architectural design and materiality. The developed illustrative scheme demonstrates that this is achieved through the scheme's 'loose fit' within the envelope, allowing for a substantial percentage of area between the exterior of the building and the envelope extent, and within a central void.

The extracts below of the low-rise, mid-rise and high-rise typical floor plans demonstrate this loose fit, which contributes to the north-tower's form providing 'relief' in terms of its mass as the levels rise. The developed scheme tapers significantly with height, and does so to some extent at each of the corners of the building, providing relief in its form and massing. This is particularly evident in the figures below which illustrate the developed scheme's relationship to the proposed envelope at various building heights.

Typical low-rise floor plan (illustrative scheme)



Typical mid-rise floor plan (illustrative scheme)



Typical high-rise floor plan (illustrative scheme)

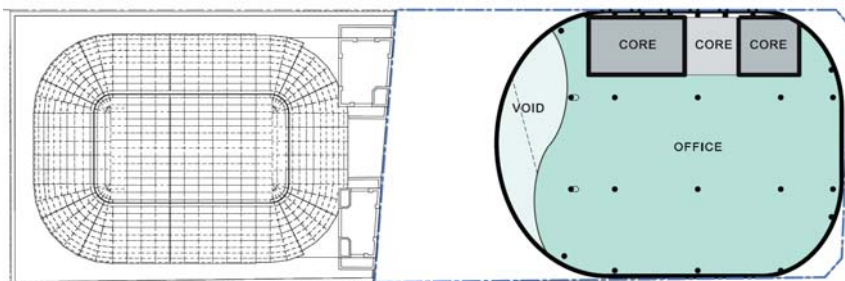


Figure 3 – Typical floor plans, North Tower illustrative scheme

Source: Grimshaw + JPW



Figure 4 – North Tower illustrative scheme with proposed envelope

Source: Grimshaw + JPW

The illustrative scheme shown above clearly responds to Built Form Principle 8 identified in the consolidated design principles for the project (**Appendix D**), which seeks to ‘create a distinctive architectural design on the north site’. The proposal as shown above seeks to provide relief in its form whilst balancing the objective of providing architecture which “reflects the unique urban qualities of the precinct and the symbolic role as the headquarters of a major corporation”.

Contextual Fit

Macquarie and its design team firmly believe the proposed scheme fits into its global city context and the highly urban character of the block, having particular regard to existing buildings fronting Hunter Street and international examples from global cities. Whilst it is acknowledged that the site is larger than typical sites nearby, the site itself has unique features and characteristics from the surrounding local context; namely, it is located above a future metro station.

Existing Character

The scale of the proposed envelope, once again having regard to the proposed illustrative scheme as a loose fit, is considered contextually appropriate as it reinforces the city’s status as a global city, in-line with neighbouring 8 Chifley Square and the Deutsche Bank Building. A comparison of the proposed envelope and these two examples is provided below.

The diagram shown below illustrates that:

- the north tower is not out of context in its footprint and relationship to the streetscape;

- that this part of the city is not defined by typical podium and tower forms.

The assessment of the character of this portion of the city is emphasised in the Central Sydney Planning Committee (CSPC) Assessment Report for the development of 8 Chifley Square, where it is stated:

- (b) The approach along Hunter Street, Elizabeth and Phillip streets is generally defined by buildings without podiums, and tower walls close to the street alignment, enhancing the sense of arrival and opening out when nearing the Square;*
- (c) The existing building does not comply and it makes a positive contribution to Chifley Square by serving as a backdrop to it and providing it with a strong termination. A new building could do the same; and*
- (d) The proposed reverse podium will still maintain the building's role in enclosing Chifley Square and the continuity of the streetscape in terms of building alignment.*

The following built form design principle has been developed to specifically ensure the north tower emphasises the block definition in this part of the city:

- 4. Enhance built form relationships on Hunter Street
 - The setback of the built form on Hunter Street is to generally align with the predominant set back of adjoining conditions to the east to establish a consistent street wall and to maintain the character of Hunter Street as a connecting element between Chifley and Richard Johnson Squares.

As shown with the figure below and **Figure 14**, it is clearly evident that the north tower site comfortably sits within block definition of buildings along Hunter Street.

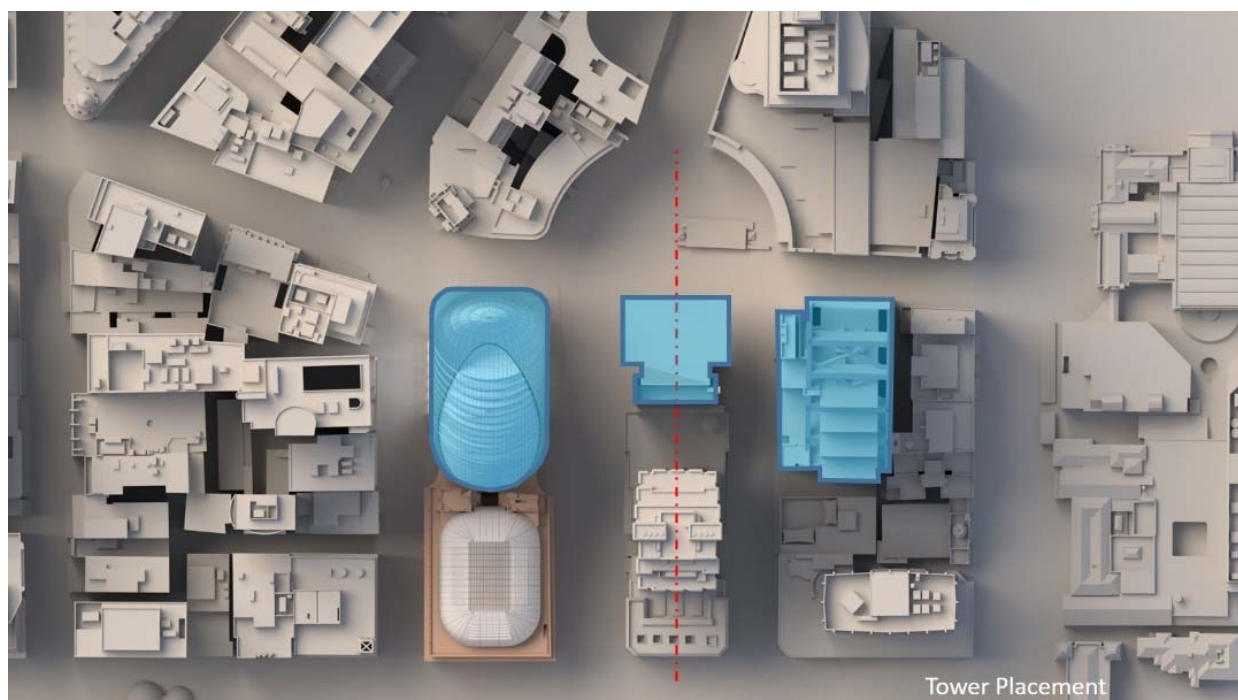


Figure 5 – Block defining expanse of buildings fronting Hunter Street

Source: Grimshaw + JPW

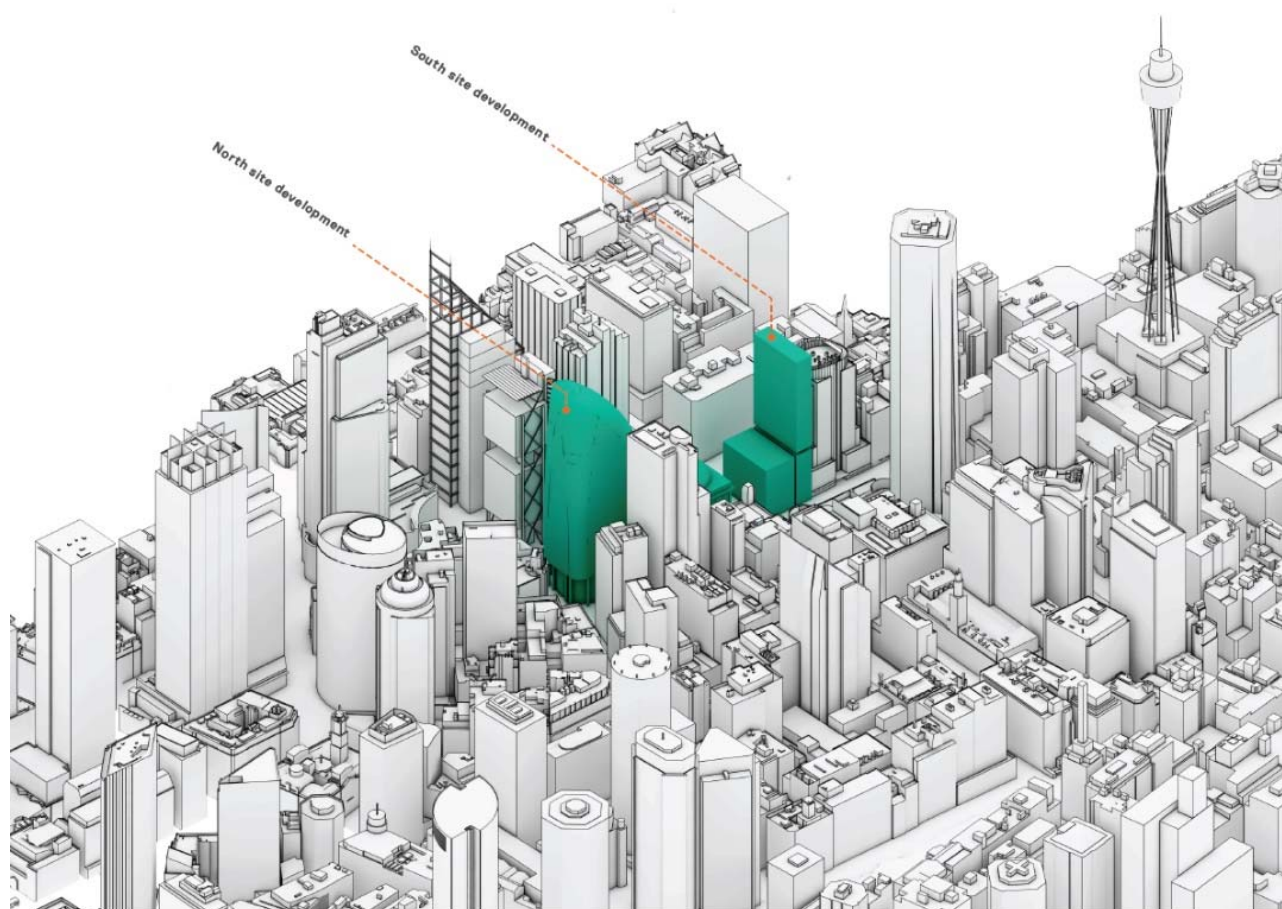


Figure 6 – North and South Tower city context

Source: JPW + Grimshaw

Desired Future Character

In terms of future character, the proposal aligns with the support for a greater concentration of large scale towers envisaged for Sydney's future under the Central Sydney Planning Strategy (CSPS). The north tower form is also consistent with the objectives for tall buildings contained within the Draft Sydney Development Control Plan for Central Sydney, as discussed further below.

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.

The proposal (as shown in the illustrative scheme and figures below) also demonstrates that the north tower will retain the reverse podium character established by 8 Chifley and the Deutsche Bank building, through the continuation of scale and mass in the same proportions, and generous undercroft spaces fronting Hunter Street which are grand, naturally lit, active, and which align with undercroft spaces in these adjacent buildings whilst announcing the entry into the transport interchange.

The figures below demonstrate the emphasis on this desired future character being achievable within the proposed envelope.



Figure 7 – 3D Impressions of view along Hunter Street and north tower undercrofts

Source: JPW + Grimshaw

The Urban Design Report prepared by Tzannes (**Appendix N**) identifies the need for the future character to establish a defining threshold to the Martin Place Station Precinct, noting that it is appropriate that the built form of the North Site's tower on Elizabeth and Castlereagh Streets also has distinctive attributes to establish the primacy of Martin Place Station precinct in the city and the location of the main egress/ingress points of the station. Therefore, the built form of the North and South Sites on Elizabeth and Castlereagh Street can vary the City's predominant set back requirements to zero to establish a distinctive character at threshold locations of the Martin Place Station precinct.

Design Principle 6 (Built Form) in **Appendix D** has been prepared to reflect this, which is set out below.

- 6. Establish a defining threshold to the Martin Place Station Precinct
 - The built form of the North and South Sites on Elizabeth and Castlereagh Street can vary the predominant set back requirements established within City of Sydney development controls to zero in order to establish a distinctive character at threshold locations of the Martin Place Station precinct.

CSPS and Draft Sydney DCP Super Towers²

The proposed north tower envelope is also considered to fit in its global city context as it is consistent with the objectives of built form massing, tapering and maximum dimensions for tall buildings expressed in the *Draft Sydney Development Control Plan* for Central Sydney, which forms part of the Central Sydney Planning Strategy, for the following reasons:

- Despite the size of the north site, the building envelope area is well within the recommended maximum horizontal dimension of a building for the tower component at 75 metres (recommended maximum is 100 metres); and
- The proposed envelope allows for a scheme which is consistent with the principle of tapering back with height, being slimmest at its peak so that in the overall city form it becomes less bulky at the upper limit.

The Central Sydney Planning Strategy envisages 'super towers' which are consistent with the principles identified below. Extracts from the draft DCP are shown below, for which the developed scheme demonstrates consistency as discussed above.

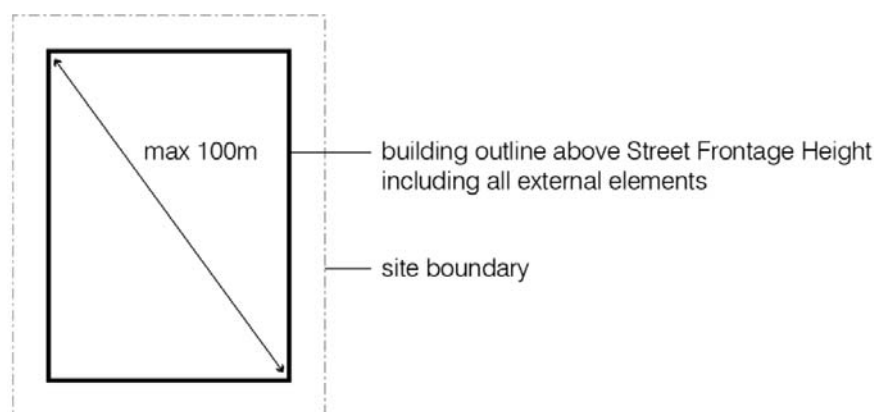


Figure 8 - Figure 5.18 'Maximum Horizontal Dimension of a Building Above Street Frontage Height'

Source: Amendments to Sydney Development Control Plan 2012 – Central Sydney Planning Strategy (Attachment C), City of Sydney

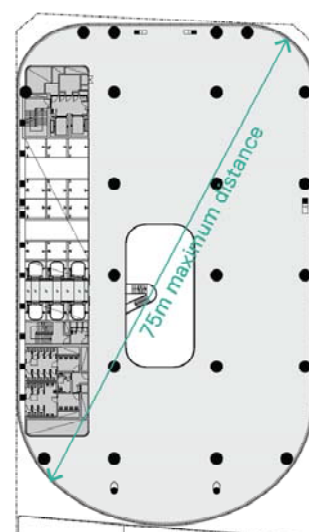


Figure 9 – Maximum horizontal dimensions of the North Tower

Source: Gimshaw + JPW

² The CSPPS is relevant to the proposal as it represents Council's intended direction for the Sydney CBD over the next 20 years. Whilst this Strategy is not a mandatory statutory consideration it represents the expected future changes to legislation that would affect the Precinct, and as such the proposal would be remiss and not in accordance with best-practice planning to ignore these imminent changes, especially when such changes have specifically sought to address the need for commercial floor space within the CBD.

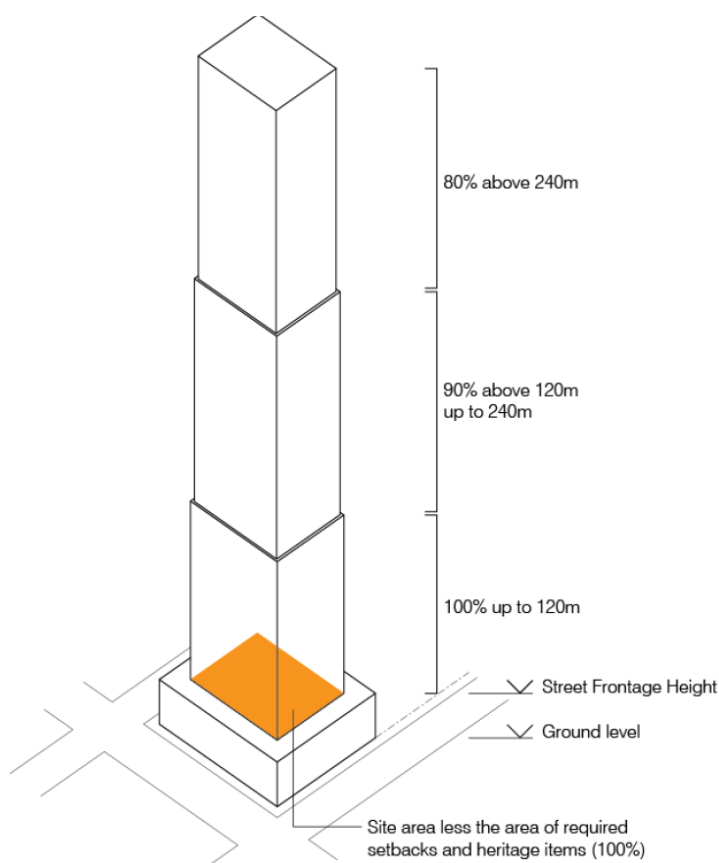


Figure 10- Figure 5.19 'Maximum Building Envelope Area above Street Frontage Height'

Source: Amendments to Sydney Development Control Plan 2012 – Central Sydney Planning Strategy (Attachment C), City of Sydney

International Examples

Furthermore, it is considered that the proposed building form – both envelope and illustrative scheme – are commensurate with other examples in Sydney and abroad of international comparisons of a building form which reinforce the status of a global city. These include:

- 5 Martin Place, Sydney: This development uses the full site area, with floor plates of approximately 2,000m² within the podium;
- International Towers, Sydney
 - Towers range from 170m – 220m in height;
 - Floorplates range from 800m² to 2500m²;
- Leadenhall, London
 - Utilises full site area of 48m x 62m;
 - 47 floors and 225m high with distinctive tapering form;
 - Floor plates range from 550m² – 2000m².

The figures below provide floor plate and photograph examples of these global city precedents below.

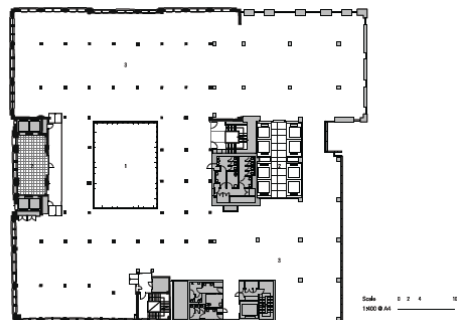


Figure 11- 5 Martin Place, Sydney



Figure 12- International Towers, Sydney

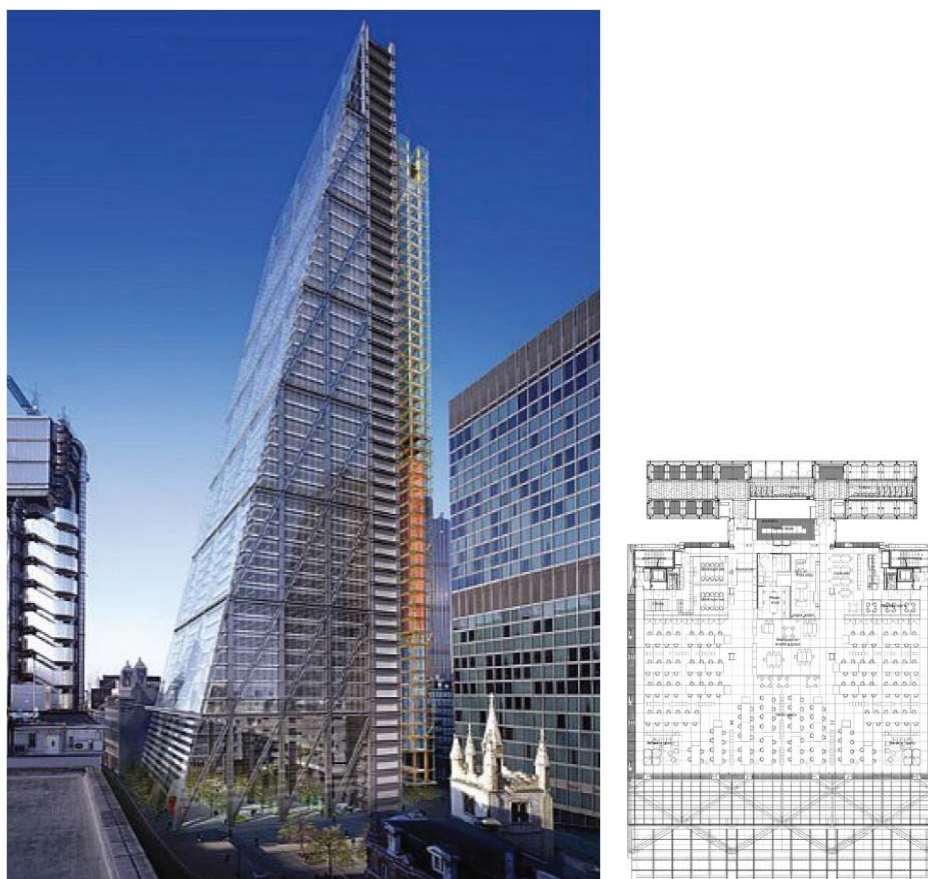


Figure 13- Leadenhall, London

Street Frontage Height

The Department's request notes that consideration should be given to reinforcing the heritage street frontage height through setbacks having regard to "established setbacks above the heritage street wall height along Elizabeth Street and Castlereagh Street". In reviewing this particular assertion, TKD in their Heritage Response (**Appendix K**) identify the following:

"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 visual prominence of the building at 50 Martin Place within the Castlereagh and Elizabeth Street streetscape derives from its distinctive architectural expression and highly modelled facades in the Beaux Arts style. The building is not conceived as a structure spatially separated from its neighbours, or to be appreciated 'in the round' from street level vantage points from Elizabeth and Castlereagh Streets. The building's blank north wall is intended to accommodate neighbouring buildings which abut directly the northern property boundary line."

However, the illustrative scheme for the proposal demonstrates how a future detailed design for the north tower can be designed to reinforce the heritage street frontage height, without the provision of traditional tower setbacks, whilst enhancing the relationship with the public domain and surrounding buildings, having particular regard to the heritage significance of 50 Martin Place and the need to give the building space and prominence. To this end, a number of design principles have been developed which seek to ensure a future detailed scheme reinforces the heritage street frontage height (refer to the Consolidated Urban Design Principles at **Appendix D**).

The developed illustrative scheme is respectful of and responds to the key street wall frontage heights of 50 Martin Place. The podium is articulated at the parapet height of 50 Martin Place and this alignment extends through to Former Qantas House, City Mutual Building, Chifley Square and 8 Chifley Square. A legible 'break' between the podium and tower reinforces the street height of 50 Martin Place through the north tower.

At a more detailed scale, elements of the podium 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 and undercroft spaces of 8 Chifley and 126 Philip St along Hunter Street. Given the above, employing setbacks above a podium on the north site would be to the detriment of the existing strength of the Chifley Square enclosure.

The figures below demonstrate how the illustrative scheme has responded to the following key Design Principles developed to guide the detailed design of the project as included in the Urban Design Study submitted with the SSD DA.

Design Principles relating to Street Frontage Height

- 5. Maintain and enhance the character of Elizabeth and Castlereagh Streets
 - 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 to reinforce the distinctive characteristics of this block within the City of Sydney.
- 10. Podium Street Walls
 - The proposed design of the northern tower is to respond to the street wall alignment and height of both 50 Martin Place and former Qantas House.
- 12. Street Wall Articulation
 - The façades, particularly that addressing Martin Place, of the southern building is 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 street wall height or other key datum lines of 50 Martin Place, the articulation and principal street wall height of the former Qantas House, and the 'reverse podium' alignment of 8 Chifley and the Deutsche Bank building.
- 13. Materiality
 - The articulation of the base of the North Site's tower is to respond to the architectural materiality of 50 Martin Place

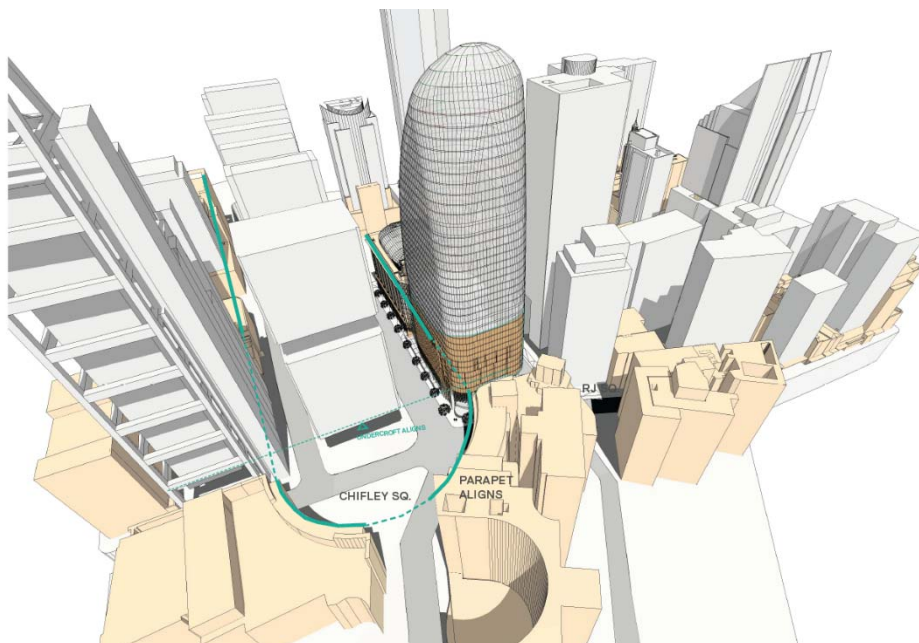


Figure 14- 3D impression of podium form and materials reinforcing the adjacent building key parapet and undercroft heights

Source: Grimshaw + JPW



Figure 15- 3D impression of view along Elizabeth Street showing continuous street wall frontage height created by the podium base

Source: Grimshaw + JPW

Relationship to 50 Martin Place

In order to ensure that a design within the proposed envelope of the north tower is capable of respecting 50 Martin Place by affording it space and prominence, the illustrative scheme has been developed to show proposed articulation of the tower and podium as separate entities. This enables key views to significant heritage components, such as the heritage turrets atop 50 Martin Place, to be preserved.

Furthermore, the proposed podium demonstrates respectfulness towards 50 Martin Place through complementary and contemporary materiality. This approach is consistent with the approach identified in the EIS for the SSD DA and in the heritage and urban design principles, in particular the following:

Design Principles relating to the Relationship to 50 Martin Place

- 13. Materiality
 - The articulation of the base of the North Site's tower is to respond to the architectural materiality of 50 Martin Place.
 - The materiality of the North Site's tower over is to respond to its context in the city skyline.
- 15. 48-50 Martin Place
 - Retain the exceptional aesthetic significance of the building's exterior including it's landmark qualities and civic presence of the building within Martin Place and its environs.
 - Retain the identity of the building as one of the finest purpose-designed bank buildings in Australia.
 - The architectural form and expression of a building on the North Site should allow 48-50 Martin Place to be understood as a distinct and independent architectural element in the Elizabeth and Castlereagh Street streetscapes.
 - A building on the North Site should retain visibility of the historic north-east and north-west lift overrun towers as detached elements from streetscape vantage points from Elizabeth Street and Castlereagh Street.
 - The blank north elevation of 48-50 Martin Place should be concealed by the new development.
 - maintain the Martin Place, Castlereagh Street and Elizabeth Street entrances to the building as its principal entrances;
 - allow 48-50 Martin Place to function independently of a building on the North Site. Internal connections between the existing and proposed buildings should be theoretically reversible;
 - maintain the building's internal vertical circulation

Figure 16 to Figure 18 illustrate this proposed materiality and the relationship of the north tower to 50 Martin Place, ensuring the legibility of the heritage turrets when viewed from Chifley Square, showing the podium development of complementary and contemporary materiality and the north tower 'peeling away' from 50 Martin Place, creating additional legibility and preserving the identity of 50 Martin Place in the streetscape.

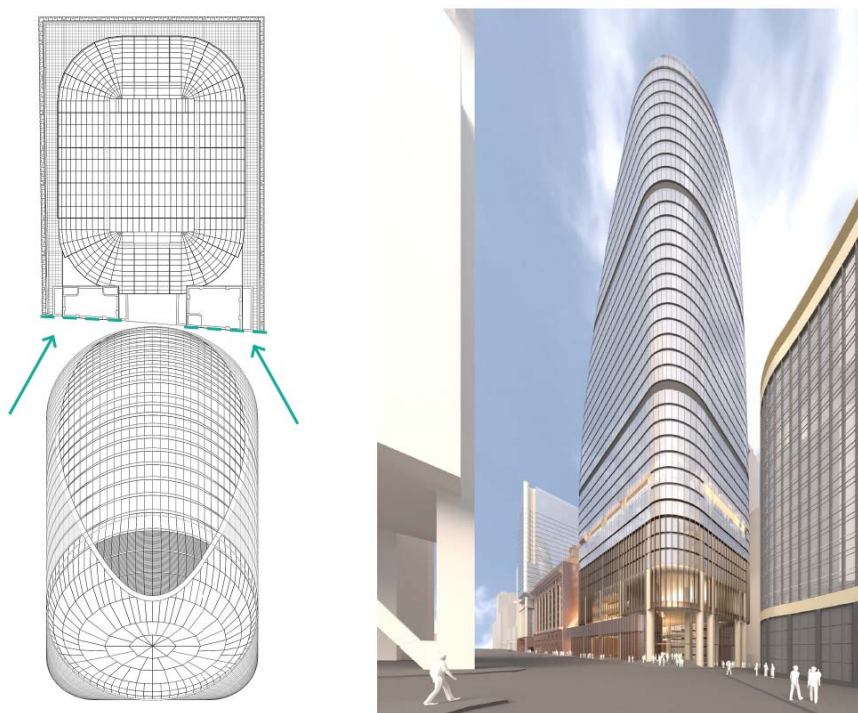


Figure 16- 3D impression of view south from Chifley Square showing legibility of 50 Martin Place heritage lift overruns

Source: Grimshaw + JPW



Figure 17 – 3D impression of view south from Chifley Square showing podium development of complementary and contemporary materiality

Source: Grimshaw + JPW



Figure 18- 3D impression of view along Elizabeth Street showing north tower “peeling away” from 50 Martin Place

Source: Grimshaw + JPW

2.2.3 Issue (South Tower)

Similar to the North Site, the Department has requested that the applicant 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.

The City have suggested that the proposed envelope will result in a poor relationship with the surrounding street wall heights and the heritage building at 50 Martin Place and in the vicinity of Chifley Square including the former QANTAS building, Wentworth (Sofitel) Hotel and the City Mutual Building. The City have also suggested that the datum set up around Chifley Square by the last two decades of development is weakened by a lack of street wall or setback to the north.

It was also noted that the applicant should demonstrate that the southern tower is capable of delivering a workable / functional commercial floorplate, which will be attractive to prospective tenants and provides a high level of internal amenity for employees, without relying on the outcome of the Planning Proposal.

2.2.4 Proponent's Response (South Tower)

To respond to the Department's comments, Grimshaw and JPW have prepared additional material to support the proposed building envelope for the south tower, in the form of a further developed illustrative scheme. Whilst the south tower envelope is not a 'loose fit' in the way that the relationship of the north tower envelope is to the proposed GFA and the illustrative scheme for that tower, the illustrative scheme prepared for the south tower demonstrates that a detailed design outcome is achievable which reinforces the heritage street frontage height along Elizabeth and Castlereagh Streets, without providing setbacks to those streets.

Street Frontage Height – Illustrative Scheme

As with the north tower, the developed illustrative scheme for the south tower is respectful of and responds to the key street wall frontage heights of 50 Martin Place. In addition to the differentiation of materiality between the podium and tower, a physical break between the podium and the tower above reinforces the continuous street wall height datum when viewed from Castlereagh and Elizabeth Street which run north-south. This street frontage height datum continues through 50 Martin Place, the north tower illustrative scheme and through to Qantas House and Chifley Square.

The vertical separation, as well as the separation of materiality between the podium and tower, ensures the tower is visually distinct from the podium in character and appears independent from middle and distant views. This 'separation' in form and material is consistent with the heritage and design principles developed and referenced in the EIS, and ensure that a respectful response to the heritage street frontage height can be achieved with the proposed envelope for the south tower. The particular design principles as noted in the Consolidated Design Principles in **Appendix D** are identified below.

Design Principles for Street Frontage Height – South Site

- 10. Podium Street Walls
 - The buildings are to have zero setbacks for their podiums to match the predominant street alignment.
 - Proposed street wall height of the podium on the southern site is to relate to the heritage building at 50 Martin Place.
 - 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.
- 12. Street Wall Articulation
 - The façades, particularly that addressing Martin Place, of the southern building is to respond to the articulation, principal datum lines, solid to void ratio and materiality of 50 Martin Place.
- 13. Materiality
 - The materiality of the podium of the building on the South Site is to respond to the materiality of 50 Martin Place.

The figures below demonstrate this material and vertical separation.

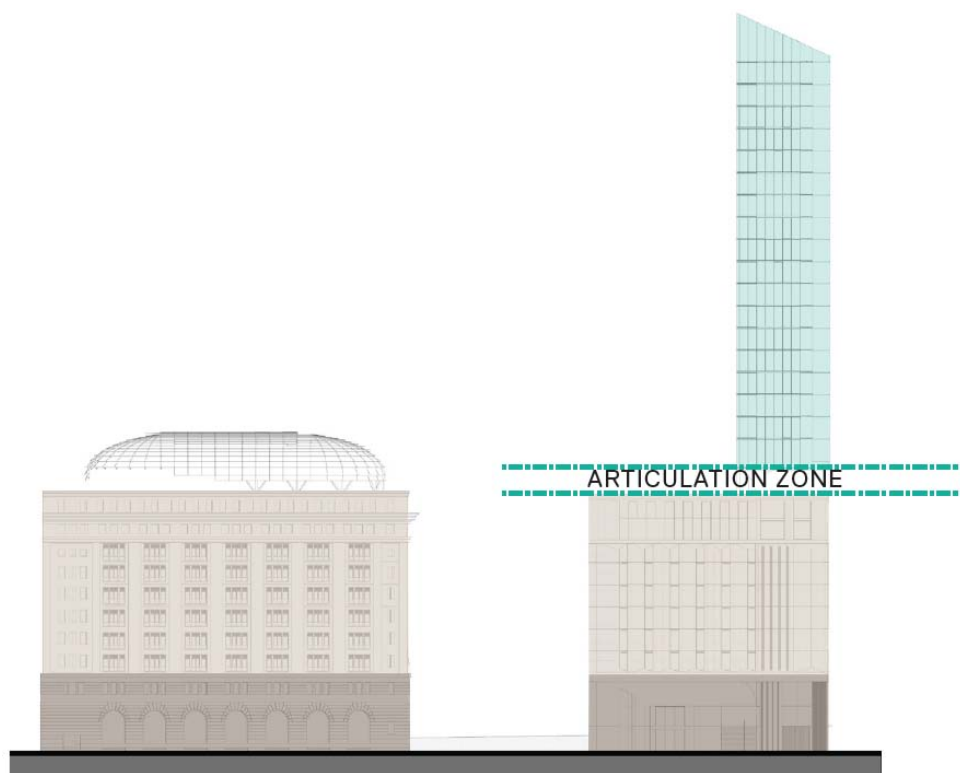


Figure 19- Articulation zone for the South Tower

Source: Grimshaw + JPW

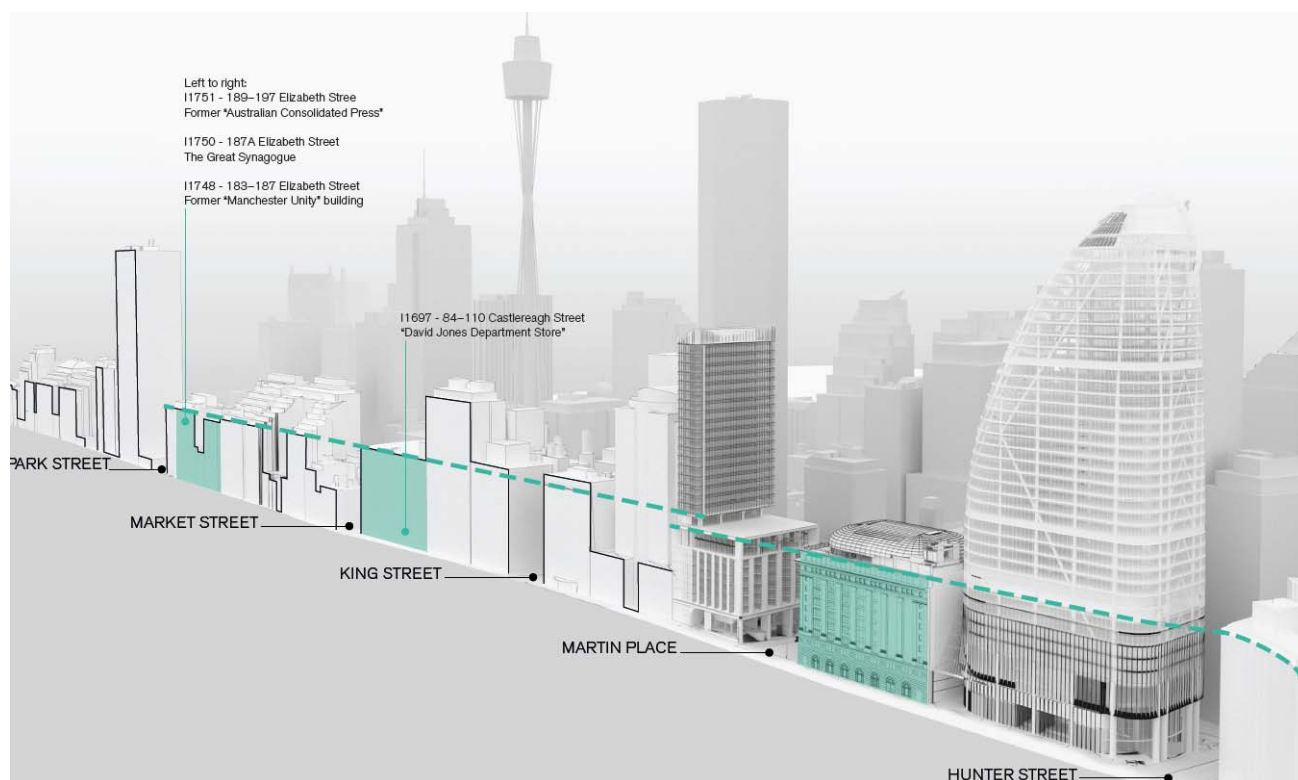


Figure 20- Potential for a continuous street wall, as viewed from Elizabeth Street

Source: Grimshaw + JPW

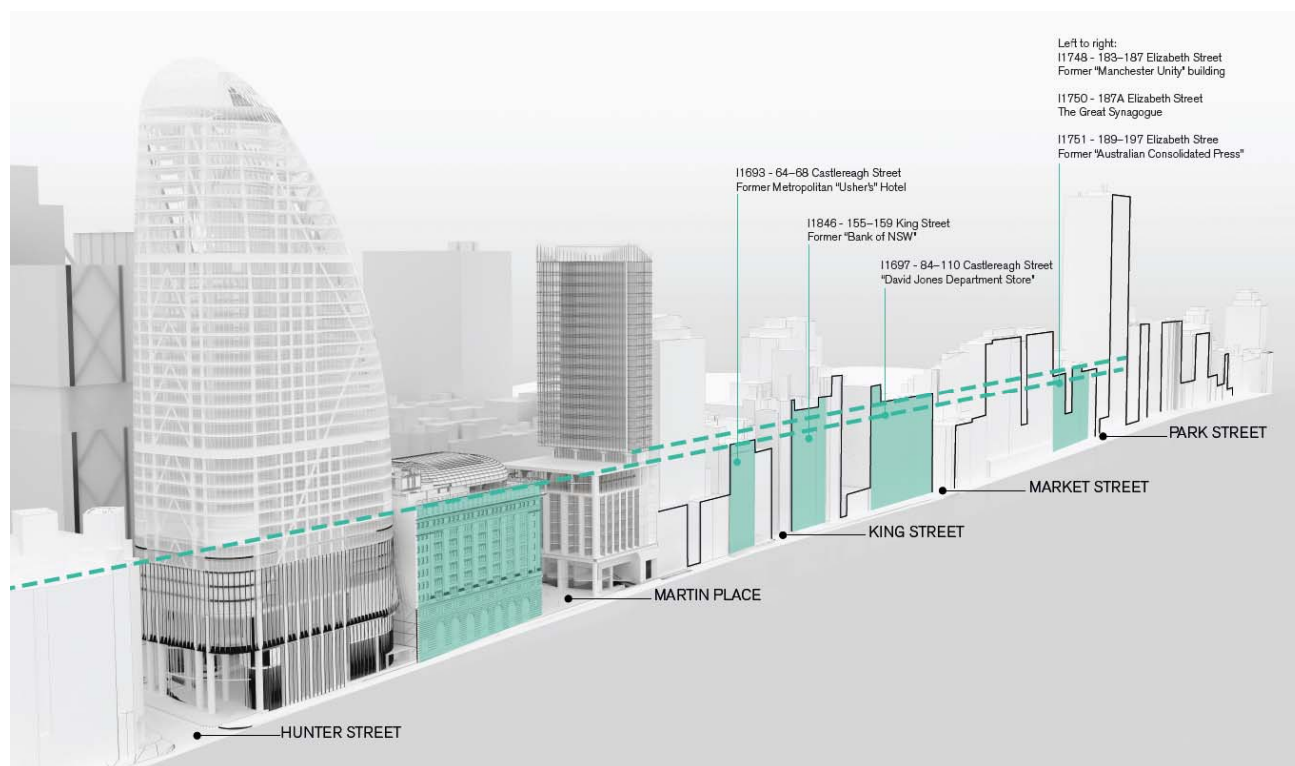


Figure 21- Potential for a continuous street wall, as viewed from Castlereagh Street

Source: Grimshaw + JPW

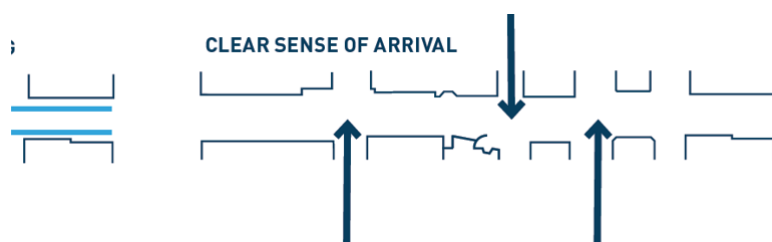
Thresholds to Martin Place

As identified in the Urban Design Report prepared by Tzannes which supported the SSDA EIS, the tower setbacks to Elizabeth Street and Castlereagh Street are a significant opportunity to provide legibility to the urban morphology of the city and accentuate the importance of Martin Place as a major public space.

Despite its significance in the city, Martin Place, is in effect a pedestrianised street, meaning that it is only differentiated in its formal structure from the other streets in the city through its pedestrianisation and the activities that take place there. In order to increase its differentiation or 'specialness' when moving through the city, other built form design strategies are required.

In order to differentiate Martin Place with a more distinctive character, consistent with recommendations of Jan Gehl in his 2015 design proposal for Martin Place, the use of zero setbacks for the towers defining the edges of Martin Place to north-south streets is proposed. This strategy is supported by the equivalent proposed zero setbacks above the street frontage of the north tower, which in turn contributes to providing a defining threshold to the Martin Place Station Precinct in the CBD as a whole. The relationship between these two towers also establishes the identity of the station precinct within the overall urban morphology of the city.

An illustration of the effect of these thresholds, providing a clear sense of arrival to Martin Place, are provided below.



Jahn Gehl proposed threshold entries to Martin Place to enhance the importance of this space in context of the city in his CoS Urban Design Study 2015.



The zero setback to the towers on Elizabeth and Castlereagh Streets create this threshold and support the character of Martin place on either side of the MLC centre.

Figure 22- Threshold examples to Martin Place, based on Jahn Gel's 2015 study

Source: Tzannes

In order to ensure the intended thresholds are achievable with a future detailed scheme within the proposed envelope, specific design principles have been developed, being Built Form Design Principle 6 and 11, which seek to ensure these thresholds are achieved by requiring zero setbacks for the south tower above the podium. The illustrative schemes shown below provides a visual demonstration of how these thresholds are achieved to Martin Place by the south tower's zero setback when viewing the site from Elizabeth and Castlereagh Street and looking south.



Figure 23- South tower (zero tower setback) threshold to Martin Place from Elizabeth Street

Source: Grimshaw



Figure 24- South tower (zero tower setback) threshold to Martin place from Castlereagh Street

Source: Grimshaw

2.3 Overshadowing

2.3.1 Issue

The Department has requested that the proponent 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, including an analysis of the overshadowing impacts on Hyde Park in comparison to a development which would apply the setbacks of SDCP 2012.

The City of Sydney has also raised concerns that the proposal will result in overshadowing impacts to city streets due to the forms of the proposed envelopes, particularly the lack of setbacks above heritage street wall heights, and have noted that impacts on pedestrian amenity may arise. The City further assert that “the envelopes must be verified that they do not overshadow Hyde Park and Pitt Street Mall, which is prohibited by the Sydney LEP 2012”.

2.3.2 Proponent's Response

Hyde Park

In response to this request, Grimshaw has prepared further overshadowing plans illustrating the relative impact of the proposal compared to a DCP/LEP compliant scheme (consistent with the meaning discussed in **Section 2.2**). This modelling is provided at **Appendix C** (including verification) and confirms that the impacts of the proposed SSD envelopes are minor and can be mitigated through further design development and testing as part of Stage 2.

Clause 6.16 of the Sydney LEP 2012 specifies the Sun Access Plane for Hyde Park North that is designed to ensure there is minimal additional overshadowing of this important public space. Additional overshadowing is deemed acceptable provided that a building fits within the envelope created by the Sun Access Plane. Therefore, for clarification, the overshadowing of Hyde Park is not a prohibition as suggested in the submission, providing that development complies with the specific Sun Access Plane applying to the site and achieves the objectives of the provision.

The south tower building envelope complies with the Hyde Park North Sun Access Plane under the Sydney LEP 2012 and the draft amendments to Solar Access Planes under the CSPS. During mid-winter, as the worst-case scenario when the sun is at its lowest angle in the sky, additional shadow cast on Hyde Park is limited during an insignificant period of time, which is less than an hour for both the proposed and complying building envelopes.

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, which extends to the approved Solar Access Plane for Hyde Park, is shown to already cast some shadow over Hyde Park during the control time of 21 June from 1:30-2:30pm. Furthermore, the DA approved maximum development envelope for the 148 King Street site is also shown to have already cast shadow on Hyde Park during this time over much of the same area.

Taking the above into account, the proposed envelope on the south site only casts two narrow strips of shadow additional to the shadow cast by a complying envelope at 2pm on 21 June. It is also worth noting that this additional shadow 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.

The above demonstrates that the impacts of the proposed envelopes are generally comparable to what would otherwise be expected under the controls as smaller, older buildings are replaced with new buildings designed to the City's height limits.

The figure below demonstrates the limited overshadowing from the proposed envelopes on Hyde Park, overlayed against the shadows cast by an LEP/DCP envelope for the north and south towers and the shadows cast by the approved envelope for 148 King Street.

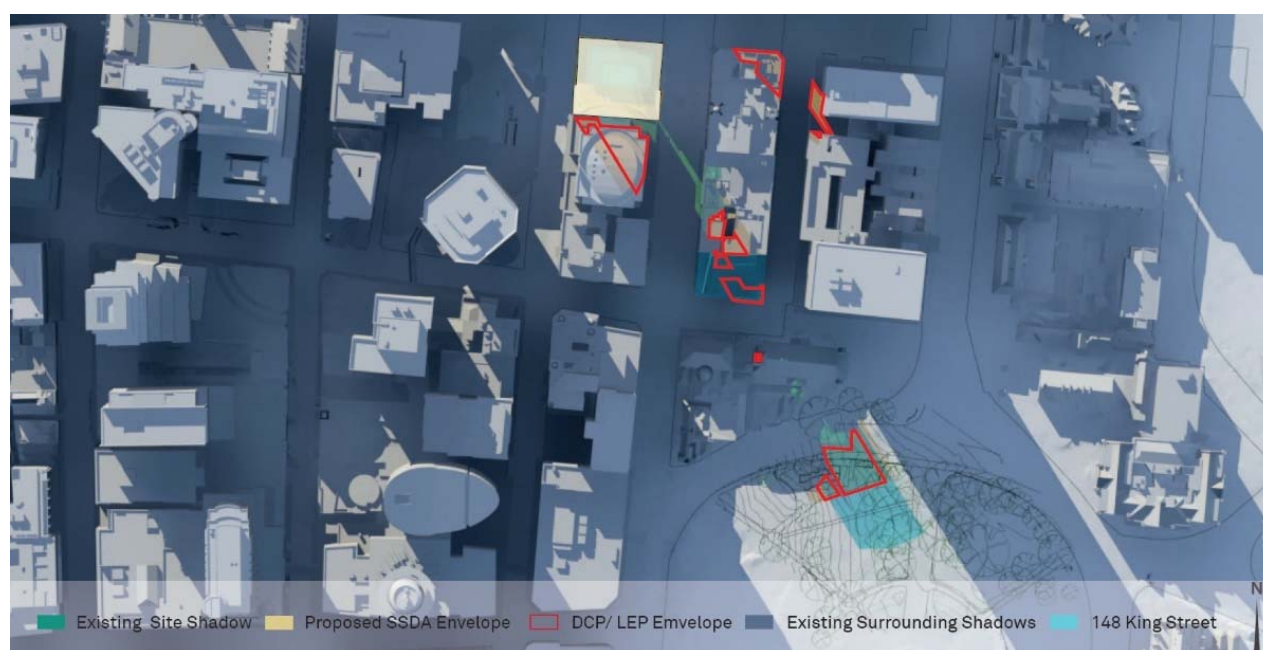


Figure 25- Shadow cast on Hyde Park at 2pm, 21 June

Source: Grimshaw

Whilst the newly drafted Sun Access Planes under the CSPS have been formulated with the intent of minimising overshadowing to Hyde Park between 10am and 2pm, no new prohibition is proposed that would prevent any overshadowing to this area. Accordingly, the emphasis and intent of this provision is still to minimise and mitigate any potential impacts rather than prohibit development. In view of this, the proposed building envelopes are considered to be appropriate as:

- The modelling has been completed based on building envelopes that represent the maximum parameters for the future development of the Martin Place Station Precinct, thereby representing the worst-case scenario. These envelopes will be subject to extensive design development, refinement, and testing as part of the Stage 2 DA to minimise and mitigate any potential impacts.
- The additional overshadowing of Hyde Park as a result of proposed envelopes is limited to a short period in the afternoon during mid-winter, being the worst-case scenario.
- The overshadowing created by the proposed envelopes and complying envelopes are comparable with their differences considered negligible.
- The proposal remains compliant with the existing and proposed Sun Access Planes applying to the site that have been specifically designed to protect the amenity of Hyde Park.
- The proposal remains capable of complying with the objectives for these Sun Access Planes, including maximising sunlight access to Hyde Park through the detailed design, refinement, and articulation of the building envelopes.

Pitt Street Mall

The Department has also requested that the proponent confirm that the proposal does not result in any overshadowing of Pitt Street Mall (beyond the shadow cast by a 20m high wall on either side of the Mall) between 10am and 2pm, between 14 April and 31 August, in accordance with Clause 6.19 of the Sydney LEP 2012.

In accordance with this request, JPW have completed detailed shadow modelling between 14 April and 31 August, at the times with the greatest potential to impact Pitt Street Mall. The modelling and associated verification accompanies this report at **Appendix C** and confirms that the proposal will not cast any additional shadows on Pitt Street Mall that would otherwise be cast by a 20m wall on either side of the mall during the control period. In view of this, the proposal is compliant with Clause 6.19 of the Sydney LEP 2012 and is not prohibited under this provision.

Figure 25 below demonstrates that no additional shadows are cast to Pitt Street Mall by the proposed envelopes during the worst-case scenario, being 10am on 21 June (the modelling shown below factors in a 20m street wall on the eastern side of Pitt Street Mall as required by Clause 6.19).

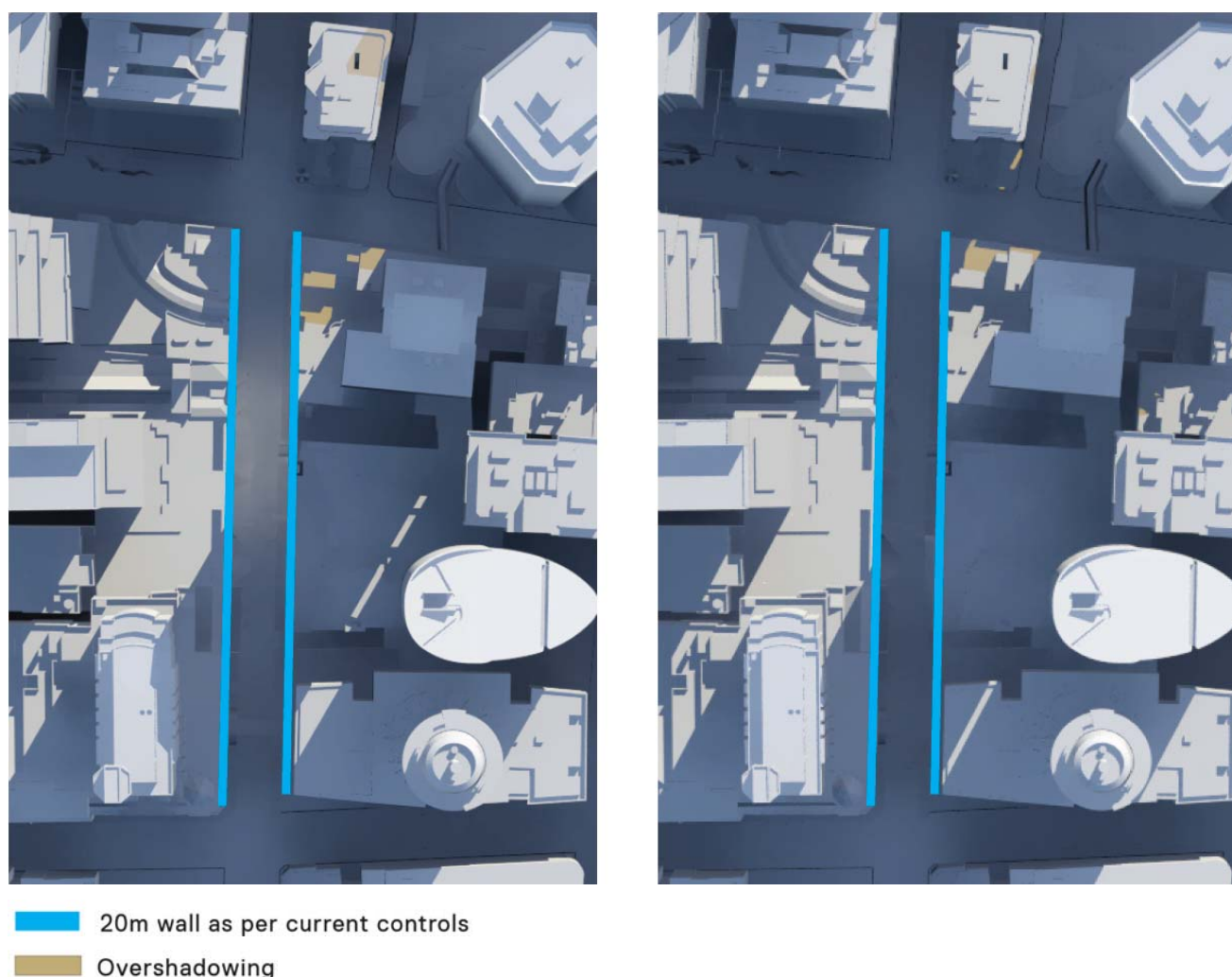


Figure 26- Worst-case scenario overshadowing of Pitt Street Mall on 21 June (additional shadows shown in yellow) at 10am (left image) and 10.10am (right image)

Source: Grimshaw

Martin Place

The additional overshadowing studies illustrate the relative impact of the proposal compared to a DCP/LEP compliance scheme in terms of shadows cast to Martin Place. This modelling is provided at **Appendix C** (including verification) and confirms that the impacts of the proposed SSD envelopes are minor and can be mitigated through further design development and testing as part of Stage 2.

The studies confirm that, compared to an LEP/DCP compliant envelope:

- The proposal results in very minor additional overshadowing to Martin Place in front of MLC Centre on June 21 at 11am.
- The proposal results in extremely minor additional overshadowing to Martin Place in front of the MLC Centre on September 21 at 11am.

As is the case with Hyde Park, Clause 6.16 of the Sydney LEP 2012 specifies the Sun Access Plane for Martin Place, that is designed to ensure there is minimal additional overshadowing of this important public space. Additional overshadowing is deemed acceptable provided that a building fits within the envelope created by the Sun Access Plane.

The north tower building envelope complies with the Sun Access Plane under the Sydney LEP 2012 and the draft amendments to Solar Access Planes under the CSPS. On June 21, as the worst-case scenario when the sun is at its lowest angle in the sky, and on 21 September, additional shadow cast on Martin Place is also limited during an insignificant period of time, which is less than an hour for both the proposed and complying building envelope, and which is outside the principal lunch time hours of noon to 2pm.

The figures below demonstrate the limited overshadowing from the proposed north tower envelope, which is considered negligible in the when compared to a DCP/LEP compliant envelope, and is therefore considered appropriate.

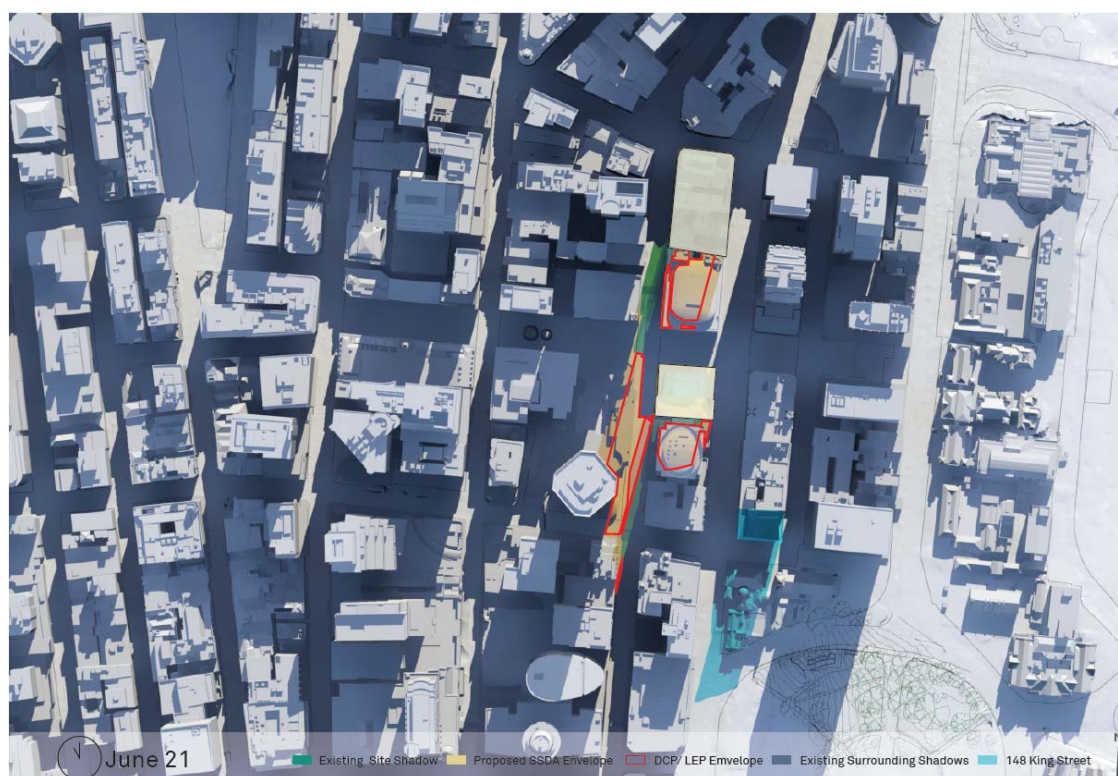


Figure 27- June 21, 11am, overshadowing comparison

Source: Grimshaw



Figure 28- September 21, 11am, overshadowing comparison

Source: Grimshaw

Overshadowing to City Streets

In order to address concerns regarding the potential overshadowing of city streets, a shadow analysis has been prepared by Grimshaw, comparing the existing surrounding shadow, proposed envelopes, and the LEP/DCP compliant envelope (included in **Appendix C**). This overshadowing study confirms the following:

- December 21: Compared to the LEP/DCP envelope, the proposed north and south tower envelopes result in only very minor additional overshadowing to Castlereagh Street at 11am and Elizabeth Street at noon;
- April 14: Compared to the LEP/DCP envelope, the proposed north and south tower envelopes result in only minor additional overshadowing to Elizabeth Street and King Street at noon;
- June 21: Compared to the LEP/DCP envelope, the proposed north and south tower envelopes result in only minor additional overshadowing to Elizabeth Street at noon;
- September 21: Compared to the LEP DCP envelope, the proposed north and south tower envelopes result in only minor additional overshadowing to Castlereagh Street at 11am, and Elizabeth Street at noon;
- August 31: Compared to the LEP/DCP envelope, the proposed north and south tower envelopes result in only minor additional overshadowing to Elizabeth Street at noon.

Figure 29 below is an extract demonstrating the greatest impact of the proposal in terms of overshadowing on north/south city streets compared to the LEP/DCP envelope, being June 21 at noon. The additional overshadowing associated with the proposed envelope compared to a DCP/LEP complying envelope is, on balance, considered appropriate given:

- the majority of the shadow falls on the road surface, and therefore, the impact on pedestrian amenity is limited.
- The difference is negligible.
- the proposed envelope represents a maximum impact which would be reduced through detailed design.



Figure 29- June 21, noon, overshadowing comparison

Source: Grimshaw

2.4 Wind

2.4.1 Issue

The Department has requested that a comparative assessment be prepared of the proposed building envelopes and complying building envelopes with regards to wind impacts in order to ensure the Concept Proposal does not adversely impact on pedestrian amenity in pedestrian areas of Elizabeth, Hunter and Castlereagh Streets and Martin Place.

2.4.2 Proponent's Response

An updated Wind Tunnel Assessment has been completed by CPP and accompanies the RTS at **Appendix L**. This assessment has measured the wind environment at a substantial 25 locations surrounding the Precinct, to evaluate pedestrian comfort in and around it. Locations were chosen at the building corners where relatively severe conditions are frequent; at the building entries and on the adjacent pavement where there might be heavier pedestrian traffic; and in areas where there might be future upper level terraces. The assessment compares the existing wind environment with complying building envelopes (in the meaning of **Section 2.2**) and the proposed building envelopes.

It demonstrates that the proposed building envelopes will not result in a substantially different wind environment than would otherwise be expected if the Precinct was developed with envelopes which complied with the LEP and DCP.

Whilst there are minor improvements and shortfalls when comparing the proposal and complying envelopes, the overall wind environment remains generally consistent and comparable between the two scenarios. This is of particular note for the conditions along Martin Place, which have remained as 'pedestrian sitting' except for two locations nearing Phillip Street where it has been modelled as being suitable for 'pedestrian walking'. This change in the wind environment on Martin Place occurs for both complying building envelopes and the proposed building envelopes, demonstrating that any changes to the wind environment are commensurate with what would otherwise be expected under the current controls.

In addition to this, CPP confirm that all locations have passed the Lawson distress criteria except for one location that is exposed to winds from the south-east over Hyde Park. The conditions in this location, however, have not been degraded by either the proposed or complying envelopes. Accordingly, all areas have been assessed and are confirmed to be suitable for their intended use in this section of the city, excluding those locations where existing conditions already exceed desirable levels of amenity.

2.5 Heritage

2.5.1 Issue

The Department has requested that further consideration be given to how the proposal will reinforce the heritage street frontage height through setbacks to enhance the relationship with the public domain and surrounding buildings. The Department makes specific mention of 50 Martin Place and the need to give the building space and prominence.

Council have raised concerns that the north tower is located too close to 50 Martin Place, and the Department have requested that further details be provided on the physical connections to it.

The Heritage Council has requested that the application address the archaeological potential of the site and requests that a historical archaeological assessment prepared by a suitably qualified and experienced historical archaeologist form part of the Stage 2 DA.

Further, the Department requests that the proponent "provide details showing how the north tower building envelope will physically connect into 50 Martin Place. This should include indicative plans and/or illustrations showing the existing and proposed connections, and an assessment of these connections on the heritage significance of 50 Martin Place".

2.5.2 Proponent's Response

Building Separation

TKD have prepared a response letter which accompanies this report at **Appendix K**, which supplements the detailed Statement of Heritage Impact that accompanied the EIS. This report confirms the appropriateness of the setbacks and frontages adopted in the Concept Proposal, however, it is emphasised that the 'loose-fit' building envelopes will be subject to further design development and remain capable of accommodating further design responses.

The visual prominence of 50 Martin Place within the Castlereagh and Elizabeth Street streetscape derives from its distinctive architectural expression highly modelled facades in the Beaux Arts style. The building is not conceived as a structure spatially separated from its neighbours, and its blank north wall is intended to accommodate neighbouring buildings which abut directly the northern property boundary line (refer to **Figure 30**).



Figure 30- Archival photograph (1922) illustrating the construction of 50 Martin Place and its intended relationship to adjoining development with a blank northern façade

Source: Statement of Heritage Impact, TKD

Accordingly, design principles have been developed by TKD to inform the detailed design of the north tower and ensure the visual prominence of 50 Martin Place is maintained within Elizabeth and Castlereagh Streets. These principles will form part of the framework upon which design excellence is to be assessed, and will require the development to address the:

- relationship in scale of the new and historic buildings through the use of materials and façade articulation;
- retention of visibility of the historic lift overrun towers, which are designed as detached classical pavilions above the building's parapet; and

- the use of forms, façade articulation and materials which allow the historic building to be understood as a distinct and unique entity within the streetscapes.

In order to ensure an illustrative scheme can be delivered within the proposed envelope whilst providing visual prominence to 50 Martin Place, a heritage design principle has been developed (included in the Consolidated Design Principles in **Appendix D**), which it is proposed that the future detailed design of the north tower must comply with. This principle is identified below.

- 15. 48-50 Martin Place
 - The architectural form and expression of a building on the North Site should allow 48-50 Martin Place to be understood as a distinct and independent architectural element in the Elizabeth and Castlereagh Street streetscapes.

As can be seen below, the illustrative scheme affords 50 Martin Place space and prominence, by providing a zone of articulation between the tower and podium. The tower form gently tapers away towards the north to reveal the heritage building corner and reinforce the distinctive presence of 50 Martin Place as an independent architectural element in the Elizabeth and Castlereagh St streetscapes. This space also enables key views to significant heritage components such as the heritage turrets to be preserved.

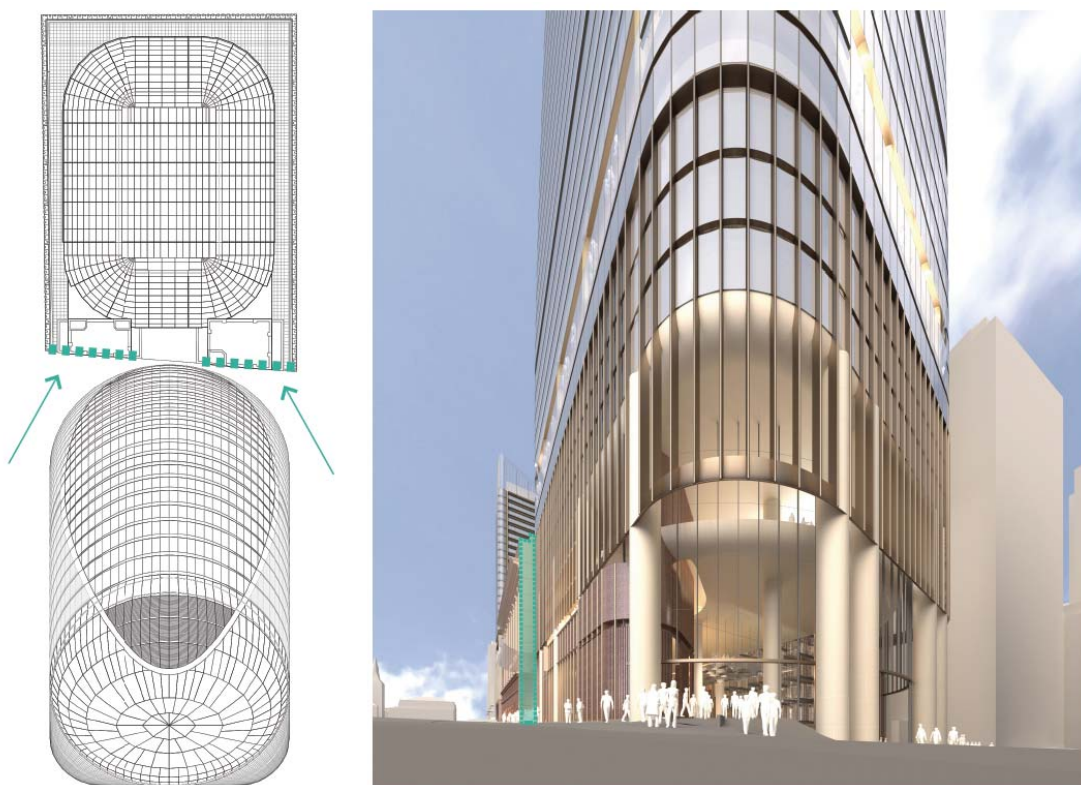


Figure 31- Images showing north tower 'peeling away' to reveal heritage turrets of 50 Martin Place

Source: Grimshaw + JPW



Figure 32- Impression of a potential design option to interface with 50 Martin Place

Source: Grimshaw + JPW

Connection(s) to 50 Martin Place

As illustrated in the section above, the visual prominence of 50 Martin Place is derived from its distinctive architectural expression and building character, and not building spacing. The building was designed and constructed to accommodate neighbouring buildings along Elizabeth and Castlereagh Streets directly abutting the northern boundary. TKD confirm that from a heritage perspective spatial separation between the historic and new building would result in exposing the blank north wall, which is not designed as a presentation façade, and would neither benefit the streetscape nor contribute to the heritage significance of the building. The proposed building envelope abutting this northern façade is consistent with the existing streetscape and building treatment.

The proposed physical connections from the north tower to 50 Martin Place will follow the precedent established by the existing connections with the adjoining 9-19 Elizabeth Street, which allow staff and visitors to freely move between these two buildings. These connections will be subject to detailed design as part of future Stage detailed development application(s) and will be informed by specialist heritage impact assessment and appropriate consultation processes. Notwithstanding this, JPW in consultation with TKD have prepared preliminary illustrations on how such connections could be implemented to improve integration and pedestrian circulation without adversely or irreversibly impacting the heritage significance of 50 Martin Place.

It is envisaged that the through site links will create an "interlude" space between the two buildings to create activity and energy at ground level and up throughout the podium floors. Discreet bridge connections are currently 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.

In order to ensure an illustrative scheme can be delivered within the proposed envelope whilst providing the connections to 50 Martin Place as envisaged, heritage design principles have been developed to guide the detailed design (included in the Consolidated Design Principles in **Appendix D**). It is proposed that the future detailed design of the north tower must comply with these principles.

- 15. 48-50 Martin Place
 - Retain the exceptional aesthetic significance of the building's exterior including its landmark qualities and civic presence of the building within Martin Place and its environs.
 - Retain the substantially intact fabric and spatial qualities of the significant interiors of the building largely unaltered.
 - Allow 48-50 Martin Place to function independently of a building on the North Site. Internal connections between the existing and proposed buildings should be theoretically reversible.

The illustrative scheme below has been developed to demonstrate these design principles can be achieved within the proposed envelope for the north tower.

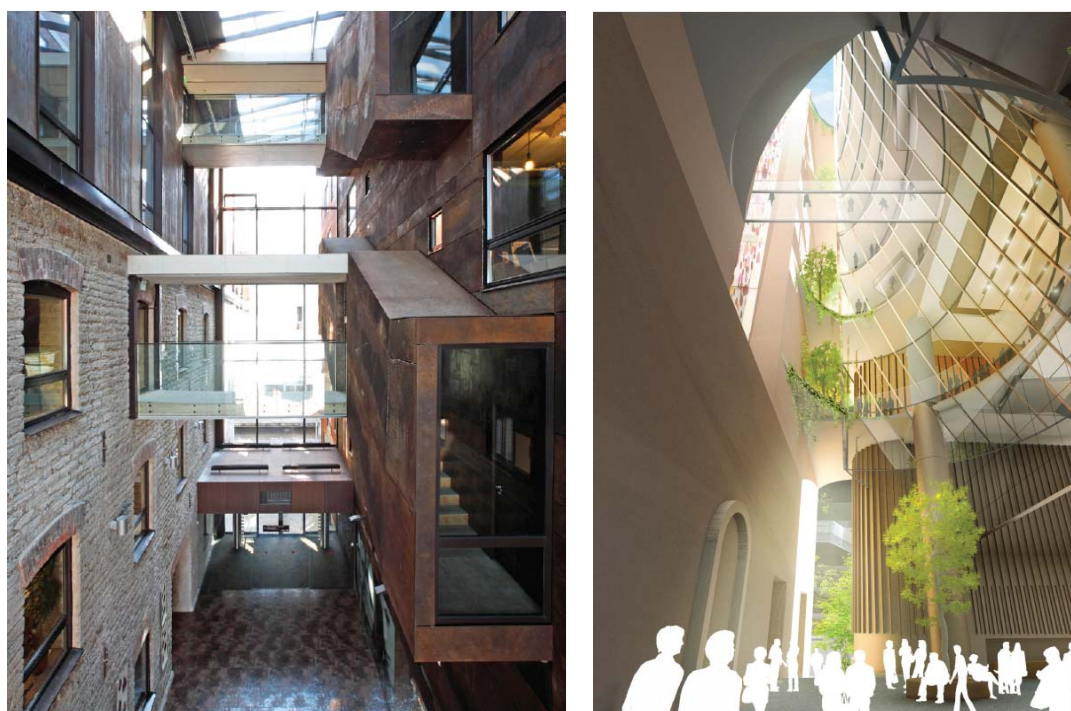
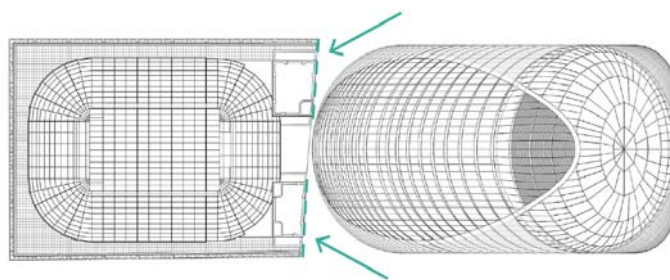


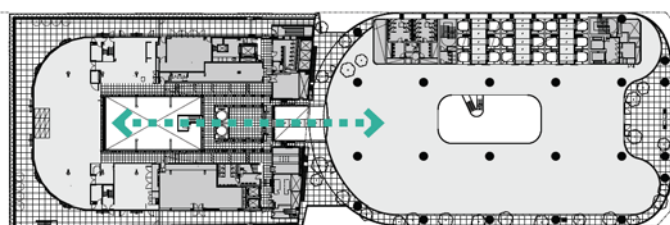
Figure 33- Precedent image of link spaces (left), artists impression (right)

Source: Grimshaw + JPW

Indicative roof plan



Indicative level 10 plan



Indicative ground floor plan

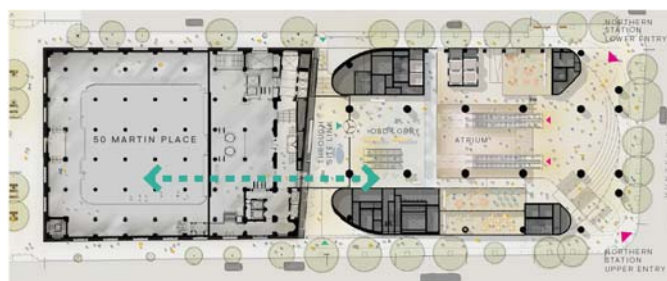


Figure 34 – Opportunities for links which articulate old and new legibility of 50 Martin Place heritage towers

Source: Grimshaw + JPW

Archaeology

The Concept Proposal does not propose any excavation or demolition. The archaeological potential of the Precinct has previously been assessed under the CSSI Approval, with demolition of existing structures (other than 50 Martin Place) and the excavation of the site already approved.

Appropriate mitigation measures have also been formulated under the CSSI approval. As such, archaeological impacts are not a relevant consideration and do not fall within the scope of works for either the subject application or future detailed DAs which follow this Concept Proposal. In view of this, the recommended condition does not relate to the development for which approval is sought and would be invalid and unreasonable to impose.

Archival Records

The Heritage Council has recommended the imposition of a condition of development consent for the concept proposal requiring an archival photographic recording of 7 Elizabeth Street, approved for demolition as part of CSSI project by the Planning Minister, prior to the commencement of works.

As is recognised in the Heritage Council submission, the demolition of the existing building at 7 Elizabeth Street has been approved under the CSSI project for the Sydney Metro City & Southwest and as such does not form part of the Concept Proposal. Furthermore, the archival recording of 7 Elizabeth Street is already required as part of the CSSI project which has approved its demolition.

Condition E13 of the CSSI consent (15_7400) requires the preparation of a Heritage Archival Recording Report by a suitably qualified heritage specialist in accordance with NSW Heritage Office's *How to Prepare Archival Records of Heritage Items* (1998) and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006). In view of this, the recommended condition is unnecessary and would be invalid and unreasonable to impose on the Concept Proposal SSD DA as it does not relate to the development for which approval is sought.

3.0 Amendments to the Application

Following public exhibition and in response to the issues and concerns raised by the Department, other government agencies, independent bodies and the general public, a number of design changes have been made to the illustrative scheme that accompanies the Concept Proposal. The changes are illustrated in the Supplementary Design Report at **Appendix B**, and have been considered where relevant in the assessment of the proposal in **Sections 2** and **4**.

The amended illustrative scheme demonstrates that the detailed design of future development as part of the Stage 2 application can minimise and mitigate environmental impacts and respond to those matters raised in the submissions. It confirms that the development can achieve the site-specific design principles within the proposed envelopes, and as such no change is required or warranted for the proposed building envelopes. For clarity, no change is proposed to what original was sought for approval as detailed within the EIS.

The following key features and benefits of the illustrative scheme are highlighted:

- The South Tower has been reconsidered to better respond to the materiality and height datum of the existing heritage façade at 50 Martin Place, and adopt a similar approach to shaping the edges of each form. The podium is shown as a contemporary interpretation of the scale, proportion, and materiality of 50 Martin Place (**Figure 35**).
- In order to improve the relationship and interface of the South Site ground plane with Martin Place the conceptual colonnade has been removed from the illustrative design scheme.
- The tower element above the podium on the South Site is separated from the podium by a significant vertical separation, change of material, and setback to Martin Place. It has been designed to be distinct from the podium, retaining the importance of the podium in enhancing the distinctive characteristics of Martin Place (**Figure 36**).
- The North Tower continues to taper significantly with height and provides a recess in the built form to align with the adjacent buildings and articulate the predominant street frontage heights (**Figure 37**). Without setbacks, this tower form responds to the mass and scale of neighbouring buildings.
- The relationship between the North Tower and 50 Martin Place is informed by a through site link "interlude" between the two buildings, with discrete bridges connecting to key active floors. The glass connection between these two buildings gently tapers away towards the north to reveal the heritage lift overruns and reinforce the distinctive presence of 50 Martin Place (**Figure 38** and **Figure 33** above).



Figure 35 – Illustrative scheme – South Tower podium

Source: Grimshaw + JPW



Figure 36 – Illustrative scheme – South Tower

Source: Grimshaw + JPW



Figure 37 – Articulation zone and street frontage height reinforced through illustrative scheme

Source: Grimshaw + JPW



Figure 38 – Tapered connection with 50 Martin Place

Source: Grimshaw + JPW

4.0 Additional Information and Assessment

4.1 Visual Impacts: Public Views

Section 5.10 of the EIS addressed the visual impact of the proposal based on modelling prepared by Arterra and an independent analysis by Tzannes. It analysed the views from 22 key vantage points at close, near and distant public view locations determined through consultation with the Department and Council, and determined that the proposed envelopes would not adversely impact on views from surrounding residential dwellings and would protect important view corridors.

Whilst the assessment of visual impacts compared the existing environment with the proposed building envelopes, the addendum modelling prepared by Arterra in conjunction with Tzannes (**Appendix M**) considers the relative impacts of complying envelopes (in the meaning of **Section 2.2**, being envelopes which are compliant with the LEP and DCP).

The view corridors used to analyse the impact of the proposed development on the public domain were selected in consultation with the OGA, the Department, City of Sydney, Sydney Metro, and the Station Precinct design team. These views have been considered by Tzannes who confirm that “the proposed envelope results in a neutral-positive view impact”. The following has also been assessed:

- Martin Place:
 - Three views along Martin Place are shown in the analysis comparing the proposed envelope and the LEP/DCP compliant envelope. Only the south tower is visible from these views along Martin Place, with the difference between the two envelopes (differing tower setbacks to north-south streets) barely discernible.
 - The proposed envelope for the South Site has a positive impact on the definition and character of Martin Place. It re-instates both the existing street alignments and the principal of a podium that reflects the predominant podium heights of Martin Place.
- Chifley and Richard Johnson Squares:
 - Three views were tested looking towards the north tower, being a view from the intersection of Phillip Street / Bent Street looking south-west, from Chifley Square looking south-west and from the intersection of Hunter Street / Macquarie Street looking west. The south tower is not visible from these views. The differences in visual impact between the proposed envelope and the compliant DCP/LEP envelope are considered minor, however, the proposed envelope achieves a number of benefits which the compliant envelope does not. These are:
 - The northern façade of the proposed envelope better defines Chifley Square and Richard Johnson Square by reinforcing the straight edge on the southern side of Hunter Street provided by 8 Chifley and Deutsche Bank, and contrasting with the circular and triangular geometry of these two squares.
 - The northern façade of the proposed envelope reinforces the built form of the city in this location consistent with buildings to the east of 8 Chifley and the Deutsche Bank building, making the change in geometry at Hunter Street legible in the skyline of the city.
 - The northern envelope maximises the use and height of the site in an important place, being a new transport interchange, providing additional legibility in the built form hierarchy of the city with comparatively low and localised impacts on views of the sky and from the public domain.

- Elizabeth and Castlereagh Street:
 - Three north views and one south view along Elizabeth Street were tested, and two north views and one south view along Castlereagh Street were tested, as well as an east looking view from Hosking Place.
 - The differences in visual impact between the proposed envelope and the compliant DCP/LEP envelope are considered minor. The zero setback of the towers to Elizabeth Street and Castlereagh Street play an important role in emphasising the importance of Martin Place in the city, creating distinct thresholds at the entry to the space and differentiating it from surrounding streets.

Furthermore, the following is also considered relevant to the assessment of the proposed envelopes:

- The proposed North Tower building envelope is taller than the existing buildings on site and as a result will occupy more of the view of the sky, which would occur regardless as old buildings are replaced with new development (discussed further in **Section 4.3**).
- The South Tower does not impact views to the north and south along Elizabeth and Castlereagh Streets, which are maintained by the proposal.
- The zero street setbacks to Elizabeth and Castlereagh Street provide a distinct threshold to Martin Place from the south, and will have a negligible impact when compared to the DCP compliant envelope when viewed from Martin Place.
- The zero setbacks to Elizabeth Street and Castlereagh Street relate to the zero street setbacks of both 8 Chifley and the Deutsche Bank building, enhancing the southern definition of both Chifley Square and Richard Johnson Square.
- Views of the heritage items, City Mutual Life Assurance Building and Qantas House are maintained by the retention of built form alignments of Castlereagh, Elizabeth Street and Hunter Streets.
- Whilst the Precinct overlaps with the view cones described in the CSPS as the key protected view corridors in the CBD, the above ground built form does not impede on these protected views.
- The design process undertaken at Stage 2 will further enhance the character and public domain of the Sydney Metro and Martin Place Station Precinct.

Conclusion

The Visual Impact Analysis concludes that, having regard to the proposed envelopes and compliant LEP/DCP envelopes, the proposed envelope results in a neutral-positive view impact, and in particular:

- There is a greater loss of view of sky in the proposed envelope than the compliant envelope.
- There is an improved built form definition of Chifley Square through the improved definition of the southern side of the square and through the equivalent heights of the Deutsche Bank building and the proposed envelope for the North Site.
- The proposed envelope through its relationship with the north facades of the Deutsche Bank building and 8 Chifley make the historic development of the city, particularly the change in street structure at Hunter Street, legible in the city skyline.

- The proposed envelope supports the core sustainability principal of maximising use and height in areas with high public transport accessibility and proximity to high levels of amenity with comparatively low impact results in a localised impact on views of the sky from the public domain.
- The proposed envelope supports the idea that important places in the city should be legible in the built form hierarchy of the city. The new railway interchange is an important new component in the city's infrastructure and it is appropriate that it is recognised in the built form of the OSD.

4.2 View Impacts: Outlook from Surrounding Buildings

Further to this analysis, updated modelling has been prepared by Grimshaw to consider the outlook of surrounding buildings and the potential impacts of the proposed envelopes in relation to complying envelopes. Whilst it is recognised that there is a need to maintain the amenity of surrounding development, an assessment of private views only available through the Precinct do not form a key consideration in view of the CBD context of the Precinct and Council's intent to reshape approaches to view sharing.

The Central Sydney Planning Strategy 2016-2036 (CSPS) communicates a clear intent and desire to protect important public views and reconsider standard principles around private view sharing; stating (emphasis added):

"The combination of built and unbuilt land allows for views from private and public buildings across private and public open spaces. Due to the varying heights of buildings and their setbacks, views are also available across and around buildings.

*As old buildings are replaced with new ones, views are subject to change. Given the constantly changing built environment of Central Sydney, **regulating for maintenance of private views is overly restrictive and complex. Maintaining existing private views inhibits change and would render Central Sydney uncharacteristically static.***

*Central Sydney has a privileged position on a peninsula in a harbour surrounded by water and parklands, containing a large number of highly significant structures and buildings of a height that vastly exceeds its surroundings. This means that the large majority of available views are considered "iconic". This sets Central Sydney apart from other places; **standard principles around views and the sharing of them are not applicable.**"*

- (Central Sydney Planning Strategy 2016-2036).

The impact of the proposal on the outlook of surrounding buildings has been assessed using views from seven buildings at 100m above ground level. Whilst the increase in building height on the Site, consistent with the relevant Sun Access Planes, will reduce available views from the surrounding buildings, this reduction in views will not adversely or unreasonably impact the amenity of these surrounding buildings for the following reasons:

- The proposal is located within a high density, primarily commercial, precinct of the CBD where it can be expected that new buildings will replace old stock consistent with the relevant Sun Access Planes.
- The majority of changes to existing views are urban in nature, and therefore do not significantly impact the setting or amenity of surrounding buildings. In such circumstances, the relative impact of the proposed building envelopes when compared to the DCP/LEP compliant envelopes are minor.

- The proposal will only partially obscure the stem of Centrepont Tower as viewed from 100m in height at two locations. The view of the observation deck structure itself is maintained in both of these instances.
- No existing views of Sydney Harbour will be impacted from any of the study locations or viewpoints.
- The proposal will partially restrict existing views of Hyde Park that would otherwise be impacted by a DCP/LEP compliant envelope. These views are already partial views, and are not considered to be of high significance.
- The strengthened building line for the South Tower to Martin Place will reduce the available view of Martin Place at 100m in height, but retains the view of 50 Martin Place. This view is also a partial view and would otherwise be impacted by the DCP/LEP compliant envelope, and is considered to be negligible when viewed on-balance with the improved interface with Martin Place.

Furthermore, the proposed envelopes modelled describe the maximum parameters within which any future development can sit, and does not describe a building form as such. There are many possible massing options that may sit within the proposed envelopes, and it can be expected that the future Stage 2 design will accommodate more detailed articulation with a lesser visual impact.

4.3 Sky View (Daylight) Analysis

The Department has requested that the proponent investigate the degree of sky that can be seen from key points surrounding the Precinct, when comparing the scale of the proposed building envelopes to complying building envelopes. Sky views contribute to a sense of openness in the street, and can affect the attractiveness, thermal comfort and levels of light and amenity at ground level.

The *Central Sydney Planning Strategy 2016* (CSPS) establishes a methodology and the baselines for measuring the proportion of sky views available from within the Sydney CBD; termed the Sky View Factor (SVF). SVF is a measure of the obstruction of the sky at any point, quantified as a percentage where 0% is a completely obscured sky and 100% is completely unobscured. SVF can then be applied as an approximation of daylight levels, with the CSPS noting that the SVF range for most streets in Central Sydney is 15-25%; termed the 'typical SVF'.

This analysis has subsequently been adopted in the Draft Sydney DCP, which requires the modelling of SVF to address the appropriateness of street setbacks and the resultant daylight levels at the ground plane. Whilst this DCP has not been adopted, and is not a statutory consideration, the proponent has undertaken SVF modelling in accordance with the baseline established by Council to determine the relative impacts of the proposed building envelopes.

Surface Design have completed SVF modelling for 14 key locations surrounding the Precinct addressing the relative impact of the existing buildings, complying building envelopes, proposed building envelopes, and the planning proposal envelopes (for information only). This modelling has been completed in accordance with the City of Sydney Council Guidelines for Sky View Factor Assessment, including the existing SVFs detailed in the CSPS, and accompanies the RTS at **Appendix J**.

It is evident from this assessment, that the proposed building envelopes will not alter the sky view thresholds currently enjoyed from streets surrounding the Precinct. Whilst there will be nominal changes in the detailed SVF percentages, the thresholds will remain consistent with the existing environment and are within the range of what is expected from 'typical' CBD streets and 'low' SVF

laneways or small streets in the northern core of the CBD. Significantly, the relative impacts of the proposed building envelopes when compared to compliant envelopes are minor, confirming that the adopted setbacks for the loose-fit building envelopes will not significantly impact amenity at the ground plane.

Table 2 – Sky View Factor Assessment Results

	Location	Existing	LEP/DCP Compliant Envelope	Concept Proposal/Stage SSD DA Envelope	Planning Proposal Envelope
1	36 Martin Place	18.00%	16.50%	16.00%	15.50%
2	Corner of Martin place and Castlereagh Street	22.50%	21.50%	21.50%	21.50%
3	37 Martin Place	20.50%	19.50%	17.00%	17.00%
4	Corner of Martin Place and Elizabeth Street	23.50%	23.00%	23.00%	23.50%
5	63 Martin Place	20.00%	18.00%	18.50%	18.00%
6	Richard Johnson Square	14.00%	13.50%	12.50%	12.50%
7	Chifley Square	24.00%	22.50%	22.50%	22.50%
8	20 Elizabeth Street	11.00%	11.00%	9.50%	9.50%
9	7 Elizabeth Street	13.00%	13.00%	12.00%	12.00%
10	8/55 Hunter Street	11.00%	10.00%	10.00%	10.00%
11	4 Castlereagh Street	14.00%	11.50%	7.50%	7.00%
12	9/17 Castlereagh Street	10.00%	9.50%	8.50%	8.00%
13	30 Castlereagh Street	22.50%	20.00%	19.00%	19.00%
14	80-85 Elizabeth Street	19.00%	17.00%	17.50%	17.00%

Key

	<15%	Low SVF
	15% - 25%	Typical SVF
	25% - 35%	High SVF
	>35% - 45%	Highest SVF

Source: Surface Design

4.4 Pedestrian Capacity (Operation)

Arup have completed pedestrian modelling, addressing the cumulative impact of the proposal on the pedestrian environment of the precinct once operational in 2026. Whilst the proposal will inevitably generate additional pedestrian movements and consequently impact on local footpath conditions, the pedestrian modelling has identified that these impacts will be minor and manageable.

The pedestrian modelling considers the existing pedestrian capacity of the precinct, modelling associated with future pedestrian movements generated by the approved Martin Place Metro Station, the proposed subterranean pedestrian connections considered in Mod 3 to the CSSI approval (SSI 15_7400), as well as the Concept Proposal, to calculate the cumulative impact of the proposal on pedestrian movements during the AM and PM peak periods.

The results of the modelling have been distilled for each 'key movement corridor' in the precinct, categorising each corridor by 'Fruin' Levels of Service (i.e. crowd density). The modelling confirms that the surrounding street network at key intersections will remain capable of operating at a 'stable flow' rate (Level of Service C) or above. The surrounding street network will be operating predominantly at 'free flow' (Level of Service A).

Although the modelled Level of Service (LoS) demonstrates that there will be an increase in crowd density above the existing conditions, the LoS continues to support 'free' to 'stable' pedestrian flows. This is an acceptable outcome, particularly in view of the site's location above a future key transport interchange in the CBD and the opportunities afforded by the proposal for further detailed design and public domain improvements.

Future pedestrian connections and entries to the station and commercial offices will be subject to further testing and development as part of the Stage 2 detailed design phase, taking into account design development for the station. This will consider how future connections and measures (such as the pedestrian link under 50 Martin Place and the future pedestrian link through to O'Connell Street) and the overall detailed design can aid the Precinct's pedestrian performance.

4.5 ESD

In response to the Department's request, further consideration and examples of best practice sustainable building principles has been provided, in order to identify opportunities to improve the proposed environmental performance of the buildings.

A key outcome for the redevelopment of the Precinct is to deliver more sustainable development than presently provided. An ESD Strategy (including a sustainability framework) was prepared by Arup and submitted with the EIS, confirming Macquarie's commitment to achieving world's best practice sustainability strategies, with the ESD objectives being:

- 5 star NABERS Energy minimum based on 2016 protocol;
- 3.5 star NABERS Water Rating minimum based on 2016 protocol;
- 6 Star Green Star Office Design and As-Built 2015 v1.1; and
- Occupant wellbeing.

In the revised ESD Strategy (**Appendix T**), Arup have identified the following additional key design features and strategies to achieve these objectives:

- **Human Centred Design:** Implement initiatives which will provide tangible benefits to the community during and beyond the construction period for example the mechanical services design has focussed on occupant comfort throughout the precinct. Wellness is also a central aim for the development.
- **Carbon Neutral:** On-site and off-site renewables utilised to offset carbon emissions from the precinct development in operation. There is an opportunity to investigate a fossil fuel free solution across the development removing any gas connections.
- **Active Facades:** High performance facades utilised to offer mixed mode solutions in various areas across the development.
- **Water Reclaim:** A precinct-wide strategy will be implemented to optimise the water reclaim on site. Non-potable and potable operational demand targets will be reached through strategies such as rainwater harvesting and ground water reuse systems depending on quality of water collected.
- **World Leading Comfort:** Various strategies will be investigated such as utilising spill air to cool public concourses in order to maintain conditions at T_a+4C . The platform systems will maintain conditions on the platform below 27C.
- **Daylight and Wayfinding Design:** Optimised daylight access; penetration into the underground station and maximised useful daylight on the tower floors. Cutting edge wayfinding technology will be investigated for the precinct providing mobile applications and other technologies to assist users.
- **Active Transport:** A state of the art, precinct-wide end of trip facility will be located at the heart of the development interchange. The aspiration is to deliver a world leading active transport hub.
- **Smart Systems:** Digital Infrastructure will be provided to occupants in order to meet energy, waste and water targets. Educating users on their impacts on the space should aid reduction of resource use.
- **Green Infrastructure:** The precinct aims to utilise green infrastructure in order to compliment art and wayfinding throughout the development and provide a pleasant space for users. This infrastructure will be utilised throughout the development including subterranean areas where possible.

These initiatives for the North Tower and South Tower can be implemented in order to achieve the nominated sustainability targets. These initiatives clearly demonstrate that there are opportunities to implement best-practice sustainable building principles and improve the environmental performance of the buildings.

4.6 Further Built Form Considerations

4.6.1 South Tower Floor Plate

In response to the request by the Department, Grimshaw have prepared a test layout out of commercial floor plate for the South Tower based on the parameters of the Concept Proposal building envelope (refer to **Appendix B**). The test fit out illustrates how a standard office could be accommodated within the proposed tower envelope, drawing on precedence within the Sydney CBD at 478 George Street, 2 Bulletin Place and 117 York Street. It demonstrates that whilst the floor plate does not represent the optimal solution for the South Site, it remains workable and functional for the desired commercial purpose. **Figure 39** provides a floor plate test fit-out for the south tower within the Concept Proposal SSD DA envelope.

The South Tower floor plate is therefore suitable for these style tenancies, and is actually similar to a number of other buildings within the Sydney CBD that are at capacity including 1 Castlereagh Street, 25 Bligh Street, 2 Bulletin Place, 92 Pitt Street, 68 Pitt Street, and 6-10 O'Connell Street.

This floor plate has also been analysed for its marketability by Savills at **Appendix I**. The assessment confirms that the size and configuration of the South Tower would offer small efficient tenancies for single and part floor prospects that are seeking to be located close to the major corporates, banks, IT and legal firms along Martin Place and near the precinct. However, the assessment confirms that once a future tenant requires more than a single floor or perhaps a maximum of two floors, it is likely they will seek an alternative building with a bigger floor plate which provides them with operational and cost efficiency benefits.

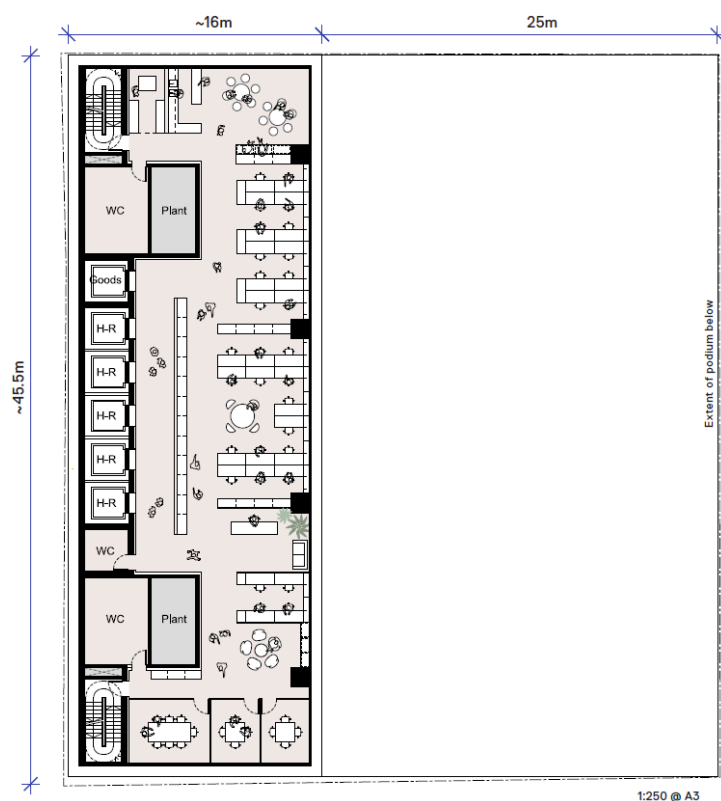


Figure 39- Test fit-out of South Tower floor plate

Source: Grimshaw + JPW

4.6.2 Interface with the Metro Station

The Department has requested that further details be provided about the interface between the proposal and the metro station, including how the towers will be integrated with the station, yet independent to allow for upgrade/redevelopment of individual elements in the future.

Station Integration

The CSSI documentation and approval (SSI 15_7400) anticipates that the design of the Metro Stations will make provision for OSD within the 'Station box' or built envelope. Such provision would include for building foyers and entrances, lift wells and service cores, end of trip facilities, loading areas and so on. The Macquarie proposal also seeks further integration to provide cohesive structural engineering, services, building facades, and pedestrian flow through the Station and OSD, as detailed in **Figure 39** to **42** below and **Appendix E**.

The station integration can be broadly categorised into four main components:

- **Structural integration:** Column location through both towers to provide optimum floor plates; coordination with the existing ESR tunnels below (south tower), which impose considerable constraints on pile foundations and footing locations.
- **Services integration:** Large tunnel ventilation shafts extend through the podiums of both buildings and the tower of the north site; south tower stations services are located at the rear of the site to minimise impact on the station entrances and Martin Place; station plant has been located below ground at the southern end, freeing up the ground plane and improving public amenity; services for the north tower are located in the mid and upper levels to maximise space for the station below.
- **Façade integration:** Above ground station services are carefully concealed and integrated into the south tower facades with intakes and discharges vertically stacked at the southern corners of the building, minimising any impact on the architecture and public domain; station services are similarly concealed and integrated into the north tower facades, where intakes and discharges are also placed at the southern corners of the building, minimising any impact on the station below.
- **Pedestrian flow integration:** A clear separation of circulation is possible through an integrated planning of the ground plane and vertical circulation systems throughout the precinct:
 - The southern station entrance is located on the northwest corner, with the OSD entrance located on the northeast corner, addressing Martin Place.
 - A through-site link improves connectivity and provides equitable access between Elizabeth and Castlereagh Streets
 - The northern station entrances are located on the northeast and northwest corners of Hunter Street, addressing Richard Johnson and Chifley Squares.
 - A northern through-site-link is provided between 50 Martin Place and the northern site, in the middle of the city block. This also provides the entrance into the north tower.
 - A centralised service yard is accessed off Castlereagh Street mitigating conflicts between pedestrians and service vehicles.

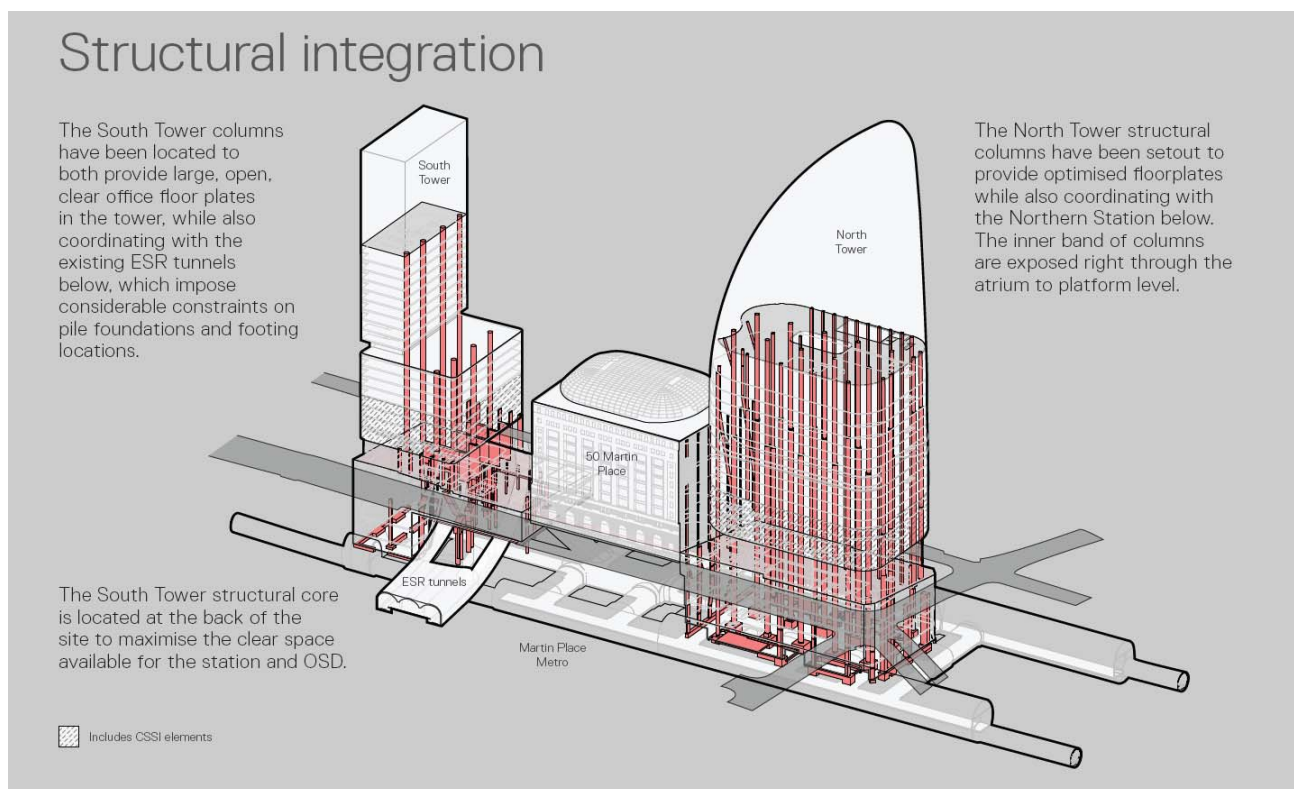


Figure 40- Structural integration

Source: Grimshaw

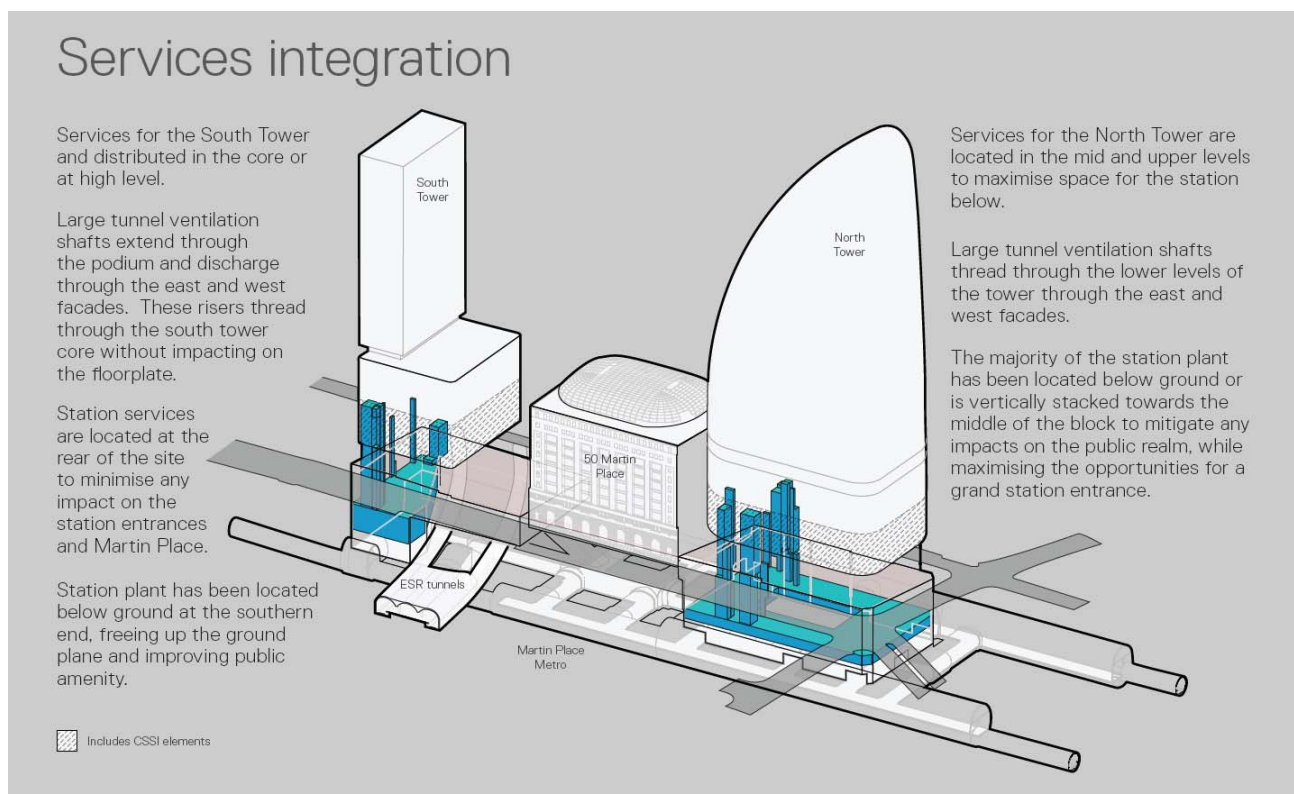


Figure 41- Services integration

Source: Grimshaw

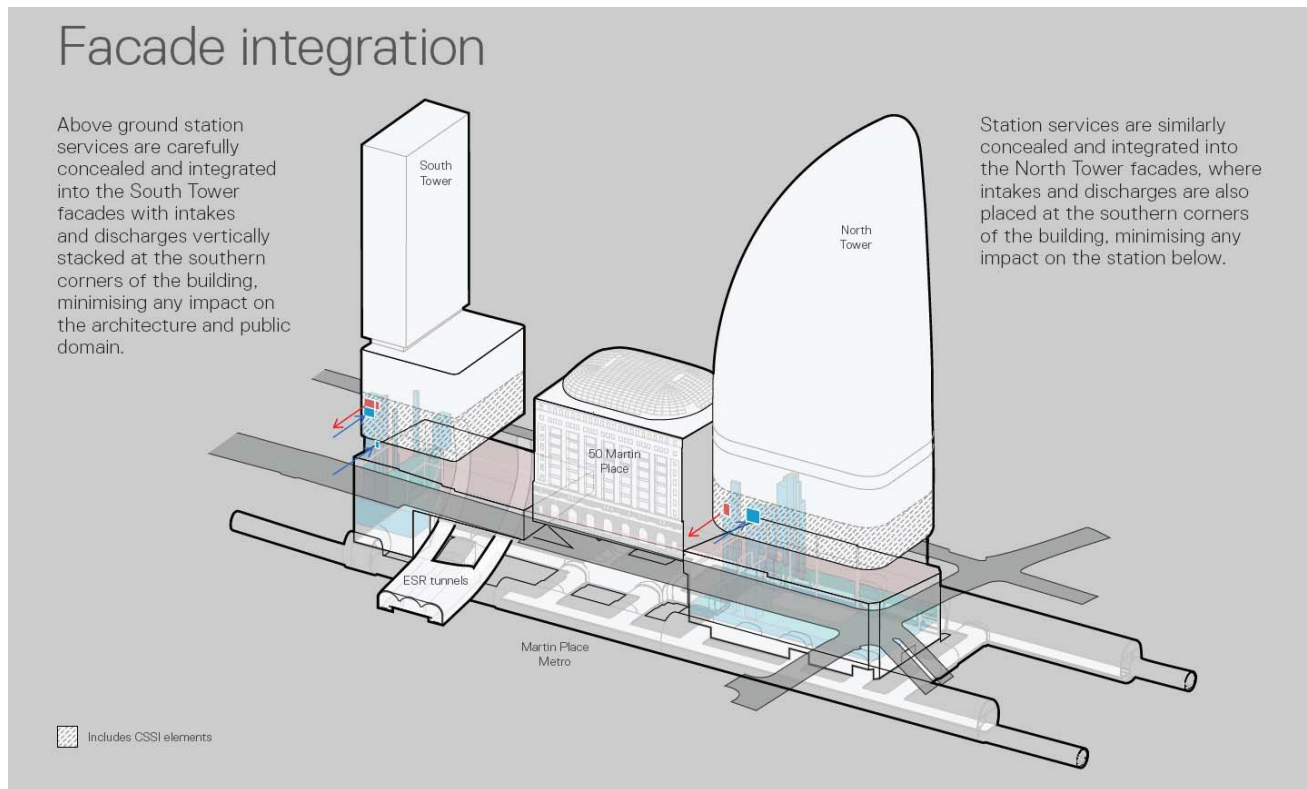


Figure 42- Façade integration

Source: Grimshaw

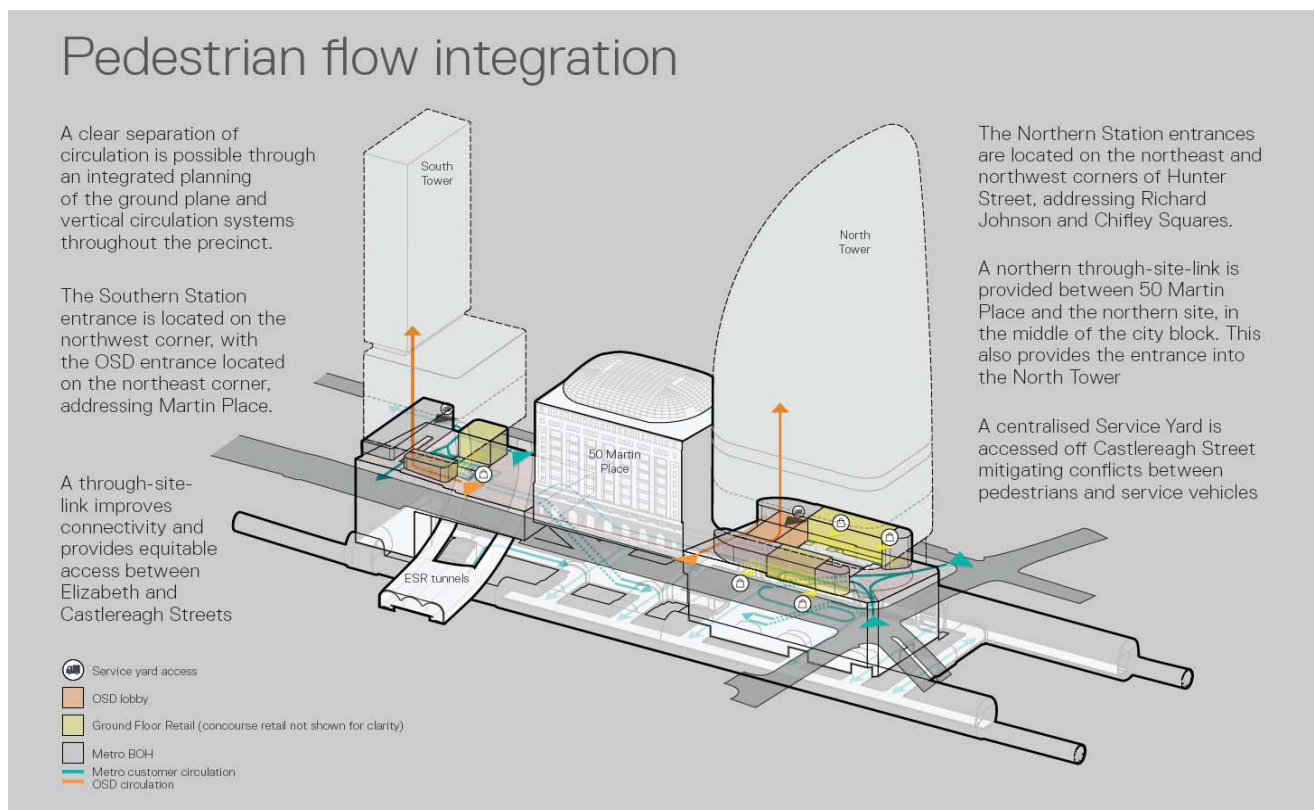


Figure 43- Pedestrian flow integration

Source: Grimshaw

Future Proofing

Whilst this integration will deliver significant improvements in terms of construction timing, services, pedestrian circulation, public domain and station entrances, there is also still the need to classify structural elements of the project as either OSD or Station due to the differing design life requirements for the structures. Accordingly, further consideration has been afforded to 'future-proofing' for the demolition and rebuilding or major refurbishment of the OSD buildings whilst maintaining the operation of the Martin Place Sydney Metro Station, as addressed in the Station and OSD Integration/OSD Lifecycle Approach report prepared by Arup (**Appendix E**).

The strategy for ensuring the Station building services remain supported and operational during OSD demolition/reconstruction and/or refurbishment falls into two main actions:

1. **Self-supporting concrete riser shafts:** The tunnel and station ventilation and exhaust ducts as well as vertical distribution of station building services that extend up through the lower levels of the towers would be typically contained within in-situ reinforced concrete riser shafts. These riser shafts would be self-supporting and laterally stable and not rely on the adjacent tower structure for support. These concrete core elements could therefore remain to enclose and support the vertical shafts and station services vertical distribution whilst the adjacent tower structure is demolished or modified.
2. **Temporary floor support structures:** Where tower floors support Station building services, the strategy for future demolition or refurbishment of the OSD would potentially involve puncturing through the tower floors locally to insert temporary steel columns and bracing. These steel columns would support temporary steel beams positioned beneath areas of slab that directly support Station building services elements. The existing slab structure, or potentially the steel beams, would be integrated into the new or revised OSD building structure for vertical and lateral support.

Whilst it is anticipated that this strategy will be developed further in subsequent detailed design phases of the project, it is evident that the integrated station and OSD will not preclude future urban renewal for the Precinct. Further details can be found in the Station and OSD Integration, OSD Lifestyle Approach in **Appendix E**.

4.7 Construction Impacts

Preliminary construction impacts were considered in the EIS to the extent that they related to the Concept Proposal and the preliminary stage of the development. The EIS was accompanied by a Construction Pedestrian and Traffic Management Plan, Transport, Traffic, Pedestrian and Parking Report, and Acoustic Assessment Report, with due consideration given to access, operation and impacts of construction traffic and the pedestrian network, impacts to public transport services, construction noise and vibration, and the overall social and economic impacts of the proposal.

Notwithstanding this, updated assessment reporting has been prepared and accompanies this RTS to further address the potential cumulative impacts of future construction works on the site, with further testing to occur as part of the design development for the future detailed DAs. Refer to **Appendices P to S** and the discussion below.

4.7.1 Construction Noise and Vibration

Arup have prepared an updated Acoustic Assessment Report (**Appendix Q**) addressing the relative impacts of the proposal, taking into consideration the Sydney Metro scheme. It is, however, noted that there remains limited detail available (as is expected given the conceptual nature of this proposal) regarding construction methodologies, equipment or scheduling of works at this preliminary stage. Accordingly, it is expected that further testing will occur and accompany the relevant future detailed DAs.

In any event, a list of assumed construction activities and associated items of equipment has been developed for each stage of demolition, excavation and construction of the proposed OSD. For consistency, this list of equipment and associated sound power levels has been replicated from the Sydney Metro EIS / SPIR documentation. This forms the basis of assessment of noise impacts.

Given the integrated nature of the project with the Sydney Metro, consistency in the approach to the construction noise and vibration assessment (and mitigation measures) with the Sydney Metro project has been adopted by Arup. In this regard, seven (7) noise catchment areas (A – G) have continued to be applied in-line with the Sydney Metro project (refer to **Figure 44**). These noise catchment areas will form the foundation of the cumulative assessment, taking into consideration the modification the approved CSSI project.



Figure 44- Noise catchment areas

Source: Arup

Airborne Noise (Construction)

A SoundPLAN model has been created for the development site in order to analyse potential above ground airborne noise impacts to nearby external receiver locations resulting from the construction of the OSD. The level of noise impact will vary depending on the specific location of each piece of equipment in relation to the nearest noise sensitive receivers. When an item of equipment is closer to the receiver location, the noise impacts will be higher. A distribution of equipment has therefore been adopted across the site when predicting noise impacts and has been derived based on typical construction methodologies for this type of project. The resultant modelling is shown in **Figure 45** and the results discussed further below.

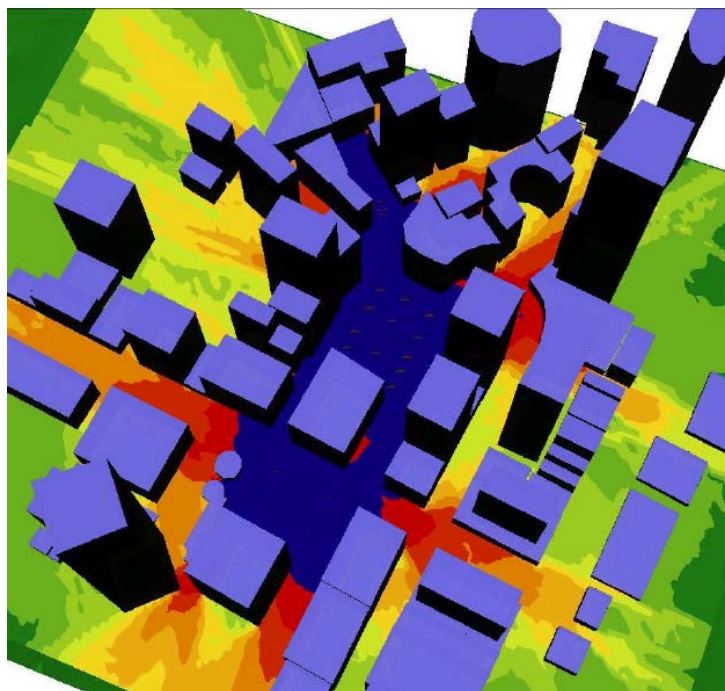


Figure 45- Grid noise map illustrating noise impacts due to low excavation

Source: Arup

The assessment has identified that cumulative airborne noise impacts resulting from OSD construction are generally the same as the overall impact predicted in the CSSI assessment for the construction of the station elements. In particular, the construction works associated with the OSD do not result in airborne Noise Management Level (NML) exceedances anticipated for the construction of the Station in the Sydney Metro project (as amended by MOD 3).

The acoustic assessment recommends that the standard practice mitigation measures provided in the Construction Noise Strategy for the CSSI project are relevant to the additional works assessed. As such, the strategy to mitigate the additional impacts would remain the same. Relevant mitigation measures are discussed in the assessment at **Appendix Q** and **Section 5** of this report.

4.7.2 Construction Traffic Management

The Department has requested that an assessment of construction impacts, including cumulative impacts with the metro construction works be provided.

It is noted that a Construction Pedestrian and Traffic Management Plan has already been prepared which considered the construction impacts of the development, including cumulative impacts with the Metro construction works, and was submitted with the EIS (Appendix T of that report). The findings of the cumulative assessment of this report were:

- The proposed development increases the level of construction activity by increasing the extent and size of above and underground works above the works contemplated by the CSSI approval. Therefore, the truck activity identified in the approved CSSI will increase proportionally based on spoil removal and materials handling for construction. It is estimated that:
- Station excavation and fit-out involves an increase of between 30% and 50% in activity owing to the enlarged site. This will extend the period of excavation but is not anticipated to increase the level of vehicle activity at any one point in time.
- Demolition activity will increase by the inclusion of 9-19 Elizabeth Street, however the timing of demolition for this building is expected to occur after demolition of the other buildings and hence activity associated with this will not increase demolition truck movements at any point in time.
- Tunnel excavation has remained the same.

The constrained nature of the site within the CBD means that it would not be able to accommodate any increase in traffic volumes above that identified in the CSSI approval. The main construction routes to and from the site are anticipated to be similar to those identified as part of the CSSI approval and thus, no change in the predicted level of service at key intersections during peak periods is predicted.

It is emphasised that this response forms a preliminary assessment that will be updated by a future detailed Construction Pedestrian and Traffic Management Plan (CPTMP) and associated Traffic Control Plan(s) that will be prepared by the relevant contractor, once appointed. The detailed CPTMP will confirm the detailed construction methodology and specific methods for safely managing construction traffic in the surrounding area.

Accordingly, the mitigation measures considered in the preliminary CPTMP accompanying the EIS remain valid, and have been incorporated where relevant in Section 5 of this report.

4.7.3 Commercial Impacts

Hill PDA have prepared a Business Impact Assessment (**Appendix O**), which considers the impacts of construction of Martin Place Metro Station (CSSI works) and the construction of the north and south tower OSD cumulatively on local businesses. This report expands on the findings of the CSSI EIS with regards to impacts on local businesses.

The CSSI EIS provided an assessment of project related impacts on local businesses in five broad stages:

- Examination of the existing business composition and function in each station precinct;
- Identification and survey of local businesses to develop an understanding of current business operations;

- Review of local business impact studies for comparable projects, including lessons learned and mitigation strategies;
- Assessment of impacts based on analysis of research and feedback to define a list of positive and negative impacts, categorised by business type and location, through project construction and operation;
- Development of mitigation strategies to minimise construction phase disruption and maximise leverage of the project for local businesses once the project is operational.

It then identified the potential impacts of the CSSI project on each of the identified local business precincts, considering whether a particular impact would be:

- Positive or negative;
- Significant, moderate, slight or neutral; and
- During construction and / or operation.

The same methodology has been adopted by Hill PDA to determine the impacts the construction of the OSD towers will have on local business having regard to the cumulative impact of the Sydney Metro. For the Martin Place Precinct, the following impacts were identified:

- Servicing and delivery access – *moderate negative* (no change)
- Customer access / passing trade – *moderate negative* (no change)
- Noise, vibration and dust - *moderate negative* (no change)
- Property acquisition – *negligible* (no impact with OSD)
- Changed consumer behaviour - *moderate negative* (no change)
- Increased trade for food and beverage – *slight positive* (no change)

In summary, the assessment concludes that:

- There is anticipated to be some variances to the environment, above that which was assessed for the CSSI during construction.
- The duration and intensity of construction activities would marginally increase with the integrated Macquarie proposal.
- When considering the cumulative construction effects of both the proposal and approved CSSI project, variances in the significance of impact on local businesses is expected to result in a negligible change from the CSSI assessment.
- Running the projects simultaneously may in fact reduce the potential extent of impacts on local businesses, compared to a possible scenario where the OSD is undertaken as a separate project.
- Simultaneous construction, although marginally increasing the severity of some construction effects, would ensure the construction period is compressed, enabling the environment and local businesses to recover from any effects more quickly.

4.7.4 Air Quality

A preliminary Air Quality Assessment Report has been prepared by Arup to determine the baseline air quality conditions and evaluate the potential air quality impacts from the proposed demolition and construction works (**Appendix S**).

The assessment provides a qualitative assessment of potential dust and emissions as a result of works. In summary Arup predict dust emissions from the works at Martin Place Metro to be minor and transient. Although the land surrounding the development is predominantly commercial, during worst-case meteorological conditions and high-intensity activities on site, there is the possibility of dust generation causing nuisance and potential health impacts. Arup therefore recommend that standard construction dust mitigation methods be implemented where practical to avoid dust generation. Arup anticipate that with the application of the mitigation measures, sensitive receptors in the vicinity of the development will not experience significant air quality impacts as a result of the proposed works.

5.0 Final Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 1** below. These measures have been derived from the previous assessment in the RTS and EIS, as relevant, and those detailed in consultants' reports.

Table 3- Mitigation Measures

Mitigation Measures
Urban Design Future application(s) must take into consideration the Precinct Urban Design Objectives and Principles developed by Tzannes and contained in the report titled the Urban Design of Sydney Metro and Martin Place Station Precinct, dated August 2017.
Design Excellence The process outlined in the Design Excellence Framework prepared by Ethos Urban and dated August 2017 will be implemented.
Heritage Future application(s) must take into consideration the Heritage Development Guidelines developed by TKD (and Howard Tanner) and contained in the Statement of Heritage Impact dated August 2017.
Overshadowing Development on the North and South Sites must comply with the relevant Sun Access Plane Controls under the Sydney LEP 2012 (as amended). The detailed design of North and South Towers must endeavour to minimise additional overshadowing of the surrounding public domain, specifically Martin Place and Hyde Park.
Traffic The recommendations of the Traffic, Pedestrian and Parking Report prepared by Arup are to be implemented including: • Preparing a Travel Plan encouraging the building occupants to travel by sustainable transport modes. • Preparing a Loading Dock Management Plan prior to the operation of loading docks on the Site. • Preparing a detailed Construction Pedestrian and Traffic Management Plan to accompany all relevant tender documents.
Accessibility Future application(s) will take into consideration the Australian Standards, the Building Code of Australia, the Federal Disability Discrimination Act (DDA), and the DDA Access Code 2010 – DDA (Access to premises – Buildings) Standards 2010, as relevant.
Wind • Further wind-tunnel testing will form part of future application(s) for the detailed design of buildings on the North and South Sites. • Amelioration measures will be explored for specific locations where local wind speeds may be greater close to the corners of the tower or upper level terraces, as relevant during the detailed design stage. • Opportunities to improve existing wind conditions will be explored during the detailed design phase.
Noise and Vibration • A Construction Noise and Vibration Management Plan will be prepared by the appointed contractor outlining specific engineering methods and mitigation measures for controlling construction noise and vibration impacts, as required. • An Acoustic Assessment will accompany the Stage 2 DA(s) to confirm the likely noise and vibration impacts and mitigation measures, as required. This should take into consideration further vibration measurements of the existing Eastern Suburbs rail line within the basement levels of the existing 39-49 Martin Place, Sydney.

Mitigation Measures

Reflectivity

A reflectivity analysis will be undertaken for the detailed designs and submitted with the Stage 2 DA(s) as relevant.

Utilities

An assessment of the alteration or impact of services and utilities will form part of future Stage 2 application(s) as relevant. Future applications for the detailed design of the Concept Proposal will also incorporate consultation with the relevant service providers to confirm any proposed alterations or protection measures, as required. The following process (adjusted as the design progresses or as new information becomes available) will be followed to ensure existing utilities infrastructure is protected:

- Desktop investigation and review of existing services using Dial Before You Dig information and site observations;
- Non-destructive in-ground services mapping will be undertaken to accurately locate existing infrastructure assets where practical;
- Destructive investigations will be undertaken where considered necessary to more accurately locate existing critical infrastructure assets and investigate unknown services or potentially redundant services;
- Utility providers will be consulted to obtain and necessary consents to perform construction work in their vicinity and discuss necessary diversions and connections for the proposed works;
- Utility technical and hazard requirements will be incorporated into the design and construction documentation;
- Safe work methods statements and inspection and test plans will be prepared by accredited contractors;
- Pre-start work checklists will be implemented and recorded; and
- Field safety inspectors will be present during critical works as determined by each utility provider.

Water Cycle Management

Stormwater

- Both a check of capacity and final form of the water connections will be developed through the Stage 2 application(s) and the coordination with Sydney Water via the Water Servicing Coordinator, which will be completed as part of design development.
- Requirements for diversions/ adjustments to the exiting works with will be coordinated with Sydney Water through design development via a Water Servicing Coordinator.

Flooding (in coordination with CSSI)

- All openings and entrances to the Metro (lifts, basement entrances, pedestrian entrances, louvers, grates etc.) are proposed at the higher of the 100yr ARI + 0.5m and PMF.
- A merits based approach of minimum of 100yr ARI flood level be adopted for commercial and retail entrances.
- Entrances to basement carparking will be set at the higher of the 100yr ARI + 0.5m
- Flood modelling to be undertaken as part of the future Stage 2 DA.

Construction Management

A Construction Management Plan (CMP) will be prepared to accompany the future Stage 2 DA/s and/or during the detailed design phase.

CPTED

Any future Stage 2 application(s) should take into consideration the recommendations contained in the Crime Prevention Through Environmental Design report prepared by Arup, dated May 2017.

ESD

The ESD objectives outlined in the Ecologically Sustainable Design Report prepared by Arup (July 2017) are to be taken into consideration when developing the building design to maximise the environmental performance and energy efficiency of the building.

Air Quality

The mitigation measures outlined within the Air Quality Impact Assessment (August 2017) prepared by Arup are to be adopted and form part of future detailed management plans.

6.0 Conclusion

The proponent, Macquarie, and its expert project team have considered all submissions made in relation to the public exhibition of the proposed transformation of the Martin Place Metro Station Precinct.

A considered and detailed response to all submissions made has been provided with this report and the accompanying documentation.

In responding and addressing the range of matters raised by government agencies and authorities, independent bodies, and the general public, Macquarie have refined their modelling and assessment where relevant and available for this Concept Proposal application, in order to confirm the cumulative and relative impacts of the proposal and appropriate mitigation measures.

It has been demonstrated that the proposal on-balance will provide significant benefits to the future of the precinct and external benefits more broadly for the city, and that the proposed loose-fit building envelopes comply, are capable of complying, or are warranted in varying specific controls. The continued design development, testing, and refinement of the building envelopes through to Stage 2 will address a number of detailed matters considered in the submissions and yield the best possible outcome for the site and surrounds, that appropriately minimise or mitigate environmental impacts.

In conclusion, the commencement of the Martin Place Metro Station Precinct redevelopment, to be further designed and considered in subsequent details development applications, will assist in delivering the following significant and long-lasting benefits:

- the proposal will unlock considerable growth opportunities for the commercial heart of the Sydney CBD, enabling it to prosper as Australia's leading global financial centre, with positive broader and longer-term impacts;
- the proposal will assist in the delivery of a fully integrated and operational Station and OSD for 2024, which will support better station planning and design including concourses, entries and customer circulation, services and fire safety, shared access for vehicles and loading facilities, and public domain works;
- the proposal will revitalise the Precinct in a manner that respects the cultural significance of the area, and accommodates the various user groups forming its future community;
- the proposal will support world leading/best practice ecologically sustainable development targeting 6 Star Green Star Office Design and As Built 2015 v1.1, NABERS Energy 5 Star and NABERS Water 3.5 Star based on 2016 protocol, and general occupant wellbeing;
- the proposal will provide for additional surveillance opportunities with the delivery of the future buildings and overall improvements to the Precinct, in turn increasing the perception of the area as a high quality and safe environment;
- the proposal will utilise land that is extremely well served by public infrastructure, particularly public transport infrastructure, and other utilities and services, which are readily available and can be augmented to meet the needs of the additional business activities, as an appropriate site for increased capacity;
- the proposal can reduce the overall construction timeframe thereby reducing the long-term impacts to surrounding properties and public spaces; and

- the proposal can achieve design excellence through the implementation of a robust alternative design excellence process that supports the highest standard of architecture, urban and landscape design and fosters the next generation of designers.